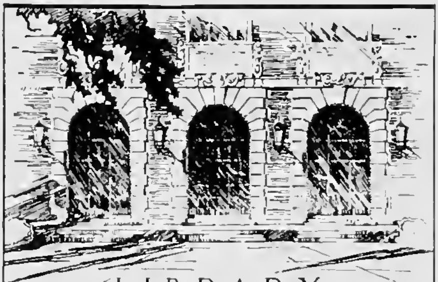

RESEARCH DIGEST

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Scott Keyes, Editor

CONTENTS

Page

CURRENT RESEARCH PROJECTS

BOSTON UNIVERSITY

Bureau of Business Research

1. The Immediate Economic Impact of Higher Education Upon Metropolitan Boston 1

UNIVERSITY OF BRITISH COLUMBIA

Department of Community and Regional Planning

2. Performance Standards for Space and Site Planning for Residential Development 1

UNIVERSITY OF CALIFORNIA (BERKELEY)

Department of City and Regional Planning

3. The Spatial Distribution of Components of Urban Populations 2

4. History of the Sierra Club, 1892-1954 3

Institute of Transportation and Traffic Engineering

5. Public Enterprise Economics and Transport Problems. . . 4

CLARK UNIVERSITY

Graduate School of Geography

6. The Wholesale Structure of Columbus, Ohio 6

UNIVERSITY OF COLORADO

Bureau of Business Research

7. An Evaluation of Pueblo's Economic Potential 6

8. The Development of Retail Trade in Englewood 7

UNIVERSITY OF CONNECTICUT

Storrs Agricultural Experiment Station

9. The Economic and Social Effects of the Connecticut Turnpike on Eastern Connecticut 8

DETROIT CITY PLAN COMMISSION | Page

Research Division

10. Renewal and Revenue 9

DETROIT METROPOLITAN AREA REGIONAL PLANNING COMMISSION

11. The Effect of Noise Created by Airport and Aircraft Operations Upon Surrounding Area 10

GEORGIA STATE COLLEGE OF BUSINESS ADMINISTRATION

Bureau of Business and Economic Research

12. The Urban Transportation Dilemma 11

UNIVERSITY OF ILLINOIS

Bureau of Community Planning

13. Organization for State Highway and Urban Planning Liaison 11

14. Public Works Planning and Development in Illinois, With Special Reference to the State and County 12

Institute of Government and Public Affairs

15. Mapping the Political Characteristics of Medium-Size Metropolitan Areas 14

IOWA STATE UNIVERSITY

Iowa Urban Community Research Center

16. Location of Metropolitan Residential Areas 14

JOINT CENTER FOR URBAN STUDIES OF M.I.T. AND HARVARD UNIVERSITY

17. Characteristics of Rail Transit Systems 15

UNIVERSITY OF KANSAS

Center for Research in Business

18. The Spatial Distribution of Land Values 16

19. Delimitation of Neighborhoods in Topeka, Kansas 17

UNIVERSITY OF KENTUCKY | Page

Bureau of Business Research

20. City Revenue Practices in Kentucky and Selected Other States 17

SOUTHEASTERN MICHIGAN METROPOLITAN COMMUNITY RESEARCH CORPORATION

21. Southeastern Michigan Transportation Study 19

22. Southeastern Michigan Economic Study 19

23. County Government Issues 20

24. Southeastern Michigan Health Study 20

25. Comparative Tax Resources of 180 Southeastern Michigan Governmental Units 20

26. Comparative Tax Resources of School Districts in Southeastern Michigan 21

MICHIGAN STATE UNIVERSITY

Bureau of Business and Economic Research

27. Economic and Population Base Study of the Lansing Tri-County Area: An Inter-Industry Relations Analysis . . . 21

Institute for Community Development and Continuing Services

28. Municipal Income Tax 22

29. Resistance to Proposals for Area-Wide Integration 23

30. The Political Process in Local Communities 23

31. Sources of Negro Leadership in Grand Rapids 23

32. Land Use Controls for Fringe Areas 23

33. Automatic Data Processing for Urban Planning 24

34. Hospital-Community Relations 24

UNIVERSITY OF MICHIGAN

Center for Research in Conflict Resolution

35. Research Program on Economic Adjustments to Disarmament 24

UNIVERSITY OF MINNESOTA Page

Departments of Agricultural Economics and Geography

36. The Economic Impact of Highway Development Upon Land Use and Value 27

37. A Highway Change in Changing Faribault 29

38. How Farmers Adjusted to an Interstate Highway in Minnesota 30

39. The Economic Effects of a Highway Change on Faribault, Minnesota 31

40. Belt Line Commercial-Industrial Development: A Case Study in the Minneapolis-St. Paul Metropolitan Area . . 32

41. Land Value Estimation for Public Acquisition: A Statistical Approach 34

42. Compensation Payments for Highway Land Acquisition . . . 34

43. Amelioration of Non-Compensable Damages 35

44. Growth Corridors and Traffic Potentials: A State-Wide Study 36

NATIONAL ASSOCIATION OF HOUSING AND REDEVELOPMENT OFFICIALS

45. Urban Renewal in the United States: Its Problems and Prospects 37

UNIVERSITY OF NEBRASKA

Bureau of Business Research

46. Retail Trade in Counties and Metropolitan Areas 38

47. Methods for Estimating the Number of Business Concerns in a State By Location and Type 38

48. Changing Business Patterns in Nebraska Towns 39

49. Analysis of Factors in the Community Multiplier 39

50. Derivative-Basic Ratio in Great Plains Cities 39

51. City and Regional Wage Comparisons 40

UNIVERSITY OF NORTH CAROLINA — Page

Department of City and Regional Planning

52. An Exploratory Study of Selected Housing Factors in Established Neighborhoods as Related to the Residents Behaviour 40

Department of Economics

53. The Theory of the Urban Economy: Origins and Development, With Emphasis on Intraurban Distribution of Population and Economic Activity 41

OHIO STATE UNIVERSITY

Bureau of Business Research

54. Ohio County Personal Income 42

UNIVERSITY OF OREGON

Bureau of Municipal Research and Service

55. Industry and Transportation Study, Eugene-Springfield Area 42

PENNSYLVANIA STATE UNIVERSITY

Bureau of Business Research

56. Industrial Survey of Chester County 44

UNIVERSITY OF PENNSYLVANIA

Department of Regional Science

57. Stochastic Models of Consumer Travel Behaviour 44

Department of City Planning

58. Residential Expansion in a Metropolitan Area 45

CITY OF PHILADELPHIA

Office of Development Coordinator

59. Redevelopment Decisions, Alternate Lande Uses and Their Influence on Operating Costs 46

60. Resource Allocation for Industrial Expansion 48

RESOURCES FOR THE FUTURE, INC. Page

61. Resources in the American Future 49

TEMPLE UNIVERSITY

Office of Research and Specialized Services

62. Financial Programs for Lower-Middle Income Housing . . . 51

63. Skid Row Project 52

64. Vocational Rehabilitation of Multi-Disabled Skid-Row Men..52

UNITED STATES GOVERNMENT

Department of Commerce, Office of Area Development

65. Industrial Location Factor Studies 53

66. Characteristics of Modern Industrial Plants 53

UNIVERSITY OF UTAH

Bureau of Economic and Business Research

67. Public Lands: Land Status Determination in Utah 54

68. Public Lands: Resource Inventory 54

69. Economic Analysis of the Salt Lake Metropolitan Transportation Area 55

70. St. George Economic Base Study 56

WASHINGTON UNIVERSITY (ST. LOUIS)

Institute of Urban and Regional Studies

71. Regional Fiscal Impact of Local Industrial Development. . 56

UNIVERSITY OF WASHINGTON (SEATTLE)

College of Architecture and Urban Planning

72. The Development and Control of Land Uses in the Vicinity of Freeway Interchanges 57

73. Studies in Suburban Development 58

BRIEF MENTION Page

GENERAL URBAN AND REGIONAL ANALYSIS

Regional Science Association. 60

Committee on Regional Accounts 60

Twentieth Century Fund Study of Megalopolis 61

Urbanization in the Missouri River Basin Area 62

Institute for Urban and Regional Studies, Washington University. .62

Program of Research and Training in Urban Affairs, University of Illinois 63

METROPOLITAN AREAS

United Nations Committee of Experts on Metropolitan Areas . . . 64

Metropolitan Area Studies, Advisory Commission on Intergovernmental Relations 65

Penjerdel's Research Program 66

TRANSPORTATION

Urban Land Use Models, Automotive Safety Foundation and Others.. 67

Three Studies, University of Kentucky 68

OTHER

Federal Statistics for Local Areas 68

Personal Income Data for Local Areas 69

Statistics on Colorado Counties 69

Land Use in Oregon Cities 69

Four Studies, University of Maryland 70

Bibliographies of Metropolitan Area Studies 70

1. THE IMMEDIATE ECONOMIC IMPACT OF HIGHER EDUCATION UPON METROPOLITAN BOSTON

Main Investigator: Professor Francis S. Doody

Status of Research and Publications: Probable date of completion, June 1, 1961.

Agency: Boston University, College of Business Administration, Bureau of Business Research.

Previous Digest report: None.

Research Problem. To assess the volume of expenditures generated by the institutions and their students.

Method of Study. Data on current expenditures of the institutions have been obtained from the U.S. Office of Education. A questionnaire was circulated to individual institutions asking their estimates of student expenditures apart from payments made directly to the institutions. From these sources estimates of total expenditures will be built up. (FSD)

2. PERFORMANCE STANDARDS FOR SPACE AND SITE PLANNING FOR RESIDENTIAL DEVELOPMENT.

Main Investigators: Supervision, Professor Fred Lassere and Dr. H. Peter Oberlander; staff, Professor W. G. Gerson, Miss W. Dwyer (Librarian), Mr. Morley Kalnitsky, Mr. Peter Balchelor and Mr. R. J. Mutter (Research Assistants).

Status of Research and Publications: Two publications scheduled for immediate publication by Building Research Division, National Research Council, (a) an annotated bibliography and (b) a research monograph entitled "Performance Standards for Space and Site Planning for Residential Development, A Progress Report."

Agencies: Conducted jointly by Department of Community and Regional Planning and School of Architecture, University of British Columbia. Undertaken at request of and sponsored by Division of Building Research, Canadian National Research Council, Mr. R. F. Legget, Director, Ottawa.

Previous Digest report: 7:2-1

3. THE SPATIAL DISTRIBUTION OF COMPONENTS OF URBAN POPULATIONS

Main Investigator: Barclay Jones

Status of Research and Publications: Study commenced September 1960, to be completed June 1961, publication to be in form of journal articles.

Agency: University of California (Berkeley), Department of City and Regional Planning, assisted by a grant-in-aid from Institute of Social Sciences, same institution.

Previous Digest report: None.

Research Problem. The subject of the proposed study is the development and testing of standardized measures for describing the spatial distribution of various components of the population of urbanized areas. Such measures are not currently in use. This hampers making valid comparative statements concerning the distribution of population and components of population in urban complexes of different sizes, comparing the distributions of the same complex in different periods of time, and in making useful predictions concerning future distributions.

Previous Relevant Research. Standardized measures such as the center of gravity, median and average and standard polar deviations have been suggested and developed in the literature during the past century. However, the development has been scattered and far from complete. In addition, the measures have never been tested with respect to urban populations and their usefulness has never been demonstrated.

The most recent reference in the literature concerning these measures has been the excellent review article by Otis Dudley Duncan, "The Measurement of Population Distribution" (1957). However, the most comprehensive review remains "The Centrographical Method and Regional Analysis" by E. E. Sviatlovsky and Walter Crosby Eells (1937).

Hypotheses. Work to date suggests these measures may prove helpful in analyzing the structure of urban populations although there are no direct statements to this effect in the literature. This project consists of testing the hypothesis that these standardized measures provide a valuable tool for measuring segregation among the components of an urban population.

Method of Study. The method involved would be to select two fairly large cities (500,000 pop.) at two points in time, 1940 and 1950. The structure of the population would be analyzed with respect to sex, age, race, ethnic group, income and other measures that might suggest themselves as the study develops. The center of gravity and the average and standard polar deviations would be computed and compared. Other measures which are still being developed would also be computed. The results would be investigated as to the applicability of tests of differences between means and standard deviations. Conclusions as to the applicability of this method to problems of this sort would be reached. (BJ)

4. HISTORY OF THE SIERRA CLUB, 1892-1954

Main Investigator: Holway R. Jones

Status of Research and Publications: Research began in 1955 and culminated in a M.A. thesis, February, 1957. Author is revising and considerably expanding the scope of the original paper. One edited article has appeared: "The Battle for Kings Canyon National Park" (Sierra Club Bulletin, December, 1960), prepared from notes written several years after the events by one of its major participants, Frank Kittredge, Regional Director, National Park Service. One or two other articles will appear as by-products. It is expected that major findings will be published in two volumes: Volume I, 1892-1940, to be published by the Sierra Club late 1961 or early 1962; Volume II, war and post-war years, to follow a year or so later.

Agency: University of California (Berkeley), Department of City and Regional Planning.

Research Problem. The Sierra Club, founded in 1892 by the naturalist John Muir, professors at California and Stanford Universities, and business and professional leaders in San Francisco and Oakland, is the first American organization whose stated purpose was the preservation of a major mountain range solely for its scenic grandeur and wilderness qualities. From a chartered membership of 182, the Club has grown to a national membership exceeding 16,000 in 1961.

Emphasis is on the founding, early development, and conservation controversies which involved the Club directly in the political arena. Separate chapters detail the recession of Yosemite Valley to the federal government after 41 years of State stewardship, the invasion of a national park and flooding of Hetch Hetchy to provide a municipal water supply for San Francisco, the successful push to preserve the "climax" region of the Sierra Nevada south of Yosemite, and (in Volume 2) the national campaign to save Echo Park and to retain inviolate the national park principle.

Previous Relevant Research. Very little. J. N. LeConte, a charter member, published a brief history of the founding; Francis Farquhar, an outline of Kings Canyon legislation; and W. E. Colby, Secretary for 44 years, reminiscences. Hans Huth has provided valuable background information on the roots of American interest in scenic preservation in his Nature and the American; Three Centuries of Changing Attitudes (University of California Press, 1957). Robert Shankland's biography of Stephen T. Mather, first director of the Park Service, refers to the role of the Club in the establishment of the National Park Service.

Method of Study. Based almost entirely on primary sources --letters, memoranda, Board of Directors' minutes, various committee minutes, etc.--in the Club archives, Bancroft Library, California State Archives, and the National Archives in Washington, D. C. The Sierra Club Bulletins are a rich source of information. Local newspapers, particularly for the story on the recession of Yosemite Valley, provide important details. Personal interviews, recorded on tape, have been made with William Colby, Louis Bartlett (former Mayor of Berkeley), and the late Will Denman (a federal judge in San Francisco). Other interviews will be conducted, especially for volume two. Use has also been made of manuscripts from tape interviews by the Oral History Projects, University of California and Columbia University. (HRJ)

5. PUBLIC ENTERPRISE ECONOMICS AND TRANSPORT PROBLEMS

Main Investigator: Tillo E. Kuhn

Status of Research and Publications: Some of the findings of this project were given in a paper entitled "Economic Aspects of Highway Transportation" at the Highway Research Board meeting in January, 1961. Copies of this paper, which is abstracted below and which will be published later by HRB, National Academy of Sciences, are available from the Institute of Transportation and Traffic Engineering, University of California, 1301 S. 46th St., Richmond, California. Final report of this project is in preparation.

Agency: University of California (Berkeley) Institute of Transportation and Traffic Engineering and School of Business Administration.

Previous Digest report: 7:2-7

Research Problem. This study examines the contributions economic analysis can make to planning and decision-making in the highway field. Because of their increasing importance and complexity, urban aspects are emphasized.

Major Findings. Freeways and similar projects in urban areas pose particularly great problems to analyst and decision-maker. Among the reasons are:

(a) Highway agencies may best be described as powerful public monopolies. The conditions which are supposed to guide private enterprise - profit motive, a market, competition, survival of the fittest - do usually not exist.

(b) Only some of the many desirable and undesirable effects (gains and costs) which highway projects trigger, can satisfactorily be measured in money terms. Others, such as quality of service gains, time savings, aesthetics, social and accident losses, defy measurement or aggregation.

(c) Promotion of the public interest is the usual mandate given to governmental agencies. Consequently, whereas a private firm might ignore effects upon competitors, other industries, and the community at large, highway departments ought to consider all repercussions of their analyses.

From these basic conditions stem many of the alleged or actual shortcomings of current highway planning and policy; promotion of the highway technology to the neglect of overall transportation and community development; failure to consider alternative solutions in the planning process; emphasis upon readily measurable, favorable effects; disregard of broad social goals and values; preferred treatment of motor vehicle owners and other sectional groups; sometimes neglect of accident losses, sometimes arbitrary translation of costs in human lives and limbs into dollar terms. Practical suggestions are made for the better identification and presentation of the various intractable cost and gain effects. Frequently, however, the final decision-maker will have to render so-called value judgments. It is interesting that related public enterprise fields, such as city planning and water resources, are grappling with similar problems.

The study shows that standard economic methods can be used to guide the planning of independent projects. But at the correct, higher levels of decision-making, the numerous system effects which projects (freeways, interchanges, feeders, parking facilities) or technologies (subways, freeways, bus services, air transportation) exercise upon each other, have to be studied. Analyses to be employed during the search for the best solution in a complex system situation, complete with mathematical formulation, are proposed in the study. It is suggested that effective urban transportation planning will have to be developed along these lines.

Treatment of the time dimension in much of contemporary highway planning leaves something to be desired. The widely used benefit/cost ratios, unless hedged around with many assumptions and rules, may also lead to poor results. The study proposes improved analytical techniques; it is shown that these can handle diverse cost and gain effects over any period of time, both for single projects, as well as for complex systems. (TEK)

6. THE WHOLESALE STRUCTURE OF COLUMBUS, OHIO

Main Investigator: Richard W. Reseska

Status of Research and Publication: Field work has been completed and data are being mapped and analyzed. Results will be presented in M.A. thesis.

Agency: Clark University, Graduate School of Geography.

Previous Digest report: None.

Research Problem. The purpose of this study is to classify and describe the principal types of location of wholesaling establishments in a diversified American city, in a manner similar to the studies by Malcolm J. Proudfoot and Eugene J. Kelley on city retail structure.

Previous Relevant Research. Aside from a general analysis of the location of wholesaling in Boston, no previous studies could be found attempting to classify the types of wholesale structure in a large or medium-sized city.

Method of Study. Using the Columbus telephone directory as a source, all establishments suspected of being wholesale in nature were visited and data obtained for the construction of three maps: (1) general type of wholesale establishment, (2) kind of business, and (3) number of employees. The study is limited to those establishments which physically handle goods for distribution. Within a quantitative framework, generalizations will be sought concerning the location, composition, and size of major concentrations of wholesaling activity in the Columbus Urbanized Area, with a view to conceptualizing a wholesaling pattern that can be tested in other medium-size cities. (REM)

7. AN EVALUATION OF PUEBLO'S ECONOMIC POTENTIAL.

Main Investigators: L. J. Crampton, Stewart F. Schweitzer and Thomas L. Canino.

Status of Research and Publications: Study completed and published in July, 1960.

Agency: University of Colorado, School of Business, Bureau of Business Research. Study undertaken at request of Chamber of Commerce of Pueblo.

Previous Digest report: None.

Research Problem. Pueblo, Colorado's second city, has long been one of the major industrial centers of the Rocky Mountain West. It is the site of a large steel mill. During the past decade, however, Pueblo has not kept pace in industrial development with other communities in the West.

As a result the Bureau of Business Research was asked to address itself to a study that might determine why Pueblo had not been successful and what might be done in this Southern Colorado city to improve its industrial growth.

In brief the objective of this study was to enumerate and analyze the various factors of the Pueblo area that might (1) tend to encourage the development or expansion of new and existing industries or (2) tend to discourage such development with a consideration of needed change or adjustment.

Method of Study. Three basic steps were taken: (1) an inventory of factors relating to Pueblo's industrial future, (2) an analysis of major significant factors by local industrial leaders, and (3) a comparison of Pueblo and other similar cities of the Southwest.

Questions such as markets, raw materials, manpower, transportation, business climate, environment, and other considerations are included in an attempt to compare Pueblo with other cities of the Southwest. Case studies of the following communities were made and are included in the report: Colorado Springs, Denver, Greeley, Phoenix, Tucson, Albuquerque, El Paso, Midland, Odessa, Lubbock, Amarillo, Casper, and Salt Lake City. (LJC)

8. THE DEVELOPMENT OF RETAIL TRADE IN ENGLEWOOD.

Main Investigators: L. J. Crampton and James Switzer.

Status of Research and Publications: Study completed and published in October, 1960.

Agency: University of Colorado, School of Business, Bureau of Business Research. Study undertaken at the request of the Chamber of Commerce of Englewood.

Previous Digest report: None.

Research Problem. Englewood, a suburb of Denver, has long been an important retail trade center. However, in recent years the community has found itself being circled by a ring of shopping centers of varying size. Competition from the shopping centers has been intensified by the location of such major department stores as Denver Dry, May-D&F, Neusteters, Sears Roebuck, and Montgomery Wards in such shopping centers despite the fact that they are absent from Englewood. The major problem to which this subject was addressed concerned what might be done to improve the competitive position of Englewood as a retail trade center.

Method of Study. The study was approached from two standpoints. A consumer survey via personal interviews to measure shopping habits and opinions was supplemented by intensive checks of facilities available in the competitive centers.

In part the results of this study have been responsible for the current downtown redevelopment program now in progress in this community. (LJC)

9. THE ECONOMIC AND SOCIAL EFFECTS OF THE CONNECTICUT TURNPIKE ON EASTERN CONNECTICUT.

Main Investigators: Walter C. McKain, Jr.; Robert G. Burnight; Francis E. Ryan; Paul N. Taylor; Arthur Scott.

Status of Research and Publications: Project initiated in June, 1956. Research prospectus published in 1958 describing methodology, indicating preliminary findings, and outlining direction research would follow. Publications to date include "A Method of Measuring Changes in the Value of Residential Properties" by Francis E. Ryan, Highway Research Bulletin 232:79-83, 1959, and the following progress reports by the Storrs Agricultural Experiment Station: "Agriculture-Farm Land Acquisition and Its Impact on Agricultural Production" Report 28, January, 1959; Population Change and Distribution" Report 30, January, 1960; "Recreation" Report 35, February, 1960; "Retail Sales and Professional Services" Report 36, March, 1960; and "New Manufacturing" Report 43, October, 1960.

Agency: University of Connecticut, Storrs Agricultural Experiment Station, in cooperation with Connecticut State Highway Department and the Bureau of Public Roads, U.S. Department of Commerce.

Research Problem. The study is designed to measure the effect of the Connecticut Turnpike on population, manufacturing, agriculture, tourist accommodations and summer residences, retail establishments and retail sales, real estate, and local government services in two counties in Eastern Connecticut.

Hypotheses. Hypotheses have been listed for each specific area of study. In general it is hypothesized that the Connecticut Turnpike will have an impact on the economy of Eastern Connecticut.

Method of Study. A projected experimental design with the use of control groups is being used. Data for the towns affected by the Turnpike are being collected over an eight-year period and are being compared to data for a number of control towns. Information is also being collected in an effort to establish more precisely which changes are due specifically to the Turnpike and which may be the result of other factors.

Major Findings. Preliminary results can be obtained from the publications mentioned above.

10. RENEWAL AND REVENUE

Main Investigators: George B. McGimsey, Robert S. McCargar, Alice W. Scharrer, Alvin A. West, James W. Thomson, Stephen S. Olney, Juliet Sabit, and Tine Warrilow.

Status of Research and Publications: Study initiated in 1956, now completed and awaiting publication. Major findings to be made available in printed volume supplemented by several staff papers.

Agency: Detroit City Plan Commission, Research Division, with grant-in-aid from Demonstration Program Branch, Urban Renewal Administration, U.S. Housing and Home Finance Agency.

Previous Digest report: Vol. 6, No. 1

Research Problem. The objectives of this study are to estimate the future extent of urban blight and to determine the nature and costs of an adequate renewal program for the City of Detroit. In conjunction with this aim, the present and future effects of blight and the effects of the urban renewal program on the fiscal well-being of the city are discussed. Some consideration is also given to the means by which a renewal program might be financed.

The statistical findings are based primarily on a large sample of data from the files of the Board of Assessors. This material, combined with the results of previous surveys in which the amount and intensity of residential, commercial, and industrial blight was investigated, revealed implications vital to the urban renewal program.

In addition to presenting data on blight and renewal, this study offers suggestions for countering blight formation. These suggestions are based on Detroit's experience with urban renewal projects as well as the experience of other cities as reported in the growing literature on urban renewal.

Several features of the forthcoming report are of special interest:

1. By connecting the degree of blight with present variations in assessed value, the effect of blight on Detroit's revenue system is shown for the first time.

2. In estimating the future extent of blight, the relationship between the age of structures and blight is investigated.

3. The method of estimating renewal project costs from assessed value data is refined and then employed in the computation of the costs of a complete urban renewal program for the city.

4. Attempts are made to evaluate frankly the problems encountered in implementing urban renewal projects in Detroit.

This investigation of renewal in Detroit should be of general interest as a case study, as a demonstration of techniques and methods appropriate for urban renewal programming, and as a collection of suggestions for implementing urban renewal. (HB)

11. THE EFFECT OF NOISE CREATED BY AIRPORT AND AIRCRAFT OPERATIONS UPON SURROUNDING AREA

Main Investigators: Bernard A. Schroll, Project Director; Maurice W. Roach, Jr., Land Use; Polysonics - Bart Spano, Director, Acoustical.

Status of Research and Publications: Started in August, 1960. Will be completed in December, 1961.

Agency: Detroit Metropolitan Area Regional Planning Commission, with grant-in-aid from Demonstration Program Branch, Urban Renewal Administration, U.S. Housing and Home Finance Agency.

Previous Digest report: None.

Research Problem. An investigation of the effects of noise levels created by aircraft and airport operations upon the surrounding area, with emphasis on the jet type of aircraft. The study will define the area affected, the land uses compatible with such operations, and develop alternate proposals for the development of the surrounding land. While the Detroit-Wayne County Metropolitan Airport will be used for the case study, techniques of study and basic principles will be developed which may be useful at the major jet airports of the country. (BAS)

12. URBAN TRANSPORTATION DILEMNA

Main Investigator: Dr. Stephen Paranka

Status of Research and Publications: Research underway. Results are expected to be published sometime in late spring in either a special report or as two articles in the Atlanta Economic Review.

Agency: Georgia State College of Business Administration, Bureau of Business and Economic Research.

Research Problem. Effective metropolitan transportation is being stymied by pressures from an increasing population, decentralizing population, increasing costs, decreasing public acceptance, and increasing ownership and use of automobiles. Various piecemeal ameliorations have been enacted to offset the effects of these various pressures. The trend, however, is still toward greater difficulties unless a new approach is attempted.

Previous Relevant Research. This research report is based upon a doctoral dissertation entitled "An Economic Analysis of Mass Transit Operations in the U.S."

Hypotheses. Former efforts to ameliorate the urban transportation problem are ineffective and a coordinated transportation plan enforced by a metropolitan authority is required.

Method of Study. Six major cities were selected as case studies for research. Each case is analyzed, drawing upon data from secondary references and personal interviews. Various actions toward solving the urban transportation problem are examined and evaluated. (WRK)

13. ORGANIZATION FOR STATE HIGHWAY AND URBAN PLANNING LIAISON

Main Investigator: Joseph M. Heikoff

Status of Research and Publications: Major part of investigation completed. Report draft 50 percent complete.

Agency: University of Illinois, Bureau of Community Planning, for the State Division of Highways.

Previous Digest report: None.

Research Problem. Applied research to provide the Division of Highways with a guide to the organization and staffing of a unit to foster cooperation between the Division and local authorities. The specific problems are to define the purpose and nature of state-local highway planning liaison, and then suggest policies, organization, and staffing for a unit to carry out this function in the Illinois state highway agency.

Research and transportation studies in several large urban areas are advancing new methods of analysis of the relationship of traffic, land use, and highway design. Yet highway engineers and urban planning specialists tend to rely on their own relatively limited techniques and to lack complete awareness of the other's objectives and planning criteria. The problem in planning liaison is to bring together the highway engineers and general urban planning specialists in an atmosphere in which they may broaden each other's approach and integrate their techniques in planning urban highway systems and local improvements.

Special problems arise when local governments are not prepared to contribute to such a process because they are unable or unwilling to secure technical planning assistance, and when local political conflict prevents agreement on community development objectives. Special administrative problems also arise in communication between engineering and planning technicians and local public officials, businessmen, property owners, and civic organizations. In metropolitan areas these problems are compounded when there are differences among neighboring municipalities, each seeking to advance its own interests without regard to the interests of the others.

Method of Study. Survey of the literature followed by interviews with Illinois highway agency personnel and local officials to determine the nature of the planning liaison problem. Questionnaire survey of selected state highway agencies on policies, organization, and staffing for state-local contact. Formulation of organization and personnel procedures for a planning liaison unit within the Division of Highways for discussion and testing. (JMH)

14. PUBLIC WORKS PLANNING AND DEVELOPMENT IN ILLINOIS, WITH SPECIAL REFERENCE TO THE STATE AND COUNTY.

Main Investigator: Jerome L. Kaufman

Status of Research and Publications: Report published in January, 1961.

Agency: University of Illinois, Bureau of Community Planning.

Previous Digest report: 6:2-25

Research Problem. To determine the governments responsible for making public works decisions in Illinois and how they interact with one another.

Previous Relevant Research. Few studies have been undertaken of the development responsibilities of the several levels of government operating within a state. Most governmental studies pertain to operating and fiscal responsibilities.

Hypotheses.

1. Governmental units in Illinois interact with one another in a myriad of ways to make public works decisions.

2. Conflicts, inefficiencies, and duplications of effort are common under the system of governments planning and developing public works in Illinois.

3. Closer cooperation and liaison among the several levels of governments responsible for public works decisions will result in better planning and a wiser expenditure of the tax dollar.

Method of Study. Secondary readings supplemented by interviews.

Major Findings.

1. Thirty different types of governments--more than in any other state--make public works decisions in Illinois. The result is a highly fragmented system of governmental responsibility for public works development, giving rise to numerous conflicts, duplications of effort, and inefficiencies.

2. Public works development is a critical aspect of government operations, consuming one-third of all expenditure by Illinois governmental units.

3. The construction of roads and schools now absorbs more than 70 per cent of the total public works outlay in Illinois.

4. Governmental influence the public works decisions of other governments in several ways: they regulate the amount of funds available for public works, they lend funds for planning and development purposes, they review and approve public works plans, they appoint members to governing bodies with development power, they require conformance to certain construction standards and specifications, they inspect facilities, they offer informal advice, they impose controls on land use development which affect the character and location of proposed public works projects.

5. The State is the most important governmental unit in terms of its influence on the scale and character of public works activity in Illinois. In addition, the State has tended to exercise increasing control over local development activities. Relations between the State and local governmental units involve an intricate network of directive and response, approval and accountability spanning a wide field of functions.

6. The county is a logical unit for planning and developing public works on a regional basis. At present, the county is improperly organized to fully meet its responsibilities; nor does it utilize the broad range of authorities at its command. (JLK)

15. MAPPING THE POLITICAL CHARACTERISTICS OF MEDIUM-SIZE METROPOLITAN AREAS

Main Investigator: Daniel J. Elazar

Status of Research and Publications: First report, on Rockford, Illinois, scheduled to be available in April, 1961.

Agency: University of Illinois, Institute of Government and Public Affairs.

Previous Digest report: 7:2-33 (DJE)

16. LOCATION OF METROPOLITAN RESIDENTIAL AREAS

Main Investigator: Theodore R. Anderson

Status of Research and Publications: Two pilot studies completed. Main analysis, of 10 cities, is now in progress.

Agency: State University of Iowa, Iowa Urban Community Research Center.

Previous Digest report: None.

Research Problem. The general problem undertaken in this research is to describe the location of metropolitan residential neighborhoods when these neighborhoods are classified according to characteristics of the resident population.

Previous Relevant Research. Previous research on the location of residential neighborhoods may be classified according to the theory or model being tested. In a general way three models have been proposed: Burgess' Concentric Zone hypothesis, Hoyt's Sector Theory, and MacKenzie and Bogue's Theory of Dominance. In addition, while not stimulating much empirical research, the hypothesis of multiple nucleation (Harris, Davie) should be mentioned.

Hypotheses. The general hypothesis upon which this analysis is based is that the characteristics of a neighborhood may be described largely in terms of the distance that the neighborhood is from certain major dominants within the urban structure. A second hypothesis is that the altitude of an area will be explanatory. Specific hypotheses include: (a) the socio-economic status of a neighborhood will vary inversely with the distance of the neighborhood from the nearest railroad track, (b) the population density in a neighborhood will vary inversely with the distance of the neighborhood from the central business district, and (c) the socio-economic status of a neighborhood will vary directly with the altitude of the area. These are merely examples of the hypotheses included in the study.

Method of Study. A multiple regression equation relating each of several distances to each characteristic of the neighborhoods (defined as census tracts) will be computed. This regression equation will indicate the relative importance of each distance in characterizing the neighborhood.

Major Findings. Studies conducted in two cities (New Haven, Connecticut and Washington, D. C.) reveal somewhat divergent results. Mean rent in New Haven was very closely associated with sector, and only slightly related to distance from the central business district. In Washington, D. C. sectors and the central business district were equally important. In general, more distances proved relevant in Washington, D. C. than in New Haven, Connecticut. (TRA)

17. CHARACTERISTICS OF RAIL TRANSIT SYSTEMS

Main Investigators: A. S. Lang, and R. M. Soberman.

Status of Research and Publications: Research approximately 70% complete. Publication expected to be in monograph or book form by late summer 1961.

Agency: Joint Center for Urban Studies of M.I.T. and Harvard University.

Previous Digest report: 6:2-17

Research Problem. This study is concerned primarily with the technological and economic capabilities of rail transit systems. Physical and cost characteristics of the various components of these systems have been investigated with special emphasis centered around considerations of system capacity. In addition, some of the current problems of the rail transit industry have been examined. Further research yet to be carried out concerns determination of the demand for service and evaluation of social costs and benefits. (ASL)

18. THE SPATIAL DISTRIBUTION OF URBAN LAND VALUES

Main Investigator: Duane S. Knos

Status of Research and Publications: Manuscript is in rough draft form. Publication as a monograph expected approximately January 1, 1962.

Agency: University of Kansas, Center for Research in Business.

Research Problem. This study is concerned with describing the spatial distribution of urban land values in Topeka, Kansas, and testing certain hypotheses which may help in the explanation of the observed distribution.

Hypotheses.

1. Urban land values vary inversely with distance from the center of the city;

2. Urban land values vary inversely with distance from major thoroughfares; and

3. Urban land values vary with direction from the center of the city.

Method of Study. Viewing the distribution of land values as a three dimensional surface with a high peak concomitant with the center of the city, and a low level plain at the periphery, standard statistical methods are applied to correlate land values with the variables (1) distance from center, and (2) distance from thoroughfares within each of four sectors of the city. Several functions are attempted including linear, exponential and reciprocal curves.

Major Results.

1. There is a significant difference in the relationships between land values and distance from the center of the city and distance from major thoroughfares among the four sectors.

2. The function which "best" describes the relationships is a reciprocal curve described as $Y = \frac{1}{a + bx}$.

3. Eighty-nine per cent of the variation in Topeka land values is accounted for by the regression equation within each sector. R = .945. (DSK)

19. DELIMITATION OF NEIGHBORHOODS, TOPEKA, KANSAS

Main Investigator: Duane S. Knos

Status of Research and Publications: Manuscript is in rough draft form. Publication as a monograph expected approximately January 1, 1962.

Agency: University of Kansas, Center for Research in Business.

Research Problem. The problem of this study involves the description of the physical quality of neighborhoods in Topeka, Kansas.

Method of Study. The problem is attacked from two approachs. First, field observations have been made to rate the physical quality of neighborhoods according to a set of criteria including such things as condition and size of house, and condition and size of grounds. Second, knowledgeable people, such as realtors, and school and city officials have been interviewed to obtain opinions as to the division of the city into neighborhoods and rating each neighborhood relative to all other neighborhoods. From these two sources of information the neighborhoods are delineated. Tests of the degree of homogeneity within neighborhoods in regard to several attributes of this resident population (income, occupation, schooling, etc.) and certain attributes of this housing inventory (age of structure, assessed value) will be made. (DSK)

20. CITY REVENUE PRACTICES IN KENTUCKY AND SELECTED OTHER STATES

Main Investigator: Kenneth E. Quindry

Status of Research and Publications: Manuscript completed and in process of being edited for spring 1961 publication by the Bureau of Business Research.

Agency: University of Kentucky, Bureau of Business Research.

Previous Digest report: None.

Research Problem. Urban population in the United States has grown continually in past decades, both in total numbers and relatively to total population, and the prospect is for continued growth in the immediate future. The problem of obtaining adequate revenue to support the needs for increasing expenditures is acute in the light of existing legal restrictions on city revenue practices. This study reflects an effort to determine the relative use of revenue sources in cities of selected states at present and the relative change in use of authorized revenue sources since 1942.

Previous Relevant Research. Relatively little appears to have been done on up-to-date studies of comparative city revenue practices.

Hypotheses. City general current-dollar revenue in the United States tripled from 1942 to 1959. Evidently much of this growth resulted from inflationary pressure and population change. While most components of city general revenue might be expected to show increase, even after deflation for price level and population changes, the advances in the various components of general revenue, and the relative change among states would doubtless prove non-uniform. Increases in general revenue after deflation should prove to be greatest in those states in which personal income and urbanization were rapidly increasing and in such states the trend should be toward developing sources of revenue based on income, consumption, and service charges at the relative expense of property taxation.

Method of Study. Statistical data from the Bureau of the Census and other relevant sources were used to construct tables and charts for comparative analysis and to develop trends in the use of city revenue sources. In all cases, data were deflated by city population changes and price level index numbers to make statistics for subsequent years roughly comparable with 1942 data. From these data percentages of total general revenue of cities were computed. The status of Kentucky cities was compared with that of all cities of the United States and with cities in Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina, West Virginia, Illinois, Indiana, Michigan, Missouri, Ohio, and Pennsylvania.

Major Findings. Generally, it was found that city general revenue, when deflated, did not increase much from 1942 to 1959. Also, cities came to rely relatively less on property taxes and more on non-property tax and non-tax revenue sources. Intergovernmental transfer payments to cities changed very little as a percentage of general revenue. City charges and miscellaneous revenue grew considerably and uniformly in most states. Regional patterns in city revenue sources appeared, but these reflected mainly the differences in income levels and population densities among regions. However, within regions, cities of one or more states exhibited significant differences from their neighbors in relative use of revenue sources. General revenue of metropolitan areas differed little from that of comparable sized cities except that the inclusion of data for small urban and rural areas and school districts in metropolitan data shifted some emphasis among general revenue sources to property taxes and intergovernmental payments. (KEQ)

21. SOUTHEASTERN MICHIGAN TRANSPORTATION STUDY

Main Investigators: To be determined.

Status of Research and Publications: An outline in general terms has been prepared by a team of transportation and planning experts provided by the Council of the Municipality of Metropolitan Toronto and the Metropolitan Toronto Planning Board. The Corporation is currently organizing the study for which other agencies are being requested to contribute financial support. All previous studies (over 45) of individual phases of transportation - both for the region or the city of Detroit - have been gathered in anticipation of the study. Inasmuch as there have been origin and destination studies in recent years, such detailed work need not be repeated. Liaison has been established with groups conducting related research in the region. A steering committee has been partially appointed; members include the Chairman of the Supervisors Inter-County Committee, the Mayor of the City of Detroit, the State Highway Commissioner, and the Chairman of the Board of Directors of this Corporation.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: None.

Research Problem: Although the scope of study has not been spelled out, it is intended that this study will go into all media of transportation and that the entire six-county area will be included. (JMF)

22. SOUTHEASTERN MICHIGAN ECONOMIC STUDY

Main Investigators: To be determined.

Status of Research and Publications: Authorization was made in January 1961 for the development of a research outline. This outline will include recommendations related to scope of study, costs, and personnel.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: None. (JMF)

23. COUNTY GOVERNMENT ISSUES

Main Investigators: To be determined.

Status of Research and Publications: Study authorized in January 1961.

Agency: Southeastern Michigan Metropolitan Community Research Corporation, at request of the Supervisors Inter-County Committee.

Previous Digest report: None.

Research Problem. To study county government in terms of its future needs and present powers and limitations, so that the Supervisors Inter-County Committee will be prepared to make suggestions and recommendations to a state constitutional convention for which voter approval is anticipated. (JMF)

24. SOUTHEASTERN MICHIGAN HEALTH STUDY

Main Investigators: To be determined.

Status of Research and Publications: Study authorized in January 1961.

Agency: Southeastern Michigan Metropolitan Community Research Corporation, at request of the Supervisors Inter-County Committee.

Previous Digest report: None.

Research Problem. To analyze the comparative advantages and disadvantages of health services as provided at the county level, on a joint city-county basis or on a regional basis. (JMF)

25. COMPARATIVE TAX RESOURCES OF 180 SOUTHEASTERN MICHIGAN GOVERNMENTAL UNITS

Main Investigator: James M. Friedlander

Status of Research and Publications: Complete. In the process of being published.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: None.

Research Problem. To determine and illustrate the state equalized assessed valuation of the region's governmental units on a per capita basis.

Major Findings. There are wide variations in per capita valuation in this region ranging from $670 in one community to $60,000 in another. Over 60% of the 180 communities for which data were available fell into the $2,000 - $4,000 per capita valuation range. (JMF)

26. COMPARATIVE TAX RESOURCES OF SCHOOL DISTRICTS IN SOUTHEASTERN MICHIGAN

Main Investigator: James M. Friedlander

Status of Research and Publications: Begun in January 1961.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: None.

Research Problem: To relate the tax resources of each school district to the number of its resident pupils. To find out whether there is any relationship between tax resources and actual school expenditures and between assessed valuation and tax rates. To discover if there is any relationship between tax resources or expenditures and any available measures of educational quality (if such measures are considered usable). (JMF)

27. ECONOMIC AND POPULATION BASE STUDY OF THE LANSING TRI-COUNTY AREA: AN INTERINDUSTRY RELATIONS ANALYSIS

Main Investigators: John L.O'Donnell, Richard C. Henshaw, John P. Henderson, Eli P. Cox

Status of Research and Publications: Completed and published. Economic and Population Base Study of the Lansing Tri-County Area; An Interindustry Relations Analysis, 1960.

Agency: Michigan State University, Graduate School of Business Administration, Bureau of Business and Economic Research. Study supported by U. S. Housing and Home Finance Agency under provisions of Section 701 of the Housing Act of 1954 as amended.

Research Problem. One of the major obstacles to area development is a dearth of economic data about regional economies. Metropolitan Lansing is no exception, and this study was designed to provide local planning groups with a basic document containing useful information about the community.

Method of Study. The study is built around an input-output matrix for Metropolitan Lansing, and also contains descriptive material about local institutions. The matrix is used as a vehicle for generating a wealth of statistics about the local economy, besides providing a good model for making projections.

Major Findings. The successful application of an inter-industry approach to this community is a noteworthy advance in methods of area analysis. The model is most useful in quantifying the importance of motor vehicle manufacturing, government, and education as the major income generating sectors in Metropolitan Lansing.

Projections based upon the input-output matrix point up very clearly several avenues of future growth. They also emphasize the necessity of diversifying the existing industrial pattern so that manufacturing employment will become more stable. (BBER, MSU)

28. MUNICIPAL INCOME TAX*

Main Investigators: Milton C. Taylor and James McCarley

Status of Research and Publications: Study scheduled for completion in June, 1961.

Agency: Michigan State University, Institute for Community Development and Continuing Services, Continuing Education Service.

Previous *Digest* report: None.

Research Problem. Analysis of the municipal income tax, with special reference to its application in Michigan.

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*Items 28 through 34 report on certain projects underway at the Institute for Community Development and Continuing Services of Michigan State University. They have been abstracted from the Semi-Annual Research Report of March 1, 1961 prepared by Walter E. Freeman, Chief of Research.

Method of Study. Review of income tax statutes and interviews with state and local administrators.

29. RESISTANCE TO PROPOSALS FOR AREA-WIDE INTEGRATION

Main Investigators: Charles Press and C. R. Adrian

Status of Research and Publications: Research in process.

Previous *Digest* report: None.

Research Problem. To classify the types of people who oppose or favor integration in an effort to determine a relationship between the position taken on this question and certain other discernible attitudes toward local government. Basic data provided by Grand Rapids public opinion survey.

30. THE POLITICAL PROCESS IN LOCAL COMMUNITIES

Main Investigator: Charles Press

Status of Research and Publications: Research in process.

Previous *Digest* report: None.

Research Problem. To prepare an annotated bibliography of articles on the political process in local communities. About 75 articles published during the past decade will be included with annotations of approximately 200 words. Bibliography is preliminary to a projected study of the political process in East Lansing.

31. SOURCES OF NEGRO LEADERSHIP IN GRAND RAPIDS

Main Investigator: James B. McKee

Status of Research and Publications: Research in process.

Previous *Digest* report: None.

Research Problem. To explore the social changes in the Negro community making for divergent, competing, or conflicting sources of leadership, and the links between Negro leaders and the larger community.

32. LAND USE CONTROLS FOR FRINGE AREAS

Main Investigator: R. B. Hotaling

Status of Research and Publications: A Zoning Ordinance and Subdivision Regulations for Meridian Township have resulted from the initial work on this project and are serving as basic data for a general analysis.

Previous Digest report: None.

Research Problem. To determine appropriate land-use regulations and development controls for metropolitan fringe areas and urbanizing municipalities. Meridian Charter Township, Ingham County, has been used as a laboratory community in which to develop data and test alternate methods of zoning and platting regulations.

33\. AUTOMATIC DATA PROCESSING FOR URBAN PLANNING

Main Investigator: R. D. Duke

Status of Research and Publications: Six papers, originally presented at a seminar arranged by Department of Urban Planning, scheduled for publication in March 1961, as an Institute monograph.

Previous Digest report: 7:1-9

34\. HOSPITAL-COMMUNITY RELATIONS

Main Investigators: Walter Freeman and J. Artis.

Status of Research and Publications: Study scheduled for completion in August 1961.

Previous Digest report: 7:1-14

35\. RESEARCH PROGRAM ON ECONOMIC ADJUSTMENTS TO DISARMAMENT

Main Investigators: Emile Benoit and Kenneth E. Boulding.

Status of Research and Publications: Preliminary report published August 1960, by Institute for International Order, (11 W. 42nd St., New York 36, N.Y.). First of consultant studies, an input-output matrix providing the industrial and employment inputs for the 1959 defense program, by Marvin Hoffenberg, under the direction of Wassily Leontief, completed. Arrangements concluded for following additional studies: (1) Manpower Adjustment, Mannie Kupinsky, Bureau of Labor Statistics; (2) Industrial Reconversion, Seymour Melman, Columbia University; (3) Contribution of Business to Research in Disarmament Adjustments, Thomas O'Sullivan, ITEK Corporation; (4) Monetary-Fiscal Tools for Aiding in

Restructuring Production, Norman True, Joint Economic Committee, U.S. Congress; (5) Monetary-Fiscal Methods for Maintaining Overall Demand, Warren Smith, University of Michigan; (6) Federal-State-Local Relationships in the Post-Defense Period, Harvey Brazer, ibid.; (7) Extended National Income Analysis of Adjustments, Daniel Suits, ibid.; and (8) Regional Input-Output Impacts of Disarmament, Wassily Leontief, Harvard University. Additional studies in planning or negotiation stage. Two publications contemplated: (1) a one-volume collection of technical papers by staff and consultants, and (2) a book for concerned layman discussing findings over entire field.

Agency: University of Michigan, Center for Research in Conflict Resolution, with assistance of grants from Carnegie Corporation, and Ford and Reynolds Foundations. (Central office of project is located at 475 Riverside Drive, New York 27, New York)

Previous Digest report: None.

Research Problem. This program of research is intended to provide materials and analyses helpful in answering fundamental questions about the economic impact of a world-wide general, multilateral, inspected disarmament agreement, the economic adjustments it would require, and the economic policies that might be helpful in minimizing the dislocations it might create. Obviously, no brief pilot study, such as this will be, can expect to provide decisive answers to such fundamental and difficult questions. Nevertheless, the materials assembled and the hypotheses tested should, it is hoped, provide a helpful background for the more extensive and profound studies which it is anticipated will, before long, be made by various national governments and by the United Nations.

Method of Study. In this inquiry modern statistical and analytical techniques are employed to bring out the nature and significance of defense expenditures in relation to the rest of the Federal budget, the national income, and the economy as a whole. The components of both military and military-related goods and services now being produced or in the planning stage are explored in order to see what material resources and what areas of employment are involved. The next step is to assume several different possible patterns which disarmament might follow, in the wake of workable international agreements. Some one of these, it is thought, could be adapted to a different actual pattern which changing circumstances might bring about.

With these facts and assumptions as guide-lines, it is possible to examine the central problem—the alternative uses which could absorb the resources of manpower, raw materials, finance capital, and existing plant and equipment in a civilian-oriented economy, the difficulties which might be encountered in the changeover, and the best available methods for easing such a transition.

On the national scene attention is centered on the problem of maintaining adequate total demand when government's demand for military and related goods is cut back, and on the kinds of advance study and planning which government, industry and labor could carry out to this end. Attention is given also to some of the regional, state and local problems involved, and those of particular industries. Seeing to it that the burdens of adjustment are equitably distributed and do not fall unfairly upon the working people now employed in defense industries--or the owners and managers of those industries, or the communities which have grown around them--requires careful study and effective action. History both at home and abroad offers examples of different types of measures and some results. Another problem, both national and local, is that of maintaining the economic growth factors which have been fostered by the large government-financed programs of scientific research and development which the concern for military defense has called forth.

Beyond the national horizon, questions being examined include the effects of world disarmament upon international economic processes such as export and import trade, capital investment, the industrialization of presently under-developed countries, and the best methods of adjusting to a transition period on the world level.

These topics will be studied by means of: (1) Input-output analysis: (2) National Income analysis; (3) Flow of funds analysis; (4) Regional analysis; (5) Industry analysis; (6) Public and Congressional opinion analyses (as conditioning fiscal policy responses in the event of arms cuts); (7) Analysis of economic institutions, particularly money and credit, private and public debt, government tax and expenditure policies and processes; (8) Study of actual and proposed adjustment mechanisms such as national employment exchanges, unemployment compensation, retraining and relocation programs, depressed area development schemes, etc.; (9) Studies of international trade and military and economic aid programs as well as the actual experience of utilization of military forces for economic production. (EB)

(Editor's Note. One phase of the research program described above deals with special problems of community redevelopment, including reconversion of heavily defense-oriented communities and methods and problems of attracting, financing and stimulating new industries and product diversification. In pursuance of this phase of the study, letters of inquiry have been sent to approximately 100 cities scattered through 36 states, in an effort to ascertain what local studies have been made on the adjustment possibilities. Very few such studies have come to light in the answers received as of January. However, several city and industry representatives have expressed interest in such studies and a willingness to cooperate if such inquiries were initiated. It is the belief of the editor that the Project Director would welcome inquiries from readers of the Digest who are engaged in or would be interested in undertaking such special area studies.)

36. THE ECONOMIC IMPACT OF HIGHWAY DEVELOPMENT UPON LAND USE AND VALUE*

Main Investigators: James Schwinden, P. M. Raup and J. R. Borchert.

Status of Research and Publications: Report published September 1958.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U.S. Department of Commerce Bureau of Public Roads.

Previous Digest report: None.

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*Items 36 through 43 are segments of extended study of the economic effects of highways in Minnesota undertaken by the Departments of Agricultural Economics and Geography of the University of Minnesota under contract with the Minnesota Highway Department in cooperation with the U. S. Department of Commerce Bureau of Public Roads. All abstracts were furnished by James Schwinden, Project Director, and are current as of February 1, 1961.

Hypotheses.

1. That land use change, with all of its implications, is a major impact of highway improvement or change,

2. that changes in land use are both foreshadowed and accompanied by changes in land value,

3. that location is such an important element in the description and explanation of these changes that they must be studied in their spatial, or geographical, dimensions in order to be comprehended,

4. that these changes in use and value must be mapped in time sequence in order to identify and describe the process which is taking place, thus to find relationships which have predictive value, and

5. that these assumptions imply much testing and experimentation; hence the study exhibited a considerable preoccupation with methodology.

Major Findings.

1. Land use changes along these highways are produced in part by forces of urban growth which operate independently of the highway itself.

2. Expanding belts of idle land of varying size and duration commonly characterize the transition process from agricultural to higher-intensity uses and probably signify a value increase which has taken place.

3. There is a strong tendency toward development of a commercial-industrial "strip" along these highway segments within the suburbanized area. The trend is evident regardless of the nature of zoning.

4. Where initial urban development is residential, pressure for commercial development soon arrests residential growth on land near the highway.

5. There is a measurable preference for location at intersections with arterial roads or streets in the development of commercial-industrial uses. As a result the commercial strip tends to develop first in "beads" at the major intersections. Open areas of idle land tend to remain between major intersections, which are zoned commercial or industrial use may take a very long time in developing. It is clear that development of these highways has produced very different types of nonuser benefits on different types of frontage.

6. In urban fringe areas, the amount of commercial-industrial land use along the highway may be closely related to the density of local and commuter traffic, as opposed to "through" traffic.

7. The methodology developed opened the prospect for the use of statistical techniques in land or area value estimation.

37. A HIGHWAY CHANGE IN CHANGING FARIBAULT

Main Investigators: James Schwinden, P. M. Raup, and J. R. Borchert

Status of Research and Publications: Report published September 1959.

Previous Digest report: None.

Research Problem.

1. Does re-routing of traffic result in a resorting of business and residences to form new land use patterns?

2. What have been the changes in the number, kind, and location of a city's business "population?"

3. To what extent can these changes and resortings be attributed to the new highway?

Major Findings.

1. Faribault is continually turbulent. Construction of the new highway did not appreciably alter the turbulence, but realigned direction and areas of the activity.

2. Responses of this continual turbulence to the new highway depended on the degree of control exercised over the access to the new highway.

3. The alternate route redirected a majority of Faribault's through traffic away from the CBD, but, after the initial drop, the volume of traffic in the CBD increased. 1/

4. Traffic-sensitive firms did not cluster along the new route as might have been expected, but were probably curtailed by the partially-controlled access. 2/

5. The design features of controlled access protected both the highway from becoming congested and also the stability of the CBD. (Without this access control many firms would surely have shifted from the CBD to front on the new route.)

6. No anticipatory construction activity was found along the new highway before its opening.

7. There was a one- to three-year lag before a pattern of commercial firms appeared along the new route, and a similar time lag before the spurt in business starts and stops.

8. The businessmen took a "wait and see" attitude as to locating along the new route.

9. The location of firms formed in a diffused pattern in the area near the new route, particularly where there were driveways leading on to the new route.

10. Residential construction was not evident along the new route, and there is very little evidence to suggest the highway influenced residential location.

38. HOW FARMERS ADJUSTED TO AN INTERSTATE HIGHWAY IN MINNESOTA

Main Investigators: James Schwinden, P. M. Raup, and J. R. Borchert.

Status of Research and Publications: Report published, September 1960.

Previous Digest report: None.

Research Problem.

1. How is farm size and shape affected by the Interstate Highway?

2. How do farmers adjust to the changed layout of their farms?

3. Are payments for acquired land commensurate with the damages sustained, or is there a substantial difference between the size of awards and the market value of the land?

Major Findings.

1. In the study segment, 11 of 28 farmers sold all or portions of their holdings. These adjustments were partly a result of reduction in farm size, partly a consequence of farms being split, and partly in accord with increasing competition for land to add to existing farm units.

2. By 1959 only one farmer, with 58 acres severed from the main part of his farm, had any sizeable section of his farm so affected (by having a portion of the farm isolated so that it cannot be reached directly).

3. Whether measured on a per-mile, per-acre, or per-farm basis, payments were higher on the restricted-access route than on the open-access route, and payments for partial-takings were substantially higher than estimated 1955 farm land values per acre.

39. THE ECONOMIC EFFECTS OF A HIGHWAY CHANGE ON FARIBAULT, MINNESOTA

Main Investigators: James Schwinden, P. M. Raup, and J. R. Borchert.

Status of Research and Publications: Report published, September 1960.

Previous Digest report: None.

Research Problem.

1. What happens to a typical community - Faribault, Minnesota - when a new alternate highway channels 5,000 cars a day or 2/3 of the daily total away from the main street in the central business district (CBD)? - Five indices were used to measure business volume...first, the gross sales of the city as a whole; second, sales of firms located on the old route; third, sales of firms which were located off the old highway; fourth, gasoline sold in Faribault and other bypassed towns versus towns that were not bypassed; and finally, the sales of service and retail firms which were normally considered traffic-sensitive.

Major Findings.

1. Gross sales for retail and service firms increased each year - before, during and after the construction of the alternate route.

2. Gross sales for the firms located on the old route which went through the CBD increased each year for the period before, during and after the new highway construction.

3. Gross sales for the firms located off of the old route increased each year before, during and after the new highway construction.

4. Gross sales for the firms assumed to be more sensitive to through traffic (gas stations, bars, cafes, motels) did suffer a drop in 1957 but showed an increase in 1958. The firms that received a large percentage of their volume from through traffic were more severely damaged unless they adjusted and added other lines to increase their sales.

5. The gross sales are a function of many variables in a community. If it appears that all the variables are constant and one of them is changed (an alternate route re-channeling traffic) and the gross sales do not drop, it can be concluded that the effect on gross sales was not very important. In general, this is what happened in Faribault, gross sales were measured over a time period before, during and after the construction of an alternate route. At no time did total gross sales drop.

6. The sales lost from the vehicles channeled away on the alternate route were not sufficient to decrease total sales in Faribault. It appears that the decrease by this loss of through traffic was more than offset by improved shopping conditions which induced the local people or attracted others to spend more. Another possibility is the drop in gross sales in the CBD was balanced by an increase in sales for the firms by the new alternate route.

40. BELTLINE COMMERCIAL-INDUSTRIAL DEVELOPMENT: A CASE STUDY IN THE MINNEAPOLIS-ST. PAUL METROPOLITAN AREA

Main Investigators: James Schwinden, P. M. Raup, and J. R. Borchert.

Status of Research and Publications: Report published, November 1960.

Previous Digest report: None.

Hypotheses. Based upon the following assumptions, the extent of commercial and industrial land use can be projected along a planned beltline highway.

Assumption 1 - that an existing beltline is analagous to the planned beltline with respect to their position in the urbanized area at time of construction and their intersection with major radial highways and railways.

Assumption 2 - that, as available industrial land is absorbed on the present Belt Line, demand for industrial land in western circumferential highway locations will shift to the new Belt Line.

Assumption 3 - that neighborhood-oriented and traffic-oriented commercial uses along the new route will develop, as they have along the present Belt Line, commensurate with the growth of traffic and urbanization of the neighboring land.

Major Findings.

1. Besides the highway, these five factors were significant; (a) residential and neighborhood shopping center developers, (b) industries and industrial developers, (c) municipalities which organize, build, and maintain the network of local streets and thoroughfares, sewer and water lines, and (d) railroads. These factors have formed a complex within which the commercial and industrial development process has moved forward.

2. If the highway comes late in the developmental sequence, it is impossible to avoid disruption of an established urban land-use pattern. If the highway comes early in the sequence, municipal and private planning may be directed toward reservation of vacant land and provision of facilities for the highest-value, most desirable, or most essential uses in the most probable locations.

3. The real value of land today in this changing frontier zone depends basically upon two variables: (a) the value of land for its probable next major use and (b) the annual taxes and interest for the duration of the waiting time likely to elapse before the next major use is realized. The longer the waiting time, the lower is today's real value. The higher the next major use, the greater is today's real value. This study has attempted

to estimate the limits of probable waiting time and probable ultimate uses along T.H. (I.R.) 494. Thus it may contribute to the determination of land values for highway-land acquisition.

41. LAND VALUE ESTIMATION FOR PUBLIC ACQUISITION: A STATISTICAL APPROACH

Main Investigators: James Schwinden, P. M. Raup, and J. R. Borchert.

Status of Research and Publications: Manuscript completed, not yet published.

Previous Digest report: None.

Hypotheses.

1. That the nature of the land market results in imprecise pricing, and

2. that statistical procedures are available and adaptable to the problem of land value estimation.

Major Findings.

1. Prices are established for entire parcels and not for parts of parcels.

2. Each parcel has a range of possible market values with varying degrees of likelihood of attainment in the market.

3. One particular value is most probable of attainment in the market.

4. The statistical techniques employed permit estimation of a most likely price and estimates of other possible prices in terms of a scale of probability. These techniques utilize a large number of sales and their application is objective and systematic in using market sales as a guide. Subjective decisions on the part of the investigator are minimized in the process of estimation. Because of these features, it is concluded that these techniques are particularly appropriate in estimating land value.

42. COMPENSATION PAYMENTS FOR HIGHWAY LAND ACQUISITION

Main Investigators: James Schwinden, P. M. Raup, and J. R. Borchert.

Status of Research and Publications: Report writing underway.

Previous Digest report: None.

Research Problem. To investigate the relationships between compensation payments and the extent (or nature) of the property (or rights) taken plus damages as a direct consequence of the highway.

Hypotheses. That examination of data related to highway land acquisitions will permit their classification and will establish relationships or the lack of them.

Tentative Findings.

1. That court awards usually are greater than Highway Department appraisals,

2. that the severity of the disruption created by the acquisitions bears little relationship to the awards, and

3. that the amount of awards appears disproportionate to the extent of damage sustained in so far as the latter can be estimated.

43. AMELORIATION OF NON-COMPENSABLE DAMAGES

Main Investigators: James Schwinden, P. M. Raup, and J. R. Borchert.

Status of Research and Publications: Report writing underway.

Previous Digest report: None.

Research Problem. To develop and apply a procedure for estimating the benefits that would arise from proposed highway alteration so that they may be compared with the cost of various ameliorative structures.

Hypotheses.

1. That for those properties subject to damages from a highway change but not eligible for compensation constructions (grade separated cross-overs, service roads, and interchanges) ameliorate the damages sustained,

2. that the cost of ameliorative structures must be weighed against the benefits of the structures to those otherwise ineligible for compensation, and

3. that the benefits from the ameliorative structures depend upon the use which will be made of them as compared to the use which must be resorted to if they were not provided.

Tentative Findings.

1. It appears that farmers do not necessarily trade at the nearest point at which a trip purpose can be satisfied. That is, one cannot predict the destination of local trips based upon knowledge of only the spatial distribution of origin points and of trading facilities. Interviews or traffic counts are necessary to establish trip patterns or conversely trade areas.

2. It appears possible to make some estimate of the costs (non-compensable damages) to local areas arising from limited access highway facilities.

44. GROWTH CORRIDORS AND TRAFFIC POTENTIALS: A STATE-WIDE STUDY

Main Investigators: James Schwinden, P. M. Raup and J. R. Borchert.

Status of Research and Publications: Data analysis underway.

Previous Digest report: None.

Research Problem. A study of "potential accessibility" over the State relating trends in population growth and density by area with distances separating the areas and the transport facilities which satisfy demands for accessibility.

Hypotheses.

1. That there are growth corridors with the State where people are settled nearest to one another. With an exchange economy this means the maximum amount of interchange and, hence, the highest traffic potential.

2. That the high traffic potential is translated into large highway needs and more highway capacity in these "corridors." Large exchange and movement permits greater and more diversified economic activity.

Tentative Findings.

1. It appears that growth corridors do exist and exhibit a rather stable pattern through time.

2. If the above (1) is borne out through full analysis there are several implications which follow:

   (a) Depending upon whether a location is on a high accessibility ridge or in a low accessibility trough, the potential for, the nature of and rate of land use change will differ.

   (b) The levels and kinds of economic activity or exchange that will obtain are related to the potential for, the nature of and rate of land use change and each imposes a different demand for the provision of transport services.

   (c) Planning programs, whether arising in connection with public investment, community-regional development projects, or private capital investments, can benefit from a better understanding of location and accessibility potential.

45. URBAN RENEWAL IN THE UNITED STATES -- ITS PROBLEMS AND PROSPECTS

Main Investigator: Dr. Constantinos A. Doxiadis

Status of Research and Publications: Project started July 1960; estimated project time - one year.

Agency: National Association of Housing and Redevelopment Officials, with the support of the Ford Foundation.

Previous Digest report: None.

Research Problem. A long, critical look at what constitutes this country's philosophy of urban living and at what is needed to strengthen the national urban renewal program.

Dr. Doxiadis, who was chosen to do the job because of his world-wide knowledge of cities, is trying to evolve a new "science of human settlements" known as ekistics. The principles of ekistics are built on a comprehensive approach to the problems of cities, involving economic, sociological, geographic, and technological influences on urban conditions. These principles are being put to the test by Dr. Doxiadis' firm of consulting engineers in the seven branch offices he maintains throughout the world -- including the United States. (The firm's plan for the redevelopment project was accepted by the city and its plans have also been adopted in Cincinnati and development proposals for Louisville are in the making.)

Method of Study. The National Association of Housing and Redevelopment Officials, whose membership includes a majority of the active housing and community renewal agencies in the country, will serve as Dr. Doxiadis' channel for securing information on local program operations. On the basis of its knowledge of renewal operations throughout the country, NAHRO will catalog the problem areas in urban renewal as it sees them today and will work out an itinerary of representative cities where Dr. Doxiadis and his associates can go to do on-the-spot evaluation of urban problems and programs. Aim is to come up with a set of principles and criteria for measuring performance that can serve American cities as long-term guides for renewal. (MKN)

46. RETAIL TRADE IN COUNTIES AND METROPOLITAN AREAS

Main Investigators: Edgar Z. Palmer, assisted by Jagjit Singh

Status of Research and Publications: It is hoped that publication can be made, at least of significant parts of the study, in the latter part of 1961, in the form of a University of Nebraska Business Research Bulletin.

Agency: University of Nebraska, Bureau of Business Research.

Research Problem. This is a study of the Census of Business reports on retail trade, based on the Censuses of 1954 and 1958. A pilot study, based on the Census of 1948, preceded it (mimeographed). In the present study, a 50 per cent sample of counties which are not included in Standard Statistical Metropolitan Areas, plus all such Metropolitan Areas, is tabulated to yield basic ratios of per capita sales by type of business, sales per establishment, personnel per establishment, sales per personnel, and average compensation. These are correlated with other data pertaining to the same areas, particularly the size of the largest city in each county or area. It is hoped that the study will reveal significant relationships and factors in the amount of retail trade by market areas. (EZP)

47. METHODS FOR ESTIMATING THE NUMBER OF BUSINESS CONCERNS IN A STATE BY LOCATION AND TYPE

Main Investigators: Edgar Z. Palmer, assisted by Chan Hyu Lee

Status of Research and Publication: Publication under the auspices of the Small Business Administration, summer 1961.

Agency: University of Nebraska Bureau of Business Research, under a grant from the Small Business Administration.

Previous Digest report: None.

Research Problem. The project consists of an examination of various possible lists and other sources of data concerning the number of business firms and establishments in Nebraska. Each source will be studied to determine its suitableness for the purpose, and results from various sources will be compared with each other to determine the nature and cause of discrepancies. Methods of using the practicable sources and of combining results from various sources, if necessary, will be worked out. (EZP)

48. CHANGING BUSINESS PATTERNS IN NEBRASKA TOWNS

Main Investigators: Edgar Z. Palmer and Chan Hyu Lee.

Status of Research and Publication: To be published as a University of Nebraska Business Research Bulletin, summer 1961.

Agency: University of Nebraska, Bureau of Business Research.

Previous Digest report: None.

Research Problem. This is a revision and bringing up to date of Palmer and Tobkin, Types of Business in Nebraska Towns, Business Research Bulletin No. 57, 1954. The number of business establishments is counted, by size of town and type of business, and norms are established for each size of town. In addition, publicly owned facilities are included in the new study, and dynamic comparisons with the former study are made. (EZP)

49. ANALYSIS OF FACTORS IN THE COMMUNITY MULTIPLIER

Main Investigators: Edgar Z. Palmer and Marshall Friedman.

Status of Research and Publications: It is hoped to publish this during the academic year 1961-62.

Agency: University of Nebraska, Bureau of Business Research.

Research Problem. A study, over a period of 20 years, of employment and sales in different industries in a sample of U. S. cities of 5,000 - 10,000 populations, their correlation with each other, with total population, and with other factors, to test the validity of some assumptions upon which the use of the derivative-basic ratio is justified. (EZP)

50. DERIVATIVE-BASIC RATIO IN GREAT PLAINS CITIES

Main Investigators: Edgar Z. Palmer and Knolly Barnes.

Status of Research and Publications: It is hoped to publish this in the academic year 1961-62.

Agency: University of Nebraska, Bureau of Business Research.

Previous Digest report: None.

Research Problem. The computation of the derivative-basic employment ratio for all cities in the Great Plains of 5,000 to 10,000 to compare the movement over a 20-year period, 1940 to 1960. (EZP)

51. CITY AND REGIONAL WAGE COMPARISONS

Main Investigators: Edgar Z. Palmer, David J. Thomas, and Robert S. Polkinghorn.

Status of Research and Publications: Published as University of Nebraska Business Research Bulletin No. 64, 1960 (Studies in Community Economics).

Agency: University of Nebraska, Bureau of Business Research.

Research Problem. This is a composite of two studies. The Thomas study related to the relationships between per capital retail sales, sales per establishment, and average retail compensation in 50 large cities, with data drawn from the Census of Business, 1929 to 1954. The basic hypothesis that of these three ratios, average compensation is the dominant one, seems to be substantiated by the study. The Polkinghorn study is an attempt to trace the factors involved in comparisons between average wages in a number of industries between large cities, grouped by size and region. (EZP)

52. AN EXPLORATORY STUDY OF SELECTED HOUSING FACTORS IN ESTABLISHED NEIGHBORHOODS AS RELATED TO THE RESIDENTS' BEHAVIOR PATTERNS

Main Investigator: Alfred Phillips Van Huyck, under the direction of Robert L. Wilson

Status of Research and Publications: Master's Thesis, completed January 1960. Available on Inter-Library loan.

Agency: University of North Carolina, Department of City and Regional Planning, in cooperation with Urban Studies Program, Institute for Research in Social Science.

Previous Digest report: None.

Research Problem. The purpose of this study was to demonstrate that behavior patterns, derived from selected behavior and attitude characteristics of the respondents, influence the selection of a neighborhood in which to live and the realization of satisfaction from residence in the neighborhood.

Major Findings. Using a questionnaire survey in Radburn, New Jersey, and another nearby neighborhood of equal age and approximate original cost but different physical characteristics, it was possible to explore the relationships between physical features of the neighborhood and the behavior characteristics of the residents. On the basis of the survey results, it was concluded that, depending on the behavior characteristics of the individual, different physical subdivision layouts with the presence or absence of certain features will affect the satisfaction which the resident can achieve. Through an understanding of this relationship it may be possible to design neighborhoods which will more perfectly satisfy the needs and desires of the residents. Several important satisfaction factors were isolated from the 194 completed survey schedules. However, there is need to undertake a similar study on a broader basis, including a wide variety of existing neighborhoods, in order to crystallize the behavior pattern variables influencing neighborhood preferences and satisfactions. (SFW)

53. THE THEORY OF THE URBAN ECONOMY: ORIGINS AND DEVELOPMENT WITH EMPHASIS ON INTRAURBAN DISTRIBUTION OF POPULATION AND ECONOMIC ACTIVITY

Main Investigator: Barclay Gibbs Jones

Status of Research and Publications: Doctoral Dissertation.

Agency: University of North Carolina, Department of Economics.

Previous Digest report: None.

Research Problem. The development of urban economic theory has been impeded by two factors--urban problems have been much neglected in the literature and the relevant contributions have been fragmented over many fields. A formal theory of the urban economy is not recognized. Sufficient contributions exist to constitute such a theory. The necessary task is to pull them together.

Method of Study. The first problem undertaken is determining the antecedents of urban economic theory. A review of the literature before the first World War tries to establish the origins of the theory. The basic elements of a formal theory are identified from this review, and subsequent contributions are summarized with respect to these elements.

The review suggests further development must await contributions to one of the elements of the theory. Intraurban distribution of population and economic activity is indicated as the starting place of urban studies. The development of the whole field awaits development in this area.

Scholars have made contributions for over a century to summary and standard measures of spatial distribution. The development of the measures is reviewed. They are restated, synthesized and considerably expanded. The measures are demonstrated and applied for the first time to actual hypothetical urban situations to test their power.

Major Findings. It is concluded the theory of intraurban distribution is the element in which strides must be made in the near future, if the whole of urban economic theory is to progress. The most promising direction of development is towards summary and standardized measures which will permit description of urban distributions and, by tracing them through time, prediction of their trends.

54. OHIO COUNTY PERSONAL INCOME, 1957, 1958, 1959

Main Investigators: Dr. and Mrs. Milton Kafoglis.

Status of Research and Publications: 1957 and 1958 estimates completed; 1959 in process. Publication expected late spring 1961.

Agency: Ohio State University, Bureau of Business Research.

Research Problem. To provide the first complete figures on personal income for each of Ohio's 88 counties. Data for components of income, by type of income, and by industry, as well as totals, will be provided for each county. The estimates are derived from Ohio data sources, plus allocations of some components, to total to estimates of State total personal income, by type and by industry, prepared annually by the National Income Division, U. S. Department of Commerce. The compiling and estimating methods were developed by Mrs. Madelyn Kafoglis and Dr. Milton Kafoglis, and were applied by them to the preparation of 1957 estimates. The 1958 and 1959 estimates are being prepared by these methods by the Bureau of Business Research under the direction of Professor James C. Yocum, Associate Director. (JCY)

55. INDUSTRY AND TRANSPORTATION STUDY - EUGENE-SPRINGFIELD AREA, OREGON

Main Investigators: Donald N. Johnson, Don B. Martin, William Hoey III, and J. David Rowe.

Status of Research and Publications: Research on project is about three quarters finished. It will be published during the summer or fall of 1961.

Agency: University of Oregon, Bureau of Municipal Research and Service. Study is being financed by an HHFA 701 planning assistance grant through Central Lane County Planning Commission; by Bureau of Public Roads planning funds through Oregon State Highway Department; and by additional funds furnished by the cities of Eugene and Springfield, and by Lane County. (This is one of the first planning programs coordinating Bureau of Public Roads and Housing and Home Finance Agency planning funds.)

Previous <u>Digest</u> report: None.

<u>Research Problem</u>.

1. Major research problems associated with the highway portion of the study include: (a) the determination of existing and future traffic patterns through use of the gravity model method using employment, populations, vehicle registrations as parameters; (b) the development of special techniques appropriate for preparation of forecasts of vehicular traffic patterns in small areas at a low cost.

   This part of the study utilizes previous findings of Alan Voorhees of the Automotive Safety Foundation, and others.

   Research is being done on the special travel characteristics of the Eugene-Springfield area with attention given to other smaller urban centers. Previous research has been concentrated mainly on the larger urban areas. Investigations include the development of travel time factors (as part of the model) appropriate to the smaller areas and the development of a technique for use in determining existing interzonal travel times for smaller areas that reflect actual routes available. In addition, an effort is being made to derive some generalizations about travel patterns that are applicable to the smaller urban areas, through analysis of a number of origin and destination studies of western cities.

2. A research problem associated with the economic portion of the study has been the determination of employment in certain economic activities when the study area reaches a certain population. For this purpose, indexes of area employment variation have been prepared for 147 industrial classifications based on employment-population relationships for 35 SMAs of from 200,000 to 300,000

population. The indexes indicate the degree to which employment levels for the various industries are associated with the population level. The median employment and a high and low range have been developed for use in forecasting future employment in those industries for which the employment and population levels are more closely associated. (DNJ)

56. INDUSTRIAL SURVEY OF CHESTER COUNTY, PA.

Main Investigators: Allan J. Twark and Helen M. Pierce.

Status of Research and Publications: Research in process, to be completed in June 1961.

Agency: Pennsylvania State University, Bureau of Business Research.

Previous Digest report: None.

Research Problem. A compilation of facts concerning the extent of industrial and commercial development of Chester County and its major communities, with special attention paid to industrial location factors as recognized by industrial development organizations. Principal object of the study is to provide a data book that the Industrial Development Council can use in its own development program. (AEW)

57. STOCHASTIC MODELS OF CONSUMER TRAVEL BEHAVIOR

Main Investigator: Duane F. Marble

Status of Research and Publications: Research in process. When available, results will be published as journal articles.

Agency: Personal research being conducted at University of Pennsylvania, Wharton School, Department of Regional Science.

Previous Digest report: None.

Research Problem. To develop models of individual travel behavior and consumer response to patterns of urban land use. Explicit consideration is given, via the theory of stochastic processes, to "non-optimal" and random behavior on the part of consumers.

Previous Relevant Research. Some relevant empirical research is reported upon in William L. Garrison, Brian J. L. Berry, Duane F. Marble, John D. Hystuen, and Richard L. Morrill, Studies of Highway Development and Geographic Change (Seattle :

University of Washington Press, 1959). Some discussion of the basic theoretical problems involved is contained in Duane F. Marble, "A Theoretical Exploration of Individual Travel Behavior", forthcoming in the Proceedings of the NRC-ONR Symposium on Quantitative Problems in Geography.

Method of Study. Theoretical formulation and limited empirical testing of various stochastic models of individual travel behavior. (DFM)

58. RESIDENTIAL EXTENSION IN A METROPOLITAN REGION

Main Investigator: Willard B. Hansen, under the supervision of Gerald A.P. Carrothers.

Status of Research and Publications: Study has been completed and is being presented in Ph.D. dissertation. Copies of the dissertation will be obtainable from University Microfilms in the latter part of 1961.

Agency: University of Pennsylvania, Department of City Planning.

Previous Digest report: None.

Research Problem: The study was undertaken to appraise the historical accuracy of a series of regression models yielding residential development rates for metropolitan subregions; to investigate the meaning of the statistical results for urban spatial structure; and to explore the applicability of study concepts and findings to urban planning.

Method of Study: Several hundred bivariate and multivariate regression equations were formulated with data that were available for subregions of the Philadelphia Metropolitan Region for the 1940-50 and 1950-56 periods. Each equation yielded subregional development levels as a function of subregional levels of one or more of the following "development factors": Residential Settlement, Intrametropolitan Centrality, Intrametropolitan Residence Access and Intrametropolitan Employment Access. The equations differed by function type, development rate, development factor index, and factor combination. The analysis was limited to residential change in subregions containing substantial amounts of open sites for private homebuilding. Calculation of the regression coefficients, measures of historical accuracy and intrametropolitan access indices ("potential" and "total distance") was performed by electronic computer.

Major Findings: The historical accuracy of the regression equations varied greatly: for example, corrected coefficient of determination ($\bar{R}^2$) levels ranged from .0000 to .8752. Of three function types under consideration, the power form tended to give moderately to substantially more accurate results than the linear and exponential forms, with the performance of the latter two being relatively similar. Equations yielding residential development levels in absolute terms registered substantially higher explanatory precision (i.e., smaller residual errors) and substantially lower explanatory completeness (i.e., smaller coefficients of determination) than equations yielding such levels relative to subregional development capacity. Moderate to substantial differentials in historical accuracy were associated with alternative indices of the several development factors; in the case of the aggregate access indices, these differentials were related to the form of the equations. Judged by the performance of their "most explanatory" indices, the individual development factors ranked as follows: (1) Residence Access, (2) Residential Settlement, (3) Employment Access, (4) Centrality. When the factors were used in multivariate combinations, the incorporation of additional independent variables tended to produce moderate gains in explanatory ability ($\bar{R}^2$) together with sizable reductions in the reliability of the regression coefficients. The multivariate reduction in parametric reliability might be attributed to the high degree of intercorrelation characterizing the development factors being investigated.

With respect to urban spatial structure, the statistical results indicated a high degree of bivariate association between residential development and the individual factors under investigation. The results also suggested that a secular rise in "airline distance tolerance" levels occurred in the Philadelphia Metropolitan Region during the 1940-56 interval, and that the Region's areal pattern of residential extension was far from radial.

The applicability of the regression equations to urban planning was investigated through the formulation of a basic projective technique deriving from the concepts of the study, and through an evaluation of the probably operational adequacy of that technique. The explanatory precision registered by the regression equations did not appear to be sufficiently high to meet planning agency needs. However, development of more sophisticated equation forms and variables, and the availability of more reliable data, might enable a planning agency to attain substantially greater accuracy with the basic technique in question. (WH)

59. REDEVELOPMENT DECISIONS, ALTERNATE LAND USES AND THEIR INFLUENCE ON OPERATING COSTS

Main Investigators: William H. Brown, Karen Helm

Status of Research and Publications: Study published in March 1961.

Agency: City of Philadelphia, Office of Development Coordinator.

Previous Digest report: None.

Research Problem. This project was designed to find a partial answer to the question of the right distribution between different activities: what should, e.g., be the relation between residential activities (home, school, recreation) and economic activities (industry, commercial, services); or, put differently, what balance is most desirable between the population of a city and the available jobs.

The question really must be answered in a more detailed fashion. For example, what are the priorities for one or another type of activity in the use of redevelopment funds. Furthermore, as policy can rarely influence development as a whole, but can only be marginally effective, the types of developments investigated are those which add only marginally to existing activities.

It was decided not to focus on the one-shot expenditures for the construction of a particular development, but on the long-term burden on operating expenditures, using the cost-benefit analysis. In doing this, it was realized that this could give us only a partial answer for the guidance of the development decisions.

Method of Study. A series of rather small prototypes were assumed. Tracts of not more than 100 acres were alternatively assumed to be added to existing activities: different kinds of residential uses (including high-rise buildings), two kinds of industrial uses, and a shopping center. The cost was allocated only in terms of those operating costs of the city which would be directly associated with the introduction of each prototype.

Major Findings.

1. A careful analysis of the cost-benefit method in this case (including a discussion of the technical difficulties, the financial feasibibility and the problem of cost allocation) leads to a clear outline of the difficulties of costing different prototypes in an existing society.

2. The results show up the variables which influence operating costs within given patterns of land use, e.g., the fact that municipal services vary with the density, the age and the income distribution of the population. Specifically, in the residential prototype, costs increased more than lineally with increased density. This is at least partly due to the fact that the difference in density per acre is clearly associated with income levels and occupational differences.

3. The industrial prototypes were costed out under the assumption that no population addition results from the addition of industry. In addition, the somewhat arbitrary allocation of school costs is responsible to a large degree for making the total cost added by industrial prototypes much lower than the cost added to residential prototypes.

4. As allocation of joint costs is necessarily arbitrary to a certain degree, it can be concluded that most costs are borne by people, so that population movements are the most important variable. Hence, no final result as to relative costs of residential, industrial or commercial types was possible.

5. The most striking conclusion is the large amount of overhead or fixed cost associated with a municipal operating budget. The costs of many services do not change with the introduction of the various prototypes.

6. A valuable by-product was the accumulation of unit cost data for the different departments of the city.

7. Communities have many different goals, and the criteria for the realization of each goal are necessarily different - hence a whole series of sub-optimization criteria for different projects must be developed, regarding the achievements of the goals of any particular project. In the last resort, rational judgments between alternatives are difficult, unless related to very specific goals, and we must fall back upon value judgments. (KRP)

60. RESOURCE ALLOCATION FOR INDUSTRIAL DEVELOPMENT

Main Investigators: Kirk R. Petshek, John L. Culp and Robert O. Crockett. (George Fisk, Charles Leven and James McNulty, consultants.)

Status of Research and Publications: Research in process, part-time basis. Completion envisaged in 1962.

Agency: City of Philadelphia, Office of Development Coordinator.

Previous Digest report: None.

Research Problem. Since the resources for any kind of industrial development (money, staff, land, etc.) are scarce, it is being attempted in various ways to discriminate between efforts in different directions so as to best use the resources for the benefit of the total economy under consideration (region, area, city, etc.)

The basic assumption is that firms in different industries have different effects on the economy of their area, depending upon their characteristics. A set of criteria which might be exhibited by individual firms, with some indication of the probable broad effects on the total area economy, have been set up as a first approximation. Those criteria picked out as "desirable" for the economy, are all beneficial for other activities in different ways: for example, the firm's impact on employment, growth stability, on linkages with other industries, etc. are outlined, and ways to concretely evaluate this influence are suggested. Several of these criteria need more exploration in depth before they become too meaningful, a study which is being conducted at the present time.

In order to put these into the right framework, some idea of the goals or combination of goals which an area should try to maximize (e.g. employment, wages, taxes, etc.) must be established. This can be done by the researcher making decisions about how these goals should be ranked and thus being able to proceed to his conclusions. However, lest personal preferences get too heavy a play, it may be more advisable to subjectively evaluate not only the over all goals, but also the criteria mentioned above. This could best be done by the community, i.e. by a representative group of community leaders. This was the final conclusion after lengthy attempts to find objective ways of evaluating these criteria, and it was found that the variation of personal preferences (and thus in turn on the basic goals) would color judgments too much to provide reliable objective criteria.

Experiments with different techniques of establishing subjective community values (goals) of different criteria (exhibited by firms and industries) were conducted, including ranking and weighting of the choices of community leaders through a series of cross checking procedures. Much more exploration is necessary in this direction.

Finally, it must be investigated in what industries industrial development efforts would be expended with the greatest likelihood of success. This means that it must be determined what relative locational advantages the area offers for different industries. This is necessary so that promotion could be pinpointed to firms in those industries which, while offering the greatest likelihood of success, are those enterprises considered most desirable for the area's total economy. (NRP)

61. RESOURCES IN THE AMERICAN FUTURE

Main Investigators: Leonard L. Fischman and Hans H. Landsberg, under the general direction of Joseph L. Fisher.

Status of Research and Publications: Research is drawing to a close and should be completed within the next few months. Publication will be by The Johns Hopkins Press for Resources for the Future as a book early in 1962.

Agency: Resources for the Future staff project, with consultant assistance.

Previous Digest report: None.

Research Problem. The scope of the project is best summarized by the outline below. In general, however, the objective is to arrive at projections, to the year 2000 and points in-between, of the general magnitudes of the U. S. economy, the demand for various end-products and generally used intermediate goods and services, and the attendant demand levels for key materials. These levels established, in terms of low, medium, and high possibilities, an examination is then made of the adequacy of the U. S. resource base (and available imports, where applicable) to support the indicated demand levels, as well as of the attendant policy implications.

A tentative outline follows:

I. Introduction

II. General shape of the future economy

III. Requirements for future living

- A. Introduction
- B. Food
- C. Clothing
- D. Construction
- E. Transportation
- F. Durable goods
- G. Chemical products
- H. Paper and containers
- I. National defense
- J. Heat and power
- K. Water
- L. Recreation

IV. Demand for key materials

- A. Introduction
- B. Crops
- C. Lumber and woodpulp
- D. Mineral fuels
- E. Metals
- F. Fertilizers and chemicals
- G. Sand, clay and rock
- H. Synthetics

V. Adequacy of the resource base

A. Introduction
B. Land
C. Forests
D. Water

VI. Principal problems ahead and lines of solution

A. Historical setting
B. Changes and conflicts in land use: agriculture, forestry, grazing, urban, recreation
C. Efficient use of water: arid West and humid East
D. Increasing the flow of minerals (LIF)

62. FINANCIAL PROGRAMS FOR LOWER-MIDDLE INCOME HOUSING

Main Investigator: Dr. Jack E. Gelfand

Status of Research and Publications: Expected date of completion, summer 1961; to be published by Temple University.

Agency: Temple University, Office of Research and Specialized Services, under sponsorship of Pennsylvania Department of Commerce, Bureau of Community Development and U.S. Housing and Home Finance Agency.

Previous Digest report: None.

Research Problem. The purpose of this study is to develop experimental financial programs designed to minimize financial barriers to rehabilitation and redevelopment of slum and near slum areas, and to encourage residential improvement practices that will halt the spread of blight through urban neighborhoods. Specifically, the purpose of the study may be stated as follows: First, it is designed to develop more appropriate methods of financing new (including redevelopment) construction for sale or rental, and rehabilitation of existing structure for owner occupancy, rental or sale, for the lower-middle income group so as to increase the total availability of adequate housing for this group and, where possible, to encourage and to promote greater house ownership by removing some of the present financial barriers to purchase. Second, it is designed to demonstrate by development and equipment, the means by which financing formulas applicable to groups characterized by any combination of circumstances in any location may be derived. (For purposes of this study, lower-middle income group is defined as between $3,000 and $8,000 per annum.)

The study will proceed in two phases. The first will consist of a sociological survey of housing demand factors and industry surveys of housing supply factors in the cities of Philadelphia, Harrisburg, and Pittsburgh, Pennsylvania. The sociological surveys will involve interviews with a total of 1,500 families. Industry survey data will be gathered from extended interviews with builders, construction contractors, architects, realtors, social workers, and public officials concerned with housing.

The data gathered in the first phase will be used as source material for the formulation of a variety of mathematical programs during the second stage of the study, which is designed to provide insight into alternative methods of financing for the variety of housing needs and capacities of the "lower-middle" income group. (JFA)

63. SKID ROW PROJECT

Main Investigator: Francis H. Hoffman, M.D.

Status of Research and Publications: Completed January 31, 1961.

Agency: Temple University, Department of Psychiatry and related departmental staffs, sponsorship of Greater Philadelphia Movement and The Redevelopment Authority of the City of Philadelphia.

Previous Digest report: None.

Research Problem. A pilot study of Philadelphia's Skid Row. Its purposes are two-fold: the redevelopment of the Skid Row area, and the elimination of potential causes contributing to formation of future skid rows.

64. VOCATIONAL REHABILITATION OF MULTI-DISABLED SKID ROW MEN

Main Investigator: Francis H. Hoffman, M.D., Administrator of the Department, and Director of Residency Training and Clinic, Department of Psychiatry, Temple University (Project Director)

Agency: Department of Psychiatry, Temple University, supported by the Redevelopment Authority of the City of Philadelphia through the Greater Philadelphia Movement.

Previous Digest report: None.

Research Problem. This study has as its purpose the testing of the hypothesis that rehabilitation of men with multi-disabilities, primarily the skid row alchoholic, in a closed institutional situation is possible.

65. INDUSTRIAL LOCATION FACTOR STUDIES

Main Investigators: Project coordinator, Theodore K. Pasma. Actual studies being conducted under contract by private research firms as follows: (1) in fabricated plastics products industry, Ebasco Services, Inc.; (2) in scientific instruments industry, Stanford Research Institute; (3) in electrical machinery industry, Fantus Factory Locating Service; (4) in electronic industry, Arthur D. Little, Inc.; (5) in selected container industries, Galaxy, Inc.

Status of Research and Publications: Studies now in progress. Results to be issued as priced document from Government Printing Office in summer and fall of 1961.

Agency: United States Government, Department of Commerce, Office of Area Development.

Previous Digest report: None.

Research Problem. The full range of location factors pertinent to each industry selected for study will be considered, including growth trends, present locational patterns, recent geographic shifts, markets, raw materials and supplies, transportation and utility requirements, labor, and site requirements. (RAP)

66. CHARACTERISTICS OF MODERN INDUSTRIAL PLANTS

Main Investigator: Theodore K. Pasma.

Status of Research and Publications: Results of survey now being tabulated. To be issued as regular priced document from Government Printing Office in summer of 1961.

Agency: United States Government, Department of Commerce, Office of Area Development, with cooperation of National Industrial Zoning Committee, (a cooperating committee supported by ASPDA, AIDC, ASPO, ARDA, ASCE, SIR, AIP and ULI).

Previous Digest report: None.

Research Problem. Study of physical characteristics and requirements of industrial plants, with special reference to zoning and performance standards.

Method of Study. Direct mail survey of 63 different industrial plants in all states of the country and in a variety of codes. Survey included: (1) brief description of the industry and products made; (2) outline of the needs of the industry with respect to plant facility, site requirements, community facilities and standards to minimize nuisance factors, and (3) photographs and site sketches illustrating each plant studied. (RAP)

67. PUBLIC LANDS: LAND STATUS DETERMINATION IN UTAH

Main Investigator: Claron E. Nelson

Status of Research and Publications: Manuscript describing procedures and presenting preliminary results being prepared for publication during March 1961.

Agency: University of Utah, Bureau of Economic and Business Research, under sponsorship of Utah State Land Board.

Research Problem. To determine the ownership and withdrawal status of all of the lands in Utah in order to provide a sound basis for land and resource analysis and the selection of lieu school lands (as compensation for school lands withdrawn by the Federal government for special purposes prior to the time title attached to the state).

Method of Study. The procedure involved systematic checking of a minimum of seven different types of records in the Bureau of Land Management and state land offices for each tract of land in Utah. If no inconsistencies were noted then the status as indicated was assumed correct. Additional records were checked if there was any indication of error. The status information is summarized on acetate plates drawn for each township at a scale of 2" equal one mile. Status information by individual tract is also shown on IBM cards.

Major Findings. It is now possible to determine the following status information for any specific area in the state: (1) ownership of surface and mineral rights including private lands, state lands, federal lands; (2) Federal withdrawals (by type); (3) state leases; (4) school section base lands used for selection of lieu lands selected and their disposition; (6) survey status and the lands for which title will attach when they are surveyed; (7) Federal open lands (lands that may be selected for the benefit of the schools). (OLH)

68. PUBLIC LANDS: RESOURCE INVENTORY

Main Investigator: Claron E. Nelson

Status of Research and Publications: Initial manuscript describing procedures, information available, etc. to be published during April 1961.

Agency: University of Utah, Bureau of Economic and Business Research, under sponsorship of Utah State Land Board.

Research Problem. To develop basic (specific) information on Utah's resources to: (1) provide the foundation for investigation of the economic development alternatives as to possible resource developments and as to the location of potential commercial and industrial development in the state; (2) assist in decision-making with respect to Utah land management (particularly in selection of lieu school lands - associated with (1) above); and (3) provide a readily useable fund of information for faculty, student and governmental agency research in the social and physical sciences.

Method of Study. The resource inventory involves the collection and collation of all available information (from published sources, governmental agencies, local area sources, etc.) pertaining to the physical characteristics of the specific tracts of land, their mineral resources, ground cover resources, recreation resources and water resources. Mineral and water information is being compiled for the entire state. The other resource information is presently being collected only for the state owned lands and the public domain that has not been withdrawn for some specific purpose. The information is compiled on IBM cards for processing on regular punch card equipment and the digital computer. (OLH)

69. ECONOMIC ANALYSIS OF THE SALT LAKE METROPOLITAN TRANSPORTATION AREA WITH POPULATION AND EMPLOYMENT PROJECTIONS TO 1980

Main Investigator: Osmond L. Harline

Status of Research and Publications: Research in process.

Agency: University of Utah, Bureau of Economic and Business Research, in cooperation with Utah State Highway Department with the United States Bureau of Public Roads.

Research Problem. A thorough analysis of the socio-economic setting within which traffic is generated in the Salt Lake Metropolitan area in order to forecast population and employment growth within the area.

Previous Relevant Research: Population, employment and income estimates made by various agencies for this specific area. Methods of forecasting population, employment and income developed by the agency conducting the research and by other agencies and persons. Economic base studies done in other areas.

Method of Study. Each census tract and study zone throughout the metropolitan area will be examined separately and analyzed as to future possible development as well as past development. The economic base of each area as well as the population, land use, income and employment will be considered prior to the time that projections of population and employment are made. Projections of population and employment made by other agencies as well as those developed by the Bureau of Economic and Business Research for the same areas will be considered prior to the publication of final projections. (OLH)

70. ST. GEORGE ECONOMIC BASE STUDY

Main Investigator: Gordon S. Thompson

Status of Research and Publications: Data one-half collected, to be completed in the fall of 1961.

Agency: University of Utah, Bureau of Economic and Business Research.

Research Problem. St. George is one of the Utah communities that will be by-passed by Interstate Highway #15. St. George is a small city located in the southern part of Utah. Its position on U. S. Highway 91, one of the primary routes leading to southern California, has resulted in the development of a tourist oriented economy. The purpose of this study is to develop information on the economy of the community that will enable them to evaluate the importance of highway traffic at the present time and to make adjustments when the highway is completed and the town by-passed.

Method of Study. The study will determine the economic base of the community with specific reference to the importance of highway traffic. The method being used is to have business firms collect information on the proportion of sales made as a result of highway traffic during selected days' business. On the basis of information collected during these days, an estimate will be made of employment that can be attributed to economic activity resulting from highway traffic. In addition to the above information, a sample of out-of-town customers are filling out a questionnaire that is designed to collect information on origin, distance traveled since last stop for lodging, gas and oil and food.

During the summer months information will be collected by stopping vehicles traveling on Highway 91. This will supplement the information obtained on traffic stopping in St. George. (OLH)

71. REGIONAL FISCAL IMPACT OF LOCAL INDUSTRIAL DEVELOPMENT

Main Investigator: Werner Z. Hirsch

Status of Research and Publications: A first draft was mimeographed in March 1960. In addition a paper was presented to the joint session of the Econometric Society and the Regional Science Association at their 1960 annual meetings, which will be published in the Papers and Proceedings of the Regional Science Association, 1961.

Agency: Washington University(St.Louis), Institute for Urban and Regional Studies.

Previous Digest report: None.

Research Problem. Although vitality and growth of local economics are sought for various reasons, fiscal considerations are often stated to play a decisive role. In the past, apparently the implicit assumption has usually been made that economic expansion means net fiscal benefits to the governmental unit in whose jurisdiction the development takes place.

The literature does not show a single careful conceptual framework that would help test this hypothesis. Thus, an effort has been made to develop a conceptual framework which would help answer the following two questions. 1. "Will a given local industrial development add to or subtract from the net fiscal resources available to a region?" and 2. "Does industrial development increase or decrease the ultimate money burden of taxes for people in the region, while their services remain at the existing level?"

In order to shed light on these two questions two concepts have been developed--a region's net fiscal resources status and a region's final fiscal residuum. A model has been constructed to relate local industrial development to a region's net fiscal resources. In addition, fiscal resources are linked to fiscal residuum. Finally, a set of mathematical equations have been derived for the net fiscal resources concept. (WZH)

72. THE DEVELOPMENT AND CONTROL OF LAND USES IN THE VICINITY OF FREEWAY INTERCHANGES

Main Investigators: Edgar M. Horwood, University of Washington; William L. Garrison, Northwestern University; Duane F. Marble, University of Pennsylvania

Status of Research and Publications: Collection of data complete. Analysis of data virtually complete. Research presently in write-up stage. Mimeographed report in preparation for delivery to sponsor May 1. Publication expected in the fall of the third volume of a series by the University of Washington Press (preceding two volumes are: Studies of the Central Business District and Urban

Free Development by Horwood and Boyce, and Studies of Highway Development and Geographic Change by Garrison, et al.) Preliminary findings presented in papers by Marble, Garrison, Horwood, Rogers and Graves in Session No. 22, Symposium on Land Use and Development at Highway Interchanges, 40th Annual Meeting, Highway Research Board, January 1961.

Agency: United States Department of Commerce, Bureau of Public Roads.

Previous Digest report: 7:1-25.

Research Problem. To identify the land uses competing for space in approach areas to interchanges, the congestion caused by such land uses, the adequacy of present land use controls and the possibilities of future controls in these areas.

Previous Relevant Research. Work by Garrison and Horwood et all, see above.

Hypotheses. Market processes determine the allocation of land uses to a far greater extent than local planning policy. In large urban areas there is a dirth of land in freeway approach zones for traffic-intensive commercial and industrial uses. The effective control of land uses in the vicinity of freeway interchanges to reduce congestion will probably involve eminent domain controls such as the acquisition of development rights or access rights. However, removal of traffic intensive land uses from locations in the vicinity of freeway interchanges may not be necessarily desirable from the standpoint of social benefits and costs.

Method of Study. Collection of data from sample cities on effectiveness of local police power controls over land. Determination of needs of through travelers by reviewing experience records of oil companies. Collection of data from sampled industrial cities leading to findings on the rate of land use take-up for industrial uses. Development of multipliers from the preceding data to predict future demands for traffic intensive land uses.

Major Findings. Hypotheses assumed are essentially true. (EMH)

73. STUDIES IN SUBURBAN DEVELOPMENT

Main Investigator: Myer R. Wolfe

Status of Research and Publications; Two preliminary interim reports titled, "The Consumer - Suburban Subdivision Resident: Questionnaire Response Analysis - Locational and Satisfaction Inquiry", and "Financial Institutions and

Suburban Development: An Exploratory Study", submitted in mineographed form to the sponsors. Companion studies as follows in process: (1) Suburban Apartment Dweller - Locational and Satisfaction Inquiry; (2) The Locational and Physical Development Rationale of Land Developers, Realtors, Builders and Physical Designers; (3) The Influence of Public Regulatory Measures on Suburban Development; (4) Large Tract Ownership Assembly and Disassembly; and (5) Historical Subdivision Platting Patterns and Locational Relationships.

Agency: University of Washington(Seattle), College of Architecture and Urban Planning, under sponsorship of Weyerhauser Company.

Previous Digest report: 7:2-60.

BRIEF MENTION

GENERAL URBAN AND REGIONAL ANALYSIS

Regional Science Association

An international meeting of the Regional Science Association will be held September 4-7, 1961 at the Institute of Social Studies, 27 Molenstraat, The Hague, Holland, according to a newsletter recently circulated by Walter Isard. For the most part, papers will be given by European scholars, since this meeting was primarily arranged at their request to make it possible for them to report on their research and to learn first hand about regional research being conducted elsewhere.

Following these meetings, the RSA will have joint sessions from September 7-9 with the Commission on Methods of Economic Regionalization of the International Geographical Union.

Meanwhile, the Association is moving ahead with the formation of regional sections in the United States, and of national sections for different countries of the world. Formation of a Western Division in the United States was to be taken up at the first Western meetings, March 30-April 1, 1961, in Las Vegas, Nevada which was to hear a series of papers dealing with regional problems in resource development, regional development planning, and selected regional topics. Maurice de Young of the University of Nevada, Southern Regional Division, at Las Vegas, was chairman of the arrangements.

Committee on Regional Accounts

The Committee on Regional Accounts met late in January in Washington, D. C. and decided to hold its second Conference on Regional Accounts in October 1962. The Conference will address itself to the general topic of "design of Regional Accounts."

A total of eight papers will be prepared plus papers for a panel on "An Accounts Framework." In addition to the panel the tentative program looks as follows--

A. Regional Economic Growth

1. Monitoring economic growth

2. Data for a national and local view of regional economic growth

B. Intra-Metropolitan Change

3. From intra-metropolitan conceptual models to intra-metropolitan accounts

4. Data for intra-metropolitan accounts

C. Public Services

5. Public finance as an integral part of regional accounts

6. Data for the public finance sub-account

D. Human Resources

7. The human resources element in regional accounts

8. Data for the human resources element in regional accounts

Preliminary drafts of the papers will be discussed at a seminar to be held in October 1961. Dr. Hirsch also reports that the proceedings of the first conference (see Research Digest, Vol. 7 No. 2 page 53) are about ready to go to press.

The Committee would greatly appreciate receiving comments and suggestions. Correspondence should be directed to its chairman, Werner Z. Hirsch, Director, Institute for Urban and Regional Studies, Faculty Box 181, Washington University, St. Louis, Missouri.

Twentieth Century Fund Study of Megalopolis

An inquiry by the Digest to the Twentieth Century Fund concerning Professor Gottmann's study of Megalopolis has elicited the following response from John E. Booth, Education Associate of the Fund.

"In response to your letter, it is a pleasure to report that the Twentieth Century Fund study on Megalopolis, under the direction of Jean Gottmann, is now virtually completed and will be published in the fall. This study will explore the implications of Megalopolis--that continuous stretch of cities and suburban areas reaching from north of Boston to south of Washington, D. C. --as one of the major changes in land uses in world history and as a striking expression of the rapid shifts in patterns of living that are now developing in our system. It will also explore something of the implications of these changes for methods of government, political organization and taxation.

"Mr. Gottmann is a French scholar and a geographer of international repute and has been recently a member of the Institute for Advanced Study, Princeton. Mr. Gottmann has made other regional surveys in the United States and is the author of 'A Geography of Europe' and 'Virginia at Mid-Century.'"

Urbanization in the Missouri River Basin Area

Two of the three meetings of an inter-university seminar on Urbanization in the Missouri River Basin area planned for the academic year 1960-1961 have already been held, according to news notes appearing in Metropolitan Area Problems: News and Digest for November-December 1960 and January-February 1961. Both meetings were held at the University of Kansas. The first meeting, in October, considered community power structure and decision-making; demographic characteristics of the region; and continuing research. European experience in planning, as well as further aspects of research in the Midwest were taken up at the second meeting, in February.

Financed by a three-year grant from the Ford Foundation, beginning in 1958, the Seminar is an attempt by eleven midwestern universities to promote among the schools, located in North and South Dakota, Nebraska, Colorado, Missouri and Iowa, and among a wide range of disciplines, cooperative research work and an interchange of ideas and information concerning the effects of urbanization in the Missouri Basin. The research program is directed along three lines, synthesizing and distributing research work of participating universities, extending demographic information by analyzing results of the 1960 census on a county-to-county basis, and developing a design for studying the effects of urbanization on areas and populations considered non-urban in nature.

Institute for Urban and Regional Studies, Washington University (St. Louis)

Washington University, of St. Louis, Missouri, recognizing the importance of better understanding urban society, has established an Institute for Urban and Regional Studies. The main objective of the Institute is to make significant contributions to the knowledge and understanding of urban life and form, and to develop intellectual talent which can play a creative role in meeting the manifold opportunities and challenges of urban society. Participating in the program of the Institute are the Social Science Departments, The School of Architecture, The School of Social Work, The Business School, The Law School and The School of Engineering. Werner Z. Hirsch has been appointed Director of the Institute.

The Institute will rely on a combined research-training-public service approach. The five areas on which the Institute will initially focus its attention are: theory of urban development;

the Negro in a rapidly urbanizing society; philosophy and methodology of urban planning (with special application to urban renewal); local urban government and politics; and methods for collecting and utilizing urban and regional information.

A number of studies have already been initiated and others are in the final planning stage. Among them are regional accounts; spillover of public education costs and benefit; a comparative study of careers; values and urbanization; and the role of design professionals in urban development processes.

The Institute has begun to develop an integrated inter-departmental curriculum in urban and regional studies. Students are encouraged to major in any one of a number of departments and schools participating in the urban studies program. While the student will seek a M.S. or M.A. or Ph.D. degree in the department of his choice, he will be able to specialize in urban studies.

Finally, the Institute will aim to make contributions to the community at large on subjects of general relevance as well as those of local interest and importance. However, this obligation is in contrast to the activities in research and teaching which must transcend the local scene.

Program of Research and Training in Urban Affairs, University of Illinois

The Ford Foundation has granted $125,000 to the University of Illinois for a three-year experimental research and training program in urban affairs.

The long-range goal of this grant is to enable the University to develop techniques whereby it can serve Illinois urban areas as it has traditionally served Illinois agriculture. This will involve (1) a study of possible University services to urban areas; (2) the training of "urban generalists" --individuals from a variety of fields who have a comprehensive understanding of urban affairs--to carry out these services; and (3) experimental programs in selected Illinois metropolitan areas, each of which will be assigned a staff member to study urban development problems.

An Office of Community Development has been created by the University to administer this grant. Under the chairmanship of Professor Louis B. Wetmore, Director of the Bureau of Community Planning, and head of the Department of City Planning and Landscape Architecture, a University committee with representatives from the Agriculture Extension Service, Executive Development Center, Division of University Extension, and the Institute of Government and Public Affairs is presently organizing and planning activities and research to be undertaken by this new Office.

In addition to recognizing the University's potential to serve urban areas, the development of the "urban generalist" is a unique concept embodied in this grant. These people, drawn from fields such as city planning, economics, and political science, will contribute the perspective of their specialized areas in a coordinated, multi-disciplinary approach to the whole range of urban problems. Previous grants with a similar purpose have been made to Rutgers University and the University of Wisconsin.

METROPOLITAN AREAS

United Nations Committee of Experts on Metropolitan Areas

Preparation of an expert report outlining suitable approaches to the problems of metropolitan planning and development is the objective of a current project of the Housing, Building and Planning Branch of the United Nations Bureau of Social Affairs, according to an aide-memoire furnished to the Research Digest by Ernest Weissmann, Assistant Director of the Bureau. Present plans call for a meeting of nine experts to be held in Stockholm in the fall of this year, hosted by the Government of Sweden, to consider a series of prepared papers. Topics to be considered include the economic functions of the metropolis in relation to the total national economy; the balance between social and economic investments in metropolitan regions and the balance between investments in these regions and the rest of the national territory; the physical components, of metropolitan regions, such as industrial, agricultural, residential, social and cultural uses, transport and communications, power supply and distribution, and other utility networks; and finally, administrative mechanisms and techniques for implementing metropolitan planning policy.

Official participation will be limited to the experts designated, together with representatives of the UN Bureaus of Social Affairs and Technical Assistance Operations and the Economic Commission for Europe. However, interested specialized world agencies, national governments and international and national non-governmental organizations will be permitted to send observers and to submit papers if they so desire.

Following the seminar, the committee of experts will prepare a document to be submitted to the Social Commission of the United Nations for consideration and appropriate action. It is anticipated that the report will be analagous to the earlier expert report "Integrated River Basin Development" published by the United Nations in 1958.

Metropolitan Area Studies, Advisory Commission on Intergovernmental Relations

Established by Congress by Public Law 86-380, approved September 24, 1959, the Advisory Commission on Intergovernmental Relations is a permanent, bi-partisan body of twenty-six members directed to give continuing study to the relationships among local, State and National levels of government. In accordance with the terms of its enabling Act, three of its members come from the executive branch of the Federal government; three from the U.S. Senate and three from the House of Representatives; four are governors, four mayors, three county officials and three state legislators; and finally, three are private citizens. Chairman of the Commission is Frank Bane. Executive director is William G. Colman. Headquarters are at 722 Jackson Place, N.W., Washington, D. C.

Details of the Commission's current study program are found in its Second Annual Report, issued in January 1961, a copy of which has been sent to the Digest by Mr. Colman. In general, the Commission conceives of its work as falling within three general areas: (a) taxation and public finance; (b) the structure and operation of State and local governments, including their relationships with each other and with the Federal government, and (c) the emerging intergovernmental problems of the large metropolitan areas. Within this framework, some fifteen topics have been selected for study, which are in varying stages of completion.

While all of the Commission's studies are of potential interest to persons in the planning field, two are of special interest. These are a first study of intergovernmental relations and responsibilities with respect to mass transportation facilities and services in metropolitan areas, and second, a study of possible measures by state and national governments to facilitate metropolitan area planning and development. A third area of interest of the Commission, dealing with economic data regarding metropolitan areas, is reported on elsewhere in this issue of the Digest. (See Brief Mention, Federal Statistics for Local Areas.)

With respect to the mass transportation study, the Second Annual Report gives the following summary:

"Ways and means of preserving and strengthening commuter transportation facilities in major metropolitan areas are essential if the economic and social health of such areas is to be maintained. Continued abandonment of railroad passenger service has jeopardized many rapid transit systems and has thrown an increasingly severe burden on other forms of commuter transportation, chiefly the already overcrowded highways. A principal factor in the current breakdown of commuter transportation--especially railroad commuter facilities--has been the overlapping jurisdiction of Federal, State, county and local governments in the field of transit regulation, taxation, etc., and the failure of these various levels of government to coordinate their activities insofar as they affect commuter service, including the uncoordinated use of subsidies and taxing powers with respect to competing forms of transporation.

The Institute of Public Administration in New York has undertaken a study of this problem for the Commission. The study is directed to the development of possible measures which can be taken by the respective levels of government--principally the States and the National Government--to ameliorate the current intergovernmental complexities which stand as a barrier to the development of integrated and balanced transportation plans and facilities in the metropolitan areas. The Commission hopes to issue a report on this subject in the early summer of 1961."

With respect to the metropolitan area planning and development, the same document reports as follows:

"As mentioned earlier, the Commission believes that the emerging intergovernmental problems of the large metropolitan areas constitute a highly important and urgent segment of the Commission's activities. In addition to addressing itself to the specific problem of mass transportation in metropolitan areas as described earlier, some of the more general aspects of Federal-State-local relationships in these large urban areas will be examined. The Commission will give particular attention at this time to the role of the National Government and to possible additional measures the National Government could take to facilitate intergovernmental relationships in those areas."

Penjerdel's Research Program

"A Program of Research for Penjerdel" is the title of a November 1960 report recently made available to the Digest by John W. Bodine, president and executive director. Penjerdel is a Ford Foundation sponsored eleven-county three-state study organization in the Philadelphia Metropolitan area. Based on several months of deliberation by a Research Advisory Committee, together with a Research Committee of the Board of Directors, the report indicates the scope and content of the study program to be sponsored by Penjerdel either as "designated" or as "autonomous" research.

The designated research program, arrived at through consideration of certain urgent, practical problems of the Penjerdel region, lists twenty projects in eight broad areas: economic problems, transportation, government, health and welfare, educational and cultural activities, open space, waste disposal, and water. Included are studies of opportunities for unskilled and semi-skilled workers; the functions of central urban areas; industrial and business development and migration; port development, with reference to freight movement, storage and handling; air transportation; local government revenues and expenditures; allocation of functions among levels of government; governmental influences on land development; clean air; local public health services; acculturation and assimilation of in-migrants; the cultural life of the metropolitan region; library services; education beyond the high school; the place of agriculture in regional life; open space, with special reference to administrative and financial problems; refuse disposal; sewage collection, treatment and disposal; drainage and erosion; and water distribution.

While not overlooking the possibilities of contributions to theory, persons working on these studies will be asked to concentrate on specific, immediate problems, inventing and evaluating alternative solutions for submission by Penjerdel to the community.

With respect to autonomous research, the report sets forth a framework which, it is hoped, will suggest other studies which investigators will want to undertake. Here the scholar will be asked to define his own preferred area of inquiry, with emphasis on inventing and testing of hypotheses, and exploring new methods for analyzing and understanding metropolitan data. This framework has two phases. In general, the first phase covers forces which are at work in the region - economic, social and demographic - which are likely to generate issues requiring the attention of citizens and policy-makers, together with some of the problems inherent in handling regional issues, such as the social characteristics and present problem-solving capacity of the region, and evaluation of the consequences, both intended and unintended, of present public policies. The second phase deals with changes in institutions and processes required to cope with regional issues.

Offices of Penjerdel are at 1500 Walnut Street, Philadelphia 2, Pennsylvania.

TRANSPORTATION

Urban Land Use Models, Automotive Safety Foundation and Others

"I think it would be worthwhile to include a paragraph in the Research Digest covering the work related to land use models that has been conducted during the past year" writes Alan M. Voorhees, Traffic Planning Engineer of the Traffic Engineering Division of the Automotive Safety Foundation.

"These studies, which were conducted in ten American cities, were carried out in Hartford, Baltimore, Washington and a group of Iowa cities including Des Moines, Sioux City, Council Bluffs, Waterloo, Cedar Rapids, Dubuque and Davenport. In most cases these studies were carried out in conjunction with the state highway department and the local planning agency. Usually the data was more prepared by the planning commission and the analysis was carried out by state highway departments."

"This work has been reported in various publications prepared by the jurisdictions involved. A summary of the findings was recently prepared and presented at the Highway Research Board Annual Meeting, January 1961, Development Patterns in American Cities."

Three Studies, University of Kentucky

A letter from James W. Martin, Director of the Bureau of Business Research, University of Kentucky, comments briefly on three studies of the Bureau in the field of transportation.

"Two currently published studies concern the economic impact of the Louisville Watterson Expressway and of the Lexington Northern Belt Line. We do not report them as they have not, I think, been previously abstracted in your Research Digest," writes Dr. Martin.

"A new project--not far enough along to digest--will reflect a search for means of predicting the posture of demand near interstate highways for road-user services such as gasoline stations, restaurants, and motels. This seems to me to be in line with your interests."

OTHER

Federal Statistics for Local Areas

A sixty page document entitled "An Inventory of Federal Statistics for Standard Metropolitan Statistical Areas, Counties and Cities" was issued in January 1961 by the Federal Bureau of the Budget. This document was a direct outcome of a meeting of Federal statistical officials called by the Advisory Commission on Intergovernmental Relations early in December 1960. The Advisory Commission's interest, in turn, was stimulated by recommendations appearing in the policy statement "Guiding Metropolitan Growth," issued in August 1960, by the Committee for Economic Development.

The inventory is a listing of the principal statistical reports, of the various Federal agencies, with data classified geographically. To the extent deemed appropriate, it will be revised from time to time to assure as complete coverage of this type of information as possible. All inquiries relative to reports included in the inventory, notes the Bureau of the Budget, should be directed to the agency under which the report is listed.

A second meeting to discuss the subject of statistics for metropolitan areas, again under the sponsorship of the Advisory Commission on Intergovernmental Relations, and including, this time, state and local officials as well as some private scholars, was to be held in Washington March 10. Further information on the outcome of this meeting was not available as this issue of the Digest went to press.

Personal Income Data for Local Areas

Availability of personal income data for local areas will be covered in a forthcoming publication of the Office of Distribution, Business and Defense Services Administration, U. S. Department of Commerce, according to Harry W. Ketchum, Director. The document will not publish the actual data, but will indicate the availability of such data at the national, regional, state and local levels, and will include some illustrative material on the methodology of analyses of such data for marketing purposes.

Meanwhile, with respect to the estimates of personal income for standard metropolitan statistical areas to be prepared eventually by the Department itself, Robert E. Graham, Jr., of the Office of Business Economics National Income Division reports as follows:

> "We have as yet done no work on estimating personal income in metropolitan areas. As you know, we are quite interested in this phase of income measurement, but other projects presently have higher priority. Moreover, the basic tabulations to be provided by the Internal Revenue Service are not scheduled for completion until this fall. The timing of the availability of the tax data, alone, precludes the possibility of starting work on two sizable segments of the project -- business and professional incomes and property income -- for some time yet."

Statistics on Colorado Counties

Statistical reports are being prepared on each of Colorado's 63 counties, approximately half of which have been completed and published, according to L. J. Crampton, Director of the University of Colorado's Bureau of Business Research. The reports are part of an attempt to assist in the orderly economic development of various parts of the state, and have been undertaken for the Division of Resources and Community Development of the Colorado State Department of Employment. Essentially a compilation of statistical information and maps, they do not contain any analysis.

Land Use in Oregon Cities

As the state agency designated to provide planning assistance to cities, counties and regional planning agencies in Oregon, the Bureau of Municipal Research and Service of the University of Oregon has prepared a number of planning reports under its planning assistance program, according to Donald N. Johnson, Associate Director in charge of the program. A research project, summarizing and analyzing land use information originally compiled during the course of planning studies made from 1957 to 1960 has recently been completed and published as Planning Bulletin Number 2, Land Use in 33 Oregon Cities.

Four Studies, University of Maryland

John H. Cover, Director of the Bureau of Business and Economic Research of the University of Maryland, recently wrote to the Research Digest indicating that his Bureau was planning to issue in March of this year a study entitled "Predicting Population Changes in Small Areas." (Volume 14, No. 4, Studies in Business and Economics.) Other studies underway, to be published at later dates, include one dealing with the economic need for open spaces in Maryland and governmental powers; another dealing with water needs, supplies and control in the down-river Potomac; and a third dealing with the seafood industry of the Chesapeake Bay Area.

Bibliographies of Metropolitan Area Studies

The attention of readers of the Digest is called to a publication of the Conference on Metropolitan Area Problems entitled "Metropolitan Surveys Now in Progress" issued as a supplement to Metropolitan Area Problems, News and Digest, Volume III No. 6, November-December, 1960. This publication contains a listing of statewide, regional and local study groups and studies in twenty-eight states, the District of Columbia and Canada, together with eight additional studies or study groups having a national orientation. Headquarters of CMAP is in the Institute of Public Administration at 684 Park Avenue, New York 21, New York.

A list of publications concerned with metropolitan problems by staff members or under the auspices of the Institute during the period 1955-1961 has also been prepared and can be obtained from Audrey M. Davies, Librarian.

RESEARCH DIGEST

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University of Illinois
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Scott Keyes, Editor

EDITOR'S NOTES

This issue continues the effort to expand and improve the Digest's coverage of current urban and regional research. A special effort has been made to obtain reports on projects sponsored by the Bureau of Public Roads, the Housing and Home Finance Agency, and the Ford Foundation. Also, a follow up wa made on projects previously reported in the Digest, which has resulted in an increased number of current status reports. With the permission of Resources for the Future, Inc., we have included a special article by Lowdon Wingo, Jr. on intrametropolitan models which is believed to be the kind of summary vi of a particular subject area which the Digest should attempt to provide its readers from time to time. Finally, an index of both issues of Volume 8 has been included. Together with the cumulative index of the first seven volumes which was mailed to readers earlier this year, this brings the indexing of the Digest up to date.

Because of this increased coverage, production costs have, of course, gone up. For the time being, an attempt is being made to hold the subscription rate at $2.00 per year. To this end, an increase in income through a modest increase in circulation, as well as the sale of available back issues, would be helpful, and any assistance which can be given by our readers in this regard will be appreciated. A list of back issues still available will be found on the back cover.

I wish to thank John Fondersmith, graduate assistant, for his fine help in putting this issue together. (SK)

CONTENTS

Page

SPECIAL ARTICLE

A Summary Report on the RFF-CUE Seminar on Intrametropolitan Models. Lowdon Wingo, Jr. 1

CURRENT RESEARCH PROJECTS

AMERICAN PUBLIC WORKS ASSOCIATION RESEARCH FOUNDATION

1. Research Needs in the Field of Public Works. . 14

ANTIOCH COLLEGE

2. Dayton Metropolitan Urban Study 15

FEDERAL RESERVE BANK OF BOSTON

3. Economic Impact of a Defense Installation upon the Surrounding Communities 16

UNIVERSITY OF BRITISH COLUMBIA

Department of Community and Regional Planning

4. Performance Standards for Space and Site Planning 17

BROOKINGS INSTITUTION

5. Housing for the Elderly 18

6. Application of Social Science Research in the Development of Federal Housing Legislation 18

UNIVERSITY OF CALIFORNIA (BERKELEY)

Department of City and Regional Planning

7. Urban Renewal Problems and Programs in California and Other Western States 19

UNIVERSITY OF CALIFORNIA (LOS ANGELES)

Graduate School of Business Administration

8. Demand for Outdoor Recreational Facilities Generated by the Growth of Los Angeles. . . . 19

9. Junior Mortgage Financing in Los Angeles County 19

10. Residential Construction and Financing in Several Metropolitan Areas 21

CASE INSTITUTE OF TECHNOLOGY

Engineering Division

11. Electoral Behaviour on Referendum Voting. . . 21

12. A Metropolitan Survey: Case Study of the Cleveland Metropolitan Services Commission 22

CHICAGO AREA TRANSPORTATION SURVEY

13. A Method for Determining the Optimal Division of Express and Local Rail Transit Service 22

COMMUNITY CONSERVATION BOARD OF CHICAGO

14. The Homeless Man on Skid Row. 23

UNIVERSITY OF CHICAGO

Department of Geography

15. Comparative Studies of Central Places 24

CLARK UNIVERSITY

Graduate School of Geography

16. An Investigation of the Effects of Freeways on Central Business Districts. 24

CORNELL UNIVERSITY

Housing Research Center

17. Home Buying and Financing in Upstate New York. 25

18. Housing Needs of the Aged 26

GEORGIA STATE COLLEGE

Bureau of Business and Economic Research

19. The Urban Transportation Dilemma. 27

UNIVERSITY OF ILLINOIS

Bureau of Community Planning

20. A study of the Linkage Pattern Between a Central City and the Communities Within Its Region of Influence 27

21. Organization for State Highway and Urban Planning Liaison. 28

22. County Income Study 30

23. Metropolitan Areal Expansion. 30

Department of City Planning and Landscape Architecture

24. Residential Densities and Housing Projects in European Cities 31

Department of Marketing

25. Mathematical Delineation of Retail Trade Areas: A Study of Procedural Problems and an Analysis of Three Formulae 32

26. The Adjustment of Retail Trade to Metropolitan Markets. 32

Institute of Government and Public Affairs

27. Mapping the Political Characteristics of Medium Size Metropolitan Areas. 34

JOINT CENTER FOR URBAN STUDIES OF M.I.T. AND HARVARD UNIVERSITY

28. Intellectual Attitudes Toward the City. . . . 35

29. Suburban Development. 35

30. Urban Transportation. 36

31. Venezuela Project 36

32. Interdependence of Transportation and Land Use Planning 37

COMMONWEALTH OF KENTUCKY, DEPARTMENT OF ECONOMIC DEVELOPMENT

33. Kentucky Urban Renewal Demonstration Project 37

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Department of Civil and Sanitary Engineering

34. Urban Area Transportation Demand. 39

35. Application of Simulation to Traffic Design 39

SOUTHEASTERN MICHIGAN METROPOLITAN COMMUNITY RESEARCH CORPORATION

36. Per Pupil Valuation: The Comparative Tax Resources and Expenditures of Southeastern Michigan's School Districts 40

37. Comparative Study of the Services of Local Government 40

38. The Potential Impact of Constitutional Revision upon Michigan Counties and Townships 41

39. Constitutional Revision 42

40. A Six County Overall Economic Development Program 42

41. A Proposal for a Six-County Community Development-Redevelopment Program 42

UNIVERSITY OF MICHIGAN

School of Natural Resources

42. Spatial and Other Requirements of Urban Communications Systems 43

MICHIGAN STATE UNIVERSITY

Department of Urban Planning and Landscape Architecture

43. The Effect of By-Pass Highways Upon Retail Business 44

MIDWEST RESEARCH INSTITUTE

44. Application of Computer Simulation Techniques to Interchange Design Problems. 44

UNIVERSITY OF MINNESOTA AND OTHERS

45. Upper Midwest Economic Study. 45

46. Migration in the Upper Midwest Region 46

47. Labor Force in the Upper Midwest Region . . . 47

48. Impact of the St. Lawrence Seaway on the Upper Midwest Region. 47

49. The Electronics Industry. 47

50. Recreation Resources in the Upper Midwest Region. 48

51. Forest Products in Montana. 48

52. Oahe Water Development. 49

53. Agricultural Economy of the Upper Midwest Region 49

54. Beef Cattle Feeding in the Northern Great Plains 49

55. Meat Production and Distribution 49

56. Farm Size in the Red River Valley 50

57. Local Government Expenditure Patterns 50

58. Location of Retailing in South Dakota 51

59. Competitive Advantage in the Upper Midwest Region 51

60. Upper Midwest Markets 51

61. Personal Income in the Upper Midwest 52

62. Employment and Wages in the Upper Midwest Region. 52

63. Impact of Government in the Upper Midwest Region. 53

64. Action Policy Compendium for the Upper Midwest Region. 53

65. Urban Migration in the Upper Midwest Region. 54

66. Urban Fringe Areas in the Upper Midwest Region 55

MUNICIPAL FINANCE OFFICERS ASSOCIATION

67. A Manual of Procedures for the Operating and Capital Budget Processes in Local Governments and a Study of the Feasibility of Comparative Measurements 55

NATIONAL ASSOCIATION OF HOUSING AND REDEVELOPMENT OFFICIALS

68. Urban Renewal in the United States: Its Problems and Prospects 57

NATIONAL PLANNING ASSOCIATION

69. State Economic Projections 57

UNIVERSITY OF NEBRASKA

Bureau of Business Research

70. Methods for Estimating the Number of Business Concerns in a State by Location and Type. 57

STATE OF NEW JERSEY, DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

71. New Jersey Urban Renewal Survey 58

STATE OF NEW YORK, DIVISION OF HOUSING AND COMMUNITY RENEWAL

72. Transient Housing Study 59

UNIVERSITY OF NORTH CAROLINA

Institute of Government

73. Municipal Cost-Revenue Research in the United States 61

Institute for Research in Social Science

74. A Pilot Investigation of Determinants of Land Development. 61

75. Socio-Cultural Adaptations of Newcomers to Cities in the Piedmont Industrial Crescent 61

NORTHWESTERN UNIVERSITY

Transportation Center

76. The Nature and Measurement of Highway Benefits: An Analytical Framework 63

77. Transportation Theory and Prediction 63

UNIVERSITY OF OREGON

Bureau of Municipal Research and Service

78. Industry and Transportation Study, Eugene-Springfield Area 64

PENJERDEL AND OTHERS

79. Research Design for an Area Data Service in the Penjerdel Region 65

80. The Preservation of Open Space in Metropolitan Areas: An Analysis of Legal Problems and Some Legislative Proposals. . . 65

81. Research Design for Investigation of the Future Labor Force Supply and Demand in the Penjerdel Region 66

82. The General Pattern of Local Government in the Penjerdel Region. 66

83. The Feasibility of Maintaining Open Space Through Part-Time Farming in the Penjerdel Region 67

UNIVERSITY OF PENNSYLVANIA

Institute for Urban Studies

84. The Housing Market and Urban Renewal 67

Population Research Center

85. Migration and Urbanization in the United States, with Special Reference to Recent Trends 68

Regional Science Research Institute

86. Stochastic Models of Travel Behaviour 69

REDEVELOPMENT AUTHORITY OF THE CITY OF PHILADELPHIA

87. New Residential Construction in Rehabilitation Neighborhoods. 70

PITTSBURGH REGIONAL PLANNING ASSOCIATION

88. Economic Study of the Pittsburgh Region . . . 71

URBAN REDEVELOPMENT AUTHORITY OF PITTSBURGH

89. A Study to Develop Techniques for the Physical Coordination of Community Improvements and Urban Renewal in the Pittsburgh Area 71

INSTITUTE OF PUBLIC ADMINISTRATION

90. National Transportation Study 73

TEMPLE UNIVERSITY

91. Financial Programs for Lower Middle Income Housing. 74

TEXAS AGRICULTURAL AND MECHANICAL COLLEGE

Texas Transportation Institute

92. Texas Economic Study. 74

UNITED STATES GOVERNMENT

Advisory Commission on Intergovernmental Relations

93. Intergovernmental Responsibilities for Mass Transportation Facilities and Services in Metropolitan Areas 75

94. Governmental Structure, Organization and Planning in Metropolitan Areas. 76

Department of Commerce, Bureau of Public Roads

95. Highway Finance and Taxation Studies 77

96. Highway Program Planning 77

97. Motor Vehicle Use and Ownership Characteristics 78

98. Land Use Control Research 79

99. Transportation Economics and Engineering Economy Studies 80

U. S. Study Commission, Southeast River Basins

100. Southeast River Basins Study. 80

WASHINGTON UNIVERSITY (ST. LOUIS)

Department of Economics

101. Value of Human Capital as a Regional or Community Welfare Index 81

Meramec Basin Project

102. Meramec Basin Study 81

UNIVERSITY OF WASHINGTON (SEATTLE)

College of Architecture and Urban Planning

103. Locational Factors Involved in Suburban Development 81

Department of Geography

104. A Theoretical and Empirical Inquiry into the Spatial Structure of Retail Activities. . 83

UNIVERSITY OF KENTUCKY

105. Identification and Measurement of Demand for Highway Users 84

UNITED STATES GOVERNMENT

Department of Commerce, Bureau of Public Roads

106. Factors Affecting Transit Use 85

107. Traffic Usage of Major Highway Improvements . 86

BRIEF MENTION

GENERAL URBAN AND REGIONAL ANALYSIS

India's Urban Future 88

Planning Research in Great Britain 88

RIVER BASINS AND WATER RESOURCES

Delaware River Basin Study 88

Wabash Valley Seminar 89

Chicago Area Flood Hazard Mapping Projects 90

METROPOLITAN AREAS

Calcutta Project 90

United Nations Report on Metropolitan Area Planning and Development 90

TRANSPORTATION

Los Angeles Transportation Study 91

Transportation Statistics Needs 92

HOUSING AND URBAN RENEWAL

National Program of Research in Housing and Urban Development 93

RECREATION AND OPEN SPACE

Northeastern Recreation Study 94

Private Recreational Land Holdings 94

OTHER

Planning Education in Latin America 95

City Area Maps 95

City Annexation Date 96

1960 Census Data Small-Area Data Available on Magnetic Tape 97

OTHER (continued)

Recent Actions and Current Work Program of the Advisory Commission on Intergovernmental Relations 96

INDEX TO VOLUME 8

Subject Index 99

Geographical Index 115

Author Index 122

A SUMMARY REPORT ON THE RFF-CUE SEMINAR ON INTRAMETROPOLITAN MODELS

Lowdon Wingo, Jr.

At its September meeting in St. Louis the Committee on Urban Economics, Resources for the Future, Inc., approved a proposal to bring together a small number of interested researchers to discuss the current state and the future needs of research on the spatial organization of the metropolitan region. This meeting was convened as a working seminar in Washington on April 6, 7 and 8, 1961. The fourteen scholars who were invited to participate fell into two main groups: at the center were researchers developing mathematical models for several large research projects. Supplementing these was another group of researchers whose special backgrounds and involvement in associated problems helped to extend the range and depth of the discussions.[a]

The seminar addressed a threefold purpose: first, to assess the present condition of research and "state of the art" in the construction of intrametropolitan models; second, to isolate the critical problems in theory, method, and data; and third, to develop some sense of what needs to be done to advance research in urban spatial organization. These objectives suggested a loose agenda for the meetings: The first session - the general framework of intrametropolitan model-building and a review of the major model-building projects currently underway; the second, third, and fourth sessions - major substantive and methodological problems which have emerged from current efforts in location theory, behavioral aspects and policy implications; the final session - current needs for complimentary research, for communication, and for the development of new research resources to advance the field.

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[a] Britton Harris and Vladimir Almendinger, Penn-Jersey Transportation Study; Benjamin H. Stevens, Department of Regional Science, University of Pennsylvania; Benjamin Chinitz and Ira C. Lowry, Pittsburgh Economic Study; A. S. Lang, Department of Civil Engineering, Massachusetts Institute of Technology; William L. Garrison and Johannes Schwar, Transportation Center at Northwestern University; J. Douglas Carroll, Jr., Chicago Area Transportation Study; Charles Zwick and William A. Niskanen, Jr., The Rand Corporation; Russell Ackoff, Operations Research Group, The Case Institute of Technology; Brian J. L. Berry, Department of Geography, University of Chicago; Lowdon Wingo, Jr., Committee on Urban Economics, Resources for the Future, Inc.

A. The Current State of Research on Intrametropolitan Models

Britton Harris of the Penn-Jersey Transportation Study presented a paper, Some Problems in the Theory of Inter-urban Location, which discussed the salient features of these models in the light of current research. They have been developed primarily to improve the information inputs for certain kinds of long-range policy decisions - especially in the field of urban transportation - by predicting where in the urban region population and economic activities will be located at some future date. The mechanism is the locational behavior of decision units - households, consumer services, producer activities, and governmental activities - each competing with all others to maximize its locational advantage within the metropolitan area. Each of these decision units, given its special requirements, adopts a pattern of behavior through an appraisal of the crucial features of its environment. The existing distribution of population and activities is a crucial determinant in location decisions of any given unit. The transportation and communication systems create opportunities and disadvantages which not only trigger relocation but circumscribe the new locations which are acceptable. The housing and real estate markets determine the manner in which the competition for space is carried out and, with all of their institutional frictions and lags, will play an important role in shaping the distribution itself. We have some objective concepts on how business activities tend to choose locations, but one of the most difficult problems in these models is understanding and describing the basic characteristics of the locational decisions made by households.

In the actual construction of models to replicate the internal structure of metropolitan regions there are a series of issues which the model builder must resolve. Should the model be based on empirically-derived mathematical generalizations or on theoretical relationships subsequently adjusted to fit the real world? Are we concerned with single-valued, deterministic outputs, or can we utilize stochastic procedures more faithfully for purposes of making policy? Do we want to develop models with built-in, dynamic characteristics, or can we achieve the levels of reliability which we need by the process of successive iteration of basically static models? Do we expect our models to perform some normative function - to identify some kinds of optima - or do we see their outputs as being purely neutral, so that policy is made by choosing among the alternative sets of consequences which the model may develop on the basis of alternative sets of inputs? In short, a reasonably detailed review of the reality involved in the behavior of decision units does not by any means resolve all of the major questions associated with model-building. It is not solely the issue of "truth" which is disturbing, but the question of what facets of reality offer the most useful information for achieving the policy directives we seek. These and many other questions were raised by Mr. Harris's presentation.

Ira C. Lowry, of the Pittsburgh Economic Study, described the major characteristics of the internal model used in the Pittsburgh Study to project the location of economic activities and population within the region. The Pittsburgh model is not based on decision units but on empirical generalizations about the behavior of large activity aggregates in the population. In the first step, special industry studies are used to locate an array of exogenous activities - those locating independently of other local activities - within a net of mile-square tracts. The distribution of households is based upon access to employment, and a "potential model" using relative accessibility distributes households subject to maximum density constraints. Consumer services are located in accordance with the market potential of households, subject to minimum efficient size constraints. Population changes will be introduced in small iterations, each of which will be played through until the model stabilizes; the points of stability will be taken to represent the prediction path.

The Penn-Jersey model described by Vladimir Almendinger is based upon three primary kinds of inputs: one, the locating propensities of decision units; two, the trip-making propensitities of decision units; and three, the transitional probabilities that decision units will change state between iteration periods. In contrast to the Pittsburgh model, the Penn-Jersey model is based fundamentally upon decision units and their behavior, which has led to considerably greater complexity. This model is specifically adapted to answering questions about the effects of alternative transportation programs on the structure of the region, and this purpose has been responsible for many of its special characteristics. There is an implicit assumption in this and similar models that accessibility is an explicit consideration in the locational decision of individuals and firms. Given the complexity of these models, another question is raised about the strategy of research: Should one test out each of the sub-models and adjust it to fit the real world, or should one assemble the total model and test its behavior against the whole world, adjusting not the sub-models but the total model to fit?

William Niskanen described the main characteristics of the Rand Urban Transportation Study. It will develop a model which will not be specific for any city. Its approach will allow for the possibility of strong interdependencies between land use and transportation, even to the point that they are mutually determined. A technical problem is the choice between a simultaneously-determined model, and a recursive model with short iteration periods. In the short-run, location decisions seem to be dominated by the existing patterns of activities. But over longer periods the nature of the fixed capital in place and the expectations of decision units becomes dominant. There are three strategy alternatives: (1) general maximization procedures, such as linear programming; (2) analytical simulation procedures; and (3) Monte Carlo simulation techniques. The present view at Rand is that any over-all model will involve a mix of these approaches. An important part of the allocating process will be a "rent change model" to guide the locational decisions of the community.

In addition to the model the Rand program will push several related fields of research. What are the major factors involved in the choice of transportation mode by consumers? To what extent can current demands on transportation systems be met by adjusting current facilities in the direction of more efficient use? Can the transportation system be used as a basic planning lever? What criteria are relevant in the provision of various kinds of social capital? What are the important characteristics of land demand: we don't really understand the effect of land values on household location, nor do we know a great deal about the gross area requirements for industry and business activities. How can the current and potential transportation modes be catalogued for study of the component transportation costs to permit us to evaluate mixes of modes? Finally, what are the nature and impact of the social costs of the operation of the various modes of transportation?

The Transportation Center at Northwestern is engaged in a series of research projects relating to intrametropolitan models. The role of location theory in the interdependence of urban areas is being investigated. Another study is exploring the problems of replicating residential location. Two problems in urban transportation planning are occupying attention: the relationship of modal choices to the utilization of the transportation system, and decision criteria in transportation route decisions. Finally, study of the location of truck terminals in the Chicago area is underway in which it appears that linear programming is not useful because of the importance of agglomeration and other external economies.

In general, these models employ a variety of approaches. The concern with decision units in Penn-Jersey contrasts with a focus on the empirically-defined activity aggregates in the Pittsburgh model. The Pittsburgh model does not concern itself with any rent-change mechanism, while the Rand study considers it an essential allocating process. While Penn-Jersey employs a linear programming format in many of its sub-models, the Rand study leans more heavily on stochastic replications. There are no "standard operating procedures" in this field, and at this stage inventiveness and imagination are proliferating the kinds of choices which model builders face in the current projects.

B. Location Theory in Intrametropolitan Models - Summary of Discussion

To the extent that classical location theory deals with transport-oriented industries, it appears to explain a great deal about industrial location - especially for large industries - at the macro level, but not at the micro level. Several factors seem to compromise the role of transportation:

1. the external economies associated with agglomeration, including community facilities, the human resources of the community, and the basic amenities of the region;

2. access to labor force;

3. the size of the sites, especially given the tendency toward raising the ratio of land to plant area;

4. public policy, such as tax differentiation among component areas of the region;

5. relation of location to the central business district;

6. the cost of site (this is the reverse of the position taken by location theory).

To develop a model which will locate these industries involves serious conceptual difficulties. Linear programming has not been very helpful at the local level, although the fault may not be with location theory itself, but with the manner in which it is translated into the model. At any rate, at some point in the scale there will tend to be a convergence between the dominant factors which appear relevant to both the micro and macro levels.

Other factors associated with the siting of industry involve the relationship of a location to new investment required and the social costs entailed. The cost of land appears to be a critical factor, and this involves the competition of all activities for the site, so that the problem of industry location probably cannot be solved without solving the whole model - to allow rent to enter the calculations brings in the whole land market.

One of the problems, of course, is that the quality of "fewness" precludes the application of probability theory.

At the gross level, cost characteristics are important and inter-regional factors are comparatively unimportant in the siting of industries. We may need a completely new theory to explain spatial allocation, and we may have to give up trying to sustain an allocation through the rent system, but as long as one embraces the rent system, some effort must be made to modify it for speculative effects.

The location of tertiary activities is dominated by the consumer orientation of the component activities: several groups tend to behave similarly.

1. the central business district activities. These may be really exogenous and based on the region as a whole rather than the local area;

2. neighborhood types of retailing and servicing are important. These activities look to a specific and well-established residential market;

3. more specialized activities such as automobile row tend to segregate themselves in various parts of the metropolitan area;

4. some household services do not involve trips from the dwelling to the service but rather of a serviceman from the place of business to the household;

5. there is a special set of service activities which are oriented to the highway.

The appropriate typology will depend upon the level of disaggregation that one uses and the amount of detail which is pertinent. The really difficult problem in the locational behavior of tertiary activities stems from the role of the external economies resulting from the aggregation of these activities. In short, classification is useful simply because the locational behavior of different kinds of tertiary activities varies considerably, and these differences underly the basic distribution of tertiary activities within the metropolitan area.

There are, thus, serious location problems at both ends of the array of activities. We have not yet developed a very useful technique of laying down large, "basic" industries whose location does not depend upon a local market. At the other extreme, although we have the market area format and the basis for prediction, the problems of agglomeration and external economies are still largely unsolved for tertiary activities.

C. Behavioral Implications in Intrametropolitan Models

The locational behavior of households cannot be well understood without some reference to the important characteristics of household behavior. We have good cross-sectional information, but this does not say anything about the stability of behavioral parameters in time. Household behavior is best seen as a derivation from the total household life cycle. This permits identification of a propensity to locate or to relocate for families of different compositions and at various stages of the cycle. Then, at any particular stage of iteration we can allocate them by identifying the characteristics of the pool of "locators," age the population, and then begin again for the next iteration. In general, the behavioral implications become important only if we are prepared to disaggregate our population to an extreme degree. At this point, each household becomes an actor, his behavior is described, and the total impact of household location results from the aggregation over time of the behavior of the actors.

Several special problems cannot be ignored in residential location. First, the choice of location by the household is a consumer choice - how the household subjectively weighs these goals and alternatives, and how it chooses are important questions for further research. At one extreme this gets us into studies of attitudes and subjective propensities, which are not reliable; at the other, we can identify some appropriate parameters for the choice of residential locations: (1) the relationship of a location to the location of other activities involving members of the household; (2) the physical or amenity characteristics of the site itself; (3) the "social symbolism" of the location; (4) the budgetary restraints. The nature of the bundle which the household purchases in choosing a location confronts us with difficult problems of "psychic income" and "value of leisure," which are most difficult to work into an empirically-based model.

Then, one must look at interdependences within the model. The interdependence between traffic flow models and land use models is crucial in this respect. The interdependence between intra-regional locational models and the metropolitan and regional aggregates is the pathway by which some kinds of exogenous change influence the form of the metropolitan area. Finally, the interdependence among household locational decisions themselves is crucial, for only by identifying these can we simulate the salient forms of economic and social segregation which are, in fact, part of the urban scene.

Another set of problems involves how one introduces time dimensions into the model. A truly dynamic model would identify time point-by-point with time in the real world. But a recursive model which depends largely upon successive iterations, each of which must be stabilized, has quite different time dimensions. Perhaps only the points of stability within the model have any correspondence to time in the real world, in which case we should view the stabilizing iteration as instantaneous. The rate at which we introduce changes into the model and its correspondence of the rate of change in the real world presents another problem: Can we "date" the model and relate its stages successively to corresponding stages in the real world?

In summary, we still have to cope with two major types of problems involving behavior in these models. The first is understanding behavior in the real world - the relationship of individual choices to aggregated consequences. Finally, selecting the appropriate form of representation within the model either to simulate the processes or to replicate the results has yet to be provided with a useful rationale.

D. Policy Implications of Intrametropolitan Models

The content and structure of these models are strongly influenced by their relationship to the making of policy at the metropolitan level. One set of questions emerges from the basic issue of how these models are to be used in the policy making process. One approach is to manipulate the inputs in a way to simulate policy decisions and to lay out the alternative sets of consequences from which the policy makers are to choose. This has been labelled the "cafeteria" approach to policy making and is criticized as an abdication of decision making responsibility by the planner. This opposing viewpoint argues further that it is not possible to communicate to policy-makers all of the qualifications that are built into the model itself without destroying their confidence in the recommendations. Since the planner presumably understands the model and its output, it is argued, he has the responsibility of recommending that alternative which - by specified and explicit criteria - is optimal. In short, it is up to him to maximize the social benefit-cost ratio and identify this maximum for the legislator.

The third approach would use a decision model with strong normative elements built into it. In this case, the output of the over-all positive model would be fed into the decision model which would identify optimal programs. Thus, at one extreme the policy role of a model is to provide the policy makers with a broader array of systematic information upon which to rest their decisions. At the other, policy criteria are built into model components, and the model itself chooses the best program. A second set of problems arises when one views policies as variables within the model itself. Thus the model has to contain certain policy characteristics of the environment which arise at every level of government. Thus, Federal housing and highway policies, state grants-aid and taxation policies, and the whole array of extant local policies create what might be called the "policy environment" of the model. From the decision maker's point of view, some of these can be varied at his discretion; these are the "controllable" variables and embrace the policy alternatives available to the region. Others are completely exogenous to the policy-maker - resulting from the independent policy choices which have been taken by other governmental units involved in the region - and so they must be reflected in the structure of the model itself. With respect to "controllable" policy, the problem is how to select the policies which are to be played through the model given the high level of computer costs. Here a real need exists for rules for choosing the alternative policy inputs. As far as "exogenous" variables are concerned, what is needed here is a recognition that these variables are unstable over time, and, unless compensated for, may compromise the model's reliability. It may be useful in probing the prospects of developing a predictive policy model, no matter how crude, to pin down policy variations of an exogenous nature. Beginning with a description of a policy status for each unit, and terms of its objective political characteristics, we would want to define a set of "policy change functions," to develop an output of likely changes in the major policy dimensions for each unit.

In summary, the application of the intrametropolitan model to long-range regional policy-making requires a more intense focus on the relationship between governmental policy and the structure of the regional economy; it involves a more rigorous discipline of our use of policy inputs; and finally, it opens up important sectors of needed research - on how to measure the consequences of parametric changes and in the predictability of kinds of policy behavior which are important in the levels of reliability of these models.

E. Some Recommended Steps to Advance Work in the Construction of Intrametropolitan Models

Suggestions for advancing the work on intrametropolitan models fell into four main classes: (1) pressing research questions dealing with both substantive and methodological problems in model building; (2) recruiting and training researchers to study the spatial organization of the city; (3) improving the flow of communication among scholars working on this field; (4) improving institutional arrangements for research and training in this field of work.

The schedule of needed research relates to both substantive and methodological considerations. Prominent among the substantive research problems are the following:

1. development of measures of system-wide performance in addition to but distinct from measures of quality or of service level;

2. the relationship between highly aggregated phenomena and objectives of urban transportation systems;

3. development of new perspectives about the basic functions and objectives of urban transportation systems;

4. possibilities of the market as a decision-maker in the provision of public services such as transportation;

   4a. under what conditions the market will yield acceptable solutions to policy problems,

   4b. the kinds of consequences which could be expected from more market-type solutions to planning and and regulatory problems such as land use,

   4c. how the market processes actually affect the distribution of activities within the region - the housing market is especially sensitive to this criticism,

   4d. what kind of criteria should be used to select policies where non-market solutions are to dominate.

5. the role of external economies of various sorts in the making of locational decisions by firms and households;

6. techniques for the comparison of trip-generating characteristics by common stratifications among cities;

7. the characteristics of demand for residential land - what are the appropriate variables, what are the parameters?

8. the demand for industrial space by major industry groups;

9. a catalogue of alternative modes of transportation so that we can design an efficient set to meet specified criteria in metropolitan areas;

10. the social costs of various transportation modes, especially those other than delay-time, such as noise, smog, loss of amenity, and the like;

11. the time-cost trade-off by individuals in making decisions about transportation - how does the transport user value the alternative uses of transportation time?

Among the pressing research topics on methods are the following:

1. a basis of reliability evaluation for these models; that is, how to define an acceptable range of error in forecasting of major aggregates;

2. the role of models within the decision structure of metropolitan communities, i.e., the relationship between economic structure and political structure in the models;

3. development of decision criteria for sensitivity of over-all models; given the reliability of inputs and structural elements.

4. One of the issues which pervades every aspect of model building is what is a good test of predictability? What is it that we want? Have we any real basis for deciding whether or not the models perform usefully or practically?

In the recruiting and training of personnel for work in this area, the consensus is that, given the current state of the field, it is more important to get a lot of people and resources working on problems in metropolitan organization than to decide what should be researched. As scholars enter the field looking for research to absorb their efforts, the research topics which we outline today will probably be the first to be pursued. This will probably involve developing ways of pushing new people out into the ongoing, data-rich projects for graduate and post-graduate work. At this stage, we need both people highly trained for work with measureable phenomena and people who are equipped to theorize about the critical problems confronting this work, since present theory is not entirely adequate to the needs of the field. Relationships between university resource programs and the ongoing major studies dealing with intrametropolitan models will be increasingly important in recruiting and training good people for work on these problems.

Communication among researchers in a field of work such as this has some special features. The field is dominated by a few large studies while a small group of independent researchers pursue peripheral, if relevant, research interests at the universities. Formal conferencing at this stage is likely to produce little at a cost of dissipating the critical time of major researchers in the field. Occasional informal meetings on specific problems may be in order as the problems emerge and the need is felt by people who are actually doing the research.

Communication in the field about ongoing research appears to be inadequate, and it would be useful to develop some means of communication which would get at the internal research results of the big projects - what kinds of hypotheses are being used to test them? What are the conclusions of these tests during the preliminary stages of model building? There are some problems, of course, in carrying on communication at this level: first, who would be involved in this communication? Second, how can you overcome the researcher's reluctance to discuss his preliminary results before he has any confidence in them? And third, this takes a great deal of time which researchers would be most reluctant to surrender. It may be that this form of communication is perhaps best pursued by individual researchers informally raising these issues with each other.

At another level, there is a need for information about what researchers are working on at universities as well as in the projects. The simplest and most efficient form of this communication would be a listing of what researcher is researching what at any given time. This would be a simple list of names and short topics circulated regularly among the interested researchers. An existing organ like the Research Digest might carry out this function well if it received outside financing, permitting someone to travel around or use the phone to extract the information rather than to send out forms. Further, it could serve a useful function by following closely the organized research programs and their reports and providing regular information about them. This latter would be an important piece of library information.

There was a general feeling that an inventory of data available in pertinent research activities would have little use, since the researcher himself must explore the validity of the data that he wants to use and understand its qualifications. Among the larger projects it can be reported that the Penn-Jersey Transportation Study is studying plans to make its cards available to responsible researchers. The Operation Research Group at Case Institute will duplicate sets of its cards for researchers, while the Chicago Area Transportation Study will not only allow people to utilize their cards but will make preliminary runs and tabulations for them. The vast amounts of data which exist in these projects justify substantial efforts at every level to maximize its use by researchers. An immediate need of the field is to develop new sets of institutional relationships for research and education, since many research efforts on intrametropolitan organization will be largely interdisciplinary. The problem is typified by the fact that no school with a strong operations research group has a good planning school, and yet in problems of this sort there is a great deal of promise in the interaction of planners and operations research specialists. What is needed here is some way of setting up joint research projects between the OR program at one university, say, and the planning school at another. High levels of inventiveness will be called for here. Since no agency really has any responsibility for effecting these new institutional mechanisms, this is an ideal project to be pursued by interested foundations. Another set of useful institutional arrangements might bring the special methodological competence of operations research groups such as that at Case, and even of the Census Bureau, to focus on the statistical standards used by the Bureau of Public Roads as well as other planning agencies in arriving at their research conclusions.

Finally, increasing interinstitutional work through the financing of graduate studies on an exchange basis between departments and organizations promises a large pay-off. Internships for graduate students from planning schools to operations research groups and vise versa, and for junior researchers to work with the major projects which offer rich data sources and research opportunities. In conclusion, many useful steps can be taken to facilitate the advance of this field along a broad front. Critical research topics offer a guide for encouraging research in this area, and properly circulated among interested scholars offer opportunities for dissertations and other university research. The recruiting of students is essentially the problem of bringing people into the field generally. From the standpoint of communication within the field, two things seem to be clear. At this stage, useful conferencing is confined to occasional informal meetings on special problems. Some periodical listing of research underway would be quite valuable carried out by some such agency as the Research Digest. Finally, work on metropolitan spatial arrangement can be accelerated by new institutional arrangements between universities and projects which have interest, peripheral or central, in the advancement of this work.

1. RESEARCH NEEDS IN THE FIELD OF PUBLIC WORKS

Main Investigators: Robert D. Bugher, David J. Vargas, Frank Cavanaugh, Karl Wolf, Earnest Boyce (consultant).

Status of Research and Publications: Project started July, 1961; probable date of completion, July 15, 1962. Results will be presented in report to the sponsor.

Agency: American Public Works Association Research Foundation under a grant from the Ford Foundation. Staff assistance has been provided under contract by Armour Research Foundation.

Previous _Digest_ report: None.

Research Problem. To determine research needs and priorities in the field of public works.

Previous Relevant Research. A number of reports on research needs have been published by the Highway Research Board, U. S. Public Health Service, American Society of Civil Engineers, American Water Works Association, and the Water Pollution Control Federation.

Method of Study. The field of public works was defined as the planning, design, construction, operation, maintenance, and management of transportation, sanitation, water supply, housing projects, parks, and other community facilities. It was decided that present-day as well as future problems would have to be defined and evaluated before any research projects could be recommended. Three methods have been used in gathering data: (1) literature searches, (2) questionnaires, and (3) personal interviews. Information is being solicited from experts in many fields--as well as from public works officials in the United States and abroad.

Later in the study an evaluation panel will examine the data that has been gathered and will make recommendations concerning the relative importance of the projects that are suggested. A major task will be to predict the nature of the city of the future and to outline the steps necessary in transforming the city of today into a much-improved city of tomorrow.

Major Findings. Study has not advanced to the point where conclusions can be reached. However, some of the problems most frequently mentioned are: (1) the need for coordinated government spending, (4) the need for public recognition of and cooperation in solving community problems, and (5) the need for attracting and holding highly competent and imaginative people in the field of public works. (DJV)

2. DAYTON METROPOLITAN URBAN STUDY

Main Investigators: John F. Lounsberry, John F. White, R. G. Voelker, R. L. Gordon, Irwin Abrams, W. W. Finlay.

Status of Research and Publications: First year of research completed. Eventual publication to be in form of report to sponsor.

Agency: Antioch College, under sponsorship of the Ford Foundation.

Previous Digest report: None.

Research Problem. This is an inter-disciplinary study of urban problems involving a number of faculty members and upperclass students in studies of widely different problem areas with frequent discussions and exchange of findings and ideas aimed toward a degree of integration in the total research activities.

It is hoped that the studies and any results therefrom will have some practical as well as theoretical value to the Dayton area and to all others involved in urban problems.

Dr. John F. Lounsbury, Professor of Geography, now with Eastern Michigan University at Ypsilanti, has been studying the evolution of industry in the Dayton area, its growth and the compelling and repelling industrial location factors, probable future locational patterns, and implied ramifications of a social and political nature.

Dr. John F. White, Associate Professor of Geology, is investigating the ground water resources of the area, relating data as to the specific uses of water and consumption rates from one local area to another, and determining the land use and political control of major aquifers not presently fully utilized.

Dr. R. G. Voelker, Professor of Civil Engineering, is investigating sanitation as it relates to population change, with emphasis on public health problems and political problems in their solution. Also he is studying problems of transportation within this metropolitan region.

Dr. R. L. Gorden, Associate Professor of Sociology, is studying the effects of urban residential mobility upon social cohesion. Included will be an attempt to test theoretical explanations of existing empirical correlation between forms of social disorganization and rates of residential mobility.

Dr. Irwin Abrams, Professor of History, is studying cultural influences on the Dayton area of immigration from Europe. Also as part of this study he is investigating cross-cultural consequences of the expansion of business institutions into European countries.

W. W. Finlay, Professor of Business Administration, is concerned with possible changes in industrial skill needs resulting from changes in industrial processes and products and some determination of the educational resources available or needed to meet the skill demands as projected for at least one generation from the present.

Method of Study. These studies are being conducted independently by each discipline with upperclass students acting as assistants in each case. The integration of findings and ideas takes place at periodic meetings of the entire group (faculty and students). Other urban problem research specialists have attended some of the integrating meetings. In addition, informal discussions take place among the people working in the various research areas.

To date the effort in each study has been largely in the gathering of data and investigating sources of existing study results. There has been considerable visiting and discussion with state, county, and city officials as well as some industrial leaders in the community. (PGJ)

3. ECONOMIC IMPACT OF A DEFENSE INSTALLATION UPON THE SURROUNDING COMMUNITIES

Investigator: Lawrence E. Laben

Status of Research and Publication: Article published in Federal Reserve Bank of Boston's New England Business Review, July, 1961, reprinted in Appraisal Journal, October, 1961. Unpublished master's thesis available on loan from the Federal Reserve Bank of Boston, or the Massachusetts Institute of Technology.

Agency: Federal Reserve Bank of Boston.

Previous Digest report: None.

Research Problem. To assess the economic impact of a defense installation upon the surrounding communities.

Method of Study. The study attempts to measure the income generating effect of expenditures of a military base. Questionnaires and personal interviews were used to determine such things as the percentage of income spent in the surrounding communities by single and married base employees. The impact of the base on the different sectors of the community such as construction and retail trade is assessed by comparing growth statistics of these sectors before and after the base was installed.

Major Findings.

1. Although spending habits of military families are similar to their civilian counterparts, one-third of their income is spent at the military base.

2. Only a small portion of the military maintenance expense has an impact on the immediate area.

3. A military installation tends to generate less secondary industrial growth than a comparable industrial plant.

4. Until housing is built on the installation, the impact of a new base on the community's housing sector is significant. If base housing is eventually built then it is quite possible that the community's housing sector will be depressed.

5. The economic multiplier effects of the expenditures that are made locally are substantial, and are not too much lower than the multiplier effects of a typical industrial plant. (ECG)

4. PERFORMANCE STANDARDS FOR SPACE AND SITE PLANNING FOR RESIDENTIAL DEVELOPMENT

Main Investigators: H. Peter Oberlander, W. G. Gerson, Raymond D. Goldsworthy.

Status of Research and Publications: There were two previous stages in the research project, an annotated bibliography and a research monograph. Both are being published by the sponsor. Third stage commenced July, 1961, to be completed April, 1962, also to be published by the sponsor.

Agencies: Conducted jointly by the Department of Community and Regional Planning and the School of Architecture, University of British Columbia. The project was undertaken at the request of, and is sponsored by, the Division of Building Research, National Research Council, Mr. R. F. Legget, Director.

Previous Digest report: 8:1-2.

Research Problem. The purpose of the current study is to determine, in some detail, the relationship of site planning and the spread of fire in residential areas. This is being done to test the hypothesis that more flexible controls, based on technological data, are capable of producing a better residential environment. (HPO)

5. HOUSING FOR THE ELDERLY

Main Investigators: Herbert E. Striner, Barbara Kemp, Henry E. Holmquise, George W. Grier.

Status of Research and Publications: Not reported.

Agency: Brookings Institution, Conference Program in Public Affairs, Committee on Problems of the American Community, sponsored in part by the Housing and Home Finance Agency.

Previous Digest report: 7:2-2.

Research Problem.

1. To examine the degree to which social science knowledge has been applied in the field of housing for the elderly; i.e. types of knowledge which have been utilized and gaps in knowledge and data.

2. Definition of needed research in this field.

Major Findings. Various fields of the social sciences have specific contributions to make to this urban housing problem, but to date, application has been deterred by lack of communication between social scientists and practitioners. (HES)

6. APPLICATION OF SOCIAL SCIENCE RESEARCH IN THE DEVELOPMENT OF FEDERAL HOUSING LEGISLATION SINCE 1945

Main Investigators: Herbert E. Striner, Barbara Kemp, Henry E. Holmquist, George W. Grier.

Status of Research and Publications: Initial draft of study completed.

Agency: Brookings Institution, Conference Program on Public Affairs, Committee on Problems of the American Community.

Previous Digest report: 7:2-2. (HES)

7. URBAN RENEWAL PROBLEMS AND PROGRAMS IN CALIFORNIA AND OTHER WESTERN STATES

Main Investigators: Catherine B. Wurster, Donald L. Foley.

Status of Research and Publications: In process.

Agencies: University of California, Department of City and Regional Planning, Berkeley, under sponsorship of Ford Foundation.

Previous Digest report: None.

Research Problem. Study will focus primarily on low-income and minority in-migrants: how and where they have lived and worked at various stages in Western development. (CBW)

8. DEMAND FOR OUTDOOR RECREATIONAL FACILITIES GENERATED BY THE GROWTH OF LOS ANGELES

Main Investigators: Fred E. Case, Jack Bollens, Richard Logan.

Status of Research and Publications: Study completed and submitted to sponsor.

Agencies: University of California, Graduate School of Business, Real Estate Research Program, Los Angeles, under sponsorship of Outdoor Recreation Resources Review Commission.

Previous Digest report: 7:2-11.

9. JUNIOR MORTGAGE FINANCING IN LOS ANGELES COUNTY, 1958-1959

Main Investigators: Leo Grebler, James Gillies

Status of Research and Publication: Completed and published, 1961.

Agencies: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles.

Previous Digest report: 7:2-13.

Major Findings. Among some of the major conclusions derived from this study are the following:

1. Junior mortgage financing in Los Angeles County has become an activity of significant magnitude. On the basis of a sample study of public records, it is estimated that about 164,000 junior trust deeds for a face amount of $684 million were originated in 1958 and 1959. They accounted for nearly 35 percent of the total number of trust deeds and almost 12 percent of the aggregate amount of trust deeds that were recorded.

2. The junior trust deed is a multi-purpose credit instrument. This is probably the reason why no systematic relationship was found to exist between short-term changes in real estate and building activity or housing prices and fluctuations in junior financing during 1958-1959. However, junior loans relative to senior loans tended to increase in periods of tight money and to decline when credit eased. The use of junior financing during recessions may be associated with more borrowings on this type of security for consumption or business purposes.

3. Practices and terms in as poorly organized a market as the junior trust deed market are difficult to determine. According to surveys of real-estate brokers and builders, the amount of second trust deeds typically ranged up to 25 percent of sales price; contract interest rates were about 6 to 8 percent exclusive of usually substantial commissions, fees, and other non-interest charges; and maturities clustered around 3 and 5 years. Most of the short-term trust deeds required a sizeable "balloon payment" when the loan matures. Discounts in the sale of these instruments varied widely but were often 25 to 30 percent of their face value. (FGM)

10. RESIDENTIAL CONSTRUCTION AND FINANCING IN SEVERAL METROPOLITAN AREAS

Main Investigator: Harold Dilbeck

Status of Research and Publications: Ph.D. Dissertation, completed 1961.

Agencies: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles.

Previous Digest report: 7:2-12. (Is a part of the study entitled, Mortgage Lending in California, 1950-1960)

Research Problem. To investigate if the composition of lending institutions in a local area and the extent to which funds are derived from outside a local mortgage market influences residential construction activity. To examine how residential construction activity in a locality responds to changes in national credit conditions.

Method of Study. Data on mortgage lending and residential construction were correlated and analyzed for a selected number of metropolitan areas of the United States.

Major Findings. The findings in general support the view that fluctuations in residential construction are directly associated with the structure of the local mortgage market. In areas where a large proportion of the funds are supplied by such lenders as life insurance companies and commercial banks the response of residential construction will be greater to changing conditions in the money and credit market. In contrast, the fluctuations will be less severe in areas where a relatively large share of the funds is supplied by institutions such as savings and loan associations. More severe fluctuations in residential construction in areas where commercial bank and insurance mortgage financing predominates occur because of the close relationship between the range of investment alternatives of these institutions and their limited ability to supply the market through the conventional mortgage. The study offers some support to the argument that the effects of action by the monetary authority fall unequally among financial institutions, and consequently unequally among local mortgage markets. (FGM)

11. ELECTORAL BEHAVIOUR ON REFERENDUM VOTING

Main Investigator: James A. (Dolph) Norton.

Status of Research and Publications: First phase completed. Second phase in process.

Agency: Case Institute of Technology, Engineering Division, Cleveland.

Previous Digest report: None.

Research Problem. A comprehensive study of the factors which influence perception of voters. First phase reports on behaviour of voters throughout a metropolitan area. Second phase deals with electoral behaviour in selected cities and suburbs within a metropolitan area. (JAN)

12. A METROPOLITAN SURVEY: CASE STUDY OF THE CLEVELAND METROPOLITAN SERVICES COMMISSION

Main Investigator: James A. (Dolph) Norton

Status of Research and Publications: First draft of study completed.

Agency: Case Institute of Technology, Engineering Division, Cleveland.

Previous Digest report: None. (JAN)

13. A METHOD FOR DETERMINING THE OPTIMAL DIVISION OF EXPRESS AND LOCAL RAIL TRANSIT SERVICE

Main Investigator: Alan Black

Status of Research and Publications: Research completed. Paper to be submitted to Origin and Destination Surveys Committee of Highway Research Board for its January, 1962 meeting.

Agency: Chicago Area Transportation Study.

Previous Digest report: None.

Research Problem. Certain benefits of specialization can be derived from the division of metropolitan rail transit into express and local service (which could correspond to suburban railroads and rapid transit, respectively). It is proposed that there be a breakpoint on radial rail routes, with local trains serving the area between the breakpoint and the CBD, and express trains serving the area beyond the breakpoint. Express trains would run non-stop from the breakpoint to the CBD. The problem considered is where the breakpoint should be located.

Method of Study. This is an optimization problem in which an objective is established and the range of possible alternatives is measured against the objective. The objective is to minimize total costs to the community, which consist of travel costs and capital costs. Travel costs include operating costs for the railroad or transit authority and time costs for riders (consisting of time required to travel at maximum speed plus time for delays at stops). Capital costs cover construction and equipment.

General methods are presented for computing each of the cost items and determining the least cost breakpoint. As an illustration, the methods are applied to an actual situation.

Major Findings. There is considerable advantage to having two types of rail transit service on a radial route. There are savings in operating costs, delays to riders are decreased, and equipment needs are reduced. The location of the breakpoint does affect total costs greatly. The optimal breakpoint is not especially unique, but rather there is a range of breakpoints within which total costs are at or very near the minimum. Beyond that range, total costs rise sharply. (AB)

14. THE HOMELESS MAN ON SKID ROW

Main Investigators: Donald J. Bogue, Jane W. Schusky, Selma F. Monsky

Status of Research and Publications: Expected date of publication: October, 1961.

Agency: City of Chicago Tenants Relocation Bureau. A Demonstration Grant Study of the Housing and Home Finance Agency, with local funds from the City of Chicago and the Wieboldt Foundation.

Previous *Digest* report: None.

Research Problem. The development of methods for satisfactorily relocating and rehousing single persons living in slum and blighted skid-row areas. The report includes an extensive analysis of the housing and social needs and problems of skid-row residents. Recommendations are also included for techniques to eliminate skid-row conditions. (DEM)

15. COMPARATIVE STUDIES OF CENTRAL PLACES

Main Investigators: Harold M. Mayer, Brian J. L. Berry.

Status of Research and Publications: New publication issued entitled "Central Place Studies: A Bibliography of Theory and Applications," by Brian J. L. Berry and Allen Pred. (Philadelphia: Regional Science Research Institute. Bibliograpy Series Number One, 1961. vi and 154 pages. Illustration. Index to authors. $3.) Provides comprehensive coverage of central place theory and its application in studies of the size, spacing, and functions of cities and of business districts within cities; trading areas and urban spheres of influence; consumer shopping and travel behavior; and fairs and markets. Among related fields covered are central place studies (geography), studies of town-country relations (sociology), medical service areas (public health), planned shopping centers and store location research (marketing), ecological theory, neighborhood and community organization (planning), theory of retailing (business) and urban land use theory (land economics). Bibliography is divided into sixteen sections and contains some 1100 references covering the works of over 500 different authors. In addition, the authors provide an introductory essay in which they set forth the significant findings of the works reviewed. Mailing address of R.S.R.I. - G. P. O. Box 8776, Philadelphia 1, Pa.

Agencies: University of Chicago, Department of Geography, under sponsorship of U. S. Department of the Navy, Office of Naval Research.

Previous Digest report: 6:2-7. (BHS)

16. AN INVESTIGATION OF THE EFFECTS OF FREEWAYS ON CENTRAL BUSINESS DISTRICTS

Main Investigators: Raymond E. Murphy, Robert J. Huhtanen, Paul J. Mika, Richard E. Preston.

Status of Research and Publications: Multilithed report submitted in February, 1961, to sponsor.

Agencies: Clark University, Graduate School of Geography, in cooperation with Bureau of Public Roads, U.S. Department of Commerce.

Previous Digest report: 7:2-21.

Research Problem. An attempt to determine the effects on CBD's of freeways that come close enough to these CBD's to facilitate the flow of traffic to and from the areas.

Major Findings. In the cities studied the freeways had not been designed to serve the CBD and no marked effect of the coming of the freeway could be measured. Nevertheless, certain tenative conclusions were arrived at concerning CBD-freeway relationships. (REM)

17. HOME BUYING AND FINANCING IN UPSTATE NEW YORK

Main Investigator: Glenn H. Beyer.

Status of Research and Publications: Continuing study. Fourth Annual Report - 1960, entitled "FHA, VA, and Conventional Mortgage Transactions in Upstate New York," by Glenn H. Beyer and Ernest R. Bonner. Available from Mailing Room, Stone Hall, Cornell University, Ithaca, New York.

Agency: New York State College of Home Ecnonomics in association with the Center for Housing and Environmental Studies at Cornell University.

Previous Digest reports: 4:1-10; 5:2-9; 6:1-11.

Research Problem. To study a number of factors that influence home buying and financing in upstate New York.

Method of Study. Twenty lending institutions in upstate New York reported information on first mortgages for both new and existing single-family dwellings. For the 2,822 mortgages covered by the study for this period, selected characteristics of the families, certain characteristics of the families, certain characteristics of the houses and the nature of financial arrangements were analyzed.

Major Findings. The 1960 report provided comparative data on home-buying and financing trends from 1957 to 1960, but focused on differences between FHA, VA, and conventional mortgage transactions during 1960. FHA and VA borrowers were younger and were in the middle income groups, while conventional borrowers were middle aged as often as young and were represented more or less equally in all income groups. Houses purchased by FHA and VA loans tended to be smaller than those purchased with conventional financing. Units purchased with FHA-insured loans were found to be lowest in price, those with conventional loans highest in price, and those with VA-guaranteed loans in the middle. New homes purchased with FHA-insured loans carried the lowest down payments; those purchased with conventional loans carried the highest. There was a more even distribution in the amount of down payment among those purchased with VA-guaranteed loans. (ML)

18. HOUSING NEEDS OF THE AGED

Main Investigators: Glenn H. Beyer, Marilyn Langford, Lars P. Peterson, Sylvia G. Wahl.

Status of Research and Publications: Report published, fall, 1961: "Economic Aspects of Housing for the Aged" by Glenn H. Beyer, available from the Center for Housing and Environmental Studies, Cornell University, Ithaca, New York. Reports in progress on the relationship of the aged to the community by Marilyn Langford, and living and activity patterns of the aged by Lars P. Peterson, to be available in the spring of 1962 from the above source.

Agency: Cornell University, Center for Housing and Environmental Studies, sponsored by the Ford Foundation and the Cornell University Agricultural Experiment Station.

Previous Digest report: 5:2-8; 6:1-12.

Research Problem and Method of Study. To study the housing needs and requirements of the aged population. Data were collected through personal interviews with 5,202 persons aged 65 and over in four survey areas--Chicago, Los Angeles, St. Louis, and upstate New York, and through intensive case studies of a limited number of aged persons in upstate New York.

Major Findings. (From "Economic Aspects of Housing for the Aged.") The following factors were found to have a significant influence on the economic position of the aged: sex, marital status, living arrangements (whether or not the aged person or spouse was the head of the household), household composition, size of community, labor-force status, sources of income, and occupancy status (whether the aged person owned, rented or occupied the dwelling unit rent free).

The concluding section of the report deals with the range of housing needs for the aged and draws on the data in the previous sections of the report to present an assessment of need. It was estimated that 45 percent of the aged covered by the study need independent or better quality housing. Forty-nine percent of this group were widowed and single women, 29 percent married couples, and 22 percent widowed and single men. They were distributed among three income classes as follows: income under $2,000 - 76 percent, income from $2,000 to $2,999 - 16 percent, and income $3,000 and over - 8 percent. (ML)

19. THE URBAN TRANSPORTATION DILEMMA

Main Investigator: Stephen Paranka

Status of Research and Publications: Results published July, 1961 as Research Report # 21, "Urban Transportation Dilemma."

Agency: Georgia State College Bureau of Business and Economic Research.

Previous Digest report: 8:1-12.

Research Problem. This study is a comprehensive, analytical review of the various facets of the urban transportation problem. It was not intended to test any particular hypothesis.

The study has brought together the results of several experimental approaches tried in various parts of nation. It pinpoints the basic issues now of crucial importance. Main headings of the report are: Background of the Urban Transportation Dilemma; Factors Influencing the Pattern of Urban Transportation; Corrective Measures Recently Undertaken; and A Program of Planning for Future Urban Transportation. (WRK)

20. A STUDY OF THE LINKAGE PATTERN BETWEEN A CENTRAL CITY AND THE COMMUNITIES WITHIN ITS REGION OF INFLUENCE

Main Investigators: George W. Greenwood, Aly M. Shady, George T. Marcon.

Status of Research and Publications: Publication expected in near future of report on a Survey of Literature on Inter-community Travel. Drafts of two other reports nearly completed: (1) Description of Study of Travel Patterns; (2) Analytical Framework for Research Investigations. Regression analysis of travel data and community characteristics in process.

Agencies: University of Illinois, Bureau of Community Planning, under sponsorship of Illinois Division of Highways and U.S. Bureau of Public Roads.

Previous Digest report: 7:2-22.

Research Problem. The goal of this research project is to develop inter-community traffic models which will make possible the estimation of inter-community traffic in the aggregate and also by individual trip purposes. These models are to be developed from relationships between travel data between Champaign-Urbana and other communities in East Central Illinois and data pertaining to such characteristics as the population, employment, motor vehicle registration, retail sales, etc., of the communities linked with Champaign-Urbana.

Method of Study. Present efforts are being directed toward the correlation of travel data with various community characteristics which measure the ability of that community to produce or attract trips. Analysis of these simple and multiple correlations will permit synthesis of the various dependent and independent variables under study, together with their appropriate transformations, into the desired traffic estimation models. (GWG)

21. ORGANIZATION FOR STATE HIGHWAY AND URBAN PLANNING LIAISON

Main Investigator: Joseph M. Heikoff.

Status of Research and Publications: Research and report draft completed. Publication awaiting review by Illinois Division of Highways.

Agency: University of Illinois, Bureau of Community Planning, under sponsorship of Illinois Division of Highways.

Research Problem. The general objective of this project was to prepare for the Illinois Division of Highways recommendations on organization and personnel for a planning liaison staff unit. The function of this unit would be to facilitate communications between the engineers in the Division of Highways and local officials and community planning personnel, and also to advance their technical collaboration in the preparation of urban highway plans.

Method of Study. The problem of urban highway plan ning liaison was explored by a survey of recent literature in the field, including studies and reports on the need for state-local cooperation in major thoroughfare planning in urban areas and the routing of interstate and state highways through and around these areas. A bibliography of these materials was prepared.

In order to obtain information on the experience and organization of state highway departments in the field of urban planning liaison, a questionnaire survey was carried out.

Returns were obtained from Arkansas, Connecticut, Kentucky, Kansas, Maine, Michigan, Minnesota, Missouri, Wisconsin, North Carolina, New York, Ohio, and Pennsylvania. Reports from these highway departments indicated that they all were aware of the importance of state-local liaison in highway planning affairs. Strong staff units were set up in highway departments in Kentucky, Michigan, North Carolina, New York, Ohio, and Pennsylvania. The other states tried to improve planning liaison by other methods.

Urban highway planning liaison in the Division of Highways was also surveyed by interviews with Bureau chiefs in the Springfield Offices as well as several District Engineers and staffs. An attempt was made to observe the interaction between district engineers and local officials by attending meetings on proposed highway improvements.

Major Findings. Comments and observations on urban highway planning liaison were supplemented by review of highway and urban area planning techniques. Highway engineers and community development planners use different planning criteria and different techniques in arriving at highway transportation plans. The problem of planning liaison was found to center on ways of bringing together the planners in the State Highway Departments and the planners in the local communities so that they might contribute their special knowledge and skills to the preparation of urban highway plans that can be agreed upon by both parties.

Personnel questions were also investigated in order to suggest technical and personal qualifications, job descriptions, and salary ranges for a possible future planning liaison staff. These were based on recommendations and standards of the American Institute of Planners, federal civil service, practices in other state highways departments, and surveys of salaries of professional planners in government positions made by the American Society of Planning Officials.

The results of these studies and investigations were written up in two parts. Part I: Recommendations presents a short statement of the planning liaison problem and suggestions for organizing a suitable staff unit in the

Division of Highways. Part II: Liaison Problems and Methods attempts to describe in greater detail the information obtained during the study and the basis for the recommendations made in Part I. (JMH)

22. COUNTY INCOME STUDY

Main Investigators: Scott Keyes, Wallace Reed, Felix C. Rodgers.

Status of Research and Publications: Draft report giving estimates of personal income by counties in Illinois for 1950, 1954, and 1958, together with descriptive analysis, completed and being circulated for comment.

Agencies: University of Illinois, Bureau of Community Planning, under sponsorship of Illinois State Housing Board.

Previous Digest report: 7:2-30. (SK)

23. METROPOLITAN AREAL EXPANSION

Main Investigators: Ronald R. Boyce, Dilip K. Pal.

Status of Research and Publications: Preliminary analysis complete. Article publication planned.

Agency: University of Illinois, Bureau of Community Planning.

Previous Digest report: None.

Research Problem. Although much is known about the general causes of urban sprawl, exact measurements and general theories are not available. The more immediate problems are to determine: (1) the rate of urban land consumption and its specific relationships to urban population, (2) the kinds of metropolises which are the more frugal and which are the more squanderous users of urban land, and (3) the parts of metropolises which are most rapidly changing in intensity and density of use. Built-up area information is important because it is believed to be related to a host of other metropolitan problems such as decentralization, central business district change, mass transportation, and industrial relocation. The relationships are reciprocal in that many of these conditions directly affect the extent of the built-up area.

Method of Study. Only partially reliable data are available with which to answer the above questions. The best data on a comparative basis are that of the U.S. Census whereby square miles in each "urbanized area" are shown for all urban concentrations of over fifty thousand population. These data, as adjusted for obvious discrepancies, are compared by means of regression analysis to urbanized area population for 1950 and 1960. In addition, large central cities having about the same square mile area for 1950 and 1960 are examined with reference to urban fringe population change.

Tentative Findings. No formal theory has as yet been stated or tested. Some of the major empirical findings are: (1) urban areal expansion is growing at a faster rate than urban population; (2) the faster growing, newer metropolises are using slightly more land per capita than the older metropolises; and (3) the central portions of the larger metropolises, except Los Angeles, are drastically declining in population density. (RRB)

24. RESIDENTIAL DENSITIES OF HOUSING PROJECTS IN EUROPEAN CITIES

Main Investigator: Robert D. Katz

Status of Research and Publications: Bibliography, Residential Densities, published as Exchange Bibliography #18 by the Council of Planning Librarians. Field work completed and data being analyzed. Publication expected in 1962.

Agency: University of Illinois, Department of City Planning and Landscape Architecture, under sponsorship of the Graduate College of the University of Illinois and the American Institute of Architects.

Previous Digest report: None.

Research Problem. To determine the correlation between density (population per acre) and aspects of living conditions reflected in the physical design of multi-family housing projects, particularly those for families with children, in selected Western European cities in an effort to test the belief that family living conditions inevitably decline as density increases.

Hypotheses.

1. That an increase in density need not result in a parallel decline in living conditions.

2. That through certain aspects of physical design such as good site planning, the provision of adequate community facilities, and a planned environment, urban densities well in excess of those in single-family housing developments can be achieved without an accompanying decline in the supply of light and air, privacy, and general housing conditions which characterize urban slum areas.

Method of Study. The study has been divided into three phases.

1. Selection of cities and projects to be studied.

2. Investigation of selected projects. Visits to the sites and interviews with planners, housing officials, architects, and other responsible for the design and administration of projects in the variour cities in order to determine:

   a. project density;

   b. project pupulation characteristics pertaining to age, income, occupation, health and education of residents;

   c. local codes and ordinances and their impact on site planning;

   d. availability of community facilities in proximity to the housing.

3. Analysis and findings.

Major Findings. None at this date. However, the cities that were visited and which will be covered in the final report are as follows: Amsterdam and Rotterdam, Holland; Hannover, Germany; Vienna, Austria; Belgrade, Yugoslavia; Athens, Greece; Rome, Milan and Turin, Italy; and Paris, France. (RDK)

25. MATHEMATICAL DELINEATION OF RETAIL TRADE AREAS: A STUDY OF PROCEDURAL PROBLEMS AND AN ANALYSIS OF THREE FORMULAE

Main Investigator: Dale VonRiesen

Status of Research and Publications: Research in progress.

Agency: University of Illinois, Department of Marketing.

Previous Digest report: None.

Research Problem. The importance of retail trading areas as units of analysis and control requires that the delineation of such areas be performed as accurately as possible. This study is concerned with the procedure and problems of delineating retail trading areas mathematically and with the analysis and classification of dissimilarities resulting from the employment of three different formulae in this process. The three formulae are derived from Dr. William J. Reilly's law of retail gravitation. One formula uses the populations of competing retail centers as attraction factors and the other two employ measurements of retail sales for this purpose.

Method of Study. To study the procedure and problems involved in the process of delimiting trade areas mathematically, trading areas are being delineated for all Illinois cities and towns selected as trading centers. Particular attention is being given to the following problem areas:

1. The criteria necessary for the selection of major, satellite, and other trading centers.

2. The appropriate population figures for the attraction factors.

3. The proper measurements of retail sales for the attraction factors.

4. The routes to use for determining breaking points between competing centers.

5. The procedure when more than two centers appear to be competing for trade in an area.

6. The reduction of unknown areas resulting from existing highway patterns.

7. The use of distance cubed as the repelling factor for Chicago and St. Louis.

8. The establishment of trade area boundaries for Chicago and St. Louis by the satellite cities located near the peripheries of the urbanized areas rather than by the central cities.

The Analysis. The analysis and classification of differences resulting from the application of the three formulae is based upon comparisons of the denominators of the formulae as applied to every possible combination of competing centers within the state of Illinois and combinations of Illinois centers competing with cities located in the five surrounding states, Wisconsin, Indiana, Kentucky, Missouri, and Iowa. (DVR)

26. THE ADJUSTMENT OF RETAIL TRADE TO METROPOLITAN MARKETS

Main Investigator: Charles G. Walters

Status of Research and Publication: Research began in July, 1960, expected completion date is October, 1961. The results will be presented in a Ph.D. thesis.

Agency: University of Illinois: Graduate School, under the sponsorship of the Department of Marketing.

Previous Digest report: None.

Research Problem. A study undertaken to test the relationship between patterns of change in the number of stores and the volume of sales of retail trade in the United States Metropolitan Areas and the patterns of change in the market factors of population, income, employment, service trades, and the assortments of goods, services, and prices to determine if there is a discernible adjustment of retail trade to the market.

Method of Study. Data were collected from the Bureau of the Census on retail trade, population, income, employment, and service trades for 98 Standard Metropolitan Areas from 1939-1960. Independent measures of assortments were constructed from the available data. Each variable was arrayed in percentage form and analyzed between the central city and the suburbs for patterns of change in its growth over time and its distribution. Retail trade was then related to the market factors selected. Retail stores and sales were analyzed in terms of totals and in terms of each of 23 kind-of-businesses in the metropolitan areas. The attempt was made to determine if certain kinds-of-business adjust to the market more adequately than the total of all business. Because all factors affecting retail trade in metropolitan markets could not be separated and quantified the metropolitan areas were grouped according to homogeneous market factors, such as area, density, size, and physical characteristics, and these groups analyzed and compared to the previous findings. Conclusions were reached concerning the institutional adjustment of retail trade to the market. (RVM)

27. MAPPING THE POLITICAL CHARACTERISTICS OF MEDIUM SIZE METROPOLITAN AREAS

Main Investigator: Daniel J. Elazar.

Status of Research and Publications: Research begun January, 1960. Five of the ten originally selected areas completed, others in progress, and data for another on hand. One additional metropolitan area, slightly smaller in size, will also be investigated. Organized files presently available for the following metropolitan ares (and constituent cities): (1) Rockford, Illinois; (2) Quad Cities (Davenport, Rock Island, Moline, East Moline, Bettendorf), Illinois-Iowa; and (3) Duluth, Minnesota (including Superior, Wisconsin). Files presently being organized for: (4) Springfield, Illinois; (5) Pueblo, Colorado; (6) Peoria, Illinois; (7) Champaign-Urbana, Illinois; and (8) Decatur, Illinois. Additional files for medium-size cities within larger metropolitan area also being prepared. One for Oak Park, Illinois already in existence.

A general study of urban political behavior, within and outside of the metropolitan setting is projected as end result of this project. It is scheduled for completion in 1963. In addition individual reports will be issued for some of the cities studied. From time to time articles based on the research will be published in various journals. One such article has appeared in the American Behavioral Scientist, vol. IV No. 9 (May, 1961) on "Churches as Molders of American Politics."

Agency: University of Illinois, Institute of Government and Public Affairs.

Previous Digest reports: 7:2-33; 8:1-15. (DJE)

28. INTELLECTUAL ATTITUDES TOWARD THE CITY

Main Investigators: Morton and Lucia White

Status of Research and Publications: Book expected in 1962.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-8. (MP)

29. SUBURBAN DEVELOPMENT

Investigator: Sam B. Warner, Jr.

Status of Research and Publications: Book expected in 1962.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-12. (MP)

30. URBAN TRANSPORTATION

Main Investigator: Aaron Fleisher

Status of Research and Publications: Two papers prepared as incidental aspects of these studies, one dealing with the effect of technology on urban form, and a second entitled "Transportation and Traffic Prediction." A longer report will be published early in 1962.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-16. (MP)

31. VENEZUELA PROJECT

Main Investigators: Norman Williams, Jr., Willo von Moltke, and staff.

Status of Research and Publications: Duration of project: September, 1961-Stptember, 1964. Several books on urban and regional planning techniques will be produced.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, under sponsorship of the Venezuelan Government.

Previous Digest report: None.

The economic structure and potential of the Guayana region in southeastern Venezuela will be analyzed by the Joint Center as a basis for determining the requirements for housing, for industry and commerce, for public services and for the patterns of urban and regional growth. A comprehensive development plan for the design of a new city will also be prepared. The role of the Joint Center will be an advisory one to the Venezuelan government, providing factual findings, posing policy alternatives and framing design possibilities. Norman Williams is Director of the project. Willo von Moltke will be in charge of urban design and Frank Martocci will serve as regional planner. An economist and sociologist are still to be appointed. (MP)

32. INTERDEPENDENCE OF TRANSPORTATION AND LAND USE PLANNING

Main Investigators: Roland B. Greeley, William W. Nash, Marvin L. Manheim.

Status of Research and Publications: Report completed and submitted to sponsor.

Agencies: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, under sponsorship of U.S. Department of Commerce, Bureau of Public Roads.

Previous Digest report: None.

Research Problem. This study, recently submitted to the Bureau of Public Roads, provides a synthesis of theory and empirical research in transportation and land use planning. The report indicates a number of subject areas in which highway and other planners must be cognizant of each others' skills. In brief, the report does the following:

It discusses integrated planning as a problem at two levels--coordination at the technical or staff level and coordination at the policy level.

It comments on the circular nature of transportation and land use planning and the technical aspects of coordination.

It discusses comprehensive planning in the urban environment.

It critically analyzes recent developments relating highway needs and highway location to comprehensive land use plans, as evidenced in a selective group of case studies.

It discusses several instruments of comprehensive planning; the costs and benefits of highway improvements and the coordination of land use controls with highway improvements.

It discusses some methodological problems in performing integrated land use and circulation planning--the formulation of goals and the use of models in planning.

It suggests areas for further research. (DRL)

33. KENTUCKY URBAN RENEWAL DEMONSTRATION PROJECT

Main Investigators: Walter L. Shouse, E. G. Hinds, Walter T. Edelen, William D. Fromm, Richard E. Hage, James B. Robey.

Status of Research and Publications: Project in ninth month of a programmed twenty-three month schedule. Preliminary draft of first interim report and evaluation has been prepared. Final report to be completed by March, 1963 and printed in booklet form.

Agencies: Commonwealth of Kentucky, Department of Economic Development, Division of Planning and Zoning, under sponsorship of U.S. Housing and Home Finance Agency.

Previous Digest report: None.

Research Problem. The Federal Government requires that before a community may participate in Federal housing and urban renewal program it must demonstrate a willingness to help itself through the development and effectuation of a Program for Community Improvement. In communities other than the very largest, there is a need for technical assistance in this program owing to its newness and complexity. This assistance has not been provided by either the Federal Government or private consultants.

Previous Relevant Work. Several states have provided the services of professional planners to local government. The State of New York has completed a study of housing codes and their enforcement and has prepared a modern housing code and administrative guidance as part of an integrated program of urban renewal, planning, housing, and code development.

Hypotheses. The state, because of its unique relationship, both legally and historically, to the cities within its borders, can provide the now absent, but needed, services and in a manner that will result in a new level of accomplishment by these cities in urban renewal and the Program for Community Improvement.

Method. The chief method is that of actually providing the necessary services and assistance to the communities. This is done on three levels: state-wide, regional, and to the individual cities. Methods and techniques of implementation of local renewal programs, as instigated through the state's assistance, will be evaluated. Existing state legislation will be evaluated with recommendations for changes which will further enable the communities to carry out successful community improvement programs.

Preliminary Observations. The need for these services has been confirmed and it has been found that communities willingly respond to assistance provided by a state agency. (REH)

34. URBAN AREA TRANSPORTATION DEMAND

Main Investigators: B. V. Martin, F. W. Memmott, 3rd, A. J. Bone.

Status of Research and Publications: Methods of highway traffic estimation, prediction and assignment reviewed, analyzed and an annotated bibliography prepared. Initial report prepared for limited distribution, "Principles and Techniques of Predicting Future Demand for Urban Area Transportation," by B. V. Martin, F. W. Memmott, 3rd and A. J. Bone, Research Report No. 38 of the Joint Highway Research Project of the Massachusetts Institute of Technology and the Massachusetts Department of Public Works, June, 1961 (253 pp).

Agency: Massachusetts Institute of Technology, Joint Highway Research Project, and Massachusetts Department of Public Works.

Research Problem. The purpose of this research is to develop better means for estimating future transportation needs in urban areas particularly as related to the total planning process.

As an initial step an analysis was made of techniques developed to date, and areas of needed further research were identified. Current work is directed toward investigating some of these areas of needed research. (AJB)

35. APPLICATION OF SIMULATION TO HIGHWAY TRAFFIC DESIGN

Main Investigator: Martin Wohl.

Status of Research and Publications: Research currently under way, with report scheduled for submission to sponsor in December, 1961.

Agencies: Massachusetts Institute of Technology, under sponsorship of U.S. Department of Commerce, Bureau of Public Roads.

Research Problem. To develop simulation techniques to be used by engineers to determine traffic flow characteristics at street intersections or maneuver areas, under varying conditions of traffic volume, traffic control, and geometric design, and to develop means of utilizing the simulation program results in economic comparisons of alternative improvements, the principal interest being application of computer simulation to actual design problems.

Previous Relevant Research. "13th Street Traffic Simulation," by Martin C. Stark, U.S. Department of Commerce, National Bureau of Standards, Washington, D. C., under sponsorship of the Bureau of Public Roads. (Status--preliminary report for B.P.R. only completed on June 30, 1961.)

36. PER PUPIL VALUATION: THE COMPARATIVE TAX RESOURCES AND EXPENDITURES OF SOUTHEASTERN MICHIGAN'S SCHOOL DISTRICTS

Main Investigator: James M. Friedlander.

Status of Research and Publication: Completed and published, 1961.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: 8:1-26.

Research Problem. To relate the tax resources of each school district to the number of its resident pupils. To find out whether there is any relationship between tax resources and actual school expenditures and between assessed valuation and tax rates. To discover if there is any relationship between tax resources of expenditures and any available measures of educational quality (if such measures are considered useable).

Major Findings. There is a vast differential in this area between the abilities of communities to provide for the education of pupils. The per pupil assessed valuation in one district was about 20 times that of the poorest district. The trend towards consolidation continues; and even some of the larger school districts have been annexed to their richer neighbors. Generally, the poorer the school district, the more pupils in each classroom. The poorer 4th class school districts often fail to operate high schools, even when population is large enough to support secondary education. (JMF)

37. COMPARATIVE STUDY OF THE SERVICES OF LOCAL GOVERNMENT

Main Investigators: James M. Friedlander, Mark Blucher, Leon Cohen, Lawrence Greene, Roy Moxley, Howard Warren.

Status of Research and Publications: Study initiated in July, 1961.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: None.

Research Problem. To measure, evaluate, and compare services offered by a sampling of variegated suburban communities which include one township and three cities.

Previous Relevant Research. A Methodology for Studying the Services of Local Government.

Method of Study. Communities have wide differentials in their proportional tax bases. Services will be measured as to quantity, quality, and cost. Similar techniques will be applied to each community so as to produce figures of the utmost comparability. Labor fringe benefits and certain depreciation items will be applied to the cost of each service. (JMF)

38. THE POTENTIAL IMPACT OF CONSTITUTIONAL REVISION UPON MICHIGAN COUNTIES AND TOWNSHIPS

Main Investigator: Daniel S. McHargue

Status of Research and Publications: Completed and published, 1961.

Agency: Southeastern Michigan Metropolitan Community Research Corporation for the Supervisors Inter-County Committee.

Previous Digest report: 8:1-23. (Previous title given as Community Government Issues.)

Research Problem. To study local government in terms of its future needs and present powers and limitations, so that the Supervisors Inter-County Committee will be prepared to make suggestions and recommendations to a state constitutional convention for which voter approval is anticiapted.

Major Findings. Publication lists pros and cons of issues pertaining to local givernment and finance that the author felt to be of greatest relevance to the constitutional convention. (JMF)

39. CONSTITUTIONAL REVISION

Main Investigator: James M. Friedlander

Status of Research and Publications: Completed and published, 1961.

Agency: Southeastern Michigan Metropolitan Community Research Corporation for the Supervisors Inter-County Committee.

Previous _Digest_ report: None.

Major Findings. In addition to the above report this summarizes the contents of the present constitution, lists the objectives of a good state constitution, and summarizes other issues that authors felt would come under the purview of the state constitutional convention. (JMF)

40. A SIX-COUNTY OVERALL ECONOMIC DEVELOPMENT PROGRAM

Main Investigators: Parkins, Rogers & Associates.

Status of Research and Publications: Published.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous _Digest_ report: None.

Research Problem. To prepare an overall program for the economic development of the area in consistence with the Area Redevelopment Act. (JMF)

41. A PROPOSAL FOR A SIX-COUNTY COMMUNITY DEVELOPMENT-REDEVELOPMENT PROGRAM

Main Investigators: Parkins, Rogers & Associates.

Status of Research and Publications: Proposal completed and published. Prepared as a submission for Federal aid under the Community Renewal Program.

Agency: Southeastern Michigan Metropolitan Community Research Corporation for Supervisors Inter-County Committee.

Previous _Digest_ report: None.

Research Problem. To establish a definite policy and a coordinated program of action directed specifically toward the clearance of slums, improvement of the existing environment in all of the communities of the six-county area. To set a broad framework for comprehensive renewal action on a metropolitan basis. To set uniform and consistent standards for identifying redevelopment, reconditioning and conservation areas. To encourage positive renewal programs for individual communities. To coordinate future land re-use. To measure existing conditions of blight. To evaluate community facilities. To analyze the nature and degree of blight and blight causing factors. To delineate areas needing treatment. To study relationships between urban renewal and the general plan. To analyze overall requirements and resources for urban renewal action such as financing and marketability. To study relocation needs and problems. To develop a long-range urban renewal program and to make special studies towards improving the renewal program. (JMF)

42. SPATIAL AND OTHER REQUIREMENTS OF URBAN COMMUNICATIONS SYSTEMS

Investigator: Richard L. Meier.

Status of Research and Publications: Preliminary report should be ready early in 1962.

Agencies: University of Michigan, School of Natural Resources, Department of Conservation, under sponsorship of Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. To discover the major decision centers for resource-use (including water, energy, materials, land, and human time) in the Detroit metropolitan area, review the coverage of the communications media, and discover the effect of access to media upon site choice for the decision centers. Attempt to identify the criteria for site choice for new communications foci, such as computer service centers.

Findings. The spatial structure of decision in even a disperse metropolitan area like Detroit is remarkably centralized. Computer centers will probably choose between the exchange handling telephone long lines and the central post office. The next stage of analysis seems to require an area-wide human time budget estimate. (RLM)

43. THE EFFECT OF BY-PASS HIGHWAYS UPON RETAIL BUSINESS

Main Investigators: Carl Goldschmidt, Hugh Faville.

Status of Research and Publications: Completed and published, 1961. Available from Continuing Education Service, Michigan State University, East Lansing.

Agency: Michigan State University, Highway Traffic Safety Center and Department of Urban Planning, and Michigan State Highway Department, under sponsorship of U.S. Department of Commerce, Bureau of Public Roads.

Previous Digest report: None.

Research Problem. Determination of the effect of traffic re-routing to a by-pass upon the retail economy of small cities.

Method of Study. Sales tax payment trends, and comparisons among city, county and state payment levels for a span of years before and after the by-pass opening, form the basis for conclusions about the reaction of individual types of business to the traffic change. Some interview data, as well as other local economic indicators have been utilized as well.

Major Findings.

1. In five of the six small Michigan cities in which studies were conducted, retail business as a whole did better throughout the study period than in Michigan generally.

2. Certain types of business, notably gasoline stations and restaurants, may be adversely affected by re-routing of through traffic; however, other facts, such as management, and nature of clientele have, in some cases, more important effects.

3. Negative effects on retail businesses other than gasoline stations and restaurants were not discernible in most of the cities studied. (CG)

44. APPLICATION OF COMPUTER SIMULATION TECHNIQUES TO INTERCHANGE DESIGN PROBLEMS

Main Investigators: Aaron Glickstein, Leon D. Findley, S. L. Levy.

Status of Research and Publications: Completed and reported in mimeograph form to sponsor.

Agencies: Midwest Research Institute, Kansas City, Missouri, under sponsorship of U.S. Department of Commerce, Bureau of Public Roads.

Research Problem. To investigate the application of computer simulation techniques to freeway interchange design problems, particularly with reference to the traffic flows entering at on-ramps and leaving at off-ramps.

Previous Relevant Research. "Application of Digital Simulation Techniques to Freeway On-Ramp Traffic Operations," by P. A. Perchonok and S. L. Levy, Midwest Research Institute, Kansas City, Missouri, under sponsorship of the Bureau of Public Roads, 1959. This earlier research provided the basic simulation model for the more recent project.

Method of Study.

Phase 1 - Development of input data, through study and analysis of actual freeway traffic data gathered in two major U. S. cities.

Phase 2 - Development of logic and program for the new expanded simulation model.

Phase 3 - Testing of the new simulation model, through controlled experiments.

Major Findings. Study indicates that digital simulation can be used to duplicate the actual traffic flows at the on- and off-ramp areas of a freeway. In addition, the simulation output gives measures of effectiveness which can be used to evaluate alternate highway designs. (AT)

45. UPPER MIDWEST ECONOMIC STUDY

Main Investigators: Wendell T. Burns, James M. Henderson, John R. Borchert.

Status of Research and Publications: Publications issued to date: Study papers, No. 1, The Upper Midwest Economic Study: A Research Prospectus, James M. Henderson (March, 1960), 37 pages (out of print) and No. 2, Progress Report for the Fiscal Year Ended June 30, 1961 (September, 1961), 49 pages; Urban Report, No. 1, The Upper Midwest Economic Study: An Urban Research Prospectus, John R. Borchert, in collaboration with James M. Henderson and C. David Loeks, (April, 1961), 24 pages; and Technical Paper No. 1, Four Papers on Methodology, James M. Henderson, R. Stephen Rodd, Larry A. Sjaasted, and Anne O. Krueger, (June, 1961), 81 pages. Twenty individual research projects under way, itemized separately below. (See items numbered 46-66.) Several other studies in urban renewal, in political fragmentation, in extension of 1960 Census data, in evaluation of data on municipal government or private expenditures for community services and functions, in selected retail functions for towns, etc., contemplated or in pilot stage.

Agencies: University of Minnesota and Upper Midwest Research and Development Council, under sponsorship of Ford Foundation. Cooperating agencies, Montana State University (Missoula); Montana State College (Bozeman); North Dakota State University (Fargo); University of North Dakota (Grand Forks); State University of South Dakota (Vermillion); South Dakota State College (Brookings); and Federal Reserve Bank of Minneapolis.

Previous Digest report: 7:2, p. 54. (JMH)

46. MIGRATION IN THE UPPER MIDWEST REGION*

Main Investigator: Larry A. Sjaastad.

Status of Research and Publications: Data collection nearly finished, general descriptive report and special reports on rural out-migration and on movements to, from and between urban areas, in process.

Research Problem. Analytical quantification of effect of income differentials, age structures, distance and unemployment on migration, on basis of 1950-1960 experience. Projection of Upper Midwest population to 1975 by states and sub-state units, including both general geographic and rural-urban distributions.

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*Editor's note. Items 46 through 66 report on individual study projects underway as part of the Upper Midwest Economic study. They have been abstracted from Study Paper No. 2, Progress Report for the Fiscal Year ended June 30, 1961.

47. LABOR FORCE IN THE UPPER MIDWEST REGION

Main Investigator: William R. Belmont.

Status of Research and Publications: Techniques of measurement developed and currently being applied to selected sample areas. Probable completion date of project, February, 1962.

Research Problem. To furnish precise knowledge of and about the labor force requisite for the establishment of an action program directed to accelerating economic growth. In pursuance of this objective, (1) to establish a methodology for the measurement of a labor force potential, both quantitative and qualitative, in predominantly agricultural areas, and (2) to test the methodology by measuring the actual labor force potential in two separate sample areas which are taken to be represenative of a broad range of conditions in the Upper Midwest region.

48. IMPACT OF THE ST. LAWRENCE SEAWAY ON THE UPPER MIDWEST REGION

Main Investigator: Anne O. Krueger.

Status of Research and Publications: Preliminary investigation completed. Research currently suspended, to allow observation of developments of shipping seasons of 1961 and 1962. To be resumed in 1962, with final results expected by the end of the year.

Research Problem. To analyze income and employment generated directly in the region by the shipping industry, by other forms of transportation, and by industries whose outlets will either expand or contract as a result of the seaway.

49. THE ELECTRONICS INDUSTRY

Main Investigator: Francis M. Boddy

Status of Research and Publications: In process. Completion expected in 1961.

Research Problem. To identify and measure the factors which seem to determine optimum location in the electronics industry and to match these with the characteristics of Upper Midwest locations.

50. RECREATION RESOURCES IN THE UPPER MIDWEST REGION

Main Investigator: Richard O. Sielaff

Status of Research and Publications: In process. Completion expected by end of 1962.

Research Problem.

1. To determine the economic significance of outdoor recreation in the Upper Midwest region;

2. to determine differential rates of development of sectors within the outdoor recreation industry; and

3. to recognize and analyze action policies directed toward the development of outdoor recreation in the region.

51. FOREST PRODUCTS IN MONTANA

Main Investigator: Arnold W. Bolle

Status of Research and Publications: In process. Completion scheduled for late 1962.

Research Problem. Cyclical variations in this industry, the third most important in the state, have far reaching effects on the state's and the region's economy, as well as on the present and future productivity of the forest resource. Thus, the objective of this project is to provide a thoroughgoing analysis of the industry in order to get a clearer understanding of its problems, from supply through fabricating to marketing.

52. OAHE WATER DEVELOPMENT

Main Investigator: Rex D. Helfinstine

Status of Research and Publications: In process. Completion scheduled for the end of 1962.

Research Problem. To determine (1) the economic benefits of irrigation to farmers in central South Dakota from the Oahe Reservoir of the Missouri River as proposed by the Bureau of Reclamation, and (2) the economic benefits of water resource development to local businessmen and local communities in the area.

Method of Study. Data from a field survey of a selected sample of farms in central South Dakota and survey data from comparable irrigation projects, experimental work by the South Dakota State College Experiment Station, and other sources will be used for developing input-output data to compare returns from irrigated and dryland farms.

53. AGRICULTURAL ECONOMY OF THE UPPER MIDWEST REGION

Main Investigators: Rex Cox, Arvid Knudtson

Status of Research and Publications: In process. A series of working manuscripts will be circulated beginning in the fall of 1961. Final report to be issued in the summer of 1962.

Research Problem. To examine the present organization of agriculture in the Upper Midwest region, and to make projections by economic classes of farms within the thirty-one State Economic Areas of the region to 1975, under various assumptions regarding government program and price situations. Included among the projected items are: number and size of farms; land, its utilization and productivity; alternate crop and livestock combinations and the output resulting therefrom; labor, its utilization and productivity; capital structure; income by source and expense.

54. BEEF CATTLE FEEDING IN THE NORTHERN GREAT PLAINS

Main Investigators: Warren L. Trock, John L. Fischer.

Status of Research and Publications: In process. Completion scheduled for June, 1962.

Research Problem. A study of the production, marketing and consumption of beef, an analysis of the position of the Northern Great Plains in inter-regional competition in the industry, and an estimate of the future for cattle feeding in the area.

55. MEAT PRODUCTION AND DISTRIBUTION

Main Investigator: Thor A. Hertsgaard.

Status of Research and Publications: In process. Completion expected in June, 1962.

Research Problem. A linear programming analysis to determine optimum locations for the production and distribution of beef, pork and lamb among eighteen arbitrary regions in the United States such that the total costs of production and transportation among regions are minimized, with special reference to competitive cost position of meat production in the six Upper Midwest States.

56. FARM SIZE IN THE RED RIVER VALLEY

Main Investigator: Lloyd C. Rixe

Status of Research and Publications: In process. Completion scheduled for December, 1962.

Research Problem. To determine whether economies to size exist on the farms of the Red River Valley and if they do, over what ranges of output and to what degree.

57. LOCAL GOVERNMENT EXPENDITURE PATTERNS

Main Investigator: James M. Henderson.

Status of Research and Publications: Results of a pilot study should be completed by late fall, 1961.

Research Problem. An analysis of expenditure patterns of local givernments in each of the Upper Midwest's 304 counties.

Method of Study. Current and capital expenditures during 1957 are distinguished for each of eight major functions: education, transportation, hospitals, health and welfare, protection, recreation and resources, sanitation, and operations. Comparable information over time being extended to allow more complete consideration of capital expenditures. Analysis of variance methods are being used to classify counties into groups which are similar with regard to size, growth rate, level of urban density and/or general function. This analysis will allow comparison of counties roughly similar with regard to those characteristics and provide information for a further study of differences between similar counties. In addition, this analysis will provide information and some initial conclustions regarding levels of local performance and preferences of individuals as expressed through activities of their governmental units.

Major Findings. Preliminary results indicate that education and transportation (highway) expenditures per capita decline as population size increases. Protection (fire and police) expenditures increase with population size, and general operation expenditures first decline then increase with population size, being the lowest for medium size counties.

58. LOCATION OF RETAILING IN SOUTH DAKOTA

Main Investigator: V. E. Montgomery

Status of Research and Publications: In process. Project scheduled for completion early in 1962.

Research Problem. To develop data describing shifts in retail trade activities between communities in various size groups. Project limited to state of South Dakota.

Hypothesis. That retail sales in the Upper Midwest's larger communities have increased more than in proportion to population growth, partially at the expense of the region's smaller communities.

59. COMPETITIVE ADVANTAGE IN THE UPPER MIDWEST REGION

Main Investigator: Ronald J. Wonnacott

Status of Research and Publications: In process. One or more reports to be available by spring of 1962.

Research Problem. To determine those economic activities for which the Upper Midwest is likely to be best suited in the future. Key factors to be considered as they apply to the region and to other areas of the United States are wages, taxes, growth of labor force, resource locations, local market growth, potential economies of scale, and transport costs to major markets. Non-economic factors will be introduced when their effects appear important.

60. UPPER MIDWEST MARKETS

Main Investigators: Bruce P. Duncombe, R. Stephen Rodd

Status of Research and Publications: In process. Estimates scheduled for completion and release in late fall of 1961.

Research Problem. To identify the markets in which the Upper Midwest buys and sells goods and services in order to portray economic ties between the Upper Midwest states and between these states and locations outside the region, and to provide basic materials for the projection of Upper Midwest income and employment levels to 1975.

Method of Study. Quantitative flow estimates are being prepared for 41 industrial sectors. Fifteen areas of origin and destination are distinguished, of which the Upper Midwest states form six. Flows for all sectors are being estimated for 1958; flows for a number of sectors are being estimated for 1960 as well, and in several instances estimates cover a five to ten-year period. In addition to various published and unpublished sources, special tabulations covering railroad shipments into or out of the parts of Wisconsin and Michigan included in the Upper Midwest have been derived from interstate Commerce Commission information. Fifteen hundred Upper Midwest manufacturers are currently being surveyed in order to determine where their goods are sold.

61. PERSONAL INCOME IN THE UPPER MIDWEST

Main Investigator: John G. Turnbull.

Status of Research and Publications: In process. Preliminary results expected by the end of 1961, final results by September, 1962.

Research Problem. To provide a set of yardsticks by which the economic well-being of the Upper Midwest region can be appraised; to develop it for both agricultural and non-agricultural sectors; and to extend it in greater detail to other sub-units of the area.

62. EMPLOYMENT AND WAGES IN THE UPPER MIDWEST REGION

Main Investigator: R. Stepehn Rodd

Status of Research and Publications: Basic data collected, final estimation procedures underway. Scheduled for completion in fall of 1961.

Research Problem. To provide estimates of the average number of persons employed and average wages and salaries paid in each of the forty-one UMES industry sectors in each of the six Upper Midwest states for each year from 1950 through 1960. Related data being collected on a county basis to allow areal distinctions in economic structure for use in UMES urban research.

Method of Study. Series collected by the state employment agencies and the United States Department of Labor have been selected as the primary source of wage and employment information. Supplementary estimates are being prepared for those industries not covered by the employment security series, and all data are being converted to the consistent basis given by the 1957 Standard Industrial Classification. Since employment security series are mainly on a state-wide basis, special estimating procedures have been established to allow the construction of comparable series for the parts of Wisconsin and Michigan which are included in the Upper Midwest region.

63. IMPACT OF GOVERNMENT IN THE UPPER MIDWEST REGION

Main Investigator: Richard Rosenberg

Status of Research and Publications: Methodology developed and applied to governments in the Upper Midwest. Applications now being extended to other parts of the nation in order to develop comparative information. General report scheduled for completion in fall of 1961.

Research Problem. To provide quantitative information concerning the role of governments in the economic life of the Upper Midwest. The activities of federal, state and local governments are being considered as economic sectors which provide jobs and income but at the same time reduce income through taxes.

Method of Study. Estimates of the geographical incidence of taxes have been made in order to allocate appropriate portions of the federal tax burden to the Upper Midwest states. A methodology has also been developed to allocate Federal expenditures to those states which actually receive the additional income. The per capita burden and the per capita benefits from federal activity will be compared with similar figures for states outside the Upper Midwest. State and local government finances are being treated in a similar manner. State and local tax burdens are also being investigated to discern differential burdens and benefits between states.

64. ACTION POLICY COMPENDIUM FOR THE UPPER MEDWEST REGION

Main Investigator: Benjamin P. Klotz

Status of Research and Publications: In process. Completion scheduled for fall of 1961.

Research Problem. Numerous action policies have been recommended in the past to stimulate economic growth in various portions of the Upper Midwest region. Some of these were the result of past research projects. This project has been undertaken so that past recommendations can be considered within the framework of the present analysis and the benefits of this past work will not be lost. Each policy recommendation is being classified with regard to (1) goal - what it is hoped that the policy will achieve; (2) form - the means by which the policy will be implemented, and (3) direct impact - the immediate changes in economic quantities which would result if the policy were implemented.

65. URBAN MIGRATION IN THE UPPER MIDWEST

Main Investigator: Russell B. Adams.

Status of Research and Publications: In process.

Research Problem. To supplement the general population, labor force and urban growth analyses by identifying specific geographical sources of in-migrants for specific urban areas. The urban areas include all cities larger than 25,000; all smaller centers with net in-migration; and a large sample of other cities of varying sizes and locations. Data cover the years 1938, 1958, and 1960.

Method of Study. Data are being obtained from records of electric utility companies. These show the location, date, and previous address of customer for each new residential connection. The utility records have two important limitations. Geographical and historical coverage are incomplete; and there is no systematic record of age or other characteristics of the migrants. The sample undoubtedly emphasizes family units and tends to miss the important young, unmarried group. It is believed that the extent and nature of these gaps can be determined and the gaps partly closed by analyses of Census statistics, use of other sources, and a follow-up survey of migrants.

Major Findings. For the data assembled thus far in the Twin Cities metropolitan area, the pattern which appears to be emerging is one of intra-city movement which overshadows all other migration, an out-migration from the central cities to the suburbs, and relatively low (in comparison with internal shifts) in-migration from highly dispersed sources in the Upper Midwest and the rest of the nation.

66. URBAN FRINGE AREAS IN THE UPPER MIDWEST REGION

Main Investigators: Thomas Anding, Morris Gildemeister.

Status of Research and Publications: In process.

Research Problem. In particular areas, traditionally rural with farming or forestry as primary modes of life, there has been a postwar intensification of a thirty-year trend toward employment, full or part-time, in nearby towns; reduction or elimination of dependence upon farming; and increasing utilization or urban shopping, recreational and cultural facilities. The segment which is rural-farm, in both economic and social attributes, has been sharply reduced. The purpose of this study is to determine and evaluate specific characteristics of employment and living standards in two sample areas in Minnesota (a 1,500 square mile area south of the Twin Cities, and a 3,500 square mile area in northeastern Minnesota) which are believed to exemplify these changes.

Hypotheses.

1. That dispersed settlement is, barring direct and forceful intervention to the contrary, a significant and permanent feature of urban development;

2. that the people involved are either seeking amenities or utilizing resources which the built-up cities and suburbs do not provide; and

3. that a positive approach to this type of urbanization can be included in local and regional planning.

Method of Study. Home interview survey to obtain information on type, place, and stability of non-farm employment; commutation trip; type and cost of housing; duration and reason for current place of residence; amount of land owned or rented and use of that land. Related social and economic data from the Census will be analyzed in connection with field survey.

67. A MANUAL OF PROCEDURES FOR THE OPERATING AND CAPITAL BUDGET PROCESSES IN LOCAL GOVERNMENTS AND A STUDY OF THE FEASIBILITY OF COMPARATIVE MEASUREMENTS

Main Investigators: Lennox L. Moak, John L. Fava, Kathryn W. Killian.

Status of Research and Publications: Study initiated in March, 1961 and scheduled for completion in March of 1963. Planned format for publication of findings on all aspects of the study is a report which is primarily narrative but which contains statistical tables and exhibits. Report anticipated for June, 1963.

Agencies: Municipal Finance Officers Affairs Association and Citizens Budget Commission, Inc., under sponsorship of Ford Foundation.

Research Problem. In many respects this is not a research project; in others it is. The objective is to discover and record desirable practices in municipal budgeting and to make some contributions to knowledge in the field of feasibility of comparative measurements. Despite the wealth of literature in the field of budgeting, that relating to processes themselves is comparatively meager. Therefore, harassed finance officers are forced to live "according to their wits" to meet the exigencies of their local situation--particularly in the field of capital budgeting. The current project seeks to determine from existing practices the desirable elements of the operating and capital budget processes and to provide some re-evaluation of those elements traditionally included in these processes as well as those currently excluded.

Previous Relevant Research. Research has been conducted over the past six years by the Citizens Budget Commission in the field of work measurements and over the past two decades by the Municipal Finance Officers Association in the field of improved budgetary techniques for operating budgets.

Method of Study. An outline for the project itemizing the bases and each step in the operating and capital budget processes has been developed. Compilation of a bibliography relating primarily to budgeting in local governments has been begun. Primary source materials for the study have been received from fourteen cities in the United States and three cities in Canada. Each city has submitted selected documents relating to local budget preparation, execution, and control. Currently, these documents are being reviewed and a description of the budget process as it is currently practiced is being drafted. In addition, research is being conducted to determine the fields in which work measurements are feasible and useful. The findings of each of the foregoing are being analyzed to segregate the elements of a desirable budget process. In order to complete the study, the conduct of field interviews and the utilization of consultants are anticipated at a subsequent date. (LLM)

68. URBAN RENEWAL IN THE UNITED STATES - ITS PROBLEMS AND PROSPECTS

Main Investigator: Dr. Constantinos A. Doxiadis.

Status of Research and Publications: First report presented in May, 1961, entitled "Urban Renewal in the U.S.A." includes an analysis of urban renewal efforts in the United States to date. 148 pp. Second report, October, 1961, entitled: "Ecumenopolis: Forward the Universal City" presents a critique of growth patterns and future prospects for urban centers throughout the world. 185 pp. Final report publication scheduled for 1962.

Agency: National Association of Housing and Redevelopment Officials, under sponsorhsip of the Ford Foundation.

Previous Digest report: 8:1-45. (MKN)

69. STATE ECONOMIC PROJECTIONS

Main Investigators: Sidney Sonenblum, Louis Delwart.

Status of Research and Publications: First approximations of state projections completed. Release of information expected early in 1962.

Agency: National Planning Association.

Previous Digest report: 7:2, p. 53. (SS)

70. METHODS FOR ESTIMATING THE NUMBER OF BUSINESS CONCERNS IN A STATE BY LOCATION AND TYPE

Main Investigators: Edgar Z. Palmer, Chan Hyu Lee.

Status of Research and Publications: Study completed and submitted to sponsor.

Agency: University of Nebraska, Bureau of Business Research, under sponsorship of U.S. Department of Commerce, Small Business Administration.

Previous Digest report: 8:1-47. (EZP)

71. NEW JERSEY REGIONAL URBAN RENEWAL SURVEY

Main Investigators: Sidney L. Willis, Walter D. Gaby.

Status of Research and Publications: Research completed. Eight of nine technical reports completed, ninth report in review stage. A final report, summarizing all of the nine technical reports, is in process and should be completed by the first part of 1962. The nine technical reports are as follows:

1. Urban Renewal and Federal Programs, 1950-1960;
2. Residential Quality;
3. Social Characteristics of Neighborhoods;
4. Housing Needs and Markets, 1960-1970;
5. Projections of Land Utilization and Urban Renewal, 1960-1970;
6. Characteristics and Problems of Urban Renewal Projects, 1950-1960;
7. Fiscal Capacities of Municipalities, 1960-1970;
8. Community Renewal Costs in Eight Municipalities;
9. Inter-Municipal and State Urban Renewal Actvities.

Agencies: State of New Jersey, Department of Conservation and Economic Development, Division of State and Regional Planning, and Rutgers University, under sponsorship of U.S. Housing and Home Finance Agency.

Previous Digest report: None.

Research Problem. This project is designed to demonstrate methods of providing a body of regional development data and information within the region for use in the formulation and design of renewal programs. The project demonstrates techniques that other states and regional agencies may apply in assisting local communities in urban renewal. Selected as a pilot area for the demonstration were nine counties in the northeastern New Jersey region.

Previous Relevant Research. None.

Hypothesis. The research program was designed recognizing that the major, underlying developmental forces operating in a metropolitan region increasingly are forming the essential environment which controls the development and renewal of the region's individual communities. For example, regional employment opportunities eventually are translated into local community housing market pressures. Regional patterns in land use affect each local tax base. Patterns of residential deterioration in the region become the local blight problems which local renewal actions attempt to correct. Thus, important hypotheses of the demonstration project research program are: (a) that comprehensive knowledge of regional forces is a pre-requisite for designing local renewal programs within a specific region, and (b) that these forces and trends, to a large degree, control both the extent, location and intensity of the blight problem as well as the ability or inability of communities to finance needed urban renewal. In addition, further knowledge of regional forces and their local impact may provide a basis for intermunicipal or region-wide programs for renewal action.

Method of Study. The project entailed a complete survey of residential deteriorated conditions in the area and estimates were made of the cost of treating sample areas under various assumptions. All major existing research on trends and development within the region was reviewed for the purpose of preparing guides for local renewal actions. An analysis was made of all existing renewal projects in selected communities for their effect on the region. Illustration of successful local action was included. Studies of the social and economic implications to the region of urban renewal programs, and the financial as well as the organizational ability of various types of New Jersey municipalities to undertake urban renewal programs were conducted.

Major Findings. Major findings are to be found in nine technical reports listed above. Because the forthcoming final report will summarize the findings of the nine technical reports, it is premature at this time to isolate findings of the individual reports until the final report has been completed. (EJS & NLH)

72. TRANSIENT HOUSING STUDY

Main Investigator: David M. Pellish.

Status of Research and Publications: Research began July, 1961. Final report to be published in 1963.

Agency: State of New York, Division of Housing and Community Renewal; Bureau of Urban Affairs, under sponsorship of Housing and Home Finance Agency.

Research Problem. The Demonstration Project has the following objectives: (1) the study of experience with minimum housing standards for transient housing, including hotels, motels, boatels, travel trailers, travel trailer parks, and migratory worker camps; and (2) the development of model standards for such housing and procedures for their enforcement and administration.

Previous Relevant Research. The present study will substantially complete the New York State Model Housing Code which was published in 1958, and revised in 1960, as part of a three-volume set entitled "Housing Codes - The Key to Housing Conservation." The latter report was the product of Demonstration Grant Project NYD-1 which was concerned with non-transient housing, including one- and two-family dwellings, multiple dwellings, mobile homes and mobile home courts.

Hypotheses. A housing code is a primary tool which a community can utilize in conserving its housing inventory. Most municipalities do not possess housing codes or similar regulations relating to the maintenance of minimum housing standards in existing housing. Transient housing, accommodating persons who, for the most part, are without personal attachment to their surroundings, and in many instances located in the so-called "grey areas" of a community, represents a blighting threat in those municipalities without adequate codes to enforce minimum housing standards in such facilities. This demonstration project will develop such standards to guide minicipalities in their efforts to conserve and improve transient housing.

Method of Study. Minimum housing standards developed by governmental agencies and professional groups will be studied and codified. Existing conditions of transient housing and present regulations to control such housing will be analyzed. Gaps in minimum housing standards applicable to transient housing will be filled by developing new standards in cooperation with technical experts. Advisory committees representing state agencies now operating in related fields and private groups of owners and users of transient facilities will assist the study.

Major Findings. The major findings of the study will be published at the conclusion of the project and will include a model housing code for transient housing, as well as recommendations for administration and enforcement procedures. (DMP)

73. MUNICIPAL COST-REVENUE RESEARCH IN THE UNITED STATES

Main Investigator: Ruth L. Mace

Status of Research and Publications: Completed. Publication issued in book form in October, 1961.

Agency: University of North Carolina, Institute of Government.

Previous Digest report: 3:1-15 and 3:2-49.

Research Problem. A critical survey of research to measure municipal costs and revenues in relation to land uses and areas: 1933-1960. (RLM)

74. A PILOT INVESTIGATION OF DETERMINANTS OF LAND DEVELOPMENT

Main Investigators: F. Stuart Chapin, Jr., George C. Hemmens, and Shirley F. Weiss, in collaboration with Thomas G. Donnelly.

Status of Research and Publications: Published under title "Land Development Patterns in the Piedmont Industrial Crescent." December, 1960. $1.00.

Agency: University of North Carolina, Institute for Research in Social Science, Urban Studies Program, P. O. Box 1167, Chapel Hill, N. C.

Previous Digest report: 7:2-41. (FSCJr)

75. SOCIO-CULTURAL ADAPTATIONS OF NEWCOMERS TO CITIES IN THE PIEDMONT INDUSTRIAL CRESCENT

Main Investigators: John Gulick, Charles E. Bowerman.

Status of Research and Publications: Published June, 1961. $1.00. (Note: The main text of this research paper is an expanded version of "Newcomer Enculturation in the City: Attitudes and Participation," by John Gulick, Charles E. Bowerman and Kurt W. Back, which comprises a chapter in the forthcoming book, Urban Growth Dynamics, F. Stuart Chapin, Jr., and Shirley F. Weiss, eds., in press with John Wiley & Sons, Inc., to be released in late 1962.)

Agency: University of North Carolina, Institute for Research in Social Science, Urban Studies Program, P. O. Box 1167, Chapel Hill, N. C.

Previous Digest report: None

Research Problem. Utilizing a survey research approach to study the social correlates of urban growth in Durham and Greensboro, the specific objectives are to identify satisfactions of residents with city living and to test the long-held assumption that the residents of cities find city living socially and emotionally unsatisfactory. The degree of satisfaction is examined in terms of the characteristics of recent migrants, the process of migration and the decision to move, general community satisfaction, marital satisfaction, relatives, friends, neighbors and neighborhoods, formal associations, and community-wide involvement and identification.

Major Findings. Contrary to the postulates of the traditional urban stereotype, the inhabitants of Durham and Greensboro are not typically deprived of close, affectional social ties. For the most part, their marriages are satisfactory, and they have a sufficient number of satisfactory relationships with friends and kinsmen. In general, they have made a happy adjustment to the relatively superficial urban neighborhood social patterns and to the necessity of dealing impersonally with many people. Non-natives of these cities do at first experience a certain amount of deprivation and dissatisfaction in these respects, but they adapt, or enculturate, themselves rather rapidly and successfully to their new surroundings. The fact that they were drawn to these cities primarily because of hoped-for economic advantages does not mean that their motivations in subsequent behavior are necessarily or primarily economic in nature.

Two factors in particular are suggested by the findings as being contributory to the relatively satisfactory nature of social life in the Crescent. First, the majority of the newcomers are natives of the Southeast. This means that their moving into the Crescent does not require any serious readjustments in a large number of minute and subtle social conventions which, taken together, constitute a large proportion of the ordinary routines of living. Most of their readjustment has to do with becoming familiar with a new physical location and with forming new social relationships. The process is greatly eased for the many newcomers who move from nearby places since they can and do maintain frequent contacts with friends and relatives there.

The second major factor has to do with the increasingly high levels of educational attainment, and concomitantly professional or highly skilled occupations, of the most recent newcomers, both those from the Southeast and most particularly those who move from places outside the region. There is some evidence that such people are, by reason of their training and experience, more and more developing a set of attitudes which make it possible for them positively to accept rather than to resist the necessity of occasional migration. If this is the case, it increases their ability quickly and successfully to enculturate themselves as newcomers.

The social correlates of urban growth in the Crescent may be expected to continue as described as long as that growth itself continues to be relatively slow, to be based on the expansion of businesses which primarily require professional or highly skilled workers, and to be supported by ever-improving facilities for higher education in the Crescent. (FSCJr, SFW)

76. THE NATURE AND MEASUREMENT OF HIGHWAY BENEFITS: AN ANALYTICAL FRAMEWORK

Main Investigator: Herbert Mohring

Status of Research and Publications: Completed and issued, 1961.

Agency: Northwestern University, Transportation Center.

Previous Digest report: None.

Research Problem. General theory and nature of highway investment are those obtained through highway use. A close estimate of the dollar value of these basic net benefits could be obtained from data for each user class on the costs and amounts of highway transportation undertaken before and after completion of a highway investment program. Additional benefits which have been claimed for highway investment are not net benefits but rather result either from the transfer of benefits initially received by highway users or from highway-related changes in locus of economic activity. Whether highway improvements will increase or decrease aggregate land values in a community cannot be determined on logical grounds alone. It depends, rather, on the facts of the individual case under analysis. (DRL)

77. TRANSPORTATION THEORY AND PREDICTION

Main Investigator: W. L. Garrison.

Status of Research and Publications: Four-year research project, initiated in 1960. Interim report, The Structure of Transportation Networks, by W. L. Garrison and D. F. Marble, (141 pps.) submitted to sponsor, October, 1961.

Agencies: Northwestern University, Transportation Center, under sponsorship of U.S. Army Transportation Command.

Previous Digest report: 7:2-45.

Research Problem. The study objectives, simply stated, are: (1) to provide a method and measurement of the effects of area characteristics on the amount and nature of transportation in a given area, and (2) to develop theory which will allow prediction of changes in transportation characteristics to be made in light of changes occurring in area characteristics. A major problem concerns the formulation of worthwhile measurements which can be used on a comparative area basis.

Previous Relevant Research. A study of the distribution of transportation resources or stocks among and within nations, same agency and sponsorship, entitled Transportation Geography Research, (152 pps.) July 1, 1960.

Method of Study. The transportation analysis itself is being "disaggregated" into various views of transportation such as (1) aggregate measurements of the amount of transportation such as miles of road, number of cars, etc., (2) spatial structure and configuration of routes, (3) flows along routes and between centers, (4) intensity of transportation use and its value to the general economy, and (5) interrelationships among different transportation modes and networks. (RRB)

78. INDUSTRY AND TRANSPORTATION STUDY--EUGENE-SPRINGFIELD AREA, OREGON

Main Investigators: Ronald N. Johnson, Don V. Martin, William Hoey III, J. David Rowe.

Status of Research and Publications: First two phases (Employment Forecast and Industrial Location) completed and available for distribution. Third phase (Highway Study) expected to be available in December, 1961.

Agency: University of Oregon, Bureau of Municipal Research and Service.

Previous Digest report: 8:1-55. (DNJ)

79. RESEARCH DESIGN FOR AN AREA DATA SERVICE IN THE PENJERDEL REGION

Investigator: Wroe Alderson

Status of Research and Publications: Starting date, September 1, 1961; completion date, July 1, 1962.

Agencies: Penjerdel (Pennsylvania-New Jersey-Delaware Metropolitan Project, Inc.) and the University of Pennsylvania, with sponsorship by the Chamber of Commerce of Greater Philadelphia.

Research Problem. Design for a proposed Area Data Service for business firms and public agencies in the Penjerdel region (11 counties in 3 states from Trenton, N. J., to Wilmington, Del.). The Penn-Jersey Transportation Study (which covers 9 of the 11 Penjerdel counties) is rendering assistance from its data collection activity.

At least one alternative design will be incorporated in an application to public or private sources for funds to establish the service. (JWB)

80. THE PRESERVATION OF OPEN SPACE IN METROPOLITAN AREAS: AN ANALYSIS OF LEGAL PROBLEMS AND SOME LEGISLATIVE PROPOSALS

Main Investigators: Jan Z. Krasnowiecki, James C. N. Paul, Ann Louise Strong.

Status of Research and Publications: Project completed, September, 1961.

Agency: University of Pennsylvania, Institute of Legal Research, under sponsorship of Penjerdel.

Previous Digest report: None.

Major Findings. The research team investigated the scope and adequacy of existing legal devices for preserving open space, with principal focus upon the Penjerdel area (11 counties in 3 states, from Trenton, N. J., to Wilmington, Del.). They concluded that there is a gap in the spectrum of present land use controls between regulation without compensation (such as zoning) and acquisition on payment of compensation. To bridge this gap, for the purpose of preserving large open spaces in private ownership, they propose a combination of regulation with compensation for whatever loss is suffered by the regulation, with the payment of any compensation deferred until the loss is realized. (JWB)

81. RESEARCH DESIGN FOR INVESTIGATIONS OF THE FUTURE LABOR FORCE SUPPLY AND DEMAND IN THE PENJERDEL REGION

Main Investigators: John F. Adams, Louis T. Harms (Temple University); Gladys Palmer (University of Pennsylvania); Rudolf F. Voegeler (Drexel Institute of Technology).

Status of Research and Publications: Starting date, July, 1961; completion date, December, 1961.

Agency: Penjerdel.

Previous Digest report: None.

Research Problem. The administrative Committee, named above, has organized working groups of academicians from a number of colleges and universities in the Penjerdel region (11 counties in 3 states, from Trenton, N. J. to Wilmington, Del.) to prepare a research design for a series of studies pertaining to the region's labor force. These will include demand and supply estimates; technological analyses and resource surveys of selected industries; analyses of training aids and facilities; and methods to motivate appropriate segments of the labor force to take advantage of training opportunities.

The purpose of the research design is to secure public or private funds to finance the component investigations at the participating universities. (JWB)

82. THE GENERAL PATTERN OF LOCAL GOVERNMENT IN THE PENJERDEL REGION

Main Investigators: Lennox L. Moak, Edwin Rothman, Mitchell Hunt with the cooperation of Paul Dolan (University of Delaware); Ernest C. Reock, Jr. (Rutgers University).

Status of Research and Publications: Starting date, April 1, 1961; completion date, December 1, 1961.

Agencies: Pennsylvania Economy League, under sponsorship of Penjerdel.

Previous Digest report: None.

Research Problem. The research team is exploring the basic responsibilities of various levels of government which perform local governmental services in the Penjerdel region (11 counties in 3 states, from Trenton, N. J., to

Wilmington, Del.). Monographs are in preparation on: (1) Historical Development of County and Local Government; (2) Geographical Patterns of Development and Population Growth; (3) Present Organization of County and Local Government; and (4) Distribution of Governmental Functions. (JWB)

83. THE FEASIBILITY OF MAINTAINING OPEN SPACE THROUGH PART-TIME FARMING IN THE PENJERDEL REGION

Main Investigators: William E. McDaniel, William M. Crosswhite, Charles H. Tilly (University of Delaware); Hugh A. Johnson, Gerald F. Vaughn (U.S. Department of Agriculture); George Luke (Rutgers University).

Status of Research and Publications: Starting date, July 1, 1961; completion date, spring, 1962.

Agency: Penjerdel.

Previous Digest report: None.

Research Problem. The research team is investigating the extent to which it is economically and socially feasible to maintain open space in the Penjerdel region through the continuance of part-time farming operations. (The region consists of 11 counties in 3 states, from Trenton, N. J., to Wilmington, Del.). Conclusions will be based on the level of profitability of part-time farming under various soil conditions and operating programs; the pattern of land use on part-time farms; and the social, economic, and personal advantages and disadvantages which part-time farming brings to those who engage in it. Interviews were completed in September. (JWB)

84. THE HOUSING MARKET AND URBAN RENEWAL

Main Investigator: Chester Rapkind.

Status of Research and Publications: Publication in book form by University of Pennsylvania Press anticipated in 1962.

Agencies: University of Pennsylvania, Institute for Urban Studies, under sponsorship of Ford Foundation.

Previous Digest report: 7:2-46. (WLCW)

85. MIGRATION AND URBANIZATION IN THE UNITED STATES, WITH SPECIAL REFERENCE TO RECENT TRENDS

Main Investigators: D. S. Thomas, H. T. Eldridge, A. R. Miller

Status of Research and Publications: Research underway.

Agency: University of Pennsylvania, Population Research Center, under sponsorship of Ford Foundation.

Previous Digest report: None.

Research Problem. The primary analytical focus of the study is on growth of the major urban areas of the United States and on changes that have occurred over time in certain of the social and economic characteristics of their populations. We are particularly interested in the role played by population migration in effecting both growth and changing composition and to this end we are preparing a series of estimates of net migration for the decades 1950-1960 and 1940-1950. The areas for which we will be making these estimates include all cities of the United States having a population of 250,000 or more, according to the 1960 Census of Population, and the Standard Metropolitan Statistical Areas of such cities. If time and available materials permit, we hope to extend the net migration series backwards to include the 1930-1940 decade, and perhaps earlier decades as well, for at least some of the areas.

In addition to estimates of net migration over 10 year periods, we will have census of population tabulations of place of residence in 1955 and of place of birth, for the 1960 populations of these areas. We hope also to utilize certain similar materials from earlier censuses.

As a second emphasis, we will be studying changes in the broad industrial structure of these areas in the context of the changing industrial structure of the country as a whole. The chief source for these data as well as for the population materials will be the several censuses of population.

Previous Relevant Research. A technical by-product of the study that will be available by the end of November, 1961, may be of some interest to persons in the field of urban planning. It is a set of tables showing the effects of territorial annexations to large cities in the 1950-1960 decade on the size of their 1960 populations, by age, sex, and color. These tables are based on compilations by the Population Research Center of unpublished tabulations from the 1960 Census.

The present project will extend to the 1950-1960 decade the migration for states prepared by the Population Research Center in a previous study (Population Redistribution and Economic Growth, United States, 1870-1950, prepared under the direction of Simon Kuznets and Dorothy S. Thomas, Vol. I, Methodological Considerations and Reference Tables, by E. S. Lee, Ann R. Miller, Carol P. Brainard, and R. A. Easterlin; Vol. II, Analyses of Economic Change, by Simon Kuznets, Ann R. Miller, and R. A. Easterlin, Philadelphia: The American Philosophical Society, 1957; 1960. (Vol. III, Analyses of Demographic Change, in preparation.) (ARM)

86. STOCHASTIC MODELS OF TRAVEL BEHAVIOR

Main Investigator: Duane F. Marble

Status of Research and Publications: Research currently in progress. When completed, results will be presented in monograph form.

Agency: University of Pennsylvania, Regional Science Research Institute under sponsorship of the National Science Foundation. Other cooperating agencies include Department of Regional Science of the University of Pennsylvania and Department of Geography of the University of Michigan.

Previous Digest report: 8:1-57.

Methods of Study. Phase I of the research involves the detailed examination of the travel behavior of a sample of urban households. The basic characteristics of this data are reported on in detail in William L. Garrison, Brian J. L. Berry, Duane F. Marble, John D. Nystuen, and Richard L. Morrill Studies of Highway Development and Geographic Change (Seattle: University of Washington Press, 1959).

Phase II will consist of a detailed analysis of the material developed in Phase I in order to determine certain representative parameters to be used in the development and testing of several stochastic models of travel behavior. The structure of succeeding phases will be reported in subsequent issues of the Digest.

The work in Phases I and II is being carried out in close cooperation with Professor John D. Nystuen of the University of Michigan. (DFM)

87. NEW RESIDENTIAL CONSTRUCTION IN REHABILITATION NEIGHBORHOODS

Main Investigators: Not reported.

Status of Research and Publications: Data being assembled and analyzed concerning the subject in two selected Title I renewal projects in great detail, and in lesser detail elsewhere in Philadelphia, and in other selected cities. First interim report "New Residential Construction in Older Neighborhoods of Philadelphia, 1951-1960" to be published in mimeographed form during December, 1961. Printed final project report expected in 1964.

Agencies: City of Philadelphia Redevelopment Authority under sponsorship of the U.S. Housing and Home Finance Agency. Consultants under contract to the Authority for the project are the Albert M. Greenfield and Company, Inc., Philadelphia and the Institute for Architectural Research of the University of Pennsylvania, Philadelphia.

Research Problem. This study of new residential construction in rehabilitation neighborhoods is concerned with the problems connected with the filling in of the gaps which may already exist in rows of structures or may be created by clearance made necessary to remove inharmonious uses, unsound buildings or by other desiderata principally in urban renewal areas. The intent of the study is to develop generalized data which can be applied to the future programming, planning and design of renewal areas involving rehabilitation, thus to simplify these processes, to avoid errors arising from lack of experience and to reduce the time and cost involved in arriving at criteria and controls which will achieve the social and economic objectives of the renewal program.

Previous relevant research on this problem is very limited. Within the scope of study, research has been undertaken in new residential construction in older neighborhoods of Philadelphia. This study covering the period 1951-1960 is preliminary and basic to the development of this project.

The study is being done under contract with the consultants identified above with close supervision by the staff of the Redevelopment Authority. The method of study includes field surveys, interviews, statistical and real estate analysis, architectural design, and preparation of reports. This project involves the analysis of the marketing, architectural and financial aspects of representative sites in the Washington Square East, Unit No. 2 and

Morton Urban Renewal Areas where small parcels of cleared land surrounded by structures to be rehabilitated will be disposed of for residential or related uses. Two preliminary reports which present the analysis for each urban renewal area will be prepared and be available to potential redevelopers at the time that the sites are advertised for disposition. After disposition, the final report will be prepared describing the disposition methods used and the results. The final report would also contain a set of general principles and recommendations which would be useful to Philadelphia and other cities in planning future projects of this type. (MJR)

88. ECONOMIC STUDY OF THE PITTSBURGH REGION

Main Investigators: Edgar M. Hoover (Director), Benjamin Chinitz (Associate Director), Melvin Bens, Otto Davis, Donald Fink, Roy Helfgott, Abdul Khan, R. T. Longabaugh, Ina S. Lowry, William Martin.

Status of Research and Publications: Research underway since fall of 1959. Reports scheduled for publication during second half of 1962.

Agencies: Pittsburgh Regional Planning Assoication, under sponsorship of Ford Foundation and Pittsburgh Regional Industrial Development Corporation, with some Commonwealth of Pennsylvania funds.

Previous Digest report: 7:2-51. (EMH)

89. A STUDY TO DEVELOP TECHNIQUES FOR THE PHYSICAL COORDINATION OF COMMUNITY IMPROVEMENTS AND URBAN RENEWAL IN THE PITTSBURGH AREA

Main Investigators: Howard B. Stewart (Pennsylvania Economy League, Inc.), Robert C. Wood (Metro Consultants).

Status of Research and Publications: Detailed Work Program currently being reviewed by HHFA; work projected to begin December 1. Length of study estimated at 18 months. Upon completion two reports to be issued, the first for major distribution in keeping with HHFA's requirements, and the second a summary edition for use by lay officials in the Pittsburgh area.

Agencies: City of Pittsburgh, Urban Redevelopment Authority and Allegheny County, Redevelopment Authority, under sponsorship of U.S. Housing and Home Finance Agency.

Research Problem. Physical planners, governing bodies and boards of directors - both public and private - working in Allegheny County's 129 municipalities have been busy developing plans and programs for a dozen major studies. These plans contemplate the expenditure of millions of dollars in public and private funds in such fields as mass transit, highways, urban renewal and development, housing, health, education, recreation, hospital planning, care for the aging, etc.

Too little thought has been given to such programs in relation to other programs in the same field or to the ability of the community to bear such costs. More specifically, there is an absence of a fiscal mechanism which is necessary to keep the key community leaders and the citizenry at large informed of the combined financial impact of these many improvement programs. The end result is that urban renewal and redevelopment agencies find themselves competing for local funds (both public and private) without adequate financial information or background with which local public officials and citizens can judge their program.

The purpose of the study, therefore, is to develop a community planning mechanism whereby the present and potential fiscal burden of community improvement programs can be evaluated in relationship to the total fiscal resources available in order that appropriate priorities can be established.

Method of Study. A work program will be undertaken to encompass the following:

1. An inventory of governmental and non-governmental community improvement agencies. This will include, to the extent feasible, all public and private municipal, county, and state organizations, agencies, authorities, districts, and commissions responsible for the provision of community services and improvements in the Pittsburgh Urban Area.

2. The development of analytic techniques concerning the responsibilities of each agency, the nature of their activities, and the relationship of these activities to those of other agencies and to overall needs of the community. In this respect, an analysis will be undertaken of the financial operations from 1957 through 1961 of each agency inventoried.

3. The development of methods for investigation of future burdens placed upon the services of these agencies and the financial resources needed to meet such demands. Here, projections will be made for the years 1963 through 1967.

4. The development of techniques for encouraging the coordination, consolidation, or modification of public services and improvements furnished by these agencies in order to promote maximum utilization of local resources and facilities. This will include the development of methods and criteria for the scheduling of capital improvements, the measurement of revenue potential, and the consolidation of services in accordance with the relative fiscal impact upon a municipality and the community benefits to be derived therefrom. (WF)

90. NATIONAL TRANSPORTATION STUDY

Main Investigator: Lyle Fitch.

Status of Research and Publications: In process.

Agency: Institute of Public Administration, New York, N. Y., under sponsorship of U.S. Department of Commerce and Housing and Home Finance Agency.

Previous <u>Digest</u> report: None.

<u>Research Problem.</u> Among the problems to be examined are:

1. What is the urban transportation system in this country?

2. What is lacking and what are the obstacles to the removal of these deficiencies?

3. How is urban transportation financed in specific urban areas?

4. What are the possibilities of new types of transportation and new types of traffic control to avert bottlenecks?

5. How should planning for urban transportation be related to land use and community development?

6. What kinds of administrative steps are there for planning and operating urban transportation systems?

7. What has been the recent experience of certain metropolitan areas in operating their systems?

8. What part should the local, state, regional and federal government play in developing adequate urban transportation?

91. FINANCIAL PROGRAMS FOR LOWER MIDDLE INCOME HOUSING

Main Investigator: Jack E. Gelfand

Status of Research and Publications: Sociological portion of study, under direction of Professor Edwin Eames, of Temple University Department of Sociology, entering final stages. Methods and findings in process of being written up for submission to sponsor. In financial portion of study, approximately 80 per cent of programs have been processed and are being analyzed. Final model being programmed for computer, with final figures expected by middle of December. Entire study should be completed by the end of June, 1962.

Agency: Temple University, Office of Research and Specialized Services, under sponsorship of Pennsylvania Department of Commerce, Bureau of Community Development and U.S. Housing and Home Finance Agency.

Previous Digest report: 8:1-62. (JEG)

92. TEXAS ECONOMIC STUDY

Main Investigators: Russell H. Thompson, William G. Adkins

Status of Research and Publications: A portion entitled "Some Economic Effects of the Suburban Portion of North Central Expressway, Dallas, Texas," has been completed.

Agency: Texas A & M College, Texas Transportation Institute, under sponsorship of U.S. Bureau of Public Roads.

Previous Digest report: None.

Research Problem. Urban study of economic impact of a suburban radial freeway on use and value of land adjacent to the facility, and effects upon the size and character of a small town whose accessibility to the Dallas Central Bsuiness District is improved.

Method of Study. Before and after analysis of expressway periods (1946-51 and 1952-60) for land use and land values. The study area consisted of a band one-half mile wide along each side of the freeway. The control area was situated some distance from the same facility.

Major Findings. The freeway had a very profound positive effect on the value of unimproved adjacent land, with value increases of $2,752 per acre, in constant dollars, or 269 percent, between "before" and "after" expressway periods. Nonabutting unimproved land near the expressway was benefited but to a smaller degree ($158 per acre, in constant dollars, or 17 percent). In Richardson, a town from which travel time to Dallas was shortened significantly by the expressway, population increased from 2,890 in 1955 to almost 17,000 in 1960. (DRL)

93. INTERGOVERNMENTAL RESPONSIBILITIES FOR MASS TRANSPORTATION FACILITIES AND SERVICES IN METROPOLITAN AREAS

Main Investigators: Not reported.

Status of Research and Publications: Commission Report A-4, April, 1961. v and 54 pages, offset. Available from the Commission.

Agencies: Advisory Commission on Intergovernmental Relations, 722 Jackson Place, N.W., Washington, D. C. Based on draft report prepared by Institute of Public Administration, New York, N. Y.

Previous Digest report: 8:1, p. 65.

Major Findings. The Commission recommends:

1. Provision of Federal financial assistance in the form of loans and demonstration and planning grants to metropolitan areas for mass transportation facilities and services. (This has been largely accomplished through the incorporation of mass transportation assistance in the Housing Act of 1961.)

2. Legislative and administrative action by the states, particularly the larger industrial states, in initiating programs of financial and technical assistance to their metropolitan areas with respect to mass transportation facilities and services.

3. Enactment of state legislation, particularly in the larger industrial states, authorizing the establishment within metropolitan areas of mass transportation authorities, with powers to construct and operate transportatin systems, to issue bonds, and to impose user charges.

94. GOVERNMENTAL STRUCTURE, ORGANIZATION AND PLANNING IN METROPOLITAN AREAS

Main Investigators: Not reported.

Status of Research and Publications: Commission Report A-5, 83 pages, printed. Available from the Commission.

Agency: Advisory Commission on Intergovernmental Relations, 722 Jackson Place, N.W., Washington, D. C.

Previous Digest report: 8:1, p. 65.

Major Findings. In this report the Commission has submitted a number of recommendations for consideration by state legislatures, including: (a) Simplified statutory requirements for municipal annexation of unincorporated territory; (b) authorization for inter-local contracting or joint performance of urban services; (c) authorization for establishment of metropolitan service corporations for performance of particular governmental services that call for area-wide handling; (d) authorization for voluntary transfer of governmental functions from cities to counties and vice versa; (e) authorization for the creation of metropolitan area commissions on local government structure and services; (f) authorization for creation of metropolitan area planning bodies; (g) establishment of a unit of state government for continuing attention, review, and assistance regarding the state's metropolitan areas; (h) inauguration of state programs of financial and technical assistance to metropolitan areas; (i) stricter state standards for new incorporations within metropolitan areas; (j) financial and regulatory action by the state to secure and preserve "open land" in and around metropolitan areas; and (k) assumption by the state of an active role in the resolution of disputes among local units of government within metropolitan areas.

The Commission has also recommended expanded activity by the National Government with respect to metropolitan area problems, including (a) financial support on a continuing basis to metropolitan area planning agencies; (b) expanded Federal technical assistance to state and metropolitan planning agencies; (c) Congressional consent in advance to interstate compacts creating planning agencies in those metropolitan areas crossing state lines and (d) review by a metropolitan planning agency of applications for Federal grants-in-aid within the area with respect to airport, highway, public housing and hospital construction, waste treatment works and urban renewal projects. (Provision for items (a), (b) and (c) have been included in the Housing Act of 1961.)

95. HIGHWAY FINANCE AND TAXATION STUDIES

Main Investigator: T. R. Todd

Status of Research and Publications: Not reported.

Agencies: U.S. Department of Commerce, Bureau of Public Roads, in cooperation with state Highway departments.

Previous Digest report: None.

Research Problem. Continuing research in the areas of highway taxation and finance will provide information needed by legislators and highway administrators at all levels to develop systematic highway financing programs that will adequately and equitably support the physical improvement and operational programs necessary to provide adequate service to the public. The objectives of this area of research are to develop on a national, regional, and state basis information on long and short range highway finance planning, the distribution of highway-user-tax revenues, and factors to measure the effect of highway programs on the economy of the states and the nation; also, to investigate the methods and bases of present highway user taxes in order to determine the most logical and economical methods of assessing tax contributions for each class of highway beneficiary. (CAS)

96. HIGHWAY PROGRAM PLANNING

Main Investigators; Clinton H. Burnes, Elmer H. Rehberger

Status of Research and Publications: Not reported.

Agencies: U.S. Department of Commerce, Bureau of Public Roads, in cooperation with Automotive Safety Foundation, Highway Research Board, National Association of County Engineers, and municipalities.

Previous Digest report: None.

Research Problem. At present there are few guides to systematic capital budgeting procedure. An apparent lack of broad gauge systematic procedures for planning, preparing, timing, and controlling capital expenditures is conspicuous in our present situation where public demands for improvement constantly increase as a direct effect of large construction budgets. The objective of this research project is to develop new or improved procedures for the planning of highway improvement programs at all levels of government, by means of general or specific studies, consultations, and analyses of current procedures and problems. Specific areas of research are: (1) advance or long-range planning, including highway needs study techniques, long-range program development, and methods of keeping needs data current; (2) program planning, i.e., methods by which long-range plans are converted into construction programs, including methods for area or system allocation of funds, determination of project priorities based on sufficiency rating, economic analyses, or other priority indices; (3) to develop new or improved urban sufficiency ratings; and (4) to test the feasibility of linear programing to engineering appraisal techniques. (CAS)

97. MOTOR-VEHICLE-USE AND OWNERSHIP CHARACTERISTICS

Main Investigators: C. A. Steele, R. T. Messer.

Agencies: U.S. Department of Commerce, Bureau of Public Roads, in cooperation with U.S. Bureau of the Census and State and local highway departments.

Previous Digest report: None.

Research Problem. Long-range highway planning must be a continuing activity since the characteristics of the demand for highways and highway services are constantly changing. Up-to-date information on the distinctive features of motor vehicle ownership and use is necessary for such planning; data collected in the past have become questionable, or in need of modification in the interpretation, because of continuing changes in the complexion or patterns of the ownership and use factors. The studies scheduled in this area of research will not only furnish some of the new data required but will also provide critical evaluations of past and present data-collection methods, and better means of assessing data already at hand, as well as new and better procedures for collecting and interpreting such information. This project provides for collection or sponsorship of collection of several types of pertinent data and the analysis, interpretation, and dissemination of these and related data to those government officials and other interested groups and individuals who have need for them. (CAS)

98. LAND USE CONTROL RESEARCH

Main Investigator: W. H. Stanhagen

Status of Research and Publications: This is a continuing project. Several reports on completed segments have been prepared and are listed below. So far the studies have been performed by B.P.R. staff. In the future it is expected that several state highway departments, in cooperation with the Bureau, will undertake such studies. The State Highway Commission and the League of Municipalities of Kansas have just begun a pilot study.

Agency: U.S. Department of Commerce, Bureau of Public Roads.

Previous Digest report: None.

Research Problem. To investigate the relationship between land use controls and the highway transportation system. To develop ways in which land use controls can be applied to protect the public investment in highways.

Previous Relevant Research. Police Power and Planning Controls for Arterial Streets, by William H. Stanhagen and John J. Mullins, Jr.; High Transportation Criteria in Zoning Law, by William H. Stanhagen; Subdivision Controls Applied to Highway Problems, by John J. Mullins, Jr.; The Highway Interchange--Land Use Problem, by David R. Levin; Highway Interchanges and Land Use Controls, by William H. Stanhagen.

Hypotheses. Land use controls, since they affect the pattern of land use development, affect the transportation system.

Transportation oriented standards, properly applied under the power to regulate land use, can enhance and preserve the effectiveness of the highway system at little added cost to the taxpayer.

Method of Study. Analyze existing situations where land use controls have and have not been effectively applied to determine what standards will achieve the desired results.

Major Findings. So far, it appears that many state and municipal laws and procedures do not recognize the transportation aspects of land use control. In many instances, the full benefit of authority which does exist is not being realized. (DRL)

99. TRANSPORTATION ECONOMICS AND ENGINEERING ECONOMY STUDIES

Main Investigators: Robley Winfrey and C. A. Steele.

Status of Research and Publications: Not reported.

Agencies: U.S. Department of Commerce, Bureau of Public Roads, in cooperation with state highway departments and Highway Research Board. Portions of the research described in item (1) below are being performed under contract by Leland Stanford University and the Stanford Research Institute. The research described in item (2) below was performed under contract by the Texas Transportation Institute of Texas A & M College.

Previous Digest report: None.

Research Problem. Detailed data on highway cost and benefit factors have not as yet been fully developed and formalized. The relation of highway use factors to major indexes of economic growth, such as gross national product, personal income, and other indexes have not yet been fully investigated. Some research in this area has been done but not in sufficient detail to evaluate fully the many economic relationships involved. The objective of this area of research is to develop information on: (1) Cost and benefit factors in order to make available factual information on the economic consequences of highway improvements, and to devise procedures for making typical highway economy studies, (2) to search out existing data in an effort to determine the value characteristics in motor truck transport, (3) the relation of highway use factors to gross national product, personal income, and other economic indexes, (4) the analysis of nonuser highway benefits as between local communities and other communities, and (5) the ultimate effects upon the nation's economy of reductions in motor vehicle operating costs and in motor vehicle accident costs. (CAS)

100. SOUTHEASTERN RIVER BASINS STUDY

Main Investigator: U. S. Study Commission, Southeast River Basins

Status of Research and Publications: Most of the basic and functional data is at hand, comprehensive compilation underway. No publication as of now other than press releases dealing with certain studies relating to basic data: population, income, employment, fish and wildlife needs. Publication of "Main Report," eight Basin Reports and several Technical Appendices expected in 1963.

Previous Digest report: 7:2, p. 45. (GET)

101. VALUE OF HUMAN CAPITAL AS A REGIONAL OR COMMUNITY WELFARE INDEX

Main Investigator: Burton A. Weisbrod

Status of Research and Publications: Research resulted in a paper "An Expected-Income Measure of Economic Welfare" which is to be published in a forthcoming issue of the Journal of Political Economy.

Agency: Washington University (St. Louis) Department of Economics, under sponsorship of Graduate School of Arts and Sciences and Resources for the Future, Inc.

Previous Digest report: 7:2-59. (BAW)

102. MERAMEC BASIN RESEARCH PROJECT

Main Investigators: Edward L. Ullman, Blair T. Bower, Ronald R. Boyce, Donald J. Volk.

Status of Research and Publications: Research Complete. Report to be issued December, 1961.

Agency: Washington University (St. Louis) under sponsorship of Meramec Basin Corporation, a non-profit citizens' group receiving funds from local foundations and industries.

Previous Digest report: 7:2-58. (RRB)

103. LOCATIONAL FACTORS INVOLVED IN SUBURBAN DEVELOPMENT (Formerly called "Studies in Suburban Development")

Main Investigator: Myer R. Wolfe.

Status of Research and Publications: Final report completed in August, 1961. Multilith reproduction, containing a summary of 54 double-spaced pages and appendices, approximately 400 pages single-spaced, both involving charts, tables, graphs, maps.

Agency: University of Washington (Seattle), College of Architecture and Urban Planning, under sponsorship of The Weyerhaeuser Company.

Previous Digest reports: 7:2-60; 8:1-73.

Research Problem. The triad of study hovered around (1) the use of land in rapidly urbanizing area, (2) the locational determinants of the various uses of that land, and (3) the interrelationship between the people and the agencies who made decisions concerning the location of various land uses in suburban areas. A sub-area, or additional vehicle of study, was an examination of the large merchant-builder-developer housing developments in the vein as noted in the foregoing. In substance, the study documented who the decision makers were, what the rationale was in making such decisions, and the bearing of one decision on another as it affected the dynamics of urbanization in suburban areas.

Previous Relevant Research. Several studies have been made at the University of Washington which were germane prior to this project. They hovered around the impact of a community facility (schools) acting as an attraction in terms of locational placements of housing in suburban areas; another evaluated the impact of new freeways on the locational decisions of builders, lending agencies, house purchasers and the like; and still another examined group dynamics which by way of citizen action affected land use planning and land use zoning gestures.

Hypotheses. The presumption was that if some understanding could be gained of the consumer's choice of location in terms of house purchase, the rationale of the builder and developer as to where he should build houses, the logic of the financing and insuring institutions (banks, FHA, etc.) in their locational policies, and the action of local government in determining such decisions by way of subdivision and zoning, insight to be gained as to why certain suburban land uses were locating where they did at the time that they did. Too, if the interrelationships or interactions of these groups on each other were examined, presumably this would throw some light on the pace of suburban development, particularly if this information were combined with statistical material having to do with the breakdown of the large ownership tracts, with platting historically, and with price changes in the study area.

Method of Study. A case study technique was used and what was construed to be a rather typical urbanizing area of Seattle, Washington. Control areas were selected in this metropolitan area to achieve a range of comparisons in quality and over time. In addition, housing starts quantitatively and qualitatively, financing, etc. were compared with national statistics and characteristics in order to try to bring this particular study into focus in a more universal sense. (MRW)

104. A THEORETICAL AND EMPIRICAL INQUIRY INTO THE SPATIAL STRUCTURE OF RETAIL ACTIVITIES

Investigator: Arthur Getis

Status of Research and Publications: Ph.D. Dissertation completed August, 1961, available through University Microfilms, Inc., Ann Arbor, Michigan.

Agencies: University of Washington (Seattle), Department of Geography. Cooperating agencies, Tacoma City Planning Department and Employment Security office in Tacoma, Washington.

Previous Digest report: None.

Research Problem. This study is an examination of the basic assumptions of a unified theory of the location of retail stores. The theory links the work of geographers and economists by the introduction of a concept concerning the differential decline of rent and revenue for retail stores as distance increases from the center of business activity.

Hypotheses. Hypotheses based on the unified theory are tested statistically and graphically. Problems arise as to the validity of the tests in light of the fact that certain of the hypotheses are difficult to design for standard testing procedures. However, evidence reveals that the portions of the theory dealing with concepts of monopolistic competition, surplus profits and normal profits should be reviewed. On the other hand, there is evidence which supports the validity of notions dealing with accessibility, with the importance of the location of disposable income, and with the unifying concept of the spatial character of rent and revenue.

Method of Study and Major Findings. New techniques of analysis based on the theory are introduced where departures from normal testing procedures are warranted. With the use of the first technique, map transformations of disposable income data, the author is able to closely predict grocery store location given the distribution of commercially zoned land. The second technique, threshold determinants of business district location, could not be developed sufficiently for testing purposes. An initial attempt is made to modify the theory by the introduction of a potential accessibility measure based on the concept of intervening opportunity. The results of a test reveal that this model is able to roughly identify potentially advantageous grocery store sites.

In light of these findings, recommendations are made for a modified theory. Factors bearing on retail store location are examined and suggestions are made as to the form the new theory should take. Also, suggestions concerning operational procedures to test and develop a mofified theory are presented. (AG)

105. IDENTIFICATION AND MEASUREMENT OF DEMAND FOR HIGHWAY USER SERVICES

Main Investigators: Robert H. Stroup, Robert K. Main

Status of Research: Research on the project has just begun. Researchers are presently in the process of establishing some measurable concepts, the interrelationships of which can be hypothesized to determine the demand for highway-user services. Detailed analysis of the U. S. Bureau of Census Reports is currently being conducted in an effort to discover the relationships between specific area populations and the respective volumes of different traffic service businesses. Analysis of Kentucky Department of Highways origin and destination studies, is being pursued to discern limits to potential and effective demand expressions.

Agencies: University of Kentucky, College of Commerce, Bureau of Business Research, in cooperation with Kentucky Department of Highways and the U. S. Department of Commerce, Bureau of Public Roads.

Research Problem. The problem with which this study is concerned is most directly pointed up by the requirements for construction of the National System of Defense and Interstate Highways. The particular requirement which is most pertinent is that of limited access to the highway system from the areas on each side. Under present regulations, the construction of facilities for the offering of services to interstate highway users will be limited to areas around interchanges (with the exception of presently constructed turnpikes which are being included in the system with such service facilities as are already constructed).

In view of the likelihood that the most intensely used interchanges will also be the location of the greatest number of high volume service facilities, this research project is directed toward the establishment of some criteria which can be used to effect a more economical utilization of space around interchanges. Expected as a complementary aspect of the location of highway user service establishments in relation to posited demand for such services is a more equitable allocation of automobile driver and passenger comfort.

Method of Study. The study involves the selection of concepts describing traffic and travel, and those used to assess the volume of highway-user services from published material. As much emphasis as possible will be placed upon those concepts which can be quantified. Measurement of the quantities and their interrelations will be made by correlation and regression analysis.

These methods of analysis are to be applied to highway traffic itself, to the population and general commercial activity of specific areas, and to volumes of businesses directly related to highway use. (JWM)

106.* FACTORS AFFECTING TRANSIT USE

Main Investigator: Warren T. Adams

Status of Research and Publications: In process.

Agency: U. S. Department of Commerce, Bureau of Public Roads.

Previous Digest report: None.

Research Problem. To establish relationship of transit and automobile mode use within and between urban subdivisions to principal influencing urban factors for preparation of urban transportation plans, programs, and estimated capital and operating costs thereof.

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*Editor's Note: Items 105, 106 and 107 arrived just as this issue was going to press.

Previous Relevant Research. Research on the same relationship for entire urban areas reported in December, 1959 issue of PUBLIC ROADS.

Hypotheses. That the relative use distribution of transit and automobile within and between urban subdivisions depends on the ratio of mode vehicle exponential time, distance and circuity, and the residential-destination ratio of economic opportunities. This distribution with modifications due to conversion factors for vehicle capacity and service will also apply to rapid transit and commuter rail. The predetermined relative mode use in origin and destination subdivisions has been found to depend on a modifying estimating equation of relative use for the entire urban area. One of the modifying factors is the ratio of parking supply to parking demand factor. The study of this factor is in the initial stage. Another is the ratio of relevant mode transportation costs.

Method of Study. Regression analysis.

Major Findings. Tentative estimating equations for predetermining mode use in residential and destination subdivisions have been developed. Preliminary, but encouraging, results on a mode distribution equation for suburban transportation have been obtained. (EAS)

TRAFFIC USAGE OF MAJOR HIGHWAY IMPROVEMENTS

Main Investigator: D. O'Flaherty.

Status of Research and Publications: In process.

Agency: U. S. Department of Commerce, Bureau of Public Roads.

Previous Digest Report: None.

Research Problem. To establish a factual basis for estimating volumes of traffic of different kinds which would be carried by improved highway facilities of various classes.

Previous Relevant Research. Studies of Main and Pennsylvania Turnpikes reported in PUBLIC ROADS, October, [illegible]

Hypotheses. Provision of major highway improvements generate new traffic as well as divert traffic from other facilities.

Method of Study. From studies of origin-destination data and travel time information, analyses are made to determine relation of newly generated traffic and amount of diverted traffic on new facilities. (EAS)

GENERAL URBAN AND REGIONAL ANALYSIS

India's Urban Future

"India's Urban Future", based on papers prepared for the Seminar on Urbanization in India, will be published this winter by the University of California Press. The Seminar was co-sponsored by Kingsley Davis and Catherine Bauer Wurster of the University of California, and Richard L. Park of the University of Michigan. The book has been edited by Roy Turner of Professor Davis's staff. A number of Indian officials participated, and the project was assisted by the Ford Foundation. (CBW)

Planning Research in England

Of special interest to readers of the Digest is a recent publication of the Town Planning Institute, 18 Ashley Place, London S W 1. Entitled "Planning Research: A Register of Research of interest to those concerned with Town and Country Planning", it presents brief descriptions of some 707 research projects conducted by the staffs of local planning commissions, universities and research groups over the ten year period 1948-1958. The projects have been classified into twenty-one categories and range over a wide variety of subjects, such as the use and conservation of land resources, distribution and location of industry, transport and communications, national parks and access to the countryside and many others. A directory of research institutions is also included. Orders should be addressed to the Secretary of the Town Planning Institute at the address given above.

RIVER BASINS AND WATER RESOURCES

Delaware River Basin

District and Division Engineers of the U.S. Army Corps of Engineers have completed their comprehensive study of the water resources of the Delaware River Basin and have submitted an eleven volume report for review to the Board of Engineers for Rivers and Harbors in Washington, D.C. The report presents a plan for the control and use of the water resources of the basin, and recommends that the plan be approved as a guide to the development of these resources. The plan is comprised of

a. Eleven major water control projects for multiple-purpose development;
b. Eight major water control projects for development initially for recreation and later additional development for water supply;
c. Thirty-nine small flood control projects, all of which can be accomplished under existing programs; and
d. Related supplemental programs for controlled use of the flood plains, land and land cover management, conservation of ground and surface waters, preservation and enhancement of recreation, enhancement of fishing and hunting resources, and preservation and improvement of water qualities.

Price of the report is $4.00 without appendices, or $45.00 for the full set of eleven volumes. Further information may be obtained from U.S. Army Engineer Division, North Atlantic, Corps of Engineers, 90 Church Street, New York 7, N.Y. or U.S. Army Engineer District, Philadelphia, P.O. Box 8629, Philadelphia 1, Pa.

Wabash Valley Seminar

The Council on Community Development, thru the Wabash Valley Advisory Committee, University of Illinois, is sponsoring a series of monthly lectures and seminars on problems of regional change and opportunities for regional development. The Wabash River Basin will be the focus of attention. The series, directed by Dr. Ronald R. Boyce, will consist of: (1) lectures by national experts, (2) "roundtable" faculty seminars, (3) a three-day conference, and (4) the preparation of a research-planning monograph.

The general purpose of the series is to enable the University, agencies of the State, and other interested parties to: (1) assess better their positions and research regarding river basin development, (2) understand better the potential of such activity in Illinois and Indiana, and (3) achieve a higher degree of coordination and planning for regional development and change.

Papers will be presented by Drs. Benjamin Chinitz, Pittsburgh Regional Planning Association; Marion E. Marts, Department of Geography, University of Washington, York Wilburn, Department of Government, University of Indiana; and others. Such papers will form part of the research-planning monograph to be published this spring. (RRB)

Chicago Area Flood Hazard Mapping Project

The nation's first large-scale flood hazard mapping project has been started in part of the six county Northeastern Illinois Metropolitan Area, centered around Chicago. The five year project will survey 2,454 square miles at a cost of $268,000. The work is being done by the U.S. Geological Survey which is authorized to enter into agreements with state agencies for "cooperative investigations in fields of mutual interest." The flood hazard maps will show which lands along creeks and rivers are subject to periodic flooding. Besides defining these "flood plain" lands, the single-sheet maps will also contain graphs and charts, showing among other things, the estimated frequency of future floods at some 200 points in the metropolitan area. (Previous Digest report, 7:2, p. 62.)

METROPOLITAN AREAS

Calcutta Project[a]

Sixteen authorities on municipal problems are going to Calcutta, India, to help formulate a development plan for greater Calcutta and to assist the state of West Bengal in setting up a permanent metropolitan planning organization. Their assignment is being financed with an $800,000 grant from the Ford Foundation. Greater Calcutta covers an area of 270 square miles and has 5,550,000 inhabitants.

The Ford Foundation has also given a grant of $1,600,000 to the Institute of Public Administration, New York, to finance a program of comparative urban research and training, based primarily on the Calcutta project. Participating in the program will be the Universities of California, Chicago, Pennsylvania, Cornell, Harvard and MIT.

United Nations Report on Metropolitan Area Planning and Development.

A final report and recommendations on metropolitan planning and development was adopted by the group of experts which met under United Nations auspices in Stockholm September 14-30. (Research Digest, 8:1, p. 64.) The report considers phenomenon of metropolitan area growth from a world perspective and makes

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[a] From ASPO Newsletter, October, 1961.

recommendations for action by international organizations and Governments at the national, regional and local levels as well as by institutes and non-governmental organizations. It will be submitted to the Economic and Social Council at the 1962 sessions, and will be made available to Governments as well as to UN technical assistance experts for their guidance.

Groundwork for the conference was laid through the preparation of eight background papers by consultants under the guidance of the United Nations Secretariat. A draft statement, which formed the basis for discussion of the meeting, was also prepared by the secretariat with the assistance of a consultant.

The group consisted of the following experts: Carl-Fredrick Åhlberg, Professor of Town Planning, Royal Institute of Technology, Stockholm; Paul Hikolaievitch Blokhine, Corresponding Member, Academy of Building and Architecture, Union of Soviet Socialist Republics, Moscow; Luther Gulick, Chairman of the Board, Institute of Public Administration, New York; Susumu Kobe, Director, Institute for Research in Productivity, Waseda University, Tokyo; Luis Lander, formerly head, Barco Obrero, Caracas, and President, Inter-American Planning Society; Mohammed Riad, Director General, Cairo; James Riby-Williams, Principal Secretary, Minister of Education and Social Welfare, Accra and Chandulal N. Vakil, formerly Professor of Economics, University of Bombay, India and Director, UNESCO Research for Southern Asia. (SK)

TRANSPORTATION

Los Angeles Regional Transportation Study[b]

A study of transportation and its relation to land use in the Los Angeles metropolitan areas has been started. The Los Angeles Regional Transportation Study will cover five counties and 116 cities in the 9,000 square mile metropolitan area--most of the area between Santa Barbara and San Diego. The latest land use and traffic model techniques will be utilized in connection with high speed computers to determine future transportation needs. Freeway systems and several aspects of mass transportation will be tested in relation to varying land use proposals.

[b]From ASPO Newsletter, September, 1961.

About eight million people now live in the area and motor vehicle registrations total about four million. It is estimated that these figures will become fifteen million and eight million, respectively, by 1980.

The study, which is organized as a continuous planning operation, will be conducted under the general coordination of the California Division of Highways with the cooperation of the Bureau of Public Roads, the five counties, the 116 cities, and several public and private organizations.

Transportation Statistics Needs[c]

In March, 1961, a Transportation Policy Group was established in the Department of Commerce. The Group is headed by Wilfred Owen of the Brookings Institution, and will work directly with the Under Secretary for Transportation, Clarence D. Martin, Jr. It has responsibility for making specific recommendations for Government action aimed at improving the transportation system as a whole and for developing broad policies to guide the activities of the varied agencies affecting transportation.

Because of the importance of statistical data to its work, the Group plans to review existing statistical programs in the transportation field to determine what modifications of existing programs and what new programs are needed to provide comprehensive, reliable and timely data on the Nation's transportation system. Consideration will be given to, among other

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[c] From Statistical Reporter, June, 1961.

matters, the need for improving comparability of data presently being collected from regulated carriers through standardization of concepts, and to the need for obtaining reliable data showing the distribution of passenger and commodity movements among all types of carriers.

This review will be made in close cooperation with the Office of Statistical Standards, Bureau of the Budget, and will make use of the results of other studies which have been and are being made in this field. In particular, plans being developed for the proposed 1963 Census of Transportation will be considered. The Group will also seek to encourage a wider exchange of information about financial, management, economic and statistical research being undertaken in the transportation field by public and private groups.

HOUSING AND URBAN RENEWAL

A National Program of Research in Housing and Urban Development

Resources for the Future, Inc., has released a report proposing a national program of research in Housing and Urban Development. The report was undertaken at the request of Dr. Robert C. Weaver, Administrator of the Housing and Home Finance Agency, and was prepared by Dr. Harvey S. Perloff, director of the Regional Studies and Urban Economics Programs of RFF.

The report recommends that urban research should be carried out on a broad front and should receive leadership and financial assistance from the Federal government.

Three major foci of research and assistance are proposed:

(1) Assistance to metropolitan research units to study metropolitan problems and to assist local units.

(2) Assistance to states for state-wide research and urban extension services.

(3) A Federal government program, covering policy research, improvement of nationally collected data, national "framework" studies and projections, grants to assist university research and training programs and, finally, major research efforts in transportation and construction.

The report also recommends that the HHFA establish a semi-independent National Urban Institute to direct the program of

grants to universities, develop the data phases of the program and carry out "framework" research. It is suggested that such and urban research program might be financed through a fund based on 1½ per cent of the expenditures for urban renewal and public housing, an extension of the Section 701 program to cover research and some direct appropriations for urban research.
(JF)

RECREATION AND OPEN SPACE

Northeastern Recreation Study[d]

An inventory of land (and related water) potentially available for outdoor recreation in the ten Northeastern States, is being prepared by the Farm Economics Division, Economic Research Service of the Department of Agriculture, for the Outdoor Recreation Resources Review Commission. The analysis, using air photo interpretation techniques, is based on a subsample of plots in the Northeastern States developed for the Department's National Inventory of Conservation Needs. The region is divided into an inner area, or urban fringe area, extending roughly 25 miles from the suburban edges of Boston, New York City, and Philadelphia, and an outer zone lying beyond the urban fringe.

In the second part of the study, existing and potential laws, policies, and procedures that foster private or public recreation development are being analyzed. Representatives of State parks, fish and game areas, and forests in the ten States are being interviewed. Information is being gathered about the agencies' functions, future plans, land acquisition powers and procedures, and similar matters. An outline indicating the major items to be discussed was sent to each State agency prior to the interviews, alerting the officials to the types of questions to be asked. These interviews are to be supplemented with additional data on land ownership, land use, and land transfer obtained for selected areas.

Private Recreational Land Holdings[d]

A second study being conducted by the Department of Agriculture has to do with private recreational land holdings. Data for the study are being obtained from three sources. Mailed questionnaires have been sent to owners or operators of campgrounds, resorts, dude ranches, guest farms, ski areas, marinas,

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[d] From Statistical Reporter, April, 1961.

strip coal mines, and other privately owned or operated facilities.

Examples of these facilities, and others not included in the inventory, are being studied in detail. Information will cover such items as present and potential capacity for recreation activity, numbers of recreation users, fees charged, costs of facilities, problems involved and related information to aid in analysis of the overall pattern. Recent studies of private recreation will be used to bolster this study wherever possible.

OTHER

Education for Planning in Latin America

The Interamerican Planning Society, commonly referred to as SIAP, has issued a report prepared by a technical mission which was organized to study and report on planning and planning education in Latin America. The technical mission received financial support from the Ford Foundation and the cooperation of the United Nations, the International Cooperation Administration and the Organization of American States. The mission visited ten Latin American countries and contacted numerous professionals and educators. It found that planning education tends to be over-specialized without enough integration of various disciplines, and recommended a cooperative program to improve the teaching of planning in Latin America. Copies of the report may be obtained from the Society, P.O. Box 1729, San Juan, Puerto Rico.

City Area Maps[e]

More than 50 topographic maps of major cities and adjacent areas in the United States and Puerto Rico are now available. Drawn on a scale of 1 inch = 2,000 feet, each city area map, with the exception of Chicago, Detroit, New York, and Philadelphia, is printed on a single sheet up to 4 feet by 6 feet in size. The maps are printed in three colors and show cultural features such as roads and railroads as well as relief features such as hills and streams. The prices vary according to the size of the map with the larger maps costing $1.50 per sheet. A July, 1961 listing of currently published maps with details as to size and price is available free from the Distribution Section, Geological Survey, U.S. Department of the Interior, Washington 25, D.C.

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[e] From Marketing Information Guide, October, 1961.

City Annexation Data[f]

The Federal Housing Administration has reprinted, primarily for use in FHA housing market analysis, a table entitled, "Annexations of One-Fourth Square Mile or more by Cities over 5,000, 1960" as well as the accompanying analysis. The table and analysis bring up to date the series of FHA reprints of annexation data published in the municipal Year Book. The first annexation table reprinted by the FHA was for the year 1948-1957; tables for 1958 and for 1959 also have been reprinted.

Some of the data are subject to certain important limitations, including the fact that they are believed to be incomplete for some cities and for some years and that annexation and population figures are local estimates which may be subject to error of an undetermined degree. Despite these and perhaps other limitations, these annexation tables constitute the only single (secondary) source of estimated population annexed each year by each locality and promise to remain such, even though the 1960 Census of Population contains locality annexation data for a 10-year period. The Year Book tables which FHA has reproduced provide data for individual years, and also extend the estimates beyond the date of the 1960 Census.

Single complimentary copies of any of the four table reprints (1948-1957, 1958, 1959, 1960) are available on request from the Division of Research and Statistics, Federal Housing Administration, Washington 25, D.C.

1960 Census Small-Area Data Available on Magnetic Tape[g]

As a by-product of the decennial data processing operations, the Bureau of the Census has made available, at the cost of reproduction, summary data for small geographic areas for both complete count and sample items in the 1960 Census of Population and Housing. These data include statistics made available several months prior to publication, figures for small areas for which reports are not expected to be published, and material which supplements data to be published for selected small areas. These data are available in the form of reproduced statistical tables, microfilm, and magnetic tapes. In printed form, the data have been extremely popular and have been used by planning boards, local government groups, and a variety of public and private research organizations. Another popular and useful medium for utilization of these same

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(f) From Statistical Reporter, July, 1961.

(g) From Statistical Reporter, June, 1961.

kinds of data for small areas has been computer magnetic tape suitable for high speed electronic computers compatible with the Census Bureau's Univac Scientific, Model 1105 computer system. Several copies of these various files or portions of the files have been purchased and are being put to highly important and interesting uses.

Recent Actions and Current Work Program of the Advisory Commission on Intergovernmental Relations

At its sixth meeting held on June 15, 1961, the Commission adopted reports dealing with three major items on its work program (a) "Periodic Reassessment of Federal Grants-in-Aid to State and Local Governments"; (b) "State and Local Taxation of Private Property Located on Federal Reservations or Other Federally Controlled Areas"; and (c) "Cooperative Tax Administration--Some Principles and Possibilities." In addition, the Commission replied to a request of the Senate Committee on Government Operations for comments on proposals for the creation of a Department of Urban Affairs.

At its seventh meeting held on September 14-15, 1961, the Commission adopted two reports: (a) "Local Nonproperty Taxes and the Coordinating Role of the State" and (b) "State Constitutional and Statutory Restrictions on Local Government Debt." The latter deals with one of the major phases of a broad Commission project concerned generally with State restrictions upon local units of government.

The current work program of the Commission comprises the following:

(1) Structure and Potential Improvement of the Real Property Tax

(2) Intergovernmental Cooperation in Tax Administration (Continuing Project)

(3) Development of Improved Measures of Fiscal Capacity and Tax Effort of State and Local Units of Government

(4) State Constitutional and Statutory Restrictions Upon Local Units of Government (Remaining reports in this series will deal with limitations on local property taxation and on the structure and functions of local governmental units.)

(5) Statutory and Administrative Controls Associated with Federal Public Assistance Grants

(6) Specific Measures for the Simplification of Governmental Structure in Metropolitan Areas

(7) Intergovernmental Relations with Regard to Land Use in Metropolitan Areas

(8) Intergovernmental Responsibilities for Water Supply and Sewage Disposal in Metropolitan Areas

AVAILABLE BACK ISSUES OF RESEARCH DIGEST

A few copies of the following back issues of the Research Digest are still available, and may be purchased at the regular price of $1.00 per copy.

Vol. 2	No. 2	November, 1955
Vol. 3	No. 2	November, 1956
Vol. 5	No. 2	November, 1958
Vol. 7	No. 1	April, 1960
	No. 2	November, 1960
Vol. 8	No. 1	April, 1961

Copies of the Cumulative Index to Volumes 1-7 are also available. One copy free to subscribers. Extra copies $1.00 each.

RESEARCH DIGEST

Index to Volume 8

1961

Bureau of Community Planning
University of Illinois
Urbana, Illinois

UNIVERSITY OF ILLINOIS

BUREAU OF COMMUNITY PLANNING

Director: Joseph M. Heikoff

RESEARCH DIGEST

Editor: Scott Keyes

Founded in 1954 by an informal organization known as
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University of Illinois. Its objective is to serve a
medium of communication among individuals and groups
engaged in urban and regional research. Abstracts are
invited covering research projects recently initiated,
projects well underway on which significant progress or
findings can be reported, and projects recently compl
Brief notes on items of interest to researchers in thi
field are also desired, as are special articles in kee
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CONTENTS

	Page
SUBJECT INDEX	99
GEOGRAPHICAL INDEX.	116
CONTRIBUTOR INDEX	123

SUBJECT INDEX

AGRICULTURE

8:1-9 The Economic and Social Effects of the Connecticut Turnpike on Eastern Connecticut.

8:1-38 How Farmers Adjusted to an Interstate Highway in Minnesota.

8:2-53 Agricultural Economy of the Upper Midwest Region.

8:2-54 Beef Cattle Feeding in the Northern Great Plains.

8:2-55 Meat Production and Distribution.

8:2-56 Farm Size in the Red River Valley.

AIRPORTS

8:1-11 The Effect of Noise Created by Airport and Aircraft Operations upon Surrounding Area.

ATTITUDE STUDIES

8:1-29 Resistance to Proposals for Area-Wide Integration.

8:1-52 An Exploratory Study of Selected Housing Factors in Established Neighborhoods as Related to the Resident's Behavior Patterns.

8:2-28 Intellectual Attitudes Toward the City.

AUTOMATIC DATA PROCESSING

8:1-33 Automatic Data Processing for Urban Planning.

8:2-35 Application of Simulation to Highway Traffic Design.

8:2-44 Application of Computer Simulation Techniques to Interchange Design Problems.

CAPITAL BUDGETING AND PROGRAMMING

8:2-67 A Manual of Procedures for the Operating and Capital Budget Processes of Local Governments and a Study of the Feasibility of Comparative Measurements.

CAPITAL BUDGETING AND PROGRAMMING (continued)

- 8:2-87 A Study to Develop Techniques for the Physical Coordination of Community Improvements and Urban Renewal in the Pittsburgh Area.
- 8:2-96 Highway Program Planning.

CENTRAL BUSINESS DISTRICTS

- 8:2-16 An Investigation of the Effects of Freeways on Central Business Districts.

CITY PLANNING

- 8:1-33 Automatic Data Processing for Urban Planning.
- 8:2-1 RFF-CUE Seminar on Intra-Metropolitan Models.
- 8:1-13 Organization for State Highway and Urban Planning Liaison.
- 8:2-21 Organization for State Highway and Urban Planning Liaison.
- 8:2-32 Interdependence of Transportation and Land Use Planning.
- 8:2-89 A Study to Develop Techniques for the Physical Coordination of Community Improvements and Urban Renewal in the Pittsburgh Area.

CITY PLANNING - STUDY AND TEACHING

- 8:2-93 Education for Planning in Latin America.

CITY SIZE

- 8:2-93 City Area Maps.
- 8:2-94 City Annexation Data.

COMMUNICATIONS

- 8:2-42 Spatial and Other Requirements of Urban Communications Systems.

CONSERVATION

- 8:1-4 History of the Sierra Club, 1892-1954.

ECONOMIC THEORY, RESEARCH AND PROJECTIONS

8:1-1 The Immediate Economic Impact of Higher Education Upon Metropolitan Boston.

8:1-5 Public Enterprise Economics and Transport Problems.

8:1-35 Research Program on Economic Adjustments to Disarmanent.

8:1-9 The Economic and Social Effects of the Connecticut Turnpike on Eastern Connecticut.

8:1-39 The Economic Effects of a Highway Change in Fariboult, Minnesota.

8:1-44 Growth Corridors and Traffic Potentials. A State-Wide Study (in Minnesota).

8:1-48 Changing Business Patterns in Nebraska Towns.

8:1-49 Analysis of Factors in the Community Multiplier.

8:1-50 Derivative - Basic Ratio in Great Plains Cities.

8:1-51 City and Regional Wage Comparisons.

8:1-53 The Theory of the Urban Economy: Origins and Development with Emphasis on Intraurban Distribution of Population and Economic Activity.

8:1-59 Redevelopment Decisions, Alternate Land Uses and Their Influence on Operating Costs.

8:1-60 Resource Allocation for Industrial Development.

8:1-61 Resources in the American Future.

8:1-71 Regional Fiscal Impact of Local Industrial Development.

8:2-3 Economic Impact of a Defense Installation upon the Surrounding Communities.

8:2-15 Comparative Studies of Central Places.

8:2-69 State Economic Projections.

8:2-70 Methods for Estimating the Number of Business Concerns in a State by Location and Type.

ECONOMIC THEORY, RESEARCH AND PROJECTIONS (continued)

8:2-79 Research Design for an Area Data Service in the Penjerdel Region.

8:2-101 Value of Human Capital as a Regional or Community Welfare Index.

ECONOMIC SURVEYS AND DEVELOPMENT PROGRAMS

8:1-7 An evaluation of Pueblo's Economic Potential.

8:1-22 Southeastern Michigan Economic Study.

8:1-72 Economic and Population Base Study of the Lansing Tri-County Area: An Interindustry Relations Analysis.

8:1-55 Industry and Transportation Study - Eugene - Springfield Area, Oregon.

8:1-56 Industrial Survey of Chester County, Pa.

8:1-69 Economic Analysis of the Salt Lake Metropolitan Transportation Area with Population and Employment Projections to 1980.

8:2-40 A Six-County Overall Economic Development Program (Southeastern Michigan).

8:2-45 Upper Midwest Economic Study.

8:2-51 Forest Products in Montana.

8:2-59 Competitive Advantage in the Upper Midwest Region.

8:2-60 Upper Midwest Markets.

8:2-63 Impact of Government in the Upper Midwest Region.

8:2-88 Economic Study of the Pittsburgh Region.

8:2-92 Texas Economic Study.

EMPLOYMENT

8:2-62 Employment and Wages in the Upper Midwest Region.

FLOOD PLAINS

8:2-88 Chicago Area Flood Hazard Mapping Project.

GOVERNMENT

8:2-39 Constitutional Revision (in Michigan).

8:2-95 Recent Actions and Current Work Program of the Advisory Commission on Intergovernmental Relations.

See also LOCAL GOVERNMENT

GOVERNMENT POLICY

8:2-93 Intergovernmental Responsibilities for Mass Transportation Facilities and Services in Metropolitan Areas.

HIGHWAY FINANCE

8:2-95 Highway Finance and Taxation Studies.

HIGHWAY IMPACT STUDIES

8:1-9 The Economic and Social Effects of the Connecticut Turnpike on Eastern Connecticut.

8:1-36 The Economic Impact of Highway Development upon Land Use and Value.

8:1-37 A Highway Change in Changing Faribault.

8:1-33 How Farmers Adjusted to an Interstate Highway in Minnesota.

8:1-39 The Economic Effects of a Highway Change in Faribault, Minnesota.

8:1-40 Beltline Commercial-Industrial Development: A Case Study in the Minneapolis-St. Paul Metropolitan Area.

8:2-16 An Investigation of the Effects of Freeways on Central Business Districts.

8:2-43 The Effect of By-Pass Highways upon Retail Business.

8:2-92 Texas Economic Study.

8:2-107 Traffic Usage of Major Highway Improvements.

HIGHWAY PLANNING

8:1-13 Organization for State Highway and Urban Planning Liaison.

8:2-1 RFF-CUE Seminar on Intrametropolitan Models.

8:2-21 Organization for State Highway and Urban Planning Liaison.

8:1-43 Amelioriation of Non-Compensable Damages.

8:1-72 The Development and Control of Land Uses in the Vicinity of Freeway Interchanges.

8:2-32 Interdependence of Transportation and Land Use Planning.

8:2-44 Application of Computer Simulation Techniques to Interchange Design Problems.

8:2-35 Application of Simulation to Highway Traffic Design.

8:2-76 The Nature and Measurement of Highway Benefits.

8:2-96 Highway Program Planning.

8:2-105 Identification and Measurement of Demand for Highway User Services.

HOUSING

8:1-52 An Exploratory Study of Selected Housing Factors in Established Neighborhoods as Related to the Resident's Behavior Patterns.

8:2-5 Housing for the Elderly.

8:2-18 Housing Needs of the Aged.

8:2-72 Transient Housing Study.

8:2-91 A National Program of Research in Housing and Urban Development.

See also RESIDENTIAL AREAS

HOUSING FINANCE

8:1-62 Financial Programs for Lower-Middle Income Housing.

HOUSING FINANCE (continued)

8:2-9 Junior Mortgage Financing in Los Angeles County, 1958-1959.

8:2-10 Residential Construction and Financing in Several Metropolitan Areas.

8:2-17 Home Buying and Financing in Upstate New York.

8:2-91 Financial Programs for Lower-Middle Income Housing.

HOUSING MARKETS

8:2-89 The Housing Market and Urban Renewal

HOUSING POLICY

8:2-6 Application of Social Science Research in the Development of Federal Housing Legislation since 1945.

INCOME

8:1-54 Ohio County Personal Income, 1957, 1958, 1959.

8:2-22 County Income Study (in Illinois).

8:2-61 Personal Income in the Upper Midwest.

INDUSTRIES

8:1-66 Characteristics of Modern Industrial Plants.

INDUSTRIAL LOCATION

8:1-65 Industrial Location Factor Studies.

8:2-2 Dayton Metropolitan Urban Study.

8:2-49 The Electronics Industry.

8:2-59 Competitive Advantage in the Upper Midwest Region.

LABOR

8:2-2 Dayton Metropolitan Urban Study.

8:2-47 Labor Force in the Upper Midwest Region.

LABOR (continued)

8:2-81 Research Design for Investigations of the Future Labor Force Supply and Demand in the Penjerdel Region.

LAND ACQUISITION

8:1-41 Land Value Estimation for Public Acquisition: A Statistical Approach.

8:1-42 Compensation Payments for Highway Land Acquisition.

LAND DEVELOPMENT

8:2-74 A Pilot Investigation of Determinants of Land Development.

LAND INVENTORY

8:1-67 Public Lands: Land Status Determination in Utah.

LAND USE

8:1-6 The Wholesale Structure of Columbus, Ohio.

8:1-36 The Economic Impact of Highway Development upon Land Use and Value.

8:1-37 A Highway Change in Changing Faribault.

8:1-40 Beltline Commercial-Industrial Development: A Case Study in the Minneapolis-St. Paul Metropolitan Area.

8:2-23 Metropolitan Areal Expansion.

8:2-32 Interdependence of Transportation and Land Use Planning.

8:2-42 Spatial and Other Requirements of Urban Communications Systems.

LAND USE CONTROLS

8:2-98 Land Use Control Research.

8:1-32 Land Use Controls for Fringe Areas.

8:1-72 The Development and Control of Land Uses in the Vicinity of Freeway Interchanges.

LAND VALUES

8:1-18 The Spacial Distribution of Urban Land Values.

8:1-36 The Economic Impact of Highway Development upon Land Use and Value.

8:1-38 How Farmers Adjusted to an Interstate Highway in Minnesota.

8:1-41 Land Value Estimation for Public Acquisition: A Statistical Approach.

LOCAL GOVERNMENT

8:1-23 County Government Issues.

8:1-29 Resistance to Proposals for Area-Wide Integration.

8:1-30 The Political Process in Local Communities.

8:2-11 Electoral Behaviour on Referendum Voting.

8:2-37 Comparative Study of the Services of Local Government.

8:2-38 The Potential Impact of Constitutional Revision upon Michigan Counties and Townships.

8:2-82 The General Pattern of Local Government in the Penjerdel Region.

LOCAL GOVERNMENT FINANCE

8:1-10 Renewal and Revenue.

8:1-20 City Revenue Practices in Kentucky and Selected Other States.

8:1-25 Comparative Tax Resources of 180 Southeastern Michigan Governmental Units.

8:1-26 Comparative Tax Resources of School Districts in Southeastern Michigan.

8:1-28 Municipal Income Tax.

8:1-59 Redevelopment Decisions, Alternate Land Uses and Their Influence on Operating Costs.

8:2-36 Per Pupil Valuation: The Comparative Tax Resources and Expenditures of Southeastern Michigan's School Districts.

LOCAL GOVERNMENT FINANCE (continued)

8:2-57 Local Government Expenditure Patterns.

8:2-67 A Manual of Procedures for the Operating and Capital Budget Processes in Local Governments and a Study of the Feasibility of Comparative Measurements.

8:2-73 Municipal Cost-Revenue Research in the United States.

MEDICAL SERVICES

8:1-24 Southeastern Michigan Health Study.

8:1-34 Hospital-Community Relations.

METROPOLITAN AREAS

8:1-27 Economic and Population Base Study of the Lansing Tri-County Area: An Interindustry Relation's Analysis.

8:1-58 Residential Extension in a Metropolitan Region.

8:2-2 Dayton Metropolitan Urban Study.

8:2-12 A Metropolitan Survey: Case Study of the Cleveland Metropolitan Services Commission.

8:2-23 Metropolitan Areal Expansion.

8:2-26 The Adjustment of Retail Trade to Metropolitan Markets.

8:2-93 Intergovernmental Responsibilities for Mass Transportation Facilities and Services in Metropolitan Areas.

8:2-1 CUE Seminar on Intrametropolitan Models.

METROPOLITAN AREA GOVERNMENT

8:1-15 Mapping the Political Characteristics of Medium-Size Metropolitan Areas.

8:2-17 Mapping the Political Characteristics of Medium-Size Metropolitan Areas.

8:2-94 Governmental Structure, Organization and Planning in Metropolitan Areas.

METROPOLITAN AREA PLANNING

8:2-88 Calcutta Project.

8:2-88 United Nations Report on Metropolitan Area Planning and Development.

MIGRATION

8:2-46 Migration in the Upper Midwest Region.

8:2-65 Urban Migration in the Upper Midwest.

8:2-85 Migration and Urbanization in the United States, with Special Reference to Recent Trends.

NEGROES

8:1-31 Sources of Negro Leadership in Grand Rapids.

OLD AGE

8:2-5 Housing for the Elderly.

8:2-18 Housing Needs of the Aged.

OPEN SPACE

8:2-80 The Preservation of Open Space in Metropolitan Areas: An analysis of Legal Problems and Some Legislative Proposals.

8:2-83 The Feasibility of Maintaining Open Space through Part-Time Farming in the Penjerdel Region.

POPULATION

8:1-3 The Spatial Distribution of Components of Urban Populations.

8:1-9 The Economic and Social Effects of the Connecticut Turnpike on Eastern Connecticut.

8:1-27 Economic and Population Base Study of the Lansing Tri-County Area: An Interindustry Relations Analysis.

8:2-94 1960 Census Small-Area Data Available on Magnetic Tape.

8:2-94 City Annexation Data.

See also MIGRATION.

POPULATION FORECASTS

8:1-44 Growth Corridors and Traffic Potentials: A State-Wide Study (in Minnesota).

8:1-69 Economic Analysis of the Salt Lake Metropolitan Transportation Area with Population and Employment Projections to 1980.

PUBLIC WORKS

8:1-14 Public Works Planning and Development in Illinois, with Special Reference to the State and County.

8:2-1 Research Needs in the Field of Public Works.

RECREATIONAL AREAS

8:1-4 History of the Sierra Club, 1892-1954.

8:2-8 Demand for Outdoor Recreational Facilities Generated by the Growth of Los Angeles.

8:2-50 Recreation Resources in the Upper Midwest Region.

8:2-92 Northeastern Recreation Study.

8:2-92 Private Recreational Land Holdings.

REGIONAL PLANNING

8:2-31 Venequela Project.

8:2-45 Upper Midwest Economic Study.

8:2-64 Action Policy Compendium for the Upper Midwest Region.

8:2-86 India's Urban Future.

8:2-87 Wabash Valley Seminar.

RESIDENTIAL AREAS

8:1-2 Performance Standards for Space and Site Planning for Residential Development.

8:1-16 Location of Metropolitan Residential Areas.

8:1-19 Delimitation of Neighborhoods, Topeka, Kansas.

RESIDENTIAL AREAS (continued)

8:1-58 Residential Extension in a Metropolitan Region.

8:1-73 Studies in Suburban Development.

8:2-2 Dayton Metropolitan Urban Study.

8:2-4 Performance Standards for Space and Site Planning for Residential Development.

8:2-24 Residential Densities of Housing Projects in European Cities.

8:2-29 Suburban Development.

8:2-103 Locational Factors Involved in Suburban Development.

RESOURCE DEVELOPMENT

8:1-61 Resources in the American Future.

8:2-2 Dayton Metropolitan Urban Study.

8:2-52 Oahe Water Development.

RETAIL TRADE

8:1-8 The Development of Retail Trade in Englewood.

8:1-46 Retail Trade in Counties and Metropolitan Areas.

8:2-25 Mathematical Delineation of Retail Trade Areas: A Study of Procedural Problems and an Analysis of Three Formulae.

8:2-26 The Adjustment of Retail Trade to Metropolitan Markets.

8:2-43 The Effect of By-Pass Highways upon Retail Business.

8:2-58 Location of Retailing in South Dakota.

8:2-104 A Theoretical and Empirical Inquiry into the Spatial Structure of Retail Activities.

RIVER BASIN PLANNING

8:2-100 Southeastern River Basins Study.

RIVER BASIN PLANNING (continued)

8:2-102 Meramec Basin Research Project.

8:2-86 Delaware River Basin.

8:2-87 Wabash Valley Seminar.

ST. LAWRENCE SEAWAY

8:2-48 Impact of the St. Lawrence Seaway on the Upper Midwest Region.

SANITATION

8:2-2 Dayton Metropolitan Urban Study.

SCHOOL PLANNING

8:1-26 Comparative Tax Resources of School Districts in Southeastern Michigan.

8:2-36 Per Pupil Valuation: The Comparative Tax Resources and Expenditures of Southeastern Michigan's School Districts.

SITE PLANNING

8:1-2 Performance Standards for Space and Site Planning for Residential Development.

SOCIAL SCIENCES

8:2-6 Application of Social Science Research in the Development of Federal Housing Legislation since 1945.

SOCIAL SURVEYS

8:2-75 Socio-Cultural Adaptations of Newcomers to Cities in the Piedmont Industrial Crescent.

SOCIAL WELFARE

8:1-63 Skid Row Project.

8:1-64 Vocational Rehabilitation of Multi-Disabled Skid Row Men.

8:2-14 The Homeless Man on Skid Row.

TRANSIT

8:1-17 Characteristics of Rail Transit Systems.

8:2-13 A Method for Determining the Optimal Division of Express and Local Rail Transit Service.

8:2-93 Intergovernmental Responsibilities for Mass Transportation Facilities and Services in Metropolitan Areas.

8:2-106 Factors Affecting Transit Use.

TRANSPORTATION

8:1-5 Public Enterprise Economics and Transport Problems.

8:1-12 Urban Transportation Dilemma.

8:1-21 Southeastern Michigan Transportation Study.

8:1-55 Industry and Transportation Study - Eugene-Springfield Area, Oregon.

8:2-19 The Urban Transportation Dilemma.

8:2-30 Urban Transportation.

8:2-32 Interdependence of Transportation and Land Use Planning.

8:2-34 Urban Area Transportation Demand.

8:2-77 Transportation Theory and Prediction.

8:2-78 Industry and Transportation Study - Eugene-Springfield Area, Oregon.

8:2-90 National Transportation Study.

8:2-97 Motor-Vehicle Use and Ownership Characteristics.

8:2-99 Transportation Economics and Engineering Economy Studies.

8:1-1 CUE Seminar on Intrametropolitan Models.

8:2-90 Los Angeles Regional Transportation Study.

8:2-90 Transportation Statistics Needs.

TRAFFIC GENERATION

8:1-44 Growth Corridors and Traffic Potentials: A State Wide Study.

TRAFFIC PATTERNS

8:1-57 Stochastic Models of Consumer Travel Behavior.

8:2-20 A Study of the Linkage Pattern Between a Central City and the Communities within Its Region of Influence.

8:2-86 Stochastic Models of Travel Behavior.

URBAN DEVELOPMENT

8:2-66 Urban Fringe Areas in the Upper Midwest Region.

8:2-91 A National Program of Research in Housing and Urban Development.

URBAN RENEWAL

8:1-10 Renewal and Revenue.

8:1-45 Urban Renewal in the United States - Its Problems and Prospects.

8:1-63 Skid Row Project.

8:2-7 Urban Renewal Problems and Programs in California and Other Western States.

8:2-33 Kentucky Urban Renewal Demonstration Project.

8:2-41 A Proposal for a Six-County Development-Redevelopment Program.

8:2-68 Urban Renewal in the United States - Its Problems and Prospects.

8:2-71 New Jersey Regional Urban Renewal Survey.

8:2-84 The Housing Market and Urban Renewal.

8:2-87 New Residential Construction in Rehabilitation Neighborhoods.

8:2-89 A Study to Develop Techniques for the Physical Coordination of Community Improvements and Urban Renewal in the Pittsburgh Area.

URBAN RESEARCH

8:1-3 The Spatial Distribution of Components of Urban Populations.

8:1-53 The Theory of the Urban Economy: Origins and Development with Emphasis on Intraurban Distribution of Population and Economic Activity.

8:2-86 Planning Research in England.

URBANIZATION

8:2-85 Migration and Urbanization in the United States, with Special Reference to Recent Trends.

8:2-86 India's Urban Future.

GEOGRAPHICAL INDEX

BOSTON, MASSACHUSETTS

8:2-29 Suburban Development.

BOSTON METROPOLITAN AREA

8:1-1 The Immediate Economic Impact of Higher Education upon Metropolitan Boston.

CALCUTTA

8:2-88 Calcutta Project.

CALIFORNIA

8:2-7 Urban Renewal Problems and Programs in California and other Western States.

CHAMPAIGN-URBANA, ILLINOIS

8:2-2- A Study of the Linkage Pattern Between A Central City and the Communities Within Its Region of Influence.

CHESTER COUNTY, PENNSYLVANIA

8:1-56 Industrial Survey of Chester County, Pa.

CHICAGO, ILLINOIS

8:2-13 A Method for Determining the Optimal Division of Express and Local Rail Transit Service.

8:2-19 The Homeless Man on Skid Row.

8:2-18 Housing Needs of the Aged.

CHICAGO METROPOLITAN AREA

8:2-88 Chicago Area Flood Hazard Mapping Project.

CLEVELAND

8:2-12 A Metropolitan Survey: Case Study of the Cleveland Metropolitan Services Commission.

COLUMBUS, OHIO

8:1-6 The Wholesale Structure of Columbus, Ohio.

CONNECTICUT

8:1-9 The Economic and Social Effects of the Connecticut Turnpike on Eastern Connecticut.

DAYTON METROPOLITAN AREA

8:2-2 Dayton Metropolitan Urban Study.

DELAWARE RIVER BASIN

8:2-86 Delaware River Basin.

DETROIT METROPOLITAN AREA

8:1-10 Renewal and Revenue.

8:1-11 The Effect of Noise Created by Airport and Aircraft Operations upon Surrounding Area.

EAST LANSING, MICHIGAN

8:1-30 The Political Process in Local Communities.

ENGLAND

8:2-86 Planning Research in England.

ENGLEWOOD, COLORADO

8:1-8 The Development of Retail Trade in Englewood.

EUROPE

8:2-24 Residential Densities of Housing Projects in European Cities.

FARIBAULT, MINNESOTA

8:1-37 A Highway Change in Changing Faribault.

8:1-39 The Economic Effects of a Highway Change in Faribault, Minnesota.

GRAND RAPIDS, MICHIGAN

8:1-31 Sources of Negro Leadership in Grand Rapids.

GREAT PLAINS CITIES

8:1-50 Derivitive-Basic Ratio in Great Plans Cities.

ILLINOIS

8:1-13 Organization for State Highway and Urban Planning Liaison.

8:1-14 Public Works Planning and Development in Illinois, with Special Reference to the State and County.

8:1-15 Mapping the Political Characteristics of Medium-Size Metropolitan Areas.

8:2-21 Organization for State Highway and Urban Planning Liaison.

8:2-22 County Income Study.

8:2-25 Mathematical Delineation of Retail Trade Areas: A Study of Procedural Problems and an Analysis of Three Formulae.

INDIA

8:2-86 India's Urban Future.

KENTUCKY

8:1-20 City Revenue Practices in Kentucky and Selected Other States.

8:2-33 Kentucky Urban Renewal Demonstration Project.

LANSING, MICHIGAN TRI-COUNTY AREA

8:1-27 Economic and Population Base Study of the Lansing Tri-County Area: An Interindustry Relations Analysis.

LATIN AMERICA

8:2-93

LOS ANGELES

8:2-8 Demand for Outdoor Recreational Facilities Generated by the Growth of Los Angeles.

8:2-9 Junior Mortgage Financing in Los Angeles County, 1958-1959.

8:2-18 Housing Needs of the Aged.

LOS ANGELES (continued)

8:2-90 Los Angeles Regional Transportation Study.

MERAMEC BASIN

8:2-102 Meramec Basin Research Project.

MICHIGAN

8:1-21 Southeastern Michigan Transportation Study.

8:1-22 Southeastern Michigan Economic Study.

8:1-23 County Government Issues.

8:1-24 Southeastern Michigan Health Study.

8:1-25 Comparative Tax Resources of 180 Southeastern Michigan Governmental Units.

8:1-26 Comparative Tax Resources of School Districts in Southeastern Michigan.

8:1-28 Municipal Income Tax.

8:2-36 Per Pupil Valuation: The Comparative Tax Resources and Expenditures of Southeastern Michigan's School Districts.

8:2-37 Comparative Studies of the Services of Local Government.

8:2-38 The Potential Impact of Constitutional Revision upon Michigan Counties and Townships.

8:2-39 Constitutional Revision.

8:2-40 A Six-County Overall Economic Development Program.

8:2-41 A Proposal for a Six-County Development-Redevelopment Program.

8:2-43 The Effect of By-Pass Highways Upon Retail Business.

MINNEAPOLIS-ST. PAUL METROPOLITAN AREA

8:1-40 Beltline Commercial-Industrial Development: A Case Study in the Minneapolis-St. Paul Metropolitan Area.

MINNESOTA

8:1-38 How Farmers Adjusted to an Interstate Highway in Minnesota.

8:1-44 Growth Corridors and Traffic Potentials: A State Wide Study.

MONTANA

8:2-51 Forest Products in Montana.

NEBRASKA

8:1-47 Methods for Estimating the Number of Business Concerns in a State by Location and Size.

8:1-48 Changing Business Patterns in Nebraska Towns.

NEW HAVEN, CONNECTICUT

8:1-16 Location of Metropolitan Residential Areas.

NEW JERSEY

8:2-71 New Jersey Regional Urban Renewal Survey.

NEW YORK (STATE)

8:2-17 Home Buying and Financing in Upstate New York.

8:2-18 Housing Needs of the Aged.

OHIO

8:1-54 Ohio County Personal Income, 1957, 1958, 1959.

OREGON

8:1-55 Industry and Transportation Study - Eugene-Springfield Area, Oregon.

8:2-78 Industry and Transportation Study - Eugene-Springfield Area, Oregon.

PENJERDEL

8:2-79 Research Design for an Area Data Service in the Penjerdel Region.

8:2-81 Research Design for Investigations of the Future Labor Force Supply and Demand in the Penjerdel Region.

PENJERDEL (continued)

8:2-82 The General Pattern of Local Government in the Penjerdel Region.

8:2-83 The Feasibility of Maintaining Open Space through Part-Time Farming in the Penjerdel Region.

PHILADELPHIA, PENNSYLVANIA

8:1-63 Skid Row Project.

8:2-87 New Residential Construction in Rehabilitation Neighborhoods.

PIEDMONT INDUSTRIAL CRESCENT, NORTH CAROLINA

8:2-74 A Pilot Investigation of Determinants of Land Development.

8:2-75 Socio-Cultural Adaptations of Newcomers to Cities in the Piedmont Industrial Crescent.

PITTSBURGH, PENNSYLVANIA

8:2-88 Economic Study of the Pittsburgh Region.

8:2-89 A Study to Develop Techniques for the Physical Coordination of Community Improvements and Urban Renewal in the Pittsburgh Area.

PUEBLO, COLORADO

8:1-7 An Evaluation of Pueblo's Economic Potential.

RADIBURN, NEW JERSEY

8:1-52 An Exploratory Study of Selected Housing Factors in Established Neighborhoods as Related to the Resident's Behavior Patterns.

ST. GEORGE, UTAH

8:1-70 St. George Economic Base Study.

ST. LOUIS, MISSOURI

8:2-18 Housing Needs of the Aged.

SALT LAKE CITY, UTAH

8:1-69 Economic Analysis of the Salt Lake Metropolitan Transportation Area with Population and Employment Projections to 1980.

SEATTLE, WASHINGTON

8:2-102 Locational Factors Involved in Suburban Development.

SOUTH DAKOTA

8:2-58 Location of Retailing in South Dakota.

SOUTHEASTERN RIVER BASIN

8:2-100 River Basins Study.

TEXAS

8:2-22 Texas Economic Study.

TOPEKA, KANSAS

8:1-18 The Spacial Distribution of Urban Land Values.

8:1-19 Delimitation of Neighborhoods, Topeka, Kansas.

UPPER MIDWEST REGION

8:2-45
through
8:2-66 Upper Midwest Economic Study.

UTAH

8:1-67 Public Lands: Land Status Determination in Utah.

8:1-68 Public Lands: Resource Inventory.

VENEZUELA

8:2-31 Venezuela Project.

WABASH VALLEY

8:2-87 Wabash Valley Seminar.

WASHINGTON, D. C.

8:1-16 Location of Metropolitan Residential Areas.

CONTRIBUTOR INDEX

ABRAMS, I.
8:2-2

ADAMS, JOHN F.
8:2-81

ADAMS, RUSSELL B.
8:2-65

ADAMS, WARREN T.
8:2-106

ADKINS, WILLIAM G.
8:2-92

ADRIAN, C. R.
8:1-29

ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS
8:2-93 8:2-94 8:2-95

ALDERSON, WROE
8:2-79

ANDERSON, T. R.
8:1-16

ANDING, THOMAS
8:2-66

BARNES, K.
8:1-50

BELMONT, WILLIAM R.
8:2-47

BENOIT, E.
8:1-35

BERRY, BRIAN J. L.
8:2-15

BEVS, MELVIN
8:2-88

BEYER, GLEN H.
8:2-17 8:2-18

BLACK, ALAN
8:2-13

BLUCHER, MARK
8:2-37

BODDY, FRANCIS M.
8:2-49

BOGUE, DONALD J.
8:2-14

BOLLE, ARNOLD W.
8:2-51

BOLLENS, JACK
8:2-8

BONE, A. J.
8:2-34

BORCHERT, J. R.
8:1-36 8:1-37 8:1-38
8:1-39 8:1-40 8:1-41
8:1-42 8:1-43 8:1-44
8:2-45

BOWER, BLAIR T.
8:2-102

BOWERMAN, CHARLES E.
8:2-75

BOYCE, E.
8:2-1

BOYCE, RONALD R.
8:2-23 8:2-102
8:2-87

BROWN, W. H.
8:1-59

BUGHER, R. D.
8:2-1

BURNES, CLINTON H.
8:2-96

BURNIGHT, R. G.
8:1-9

BURNS, WENDELL T.
8:2-45

CANINO, T. L.
8:1-7

CASE, FRED E.
8:2-8

CAVANAUGH, F.
8:2-1

CHAPIN, F. STUART, JR.
8:2-74

CHINITZ, BENJAMIN
8:2-88

COHEN, LEON
8:2-37

COMMITTEE ON URBAN ECONOMICS
8:2-89

COX, E. P.
8:1-27

COX, REX
8:2-53

CRAMPTON, L. J.
8:1-7 8:1-8

CROCKETT, R. D.
8:1-60

CROSSWHITE, WILLIAM M.
8:2-83

CULP, J. L.
8:1-60

DAVIS, K.
8:2-86

DAVIS, OTTO
8:2-88

DELWART, LOUIS
8:2-69

DILBECK, HAROLD
8:2-10

DOLAN, PAUL
8:2-82

DONNELLY, THOMAS G.
8:2-74

DOODY, F. S.
8:1-1

DOXIADIS, C. A.
8:1-45 8:2-68

DUKE, R. D.
8:1-33

DUNCOMBE, BRUCE F.
8:2-60

EDELEN, WALTER T.
8:2-33

ELAZAR, D. J.
8:1-15 8:2-27

ELDRIDGE, H. T.
8:2-85

FAVA, J. L.
8:2-67

FAVILLE, H.
8:2-43

FEDERAL HOUSING ADMINISTRATION
8:2-94

FINDLEY, L. D.
8:2-44

FINK, D.
8:2-88

FINLAY, W. W.
8:2-2

FISCHER, J. L.
8:2-54

FISCHMAN, L. L.
8:1-61

FITCH, L.
8:2-90

FLEISHER, A.
8:2-30

FOLEY, D. L.
8:2-7

FREEMAN, W.
8:1-34

FRIEDLANDER, J. M.
8:1-25 8:1-26 8:2-36
8:2-37 8:2-39

FRIEDMAN, M.
8:1-49

FROMM, W. D.
8:2-33

GABY, W. D.
8:2-71

GARRISON, W. L.
8:1-72 8:2-77

GELFAND, J. E.
8:1-62 8:2-91

GERSON, W. G.
8:2-4

GETIS, ARTHUR
8:2-104

GILDEMEISTER, MORRIS
8:2-66

GILLIES, JAMES
8:2-9

GLICKSTEIN, AARON
8:2-44

GOLDSCHMIDT, CARL
8:2-43

GOLDSWORTHY, RAYMOND D.
8:2-4

GORDON, R. L.
8:2-2

GREBLER, LEO
8:2-9

GREELEY, ROLAND B.
8:2-32

GREENE, LAWRENCE
8:2-37

GREENWOOD, GEORGE W.
8:2-20

GRIEN, GEORGE W.
8:2-5 8:2-6

GULICK, JOHN
8:2-75

HAGE, RICHARD E.
8:2-33

HAHTANEN, ROBERT J.
8:2-16

HANSEN, W. B.
8:1-58

HARLINE, O. L.
8:1-69

HEIKOFF, J. M.
8:1-13 8:2-21

HELFGOTT, ROY
8:2-88

HELFINSTINE, REX D.
8:2-52

HELM, K.
8:1-59

HENDERSON, J. M.
8:2-45 8:2-57

HENDERSON, J. P.
8:1-27

HENSHAW, R. C.
8:1-27

HERTSGAARD, THOR A.
8:2-55

HINDS, E. G.
8:2-33

HIRSCH, W. Z.
8:1-71

HOEY, W. III
8:1-55 8:2-78

HOFFMAN, F. H.
8:1-73 8:1-64

HOLMQUIST, H. E.
8:2-5 8:2-6

HOOVER, E.
8:2-88

HORMS, L. T.
8:2-81

HORWOOD, E. M.
8:1-72

HOTALING, R. B.
8:1-32

HUNT, M.
8:2-82

INTERAMERICAN PLANNING SOCIETY
8:2-93

JOHNSON, D. N.
8:1-55

JOHNSON, H. A.
8:2-83

JOHNSON, R. N.
8:2-78

JONES, B.
8:1-3

JONES, B. G.
8:1-53

JONES, H. R.
8:1-4

KAFOGLIS, M. (DR. AND MRS.)
8:1-54

KATZ, R. D.
8:2-24

KAUFMAN, J. L.
8:1-14

KEMP, B.
8:2-5 8:2-6

KEYES, S.
8:2-22

KHAN, A.
8:2-88

KILLIAN, K. W.
8:2-67

KLOTZ, B. P.
8:2-64

KNOS, D. S.
8:1-18 8:1-19

KNUDTSON, A.
8:2-53

KRASROWIECKI, J. Z.
8:2-80

KRUEGER, A. O.
8:2-48

KUHN, T. E.
8:1-5

LABER, L. E.
8:2-3

LANDSBERG, H. H.
8:1-61

LANG, A. S.
8:1-17

LANGFORD, M.
8:2-18

LASSERE, F.
8:1-2

LEE, C. H.
8:2-70

LEVY, S. L.
8:2-44

LOGAN, R.
8:2-8

LONGABAUGH, R. T.
8:2-88

LOUNSBURY, J. F.
8:2-2

LOWRY, I. S.
8:2-88

LUKE, G.
8:2-83

MACE, R. L.
8:2-73

MAIN, R. K.
8:2-105

MANHEIM, M. L.
8:2-32

MARBLE, D. F.
8:1-57 8:1-72 8:2-86

MARCON, GEORGE T.
8:2-20

MARTIN, B. V.
8:2-34

MARTIN, D. B.
8:1-55 8:2-78

MARTIN, W.
8:2-88

MAYER, H. M.
8:2-15

MCCARLEY, J.
8:1-28

MCCARGER, R. S.
8:1-10

MCDANIEL, WILLIAM E.
8:2-83

MCGIMSEY, G. B.
8:1-10

MCHARGUE, D. S.
8:2-38

MCLAIN, W. C., JR.
8:1-9

MCNEE, J. B.
8:1-31

MEIER, RICHARD L.
8:2-42

MEMMOTT, F. W., III
8:2-34

MESSER, R. T.
8:2-97

MIHA, P. J.
8:2-16

MILLER, A. R.
8:2-85

MOAK, LENNOX L.
8:2-67 8:2-82

MOHRING, H.
8:2-76

MONTGOMERY, V. E.
8:2-58

MOXLEY, R.
8:2-37

MURPHY, R. E.
8:2-16

NASH, W. N.
8:2-32

NELSON, C. E.
8:1-67 8:1-68

NORTON, J. A.
8:2-11 8:2-12

OBERLANDER, H. P.
8:1-2 8:2-4

O'DONNELL, J. L.
8:1-27

O'FLAHERTY, D.
8:2-107

OLNEY, S. S.
8:1-10

OWER, W.
8:2-90

PAL, D. K.
8:2-23

PALMER, E. Z.
8:1-46 8:1-47 8:1-48
8:1-49 8:1-50 8:1-51
8:2-70

PALMER, G.
8:2-81

PARAN[illegible]A, S.
8:1-12 8:2-19

PARK, R. L.
8:2-86

PARKINS, ROGERS AND ASSOCIATES
8:2-40 8:2-41

PASMA, T. K.
8:1-65 8:1-66

PAUL, J. C. N.
8:2-80

PELLISH, D. M.
8:2-72

PERLOFF, HARVEY S.
8:2-91

PETERSON, L. P.
8:2-18

PETSHEK, K. R.
8:1-60

PIERCE, H. M.
8:1-56

POLKINGHORN, R. S.
8:1-51

PRESS, C.
8:1-29 8:1-30

PRESTON, R. E.
8:2-16

QUINDRY, K. E.
8:1-20

RAPKING, C.
8:2-84

RAUP, P. M.
8:1-36 8:1-37 8:1-38
8:1-39 8:1-40 8:1-41
8:1-42 8:1-43 8:1-44

REDEVELOPMENT AUTHORITY OF THE CITY OF PHILADELPHIA
8:2-87

REED, W.
8:2-22

REHBERGER, E. H.
8:2-96

RECCK, E. C., JR.
8:2-82

RESESMA, R. W.
8:1-6

RIKE, L. C.
8:2-56

ROACH, M. W. JR.
8:1-11

ROBEY, J. B.
8:2-33

RODD, R. S.
8:2-60 8:2-62

RODGERS, F. C.
8:2-22

ROSENBERG, R.
8:2-63

ROTHMAN, E.
8:2-82

ROWE, J. D.
8:1-55 8:2-78

RYAN, F. E.
8:1-9

SABIT, J.
8:1-10

SCHARRER, A. W.
8:1-10

SCHROLL, B. A.
8:1-11

SCHWEITZER, S. F.
8:1-7

SCHWINDEN, J.
8:1-36 8:1-37 8:1-39
8:1-40 8:1-41 8:1-42
8:1-43 8:1-44

SCOTT, A.
8:1-9

SHADY, A. M.
8:2-20

SHOUSE, W. L.
8:2-33

SIELAFF, R. O.
8:2-50

SJAASTAD, L. A.
8:2-46

SOBERMAN, R. M.
8:1-17

SONENBLUM, S.
8:2-69

SPANO, B.
8:1-11

STANHAGEN, W. H.
8:2-98

STEELE, C. A.
8:2-97 8:2-99

STEWART, H. B.
8:2-89

STRINER, H. E.
8:2-5 8:2-6

STRONG, A. L.
8:2-80

STROUP, R. H.
8:2-105

SWITZER, J.
8:1-8

TAYLOR, M. C.
8:1-28

TAYLOR, P. N.
8:1-9

THOMAS, D. J.
8:1-51

THOMAS, D. S.
8:2-85

THOMPSON, G. S.
8:1-70

THOMPSON, R. H.
8:2-92

THOMSON, J. W.
8:1-10

TILLY, CHARLES H.
8:2-83

TODD, T. R.
8:2-95

TROCK, W. L.
8:2-54

TURNBULL, J. G.
8:2-61

TWARK, A. J.
8:1-56

U. S. BUREAU OF THE CENSUS
8:2-94

U. S. ARMY CORPS OF ENGINEERS
8:2-86

U. S. DEPARTMENT OF AGRICULTURE
8:2-92

U. S. GEOLOGICAL SURVEY
8:2-88 8:2-93

U. S. STUDY COMMISSION,
SOUTHEAST RIVER BASINS
8:2-100

ULLMAN, E. L.
8:2-102

VAN HUYCK, A. P.
8:1-52

VARGAS, D. J.
8:2-1

VAUGHN, G. F.
8:2-83

VOEGELER, R. F.
8:2-8

VOELKER, R. G.
8:2-2

VOLK, D. J.
8:2-102

VON MOLTKE, W.
8:2-31

VON RIESER, D.
8:2-25

WAHL, S. G.
8:2-18

WALTERS, C. G.
8:2-26

WARNER, S. B., JR.
8:2-29

WARREN, H.
8:2-37

WARRILOW, T.
8:1-10

WEISBROD, B. A.
8:2-101

WEISS, S. F.
8:2-74

WEST, A. A.
8:1-10

WHITE, J. F.
8:2-2

WHITE, L.
8:2-28

WHITE, M.
8:2-28

WHOL, M.
8:2-35

WILLIAMS, N., JR.
8:2-31

WILLIS, S.
8:2-71

WINFREY, R.
8:2-99

WOLF, K.
8:2-1

WOLFE, M. R.
8:1-73 8:2-103

WONNACOTT, R. J.
8:2-59

WOOD, R. C.
8:2-89

WURSTER, C. B.
8:2-7 8:2-86

Research Digest

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UNIVERSITY OF ILLINOIS

BUREAU OF COMMUNITY PLANNING
Director: Joseph M. Heikoff

RESEARCH DIGEST
Editor: Scott Keyes

Editor's Notes

During recent weeks a number of excellent bibliographies have become available, several of which are discussed elsewhere in this issue. Another outstanding bibliography which came to the attention of the editor just as this issue was being printed is the new and revised edition of City Planning: A Basic Bibliography, by George C. Bestor and Holway R. Jones. Comprehensive in coverage and carefully selected, organized and annotated, this publication contains some 1,215 specific references plus much other useful material. Copies may be obtained at $3.00 each from the California Council of Civil Engineers and Land Surveyors, 1107 Ninth Street, Sacramento 14, California.

The editor is also pleased to announce the receipt of a grant to the Bureau of Community Planning of the University of Illinois from Resources for the Future, Inc. which is to be used in part to improve the coverage, content and format of the Digest, as well as to expand its circulation. Comments and suggestions from our readers will be appreciated. (SK)

Founded in 1954 by an informal organization known as the Urban Planning Research Group, the Research Digest is prepared and distributed semi-annually, in April and November, by the Bureau of Community Planning of the University of Illinois. Its objective is to serve as a medium of communication among individuals and groups engaged in urban and regional research. Abstracts are invited covering research projects recently initiated, projects well underway on which significant progress or findings can be reported, and projects recently completed. Brief notes on items of interest to researchers in this field are also desired, as are special articles in keeping with the character of the publication Subscription is $2.00 per year. Address all communications to Research Digest, Bureau of Community Planning, University of Illinois, 1202 West California Avenue, Urbana, Illinois.

CONTENTS

Page

SPECIAL ARTICLE

Urban Growth Problems and Research. Robert C. Weaver 1

CURRENT RESEARCH PROJECTS

ALLEGHENY COLLEGE

Social Science Research Fund

1. Recent Tax Changes and Industrial Development in Pennsylvania 13

UNIVERSITY OF BRITISH COLUMBIA

Department of Community and Regional Planning

2. Performance Standards for Space and Site Planning For Residential Development 14

BROOKINGS INSTITUTION

3. Professional, Technical, and Managerial Manpower Needs of The City of New York 14
4. Community Conference Program 15

BROWN UNIVERSITY

Department of Economics

5. Interaction Between Discrimination, Interregional Migration and Regional Development 16

UNIVERSITY OF CALIFORNIA (BERKELEY)

Institute of Transportation and Traffic Engineering

6. Economic Considerations in The Distribution of Highway Revenues in California 17
7. Public Enterprise Economics and Transport Problems 18
8. Traffic Patterns in Relation to Capacity Deficiencies 18
9. General Aviation in California 19
10. Nature and Economic Significance of Metropolitan Peak Demand Patterns 20
11. Problems of Transport Peaks 21

UNIVERSITY OF CALIFORNIA (LOS ANGELES)

Graduate School of Business Administration

12. Determinants of Residential Construction 21
13. Urban Renewal in Europe - Its Emergence And Potentials 22
14. Effects of Intra-Urban Limited Access Thoroughfares on Commercial Land Uses 22
15. Analysis of Real Estate Market Behavior From Multiple Listing Bureau Data in the Los Angeles Area ... 23
16. Comparison of Changes in House Sale Prices With Assessed Values in Los Angeles 23
17. Prospectus For a Study of The Economic Growth And Structure of the Los Angeles Regional Economy 23

UNIVERSITY OF CHICAGO

Department of Economics

18. The Valuation of Accessibility 24

COLUMBIA UNIVERSITY

Department of Economics

19. A Theory of Population Distribution 24

DETROIT METROPOLITAN AREA REGIONAL PLANNING COMMISSION

20. Effect of Noise Created by Airport and Aircraft Operations Upon Surrounding Area 26

UNIVERSITY OF ILLINOIS

Bureau of Community Planning

21. County Income Study 26
22. Survey of Urban and Regional Research and Education in American Universities 27
23. Spatial Variables and CBD Sales 27
24. City Planning and Local Politics 28

JOINT CENTER FOR URBAN STUDIES OF M.I.T. AND HARVARD UNIVERSITY

25. Discretion and Certainty in Land Use Controls: The Problem of Non-Euclidean Zoning of Larger Parcels .. 29
26. Metropolitan Structure and the Rebuilding of Cities 29
27. The Future of the Downtown Department Store 30
28. Static France and Dynamic France 31
29. Class and Mobility in a Nineteenth Century City: A Study of Manual Laborers 31
30. Law and Equal Opportunity 32

UNIVERSITY OF KANSAS

Department of Geography

31. Variations in Demographic Structure Within a Metropolitan Area: Kansas City 32
32. The City Beautiful Movement in Kansas City, 1872-1914 33

LOUISIANA STATE UNIVERSITY

College of Business Administration

33. Growth and Fluctuations in the Economy of Louisiana, 1947-1959 34

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

34. Quantitative Investigation of Aspects of the Economics of Supply and Demand in the Petroleum Industry 35

UNIVERSITY OF MICHIGAN

Center for Research in Conflict Resolution

35. Economic Adjustments to Disarmament 36

School of Natural Resources

36. An Approach to the Study of Natural Resources Policy: The Michigan Conservation Commission's Decision on the Porcupine Mountains Controversy 36

MICHIGAN STATE UNIVERSITY

Institute for Community Development and Services

37. Local Government Debt in Michigan 37
38. Four-Cities Study of Local Political Processes 38
39. Local Income Taxes as a Source of Revenue for Michigan Communities 38
40. Organizing Leadership for Community Development Projects 39
41. University Extension Education in an Urban Setting 39
42. Property Tax Assessment in Lansing, Michigan 40

UPPER MIDWEST RESEARCH AND DEVELOPMENT COUNCIL

43. Agricultural Economy of the Upper Midwest Region 40
44. Urbanization in the Upper Midwest Region 40
45. Planning for Fast Growth 41
46. Urban Renewal in Small Cities in the Upper Midwest Region 41

UNIVERSITY OF MISSOURI

Department of Economics

47. An Analysis of the Industrial Composition of Metropolitan Areas 42

NATIONAL PLANNING ASSOCIATION

48. State Economic Projections 43

UNIVERSITY OF NEW MEXICO

Bureau of Business Research

49. Income and Employment in New Mexico, 1949-1959.......... 43
50. New Mexico Since Statehood 44

Department of Economics

51. Estimates of Water Supply and Demand for the United States 45

UNIVERSITY OF NORTH CAROLINA

Institute for Research in Social Science

52. Industrial Development Trends and Economic Potential: Urban Growth Dynamics in a Regional Cluster of Cities... 45

School of Business Administration

53. The North Carolina Economy 47

NORTHWESTERN UNIVERSITY

Transportation Center

54. A Theory of Suburbanization of Manufacturing Activity .. 48

OKLAHOMA STATE UNIVERSITY

Department of Agricultural Economics

55. Economic Development in Eastern Oklahoma Until 1950 49

PENN JERSEY TRANSPORTATION STUDY

56. Small Area Employment Estimation in the Philadelphia Area 50
57. Land Use Changes in the Philadelphia Area 51
58. Trip Distribution in the Philadelphia Area 52
59. Trip Generation in the Philadelphia Area 52

PURDUE UNIVERSITY

Joint Highway Research Project

60. Highway Impact in Urban Areas 52
61. Land Economic Studies 53

RESOURCES FOR THE FUTURE, INC.

62. Water Pollution - Economic Aspects and Research Needs .. 53
63. Resources in America's Future 54

TEMPLE UNIVERSITY

Bureau of Business and Economic Research

64. Financial Programs for Lower Middle Income Housing 54

UNIVERSITY OF TEXAS

Department of Economics

65. Potential Economic Development of the United States Southwest 55

WASHINGTON UNIVERSITY (ST. LOUIS)

Institute for Urban and Regional Studies

66. Inter-Community Spillovers of Public Education Costs and Benefits 56

UNIVERSITY OF WASHINGTON (SEATTLE)

College of Business Administration

67. Seasonal Variation Study 57
68. Cyclical Variation Study 58

College of Forestry

69. An Evaluation of Multiple Use Practices on Forested Municipal Watersheds of the Douglas Fir Region 59

UNIVERSITY OF WYOMING

Division of Business and Economic Research

70. Resources, People, and Economy of East-Central Wyoming . 60

BRIEF MENTION

METROPOLITAN AREAS

Chicago Industrial and Commercial Study 62

TRANSPORTATION

Alternative Approaches Proposed by Penn Jersey Transportation Study 62
Cooperative Highway and Urban Planning for Small Cities 62
Panel Reports on Urban Transportation, Highway Research Board ... 63

HOUSING AND URBAN RENEWAL

Research Program of the Housing and Home Finance Agency 64

RECREATION AND OPEN SPACE

Report of the Outdoor Recreation Resources Review Commission 64

CONFERENCES

The City and History 65
Foundations of Urban Life and Form 66
Wabash Basin Series on Regional Development and Change 66
Regional Accounts 67

TRAINING PROGRAMS

Summer Institute in Regional Science 67
University of Pittsburgh Program in Urban and Regional Economics 68
Latin American Planning Program, Yale University 68

RESEARCH MATERIALS

Regional Economic Projections 68
State and Small Area Reports from 1960 Housing Census 69
Establishment of Census Bureau's Quarterly Household Survey 70
New Report in Census Forms and Procedures Series 71

BIBLIOGRAPHIES

University Business and Economic Research Projects 71
Urban Real Estate Research 72
Personal Income Data for Small Areas 72
New Exchange Bibliographies, Council of Planning Librarians 72

OTHER

New Studies Undertaken by the Advisory Committee on Governmental Relations 73
Urban Politics Research Group 74
Pratt Planning Papers 74

URBAN GROWTH PROBLEMS AND RESEARCH

Robert C. Weaver [a]

I am both honored and pleased to have been asked to speak on this significant occasion in the urban affairs of Canada, when you are launching an organization to further the systematic diagnoses of the opportunities and problems of urban growth which are common to your country and to mine.

In the United States we do not, as yet, have a central council or clearing house for urban and regional research. This is something that we will have to organize before long to improve our research efforts, and I am sure that we will benefit from the experience that you are about to undertake. It may be helpful to you, however, to review briefly the research and study that is needed, and to take note of the welter of research on various aspects of urbanism that is currently done under various auspices in the United States.

* * *

During the past decade, the meshing of central cities and surrounding counties into an integrated economic metropolis has become a recognized pattern in the United States. There has also been a growing awareness of the declining fiscal base of the city. We realize that the revenue-short expanding suburb and their common transportation woes are related to physical and economic development of the entire area. Clearly, research and analysis are essential to help plan a more rational regional development.

As a first step there is a need to measure the impact of demographic trends upon the population growth of different regions and parts of regions. This requires not only measures of the natural increases of population, but also judgments as to the nature of the future migration and mobility in a country where one-fifth of the people change residences every year.

These changes in population location and density bring with them problems of social adjustment, physical accommodations, and economic development. These problems require identification in quantitative and qualitative terms, if we are to cope with them intelligently.

It will also be necessary to anticipate, as far as possible, where the people of our changing metropolitan regions will live, where they will work, play, go to school and do their shopping. If such prognostication is to be within a rational framework, we have to learn more about the economic functions of different types of communities and districts within a region. What are the appropriate regional functions of the central city, and what is the role of specific large cities within the economy of the Nation? And what should be the internal structure of the city with respect to the location of its industries and a balanced supply of housing for its various income groups?

(a) Administrator, Housing and Home Finance Agency. Text of an address before the Canadian Council on Urban and Regional Research, Chateau Laurier Hotel, Ottawa, March 16, 1962.

Research is also needed on the public and private cultural, commercial and health services that the city must provide for the residents of its region.

How should satellite communities be shaped--what should be their size, location and function in relation to the central city? We have to amplify and organize our knowledge about the relative advantage of having certain productive activities carried on in more spacious suburban areas, as compared with the central city and its cluster of activities that makes external economies available to many producers. Similarly, data on economies of scale for the provision of various public services have to be compiled and expanded, to serve as a guide for coordinated and efficient public services in an entire area.

Then, there are the clearly mutual interests of the central city and the rest of a metropolitan region which have to be identified and studied to develop more satisfactory methods of handling them. These common interests include the preservation of open space for recreational and scenic purposes, the development of an adequate regional transportation system, and the fiscal resources to provide the necessary public capital improvements for the future development of the region. To treat these regional problems effectively, new forms of local intergovernmental arrangements and organizations have to be developed, and this, in itself, is a major area for study.

Research Activities in the United States

In recent years a number of regional studies have been executed which attempted a simultaneous attack on a number of variables shaping the growth of a region in the United States.

The most extensive of these studies was the New York Metropolitan Regional Study which resulted in the publication of ten volumes on the economic, demographic and sociological trends in a 22-county region that extends into New Jersey and Connecticut, and embraces 16 million people. The study was under the supervision of the Harvard University Graduate School of Public Administration which assembled a task force of experienced analysts to perform the compilation and analysis of relevant data. As you may know, the New York regional study stirred some healthy controversy as to whether a continuation of present trends leading to a decline of older parts of the central city are inevitable, or whether we can bestir outselves and restore the vitality of declining districts.

Currently, there is under way an extensive program of economic study of the upper midwest region of the United States. The geographic coverage of this regional study program is indicated by the participating agencies headed by the University of Minnesota and the Upper Midwest Research and Development Council, and the cooperating agencies which are the State Universities and Colleges of Montana, North Dakota, and South Dakota, and the Federal Reserve Bank of Minneapolis. The studies will cover a wide range of demographic and economic developments in the region, including urban migration, urban fringe areas, the labor force, personal income, recreation resources and the agricultural economy of the region.

The Pittsburgh Regional Planning Association is conducting a study of the Pittsburgh metropolitan region. A co-sponsor of the Pittsburgh study is the Pittsburgh Regional Industrial Development Corporation, a not uncommon type of private, nonprofit local organization that has been formed to attract industry to a region and further its economic development. The Pittsburgh regional study is under the direction of a leading staff participant in the New York Metropolitan Regional Study. He has assembled a task force of urban affairs experts, drawn mainly from university faculties.

In contrast with the large regional studies there are numerous so-called economic base studies of smaller urban areas made in the United States. These analyses may be for moderate-sized cities or for an entire county. They frequently involve population projections, land use needs, public facility requirements and housing needs. Such studies are typically done by the business and economic research bureaus of large universities, particularly the state universities such as we have in Wisconsin, Texas, Maryland, and other states. Sometimes they are carried out by consultants.

The economic base studies made by consultants for a community will frequently be in connection with a development plan that is required as part of a Workable Program for Community Improvement which, in turn, is a prerequisite for federal assistance for urban renewal or public housing. The planning itself may be aided with a federal grant, under the urban planning assistance program of the Housing and Home Finance Agency.

As a result of experience with the urban planning assistance program, which goes back to 1954, there has been a crystallization of thought as to the function of the planning process and the research findings that result. If planning is to serve its purpose, it must be a process which provides current data to help public and private decision makers arrive at rational decisions as to capital improvements that will affect the growth of their urban area.

One of the most extensive projects designed to fulfill this purpose is the Penn-Jersey Transportation Study that was started two years ago. Almost four million dollars are being spent. The work includes compiling and analyzing data on the existing locational pattern of residential, commercial, industrial and public facilities, and uses of transportation facilities. Based on this information and thousands of interviews to ascertain location and transportation preferences of consumers and businesses under alternative future development patterns, computers are employed to project alternative growth models for the region.

The officials of cities and counties in the region, who are on the policy committee for the study, and private industry representatives on advisory committees, will then be able to use the models in making their decisions with knowledge of how their determinations may affect the future economic growth of the region and their particular urban areas in the region. Funds for this study have come mainly from the United States Bureau of Public Roads with contributions by two states and nine counties.

There are many ancillary problems for which solutions must be found if our urban research and planning is to be effective. They require research on the economic impacts of alternative ways in which the component physical factors that enter into the make-up of an urban area are provided, utilized and controlled.

A basic urban problem in the United States has been the land use pattern that has evolved as a consequence of the concentration of population growth in metropolitan areas, with a concurrent diffusion of development within the metropolitan areas. The result is popularly known as urban sprawl. To cope with this phenomenon we have to identify the factors leading to the present pattern of land use, measure their impact, and analyze remedial control methods.

Some broad studies of the demographic trends that lead to our present urban land use pattern have been supported by large foundations, such as the Twentieth Century Fund Study on Megalopolis, or a study of Migration and Urbanization in the United States that is in process at the University of Pennsylvania Population Research Center. The basic data for such studies are generally available from decennial population statistics for geographic areas and are published by the United States Bureau of the Census.

The explosive growth of the urban population in the United States over the last two decades has been accompanied by a marked uptrend in urban land prices. In response to the long-term rise in urban land prices, and their effect upon land uses, there are current research programs concerned with special aspects of this problem in the United States.

The Urban Land Institute, a private nonprofit organization supported largely by companies in the real estate, building and mortgage lending businesses, has a current program of scheduled studies on Changing Urban Land Uses as Affected by Taxation. The individual studies would include analyses of the impact upon land uses of property taxes, alternative forms of taxation and tax abatement or exemption.

The U.S. Department of Agriculture has made staff studies of alternative forms of local taxes that may be levied upon land in agricultural use in the metropolitan fringe areas. These studies have explored the effects upon land ownership, use and prices of "ad valorem" taxes based upon urban land values, compared with the effects of preferential assessments of land in agricultural use and other devices, such as tax defferals or taxes on capital gains.

The relationship between land values and distance from the center of a city and from major thoroughfares has been studied by the University of Kansas in the Topeka, Kansas, area. If we had more information on this subject we would develop more rational policies to guide the use of land for different purposes in an urban area.

This brings to mind another facet of research related to urban land policy, namely, methods of public control of land use for planned development and for specific uses. Thus, at Michigan State University a project has been undertaken to determine appropriate zoning and other land use regulations for urban fringe areas.

As another example of a special study related to land use control, the University of Pennsylvania Institute of Legal Research recently made an analysis of legal problems in the preservation of open space in metropolitan areas without public land acquisition. This study was part of the Pennsylvania-Delaware-New Jersey Metropolitan Project, a tri-state regional research project covering a region from Trenton, New Jersey, to Wilmington, Delaware.

Within cities, land uses are constantly changing as redevelopment takes place. I recall a series of land use maps of London at fifty-year intervals which illustrated how that city had been substantially rebuilt every half century over a few hundred years. These changes are in response to changing technology, such as reinforced steel construction, automatic elevators and automobile transportation. With the increased pace of technological innovation, cities will change at a more rapid rate and we must have the bases for well-planned redevelopment.

Redevelopment under the Federally-assisted urban renewal program is becoming an increasingly important factor in the future shape of our cities in the United States. We are building into the urban renewal program a procedure for comprehensive research, analysis and planning of future development for the entire city.

For this purpose Federal grants are made to cities for the preparation of community renewal programs. These programs serve to identify and measure the extent of slums and blight; to determine the financial and relocation resources available and needed to renew the areas of slums and blight; to identify the future project areas and types of renewal that will be required, and to schedule urban renewal activities.

We are also concerned with the development of new and more effective urban renewal techniques which will have general applicability in many communities. To help develop such techniques we have an urban renewal demonstration grant program. Under this program, a Federal grant is made to cover two-thirds of the cost of a demonstration project, while the state or local public body sponsoring the demonstration must contribute the other one-third. The public sponsor may assign its own staff to do the work, recruit staff especially for the project, or contract with consultants or public or private institutions to do the work.

Generally, demonstrations directly concerned with urban renewal, such as on methods and techniques for easing relocation and rehousing families, have been done by local redevelopment agencies. There have also been projects by state bodies, as for example, one on establishment of a method of combating blight through conservation and rehabilitation, by the Temporary State Housing Rent Commission of New York. This demonstration project was undertaken when I was the State Rent Administrator of New York. University groups have done demonstration studies under contract on such subjects as "Economic Aspects of Urban Renewal" and methods for coordinating and integrating urban university development programs with urban renewal efforts.

One of the objectives to be sought in our future urban growth is a pattern of locational relationships within a region which will minimize the frictions of transportation and commutation. Toward this end, we need a balanced supply of housing in the city and in the suburbs where lower-income people may be employed in commercial establishments and increasingly in industrial establishments. To formulate policies that will bring about a balanced supply of housing, we have to know, first, the pattern of effective demand, and how it is affected by different government programs and different types of financing.

Studies concerning special segments of the market have been carried on by university research groups. For example, at Temple University, a study is under way on financial programs for lower-middle income housing. Two other studies are on The Housing Market and Urban Renewal at the University of Pennsylvania Institute for Urban Studies, and on Housing Needs for the Aged at Cornell University Center for Housing and Environmental Studies. At this point, I wish to note that my Agency will obtain a wealth of information on housing needs of the aged, by arranging for special tabulations on the characteristics of our senior citizens gathered in the 1960 Census.

To have a balanced housing supply for different income groups in different parts of the metropolis, we need to have--in addition to prices, rents and financing that are commensurate with incomes of the groups to be served--freedom of choice in residential location. Through zoning or less formal devices, low-income workers and minority groups are excluded from certain areas. This has been extensively documented by the United States Commission on Civil Rights, a Presidentially-appointed Commission and by the Commission on Race and Housing, a private nonprofit commission of distinguished citizens.

I had the pleasure of serving on the Research Advisory Committee of the Commission on Race and Housing which financed numerous studies that were generally made by university faculty members. Some of these studies, on property values and race, helped puncture the myth that the entry of minority groups into a neighborhood inevitably causes a decline of property values. Other studies investigated housing demands in racially-mixed areas, to determine what circumstances facilitate a stable balance of an integrated neighborhood.

In the context of market economics, we need a balance of supply and demand in local housing markets. For this purpose, there is a continuing need for current housing market analyses. In connection with the Federal Housing Administration mortgage insurance program, the Public Housing Administration low-rent housing program, direct Federal loans for senior citizens housing and urban renewal relocation housing needs, the HHFA and its constituent agencies make periodic analyses of local housing markets where there are program activities.

In less than a dozen metropolitan areas, there are private residential research groups that publish periodic reports containing market information. These reports by local real estate, mortgage lending and homebuilding industries may be prepared with the collaboration of a local university research bureau. The reports carry metropolitan area information on homebuilding volume, vacancies, and price trends.

The Federal Government, through the Bureau of the Census, has been providing two broad indications of national housing market conditions. These are a monthly series on housing starts and a quarterly series on housing vacancies. This year, under contract for the Housing and Home Finance Agency, the Bureau of the Census will initiate a new monthly series of current housing market data.

This series will provide monthly information for the country as a whole and for three major geographic regions on the number and price distribution of new one-family homes sold, of new one-family homes under construction but unsold and of new one-family homes completed but unsold. There will also be some information--to be published quarterly--on the types of financing and certain basic physical characteristics of the new homes sold in different price classes.

The types and densities of housing located in different parts of a metropolitan region will affect the need for transit facilities and highways in the area. And the provision of highways, of course, shapes the residential development and density of a metropolitan area. Whatever the casual relationships, we have developed highly uneconomic modes of transportation for our necessary every day journeys to work, to shop, to visit, and so forth. The predominant mode of passenger transportation by private automobile brings to the fore such problems as traffic congestion and regulation, the need for parking facilities, and increased air pollution.

Research on the effects of highway construction upon land uses and values has often been done by university bureaus of community planning and economic research, by geography divisions of universities and by state highway departments.

Recently the focus of urban transportation research has been broadened to include studies of all types of urban transportation and their relation to land use planning, studies of rail commuter services and regional transportation studies analyzing all possible transportation modes. Studies of this type have been undertaken by the Joint Center for Urban Studies of M.I.T. and Harvard, by the Institute of Public Administration in New York, and by metropolitan regional transportation authorities or study groups that have been organized in some of our metropolitan areas.

The need for more effective urban mass transit has become so widespread that it has assumed national proportions in the United States. In response to this need, the Congress last year authorized the Housing and Home Finance Agency to make loans to state and local bodies to finance the improvement and installation of mass transit facilities.

We were also authorized to make grants for demonstrations to develop more effective means of mass transit. These grants will generally be made to local public agencies which may utilize the services of private engineering, management and research organizations, including those at universities, to keep records and prepare analyses of the research projects.

Whether it concerns transportation, water and sewer facilities, or public school capital outlays in a metropolitan region, planning and development is too infrequently done on a comprehensive urban area basis. All too often the individual jurisdictions in an area prefer to go it alone and try to handle their own planning and land controls. But this parochial approach is increasingly recognized as inadequate, and a host of arrangements in governmental organization for coordinated public services in a region are being tried in the United States.

Studies on public administration, or "the science of muddling through", as one writer phrased it, have generally been made by scholars who have surveyed the problem broadly in books or articles that have been published. In the current research program of the HHFA we have a project to provide information on the most promising methods that have been employed by political jurisdictions in an urban area to prepare and implement joint plans for capital improvements and services.

With respect to one aspect of urban research, namely, technological research on building materials and methods and the related subject of building codes, much remains to be done. At present, our National Bureau of Standards, which is part of the Department of Commerce, is engaged primarily in the development of measurements of performance of materials and equipment. With respect to building, the work of the Bureau would include ways to measure the durability of materials or structural components under different environmental conditions or fire resistance of different building materials. Upon request from another Government agency, the Bureau of Standards will test performance characteristics of a specific product.

In conjunction with its mortgage insurance operations, the Federal Housing Administration conducts a contract research program for the analysis of materials and construction methods, soil conditions, architectural developments and other technical matters related to residential construction.

Some of the FHA projects are carried out by the Building Research Advisory Board, an arm of the National Academy of Sciences. The Building Research Advisory Board may have field investigations made by its own staff or employ special task forces for the studies. Some of the FHA technological research projects are also carried out under contract at universities which have the necessary staff and facilities. Work is also done under the FHA program by other Federal agencies, such as the Public Health Service and the Forest Products Laboratory.

Product development is carried on by private producers of building materials and equipment that enter into housing.

The Gap Between Actual and Needed Research

Although there is a good deal of urban and regional research in progress in the United States, there are many gaps that have to be filled. For a systematic and continuing analysis of urban development requirements in a metropolitan region, there is a need for periodic compilation of the necessary regional data on population, housing, land use, transport modes, employment, income and other variables. Some experimental beginnings are being made to develop metropolitan data banks in a few areas. Such data bank organizations would employ computers to process regularly-collected information in a form that would be useful for urban planning and development.

In connection with the pattern of urban land use and its economic impact, knowledge is needed of the availability, absorption, and price trends of urban land for different uses.

The pattern of land development will be greatly influenced by the future transportation facilities that are build to meet one of our most pressing metropolitan problems, increasing traffic congestion. Many metropolitan areas are now arranging to undertake comprehensive transportation planning studies. If the transportation facilities are to serve growth most satisfactorily and at least total cost, we have to know more about the transportation choices that are made by consumers. A study on modal choice in urban transportation is needed to ascertain at what levels of mass transit service and costs consumers would be willing to use mass transit instead of owner-operated vehicles in their daily trips.

Another research project which has a high priority relates to economies of scale in public and private community services. The purpose would be to provide communities and regional bodies with information about the efficient size of various facilities, such as for sewage and water processing, and the amount of population required to support such facilities.

The question of economies of scale is related, of course, to the broader question of regional development. This question requires exploration of the functions which can be efficiently and desirably located in central cities, and the size and functions of economically viable satellite cities.

In order to frame national housing programs that will enable different segments of our urban population to obtain the necessary housing, we need information on housing market transactions that go beyond any market information that is currently obtained. For this purpose, we need an annual sample survey of families that have changed residences during the preceding year. Such a survey would obtain information on the size, quality and purchase price or rent of housing being obtained by families of different age, family and income composition, the financing terms involved, and the previous place and type of housing.

How Research is Presently Sponsored in the United States

A most important consideration in carrying on research is, of course, the means of financing it. One source of research sponsorship in the United States is the Federal Government. I have mentioned the partial grants that are available for the preparation of Community Renewal Programs and for urban renewal demonstration projects.

The Community Renewal Programs, which are now being approved at a rate of about eight million dollars a year, are considered an integral part of the urban renewal process and are financed from the much larger amount of funds authorized for urban renewal grants. The demonstration project grants are financed from the same basic source, but within a present limitation of five million dollars for this purpose. We are asking that this limitation be increased since the demonstration grants have been absorbing about one and one-half million dollars per year.

Another demonstration grant program, to help develop new and improved methods for the provision of housing low-income families is administered by my Office of Program Policy. This program, with an authorization of five million dollars for grants, was included in the Housing Act of 1961 and we expect to approve the first few projects shortly. The grants may cover all or part of the demonstration, but contributions by local public or nonprofit sponsors will be a consideration. The sponsors may make third party contracts with university or other organizations to do all or part of the development work and reports on projects.

The HHFA also administers the Urban Studies and Housing Research Program which I have mentioned. There is at present a total authorization of $2.5 million for such research in the housing law, but our annual expenditures are limited to funds appropriated by the Congress for specific studies. For the current fiscal year we have an appropriation of $375,000, and we have requested $1,450,000 for next year.

I have also mentioned the program of Federal Urban Planning Assistance grants that are available to state and local planning agencies from the Housing and Home Finance Agency. Such grants may cover two-thirds of the planning cost, or three-fourths of the cost if it covers planning in an area that has been designated as an economically-depressed area and is eligible for grant and loan assistance under the Area Redevelopment Act of 1961. Communities or metropolitan and regional planning bodies in jurisdictions of 50,000 or more population may apply directly to the Housing and Home Finance Agency for urban planning grants. Smaller localities may only receive such planning assistance through a state planning or other agency that has been designated by the state to carry out this function. There is a total authorization of seventy-five million dollars for urban planning assistance and about fifteen million dollars per year is presently being used.

Another source of Federal assistance for urban planning and economic research in the United States is the highway research funds that are available under the Federally-aided highway programs. Under its programs the Bureau of Public Roads makes grants to the states to cover from fifty per cent of the highway construction costs in some instances, up to ninety per cent of the cost in connection with the 41,000 mile, twenty-five billion dollar interstate highway program authorized in 1956, and scheduled for completion toward the end of this decade.

The states may use for research up to one and one-half per cent of the Federal grant highway funds allocated to them. Most of the highway research funds are used for engineering and traffic movement studies, such as materials-testing and origin-destination studies. Some of the latter are useful, of course, for regional economic analyses and development plans.

About ten million dollars to fifteen million dollars of the highway research funds are used each year for projects that also involve comprehensive planning related to transportation for a large urban or regional area. Therefore, we have established a committee and regional subcommittees to coordinate the use of highway research funds and urban planning assistance funds available from HHFA. Procedures have been established to avoid duplication of planning and related research efforts in a particular area, and to allow funds from both sources to be used where the situation warrents it.

A noteworthy method of supporting urban research is that used in connection with the Residential Research Program carried on at the numerous state universities and colleges in California. Funds for this program are derived from a portion of the real estate transfer taxes which the state law requires shall be used for the program.

There are also a variety of state and local agencies that provide funds for urban research. Some of these are state economic development commissions or housing and commerce departments of state governments. Local housing and redevelopment agencies have contributed to or sponsored research. Then, there are large special authorities, such as the Port of New York Authority, which carry on regional research and planning in connection with their responsibilities.

In speaking of the types of organizations engaged in urban and regional research, I have mentioned various institutes of urban studies at universities. These centers for urban studies are farily new and have been nurtured by millions of dollars of private foundation grants plus some research funds that were made available through Federal programs concerned with urban development.

I cannot refrain from mentioning the Ford Foundation which has contributed generously to the support of a number of large regional and other urban studies. Incidentally, I am a proud alumnus of the Ford Foundation. Other private organizations, such as the Rockefeller Brothers Fund, the Kellogg Foundation, the Eugene and Agnes Meyer Foundation, the American Committee to Improve Our Neighborhoods, and others have provided funds for research by the university centers for urban studies. I think it is most important that these centers should be employed increasingly in connection with research required by all levels of Government--Federal, state and local --since they are vital to the formulation of effective program policies.

The Federal Role in Research

Over the next decade, there will be hundreds of billions of dollars invested in local public facilities, in private utilities and in private commercial and industrial enterprises in my country. To the extent that urban and regional research can provide a basis for rational decisions as to the location, size and type of public and private facilities to be built, I think the benefits will far outrun the costs to our society.

If my description of urban and regional research activities in the United States has been somewhat disorganized, I must confess my belief that it reflects the real situation. We have to develop a better clearing-house organization in this area. In the near future, I hope to initiate an approach to such an organization within the Housing and Home Finance Agency. However, these remarks have, I believe, indicated that when and if there is such a function within the Agency, there will already be a large volume of research to feed into it.

You are now inaugurating an activity that is essential for efficiency in urban research and ultimately for the efficiency and livability of our highly urbanized economies. I am sure that we will learn a good deal from the experience of your Council. Certainly we shall observe your activities in this area with great interest.

In closing, may I extend my congratulations and best wishes.

1. RECENT TAX CHANGES AND INDUSTRIAL DEVELOPMENT IN PENNSYLVANIA

Main Investigator: Kenneth G. Ainsworth.

Status of Research and Publications: Data collected, final analysis underway.

Agency: Allegheny College, Social Science Research Fund.

Previous *Digest* Report: None.

Research Problem. The relationship between taxes and industrial development has been considered many times, usually with special emphasis on interstate differences in tax burdens. Much less emphasis has been put upon inter-locational tax differences within a state or economic region. Tax differences between locations within a state or region would be much more likely to have an actual effect on the final choice of an industrial site than the usual interstate tax differences. This study evaluates recent tax changes in Pennsylvania for their impact on the location of industry among states and within Pennsylvania.

Hypothesis. Industrial development in Pennsylvania will proceed in a more orderly and advantageous pattern, but not at an appreciably faster rate, on account of recent tax changes in the state.

Method of Study. State and local tax bills of hypothetical corporations are estimated for 1953 and 1958 at numerous locations in Pennsylvania. The changes in the tax bills are considered first in relation to total cost sales and invested capital. These ratios will then be compared with similar ratios found by others who have considered the relationship between location of industry and interstate differences in state and local tax burdens. Next, interlocational tax differences within Pennsylvania for 1953 and 1958 will be evaluated. The plan is to consider city, township, and borough locations separately for 1953 and 1958 for the whole state and then for several geographical subdivisions of the state. The emphasis in this part of the study is not upon changes in the level of taxation from 1953 to 1958 but rather upon inter-locational tax differences in Pennsylvania for 1953 and for 1958.

Tentative Findings. It is clear that recent tax changes have decreased the tax bills of industrial firms and that the inter-locational tax differences within Pennsylvania were greater in 1953 than in 1958. The effects of these changes on industry are not so obvious. However, the tax changes, substantial though they have been, are in general no larger than those which other researchers have found to be of minor importance so far as the location of industry among the states is concerned. The greater uniformity of industrial tax burdens at the various locations in the state promotes the establishment of industry in closer accordance with resource costs and market accessibility. (KGA)

2. PERFORMANCE STANDARDS FOR SPACE AND SITE PLANNING FOR RESIDENTIAL DEVELOPMENT

Main Investigators: H. Peter Oberlander, W. Gerson, Raymond D. Goldsworthy.

Status of Research and Publications: This is a continuing study. The fourth stage commenced July, 1961, and is to be completed by April 30, 1962. Publication will be in the form of internal reports of the Division of Building Research, National Research Council. In previous stages, the first consisted of an annotated bibliography, the second investigated the factors which determine the spacing of residential buildings and the third stage presented an hypothesis for a proposed technique for applying performance standards to the siting of residential buildings. First stage report has been published, and second and third stage reports will soon be published by sponsor.

Agencies: University of British Columbia, Department of Community and Regional Planning and School of Architecture. Project undertaken at the request of, and sponsored by, Division of Building Research, National Research Council, Mr. R. F. Legget, Director.

Previous Digest Reports: 7:2-1, 8:1-2 and 8:2-4.

Research Problem. The purpose of the current study is to determine in some detail, the relationship of site planning and the spread of fire in residential areas.

Hypotheses. The research is being conducted to test the hypothesis that more flexible controls, based on technological data, are capable of producing a better residential environment.

Method of Study. This stage has been organized into two basic divisions. The first consists of field surveys of three existing residential areas. The data thus obtained can then provide the basis for formulating a technique for applying performance standards to the prevention of fire spread from building to building through the flexible use of space between them. (HPO)

3. PROFESSIONAL, TECHNICAL, AND MANAGERIAL MANPOWER NEEDS OF THE CITY OF NEW YORK

Main Investigators: David T. Stanley and W. Richard Lomax.

Status of Research and Publications: Research underway, scheduled for completion approximately September, 1962. Publication of report containing findings and recommendations scheduled about the end of 1962.

Agency: The Brookings Institution, under sponsorship of Mayor's Committee on Professional, Technical, and Managerial Manpower.

Previous Digest Report: None.

Research Problem. To investigate factors in the recruitment and retention of professional, technical, and managerial employees for the New York City government.

Previous Relevant Research. Studies by the Mayor's Committee on Management Survey (1951), Study of Classification and Salary Problems by Griffenhagen & Associates (1954).

Hypotheses. The following general hypotheses are suggested in the project design: (a) many of the occupations covered in the study are in short supply nationally as well as locally; (b) certain provisions of law, regulations, and budgetary procedures create difficulties in filling positions promptly and satisfactorily; (c) salaries in some of the occupations studied are not competitive.

Method of Study. (a) extensive interviewing within city departments and agencies; (b) comprehensive survey of judgments of scientific samples of employees, former employees, prospective employees, and others; (c) analysis of available information concerning personnel practices in the New York City government and among comparable employers. (DTS)

4. COMMUNITY CONFERENCE PROGRAM

Main Investigator: John Osman.

Status of Research and Publications: Staff operation to end June 30. Any continuation of work in local communities is tentative.

Agency: The Brookings Institution, Committee on Problems of the American Community.

Previous Digest report: 7:2-2.

Major Findings. The Community Conference Programs (Cincinnati, Ohio; Baltimore, Maryland; Newark, New Jersey; and Lansing, Michigan) have supported a number of basic premises: (1) these programs are a valuable learning experience - creating an awareness and understanding of urban problems on the part of social scientists, and instruction for the practitioners in the value of utilizing the many resources of the community, including the local university; (2) these programs provide a public forum for objective discussion and consideration of community problems, many of which are controversial in nature; (3) local practitioners welcome the aid of social scientists. However, the latter often need an assist or "education" prior to involvement in such a community program; (4) a "continuing catalyst" is needed in the community. An individual or organization which will carry on the association between town and gown. The university, with an established urban research center, could serve this function. (HEH)

5. INTERACTION BETWEEN DISCRIMINATION, INTERREGIONAL MIGRATION AND REGIONAL DEVELOPMENT

Main Investigator: Richard D. Raymond.

Status of Research and Publications: In process. Study to be submitted as doctoral dissertation.

Agency: Brown University, Department of Economics, under a Fellowship from Resources for the Future, Inc.

Previous Digest report: 7-2-3.

Using 1950 census data, cities and SMA's were grouped in the following size classifications: (1) 100,000 to 250,000; (2) 250,000 to 1,000,000; (3) 1,000,000 to 3,000,000; (4) 3,000,000 plus. The South and the non-South were investigated separately. The ratio of Negro to White male median income did not vary appreciably with the community size in either the South or the non-South.

Using the same source, each state was regarded as an observation, and was divided into the following three geographical subdivisions: (1) rural farm; (2) rural non-farm and urban with less than 100,000 population; and (3) urban with 100,000 or greater population. No consistent between subdivision variation was observed in the ratio of Negro to White male median income.

Since the 1940 census did not contain a racial breakdown for income, Negro economic progress during the 1940's was estimated by using an elaborated occupational representation procedure. The rise in the approximated ratio of Negro to White male median income was about 32% for the country as a whole. The rise in the South was 28% and in the North 4%. (For earlier, and quite different results, see Gary S. Becker, The Economics of Discrimination, Chicago: The University of Chicago Press, 1957, Chapter 9. Also, Elton Rayack, "Discrimination and the Occupational Progress of Negros", The Review of Economics and Statistics, V. 53 (May, 1961).)

An attempt is now being made to determine the effect of industry mix upon the racial income ratio. The method consists of first forming industry subgroups (one each for the U.S., the South, and the non-South), primarily from the manufacturing sector, and exhibiting the following characteristics: (1) high incomes relative to other industries, (2) high Negro to White income ratios, and (3) large Negro representation. Each SMA is regarded as an observation and the industry mix variable is the ratio of subgroup employment to total employment in the SMA. Preliminary results indicate that the importance of a small group of industries in the non-South (primary iron and steel, motor vehicles, meat products and water transportation) serves to explain an appreciable amount of the variation in the racial income ratio between SMA's. A somewhat larger group in the South explains less of the variation between the southern SMA's. The regression equation for the entire U.S. has not been calculated as yet, but my present impression is that the industry mix, in conjunction with percentage Negro in the SMA's, will explain a large part of the variation in the racial income ratio for the country as a whole. (RDR)

7 6. ECONOMIC CONSIDERATIONS IN THE DISTRIBUTION OF HIGHWAY REVENUES IN CALIFORNIA

Main Investigators: Richard R. Carll and Tillo E. Kuhn.

Status of Research and Publications: Completed. Publication in Spring, 1962.

Agency: University of California, Institute of Transportation and Traffic Engineering, Berkeley.

Previous Digest report: 7:2-6.

Research Problem. To describe process of capital formation for road investment in various geographic regions within the State of California. The purpose is to compare allocation of capital funds with various regional characteristics which indicate highway transport needs.

Method of Study. (1) Separate description of public policies - federal, state, county and city - which determine the geographic distribution of highway user tax revenues. (2) Division of California into eleven geographic regions for purposes of analysis. (3) Combination of highway money distribution from all sources into a single fund for each of the several regions within California. (4) Comparison of the aggregate allocation of highway money to each region with highway needs, population, vehicle registrations, travel, local road financing, and other factors. (5) Discussion of results.

Major Findings. Upon reviewing the development of California's tax apportionment policy, the study finds that the expanding scope of state highway interests has steadily reduced divergences between the regional distribution of funds, the investment needs of roads and streets, and the geographic source of highway revenues. Historical differences in these factors occurred because of the focus of state policy upon providing a network of roads having "state-wide interest", while making a modest extension of aids to local governments. The resulting spread of funds was unfavorable to areas with large urban populations, in which the highway needs occasioned by local traffic movements were of greater importance. However, the prewar decision of the State to assume responsibility for arterial urban highways brought a recognition of local traffic needs and a geographic redistribution of funds to meet them. The legislation effecting this change is described in the study.

At the present time, the allocation of all federal-state highway money among the diverse regions of California is in fairly close agreement with the distribution of population, motor vehicle registrations, and motor vehicle travel, except in the sparsely-settled mountainous and desert areas. Also, the proportion of total road expenditures financed from local taxes is about the same among regions, despite the substantially larger allocation of state funds to the counties than to municipal governments. This distribution appears to be consistent with the taxation principles of state highway finance and with the major expenditure objectives.

The authors also analyze issues involved in integrating state distribution policy with regional transportation planning. (RRC)

7. PUBLIC ENTERPRISE ECONOMICS AND TRANSPORT PROBLEMS

Main Investigator: Tillo E. Kuhn.

Status of Research and Publications: Completed. Manuscript in press. Book to be published by University of California Press and Cambridge University Press, July, 1962.

Agencies: University of California, Institute of Transportation and Traffic Engineering, Institute of Business and Economic Research, School of Business Administration, Berkeley.

Previous Digest reports: 7:2-7 and 8:1-5. (TEK)

8. TRAFFIC PATTERNS IN RELATION TO CAPACITY DEFICIENCIES

Main Investigators: Wolfgang S. Homburger and Richard R. Carll.

Status of Research and Publications: Project in progress since Spring 1959; expected to continue for several years. Findings on some aspects of the project published in: Carll, Richard R., and Homburger, Wolfgang S., Some Characteristics of Peak Period Traffic. A paper prepared for the 41st Annual Meeting of the Highway Research Board, Washington, D.C., January, 1962. (Mimeo copies available from authors). Statistical summaries of traffic data are mimeographic as obtained, and are available to interested agencies.

Agency: University of California, Institute of Transportation and Traffic Engineering, Berkeley.

Previous Digest report: 7:2-8.

Major Findings. Several suggestions may be offered about the effects of sustained traffic congestion upon the spread of the peak and the total volume of peak period traffic: (1) Vehicle congestion has caused a rather considerable use by passenger cars of "inferior routes." (2) Stalls and delays associated with intense vehicle congestion act to spread the peak by causing sporadic queuing of cars. They may also reduce total peak volumes where they occur so frequently that their probability enters into driving decisions. (3) The peak period data suggest that extreme congestion tends to shift travel in some trip purpose categories. This seems evident for motor trucking; an absolute decline in truck flow, as well as a reduction in the percentage of trucks in the total flow of vehicles has been found during the maximum vehicle peak. (4) There is a natural spread of the peak which is fairly independent of transport media, but determined by the spread in working hours of different employee groups, and geographic factors. (WSH)

9. GENERAL AVIATION IN CALIFORNIA

Main Investigator: Walter E. Gillfillan.

Status of Research and Publication: Research completed. Findings published in: Gillfillan, Walter E., California General Airports, Aircraft, and Flight Activity. University of California, Institute of Transportation and Traffic Engineering, Berkeley. Special Report, June, 1961, 46 p.

Agencies: University of California, Institute of Transportation and Traffic Engineering, Berkeley, in cooperation with the California State Senate Transportation and Public Utilities Committee.

Previous Digest report: 7:2-9.

Major Findings. (1) Of the 500 airports in California, 300 may be regarded as open to public use, although less than 200 of these provide fuel service and an attendant. Of the 300 public-use airports, 176 are publicly owned; the 124 that are privately owned accommodate 27% of the general aviation aircraft based in California. (2) Many California airports appear to be vulnerable to attrition or encroachment, since they are not protected by zoning or other means. Residential proximity at runway ends and sides appears to have reached the serious stage at some airports. (3) There are apparently more than 10,000 active general aviation aircraft in California. Most of the aircraft are owned by individuals. Primary uses of the aircraft are for personal transportation (pleasure) and for business. (4) On the whole, ownership and use of aircraft in California follow national trends, but California's aircraft are somewhat newer and larger than those of the nation as a whole. (5) On the basis of distance and travel times, airports appear to be well located in relation to the homes or places of business of the aircraft owners. (6) Utilization of general aviation aircraft in California in terms of annual hours flown accords with national patterns, with the typical (median) aircraft flying between 100 and 150 hours per year. Business-owned aircraft are flown more intensively and those owned by fixed-base operators the most intensively of all. (7) Owners' reports were received covering the flight activity of about 4,500 general aviation aircraft during a typical week. They revealed an average of 6.0 trips per aircraft per week, consisting of 3.4 local trips (that is, flights with take-off and landing at the same airport), and 2.6 cross-country trips (each flight from take-off to next landing at a different airport counted as one trip). Business-use aircraft were flown with greatest frequency in cross-country travel and accounted for over half the cross-country mileage flown. (8) The average length of cross-country trips is 101 miles; over 95 per cent of the cross-country trips are intrastate. (9) Flight data classified by geographic areas of the state indicate that rather high proportions of cross-country trips take place entirely within an area, although the proportions vary considerably among the areas. (10) In certain areas a considerable volume of airport activity is generated by aircraft which are not based in the area, indicating that number of based aircraft is not an accurate index to operations, especially in small areas or at individual airports. (WEG)

10. NATURE AND ECONOMIC SIGNIFICANCE OF METROPOLITAN PEAK DEMAND PATTERNS

Main Investigator: Tillo E. Kuhn.

Status of Research: Initiated March, 1962. Completion is expected by Spring, 1963.

Agencies: University of California, Institute of Transportation and Traffic Engineering, School of Business Administration, and Bureau of Business and Economic Research, Berkeley.

Previous Digest report: None.

Research Problem. This study examines short-run cycles and peak phenomena in regulated industries in the San Francisco Bay Area, principally electricity, gas, water, telephone and telegraph, bridges and freeways, buses, airports and airways. An important phase of the study will be to develop a methodology for defining, measuring, and comparing peaks. The specific characteristics of peaks and troughs in the demands for the services of regulated industries will be examined. Particular attention will be paid to the methods by which the different enterprises resolve the problems associated with peak demands, and these methods will be evaluated by criteria of welfare economics. The study will examine the hypothesis that there are discernible rhythms or patterns in the occurrence of the peaks in certain of the industries mentioned above, e.g., the morning congestion on some freeways and scheduled departure times of major airlines from San Francisco International Airport. Some alternatives to the traditional means of dealing with peak phenomena may be proposed.

Previous Relevant Research. Although there are interesting economic analyses of peak phenomena, no previous studies could be found so far which systematically define, measure and compare different technological peaks, or which attempt to treat short-run cycles as a manifestation of the economic pulse of metropolitan areas.

Method of Study. The study will progress in five main stages: (1) development of an appropriate methodology; (2) search of literature; (3) collection and examination of data; (4) an economic evaluation of the various methods employed to deal with peaks; and (5) an examination of the overall pattern of the peaks in the San Francisco Bay Area. (TEK)

11. PROBLEMS OF TRANSPORT PEAKS

Main Investigator: Charles A. Hedges.

Status of Research: In process. Completion expected by fall, 1962.

Agencies: University of California, Economics Department, Institute of Transportation and Traffic Engineering, Berkeley.

Previous Digest report: None.

Research Problem. This study examines use of a special peak-hour toll to reduce rush-hour congestion on the San Francisco-Oakland Bay Bridge, and is being conducted in conjunction with the study by Dr. Kuhn described above. The nature of peak congestion on the Bay Bridge will be examined and alternative methods which have been proposed to deal with the peak-hour traffic on the Bridge will be explored and evaluated. Particular attention will be paid to present highway engineering concepts of "capacity" and some of their economic implications. The proposal will be examined that the "optimum", or economically efficient solution to the peak problem on the Bay Bridge may require differential tolls to make travel by automobile during the peak periods more expensive than travel by that mode during the off-peak periods or by alternative modes during the peaks. The study will try to determine whether such a toll may induce automobile drivers to (1) substitute public means of transportation for private ones; or (2) engage in more car pooling (at present the average automobile occupancy is still less than two individuals per vehicle during the peak hours); or (3) shift their times of travel from the present peak to off-peak hours.

Previous Relevant Research. There have been several proposals for using peak-hour tolls for the purpose of reducing peak congestion on urban freeways and bridges, but none have been discovered so far which suggest specific toll rates for a particular facility and which treat the practical application of this principle.

Method of Study. The findings of current study by the Institute of Transportation and Traffic Engineering on Bay Bridge traffic carried out by R. Carll and W. Homburger will be used together with available data from past traffic surveys on the Bay Bridge. Results of three origin-destination studies of Bridge traffic during the past five years will also be examined. An attempt will be made to quantify certain variables (e.g., time and probability of accidents at different traffic volumes). An evaluative model will be constructed to arrive at the optimum toll structure. (TEK)

12. DETERMINANTS OF RESIDENTIAL CONSTRUCTION

Main Investigators: Sherman Maisel and Leo Grebler.

Status of Research and Publication: Manuscript completed and to be published in a series of working papers by the Commission on Money and Credit.

Agency: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles, with grant from the Commission on Money and Credit.

Previous Digest report: None.

Research Problem. An investigation of existing knowledge of factors determining the volume of residential building, including verbal and econometric-statistical models. (LG)

13. URBAN RENEWAL IN EUROPE - ITS EMERGENCE AND POTENTIALS

Main Investigator: Leo Grebler.

Status of Research and Publication: European field tour completed. Preparation of manuscript in process.

Agency: Sabbatical leave project, University of California, Los Angeles. Field tour supported by Ford Foundation.

Previous Digest report: None.

Research Problem. To examine the existence and features of national urban renewal programs in European countries, the forces propelling these countries into such programs, and the emergence of local renewal efforts where no national programs exist. The study includes a comparative analysis for several European countries as well as a European-U.S. comparison. (LG)

14. EFFECTS OF INTRA-URBAN LIMITED ACCESS THOROUGHFARES ON COMMERCIAL LAND USES

Main Investigator: Robert C. Yost.

Status of Research and Publication: Doctoral dissertation to be completed at the end of 1962. Publication planned by Real Estate Research Program.

Agency: University of California, Graduate School of Business Administration, Los Angeles.

Previous Digest report: None.

Research Problem. Construction of a model and its testing through a case study of commercial land uses on Ventura Boulevard in Los Angeles before and after installation of a freeway paralleling the Boulevard. (LG)

15. ANALYSIS OF REAL ESTATE MARKET BEHAVIOR FROM MULTIPLE LISTING BUREAU DATA IN THE LOS ANGELES AREA

Main Investigators: Fred E. Case and Frank Mittelbach.

Status of Research and Publication: Data collection for the period 1950-1960 completed. Analysis projected for the remainder of 1962. Publication planned by the Real Estate Research Program.

Agency: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles.

Previous Digest report: None.

Research Problem. Multiple listing bureaus of real-estate brokerage firms assemble a large volume of data needed for their operations that are useful for analysis of market developments. Among other things, the data include price, difference between asking and actual sales price, and time required for sale. These data will be analyzed in conjunction with other materials to trace market developments. Also, the usefulness of the statistics derived from multiple listing bureau operations will be appraised. (LG)

16. COMPARISON OF CHANGES IN HOUSE SALE PRICES WITH ASSESSED VALUES IN LOS ANGELES

Main Investigator: Robert C. William.

Status of Research and Publication: To be completed in July, 1962, and published by the Real Estate Research Program.

Agency: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles.

Previous Digest report: None.

Research Problem. To examine the movement of prices for single-family houses in comparison with the movement of assessed values for the same houses. A small sample for which data extending over twenty years are available is used for the study. (LG)

17. PROSPECTUS FOR A STUDY OF THE ECONOMIC GROWTH AND STRUCTURE OF THE LOS ANGELES REGIONAL ECONOMY

Main Investigator: Leland S. Burns.

Status of Research and Publication: Report to be completed July, 1962.

Agency: University of California, Graduate School of Business Administration, Real Estate Research Program, Los Angeles, with grant from the California Division of Highways.

Previous Digest report: None.

Research Problem. This is a preliminary investigation including an inventory of existing data and projections and a description and analysis of methods available for a final study. (LG)

18. THE VALUATION OF ACCESSIBILITY

Main Investigator: William C. Pendleton.

Status of Research and Publications: Doctoral dissertation, in progress.

Agency: University of Chicago, Department of Economics.

Previous Digest report: None.

Research Problem. To infer from sales prices of residential real estate the value buyers place on accessibility to the central business district. The study is designed to explore the usefulness of land value data in evaluating the benefits of transportation improvements, particularly urban highway improvements.

Previous Relevant Research. At least from the time of Von Thunen, students of urban economics have posited a rent gradient, with land rents and values declining with distance from the CBD. The nature of this rent function has been more clearly specified in the recent theoretical work of Richard Muth, William Alonso, and Lowden Wingo, and its relation to urban transportation systems has been made explicit. The present study is largely empirical, designed to isolate and measure the accessibility component of real estate values. In approach and objectives it resembles the recent work of Herbert Mohring at the Northwestern University Transportation Center.

Method of Study. The value data are a sample of sales of single-family residences from the Washington, D.C. metropolitan area. The sales took place between early 1960 and late 1961. Sales price will be the dependent variable in a multiple regression problem, and will be related to the major independent determinants of value. Considerable detail on structural characteristics is available and the following measures of accessibility will be used: the logarithm of linear distance to the CBD, travel time to the CBD, and indexes of accessibility to jobs and retail sales. Preliminary computations indicate that sufficient information is available to explain most of the variance in sales price and that consistent and significant relationships exist between prices and accessibility. (WCP)

19. A THEORY OF POPULATION DISTRIBUTION

Main Investigator: Arnold M. Faden.

Status of Research and Publication: Doctoral dissertation, in progress. Expected date of completion, spring, 1963.

Agency: Columbia University, Department of Economics, assisted by fellowship from Committee on Urban Economics, Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. To explain the size and spatial distribution of population agglomerations by means of location theory.

Previous Research. Summaries of the most important alleged regularities may be found in W. Isard, Location and Space Economy, Chapter 3, and W. Isard, et. al., Methods of Regional Analysis, Chapter 11. Much remains to be done in determining the range of validity and closeness of fit of these generalizations. W. Christaller postulated a well known hierarchy of cities, a city of a given rank performing central functions for surrounding cities of lower order. Why such a hierarchy should exist, and whether the ranks are any more than convenient fictions, remain open question despite much research by geographers (B.J.L. Berry, J.E. Brush, R.E. Dickinson, F.H.W. Green, A.E. Smailes, et. al.). M.J. Beckmann and E.M. Hoover observed that constant ratios of population size and number of cities between successive ranks implied a Paretoan distribution of city sizes. Unfortunately, this prediction breaks down for rural places, just where the central-place theory would appear most applicable (J.E. Brush, Geog. Rev., July, 1953). A different approach to the size-distribution is that of H.A. Simon, who derives the Paretoan distribution from a simple stochastic process. This model was not designed primarily for cities and has several weaknesses. In particular, it ignores migration, the major source of population redistribution.

Method of Study. The theory of agglomeration, which is the branch of location theory most relevant to the problem in hand, is to be developed from its present rudimentary state as follows. The sources of economies (or diseconomies) of scale divide into changes in density, in area, and in duration of an activity-complex. The distinctive features emerge at particular levels of aggregation of activities, areas and lengths of run. These economies can in many cases be given quantitative expression. For example, a fixed set-up cost model involves a linear (but not homogeneous) relation between inputs and outputs. Other activities appear on the evidence to be of the Cobb-Douglas type, costs being a (non-unit) power of output. Next, the interaction of several activities, each subject to economies of scale, can give rise to reinforcement, leading to higher-level economies much stronger than any of its individual components. Some effect of this sort may be required to explain the cumulative expansion of a great metropolis or an industrial region.

The fundamental active demographic processes - child-rearing, migration, and commuting - are to be treated on a par with industrial and transport processes; that is, the flow of resources out of or into them is to be determined as if they were governed by pecuniary motives. The justification for this "classical" approach lies in the selective process which brings about the same results in the long-run even in the absence of such motives (A.A. Alchian, G.S. Becker, D.B. Creamer, E.M. Hoover, C.M. Tiebout et. al.).

It is too early to estimate the degree to which this program can be carried out, and the degree of predictive power it will then possess. (AMF)

20. EFFECT OF NOISE CREATED BY AIRPORT AND AIRCRAFT OPERATIONS UPON SURROUNDING AREA

Main Investigators: Bernard A. Schroll, Maurice W. Roach, Jr., Bart Spano.

Status of Research and Publication: In process. Publication expected summer of 1962.

Agency: Detroit Metropolitan Area Regional Planning Commission, with grant-in-aid from Demonstration Program Branch, Urban Renewal Administration, U.S. Housing and Home Finance Agency, and local governments.

Previous Digest report: 8:1-11.

Research Problem. An investigation of the effects of noise levels created by aircraft and airport operations upon the surrounding area, with emphasis on the jet type of aircraft. The study will define the area affected, the land uses compatible with such operations, and develop alternate proposals for the development of the surrounding land. While the Detroit-Wayne County Metropolitan Airport will be used for the case study, techniques of study and basic principles will be developed which may be useful at the major jet airports of the country.

Previous Relevant Research. Tulsa Metropolitan Area Planning Commission, "Metropolitan Tulsa Airports and Their Relationship with Surrounding Land Uses", Tulsa, Oklahoma, 1960.

Method of Study. (1) Determination of the acoustical levels created by airport and aircraft operations; (2) determination of acoustical levels created by various land uses and classification of such use as to their compatibility with airport; (3) determination of area adversely affected; (4) determination of existing conditions relative to land uses; (5) development of proposed land uses for area affected, and any special zoning techniques needed to implement such proposals. (BAS)

21. COUNTY INCOME STUDY

Main Investigators: Scott Keyes, Wallace E. Reed, Felix C. Rodgers.

Status of Research and Publications: Estimates for 1950, 1954, 1956, 1958 and 1959 completed. Publication expected within two months.

Agency: University of Illinois, Bureau of Community Planning, under sponsorship of Illinois State Housing Board.

Previous Digest reports: 7:2-30; 8:2-22. (SK)

22. SURVEY OF URBAN AND REGIONAL RESEARCH AND EDUCATION IN AMERICAN UNIVERSITIES

Main Investigator: Scott Keyes.

Status of Research and Publications: Project to be started in May, 1962. Scheduled for completion spring, 1963.

Agency: University of Illinois, Bureau of Community Planning, under sponsorship of Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. Summary of urban and regionally oriented research and training programs in American universities granting degrees at the doctoral level.

Previous Relevant Research. Similar survey organized for Resources for the Future, Inc., by Harvey Perloff in 1957 under title, Regional Studies at U.S. Universities: A Survey of Regionally Oriented Research and Graduate Education Activities. Present survey is intended to update and expand this earlier survey. (SK)

23. SPATIAL VARIABLES AND CBD SALES

Main Investigators: Ronald R. Boyce and Dilip K. Pal.

Status of Research and Publications: Research complete, publication planned.

Agency: University of Illinois, Bureau of Community Planning. (Basic data supplied by Sanborn Map Company, Pelham, New York.)

Previous Digeat report: None.

Research Problem. During the past decade most American central business districts have declined in their proportion of metropolitan retail sales. Greater metropolitan population appears to have aided in the declining relative dominance of the CBD by allowing the threshold size for major retail aggregations to develop in outlying locations. Nevertheless, metropolitan population size alone, as related to the amount of sales in over eighty CBD's, accounts for only about half of CBD retail sales variation.

The location of the CBD with respect to the distribution of residential development, the configuration or shape of this purchasing power, and the distribution of income were postulated to be important spatial variables which might further explain CBD sales variation in any given sized metropolis.

Method of Study. First, the percentage of CBD retail sales was compared with SMA population in over eighty metropolises. Deviations of individual CBD's from this regression line were then ranked in order of deviancy from most deviant above the line to most deviant below the line.

The three spatial variables above were also then ranked. CBD centrality was measured in relation to the distribution of residential development, i.e., the more central any CBD, the higher its rank. The shape of purchasing power was ranked according to the degree of circularity of residential development, as well as to the degree of residential compactness, i.e., the more circular and compact the distribution of total purchasing power in any metropolis, the higher its rank. The distribution of income was ranked according to the degree of high income, (i.e., income over $10,000 annually) fragmentation and elongation, particularly in outlying locations, i.e., the more fragmented and elongated the distribution of income, the higher the rank. The ranking of all variables were then inter-correlated.

Major Findings. CBD centrality was found to be the most significant of the three spatial variables. The partial rank correlation coefficient for CBD centrality was 0.87. Purchasing power configuration, or shape, also proved to be important. The distribution of income, however, when the other two spatial variables were held constant, was found to be insignificant in explaining CBD sales deviations from the regression line. Undoubtedly, a better measure of income distribution is needed. (RRB)

24. CITY PLANNING AND LOCAL POLITICS

Main Investigator: Charles E. Patterson, Jr.

Status of Research and Publications: Preliminary report issued. Publication of bibliography planned. Field work for four case studies in line with recommendations now in progress. Expected completion date of case studies is October, 1962. Results will be presented in a doctoral dissertation.

Agency: University of Illinois, Bureau of Community Planning.

Previous Digest report: None.

Research Problem. To suggest what political science may have of value to offer to the study of city planning. Preliminary report considers defects of current literature on planning administration and the need to remedy these defects by developing a better sense of political awareness among members of the planning profession. Its thesis is that planning, as it is now being conducted by local governments in this country, is a political process.

Method of Study. The report reviews some of the approaches to the study of politics that might be adapted to the study of city planning. It proposes a series of case studies employing a pressure group analysis as a useful means of improving political awareness and sets forth some major relevant concepts that might be tested by such empirical research. Four small cities have been selected for exploratory studies of this kind. They are Arlington Heights, Clinton, Mattoon and Watseka, Illinois. Others may be undertaken later. (CEP)

25. DISCRETION AND CERTAINTY IN LAND USE CONTROLS: THE PROBLEM OF NON-EUCLIDEAN ZONING OF LARGER PARCELS

Main Investigator: William Doebele.

Status of Research and Publication: First draft completed.

Agency: Joint Center of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This paper deals with the history of conventional zoning concepts in the United States and the dilema posed by modern conditions of land development. It concentrates on the theoretical and practical considerations underlying the zoning movement, and the reception these received in the courts. The question of the amount of permissible discretion in zoning posed by recent cases involving large parcels is considered in some detail, as the central issue in the further development of zoning as a tool for the implementation of city planning. Judicial analysis of the issue of discretionary zoning powers has, to date, failed to cut to basic issues. The paper attempts to investigate with more precision the question of discretionary power in contemporary ordinances, and to indicate directions for future judicial treatment that will permit the orderly development of the zoning device while preserving equality under law. (JRS)

26. METROPOLITAN STRUCTURE AND THE REBUILDING OF CITIES

Main Investigator: Bernard Frieden.

Status of Research and Publication: First draft completed.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study investigates the economic feasibility of developing new housing in the "gray areas" of cities -- areas located between the central business district and suburban territory, characterized by obsolete housing and a declining population. Various features of metropolitan structure, such as the strength of the downtown core and the proximity of vacant land, influence the demand for new housing in the gray area. Development and operating costs for new housing in gray area locations reflect a number of other characteristics of the region: population pressures upon the old housing supply, the density of prior development, property tax levels, and the methods of cost adjustment prevailing in the local housing market. This study analyzes the effects of such metropolitan characteristics upon the economic advantages of gray area locations and alternate sites for new housing.

Method of Study. The New York, Los Angeles, and Hartford metropolitan regions have been chosen to exemplify contrasts in the salient metropolitan characteristics. Locational aspects of the market for new housing are investigated in each region. The results of these case studies are used to formulate a general set of requirements for attracting new private development to the gray areas of cities. Recent renewal policies in the three study regions are reviewed in the light of these requirements, and new strategies are suggested. (JRS)

27. THE FUTURE OF THE DOWNTOWN DEPARTMENT STORE

Main Investigator: George Stemlieb.

Status of Research and Publication: Doctoral dissertation to be submitted to Harvard Business School. Publication by Joint Center as a working paper scheduled for early 1962.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous *Digest* report: None.

Research Problem. The objectives of this work are: (1) to examine the relationship of the changing role of the centre city and the department store; (2) to furnish retailing management with an analytical approach with which to grasp the urban phenomena affecting their businessess; and (3) to help provide city planners and researchers with some understanding of the changing shape of downtown retailing.

The study attempts to combine the research of urban planners with the experience of major retailers in order to grasp the changing function of downtown retailing. Intensive case studies of Philadelphia, Pittsburgh and Boston are combined with a more generalized analysis. The work is most concerned with the effect of the downtown merchants' response to the changing urban environment as a feedback on his own situation.

In the final chapter an analytical approach is suggested to help downtown retailers define the shape of their environment together with an examination of the parameters which will govern future development. (JRS)

28. STATIC FRANCE AND DYNAMIC FRANCE

Main Investigator: Daniel Lerner.

Status of Research and Publication: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study investigates the reasons underlying the differential rates of development between France A (dynamic) and France B (static). This classification has been hypothesized in recent years by leading French thinkers, who have sought to explain these differences in terms of the traditional "natural regions" of France. Professor Lerner believes that this order of explanation is no longer valid in contemporary France, where rapid communications, geographical mobility and industrial modernization have blurred the differences between traditional regions. Believing that these differences are "historical" (i.e., reflecting transitory conjunctures at a given time and place) rather than "natural" (i.e., based on unchanging physical and geographical properties), Professor Lerner has a two-fold objective: (1) to show that the assumption of "natural regions" fails to explain the actually observed differences; (2) to work out a hypothesis that will account more accurately for the differences that can be observed empirically in France today. (JRS)

29. CLASS AND MOBILITY IN A NINETEENTH CENTURY CITY: A STUDY OF MANUAL LABORERS

Main Investigator: Stephan Thernstrom.

Status of Research and Publication: In process. Doctoral dissertation to be submitted in the History of American Civilization program at Harvard University. Five of eight projected chapters are completed. A finished version of the study will be available in April, 1962.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study is an analysis of the social and economic position of the manual laborer in a nineteenth century New England community. Its primary theoretical objective is to clarify and apply the concept "social mobility" to a body of historical data; its major empirical aim is to measure the amount of social mobility experienced by members of a particular social group in a period of rapid economic and social change. The study differs from the usual "urban biography" in having an explicitly theoretical framwork, and in drawing quantitative conclusions about the relative "openness" of a community social structure. Newburyport, Massachusetts, was chosen as the setting for this case study, to permit a critical reappraisal of W. Lloyd Warner's "Yankee City" series.

30. LAW AND EQUAL OPPORTUNITY

Main Investigator: Leon Mayhew.

Status of Research and Publication: In process. Doctoral dissertation to be submitted to Department of Social Relations, Harvard University.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study examines the role of law in securing equal opportunity for the Boston Negro community. Massachusetts law prohibits discrimination in housing and employment. Interviews and case records are used to determine how elements of the Boston community have responded to this legislation. Industrial and commercial leadership, the Negro group and the law enforcement agency have all responded to the law and ways structured by their attitudes and interests and by ways realistic limitations. These responses and their interrelations constitute the law as a social institution.

Method of Study. Intensive examination is being made of a sample of two-hundred complaints brought to the Massachusetts Commission Against Discrimination and depth interviews are being conducted with employment directors of business firms, housing allocators, state officials, Negro leaders, Negro complainants and leaders of pressure groups. (JRS)

31. VARIATIONS IN DEMOGRAPHIC STRUCTURE WITHIN A METROPOLITAN AREA: KANSAS CITY

Main Investigator: Michael R. C. Coulson.

Status of Research and Publication: Two year project ending July, 1963. Now about one-third complete. Research will be incorporated in a doctoral dissertation and some parts may be published in article or monograph form.

Agency: University of Kansas, Department of Geography, in association with Community Studies, Inc., Kansas City.

Previous Digest report: None.

Research Problem. The development of groupings, either of people who wish to congregate, or who are forced to by lack of flexibility, is a generally recognized characteristic of all larger cities. Such tendencies towards segregation reduce the value of demographic totals for the city as a whole. These totals tell us something of the general character of the population, but nothing of the subtle variations within the area of the city. This project proposes to consider therefore, the variations in demographic structure within the Kansas City metropolitan area.

Method of Study. Starting with an area distribution of distinctive age and sex structures for sub-populations, hypotheses concerning the relationship of these structures and other factors, such as income, occupation, etc., will be tested to (1) "explain" distribution of the structures; (2) measure the degree of homogeneity; and (3) attempt to assess changes, 1950 to 1960, within the sub-population.

The scope of the study is the tracted area of Kansas City; the basic unit, the census tract. It is eventually hoped to assess the homogeneity of the tracts with data by enumeration district. The immediate concern is with published data from the U.S. Census of Population, 1960, and 1950. Attention has so far been focused on methods of expressing the age structure of the population by quantitative index numbers. From this point procedure will be by standard statistical techniques. (MRCC)

32. THE CITY BEAUTIFUL MOVEMENT IN KANSAS CITY, 1872-1914

Main Investigator: William H. Wilson.

Status of Research and Publications: Research completed, incorporated in a doctoral dissertation, University of Missouri, to be submitted in June, 1962. Part of the research is included in an article in the April, 1962, issue of the Missouri Historical Review.

Agency: University of Kansas City, History of Kansas City Research Project, under sponsorship of Community Studies, Inc.

Previous Digest report: None.

Research Problem. The research problem was to discover the origins of city planning in Kansas City, and examine the leaders of the planning movement: their assumptions, their individual roles, and the methods they used to achieve success.

Previous Relevant Research. Most previous writing on the subject has been done by two groups, general critics of architecture and civic design, and writers of survey histories of the city or biographies of locally prominent persons. Several general critics have condemned the national City Beautiful, or early planning, movement because its beauty was formal and derivative, it ignored real urban problems, and resulted in little construction. Local authors have unanimously credited one man, William Rockhill Nelson, founder of the Kansas City Star, with initiative and leadership in the drive to secure planning for Kansas City in the shape of a comprehensive park and boulevard system. George E. Kessler, the expert landscape architect who drew the plan, and others, have been relegated to secondary roles.

Method of Study. The research method was to examine local newspapers, park board records and reports, city council proceedings and documents, the personal and professional papers of George E. Kessler, and other sources, to establish the correct chronology of planning events and the relative importance of the principal personalities involved.

Major Findings. The general critics' condemnations of the City Beautiful movement do not apply to Kansas City. George E. Kessler's landscaping was naturalistic, not formalistic, and he gave attention to problems of slum clearance and recreational facilities. The park and boulevard system not only was built, it was much more extensive than the one originally planned. The critics have concentrated on planners and have ignored the complex legal questions that demanded solution before the planners could build. Local historians have overdramatized the leadership role of Editor Nelson and his newspaper. Other reformers and Kessler, the landscape architect, provided leadership and skills that Nelson had neither the training nor the temprament to offer. Nelson did not lead these men, instead he frequently quarreled with them. Yet, in his proper function of publicist and opinion-maker, he performed an invaluable service to the success of planning.

33. GROWTH AND FLUCTUATIONS IN THE ECONOMY OF LOUISIANA, 1947-1959

Main Investigator: Stephen L. McDonald.

Status of Research and Publications: Completed and published, July, 1961, as Louisiana Business Bulletin, Vol. 23, No. 1. (167 pp. ill.)

Agency: Louisiana State University, College of Business Administration. (Individual faculty research, with assistance from Division of Research. Author has since become Professor of Economics at University of Texas.)

Previous Digest report: None.

Research Problem. A comparison of patterns of growth and fluctuations in economic activity as between the State of Louisiana and the United States as a whole.

Previous Relevant Research. Selected examples: Kidner, F.L., California Business Cycles, Berkeley, U. of Calif. Press, 1946; Simpson, P.B., Regional Aspects of Business Cycles and Special Studies of the Pacific Northwest, Eugene, Univ. of Oregon Press, 1943; Neff, Phillip, "Interregional Cyclical Differentials: Causes, Measurement and Significance", Papers and Proceedings, American Econ. Assn., May, 1949; Vining, Rutledge, "The Region as a Concept in Business Cycle Analysis", Econometrica, Jan., 1946.

Hypothesis. That Louisiana, as a rapidly industrializing region during the study period, should exhibit distinctive patterns of growth and fluctuations in economic activity; that the State's experience could be interpreted by means of an adaptation of the Schumpeterian concepts of major (localized) innovation and long cycles upon which smaller cycles are superimposed.

Method of Study. Except for statement of analytical framework, purely statistical comparison using adaptation of devices of the National Bureau of Economic Research.

Major Findings. Sharp structural changes occurred in the economy of Louisiana in connection with its rapid development during the period, including regional shifts in the concentration of economic activity and a tendency toward equalization of incomes among parishes. These changes reflected themselves in patterns of economic fluctuations that differed significantly from national patterns in specific, not highly aggregative, series. Differences were much less apparent in the highly aggregative series. There is some evidence that Louisiana experienced a long cycle during the study period, the recessions of 1948-49 and 1953-54 occurring on the up-phase and being differentially mild, and the recession of 1957-58 occurring on the down-phase and being differentially severe. The Schumpeterian concepts seem to help interpret the State's differential experience during the study period. (SLM)

34. QUANTITATIVE INVESTIGATION OF ASPECTS OF THE ECONOMICS OF SUPPLY AND DEMAND IN THE PETROLEUM INDUSTRY

Main Investigator: Franklin M. Fisher.

Status of Research and Publications: One by-product of project on cost of automobile model changes will be published as article in Journal of Political Economy. Section on analysis of drilling costs now nearing completion; other costs in progress.

Agency: Massachusetts Institute of Technology, sponsored by Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The general aim is to investigate the determinants of the supply of exploratory effort in the U.S. petroleum industry as well as the determinants of petroleum demand. Within this framework effort is currently being directed at the efforts of depth and technology as drilling costs and the demand for gasoline.

Method of Study. The investigation is quantitative and uses econometric models.

Major Findings: (1) Technological change has not appreciably reduced the rate of increase of drilling costs with depth (although it has reduced the level of such costs. Drilling costs tend to double in under 3,000 feet. (2) A series of gasoline consumption per mile has been constructed for all model automobiles built since 1950. Gasoline economy declined on the average from 16.4 miles per gallon in 1949 to 14.3 in 1959 before the introduction of the compacts and rose to 15.3 in 1960-61. Had cars with 1949 horsepowers and transmissions been built throughout, economy would have improved over the same period to better than 18 miles per gallon. (FMF)

35. ECONOMIC ADJUSTMENTS TO DISARMAMENT

Main Investigators: Kenneth E. Boulding, Emile Benoit and others.

Status of Research and Publications: Basic research is now completed, consultant reports are almost all in, and the project continues on a curtailed basis to complete work on two books. The first book being edited by Kenneth Boulding and Emile Benoit, probably to be entitled "Economic Adjustments to Disarmament", will comprise an introductory essay on theory by Boulding, a general survey of problem and method by Benoit, and will have chapters on various of the problem prepared by consultants. The second book, to be written by Benoit, which is planned to be of a more popular character and will survey all the main aspects of the economic impact and adjustment problem. Much of the research has already been used in a background memorandum to the United Nations Secretariat and in a panel report (Emile Benoit, Chairman) published by the U.S. Arms Control and Disarmament Agency in January, 1962, entitled "Economic Impacts of Disarmament."

Agency: University of Michigan, Center for Research in Conflict Resolution, with assistance of grants from Carnegie Corporation, and Ford and Reynolds Foundations. (Central office of project is located at 475 Riverside Drive, New York 27, N. Y.)

Previous Digest report: 8:1-35. (EB)

36. AN APPROACH TO THE STUDY OF NATURAL RESOURCES POLICY: THE MICHIGAN CONSERVATION COMMISSION'S DECISION ON THE PORCUPINE MOUNTAINS CONTROVERSY

Main Investigator: Robert H. Twiss.

Status of Research and Publications: Doctoral dissertation, to be completed in June, 1962.

Agency: University of Michigan, School of Natural Resources, Conservation Department, under fellowship from Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The primary purpose is to supplement and adapt the case method of public administration to research on public policy issues in the natural resources field. Modification of the case study approach consisted of delineating a class of problems to which research would apply, and building a paradigm and model of rational problem solving within this class. The class and model are built primarily upon selected theories and definitions of decision making and rationality, but also encompass principles of political science, public administration, and natural resources management.

A study is made of the "Porcupine Mountains Controversy" which concerned the Michigan Conservation Commission's problem in 1958-59 as to whether or not to permit copper exploration and mining in the wilderness Porcupine Mountains State Park. The Commission's deliberation and decision was accompanied by a widespread public controversy between wilderness preservation groups from urbanized Lower Michigan, and groups, mainly from the economically depressed Upper Penninsula of Michigan (in which the park lies), which favored minerals development.

Method of Study. This case is first described on the basis of interviews and literature research in common sense terms, and then is analyzed in terms of the previously developed model and its supporting theoretical material.

Major Findings. Research is not completed, but recommendations and conclusions made thus far include: (1) a consideration of incremental changes in the Michigan Conservation Commission's decision procedures that would clarify decision rules and criteria, and increase the availability and validity of information needed for rational decisions; (2) suggestions for preventing the escalation of conflict among interest groups; (3) a discussion of some pre-conditions for increasing the rationality of problem solving in the class of problems; (4) a subjective analysis of the research approach (i.e., the process of building a class of problems andmodel prior to the case study; and (5) suggestions for modifying the specific research approach used in study of the Porcupine Mountains controversy for use in problems areas of emerging significance. (RHT)

37. LOCAL GOVERNMENT DEBT IN MICHIGAN

Main Investigator: A. L. Edwards.

Status of Research and Publications: Completed and published as "A Study of Local Government Debt in Michigan", Technical Study No. 2, 1961. ($1.00)

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: 7:1-16.

Research Problem. The increases in outstanding dept by Michigan local governments--in counties, cities, townships, and schools districts --suggests the need for an objective look at this area of local government finance. The two general objectives are, first, to determine the patterns of differences in outstanding debt within and between local government classes, and, second, to examine the relationship between outstanding debt and economic resources.

Major Findings. (1) The debt of local governments in Michigan is not out of line with that of local governments in other states. When the net long-term debt of both state and local governments are considered, Michigan ranks 24th among the states in per capita long-term debt; (2) the increasing trend of Michigan local governments to employ revenue bonds is likely to continue; (3) with increasing urbanization, demands for public services and governmental functions increase. These are often costly and usually the only way they can be provided is to charge them against the future through some form of debt. In this regard, the state's Municipal Finance Commission has a vital role in maintaining sound administration of local indebtedness; (4) to determine with any precision the amount of debt which a local government can safely incur is almost impossible. The amount of tax-supported debt is of less concern than (a) the amoung of such debt that is permitted to accumulate, (b) the purposes for which borrowing is undertaken, and (c) the forthrightness of plans for debt retirement. (DWO)

38. FOUR-CITIES STUDY OF LOCAL POLITICAL PROCESSES

Main Investigators: Oliver Williams and C. R. Adrian.

Status of Research: Completed. To be published as a monograph by the University of Pennsylvania.

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: 7:1-20.

39. LOCAL INCOME TAXES AS A SOURCE OF REVENUE FOR MICHIGAN COMMUNITIES

Main Investigator: Milton C. Taylor.

Status of Research and Publications: Completed and published as General Bulletin No. 6, 1961. ($.50)

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: 8:1-28.

Major Findings. Although local income taxes are not necessarily ideal according to the criteria of equity, convenience, neutrality, and the promotion of economic growth, they are effective producers of revenue, and thus are attractive to hard-pressed local governments. The rapidly increasing indebtedness of local governmental units and the weaknesses and difficulties of general property taxes as the main sources of revenue for local government, exert pressure toward the enactment of local income taxes. At present, local income taxation is confined to Pennsylvania, Ohio, Kentucky, and Missouri, but municipalities in other states, including Michigan, are seriously examining the possibility. In Michigan, the cities of Detroit and Saginaw have come close to adopting such taxes. Among the more important issues that are raised are: (a) Should property income be excluded from the tax base? (b) Should a flat or progressive rate be used? (c) Should personal exemptions be provided? (d) Should capital gains and rent be taxed? (e) Should corporate income be taxed? (f) Should local income taxes provide reciprocal deductibility? (g) Should the tax be levied either as a percentage of the federal tax or of the federal tax base? (h) What is the appropriate geographic area for the application of local income taxes? (i) How can double taxation be avoided? (DWO)

40. ORGANIZING LEADERSHIP FOR COMMUNITY DEVELOPMENT PROJECTS

Main Investigator: E. Alchin.

Status of Research and Publications: In process.

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: None.

Research Problem. This is a publication intended to provide local civic leaders with insights, generalization, and ideas concerning the problems and means for organizing a leader association, based on field experiences in community development projects. (EA)

41. UNIVERSITY EXTENSION EDUCATION IN AN URBAN SETTING

Main Investigator: E. Alchin.

Status of Research and Publications: In process.

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: None.

Research Problem. A series of essays which examines the role of the land-grant university historically and contemporary problems in relating the University body of knowledge to the needs of society. Emphasis is given to the role of university extension education as a means to achieve a closer tie between the university and the general public.

42. PROPERTY TAX ASSESSMENT IN LANSING, MICHIGAN

Main Investigators: Milton C. Taylor, James McCarley.

Status of Research and Publications: Data collected, preliminary analysis underway. Publication indefinite.

Agency: Michigan State University, Institute for Community Development and Services.

Previous Digest report: None.

Research Problem. This study analyses the assessment-sales ratios of all properties sold in Lansing, Michigan, through real estate offices during 1961. These ratios will be analyzed with respect to the value of the property, location, usage, and age of improvements. (MCT)

43. AGRICULTURAL ECONOMY OF THE UPPER MIDWEST REGION

Main Investigators: Rex W. Cox and Arvid C. Knudtson.

Status of Research and Publications: In process. Preliminary report on first phase of project entitled "Upper Midwest Agriculture: Structure and Problems" issued in January, 1962, as Study Paper No. 3.

Agency: Upper Midwest Research and Development Council and University of Minnesota, under sponsorship of Ford Foundation.

Previous Digest report: 8:2-53. (JMH)

44. URBANIZATION IN THE UPPER MIDWEST REGION

Main Investigators: John R. Borchert and others.

Status of Research and Publications: In process.

Agency: Upper Midwest Research and Development Council and University of Minnesota, under sponsorship of Ford Foundation.

Previous Digest report: None.

Research Problem. To describe in detail where, how much, and when cities and villages have gorwn or declined; to explain why; to describe the probable pattern of urban population distribution which is evolving in the region; to consider the implications of the pattern and alternative lines of development which could be promoted and discouraged. (JRB)

45. PLANNING FOR FAST GROWTH

Main Investigators: John R. Borchert and others.

Status of Research and Publications: In process.

Agency: Upper Midwest Research and Development Council and University of Minnesota, under a sponsorship of Ford Foundation.

Previous Digest report: None.

Research Problem. Development of a program of comprehensive planning to cope with very fast growth in urban areas.

Method of Study. Case studies, including Billings, Fargo-Moorhead, Grand Forks, Great Falls, Minto, Missoula, Rapid City, St. Cloud, and Souix Falls. Analysis and mapping of annual growth during post-war period. Collection of data concerning municipal capital expenditures, physical expansion and land use changes in the community, as well as all available information on formal planning in community. Follow-up interviews in depth to evaluate role of various agents in the planning process during the fast growth period, including builders, developers, officials of financial institutions and public officials. (JRB)

46. URBAN RENEWAL IN SMALL CITIES IN THE UPPER MIDWEST REGION

Main Investigator: John R. Borchert and others.

Status of Research and Publications: In process.

Agency: Upper Midwest Research and Development Council and University of Minnesota and North Dakota State University, under sponsorship of Ford Foundation.

Previous Digest report: None.

Research Problem. To identify factors causing deterioration in small and medium-sized communities, evaluate existing remedial machinery, and search for additional concepts and approaches to the problem.

Method of Study. Case studies of twelve small cities in Minnesota and one in North Dakota which have undergone rapid change in size, highway access or function, or are either stagnant or declining in population. Places selected represent a wide variety of locations, physical sites and sizes. Identification of areas of deterioration and dilapidation. Interviews with key officials, business and professional people in the community to determine trends in size and condition of blighted areas, causes, attitudes toward them, interest in remedial action, basis for such action, degree of local knowledge of existing programs elsewhere, and - where available - proposals for local remedial action. (JRB)

47. AN ANALYSIS OF THE INDUSTRIAL COMPOSITION OF METROPOLITAN AREAS

Main Investigator: John C. Murdock.

Status of Research and Publications: Conceptual foundation established, theoretical framework developed, and about half of empirical work completed. Publication in form of monograph anticipated toward end of 1962.

Agency: University of Missouri, Department of Economics, under sponsorship of Community Studies, Inc.

Previous Digest report: None.

Research Problem. The analysis of the industrial composition of metropolitan areas was undertaken in an effort to develop a technique of analysis of the metropolitan economies which would permit the replacement of techniques borrowed from the analysis of national economies and which would permit sharper focus on the peculiarities of local economies.

Hypotheses. The research is to test the following hypotheses: that there are significant differences in growth and other performance characteristics among different types of metropolitan areas. Metropolitan classification is based upon industrial structure. The structural characteristics are shown to have a sufficient level of stability that they can serve as a convenient guideline by which to set limits on the anticipated values the performance characteristics a particular local economy may take. Moreover, the structural classification directs analytical attention to a group of strategic elements in the local economy upon which further work may be concentrated. The object of this research is, therefore, to establish a conceptual basis for the metropolitan economy which reflects variables which are of substantial importance to the local economy but which are typically given little attention in the analysis of the economy of the nation as a whole and, secondly, to measure the impact of these variables on metropolitan areas.

Previous empirical research has established that there is a relation between the industrial structure of the local economy and its size as well as its geographic location. These go only a very short way toward answering why such relations exist. In seeking a partial answer to this and other questions, this analysis turns to the dominant sector of the local economy and how that industrial sector may affect the other parts of the local economy by way of a variety of demand and supply influences.

Method of Study. The approach of this research is to show there is a significant correlation between the type or nature of the dominant sector of the local economy and the performance of the local economy as a whole. The technique used to establish verification of this hypothesis is an analysis of the economic characteristics of the population of the Standard Metropolitan Statistical Areas above 250,000 population in the 1950 and 1960 Censuses as against certain measures of performance.

Major Findings. Findings to this point have established that previous generalizations concerning the association between growth rate and other characteristics of metropolitan areas for all metropolitan areas do not hold for at least some of the sub-groups as defined by dominant sectors. This is enough to indicate that the analysis of the sub-groups is likely to prove of some value in refining the analysis of metropolitan areas. (JCM)

48. STATE ECONOMIC PROJECTIONS

Main Investigator: Sidney Sonenblum.

Status of Research and Publications: Preliminary estimates of projections to 1976 of each state's and multi-state region's employment, population, labor force and income have been completed. Two mimeographed reports, for limited circulation, have been published. The first, "Economic Projections by States For The Years 1976 and 2000", is essentially a statistical compilation of past and projected data for the indicated economic and demographic variables for each state. No copies of this report are available. However, the Outdoor Recreation Resources Review Commission will publish this report, along with others, in a Government Printing Office publication later in the year. The second report, "Regional Projections to 1976", is a description of past and projected trends for eight multi-state regions, including a 60 page statistical appendix. Some copies of this report are still available upon request.

Agency: National Planning Association.

Previous Digest report: 8:2-69. (SS)

49. INCOME AND EMPLOYMENT IN NEW MEXICO, 1949-1959

Main Investigators: Ralph L. Edgel and Vicente T. Ximenes.

Status of Research and Publications: Published in New Mexico Studies in Business and Economics No. 8, 1961.

Agency: The University of New Mexico, Bureau of Business Research.

Previous Digest report: None.

Research Problem. Development of estimates of total employment and personal income in New Mexico counties during the 1949-1959 period. Analysis of the forces that have contributed to the growth of employment and income in New Mexico and the effects of changing income and employment upon the overall economic structure of particular counties during this period. Development of methods for estimating county income and employment on an annual basis.

Previous Relevant Research. Estimates of income, by type and industrial source, earned in New Mexico counties for the years 1954, 1955, 1956, and 1957.

Hypotheses. The factors that have contributed most to New Mexico's rapid growth during the postwar period can be isolated, and their effects upon the total economic system can be measured by an analysis of the changing industrial structure of employment and income in New Mexico.

Method of Study. Personal income payments to individuals have been estimated within the conceptual framework established by the National Income Division of the U.S. Department of Commerce. Primary sources have been utilized for estimating wage and salary payments -- by industry and by county -- and transfer payments. Ratio analysis, based upon state factors, has been employed to allocate Department of Commerce estimates of proprietor and property income.

Major Findings. (1) From 1949 to 1959 nine of the state's 32 counties experienced exceptional growth, seven counties were stable, and 16 declined. Rapid growth of federal government and mining employment produced the economic expansion in the nine counties and the general growth of the entire state. The rate of gain in employment substantially exceeded the rate of gain in population in the growth counties; (2) per capita incomes in the growth counties topped those of all other counties either in size or in rate of growth, or both, whereas those in the 16 declining counties were below those of the other 16 either in size or in rate of growth or both; (3) either the federal government (including the military) or mining (in the nature of oil and gas or uranium activities) was the leading source of wages and salaries in all the growth counties. In the decline counties federal activities were not significant, and in only one county was mining significant; (4) in all declining counties state and local government was either the first or second most important source of wage and salary income; (5) in all the growth counties wage and salary payments accounted for two-thirds or more of total personal income, whereas they accounted for less than or a little more than one-half in the declining counties; (6) among the growth counties agriculture is not a significant source of income. In two of the stable counties and in ten of the declining counties agriculture accounts for at least one fifth of total income; (7) the income of non-agricultural proprietors in the growth counties has grown at a much greater rate than in the other counties; (8) the growth counties have all experienced rapid growth of urban population, whereas the declining counties have either no urban centers, or such centers have declined in size. (AB)

50. NEW MEXICO SINCE STATEHOOD

Main Investigator: Ralph L. Edgel.

Status of Research and Publications: In process.

Agency: University of New Mexico Bureau of Business Research.

Previous Digest report: None.

Research Problem. An appraisal of the economic development of New Mexico since 1912 (year of statehood) with emphasis on changes in employment, income, and production. Particular attention will be given to (1) identifying the basic and secondary sectors of the economy, (2) the changing relationships between the sectors and among industries, and (3) their characteristics at various stages of development. The "multiplier effects" of changes in basic employment will be examined, and an attempt will be made to develop specific industry employment multipliers. The changing character of resource utilization will be analyzed so that we can identify the effects that such changes have upon the entire economic structure. (AB)

51. ESTIMATES OF WATER SUPPLY AND DEMAND FOR THE UNITED STATES

Main Investigator: Nathaniel Wollman.

Status of Research and Publications: Preliminary report published as Committee Print #32 of the Senate Select Committee on National Water Resources. Final report to be published in book form.

Agency: University of New Mexico, Department of Economics, financed by a grant from Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The United States is divided into 22 water resource regions. Expected use of water in each region is based upon projections of population, agriculture, mining, steam electric power, manufacturing, soil and moisture conservation, fishing and wildlife habitat for 1980 and 2000. Three alternative rates of growth are used. Requirements for waste dilution at various levels of waste treatment have been estimated. Water requirements in the form of evaporation and transpiration losses plus waste dilution flows are estimated for each region and compared with present low flows. Amounts of required storage are estimated and alternative combinations of treatment and flow are constructed. (NW)

52. INDUSTRIAL DEVELOPMENT TRENDS AND ECONOMIC POTENTIAL: URBAN GROWTH DYNAMICS IN A REGIONAL CLUSTER OF CITIES

Main Investigator: Lowell D. Ashby.

Status of Research and Publications: In press (John Wiley and Sons, Inc., New York).

Agency: University of North Carolina, Institute for Research in Social Science, Urban Studies Program.

Previous Digest report: None.

Research Problem. The principal empirical problem undertaken was the preparation of employment estimates by major industry division (nine divisions) for each of the 146 counties in North Carolina and South Carolina (average of twelve calendar months basis) for each of the years 1947 through 1957. The principal analytical problem was to find the significance of present industrial commitments in the Piedmont Industrial Crescent (sixteen contiguous counties in North Caroline and South Carolina) for economic development potential.

Previous Relevant Research. The sponsorship by the Institute for Research in Social Science of urban studies constitutes an enrichment of an already long regional research tradition on this campus. Although its appropriateness had long been recognized by Rupert Vance and others, no previous detailed study of the Piedmont Industrial Crescent had been undertaken. The study described here is but one of several coming from different disciplines and unified by the urban theme. Also the techniques used by the author resemble those used in his The North Carolina Economy which is abstracted below.

Hypotheses. More or less common to all of the interdisciplinary efforts in the Urban Studies Program was the consideration of four central components: (1) urban development, considered as a dependent variable, (2) control processes, considered as "intervening" independent variables, (3) behaviour patterns in the urban environment, and (4) values and value systems of individuals and groups. The values and value systems are conceived as impinging upon urban development by way of behaviour patterns which are subject to control processes. The total process is dynamic in that urban development is influenced by the value systems of previous periods and in turn affects currently held values.

Underlying the specific research here considered is the assumption that the industrial attributes of a defined geographical area are properly studied as a weighted average of nationally defined industrial characteristics. It is also assumed that parallel study of mutually exclusive regions within a national context adds to depth of focus on regional characteristics.

Method of Study. The basic method was empirical. However, many analytical techniques were applied to the data developed. Among these were simple tabular classification and comparison, analysis of per capita income growth rates in terms of the growth rates in population and total income, construction of national indices of industrial stability, growth and productivity by industry and the expression of the region's industrial structure as a convex combination of the national characteristics of its component industries. Also used was the analysis of employment shifts into competitive and compositional components and the portrayal of these results in terms of two dimensional vectors which logically relate the several regions.

Major Findings. The findings lead to the anticipation during the 1957-1967 decade of a Piedmont Industrial Crescent area enjoying an employment expansion rate greater than that of the nation but surrounded by a matrix of counties expanding at less than the national rate. The Crescent counties are viewed as a potentially strong migratory terminus. The realized attributes of growth, productivity and stability must depend upon the nature of the near term new industrial commitments. (LDA)

53. THE NORTH CAROLINA ECONOMY

Main Investigator: Lowell D. Ashby.

Status of Research and Publications: Published as Research Paper 7, viii, 305, School of Business Administration, University of North Carolina, Chapel Hill, N.C., March, 1961. Published as a limited edition, now out of print, to be updated for a more widely circulated edition as soon as possible.

Agency: University of North Carolina, School of Business Administration, in cooperation with North Carolina Employment Security Commission, Bureau of Employment Security, and Bureau of Labor Statistics of the United States Department of Labor.

Previous Digest report: None.

Research Problem. The empirical objective of the study was to organize relevant information on the quantitative aspects of labor force and employment structure in order to enhance self knowledge concerning the state's position. This necessarily involved an evaluation of diverse information sources and the specification of blank areas in the data matrix. The analytical objective was to find the significance of present industrial commitments in terms of potentials for employment growth, stability and productivity.

Previous Relevant Research. The University of North Carolina at Chapel Hill has a long and productive experience in the field of regional research. Much of this work has been done by faculty members from various disciplines who have held research appointments in the Institute for Research in Social Science. The recent sponsorship by the Institute of a vigorous Urban Studies Program has, in effect, reinforced the interest in regional studies.

Hypotheses. While many hypotheses are present either explicitly or implicitly, there is one which is over-riding and which affects the organization of the study. This hypothesis is that a desirable way to examine the employment structure of a state (or, more generally a region) is against the background of parallel studies of the surrounding region and the nation. Admittedly, this hypothesis is not one which is either accepted or rejected at a specific point in the study. To that extent it is rationale as much as it is hypothesis. A consequence, however, is that the analysis in the study proceeds in most respects on a national,regional (13 Southern states) and state basis simultaneously.

Method of Study. The basic method is empirical. To the basic data, however, are applied many analytical techniques. Among these are simple tabular classification and comparison, analysis of migration rates among rural farm, rural non-farm and urban areas (using national survival rates for age, sex and race), historical industry studies of major industrial components, construction of national indices of industrial employment stability, growth and productivity, formulation of configurations of industrial attributes as criteria of choice in industry selection, analysis of employment shifts into (following Edgar S. Dunn's usage) competitive and compositional components and numerous others.

Major Findings. North Carolina is heavily committed to industries of slow growth, low productivity and acceptable stability. In some degree this pattern in self perpetuating, though it is fluid at the "growing edge." Consequently, numerous current developments in new directions have potential for vast eventual change. (LDA)

54. A THEORY OF THE SUBURBANIZATION OF MANUFACTURING ACTIVITY

Main Investigator: George W. Bleile.

Status of Research and Publications: Doctoral dissertation, scheduled for completion in 1962.

Agency: Northwestern University, Transportation Center, supported by fellowship from Committee on Urban Economies.

Previous Digest report: None.

Research Problem. The accelerated development of urban areas in the past decade has sharpened our awareness of the need for a better understanding of the forces shaping economic growth and spatial change in metropolitan areas. The focus of the research reported here is an investigation of a particular type of investment decision, namely, the decision to relocate manufacturing plants from one part of a metropolitan area to another.

Previous Relevant Research. Other investigators of the cause and extent of the suburbanization of manufacturing activities have used Census of Manufacturers data for statistical studies based on a cross section of SMSA's. These studies are hampered by the lack of sub-area detail forced upon them by the data which is published for only the central city and the suburban ring of each SMSA. The work of Kitagawa and Bogue, Suburbanization of Manufacturing Activity Within Standard Metropolitan Areas (1955) is an example of this type research. Another approach is a case study of firms that have moved. Greenhut in Plant Location in Theory and Practice (1956) uses the case study method to illustrate the concepts developed in his book. Generally only a small number of firms can be analyzed and the data gathered are often not amenable to statistical inference. Nevertheless, these studies as well as the purely theoretical research of Moses, Alonzo, and Wingo form the background of the present research.

Method of Study. This study attempts to develop a micro-economic theory of production and location that, given the profit maximization behavioral assumption, will yield locational predictions for given changes in the metropolitan factor price structure. Major stress is on the firm's response to changes in the price of labor and in the price of space located at given places in the urban area. Also considered is the locational impact of dynamic changes such as technological changes, product innovations, and growth of demand.

The empirical portion of the study makes use of data for about 1,200 plants that have relocated within the Chicago area since 1950. A variety of information about each plant is available including exact location before and after moving, employment, industrial affiliation, whether the new plant was newly constructed or a leased or purchased facility. In addition, a sample of these firms is being surveyed to gather data on factory space utilization, shifts in production techniques, product lines, transportation modes, labor requirements, and markets. The empirical data will be used to investigate several hypotheses suggested by the theoretical work.

Hypotheses. Some of the empirical hypotheses suggested include the following ones: plants that relocate use more space per employee than they did at their old location and more than similar plants that have not relocated; plants that undertake a change in product line or production technique are more likely to relocate than are plants that do not; plants that are users of large amounts of unskilled labor are less likely to move to far suburban areas than are other plants.

Findings to Date. A general descriptive write-up of the patterns of relocation in the Chicago area has been published by the author and Leon N. Moses, "Transportation and the Spatial Distribution of Economic Activity", Highway Research Bulletin #311, (1962). (GWB)

55. ECONOMIC DEVELOPMENT IN EASTERN OKLAHOMA UNTIL 1950

Main Investigator: E. J. R. Booth.

Status of Research and Publications: Doctoral dissertation, submitted to Vanderbilt University. Available Ph.D. dissertation abstracts, October, 1961, University Microfilm No. 61-3593. Financial assistance from United States Department of Agriculture.

Agency: Oklahoma State University, Department of Agricultural Economics.

Previous Digest report: None.

Research Problem. The object of the study was to gain an understanding of the differing conditions of economic progress within an area that shows little conformity, in its history or in its present status, to any other underdeveloped area of the United States.

Previous Relevant Research. Agricultural Adjustment and Farm Labor Underemployment in Eastern Oklahoma, 1910-1950, Oklahoma State Agricultural Experiment Station Bulletin No. T-91, May, 1961.

Method of Study. Hypothetical explanations of differential economic progress within an area of twenty-four counties were tested by a variety of statistical techniques over the years 1910-1950. Pre-statehood history was searched for possible determinants or future economic growth of deterioration.

Major Findings. Disparity in levels and rates of economic development between regions of a growing economy was found to persist over long periods of time. Eastern Oklahoma's development was achieved mainly through outmigration rather than through growth in real income.

Persistent low income to farmers has masked an immense amount of agricultural adjustment from 1910 to 1950. Cotton and corn cropping was replaced by livestock farming, farm capital stocks increased at rates equal to more prosperous regions, tenancy dropped from three-quarters to a third, farm sizes doubled and the farm work-force declined by more than one-half. After this adjustment, very often by inefficient paths, over one-half of the farm labor force was still underemployed.

Local industrial development in Eastern Oklahoma was uneven, meager, and of an industrial complex unlikely to sustain future growth. Significant industrialization in a few centers had exerted beneficial influence on farm factor and product markets but had had no effect on average farm incomes as other studies have found.

The pattern of settlement in Eastern Oklahoma was found to have provided the major barriers to development net yet overcome. Small farm sizes, high rates of tenancy, low capitalization, and inadequate schooling, which were among the symptoms of a rapid and recent settlement, were found to exert a persistent significant influence on economic welfare and progress in the area. Industrialization and agricultural adjustment have been too little and too late to overcome the barriers. (EJRB)

56. SMALL AREA EMPLOYMENT ESTIMATION IN THE PHILADELPHIA AREA

Main Investigator: Elizabeth P. Beutermann.

Status of Research and Publications: Final stage of data processing. Data should be available in final form by May 1.

Agency: Penn Jersey Transportation Study.

Previous Digest report: None.

Research Problem. To estimate the number of employees, 1959-60, by three-digit SIC groups, by small areas (grid squares, zones, districts). Employment distribution by place of work, which is basic to the detailed analysis of location of all economic activity and fundamental to desired interaction, will be utilized as an input to the Regional Growth Model.

Method of Study. Pennsylvania and New Jersey Bureaus of Employment Security provided data files of the number of reporting cards sent to employers based on numbers of covered employees at earlier dates. Additions, deletions, and corrections (including distribution of employees of multiple establishment firms to work sites) were made to the IBM deck based on PJ's Regional Economic Survey covering 25 per cent of the Study Area Employment. Further additions were made, by establishment, for non-covered employment and for out-of-state firms not reporting locally. Employment of all unadjusted establishments was then adjusted by ratio methods within each SIC, subject to county control totals based on county business pattern reports, inflated for non-covered and self-employed persons. (EPD)

57. LAND USE CHANGES IN THE PHILADELPHIA AREA

Main Investigator: Daniel R. Fredland.

Status of Research and Publications: In process.

Agency: Penn Jersey Transportation Study.

Previous Digest report: None.

Research Problem. The problem is to ascertain and analyze changes in land use within the urbanized area contained by the cordon line of PJ that occurred between 1945 and 1960. The latter date was the date of the major PJ data collection effort. The information on development change will be used to answer such questions as: (1) At various types of location, which uses tend to undergo development or redevelopment (public or private), and what influence does the intensity of earlier use have on resistance to change? (2) What is the location pattern of new urban development by type and density? (3) What were the previous uses of the sites of selected types of high intensity development such as apartments? Answers to these questions are of direct usefulness in estimating the maximum potential land supply for both redevelopment and new development for different uses. The data can also be used to reconstruct 1945 land use (ignoring changes in occupancy) to aid in testing PJ's land use projection models.

Method of Study. The basic procedure was to compare PJ's 1959 air photos and 1960 land use data with air photos made in or around 1945. Whether or not a change in land use or development that can be identified from the air has occurred, and the type of change -- e.g., new development, redevelopment, etc. -- was recorded for every 1960 land use unit. In cases of change the previous use was recorded, along with estimates of previous floor space, dwelling units, and number of structures. (DRF)

58. TRIP DISTRIBUTION IN THE PHILADELPHIA AREA

Main Investigator: Anthony R. Tomazinis.

Status of Research and Publications: In process. Completion expected by end of 1962. Possible publication in form of "PJ Paper" as well as incorporation in more formal technical project reports.

Agency: Penn Jersey Transportation Study.

Previous Digest report: None.

Research Problem. To determine the fashion in which interaction of urban activities - as expressed by the resulting trip interchange - takes place. Analysis is based on theory of probability and utilizes data from 1947 and 1960 origin and destination surveys of area. (ART)

59. TRIP GENERATION IN THE PHILADELPHIA AREA

Main Investigator: Anthony R. Tomazinis.

Status of Research and Publications: In process.

Agency: Penn Jersey Transportation Study.

Previous Digest report: None.

Research Problem. A complete analysis of trip generation rates associated with urban activities, utilizing extensive simple and multiple regression analysis techniques. Rates will be separated by purpose to and from, mode of travel, hour of trip-making, type of driver, type of land use at origin and destination, length of trip, areal classification of the areas of origin and destination, type of household and route of travel. A 1960 origin and destination survey of the region provides the base data for the study. (ART)

60. HIGHWAY IMPACT IN URBAN AREAS

Main Investigators: Harold L. Michael and Alan F. Lohr.

Status of Research and Publications: Continuing project, in its third year. No reports have as yet been issued. First report on early impact of a highway improvement in one city will be issued in June, 1962.

Agencies: Purdue University, Joint Highway Research Project, in cooperation with the Indiana State Highway Commission and the U. S. Bureau of Public Roads.

Previous Digest report: 7:2-53. (HLM)

61. LAND ECONOMIC STUDIES

Main Investigators: V. G. Stover and H. L. Michael.

Status of Research and Publications: Project initiated in 1961 and planned for completion in mid 1963. No reports except for numerous case studies of individual pieces of property to date.

Agency: Purdue University, Joint Highway Research Project in cooperation with Indiana State Highway Commission and U.S. Bureau of Public Roads.

Previous Digest report: None.

Research Problem. To determine what happens in the market place and to land use of remainders of property which are partially taken for highway right-of-way.

Method of Study. Numerous case studies of such remainders are being made on a randomly selected basis on all types of highway improvements in all parts of Indiana. The history of each original parcel for five to ten years preceding the highway improvement, information on the damages paid and appraisals made at the time of the taking, and happenings in the market place or change in land use of the remainder are obtained for each parcel. An analysis of numerous such case studies is contemplated with the belief that such analysis will provide answers as to what can be expected to happen to such remainders. Control is being maintained by similar studies on adjacent property not affected in size by right-of-way taking, and parcels distant from highway. (HLM)

62. WATER POLLUTION - ECONOMIC ASPECTS AND RESEARCH NEEDS

Main Investigator: Allen V. Kneese.

Status of Research and Publications: Completed and published as monograph, January, 1962, with title indicated above. Available from the Johns Hopkins University Press, Baltimore, Maryland. ($1.75)

Agency: Resources for the Future, Inc.

Previous Digest report: None.

Major Findings. The traditional focus of water pollution policy has been more upon specific sources of pollution and their control than upon systems that would be designed to bring maximum social and economic benefits to whole basins which are hydrologically interdependent. Part I of the study treats water pollution as a problem in efficient allocation of resources, presents an explanation of some of the difficulties involved in achieving a fully optimum system of waste disposal and water supply, and suggests a means for including difficult to evaluate social goals in the design procedure. It is concluded that improved waste disposal - water supply systems will depend on successful research in both the physical and social sciences. In Part II four areas of research are outlined, together with some suggested approaches to the research problems they present. These areas are: (1) physical and biological research aimed at more accurate and flexible prediction of the physical characteristics of polluted waters at specific points and under widely varying conditions; (2) physical, biological and economic research aimed at determining the likely range and relative costs of alternatives for controlling water quality in an optimum manner; (3) research aimed at extending knowledge of the costs of damages imposed by pollutants in various concentrations and under various conditions. This includes physical, biological, and social science research on the effects of pollution; and (4) research aimed at further development of formal economizing technique capable of handling so broad an array of complex data and incorporating it into over-all water resource development planning. (AVK)

63. RESOURCES IN AMERICA'S FUTURE

Main Investigators: Leonard L. Fischman and Hans H. Landsberg, under general supervision of Joseph L. Fisher.

Status of Research and Publications: Research completed. Manuscript being prepared by editors of RFF for publication by Johns Hopkins Press, probably before the end of 1962.

Agency: Resources for the Future, Inc.

Previous Digest report: 8:1-61. (HHL)

64. FINANCIAL PROGRAMS FOR LOWER MIDDLE INCOME HOUSING

Main Investigators: Jack E. Gelfand and Edwin Eames.

Status of Research and Publications: Study is divided into two broad categories: (a) sociological survey of lower-middle income families and (b) formulation of financial programs. Part A now in final write-up stage and Part B in analysis stage.

Agency: Temple University, Bureau of Business and Economic Research, under contract with the Pennsylvania Bureau of Community Development, Department of Commerce, through a grant from the United States Housing and Home Finance Agency under Section 314 of the Housing Act.

Previous Digest report: 8:1-62.

Research Problem. The principal problem is to determine the extent to which alternative financial programs can be formulated to increase the availability of adequate rental and owner-occupation housing in urban renewal areas for lower-middle income families. For purposes of this study, lower-middle family income is defined as the aggregate annual earnings of selected members of a family (or household) in the range of $3,000 up to (but not including) $8,000.

Method of Study. The study was conducted in Philadelphia, Pittsburgh, and Harrisburg. More than 1500 households were interviewed in the three cities to determine their social characteristics, economic capabilities, and housing attitudes. These data were used as the inputs into financial models that were programmed for an electronic computer. Three sets of models were developed, one for sales housing, one for rental housing, and one for rehabilitation.

In the sales housing model, archetypes of housing were selected to meet a variety of needs and tastes. Land, construction, and closing costs were developed for each archetype house.

For each case two houses were selected based on the family's recorded housing attitudes. One house was the minimum house the family would accept; the second was the house they would desire. Costs for each of these houses were then determined under conditions of land ownership and land rent. Thus, four housing costs called loops were developed. Each of the four loops were then processed to establish monthly carrying charges under a variety of financial arrangements. There were six mortgage types depending on the relationship between the down payment and the value of the loop house. Mortgages had four maturity periods, 25, 30, 35, and 40 years. Monthly costs were calculated based on the rate of interest the family could afford. Two alternative income tests were used to determine whether or not the family could afford the monthly payments--18% and 24%. If the income test failed, the rate of interest was reduced by 1/4% monthly and monthly costs recalculated. This procedure continued until some positive rate would enable the case to pass the rest. For each case there were 32 separate sets of answers, four loops times four interest rates times two income adequacy tests.

The central model was established to determine two rental expenditures that each respondent could afford, assuming first that 18% and alternatively that 24% of income can be allocated toward rent. These rentals were than capitalized into values per dwelling unit based on alternative assumptions concerning maintenance costs and financial conditions.

The rehabilitation model made similar calculations to determine the amount of rehabilitation work that each family could undertake based on their current assets and ability to finance these expenditures with their income acting as their credit limitation. (JEG)

65. POTENTIAL ECONOMIC DEVELOPMENT OF THE UNITED STATES SOUTHWEST

Main Investigators: Benjamin Higgins, Warren Adams, Forest G. Hill, David Huang, Stephen L. McDonald, Eastin Nelson.

Status of Research and Publications: Research was begun in June, 1961, and will continue through August, 1963. It is expected that a number of articles will be published as a result of work done on the project and a volume of essays is now being planned.

Agency: University of Texas, Department of Economics, under a grant from Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The focal point of attention in the proposed program is the implications for future growth of the dominant role of the petroleum industry in the growth of the Southwest. This will involve a study of the history of the economy of the Southwest and particularly a study of the development of the petroleum industry with reference not only to oilfield developments proper, but also to the larger chain reaction of industrial transformation that ensued. In order to appraise the prospects for the petroleum industry of the Southwest, its place in the world petroleum industry and major foreseeable developments in the world industry must be appraised. An attempt will also be made to put the growth of the region into its proper setting in the growth of the U.S. economy as a whole. As part of the study of past and prospective economic growth of the region the following will be included: analysis of regional income; inter-industry studies; urban growth and city-hinterland relations; the behavior of the Southwest economy over the business cycle; an appraisal of resources of the Southwest other than petroleum (including human resources); the relationship of the resource pattern to public finance and public investment; inter-regional relationships; and relationships with Latin American countries.

Previous Relevant Research. The Southwest, A Report by the Committee on the Southwest Economy to the President's Council of Economic Advisers, 1954. Perloff, Harvey S., Dunn, Edgar S., Lampard, Eric E., Muth, Richard F., Regions, Resources and Economic Growth. The Johns Hopkins Press, 1960.

Hypotheses. (1) That the petroleum industry has played a leading role in the development of the Southwest. (2) That growth of the petroleum industry in the future will be at a slower rate than in the past, posing problems regarding the future development of the Southwest.

Method of Study. The method of study will consist primarily of historical analysis and application of statistical methods to basic published data, the construction of models of regional growth under different assumptions, and the use of such models for purposes of projection. (AB)

66. INTER-COMMUNITY SPILLOVERS OF PUBLIC EDUCATION COSTS AND BENEFITS

Main Investigators: Werner Z. Hirsch, Burton A. Weisbrod, and Elbert W. Segelhorst.

Status of Research and Publications: Two and one-half year program, completion scheduled for September of 1963 with report of findings to the U.S. Office of Education. There are no definite publication plans.

Agency: Washington University, Institute for Urban and Regional Studies, St. Louis, by contract from the Office of Education, U.S. Department of Health, Education and Welfare.

Research Problem. Public primary and secondary education is provided in the United States within a system of fiscal federalism. The main decisions with regard to public education rest with various units -- individuals, families, and levels of government, i.e., local school districts, state and federal government. Governments on all three levels can change the following parameters of action: (1) expendutire levels, (2) subsidy payments, (3) service levels, (4) efficiency, (5) taxes and tax burden, and (6) tax base through zoning and other devices which change the residential, commercial, industrial tax base mix. Consumers and non-consumers of public education, taxpayers and voters make decisions which affect public education only indirectly through their vote and location decisions.

The chief concern is with spatial spillover of public education costs and benefits, i.e., with those costs and benefits which are realized outside of the region in which the education is provided. The differences between a region's public education costs and benefit spillover is the region's net social cost or benefit. Spatial spillovers of a region's public education costs and benefits are of concern because of their effect upon the efficiency of resource allocation and because of their effect upon the distribution of income. The objective of the research is to identify the key issues affecting spatial spillovers of public education costs and benefits, and to assess their relative importance.

Method of Study. A conceptual framework is being developed to analyze spatial spillovers of public education for various geographical units -- the school district, the metropolitan area, and the region of the country. An attempt will be made to estimate the spatial spillovers for a relatively recent period, possibly the year 1960. Having assessed the relative importance of spillovers in the specific geographic unit, alternative conditions will be stipulated and the new situation will be simulated so as to ascertain the effect of changes upon the cost and benefit spillover pattern. Without stipulating any desirable normative pattern, the results of alternative policy decisions by different units and levels of government upon spillovers can be compared. (EWS)

67. SEASONAL VARIATION STUDY

Main Investigators: Philip J. Bourque and George J. Brabb.

Status of Research and Publications: Continuing study. Publications include: "The Impact of Seasonality on Washington Unemployment", University of Washington Business Review, February, 1958; "Seasonal Variation and Economic Stability", Proceedings of the Western Economic Association, 1959; Seasonal Variation in Washington Employment. Occasional Paper #12, Bureau of Business Research, University of Washington, 1960; Geographic Differentials in Seasonal Instability, U.S. Department of Labor, Interstate Conference on Labor Statistics, June, 1960; "Winter Work", University of Washington Business Review, Summer, 1960; "Concept and Computations - Some Problems in Seasonal Analysis", Proceedings of The American Statistical Association, Business and Economic Statistics Section, 1960; "Regional Patterns of Seasonability in the Labor Force and Its Components", Paper presented at the Western Section of the Regional Science Association, 1961.

Agency: University of Washington (Seattle), College of Business Administration.

Previous Digest report: None.

Research Problem. Periodic intra-year fluctuations in the labor force and its components in the continental states of the U.S., to which the designation "seasonal" has been applied, prevail over a wide range of activity. The purpose of this investigation is to assess the degree to which differences in seasonal patterns exist regionally. Awareness of differences in the seasonality of employment is vitally significant for the maintenance of stable levels of employment and the regularization of income. In fact, in some areas of the nation, seasonal fluctuations are the dominant cause of economic instability.

Previous Relevant Research. Kuznets, Simon, Seasonal Variations In Industry and Trade; Woytinsky, W.S., Seasonal Variations in Employment in the United States; Bureau of Labor Statistics, U.S. Department of Labor, The Extent and Nature of Frictional Unemployment, Joint Economic Committee Study Paper No. 6 (1959).

Major Findings. Our research has led us to three main findings: Measures of the incidence of seasonality upon employment and unemployment as shown in the national aggregates under-estimate the prevalence and amplitude of seasonality in the United States. Seasonal patterns in different states often show marked differences in timing and amplitude; such patterns in state activity have changed over the past decade. Public policy aspects of seasonal change, in the U.S. and in other countries, is of particular interest to the authors. (PJB)

68. CYCLICAL VARIATION STUDY

Main Investigator: Philip J. Bourque.

Status of Research and Publications: Study initiated 1961. Publication expected in late 1962 or 1963.

Agency: University of Washington, College of Business Administration.

Previous Digest report: None.

Research Problem. The purpose of this study is to examine the timing and severity of business cycles in states and regions of the United States. Since states differ widely in industrial composition as a result of differing factor endowment and stages in economic development, their exposure to and experience during the course of national business cycles vary considerably. Greater knowledge of regional differences in cyclical behavior should increase our understanding of "national" business cycles and provide improved guides for public policies to achieve high levels of regional employment.

Previous Relevant Research. Among the precedents for this study; Neff, Philip and Weifenbach, Annette, Business Cycles in Selected Industrial Areas; Borts, George H., Regional Cycles of Manufacturing Employment; Hanna, Frank A., State Income Differentials 1919-1954.

Method of Study. This study was initiated during 1961 through the support of the University of Washington; much of the empirical material used in this study is the product of the related Seasonal Variation Study. The timing and amplitude of cyclical fluctuations in state employment, 1947-1960, has been identified according to methods developed by the National Bureau of Economic Research. Analysis of the prevalence of cycles in different regions, their timing and severity, are the main focus of attention.

The results of current research thus far tend to confirm the earlier statistical findings of Borts and to sharpen or extend certain of his conclusions and to expand upon certain lacunae; the present work is broader in coverage, includes more states and activities, and is a continuing activity. Most previous studies, including those of Vining, Hannah, Williams, Simpson and others, rely upon annual income and employment averages and/or trend elimination techniques which do not appear satisfactory for the purpose of establishing turning points, amplitude, and leading and lagging characteristics of cycles in different states. The association of regional cycles with economic structure, income levels, industrial diversity and economic growth is being investigated. (PJB)

69. AN EVALUATION OF MULTIPLE USE PRACTICES ON FORESTED MUNICIPAL WATERSHEDS OF THE DOUGLAS FIR REGION

Main Investigator: H. Leo Teller.

Status of Research and Publications: The research is in the data-collection phase. Publication as doctoral dissertation anticipated in June, 1963.

Agency: University of Washington, College of Forestry. Financial assistance, in the form of a Doctoral Dissertation Fellowship in Natural Resources, from Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The desirability of multiple use of forested municipal catchments has long been a controversial subject. The purpose of this study is to determine the background to and the physical and economic results of the principal management policies on a selected number of municipal catchments in western British Columbia, Washington and Oregon.

Management policies on these catchments range from production of water only and closure of the land to public access to production of water, timber and power, and almost uncontrolled public entry for hunting and fishing. The problem consists in trying to determine the physical and economic effects of these policies.

Previous Relevant Research. Well designed experiments on the relationship between land use and water quality, quantity and timing, are being conducted throughout the nation. Economic studies related to multiple use have been mainly theoretical or, where actual situations have been used, they have generally dealt with agricultural watersheds. I have no knowledge of any work done specifically on municipal catchments, where the interrelation between forestry, water supply and economics has been undertaken in an integrated regional study.

Hypothesis. That the physical and economic effects of different municipal catchment management policies in a particular region can be determined by a study of the administrative history, records of physical water characteristics and economic data from a selected number of watersheds. Principally, that a knowledge of these effects in the past will aid in better decision-making for the future.

Method of Study. Histories of water supply in each city will be studied, with particular emphasis on the reasons for the development of the catchment management policy. Through an analysis of available records, an attempt will be made to assesa trends in water characteristics over the last ten to twenty years and to determine how these have been influenced by management policy. Costs and returns associated with the various policies will be determined. Finally, the relationship between municipal catchment land use and regional recreation development will be studied. (HLT)

70. RESOURCES, PEOPLE, AND ECONOMY OF EAST-CENTRAL WYOMING

Main Investigators: Floyd K. Harmston and Richard E. Lunc.

Status of Research and Publications: Draft nearly completed, will be published in 1962.

Agency: University of Wyoming, Division of Business and Economic Research.

Previous Digest report: None.

Research Problem. This study is a compilation and analysis of many of the important facets of the economy of Goshen and Platte Counties in Wyoming. A Leontif's input-output matrix is being used in examining the economic structure. It is one of a series of studies completed on other groups of counties in Wyoming. (REL)

BRIEF MENTION

METROPOLITAN AREAS

Chicago Industrial and Commercial Study

The impact of technological change on the Chicago area's economy and employment will be the focus of a two-year study for which plans were announced in January. Sponsors of the study are the Mayor's Committee for Economic and Cultural Change and a number of cooperating groups, including the Department of City Planning, the Association of Commerce and Industry, the People's Gas Light and Coke Company, the Harris Trust and Savings Bank, and the Commonwealth Edison Company. Objectives of this study are to identify technological changes which will affect the area's economy, to determine types of industries which might wish to locate in the area, and to develop a plan of action to encourage industrial expansion. Field surveys and research will be conducted by the Armour Research Foundation, and the program will be assisted by a grant from the Ford Foundation. (JF)

TRANSPORTATION

Alternative Approaches Proposed by Penn Jersey Transportation Study

The Penn Jersey Transportation Study has proposed five contrasting types of generalized regional transportation plans as optional approaches to solution of the transportation problems of the Camden-Philadelphia-Trenton Metropolitan Region between the present and 1985. After wide discussion by government officials, transportation authorities, and representatives of civic organizations, modified versions of the five alternatives will be tested in PJ's regional growth model to determine their respective costs, cost-benefit ratios, and the effects each can be expected to have on the future land use, economic development, and general livability of the region. The final selection will then be made by PJ's Policy Committee, which consists of representatives of eight counties, City of Philadelphia, the highway departments of Pennsylvania and New Jersey, and the U.S. Bureau of Public Roads, all of which agencies are participants in the study.

Cooperative Highway and Urban Planning for Small Cities[a]

The City Planning Division of the University of Arkansas will undertake a study of cooperative highway and urban planning for small cities. It will include an analysis of methods and procedures being used in a number of states for coordinated highway and urban planning for small cities (those under 50,000 population located outside metropolitan areas), and information

(a) From ASPO Newsletter, January, 1962.

on the services provided by state highway departments and state planning agencies. The project, financed by a grant of $18,000 from the Bureau of Public Roads, will be under the direction of Professor William S. Bonner, head of the Division.

Panel Reports on Urban Transportation, Highway Research Board

Needed research in the urban transportation field was reported on by five separate panels at the 41st Annual Meeting of the Highway Research Board held in January, 1962, in Washington. Subject areas to which the panels had been asked to direct themselves, and the chairman in each case, were as follows: Panel #1, "Changing Land Use Patterns and the Forms of Metropolitan Areas of the Future," Henry Fagin of the Penn-Jersey Transportation Survey; Panel #2, "Human Values Related to Urban Transportation," J. Douglas Carroll, Jr., of the Chicago Area Transportation Survey; Panel #3, "Interrelations of Transportation and Economic Development," Donald C. Wagner of the City of Philadelphia; Panel #4, "Decision Making in Transportation and Other Urban Development and Renewal Programs," Morton J. Schussheim of the Housing and Home Finance Agency; and Panel #5, "Political Factors, Such as Forms of Government and Intergovernmental Relationships, and the Administration and Financing of Urban Transportation," Paul Appermann of the Northeastern Illinois Metropolitan Area Planning Commission.

Seventy persons, with a variety of professional backgrounds, were involved in the deliberations which preceded presentation of the reports, which posed numerous significant questions needing study in each subject area, and made many specific research proposals. Final drafts of the reports were not available for abstracting as this issue of the Digest went to press. However, we understand that publication is expected at an early date. Further information can be obtained from M. Earl Campbell, Secretary, Committee on Urban Transportation Research, Highway Research Board, 2101 Constitution Avenue, Washington 25, D. C.

HOUSING AND URBAN RENEWAL

Research Program of the Housing and Home Finance Agency

Progress of the urban studies and housing research program of the Housing and Home Finance Agency for the fiscal year ending June 30, 1962, is covered in a brief report issued by the agency last month. Of five specific study projects, three are being conducted by the Bureau of the Census and two by the staff of the agency with assistance from some of its constitutuents and from consultants. Projects being conducted by the Census Bureau include (1) the preparation of monthly statistics on the sales volume and sales prices of new, one-family non-farm homes for the country as a whole and for three major regions, North, South and West; (2) field work for an analysis of 4,000 residential mortgage foreclosures in eight selected metropolitan areas; and (3) special tabulations of otherwise unavailable data from the 1960 Census of Housing relating to housing conditions of families and individuals in the older age brackets. Staff study projects include (4) development of improved techniques for estimating family displacement resulting from public improvements and other government actions and (5) case studies of or cooperative intermunicipal approaches to the preparation and implementation of joint plans and programs for capital improvements and services. Further information on this program may be obtained from Morton J. Schussheim, Assistant Administrator, who heads the agency's Office of Program Policy. (SK)

RECREATION AND OPEN SPACE

Report of the Outdoor Recreation Resources Review Commission (b)

The Outdoor Recreation Resources Review Commission has submitted a report to the President and to the Congress with the major findings of the Commission and its recommendations for action required to meet the Nation's outdoor recreation needs in 1976 and 2000. Part I of the report describes the nature of outdoor recreation and its position in American life; Part II contains specific policy and program recommendations, and a statistical appendix provides 41 tables related to supply and demand for these resources. This report, entitled "Outdoor Recreation for America" (245 pages, $2.00), is available from Superintendent of Documents, Government Printing Office, Washington 25, D. C.

To develop background information for its work, the Commission initiated a series of studies by Government agencies, universities, nonprofit research organizations, and individual authorities. Beginning in April, reports on these studies will be released and will be made available through the Superintendent of Documents (see above). Prices are not yet available. These reports are listed below with a brief description of seven to indicate the variety of information covered. (1) "National Recreation Survey" (Study Report No. 19, 2 Vols., 300 pages), prepared by the Commission staff on the basis of data collected by the Bureau of the Census, contains the

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(b) From the Statistical Reporter, February, 1962.

tabular results and analysis of a nation-wide survey of outdoor recreation habits and preferences. Tables show various participation rates by activity and region, according to age, sex, size of place of residence, family income, education, occupation and color. Activity rates are also shown by state of health and physical impairment. Activity preference and data on vacation trips and outings are expressed by selected socioeconomic characteristics. Estimates are made of expenditures, proportion of leisure time devoted to outdoor recreation, and other factors. Descriptive analyses of the results of the survey include socioeconomic factors associated with participation in 17 specified outdoor activities, expenditures on vacation, trips, and outings; and background factors associated with participation in groups of activities; (2) "Public Outdoor Recreation Areas -- Acreage, Use, Potential" (Study Report No. 1, 260 pages), prepared by the Commission staff, presents a description and analysis of all nonurban public designated areas in the 50 states, Puerto Rico, and the Virgin Islands. Areas containing more than 40 acres are evaluated and analyzed in terms of use pressures, fees charged, visits, major activities, facilities, number of employees, and future expansion potential; (3) "Wilderness and Recreation -- A Report on Resources, Values, and Problems" (Study Report No. 3, 340 pages), prepared by the Wildland Research Center of the University of California, Berkeley, presents a comprehensive discussion and analysis of wilderness preservation. The study includes an inventory of 64 areas, containing approximately 28 million acres; an evaluation of the commercial potential of existing wilderness areas; and an analysis of the social and economic characteristics of wilderness users; (4) "The Quality of Outdoor Recreation: As Evidenced by User Satisfaction" (Study Report No. 5, 95 pages), prepared by the Department of Resource Development, Michigan State University, presents the findings of a study designed to test the usefulness of user satisfaction as a measure of area quality; (5) "Potential New Sites for Outdoor Recreation in the Northeast" (Study Report No. 8, 170 pages), prepared by the Economic Research Service of the Department of Agriculture, presents the findings of a study designed to determine the existence of potential recreation sites of 30 acres or more, currently in private ownership and located in the 10 densely populated Northeastern States; (6) "Private Outdoor Recreation Facilities" (Study Report No. 11, 150 pages), prepared by the Economic Research Service of the Department of Agriculture, consists of two parts. The first reports on a mail survey to private owners of recreation facilities and includes a partial inventory from secondary sources of industrial recreation areas. The second is a qualitative appraisal of 66 cases representing various types of private recreation facilities scattered throughout the United States; (7) "Public Expenditures for Outdoor Recreation", (Study Report No. 25, 90 pages), prepared by the Commission staff, indicates the total direct expenditures made by the Federal, State, and local governments for providing outdoor recreation opportunities, facilities, and services from 1951-1960.

CONFERENCES

The City and History

In July, 1961, a Conference on the City and History was held by the M.I.T.-Harvard Joint Center for Urban Studies in conjunction with the Harvard Summer School. The gathering included historians and other urban specialists.

Attention was focused on the role of the city in technological innovation and economic development, the city in the history of ideas, the city as an artifact, and the implications of history for the contemporary urban world.

The proceedings are now being edited for publication during 1962. Publication of the proceedings is being supported by the Joint Center and the Summer School.

Foundations of Urban Life and Form

During the fall semester, the Institute for Urban and Regional Studies of Washington University (St. Louis) held a seminar on "Foundations of Urban Life and Form." Eighteen faculty members participated in this seminar which met every second week, and the following papers were presented: "A Historical Perspective of American Urban Experience", by Richard C. Wade, Washington University; "Emergence of Urban Form", by Joseph R. Passonneau, Washington University; "Emergence of Urban Land and Property Laws", by William L. Weismantel, Washington University; "Foundations of Urban Politics", by Robert C. Wood, Massachusetts Institute of Technology; "The Structure of the Urban Community: An Examination of Theory and Research", by Leo G. Schnore, University of Wisconsin; "Social Problems Associated with Urban Minorities", by Lee M. Robins, Washington University; "Foundations of Urban Government Finance", by Werner Z. Hirsch, Washington University; "Foundations of Urban Planning", by F. Stuart Chapin, Jr., University of North Carolina.

Formal discussants included A. Theodore Brown, Kansas City University, Mark Perlman, Johns Hopkins University, Leo F. Schnore, and the following from Washington University: Ralph E. Morrow, Fumihiko Maki, Peter Riesenberg, Roger Montgomery, Carl McCandless, Robert Salisbury, Richard C. Wade, David B. Carpenter, John A. Stern, Werner Hochwald, Elbert Segelhorst, William L. Weismantel, and Joseph R. Passonneau.

The papers are being published by Holt, Rinehart & Winston and should be available in early 1962. (WZH)

Wabash Basin Series on Regional Development and Change

The Wabash Valley Advisory Committee of the Council on Community Development, University of Illinois, has sponsored a series of lectures and a three-day conference on regional development and change over the past academic year. Papers were presented by Dr. Leon Moses, Director, Transportation Center, Northwestern University; Dr. Marion E. Marts, Professor of Geography and Director of Summer Quarter, University of Washington; Dr. Peter H. Rossi, Director, National Opinion Research Center, University of Chicago; Dr. John R. Borchert, Urban Research Director, Upper Midwest Economic Study, and Professor of Geography, University of Minnesota; Mr. Irving K. Fox, Vice President, Resources for the Future, Inc.; and Mr. Walter M. Phillips, Executive Vice President, Delaware River Basin Commission; and many others.

These papers will form part of a monograph to be published this fall. Further information can be obtained from Dr. Ronald R. Boyce, director of the series and editor of the monograph, at the Bureau of Community Planning, University of Illinois, 1202 W. California Ave., Urbana, Ill. (RRB)

Regional Accounts

The Committee on Regional Accounts will hold its second Regional Accounts Conference from November 29 through December 1, 1962, in Miami Beach, Florida. The general subject matter of the conference is "Elements of Regional Accounts", and the following program has been prepared:

I Regional Economic Growth Accounts: "The Regional Flow Account" by James M. Henderson, University of Minnesota; "The Regional Income Account", by Selma F. Goldsmith, U.S. Bureau of the Census.

II The Government Sector in the Regional Account: "Public Finance as an Integral Part of Regional Accounts", by Jesse Burkhead, Syracuse University; "Data for the Public Finance Sub-Account", by L. L. Ecker-Racz and Allen Manvel, Advisory Commission on Intergovernmental Relations and U.S. Bureau of the Census.

III The Human Resources Sector in the Regional Account: "Construction of Human Resources Component in Series of Regional Accounts", by Mark Perlman, Johns Hopkins University; "Data for the Human Resources Element in Regional Accounts", by Leo F. Schnore, University of Wisconsin.

IV Intra-Regional Accounts: "An Accounts Framework for Intra-Metropolitan Models", by Britton Harris, Penn Jersey Transportation Study; "Data from Intra-Metropolitan Accounts", by William A. Niskanen, The Rand Corporation.

V Panel on Integrated Accounts Framework: "An Integrated Human Resources-Public Services Intra-Regional Account", by Harvey S. Perloff, Resources for the Future, Inc., and Charles L. Leven, University of Pennsylvania.

In December, 1961, the papers of the First Regional Accounts Conference on "Design of Regional Accounts" were published by the Johns Hopkins University Press. (WZH)

TRAINING PROGRAMS

Summer Institute in Regional Science

An intensive eight week training program in regional science will be conducted at the University of California (Berkeley) from June 25 through August 17. Cooperating with the University's Business Administration Extension in putting on the program are the Regional Science Association and the National Science Foundation. The faculty will include Dr. Duane F. Marble of the University of Pennsylvania, program director; Dr. William Goldner, University of California, Berkeley, associate director; Dr. Brian J. Berry, University of Chicago; and Dr. David Bramhall, Johns Hopkins University. Dr. Walter Isard and Dr. Benjamin H. Stevens of the University of Pennsylvania, and Dr. William L. Garrison of Northwestern University are also expected to join the staff for shorter periods of time. Further information may be obtained from Dr. Marble at the Wharton School, University of Pennsylvania, Philadelphia 4, Pa.

University of Pittsburgh Program in Urban and Regional Economics

The University of Pittsburgh has announced that a new graduate program in urban and regional economics leading to the M.A. or Ph.D. degrees will be offered beginning in September, 1962. The program of study will be coordinated with the new Center for Regional Economic Studies. The Center will provide a focus for graduate training as well as basic and applied research.

Dr. Edgar M. Hoover, president of the Regional Science Association, will direct the Center and teach courses at the graduate level. Dr. Benjamin Chinitz, Chairman of the Department of Economics and associate director of the Pittsburgh Regional Economic Study, will also be a member of the staff of the Center. Assistantships, fellowships and tuition scholarships are available. Further information may be obtained from Professor Benjamin Chinitz, Department of Economics, University of Pittsburgh, Pittsburgh 13, Pennsylvania. (BC)

Latin American Planning Program, Yale University (c)

Yale University has entered into an agreement with the Organization of American States to assist in the implementation of recommendations set forth in the Act of Bogota on a general development plan for the Americas in the field of housing and planning.

Through its Graduate Program in City Planning, Yale will provide teachnical policy and planning guidance to the OAS General Secretariat on the functioning and further strengthening of the Inter-American Housing and Planning Center at Bogota, Columbia, and on the development of the Inter-American Program for Urban and Regional Planning at the National Engineering University of Lima, Peru. A senior member of the Yale planning faculty will serve as principal adviser.

The agreement will extend for a period of six years. It also provides for administrative, academic and personal guidance to be given at Yale to a group of Latin American graduate students each year in the fields of housing and planning.

RESEARCH MATERIALS

Regional Economic Projections

The National Planning Association is organizing a continuing research program engaged in developing past and projected estimates of economic and demographic factors for individual states, multi-state regions, and individual metropolitan areas. The series is designed as a working tool for long-range planning by corporations concerned with marketing and plant location problems; and by private and public local planning and development agencies

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(c) From ASPO Newsletter, November, 1961.

concerned with providing essential services in urban areas. The series will quantify the significant factors in each sub-national economy five and ten years hence and indicate their inter-relationships. Some of the factors with which the series will be immediately concerned include the following (others will be added as research progresses):

- Population: total state per cent of national population; urban population as per cent of total population; state deviation from national ratio of urban to total population.

- Employment: total; number in each industry; average rates of change in state shares of national industry employments.

- Industrial composition of state employment: industry shares of state total employment; state industry shares of employment compared with national industry shares; average annual rates of change in comparison of state to national industry composition.

- Relation of state labor force and industry employment to state population.

- Components of state industry employment changes: total annual change; "compositional" changes; "differential" changes.

- State income: personal income; disposable income; state shares of national, personal, and disposable income; per capita personal and disposable income; state per capita incomes compared with national per capita incomes.

- State personal saving and consumer expenditures.

- State industry net and gross outputs.

Further information may be obtained from the National Planning Association, 1606 New Hampshire Avenue, N.W., Washington 9, D.C. (SS)

State and Small Area Reports From 1960 Housing Census.(d)

The Bureau of the Census has released the first of the "States and Small Areas" final reports (Vermont) of the 1960 Census of Housing, about 7 months earlier than the corresponding bulletin from the 1950 Census. This report series, designated as HC(1), will include 55 separate reports for the United States by regions and geographic divisions, each of the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands. Most of these reports are scheduled to be issued during the first half of 1962, with the U.S. Summary to be available later in the year, and they will subsequently be consolidated and issued in cloth binding as Volume I of the Housing Census reports.

(d) From Statistical Reporter, January, 1962.

Information in the HC(1) series covers occupancy characteristics (tenure, number of persons, color of occupants, persons per room, year moved into the unit, and vacancy status); structural characteristics (number of rooms, bedrooms, the year structure was built, number of units in the structure, and presence of basement); condition of the unit; plumbing facilities (water supply, toilet and bathing facilities, and number of bathrooms); equipment (air conditioning, clothes dryer, clothes washing machine, home food freezer, radio and television sets, telephone, and number of automobiles); cooking fuel, heating fuel, and water heating fuel, and financial characteristics including value, contract rent, and gross rent.

In the state reports, simple distributions are shown for the state as a whole and for each standard metropolitan statistical area (SMSA), urbanized area, place of 1,000 inhabitants or more, county, and the rural-farm and rural-nonfarm parts of the country.

A count of housing units in structures with elevators is included in the U.S. summary report for places of 50,000 inhabitants or more. Data on source of water and type of sewage disposal are shown for places with between 2,500 and 50,000 inhabitants and for county totals exclusive of places of 50,000 or more.

Selected characteristics of housing units with nonwhite household heads will be published separately for SMSA's and urban places containing at least 100 such units. Selected data will also be shown for SMSA's and urban places with 400 or more units occupied by white household heads with Spanish surnames in Arizona, California, Colorado, Texas and New Mexico. In other states similar data will be published for SMSA's and urban places with 400 or more units occupied by household heads of Puerto Rican birth or parentage.

The HC(1) reports will be individually priced and are available from Superintendent of Documents, Government Printing Office, Washington 25, D.C.

Establishment of Census Bureau's Quarterly Household Survey (e)

Beginning in April 1962, the Census Bureau will initiate the use of an additional national household sample, on a quarterly basis, to meet the increased demands for data collection and survey research. According to present plans, this supplementary sample, designated the Quarterly Household Survey (QHS) will consist at the outset of about 17,500 interviewed households -- or approximately half the size of the Current Population Survey (CPS) -- located in 333 different areas of the country. In order to simplify administrative problems, reduce sampling costs, and take advantage of the existence of an experienced staff of interviewers, the same areas will be used for both the CPS and the QHS.

Although smaller than the present CPS sample, the supplementary panel will be almost as large as the sample used for the CPS prior to 1956 and

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(e) From Statistical Reporter, February, 1962.

will have a much wider geographic spread. Between 1954 and 1956, the CPS sample consisted of about 21,000 interviewed households in 230 areas. During the prior 10 years, the CPS also totaled some 21,000 households but was limited to only 68 areas.

The Bureau plans to use the Quarterly Household Survey in as flexible a manner as possible in order to meet a wide range of demands. The sample size to be used for any given purpose will be one of the flexible items. The frequency of use of the supplementary panel will also be flexible.

Commitments have already been made for all of the capacity of the initial QHS enumeration in April 1962. This first enumeration will collect information on expenditures for home alterations, repairs, and remodeling for the Construction Statistics Division of the Census Bureau and also will be a source of a sample of long-term unemployed persons for a detailed inquiry sponsored by the Bureau of Labor Statistics. There is still available capacity for other subjects in the scheduled enumeration in fiscal 1963 (July and October 1962 and January and April 1963).

Inquiries concerning the Quarterly Household Survey should be sent to Robert B. Pearl, Chief, or Daniel B. Levine, Assistant Chief, Demographic Surveys Division, Bureau of the Census.

New Report in Census Forms and Procedures Series[f]

The Bureau of the Census has published the second of a series of reports bearing the general title "Data-Collection Forms and Procedures" and dealing with the 18th Decennial Census. It includes reproductions of questionnaires and explanation of the enumeration procedures used in the Survey of Components of Change and Residential Finance which was taken in connection with the 1960 Census of Housing. The first report in the series was on forms and procedures used in the 1960 Censuses of Population and Housing (SR No. 280, Apr. '61, p. 57). The third report, which has gone to press, will cover the forms and procedures used in the 1959 Census of Agriculture and related surveys.

The report on Survey of Components of Change and Residential Finance forms and procedures (39 pages, 30 cents) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

BIBLIOGRAPHIES

University Business and Economic Research Projects

A compilation of faculty and doctoral research projects in business and economics completed or in progress in university schools of business and departments of economics during the academic years 1957 through 1961 has been

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(f) From the Statistical Reporter, February, 1962.

published by the Small Business Administration. Entitled A Survey of University Business and Economic Research Projects, 1957-1961, the survey was prepared by Stella Traweek of the Bureau of Business Research, University of Texas, under the direction of Dr. John R. Stockton, director of the Bureau. A total of 2,298 projects are reported in the survey, listed under some twenty-five main headings. Of particular interest to readers of the Research Digest are the projects listed under the headings of Regional Planning and Development and Urban Land, Housing, Real Estate. The survey is available from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. The price is $3.50. (JF)

Urban Real Estate Research

Continuing its recently inaugurated series of summaries of urban real estate research, the Urban Land Institute has now released Research Monograph No. 5, Urban Real Estate Research: 1960. Edited by Dr. Jerome P. Pickard, Research Director, and Mrs. Arlene Balaban, Research Librarian, with the collaboration of Dr. David T. Rowlands, this publication contains an annotated bibliography of some 191 studies published during 1960, together with a discussion of 90 additional studies in process during the year. In addition to developing an inventory of research in the physical, economic and social aspects of land utilization, the series has as general objectives the determination of the nature and extent of financial support accorded to research in this field, and the identification of areas of needed research. Copies of the monograph may be obtained from the Institute at 1200 18th Street, N.W., Washington 6, D.C. (SK)

Personal Income Data for Small Areas

Availability of estimates of personal income by type and by source for small areas is covered in a late 1961 publication issued by the Office of Marketing Services of the United States Department of Commerce. Entitled Personal Income: Key to Small-Area Market Analysis, the publication lists the organizations which have prepared such estimates and the years for which they have been made. According to this survey, income estimates for small areas, usually counties, have been prepared in twenty-six states and the District of Columbia, and are underway in eight other states. Most of the estimates conform to Department of Commerce concepts and are based on state estimates prepared by the Department. Altogether the states for which estimates are available include about seventy per cent of the total personal income of the country. (SK)

New Exchange Bibliographies, Council of Planning Librarians

The Council of Planning Librarians has announced the publication of four new bibliographies in its series of Exchange Bibliographies. These are:

No. 18. RESIDENTIAL DENSITIES. By Robert D. Katz, Assistant Professor of City Planning, University of Illinois, Urbana. April, 1961. 20 p. $1.25.

No. 19. HISTORY OF CITY PLANNING. By Thomas W. Mackesey, College of Architecture, Cornell University; edited by Roland W. Mills, Assistant Librarian, Fine Arts Library, Cornell University, Ithaca, N.Y. October, 1961. 65 p. $2.00.

No. 20. CITY AND REGIONAL PLANNING IN INDIA. By Mary Vance, Librarian, City Planning and Landscape Architecture Library, University of Illinois, Urbana. November, 1961. 37 p. $1.50.

No. 21. THE GENERAL PLAN IN THE URBAN PLANNING PROCESS: THEORY AND EXAMPLE. By T. J. Kent, Jr., Professor of City Planning, University of California, in association with graduate students; bibliography compiled by Holway R. Jones, Librarian, City and Regional Planning Library, University of California, Berkeley. December, 1961. $1.50.

The above bibliographies may be ordered singly or any number may be used to begin a subscription of ten consecutive bibliographies for $8.00. All orders, with accompanying check or money order, should be sent to Exchange Bibliographies, Council of Planning Librarians, 6318 Thornhill Drive, Oakland 11, California. (JF)

OTHER

New Studies Undertaken by the Advisory Committee on Governmental Relations

At its eighth meeting, held late last year, the Advisory Committee on Governmental Relations reviewed its activities over the past two years, issued a report dealing with tax overlapping, and selected several additional items for its work program.

The Commission concluded that its work should continue to focus to a significant degree upon relationships between state governments and the counties, cities and other units of local government, as well as giving continuing attention to problems of federal-state relations. The Commission also decided to continue giving major emphasis to the actual implementation of its recommendations for legislative and other action designed to improve federal-state-local relations at national and state levels of government.

New items added to the work program include:

(1) Effect of tax, expenditure and debt practices on location of industry and economic development.

(2) Role of equalization of needs and resources in the structure and operation of federal grants-in-aid.

(3) Some intergovernmental problems in the field of public welfare.

(4) Disposal of surplus federal land holdings.

(5) Factors contributing to success or failure in securing popular approval of governmental reorganization in metropolitan areas.

(6) Specific identification of metropolitan or regional functions in contrast to those susceptible to handling on a localized basis.

Note: Previous reports on the Advisory Committee's program will be found in the Research Digest, Vol. 8, No. 1, pages 65 and 68 and Vol. 8, No. 2, page 97. (SK)

Urban Politics Research Group

Many readers of the Digest will be interested in the activities of an informal organization known as the Urban Politics Research Group. Comprised of political scientists who are actively engaged in research in this field, the group currently includes some thirty-six participants in educational institutions throughout the country. One of the principal interests of the group is in establishing an information pool so that participants can draw on each other's resources and thus facilitate the extension of individual research activities on a broader scale. Information available early this year indicated that participants had conducted studies in some forty-one cities located in eighteen different states. Further information on the group can be obtained from Daniel J. Elazar, Institute of Government and Public Affairs, University of Illinois, 1201 West Nevada Ave., Urbana, Illinois. (DJE)

Pratt Planning Papers

The Planning Department, School of Architecture, Pratt Institute, has initiated a new publication entitled Pratt Planning Papers, to be published not less than four times yearly at intervals during the academic year. According to the first issue, February, 1962, "Pratt Planning Papers will publish controversial material pertaining to all aspects of planning and related fields." Subscription price is two dollars ($2.00) per year. Correspondence should be addressed to Editor, Planning Papers, Pratt Institute, Brooklyn 5, New York. (JF)

AVAILABLE BACK ISSUES OF RESEARCH DIGEST

A few copies of the following back issues of the <u>Research Digest</u> are still available, and may be purchased at the regular price of $1.00 per copy.

Vol. 2	No. 2	November, 1955
Vol. 3	No. 2	November, 1956
Vol. 5	No. 2	November, 1958
Vol. 7	No. 2	November, 1960
Vol. 8	No. 1	Apr
Vol. 8	No. 2	Novem

Copies of both the Cumulative Index to
separate Index to Volume 8 are also ava
free to subscribers. Extra copies $1.

Research Digest

Volume 9 *Number 2* *November, 1962*

Bureau of Community Planning · University of Illinois

one dollar

Editor's Notes

Recent months have seen an encouraging growth of interest in the Research Digest. Numerous national organizations have called the Digest to the attention of their members in one way or another, most frequently in their newsletters or other publications. As a result, not only has our circulation increased; more importantly, as can be seen from the present issue, there has been an increase in the flow of material from contributors, thus improving our coverage on current urban and regional research. Given this growth of interest and participation, it is our hope that the Digest can become a constantly more useful reference for persons working in some aspect of the field.

In the belief that there are many persons who would appreciate having the Digest called to their attention, we are enclosing a small descriptive brochure with this issue, and would appreciate it if each reader would hand the brochure to a colleague who might be interested. Additional copies of the brochure can be obtained on request. (SK)

Founded in 1954 by an informal organization known as the Urban Planning Research Group, the Research Digest is prepared and distributed semi-annually, in April and November, by the Bureau of Community Planning of the University of Illinois. Its objective is to serve as a medium of communication among individuals and groups engaged in urban and regional research. Abstracts are invited covering research projects recently initiated, projects well underway on which significant progress or findings can be reported, and projects recently completed. Brief notes on items of interest to researchers in this field are also desired, as are special articles in keeping with the character of the publication. Subscription is $2.00 per year. Address all communications to Research Digest, Bureau of Community Planning, University of Illinois, 1202 West California Avenue, Urbana, Illinois.

CONTENTS

Page

CURRENT RESEARCH PROJECTS

ALLEGHENY COLLEGE

Social Science Research Fund

1. Recent Tax Changes and Industrial Development in Pennsylvania 1

AMERICAN PUBLIC WORKS ASSOCIATION RESEARCH FOUNDATION

2. Research Needs in the Field of Public Works..... 2

ANTIOCH COLLEGE

Department of Anthropology and Sociology

3. Social Problems and Social Cohesion............. 3

FEDERAL RESERVE BANK OF BOSTON

4. Effect of Walsh-Healy Minimum Wages on Regional Industries...................................... 4

5. A Study of Inter-city Wage Differentials........ 5

6. Income Redistribution in Federal Grants-in-Aid.. 6

UNIVERSITY OF BRITISH COLUMBIA

Department of Community and Regional Planning

7. Performance Standards for Space and Site Planning for Residential Development............ 7

8. A Critical Evaluation of Recent Experience in Teaching Community and Regional Planning to Students from Recently Independent Countries.... 8

9. The Impact of Highway Development on Land Use Changes... 8

BROWN UNIVERSITY

Department of Economics

10. Interaction Between Discrimination, Inter-regional Migration and Regional Economic Development.................................... 9

UNIVERSITY OF CALIFORNIA (Los Angeles)

Graduate School of Business Administration

11. Analysis of Real Estate Market Behavior from Multiple Listing Bureau Data in the Los Angeles Area.................................. 10
12. Comparison of Changes in House Sale Prices with Assessed Values in Los Angeles............ 10
13. The Unanchored Subdivision and Legal Problems in the Interstate Sale of Promotional Subdivision Land.................................. 11
14. Urban Renewal in Europe - Its Emergence and Potentials.................................. 12
15. A Preliminary Study of the Economic Growth and Structure of the Los Angeles Regional Economy.. 12
16. Determinants of Residential Construction....... 13

CLARK UNIVERSITY

Graduate School of Geography

17. The Anatomy of Turkish Cities: A Comparative Study of Land Use in Six Medium-Sized Urban Places.................................. 13

THE COLORADO COLLEGE

18. Civic Design Study of the Rocky Mountain and Great Plains Area.............................. 15

COLUMBIA UNIVERSITY

Department of Economics

19. A Theory of Population Distribution............ 16

COMMITTEE FOR ECONOMIC DEVELOPMENT

20. The Community Economic Base Study............. 17

CORNELL UNIVERSITY

Center for Housing and Environmental Studies

21. Community Aspects of Housing for the Aged...... 18
22. Home Buying and Financing Practices............ 19
23. The Shapes of American Cities: An Investigation of Selected Parameters of Population Distribution for Selected Cities in the United States in 1940, 1950, and 1960................ 20
24. Planning and Architecture in Eastern Eruope Since World War II: Poland.................... 21

College of Architecture

25. Long Range Needs and Opportunities in New York State.......... 21
26. University-City Joint Ventures in Urban Renewal....... 22
27. University Campus Planning at Cornell University, 1865-1935.......... 23

UNIVERSITY OF DELAWARE

Division of Urban Affairs

28. Economic Analysis of the Wilmington Metropolitan Region With Emphasis on its Core Area................. 23

GEORGIA INSTITUTE OF TECHNOLOGY

Engineering Experiment Station

29. Land Use Planning and Control Along the Interstate Highway System in Georgia.......... 24

SOUTHERN ILLINOIS UNIVERSITY (EDWARDSVILLE)

Public Administration and Metropolitan Affairs Program

30. Mass Transit in the Metropolitan Area: The Policy Process and the Illinois-Missouri Bi-State Development Agency.......... 24
31. Employment and Unemployment in East St. Louis, Illinois.......... 25
32. The Impact of the Interstate Highway System on Madison and St. Clair Counties, Illinois. Phase One: An Analysis of Land Use and Land Value.................. 26
33. Comparative Fiscal Capacity and Effort of Units of Government in Madison and St. Clair Counties, Illinois, 1950 and 1960.......... 27

UNIVERSITY OF HAWAII

Bureau of Business Research

34. The Projected Economic Growth of Hawaii to 1970....... 27

ILLINOIS INSTITUTE OF TECHNOLOGY

Armour Institute of Technology

35. Impact of Technological Changes on the Chicago Metropolitan Area.......... 28
36. Inventory and Evaluation of Chicago's Industrial Plant.......... 28

UNIVERSITY OF ILLINOIS

Bureau of Community Planning

37. A Study of the Linkage Pattern Between a Central City and the Communities Within Its Region of Influence..... 29
38. The Relation of Factors of Metropolitan Suburban Expansion and the Utilization of On-Site Sewerage Facilities in the Urban Fringe........................ 29

Bureau of Economic and Business Research

39. The Projected Economic Growth of Illinois to 1971...... 30
40. Industrial, Community, and Internal Conditions for Small Retailer Survival................................ 30

Department of Architecture

41. Toward the Functional City: A History of the Garden City Concept... 31

Department of City Planning and Landscape Architecture

42. Relation Between Intensity of Development of Multi-family Housing Projects and Liveability of Projects.... 32

Department of Political Science

43. State Administration of Water Resources in Wyoming..... 32

UNIVERSITY OF IOWA

Iowa Urban Community Research Center

44. Location of Metropolitan Residential Areas............. 33

JOINT CENTER FOR URBAN STUDIES OF M.I.T. AND HARVARD UNIVERSITY

45. City Politics in America: An Interpretation........... 33
46. City Politics Reports.................................. 33
47. Activities of the Boston City Council.................. 34
48. Analysis of Boston's Metropolitan District Commission.. 34
49. Form of House and Settlement Pattern in Pre-Literate Societies... 34
50. Economic History of the American City.................. 35
51. Goals of Municipal Policy in American Regional Cities, 1760-1930.. 35
52. The Zone of Emergence.................................. 36
53. Social Mobility.. 36
54. Urban Development of Los Angeles....................... 36
55. Ethnic Groups in New York City......................... 37
56. Urban Renewal in the United States..................... 37
57. Urban Renewal in the United States..................... 37

58. Metropolitan Structure and the Rebuilding of Cities... 38
59. Location and Land Use: A Model of the Urban Land Market.. 38
60. Urban Traffic.. 39
61. Rail Rapid Transit Systems........................ 39
62. Politics of Metropolitan Transportation.............. 40
63. View from the Road.................................. 40
64. The Struggle for Shelter............................ 41
65. Urban Renewal....................................... 41
66. Joint Center Guayana Project in Venezuela............ 42
67. Land Transfer Improvement - A Suggested Approach...... 42

UNIVERSITY OF KANSAS

Department of Political Science

68. Kansas City Municipal Election Study................. 43

UNIVERSITY OF KENTUCKY

Bureau of Business Research

69. Intercounty Commuting in Kentucky................... 44

UNIVERSITY OF MIAMI

Department of Government

70. The Miami Metropolitan Experiment................... 44

SOUTHEASTERN MICHIGAN METROPOLITAN COMMUNITY RESEARCH CORPORATION

71. Methodology for Studying the Services of Local Government.. 45
72. Four Local Governments.............................. 46
73. Southeastern Michigan Economic Study................. 47

UNIVERSITY OF MICHIGAN

Department of Sociology

74. Local Ecological Community: An Investigation of Relative Independence in an Urban Society............... 47

MIDWEST RESEARCH INSTITUTE

75. Stimulation of the Potential of the States of Missouri, Oklahoma, Kansas, Arkansas, Iowa and Nebraska by Greater Participation in Space Science and Technology... 48

UNIVERSITY OF MINNESOTA

Department of Agricultural Economics and Geography

76. Land for Highways, the Public as Purchaser............. 49
77. Beltline Commercial-Industrial Development............. 94
78. Guidelines for Land Value Estimation................... 50
79. Benefits and Costs of Modifications to Interstate Highways... 50
80. Projection of Population and Highway Traffic in Minnesota.. 51

School of Business Administration

81. Impact of the St. Lawrence Seaway on the Upper Midwest Region.. 51

MONTANA STATE UNIVERSITY

Bureau of Business Research and Forest and Conservation Experiment Station

82. Montana's Forest Products Industry..................... 51

Department of Agricultural Economics

83. Beef Cattle Feeding in the Northern Great Plains....... 53

MUNICIPAL FINANCE OFFICERS ASSOCIATION

84. A Manual of Procedures for the Operating and Capitol Budget Processes in Local Governments and a Study of the Feasibility of Comparative Measurements............ 54

NATIONAL PLANNING ASSOCIATION

85. State Economic Projections............................. 55
86. Occupational Employment Projections for Southern States.. 55
87. Regional Economic Projections Series................... 55

UNIVERSITY OF NEBRASKA

Bureau of Business Research

88. The Omaha Residential Real Estate Market............... 56

STATE OF NEW JERSEY

Division of State and Regional Planning

89. The New Jersey Regional Urban Renewal Survey........... 56

UNIVERSITY OF NORTH CAROLINA

School of Business Administration

90. The Industrial Distribution of Employment, Patterns and Change, 1947-1967.................................. 57

Institute of Government

91. Industry and Local Government.......................... 58
92. Changes in Center City Property Values, 1950-1960, in Two North Carolina Cities.............................. 58
93. Study of Municipal Finances in North Carolina.......... 58

Institute for Research in Social Science, Urban Studies Program

94. An Identification of Communities in the United States Making the Greatest Progress in Comprehensive Planning and Development.................................. 59

95. Factors Influencing Land Development: Evaluation of Inputs for a Forcast Model............................ 60

UNIVERSITY OF OREGON

Bureau of Municipal Research and Service

96. Industry and Transportation Study, Eugene-Springfield Area, Oregon.. 61

PENN-JERSEY TRANSPORTATION STUDY

97. Analysis of Trip Distribution in an Urban Area......... 62

PENNSYLVANIA STATE UNIVERSITY

Department of Agricultural Economics and Rural Sociology

98. Project Wamby, the Economic and Social Impact of New and Improved Highways.................................. 63

UNIVERSITY OF PENNSYLVANIA

Department of City Planning

99. The Spatial Distribution of Residences and Work Places in Urban Areas.. 64
100. Motive Forces Behind the Physical Form of the Spanish Colonial City of 16th Century South America........... 65

Department of Economic and Social Statistics

101. Data Requirements and Methods of Analysis for Metropolitan Planning and Development in Pennsylvania....... 66

Department of Regional Science

102. Local and Regional Impact of Military Expenditures in the United States.................................. 67

Institute for Urban Studies

103. Trip Lengths Among Urban Activities.................... 67
104. Relocation of Elderly Persons.......................... 68
105. The Decline of Cities.................................. 68
106. Housing Markets and Public Policy...................... 69
107. The Place of the Ideal City in Urban Planning.......... 69
108. Requirements for Open Space in Urban Areas............. 70

Population Studies Center

109. Migration and Urbanization in the United States, with Special Reference to Recent Trends..................... 70

REDEVELOPMENT AUTHORITY OF THE CITY OF PHILADELPHIA

110. New Residential Construction in Older Neighborhoods of Philadelphia from 1951 to 1960........................ 71

ACTION-HOUSING, INC., PITTSBURGH

111. Urban Renewal Impact Study............................. 72

PITTSBURGH DEPARTMENT OF CITY PLANNING

112. Data Processing and Simulation Techniques.............. 73

PITTSBURGH REGIONAL PLANNING ASSOCIATION

113. Economic Study of the Pittsburgh Region................ 73

UNIVERSITY OF PITTSBURGH

Center for Regional Economic Studies

114. The American Metals Complex............................ 74

Graduate School of Public and International Affairs

115. Urban Renewal Reader................................... 74
116. Social and Psychological Factors in Urban Conservation... 74
117. The Council-Manager Form of Government in Pennsylvania: A Citizen's Handbook.................... 75

RESOURCES FOR THE FUTURE, INC.

118. Resources in Americas Future........................... 75

119. Rationalizing Public Investment Decision-Making in Urban Communities.................................... 76

RUTGERS UNIVERSITY

Urban Studies Center

120. The Slum Youth Culture.................................. 76
121. Residential Mobility in the American Middle Classes... 77
122. Service Areas and Functions of Small Centers in the Pennsylvania-New Jersey-Delaware Metropolitan Region.. 77
123. Demographic and Ecological Characteristics of the Aging.. 78

Bureau of Government Research

124. An Exploration of the Adaptability of Local Government in the Penjerdel Region.......................... 79
125. Service Areas for Public Health....................... 80

STATE UNIVERSITY OF SOUTH DAKOTA

Business Research Bureau

126. Retail Trade in South Dakota.......................... 80

TEMPLE UNIVERSITY

Bureau of Economic and Business Research

127. Financing Lower-Middle Income Housing................ 82

UNIVERSITY OF TORONTO

School of Architecture

128. National Study on Public Housing and Urban Renewal.... 82

UNITED STATES GOVERNMENT

Executive Office of the President, Panel on Civilian Technology

129. Technology and Urban Transportation.................. 83

U. S. Study Commission, Southeast River Basin

130. Development of a Comprehensive and Co-ordinated Resource Plan for the Southeast River Basins Area..... 84

U. S. Study Commission -- Texas

131. Development Plan for the Neches, Trinity, Brazos, Colorado, Guadalupe, San Antonio, Mueces, and San Jacinto River Basins and Intervening Areas........... 84

UPPER MIDWEST RESEARCH AND DEVELOPMENT COUNCIL

132. Comparative Advantage of U. S. Regions................ 84
133. The Geographic Impact of the Federal Budget........... 85

URBAN LAND INSTITUTE

134. Changing Urban Land Uses as Affected by Taxation...... 86
135. Property Taxation and Urban Land Use in Northeastern New Jersey.. 87

UNIVERSITY OF UTAH

Bureau of Economic and Business Research

136. Employment and Population Analysis and Projections, Salt Lake Metropolitan Area, Utah and the United States.. 88

WASHINGTON UNIVERSITY

Institute for Urban and Regional Studies

137. Levels of Government Services......................... 88

UNIVERSITY OF WASHINGTON

Center for Asian Studies

138. The Effects of Technological Change on Cultural Continuity as Evidenced by the Morphology of Certain Japanese Cities (1870-1920).......................... 89

WASHINGTON STATE LEGISLATURE

Highway Interim Committee

139. Criteria for the Establishment of Additional Scenic Areas Along Highways in the State of Washington....... 89

WAYNE STATE UNIVERSITY

Department of Economics

140. Urban Economics, A Guide to Research on Waste, Poverty and Stagnation in Cities............................. 90

Department of Political Science

141. Election With an Issue: Voting Behavior of a Metropolitan Community in a School Fund Election........... 91
142. The Image of the Presidency: An Investigation into the Political Views of Urban Dwellers................ 92

UNIVERSITY OF WISCONSIN

Department of Economics

143. The Financial Evolution of the Milwaukee Metropolitan Area.. 93

UNIVERSITY OF WYOMING

Division of Business and Economic Research

144. Resources, People and Economy of East-Central Wyoming.. 94

BRIEF MENTION

TRANSPORTATION

Niagra Frontier Transportation Study............................ 96

RIVER BASIN DEVELOPMENT

Economic Base Survey of the Potomac River Service Area 1957-2010.. 96

HOUSING AND URBAN RENEWAL

Ford Foundation Grants for Study of Slums....................... 97

NEW URBAN AND REGIONAL RESEARCH AND TRAINING PROGRAMS

Division of Urban Studies, Cornell University.................. 97
Division of Urban Affairs, University of Delaware.............. 98
Institute of Urban Life, Loyola University..................... 98
Program in Urban and Regional Planning, Northwestern University. 98
Public Administration and Metropolitan Affairs Program, Southern Illinois University.................................. 98
Department of Urban Studies, American Municipal Association..... 99
Canadian Council on Urban and Regional Research................. 99
Committee on Urbanization, Social Science Research Council...... 100
Regional Research Project, U. S. Department of Commerce......... 100

RESEARCH MATERIALS

New Series of 1960 Population Census Reports.................... 101
Two New Samples of the Population of the United States.......... 102
Housing Reports on Recent Movers................................ 103
New Guide to Published and Unpublished Housing Census Data...... 104
Metropolitan Housing Reports from 1960 Census of Housing........ 104
HHFA - Census Bureau Research Program........................... 105
Census History Project.. 106
Statistics in 1962 County and City Data Book Available on Cards. 106

Manufacturing Plants Data Rearranged.......................... 107
Summary Statistics of 1958 Census of Business.................. 108
Preliminary Census of Governments Report on Public School Systems.. 108
New Reports Define Census County Divisions in 18 States......... 109
FHA Reprints City Annexation Data............................. 109

BIBLIOGRAPHIES

New Exchange Bibliographies, Council of Planning Librarians..... 110
The Geography of Transportation................................ 111
Scholarly Books in America..................................... 111
ASPO Index to National Planning Conferences.................... 111

OTHER

Current Work of the Advisory Committee on Intergovernmental Relations.. 111
Religious Research Association, Inc............................ 112
Urban History Group.. 112
First Latin American Congress of the Regional Science Association... 113

1. RECENT TAX CHANGES AND INDUSTRIAL DEVELOPMENT IN PENNSYLVANIA

Main Investigator: Kenneth G. Ainsworth, assisted by Herbert Dyer and John Hill.

Status of Research and Publications: Completed.

Agency: Allegheny College, Social Science Research Fund.

Previous Digest Report: 9:1-1

Research Problem. Recent changes in the tax system of Pennsylvania are evaluated for their possible influence on the location of industry among the states and within Pennsylvania.

Method of Study. State and local tax bills of twelve hypothetical corporations are estimated for 1953 and 1958 at 144 Pennsylvania locations. The changes in the tax bills are treated as changes in cost and for purposes of discussion are stated as percentages of total cost. Within Pennsylvania the geographic pattern of local tax bills for 1953 and 1958 is described by reference to the estimated tax bills at 34 city, 89 borough, and 21 township locations.

Major Findings. The state and local tax bills of manufacturing corporations were substantially reduced as a result of the changes in the tax system. The machinery and tools of manufacturers were eliminated from the local property tax base. The five mill capital stock tax was made inapplicable to manufacturers. On the other hand the corporate income tax was increased from five per cent to six per cent and there were numerous increases in property tax rates which were applied to the narrower base. The net effective reductions in the tax bills of manufacturing corporations, however, were very modest when considered in relation to total costs. The ratio of effective tax reductions 1953-1958 to total costs was computed for each of the hypothetical corporations and found to vary from less than 1/10 of one per cent to 6/10 of one per cent at the locations where the 1953-1958 tax reductions were the largest. These ratios are very small relative to the tax cost differences found by others to be a minor influence on the location of industry among the states. (See J. S. Floyd, Jr., Effects of Taxation on Industrial Location, Chapel Hill: The University of North Carolina Press, 1952 and Leslie E. Carbert, The Impact of State and Local Taxes in North Carolina and the Southeastern States, prepared for the North Carolina Commission for the Study of the Revenue Structure of the State by the Research Director of the Commission, 1956.) The ratios of effective tax cost changes to total costs are small in part because there were some modest increases as well as decreases in the taxes levied on manufacturing corporations but in a larger part because the entirety of state and local taxes is a small part of total costs and because of the deductibility of state and local taxes for purposes of computing federal corporate income tax liability. Speculatively speaking, it seems unlikely that any state could in fact shift the emphasis of its tax system enough to give its industrial sites a clear cost advantage relative to sites in other states.

Within Pennsylvania modest cost differences would be more likely to influence the location of industry because other things are likely to be more equal. Pennsylvania was divided into two regions for purposes of analysis. Within both regions and the state as a whole the local tax conditions were more nearly uniform in 1958 than in 1953 for all industries and for all kinds of locations (city, borough, and township). A rather regular tax pattern had developed by 1958. The cities had relatively high and the most nearly uniform local tax bills for all industries. The townships had relatively low local tax bills but demonstrated somewhat greater variety of tax conditions for all industries. The boroughs had some of the highest and some of the lowest tax bills and thus presented the greatest variety of local tax conditions for all of the industries. The greater uniformity of local tax conditions encourages entrepreneurs to concentrate on minimizing the costs of factors used directly in the production process and to be less concerned about the multitude of local tax conditions and the varying amounts paid toward the support of the public services provided for the general benefit of the community. (KGA)

2. RESEARCH NEEDS IN THE FIELD OF PUBLIC WORKS

Main Investigators: Robert D. Bugher, David J. Vargas, Earnest Boyce (consultant).

Status of Research and Publications: A preliminary draft of the final report has been prepared and submitted to the APWA Research Foundation Board of Directors for review.

Agency: American Public Works Association Research Foundation under a grant from the Ford Foundation. Staff assistance for a portion of the study was provided under contract by the Armour Research Foundation and the American Society of Planning Officials.

Previous Digest report: 8:2-1.

Research Problem. To determine research needs and priorities in the field of public works.

Major Findings. Conservative estimates indicate that public works officials are faced with the problem of providing urban facilities -- roads, mass transit, air transport, water supplies, sewage treatment, refuse removal, housing, recreation, irrigation, flood control, and many others -- for an additional 100,000,000 U. S. inhabitants by the year 2000. Rising costs brought about by demands for more services and requirements for better living standards are only one indication of the need for research in the public works field.

Some 28 major research project proposals have been outlined in the preliminary draft, covering such subjects as traffic planning and movement in urban areas; snow removal and ice control; utility planning and system modification; handling and treatment of solid, liquid, and gaseous wastes; urban planning, zoning, and open space requirements.

It is expected that the final report will be ready for distribution by mid-1963, following a comprehensive review by selected consultants who are familiar with each of the subject areas covered in the report. (DJV)

3. SOCIAL PROBLEMS AND SOCIAL COHESION

Main Investigator: Raymond L. Gorden.

Status of Research and Publications: Preliminary report available. 150 pp. mimeo. $1.50.

Agency: Antioch College, Department of Anthropology and Sociology.

Previous Digest report: 8:2-2.

Research Problem. The purpose of this study is to identify and measure certain dimensions of community cohesion which might be necessary-but-not-sufficient causes of illegitimacy, divorce, separation, delinquency and schizophrenia all of which correlate ecologically and increase toward the center of the city.

Previous Relevant Research. Many studies, too numerous to list here have found that in urban America the rates of crime, schizophrenia, divorce, separation, illegitimacy all increase by concentric zone as we approach the center of the city. Also many studies show that within a particular zone smaller areas (usually census tracts) stand in approximately the same rank order in their rates of all of these social problems. Furthermore, studies done by Clifford Shaw and Henry D. McKay in Chicago indicated that these small areas within the urban community maintained their relative rank in delinquency rates for decades even though the racial, ethnic or religious composition of the population had changed completely. These studies and others suggest that there is something about the general nature of the local community itself which either selects or produces people with mental, emotional or behavioral disorders.

There are many theories and empirical studies which deal with general dimensions of social cohesion, organization or disorganization which might be functionally related to social problems even though they are never considered to be social problems in themselves. Some of the concepts used to generate specific indices and hypotheses are the following: Merton's "anomie", Srole's "anomia", and Cloward's "availability of illegitimate means", Nettler's "alienation" and more general concepts such "informal social control", "intergenerational social distance", "family-school" integration, and "restriction of teenagers" were used to measure the amount of "social cohesion" in the community.

Hypotheses. The general hypothesis tested thus far in the study is that a census tract having the highest combined index of social problems will have less of each dimension of social cohesion than does the census tract having the lowest combined index of social problems. Ten specific hypotheses have been tested to date and reported in a preliminary presentation.

Method of study. The 62 census tracts in Dayton were assigned a rate of illegitimacy, divorce, separation, delinquency and schizophrenia. These rates were correlated with each other for the 62 tracts, the rates were also combined to obtain rates for three concentric zones and a composite index of social problems was obtained by combining the rates of all the social problems for each tract. Using this composite index of social problems the two tracts having the highest and lowest rates were selected. A random sample of households in these two areas was interviewed to measure (with Guttman scales and quasi-scales) ten dimensions of "social cohesion". Comparisons were made to find statistically significant differences between the amount of social cohesion in the two tracts to test the hypotheses which had been formulated in advance.

Major Findings. All social problem rates increased toward the center of the city. All census tract rates correlated positively with each other. Hypotheses supported: access to illegitimate means was higher in high-problem area; delinquency highest in area where there was least awareness by parents of pre-court cases of delinquency; alienation was higher in innercity (the high-rate area); anomia (Srole) was higher in innercity than in outercity; family-school integration was lower in innercity; intergenerational cohesion was lower in innercity; access to legitimate means was lower in innercity. The data weakly supported two more hypotheses, were inadequate for testing one hypothesis and clearly refuted one hypothesis. (RLG)

4. EFFECT OF WALSH - HEALY MINIMUM WAGES ON REGIONAL INDUSTRIES

Main Investigator: Ronald Charles Buehner.

Status of Research and Publications: Article published in Federal Reserve Bank of Boston's New England Business Review, July, 1962. Complete thesis available upon request from the Federal Reserve Bank of Boston. (Research Report #19, 1962).

Agency: Sponsored in part by the Federal Reserve Bank of Boston.

Previous Digest report: None.

Research problem. To assess the effects of the Walsh-Healy minimum wage determinations on interregional wage differentials, with specific reference to the New England situation.

Previous Relevant Research. (1) Maceshich, George and Steward, Charles T. Jr., "Recent Department of Labor Studies on Minimum Wage Effects." The Southern Economic Journal, XXVI (April, 1960), pp. 281-90. (2) Marx, Roy Lewis, "Wage Determination in Quasi-Public Employment: A Study of the Background, Administration, and Economic Effects of Wage Determinations Under the Davis-Bacon and Walsh-Healy Acts." Unpublished Doctoral Dissertation, University of Wisconsin, Madison, 1951.

Method of Study. U. S. Government and Department of Labor publications on the Walsh-Healy Act were reviewed. An analysis was made of average wages in four United States regions; New England, Middle Atlantic, Southeast, and Pacific, before and after administration changes in a ten year period. These figures were calculated on an annual basis for all 2-digit industries (Standard Industrial Classification) and for some 3 or 4-digit industries where such figures were available. Analysis was also made of pressure group activities in respect to the administration of the Walsh-Healy Act.

Major Findings. (1) The Walsh-Healy minimum raises the wages of low paid workers when this public contract minimum is set above the level established under the Fair Labor Standards Act; however, only a quarter of the industry's minimum set by Walsh-Healy are higher than those set by the Fair Labor Standards Act. (2) The immediate wage effect of a higher minimum is to raise the wage of sub-minimum workers; however, in the long run, the former structure is restored as an equivalent dollar increment is passed on to the higher wage earners. (3) An administrative change in minimum has little effect on a regional industry's competitive position because of the tendency for the whole structure to shift upward in time; low wage areas remain low relative to other areas. (4) The wage difference between regions is not necessarily narrowed; for in the period immediately following a change the differential tends to remain constant, and after that, the trend of the differential, whether increasing or decreasing, is independent of any change in the public contract minimum. (5) Regional pressure groups cannot change their regions relative position as long as determination is made on a nation-wide basis. (ECG)

5. A STUDY OF INTER-CITY WAGE DIFFERENTIALS

Main Investigator: Scott E. Pardee.

Status of Research and Publications: Research completed. Article published in the Federal Reserve Bank of Boston's New England Business Review, February, 1962. Doctoral Thesis (M.I.T.), Research Report to the Federal Reserve Bank of Boston, No. 20, 1962.

Agency: Sponsored in part by the Federal Reserve Bank of Boston.

Previous Digest report: None.

Research Problem. To devise adequate statistical techniques and to collect data on wage and fringe benefits to supplement and refine published data.

Hypotheses. Inter-regional wage differentials are not solely regional in origin, but are also influenced by the industrial composition of the region. Statistical techniques can be devised to isolate the area from the industry effect.

Method of Study. (1) Inter-city wage comparisons were refined by the construction of hypothetical firms with fixed skill requirements thus enabling the derivation of comparable wage bills. (2) Regional effects on average earnings were isolated by adjusting for differences in industry composition.

Major Findings. (1) New England's regional effect was to lower wage costs. (2) The "industry" and "area" effect were isolated for 20 major U.S. cities indicating a wide disparity in these two effects between cities. (3) Comparable wage bills for a hypothetical metal working firm were constructed for 19 major cities indicating that Boston had relatively low wage costs. (4) The inclusion of fringe benefits in inter-city comparisons did not make a substantial difference in the relative standings of wage costs of these cities. (ECG)

6. INCOME REDISTRIBUTION IN FEDERAL GRANTS-IN-AID

Main Investigator: George A. Bishop.

Status of Research and Publications: Article published in Federal Reserve Bank of Boston's New England Business Review, June, 1962.

Agency: Federal Reserve Bank of Boston.

Previous Digest report: None.

Research Problem. To what extent is income redistributed by state as a result of payment of Federal grants-in-aid and the levying of taxes to support that aid? How important is interstate redistribution in the determination of these programs?

Previous Relevant Research. Same problem examined in M. O. Clement, An Economic Evaluation of the Federal Grant-in-Aid Programs in New England, 1953-1958, (Federal Reserve Bank of Boston Research Report No. 15, 1961) but for earlier years before the Federal highway program and earmarked highway user taxes became significant. Estimates for earlier years have been made by other persons and organizations.

Hypotheses. Federal grants-in-aid and the taxation necessary to support them do redistribute income from richer to poorer states, but this is only one among several objectives of these programs. For all grant programs, including the highway program, interstate redistribution is a relatively minor effect.

Method of Study. Estimated tax burden by state (estimates made by Tax Foundation, Inc.) compared with aid payments by state (apportionments in the case of the highway program).

Major Findings. For budgetary grant-in-aid programs interstate redistribution amounts to about one-quarter of the funds involved. Highway aid (the trust fund program) involves less redistribution--only about 12 percent of the funds involved represents interstate redistribution.

In general the northeastern states and those bordering the Great Lakes contribute a larger share of taxes than they receive in grants. The central, southern, and mountain states are those receiving a larger share of grants than they contribute in tax burden. California, Texas and Florida are the exceptions in the South and West, while Vermont, New Hampshire, Maine and Rhode Island are the exceptions in the Northeast. (ECG)

7. PERFORMANCE STANDARDS FOR SPACE AND SITE PLANNING FOR RESIDENTIAL DEVELOPMENT

Main Investigators: H. Peter Oberlander, W. G. Gerson, Ray Goldsworthy, Arthur Boyd and G. Harwood-Barnes.

Status of Research and Publications: Investigation into factors determining the spacing of residential buildings is presently concerned with natural light as a characteristic of space control. A study of fire, the first characteristic considered, is now complete. Other characteristics to be investigated include air, noise and privacy.

Agency: University of Columbia, Department of Community and Regional Planning and the School of Architecture, for the Division of Building Research, National Research Council, Ottawa.

Previous Digest report: 7:2-1, 8:1-2, 8:2-4, 9:1-2.

Research Problem. The problem is to develop rational criteria based on the different environmental components of fire, air, noise, etc., so that reasonable and meaningful space standards might be determined and framed into a performance system for evaluating and presenting spacial relationships between buildings.

Previous Relevant Research. An annotated bibliography of the subject literature was prepared and published by the sponsors in August 1961. A report entitled, "Performance Standards for Space and Site Planning for Residential Development" followed. This report contains the results of investigation of site and space controls, regulations and standards and the hypothesis for a proposed technique for space and site planning in residential areas based on the concept of a bonus/penalty performance standards system.

A Technical Paper will be published on this report by the National Research Council Division of Building Research during October 1962. The latest report to be completed, entitled, "Space Between Buildings as a Means of Preventing the Spread of Fire", consists of an evaluation of selected residential areas according to data from recent basic research by the National Research Council, Division of Building Research.

This investigation will be covered in an Internal Report to be published by the Council later this year.

Method of Study. The method of study has consisted of systematic investigation and evaluation of space and site planning criteria by the direct application of information to selected residential test areas. (HPO)

8. A CRITICAL EVALUATION OF RECENT EXPERIENCE IN TEACHING COMMUNITY AND REGIONAL PLANNING TO STUDENTS FROM RECENTLY INDEPENDENT COUNTRIES

Main Investigator: H. Peter Oberlander.

Status of Research and Publications: In process.

Agency: University of British Columbia, Department of Community and Regional Planning, under sponsorship of Leverhulme Trust Fund, London, England.

Previous Digest report: None.

Research Problem. To evaluate the teaching of urban planning to students from newly independent countries and to develop a guide for future opportunities to assist such students to acquire valid and essential skills in dealing with problems of urban growth in their own countries.

Method of Study. Investigation of experience with planning education at the University of British Columbia and the Institute of Community Planning at Kwame Nkrumah University, Ghana. Assembly of information on similar experience at other planning schools in North America which are members of the Association of Collegiate Schools of Planning. (HPO)

9. THE IMPACT OF HIGHWAY DEVELOPMENT ON LAND USE CHANGES

Main Investigators: John N. Jackson and John Northey.

Status of Research and Publications: Pilot Project started in Summer, 1962.

Agency: University of British Columbia, Department of Community and Regional Planning.

Previous Digest report: None.

Research Problem. To examine in detail the impact of proposed highway location and its ultimate execution in relation to changes in land use immediately affected by it.

Method of Study. The Lower Mainland of British Columbia and the new thruway currently under construction there will be used as a test case. The emphasis in this project will be on methodology and techniques of documenting land use changes and relating them to proposals for highway locations. The method includes a systematic mapping of land use before and after the decision to locate a freeway was made and executed as well as a statistical analysis of municipal records regarding land values, land ownership and land transfers and assessment procedures. (HPO)

10. INTERACTION BETWEEN DISCRIMINATION, INTERREGIONAL MIGRATION AND REGIONAL ECONOMIC DEVELOPMENT

Main Investigator: Richard D. Raymond

Status of Research and Publications: Doctoral Dissertation has been presented for acceptance.

Agency: Brown University, Department of Economics, under a grant from the Committee on Urban Economics, Resources for the Future, Inc.

Previous Digest report: 7:2-3, 9:1-5.

Major Findings. This dissertation represents an attempt to measure changes in the relative economic status of the Negro over a period of time and to arrive at the determinants of this relative economic status at a given point in time. Concern is with the Negro as an economic activity unit rather than as a welfare unit, and thus the relative economic status is generally measured by the ratio of Negro male median income to White male median income.

First, an attempt is made to improve upon previously existing estimates of the progress made by the Negro during the 1940's. Changes in the Negro's position are investigated on both a national and a regional (South vs. non-South) basis. It is found that the Negro's position improved considerably in both the South and the nation as a whole, but that the Negro was unable to improve greatly his relative economic status in the North.

The effects of changes in the racial distribution of population are investigated in an attempt to determine the causes underlying the Negro's progress during the 1940's. A statistical analysis shows that changes in the distribution of population between the North and the South were independently responsible for approximately one half of the progress registered by the Negro. The rural-urban population changes within the individual regions seem to have had little effect upon the relative economic status of the Negro.

The possible effects of the tight labor market conditions of the 1940's, legislative inducement and the changing nature of the job composition within the economy are also considered. It is concluded that each of these factors was undoubtedly important, but that the data available did not allow an accurate measurement of the effects of each individual factor. An attempt is also made to show that the Negro movement to the largest cities was not necessarily a factor tending to improve their relative economic status.

A cross-section study of the Negro's relative position in the nation's SMA's in 1949 attempts to isolate the most important factors affecting the relative economic status of the Negro. The investigation proceeds on both a national and a regional basis. As was expected, the percentage of Negro in an SMA was important in the South and the nation as a whole, but it did not seem to have a strong effect in the North. The industry mix exhibited by an SMA proved important in all three geographic divisions, although its effect was least in the South. The industry mix of an SMA was arrived at by measuring the importance of a subgroup of industries known to be favorably inclined towards the hiring and upgrading of Negro labor. A multiple regression analysis yields results which indicate that, within urban areas, the North-South difference in the relative economic status of the Negro is largely due to the high percentage of negroes and the unfavorable industry mix of the Southern SMA's.

Evidence is presented which points up the effect which racial differences in a rural-urban population distribution within an SMA may have upon the racial income ratio in the SMA. Specifically, it is shown that Southern Sma's having a high percentage of Negroes also tend to show a high concentration of Negroes, relative to Whites, in rural areas. Thus, because of the lower incomes prevalent in rural areas, a part of the effect generally attributed to the percentage of Negroes seems to be properly the result of this difference in rural urban population distribution by race. This phenomenon also cast doubt upon the ability of differences in the racial educational ratio to explain the variation in the racial income ratio. (RDR)

11. ANALYSIS OF REAL ESTATE MARKET BEHAVIOR FROM MULTIPLE LISTING BUREAU DATA IN THE LOS ANGELES AREA

Main Investigator: Fred E. Case

Status of Research and Publications: A preliminary draft has been completed and publication is planned by the Real Estate Research Program.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program.

Previous Digest report: 9:1-15.

Major Findings. The results of the study indicate that within Los Angeles County there are differing types of real estate submarkets. The strongest activity and the highest average single-family home sales prices are found in the suburban areas. Slower market activity and lower home prices are found in central areas. Overall multiple listing activity tends to follow the pattern of the real estate market in Los Angeles County. During the study period from 1953 to 1960, there were indications that lengthening periods of time from listing to sales, and higher percentages in the cut from asking to sales price were forerunners of a weakening real estate market. (FEC)

12. COMPARISON OF CHANGES IN HOUSE SALE PRICES WITH ASSESSED VALUES IN LOS ANGELES

Main Investigator: Robert M. Williams

Status of Research and Publication: Completed and to be published in the Appraisal Journal.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program.

Previous Digest report: 9:1-16.

Major Findings. Using data for a fixed sample of 38 single family residences scattered throughout Los Angeles County, trends were established in the ratio of assessed value to appraisers' estimates of market value since 1940. The analysis shows that the average assessment ratio declined sharply from 1940 to 1950 but has declined only slightly since 1950. The sample data also show that the assessed value of land as a percent of total assessed value of single family dwellings has increased significantly since 1940. Finally, the paper discusses some important implications of trends in assessment ratios and the proportion of total property values accounted for by land. (RMW)

13. THE UNANCHORED SUBDIVISION AND LEGAL PROBLEMS IN THE INTERSTATE SALE OF PROMOTIONAL SUBDIVISION LAND

Main Investigators: C. Edward Elias, Jr., William D. Warren, John M. Carmack, and John M. Vincent.

Status of Research and Publications: Research has been completed, and preliminary results are available in mimeographed report.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program under sponsorship of Commissioner of Real Estate, State of California.

Previous Digest report: None.

Research Problem. To describe the market for land located in remote areas in terms of developers' promotional practices; to identify the information required by the intelligent investor in making a decision to invest in such land; and to determine the legal position of such investors at present and suggest some protective measures.

Major Findings. The marketing of speculative land today centers around land located in remote areas, and marketing techniques are similar to those used in promoting the sale of goods on installment terms. To sell land at minimum down payments and low monthly payments, the developers often must find and acquire land located in remote areas. Individuals who are buying for price appreciation rather than use need certain information about the total supply of land similar in location to their purchases and require knowledge on the amount of price appreciation which has already occurred between the developers' costs and his selling price. The investment problems are similar to those faced by the potential purchaser of securities; securities regulations thus might furnish a useful basis for revising current regulations relating to both intra and inter-state sales of speculative land. Information provided the investor currently via public reports is not sufficient. The degree of protection to the investor given by states through statutes of various kinds was investigated and found to be inadequate. (CEE)

14. URBAN RENEWAL IN EUROPE--ITS EMERGENCE AND POTENTIALS

Main Investigator: Leo Grebler.

Status of Research and Publication: Manuscript has been completed, and has been accepted for publication by the University of Pennsylvania Press.

Agency: University of California, Los Angeles, Sabbatical leave project. Field tour supported by Ford Foundation.

Previous Digest report: 9:1-13.

Major Findings. Only a few West European countries have a national urban renewal program comparable to that of the United States, but many of them have resumed their prewar slum-clearance and housing programs and are now considering legislation embodying the broader concept of urban renewal. Projects already completed or under construction are mostly undertaken in connection with traffic improvements or the expansion of downtown areas. Investment interest in central area redevelopment is exceedingly strong. The reconstruction of war-damaged cities, a special kind of urban renewal presenting legal, financial, and planning problems similar to those in peacetime renewal, is nearing completion. The study also provides some interesting contrasts between the United States and European countries in the use of the power of eminent domain for renewal and in arrangements for relocation of displaced families and businesses. (LG)

15. A PRELIMINARY STUDY OF THE ECONOMIC GROWTH AND STRUCTURE OF THE LOS ANGELES REGIONAL ECONOMY

Main Investigator: Leland S. Burns.

Status of Research and Publication: A report has been completed and submitted to the California State Division of Highways.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program, under sponsorship of California State Division of Highways.

Previous Digest report: 8:1-17.

Major Findings. The preliminary study consists of two principal elements supporting the on-going Los Angeles Regional Transportation Study (LARTS). The first is an analysis of time-series data for population, employment, and income in the five Southern California Counties which comprise the Los Angeles Region. A step-wise regression technique was devised for making extrapolations, based on existing forecasts, for five-year intervals to 1980. The second principal section is a prospectus for a major economic study of the region. This prospectus reviews analytical techniques appropriate for such a study, and makes recommendations on the nature of projects and their scheduling. Although the major economic study would not be linked directly with the transportation study, it would provide certain necessary inputs to a land-use allocation model. In addition to its value as an information piece, a primary aim would be the sharpening of planning decisions. (LB)

16. DETERMINANTS OF RESIDENTIAL CONSTRUCTION

Main Investigators: Sherman Maisel and Leo Grebler.

Status of Research and Publications: The project has been completed, and is in press.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program, under sponsorship of Commission on Money and Credit.

Previous Digest report: 9:1-12.

Major Findings: Neither the verbal-qualitative propositions on how the market for residential building operates nor the statistical-econometric models developed to date have produced a complete, internally consistent, and accurate framework that would allow a theory of market behavior to be tested, and provide a basis for reasonably dependable prediction. Moreover, the available data themselves are in many respects faulty and often unusable for empirical tests of theoretical statements, and much of the information needed for such tests is yet to be developed. (FM)

17. THE ANATOMY OF TURKISH CITIES: A COMPARATIVE STUDY OF LAND USE IN SIX MEDIUM-SIZED URBAN PLACES

Main Investigator: Gerald W. Schultz.

Status: Ph. D. Dissertation, in final stages; expected publication as one of the Foreign Research Program Reports of the Division of Earth Sciences, National Academy of Sciences.

Agency: Clark University, Graduate School of Geography, Field work supported by Division of Earth Sciences, National Academy of Sciences.

Previous Digest report: None.

Research Problem. Contemporary Turkish cities have been the subject of scant geographic research. Like urban places in other underdeveloped countries of Asia and the Middle East they are growing rapidly and significant changes are occurring in their internal structures. This study focuses on the question of how urban space is organized, used, and arranged within Turkish cities. The main objective was to arrive at generalizations concerning their anatomy that extended beyond conditions found in a particular city.

Hypotheses. Basic to this research are the assumptions that the city is an ordered and lawful structure, that a systematic comparative examination of a representative group of urban places will reveal recognizable consistencies, and that these consistencies, when considered together, can give a valuable insight into the urban geography of the contemporary Turkish city.

Method of Study. This study is empirical in nature and comparative in approach. It is based on primary data collected first-hand in the field. The first step was the selection of a small number of medium-sized urban places, defined as cities with populations of between 20,000 and 100,000 inhabitants each. On the basis of representativeness in regard to regional location, age, population changes, and functional characteristics the following six cities were selected for detailed analysis: Antalya, Adapazari, Aydin, Diyarbakir, Elazig, and Kayseri. In order to obtain comparable areas a standardized method of delimitation was applied to each city. For the urban areas thus defined, three aggregate features -- areal extent, shape, and proportions of developed area in various land use categories -- were examined and compared. Attention was then turned to an analysis of the distribution of major types of land use within the six urban areas. Systematic comparisons were made in regard to the general arrangement, zonal composition, and mean centers of gravity of each type, after which an attempt was made to relate them to each other as a meaningful, structured whole.

Major Findings. In spite of the fact that each of the six cities is to some extent unique in detail, they were found to resemble each other in a significant number of respects. Findings concerning urban space in its totality were as follows: The amount of urban land used by each city is small by Western standards, ranging from 1.2 to 2.4 acres per 100 inhabitants. The shape or outline of the urban area is relatively compact although active radial expansion is occurring along the main access routes. Considerable agreement was found to exist in the proportional amounts of different land uses in the six cities. An average of two-thirds of the developed urban area is used for residential purposes and streets; the remainder is about equally divided between work and social areas. One unexpected finding concerning the importance of specific types of land use was the relatively large proportion of the developed area occupied by modern factories and new multiple dwellings illustrating the mixture of old and new which today makes up the Turkish city. The land use proportions were also found to be closely related to those in American cities. On the basis of this study the allocation of urban space among the various uses has a consistency which seems to transcend individual cultural areas. Findings concerning the spatial distribution of individual land uses within each city showed a definite pattern arrayed around the original core area. When the individual uses are considered as a whole the internal configuration assumes a simple arrangement of three concentric zones -- a central core area, a middle residential zone, and an outer fringe dominated by gardens and peasant housing. The last two zones are interrupted in some quarter of the city by a wedge-like sector composed for the most part of new housing, vacant land, and factories. Important among the factors causing individual variations among the six cities were differences in the number of inhabitants and in the size of the historic city. (REM)

18. CIVIC DESIGN STUDY OF THE ROCKY MOUNTAINS AND GREAT PLAINS AREA

Main Investigators: Gordon Ingraham, Glenn Brooks, Robert Brown, Bernart Arnest, Kenneth Curran, Louis Geiger, Paul Kutsche, Douglas Mertz, Fred Sondermann, and Van Shaw.

Status of Research and Publications: The study has been completed and a report published (limited edition).

Agency: The Colorado College, under sponsorship of the Rockefeller Foundation.

Previous Digest report: None.

Research Problem. The problem was loosely defined as a study to contribute ideas, ways and means whereby the mountain-plains communities might find an enriched future direction for their living arrangements and patterns.

Method of Study. In approaching the study the following premises were made: man is affected and influenced by his environment; environment is the dynamic and ever-changing aggregate of physical, biological and social factors; the Rocky Mountains and Great Plains area forms a semi-arid hinterland.

Based on these premises the study identified physical environmental factors, population centers, historical patterns, key problems confronting the area today, techniques presently available for controlling and changing these patterns as well as visible limits on the various roles of public and private institutions.

The area involved was that land west of the 98th meridian or west of the 20" rainfall line to the Sierra Nevadas with emphasis on three population complexes--the Northern Plains--the Frontal Range--the Southwest Plains.

The work included the gathering of available data pertaining to the area and its patterns--travelling throughout the area as well as travel to other U.S. centers of study and research on regional problems--and the use of seminars in each of the population complexes to determine first hand information and ideas.

Major Findings. The major findings culminated in a statement on the mountain-plains area and suggested solutions which fell into two major categories: (1) For optimum future development, the mountain-plains area should concentrate on its natural advantages as a specialized service and recreational area for the rest of the nation. Except in special cases, communities should not count on large scale manufacturing development or the creation of highly diversified economies. (2) The area should serve as a model for the advancement of other semi-arid regions of the world and as a laboratory for experiments in living designs for these other regions. What we do to develop the mountain-plains area will be watched with great interest by such places as Africa and the Middle East.

Under these suggested solutions a number of potentials were outlined which included: the establishing of wholly new cities to take care of predicted population expansion; advanced scientific research centers; the development of educational institutions and fine arts programs to service widely dispersed populations; communication and transportation devices and inventions especially geared to rapid inter-urban service; the development of financial institutions suited to the low rate of return for agricultural loans; exploratory mineral and fossil fuel development for emergency reserves; the extension of recreational forms; communities for retired people; centers for language and cultural understanding particularly with relationship to the Southern Hemisphere; the development of the area as a model for semi-arid lands with reference to land utilization; rural reconstruction programs, new methods and techniques for agricultural activity.

In conclusion the report outlined a three point priority of need to start such directions. This priority of need was the initiation of a neutral institution--a mountain plains research center--to promote communication in the area; to encourage research into the specific problems of the area; and to act as a central reference library for the entire area. (GI)

19. A THEORY OF POPULATION DISTRIBUTION

Main Investigator: Arnold M. Faden.

Status of Research and Publications: Doctoral dissertation, in progress; expected date of completion, Spring 1963.

Agency: Columbia University, Department of Economics.

Previous Digest report: 9:1-19.

Research Problem. To explain the size and spatial distribution of population agglomerations by means of location theory.

Method of Study. Geographers have recorded the correlations between the distribution of population and the distributions of topography, climate, water, soils, minerals, and other natural features; but many anomalies remain. In particular, there have been great redistributions of population over time with no important changes in natural features in many places. We are developing a series of models to explain variations in the relative growth of regions over time. The emphasis will be on migration rather than differential natural increase, the former usually being the dominant factor in redistribution. People are assumed to move to higher income and/or amenity values, the frictions being lack of knowledge and cost of transportation (including institutional barriers). The explanation of the pattern of these values over space and time becomes the main problem.

We may distinguish those forces which initiate growth in a region, those which sustain it, and those which bring it to an end. (Any given region may go through several of these cycles). In the first category belongs the theory of pioneer settlement, which may be induced by such factors as discovery of new resources, overspill from adjacent regions, and the bridging of empty territory by transport routes. The same factors induce interstitial settlement and growth of already settled but stagnant regions. In the second category belongs the general rubric of economies of scale, including the self-stimulating and cumulative processes of transport and utility construction, industrial development, in-migration and residential development. Development in adjacent regions may have a net stimulating or inhibiting effect, depending on circumstances. In the third category belong the factors of encroachment on the resources base, congestion and the competition of other regions.

The need is to bring these processes--historically well described--into analytic form, so as to make predictions and more exact causal specifications. While the historical background will be kept in mind in constructing the models, the emphasis will be on the theory. The regions in the models may be of any size, from the neighborhood on up, since it is believed the models involve forces which operate at every scale of magnitude.

The parameters in the models will involve institutional conditions, such as land laws, and accretions to knowledge, such as mineral discoveries--especially such as alter the pattern of transport and communication costs: institutional rate setting, the airplane, etc.

It is hoped that the models will yield as predictions some well-known cross-sectional results, such as the paretoan distribution of city sizes and the central place hierarchy. (AT)

20. THE COMMUNITY ECONOMIC BASE STUDY

Main Investigator: Charles M. Tiebout

Status of Research and Publication: To be published in December, 1962 as Committee for Economic Development Supplementary Paper #16.

Previous *Digest* report: None.

Research Problem. This study describes what an economic base study is, explains how communities can profit by such a study, and presents guidelines for conducting this kind of research on a limited budget.

Major Findings. The concept of the economic or export base of a community has been used as a tool in planning, estimating tax revenues, and in solving other problems faced by local communities. Many economic base studies have failed to incorporate the concepts of national income analysis, and have thus been subject to extensive criticism.

The study discusses the problems of measuring the various demand sectors such as exports, local consumption and investment. Indirect methods such as location quotients are shown to be less satisfactory than rather simple survey techniques.

At a conceptual level the study considers the base concept in both the short- and long-run. Major attention focuses on the local consumption sector and its relation to changes in income and employment. Finally, alternative methods of forecasting community growth are considered.

The study supports the view that economic base studies do have a foundation in national income analysis and are empirically feasible at modest cost. (CMT)

21. COMMUNITY ASPECTS OF HOUSING FOR THE AGED

Main Investigators: Glenn H. Beyer, Marilyn Langford, and Sylvia Wahl.

Status of Research and Publications: Research is completed with exception of publishing some manuscripts. Publications already issued are "Housing Requirements of the Aged - A Study of Design Criteria" (no author), 1958, out of print; "Economic Aspects of Housing for the Aged," by Glenn H. Beyer (1961); "Community Aspects of Housing for the Aged," by Marilyn Langford (1962). Publications to be issued include "Living and Activity Patterns of the Aged" (1963), "Housing for the Aged in New York State" (1963), and "Shelter and Care of the Aging: A Review of 13 Western Countries" (1963).

Agency: Cornell University, Center for Housing and Environmental Studies, under sponsorship of the Ford Foundation and the Cornell University Agricultural Experiment Station. International aspects in cooperation with the Bouwcentrum, Rotterdam, The Netherlands.

Previous Digest reports: 5:2-8; 6:1-12; 8:2-18.

Research Problem and Method of Study. Data were collected through personal interviews with 5200 persons aged 65 and over in 4 survey areas, Chicago, Los Angeles, St. Louis, and upstate New York. Case studies were made of approximately 40 aged households in upstate New York. Personal interviews were conducted with leading private and public individuals and officials in principal Western European nations and United Kingdom.

Major Findings. The report focuses on the relationship of the environment to the lives of the aged, particularly with regard to personal contact and the use of community facilities.

It was found that respondents had the greatest amount of contact with relatives, especially children. It was relatives who stopped regularly and frequently and who were sources of help in an emergency. Contact with neighbors and friends was less frequent. The factors which increased personal contact were long residence in the neighborhood, living in one's own household, ownership of dwelling unit, and residence in small communities. Single or widowed men had fewer social contacts than did women or couples.

One third of the respondents reported contact with the community on the previous day. This contact, which was mainly for business and shopping purposes, was greater for those living in their own households than those in the households of others. As the distance from facilities increased, the proportion of respondents desiring prox imity increased; however, case study respondents (who lived in small communities) tended to shop away from their neighborhoods even though stores were close by. The use of cars for transportation was general. Forty percent of the respondents owned cars and even those not owning cars generally were transported in cars by others. Public transportation was used infrequently and mainly by widowed or single women living alone or with persons other than children.

It was found that several general factors influence the role of the community in the lives of the aged. These are: the degree of disruption in living patterns created by change, the role of relatives in the lives of the aged, the tendency to continue patterns of community use formed earlier in life, characteristics of communities and their populations, and concepts which the community holds of the aged, particularly those which are embodied in community planning concepts and legal considerations. (GHB)

22. HOME BUYING AND FINANCING PRACTICES.

Main Investigator: Glenn H. Beyer, Marilyn Langford and Sylvia Wahl.

Status of Research and Publications: Continuing study. Fifth Annual Report - 1961, entitled "Home Buying and Financing Practices in Upstate New York, 5-Year Summary 1957-1961," by Marilyn Langford and Sylvia G. Wahl. Available from Mailing Room, Stone Hall, Cornell University, Ithaca, New York.

Agency: Cornell University, New York State College of Home Economics in association with the Center for Housing and Environmental Studies.

Previous Digest reports: 4:1-10; 5:2-9; 6:1-11; 8:2-17.

Research Problem. To study a number of factors that influence home buying and financing in upstate New York.

Method of Study. Thirty-six leading institutions in 19 upstate New York cities reported information on first mortgages for both new and existing single-family dwellings. Approximately 14,000 mortgages covering the 5-year period were analyzed.

Major Findings. The majority of home buyers in the 5-year period were renters under 35 years of age who were buying homes for the first time, usually in a community in which they lived before the purchase. Professional and managerial workers purchased over half of the houses reported. Managers tended to have owned previously in a larger proportion of cases than had professional workers.

Houses built 20 years ago or more had more space than those built more recently; however, houses built during the past 2 years were larger than in any year since World War II. Although old houses generally provided more space for a given amount of money, the proportion of houses with 1500 square feet or more of floor space did not increase significantly unless houses were 30 years old or older.

Conventional mortgages were used to finance more homes than either FHA-insured or VA-guaranteed loans and to finance a larger proportion of new houses and expensive ones, while FHA and VA financing emphasized existing houses and those at lower price levels. (GHB)

23. THE SHAPES OF AMERICAN CITIES: AN INVESTIGATION OF SELECTED PARAMETERS OF POPULATION DISTRIBUTION FOR SELECTED CITIES IN THE UNITED STATES IN 1940, 1950, AND 1960.

Main Investigator: Barclay G. Jones.

Status of Research: In process.

Agency: Cornell University, Center for Housing and Environmental Research, Division of Urban Studies, supported by a grant-in-aid from the National Science Foundation.

Previous Digest report: None.

Research Problem: The paucity of empirical data on the physical configurations of urban populations and activities impedes the development of reliable theory and the making of useful predictions in all of the social sciences which are interested in urban problems. These data are not readily available to researchers because of the lack of appropriate measures which condense or summarize the data into comprehensible form. However, measures that appear promising exist in the literature but have never been fully tested nor applied on a large scale. This project proposes further testing and applying of selected summary measures by an empirical investigation of population distribution in selected tracted cities of the United States for all years for which such data were published.

Previous Relevant Research. There is a long history of development of similar parameters dating from Hilgard and Walker in the 1870's. Bibliographies have been provided by Sviatlovsky and Eells (1937), Duncan (1957), and Jones (1961). Previous related work by the investigator has been reported in the Digest in 8:1-53 and 8:1-3.

Method of Study. Several of what appear to be the most promising parameters of population distribution will be applied to eight cities in the United States for each of three years: 1940, 1950, and 1960. The purpose is to gain knowledge as to how these parameters change in value from city to city and from year to year, in order to assess the sensitivity of the parameters in describing changes and differences in form. (BGJ)

24. PLANNING AND AR[illegible] WORLD WAR II: POLAND

Main Investigator: Jack C. Fisher.

Status of Research and Publication: In process. The material is in process of translation and editing to form a monograph on the subject.

Agency: Cornell University, Center for Housing and Environmental Studies, Division of Urban Studies, supported by grants from the Center for International Studies and the College of Architecture, Cornell University.

Previous Digest report: None.

Research Problem. The interchange of cultural information between countries of the Soviet bloc and the West has not been at as high a level as the exchange of scientific information. The breakdown has been particularly acute with respect to the physical environment, architecture, and urban design. These arts have never received the serious attention they warrant from American scholars or American research centers concerned with bloc activities. Whatever the causes of neglect in the past, there is particular interest now in a survey of recent activity in the ordering of the visual environment, since new ideas have emerged under conditions of somewhat greater political and financial liberality.

Many of these ideas may be of relevance to the solving of similar problems in the United States and the rest of the world. Thus, it seems worthwhile at this time to survey East Europe and the Soviet Union systematically to identify the most able designers and to document the most creative solutions to urban visual problems.

Method of Study. The first phase of the project will be concerned with gathering and publishing information concerning urbanization and planning and design objectives, methods, and practice in Poland. Field work in Poland consisting of several trips has been completed. On the basis of this first hand knowledge of planning and practitioners a series of papers on important aspects by key individuals is being assembled. Original papers are being prepared. The outline and content have been worked out in cooperation with official Polish academic and planning organizations. (BGJ)

25. LONG RANGE NEEDS AND OPPORTUNITIES IN NEW YORK STATE

Main Investigators: Burnham Kelly and Barclay G. Jones.

Status of Research and Publication: Work completed, published in mimeographed form in 2 volumes.

Agency: Cornell University, College of Architecture, under contract to Office of Regional Development, State of New York.

Previous Digest report: None.

Research Problem. The study investigates the impact of a changing technology on New York State and the policy implications of this impact. Changing technology makes its impact manifest in the redistribution of population, of employment opportunities, and, generally, of economic activity. The three topics investigated were: (1) How may the areas of growth and areas of decline be identified; what are the ranges of problems characteristic of each of them; what policy alternatives exist at the state level to ameliorate these problems? (2) Rural and vacant lands are crucial to an understanding and definition of metropolitan and regional districts. They are essential adjuncts to urbanized areas for a number of purposes including watersheds, milksheds, sources of fresh produce, and recreation. What overall extent and changing patterns of such areas will be required by changing population distribution, and what kinds of policies are appropriate with respect to them? (3) What mechanisms of land use control, agricultural zoning, tax policy, purchase or other restrictions of development rights, and at what levels of government are desirable to implement policies regarding patterns of population and economic activity distribution, and what role does the state have with respect to them?

Method of Study. Within the limited time and scale of the investigation the method of study chosen was to pursue a number of sub-topics by means of a series of working papers prepared by individual scholars who had recently engaged in related research activities. The working papers were summarized, edited, and rewritten combining, in addition, less formal contributions made by several other scholars. The resulting concise document, a summary report, comprises one volume. The second volume contains the original working papers which consitute an appendix to the summary.

Major Findings. Broad trends in land use changes and shifts in the distribution of population and economic activity are identified and related to institutional and technological innovations. Economic and demographic growth, development, change of composition, and shift of location are found to be dynamic and characterized by fairly regular geographic patterns. In contrast, political units and organizational structures are found to be relatively static. The State is shown to have a major role in achieving a situation of optimum flexibility and adaptability to encourage and assist change and ameliorate dislocation and loss. More detailed and coordinated continuing analysis of sub-regional economic and demographic information is urged as a basis for positive policy determination and planning to facilitate adaptability to take maximum advantage of change and minimize the penalties associated with it. (BGJ)

26. UNIVERSITY-CITY JOINT VENTURES IN URBAN RENEWAL

Main Investigator: Kermit C. Parsons

Status of Research and Publication: In progress. Articles forthcoming in the Journal of Higher Education in 1963.

Agency: Cornell University, College of Architecture, Department of City and Regional Planning, with the assistance of a Ford Foundation Cornell Public Affairs Research Fund Grant.

Previous Digest report: None.

Research Problem. To identify and describe the organizational form and functions of institution sponsored development corporations at several urban universities; to describe their effect on urban renewal programs and their methods of operation in city and neighborhood renewal activities.

Method of Study. Collection of data and interviews with city, university, development corporation and neighborhood organization officials in New York City, Chicago, Philadelphia, and Cleveland. (KCP)

27. UNIVERSITY CAMPUS PLANNING AT CORNELL UNIVERSITY, 1865-1935

Main Investigator: Kermit C. Parsons.

Status of Research and Publication: In process. Completion expected in August, 1963. A monograph on the study will be prepared.

Agency: Cornell University, College of Architecture, Department of City and Regional Planning, supported by grants from the University.

Previous Digest report: None.

Research Problem. The study will trace the history of campus development policies and planning efforts with an emphasis on the influence of educational program and administrative policy on the form of the campus.

Method of Study. Study of correspondence and documents in the Cornell Archives and Regional History Collection. (KCP)

28. ECONOMIC ANALYSIS OF THE WILMINGTON METROPOLITAN REGION WITH EMPHASIS ON ITS CORE AREA

Main Investigator: Frederick Durr

Status of Research and Publication: Project inaugurated September 1, 1962.

Agency: University of Delaware, Division of Urban Affairs under contract to Greater Wilmington Development Council.

Previous Digest report: None

Research Problem and Method of Study. (1) Make a detailed analysis of the Wilmington Metropolitan Region's economy in terms of its main functional sectors--business, household, and governments--and their relations to each other and to the outside world. This analysis will provide not only a current cross-section view of how the region's economy works, but also historical background to the extent required for an understanding of present conditions and trends. This work will provide the essential groundwork for the appraisals of future prospects that appear under other topics below. (2) In cooperation with the Greater Wilmington Development Council and its corporate supporters make an intensive study of the local and regional impact of the larger business and industrial firms in the chemical or science related complex. Analyze these industries' past, current, and prospective impact on the central downtown area and the rest of the metropolitan region. (3) Identify the main factors determining growth in the Region and develop long-range projections of trends in: (a) Output, employment, industrial concentration or diversification. (b) Population and its characteristics. (c) Future location of employment opportunities in relation to domicile. (d) Personal income and its components. (e) Economic factors determining the trends in demand for public expenditures and in public revenue sources. (4) Study the locational pattern of industry, business, and other activities within the metropolitan region, especially the movement of economic activity as between the core area and the rest of the metropolitan region. Assess the factors underlying shifts in location and land use and problems raised by foreseeable trends of growth and shift. Provide useful economic information and projection for use in planning and development. (ESO)

29. LAND USE PLANNING AND CONTROL ALONG THE INTERSTATE HIGHWAY SYSTEM IN GEORGIA

Main Investigators: Howard K. Menhinick and Harry W. Atkinson.

Status of Research and Publications: In process.

Agencies: Georgia Institute of Technology, Engineering Experiment Station, in cooperation with State Highway Department of Georgia and the U.S. Bureau of Public Roads.

Previous Digest report: None

Research Problem. Anticipating completion in Georgia of 1,100 miles of Interstate highways and construction of more than 300 interchanges, this study will review the status of land use planning in nearby counties and municipalities. Recommendations will be made for action by local and regional bodies, the State Planning Agency and the State Highway Department for control of land use in the vicinity of interchanges and along the highways as well. (HKM)

30. MASS TRANSIT IN THE METROPOLITAN AREA: THE POLICY PROCESS AND THE ILLINOIS-MISSOURI BI-STATE DEVELOPMENT AGENCY

Main Investigator: Eleanor A. Schwab.

Status of Research and Publications: In process. (Doctoral dissertation, New York University, Graduate School of Arts and Sciences.)

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program. (An inter-university dissertation committee has been set up between New York University and Southern Illinois University.)

Previous Digest report: None.

Research Problem. This study is concerned primarily with the question of the relationship between the organizational form of the Bi-State Development Agency, and its ability to act as a positive mechanism for recognizing, planning, and fulfilling the needs of the St. Louis Metropolitan Area.

The study will examine this relationship by an analysis of the initiation, formulation, and execution of the policy process within the agency with regard to the role of Bi-State as a coordinating unit for mass transit in the area.

Since little recorded data exists on the specific role of Bi-State in the transportation field, prime emphasis in this study will be on the information derived from interviews, and on the official minutes of the meetings of the Bi-State commissioners. Comparative materials concerning similar type agencies and operations over the country will be emphasized. (EAS)

31. EMPLOYMENT AND UNEMPLOYMENT IN EAST ST. LOUIS, ILLINOIS

Main Investigators: Jane W. Schusky and Seymour Z. Mann.

Status of Research and Publications: Listing, sampling, pretest completed. Field study initiated November 1, 1962. Completion of field study expected by mid December. Completion of analysis expected Spring 1963.

Agency: Southern Illinois University, (Edwardsville), Public Administration and Metropolitan Affairs Program.

Previous Digest report: None.

Research Problem. This study examines the employment and unemployment situation in East St. Louis. It will be used to determine the locational employment pattern, the sources and amounts of revenue of employed and unemployed householders, expenditures, employment histories, general attitudes toward the job situation, as well as specific family and social changes accompanying the unemployment of household heads. The study is also concerned with underemployment-household heads supporting families on marginal incomes acquired through part-time employment or low-revenue self-employment.

Previous Relevant Research. The social effects of unemployment have not been systematically studied since the depression of the 1930's. Analysis of employment statistics and definitional difficulties occupy the major writings in this area today.

Method of Study. This study will involve the use of a two stage random sample of approximately 1300 households in the city of East St. Louis. A questionnaire will be administered in each of these households with supplemental items obtained in households with unemployed or under-employed family heads. Analysis of the data will follow and comparisons will be made with Census and Department of Labor statistics. (JWS)

32. THE IMPACT OF THE INTERSTATE HIGHWAY SYSTEM ON MADISON AND ST. CLAIR COUNTIES, ILLINOIS. PHASE ONE: AN ANALYSIS OF LAND USE AND LAND VALUE

Main Investigator: Richard E. Guffy.

Status of Research: Land use classification and coding system devised. Major base map work being completed and land use studies are in the field. Preliminary and final reports will be published by the sponsoring agency.

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program.

Previous Digest Report: None.

Research Problem. In an area where there has been little land use planning in the past, it was felt that the initial phase of this investigation should emphasize an analysis of land use. This first phase of a continuing investigation of the impact of the interstate highway system on the St. Louis metropolitan area is designed, therefore, to obtain a detailed description of distribution of land use and land values in the Madison and St. Clair County area, not only for this impact study, but for other planning studies as well.

Previous Relevant Research. There is an impressive body of literature on other areas emphasizing the land use and land value changes which take place during a period of major highway improvement. However, few of these studies have gone beyond the point of describing the various changes which take place over time, before and after the completion of a new or improved highway system. During the course of the various phases of this investigation, an attempt will be made to correlate the numerous changes which occur over time in order to attempt to isolate the effects of highway improvement.

Method of Study. For this phase of the investigation, a detailed land use classification was devised to obtain data on land use and land value for each parcel of land in the study area. This information will be placed on punched cards in order to facilitate the mapping of land use and value. From this initial data, land use maps can be drawn at any desired level of generalization by using a rectangular grid system for the two-county area. Statistical analysis will be used to determine the correlation between the various land use and land value maps. The study will be continued for a sufficient length of time to observe both the short-run and long-run effects of the interstate highway system. (REG)

33. COMPARATIVE FISCAL CAPACITY AND EFFORT OF UNITS OF GOVERNMENT IN MADISON AND ST. CLAIR COUNTIES, ILLINOIS, 1950 and 1960

Main Investigator: Leo Cohen.

Status of Research: Research complete and manuscript in final stages of preparation. Study will be published early in 1963.

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program.

Previous Digest report: None.

Research Problem. To measure the relative fiscal capacity and fiscal effort of townships, principal municipalities, and school districts in Madison and St. Clair Counties, Illinois, 1950 and 1960.

Previous Relevant Research. There is a body of literature emphasizing the importance of assessed valuation versus income and other theoretical measures of fiscal capacity. Few studies, however, have hitherto focused specific attention on geographical units below the county level.

Method of Study. This is basically a statistical analysis of relative fiscal capacity utilizing assessed valuation per capita (or per pupil) as the measure. The per capita figures are then converted to an index measurement. For cities, four other measures of capacity are obtained: assessed valuation per capita adjusted through sales-ratio data, sales tax receipts per capita, U.S. Census data on family and unrelated individual income, and value of owner-occupied residence. Effort is defined as the ratio of the tax rate of the assessed valuation per capita and thus measured accordingly.

Major Findings. For taxing jurisdictions which are rather unbalanced, i.e., primarily industrial or residential areas, the relative fiscal capacity may be quite different in magnitude depending on whether assessed valuation or income is utilized. Furthermore, the method of distributing state aid to education or grants-in-aid may give unusual results depending upon the importance of income or assessed valuation in the state aid formula.

The empirical data suggested the importance of further consolidation of taxing jurisdictions, especially school districts, in combatting the inefficiencies and fiscal inadequacies of many geographical units. (LC)

34. THE PROJECTED ECONOMIC GROWTH OF HAWAII TO 1970

Main Investigators: Daniel Slate, Kunye Sasaki, and Robert Ferber.

Status of Research and Publication: Data collected and projections currently being made by computers. Study should be completed by December 15, 1962, with publication by the Hawaii Department of Labor.

Agency: University of Hawaii, Bureau of Business Research, under the sponsorship of the Hawaii Department of Labor and with the assistance of the Bureau of Economic and Business Research of the University of Illinois.

Previous Digest report: None.

Research Problem. To project the economic growth of Hawaii annually to 1970 by major industry groups.

Method of Study. Segmentation of the Hawaii economy into "basic" and "secondary" industries, projection of trends in basic industries by statistical methods, and use of an econometric model to project growth in the secondary industries. ([illegible])

35. IMPACT OF TECHNOLOGICAL CHANGE ON THE URBAN METROPOLITAN AREA

Main Investigator: Roland Mayer.

Status of Research and Publications: In process.

Agency: Illinois Institute of Technology, Armour Research Foundation, under sponsorship of Ford Foundation, the Committee For Economic and Cultural Development and the Association of Commerce and Industry.

Previous Digest report: Vol. [illegible], p. [illegible].

Research Problem. Many economic projections have been made about the future of specific cities and areas, but it has been most difficult to assess the role that technological developments will have in these projections. This study is aimed at assessing this role--to dimension the influence that technology will have in the developments that are occurring in our urban areas. It is intended that the principles developed in this study and the conclusions reached about this area will be useful for other areas, municipalities, industrial organizations, service organizations, utilities and related groups concerned with planning for the future.

Method of Study. Study efforts will be concentrated on select manufacturing and service industries. Examples of such industries are electrical machinery, machinery, primary metals, chemicals, printing and transportation.

The impact of technological developments will be measured with such factors as employment, training, profit, growth, mobility, capital requirements and use of associated industries. (RM)

36. INVENTORY AND EVALUATION OF CHICAGO'S INDUSTRIAL PLANT

Main Investigator: Roland Mayer.

Status of Research and Publications: In process.

Agency: Illinois Institute of Technology, Armour Research Foundation, under sponsorship of City of Chicago, Community Renewal Program.

Previous Digest report: None.

Research Problem. The ultimate objective of this study is to supply the City of Chicago with a more comprehensive knowledge of the condition of its industrial plant and to provide some basic guidelines to assist the City in developing a more attractive "climate" for industry presently located in Chicago and for industry which might consider moving into this area.

Method of Study. (1) To individually inventory the physical and functional characteristics of each industrial building in the city and to establish a permanent card inventory for each of these buildings. (2) To identify industrial areas and locations in Chicago, which, due to age or condition of the structures, the nature of the immediate environment, the lack of adequate transportation facilities or other factors, are likely to become industrially obsolete in the near future. (3) To supply specific recommendations for programs which the city might undertake to aid these potentially obsolete areas. (RM)

37. A STUDY OF THE LINKAGE PATTERN BETWEEN A CENTRAL CITY AND THE COMMUNITIES WITHIN ITS REGION OF INFLUENCE

Main Investigators: George W. Greenwood, Aly M. Shady, and George T. Marcou.

Status of Research and Publications: Survey of literature on inter-community travel to be published by Highway Research Board. (See Research Digest 7:2-29.) Other reports now in draft form include (1) Regional Traffic Patterns in the Champaign-Urbana Area; (2) Conceptual Development of Regional Trip Generation Models; and (3) Statistical Development of Regional Traffic Models. These reports to be incorporated, together with a concluding section, in final report on project to sponsor. Completion and publication of final report expected during 1963.

Agency: University of Illinois, Bureau of Community Planning, under sponsorship of Illinois Division of Highways and U.S. Bureau of Public Roads.

Previous Digest reports: 5:2-12; 7:2-29; 8:2-20. (GWG)

38. THE RELATION OF FACTORS OF METROPOLITAN SUBURBAN EXPANSION AND THE UTILIZATION OF ON-SITE SEWERAGE FACILITIES IN THE URBAN FRINGE

Main Investigator: Edward L. Hopkins.

Status of Research and Publication: Data collection complete, analysis and evaluation in process.

Agency: University of Illinois, Bureau of Community Planning.

Previous Digest report: None.

Research Problem. During the period 1945 to 1960 the proportion of U. S. Metropolitan Area population utilizing central sewerage facilities substantially declined with a concommitant increase in reliance upon individual household sewerage devices. Even though no individual household or on-site system has proven universally satisfactory for urban areas, the use of septic tanks or similar devices has increased from serving 6.7 per cent of the total metropolitan population to 23 per cent during the period. Estimates indicate this will increase to nearly one-third by 1970. As a result there is a growing concern among health officials and environmental engineering specialists relative to the potential for ground water pollution and disease transmission from malfunctioning on-site disposal systems being used in urban areas. There are wide divergencies in the extent of utilization of individual household sewerage disposal devices among urbanized areas, but little explanation of what effect different metropolitan development conditions have in determining such variations. Based on data made available for the first time in the 1960 Census of Housing, this paper will define the differentials in reliance upon disposal means in the fringes of 83 urbanized areas and will examine the relation of various levels of such urban development factors as density, rate of growth, governmental organization and population size upon the type of sewerage disposal facilities being utilized in the fringes of expanding metropolitan areas. (ELH)

39. THE PROJECTED ECONOMIC GROWTH OF ILLINOIS TO 1971

Main Investigators: Robert Ferber and Neil Ford.

Status of Research and Publication: Research completed. Publication expected either this fall or in early 1963.

Agency: University of Illinois, Bureau of Economic and Business Research under the sponsorship of the Illinois State Revenue Commission.

Previous Digest report: None.

Research Problem. To project the future economic growth of the state of Illinois year by year to 1971 by major industries and local areas.

Method of Study. Projection of economic trends based on national projections of the National Planning Association, modified for the present purposes. (VLB)

40. INDUSTRIAL, COMMUNITY, AND INTERNAL CONDITIONS FOR SMALL RETAILER SURVIVAL

Main Investigators: Joseph D. Phillips and Elizabeth Y. Deran.

Status of Research and Publication: Field work completed. Publication expected in 1963.

Agency: University of Illinois, Bureau of Economic and Business Research under the Small Business Administration's Management Research Grant Program.

Previous Digest report: None.

Research Problem. While a very large number of individuals begin and discontinue small-scale retailing operations each year, little information, other than turnover statistics, is available regarding this segment of the small business population. This project has undertaken to shed some light on the factors, external and internal, which affect the functioning of these firms, hoping thereby to identify those conditions which are favorable to the survival of existing units and the creation of new ones.

Method of Study. The study was divided into two parts. The first portion was devoted to an investigation of the external conditions affecting small retail establishments. An effort was made here to discern the relationship between (a) industrial structure and (b) community characteristics and the prevalence and success of small business. Materials utilized in this portion of the study included data published by the Internal Revenue Service on profits of unincorporated businesses and a special tabulation by the Bureau of the Census of 1958 retail trade data for nine groups of cities classified by economic structure. The second phase of the study consisted of an investigation of the internal factors which contribute to the successful operation of small business. Information here was garnered from detailed interviews conducted during the summer of 1961 in nine Illinois communities. The communities selected differed from one another not only in industrial structure and size, but also in their sociological characteristics. Of the 439 individuals interviewed, 419 were engaged (at the time) in the operation of a business. The remaining twenty interviews were with former businessmen whose firms had ceased operation in the recent past. The detailed information collected on the history, finances, operating methods, and competitive practices of these retailers was analyzed by community, business size, age of firm, and retail line. (VLB)

41. TOWARD THE FUNCTIONAL CITY: A HISTORY OF THE GARDEN CITY CONCEPT

Main Investigator: Walter L. Creese.

Status of Research and Publication: Research completed. Manuscript in process. Possible publication by University of Liverpool.

Agency: University of Illinois, Department of Architecture.

Previous Digest report: None.

Research Problem. To study growth and development of Garden City concept.

Previous Relevant Research. In England twice. 1955-56 as a Fulbright postdoctoral research scholar and 1960 (summer) as a Rehmann Fellow of the American Institute of Architects.

Method of Study. Historical. Interviews, investigation of records and archives.

Major Findings. The chief discovery of the book is that the garden city was evolving as a concept from the late 18th century. Much of its character derived from the breakdown of communal life under the impact of the industrial revolution, but it was also an effort to formulate a more complete and functional environment, thus belonging within the 19th century program of greater efficiency for all living units. The narrative covers the British city from the early 19th century, and particularly the industrial towns of the north; the garden village, the garden suburb, and the garden city; and the forms in the 20th century influenced by these, especially in the U. S. and Scandinavia.

There is included quite a lot of previously unpublished material on the lives of Sir Raymond Unwin and Barry Parker. (WLC)

42. RELATION BETWEEN INTENSITY OF DEVELOPMENT OF MULTI-FAMILY HOUSING PROJECTS AND LIVEABILITY OF PROJECTS

Main Investigator: Robert D. Katz.

Status of Research and Publication: Publication expected late 1962 - early 1963. Research program amended to include three American cities in addition to those in Western Europe previously visited.

Agency: University of Illinois, Department of City Planning and Landscape Architecture, under sponsorship of the Graduate College of the University of Illinois, the American Institute of Architects, and the Federal Housing Administration.

Previous Digest report: 8:2-24 (RDK)

43. STATE ADMINISTRATION OF WATER RESOURCES IN WYOMING

Main Investigator: John B. Richard.

Status of Research and Publication: In process. The research will be used for a doctoral dissertation.

Agency: University of Illinois, Department of Political Science.

Previous Digest report: None.

Research Problem. To identify major state agencies dealing with water resources, describe interrelationships among them, and analyze their roles in the development of water policies for the state.

Method of Study. For analytical purposes the complex of state agencies dealing with water programs will be viewed as a system of interrelationships, the parts of which vary in the kinds and frequency of their relationships with one another. (CBH)

44. LOCATION OF METROPOLITAN RESIDENTIAL AREAS

Main Investigator: Theodore R. Anderson.

Status of Research and Publications: During the past year substantial progress has been made in assembling data on over 800 metropolitan census tracts. Most of the data have been placed on I. B. M. cards and regression-covariance analysis via computers is just beginning.

Agency: Iowa Urban Community Research Center

Previous Digest report: 8:1-16. (TRA)

45. CITY POLITICS IN AMERICA: AN INTERPRETATION

Main Investigators: Edward C. Banfield and James Q. Wilson.

Status of Research and Publication: Manuscript in final revision. To be published in 1963.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-10.

Research Problem. Using the data available from the Banfield-Derthick City Politics Reports and other sources, this study will describe political behavior in American cities. The analysis will cover electoral systems, party structure, power and leadership, the role of the professional politician, and voting behavior, with particular regard to housing and urban renewal, metropolitan organization, race relations, transportation, planning, and public finance. (RWC)

46. CITY POLITICS REPORTS

Main Investigators: Edward C. Banfield and Martha Derthick.

Status of Research and Publication: The series of twenty-one reports is nearly completed. Reports on the following cities have been issued: Boston, Worcester, St. Louis, Detroit, Manchester, St. Paul, Minneapolis, Salt Lake City, Nashville, New Castle, New York, Denver, Seattle, Milwaukee, Cincinnati, Washington, D. C., Houston, Miami, Kansas City, Los Angeles, San Diego and Stockholm (the only foreign city in the series). Reports are in preparation on Philadelphia and El Paso.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-10; 7:2-37.

Research Problem. This is a continuing project which brings together in a series of reports basic background data on the politics of United States cities. Information is included on: (1) characteristics of the population, (2) structure of government and parties, (3) elections, (4) external relations, (5) interest groups and influence structure, (6) issues and problems. (RWC)

47. ACTIVITIES OF THE BOSTON CITY COUNCIL

Main Investigator: Thomas Sullivan.

Status of Research and Publication: Preliminary research underway.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. Through the analysis of the actions taken by the Boston City Council in the recent past, an attempt is being made to shed some light on the decision-making processes of a large city. The principle focus is on financial decisions. The study is an attempt to compile data and to develop helpful suggestions concerning the decision-making process in Boston. (RWC)

48. ANALYSIS OF BOSTON'S METROPOLITAN DISTRICT COMMISSION

Main Investigator: Charles R. Cherington.

Status of Research and Publication: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-22.

Research Problem. The work is organized in three parts: (a) how the commissions combined and developed; (b) political intrusions on the Commission and consequences; and (c) future of the Commission. (RWC)

49. FORM OF HOUSE AND SETTLEMENT PATTERN IN PRE-LITERATE SOCIETIES

Main Investigator: John W. M. Whiting.

Status of Research and Publication: A manuscript is in preparation. No completion date has been set.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-20.

Research Problem: This study is a comparative analysis of ethnographic materials describing the form of dwellings and settlement patterns. In the initial phase of the study particular attention has been paid to the contrast between circular and rectangular forms. In a sample of 120 societies under investigation the floor plans of approximately half of them are square or rectangular, one-third circular and one-sixth miscellaneous shapes. Settlement patterns are about one-half each circular, rectalinear, and scattered. As an indication of the strength of form, there is a statistically significant tendency for dwellings with round floor plans to be arranged in circles or enclosed by a circular fence or wall.

Our investigations so far lead us to believe that the form of floor plan and settlement is related not only to practical considerations such as the availability of appropriate building materials, but also to more subtle psychological preferences. Such differences are correlated with child rearing practices which are in turn influenced by features of the social structure such as the living and sleeping arrangements of mother, father, and infant. (RWC)

50. ECONOMIC HISTORY OF THE AMERICAN CITY

Main Investigator: William Letwin.

Status of Research and Publication: In process. A series of articles on aspects of the city in American economic history is expected during the next year.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. The ultimate objective of this study is a large and definitive work on American economic history which examines with special care the relations between economic theory, policy and growth. Mr. Letwin is working at present on the role of cities in the economic development of the United States. (RWC)

51. GOALS OF MUNICIPAL POLICY IN AMERICAN REGIONAL CITIES, 1760-1930

Main Investigator: Sam B. Warner, Jr.

Status of Research and Publication: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. This study will deal with three periods: 1760-1780, 1830-1850, 1900-1930. Through the use of the contemporary newspapers and other primary sources from Philadelphia, New Orleans, Chicago, and Los Angeles, in the appropriate periods, this study will attempt to determine the effects which social and economic forces in these cities have had on the goals of municipal policy. (SBW)

52. THE ZONE OF EMERGENCE

Main Investigators: Robert A. Woods and Albert J. Kennedy. Editor, Sam B. Warner, Jr.

Status of Research and Publication: In press.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report. None.

Research problem. This book is a 1912 account of conditions in the workingclass and lower middle class suburbs immediately outside the core city of Boston. The authors were settlement workers; the introduction places this rare account in the setting of the settlement movement of the time. (RWC)

53. SOCIAL MOBILITY

Main Investigator: Stephan Thenstrom.

Status of Research and Publication: Based on a doctoral dissertation in the History of American Civilization program at Harvard University, 1962. This work is in process of revision for publication.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report. 9:1-29. (RWC)

54. URBAN DEVELOPMENT OF LOS ANGELES

Main Investigator: Robert Fogelson

Status of Research and Publication: Manuscript to be completed in Spring, 1964.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None

Research Problem. An examination of the urban development of Los Angeles, which seeks to discover the origins of the town, to define the process of urban development as it evolved, and to trace the repercussions of this particular process on the structure, character and culture of the urban community. The approach is historical, the time span from 1850-1930, and the sources the private and official records of the time. (RWC)

55. ETHNIC GROUPS IN NEW YORK CITY

Main Investigators: Nathan Glazer and Daniel P. Moynihan.

Status of Research and Publication: The manuscript of an expected book is now in the final stages of preparation and should be ready for publication by next fall.

Agency: Joint Center for Urban Studies and the Massachusetts Institute of Technology and the New York Post Foundation.

Previous Digest report: None.

Research Problem. This is a study of five major ethnic groups of New York City: Negroes, Italians, Jews, Puerto Ricans and Irish. The emphasis is on the changes experienced in their economic conditions, their styles of work, living, and politics. In addition to increasing understanding of New York City, the authors expect to draw inferences on the effect of ethnic heterogeneity in the wider American scene. (RWC)

56. URBAN RENEWAL IN THE UNITED STATES

Main Investigator: Charles Abrams.

Status of Research and Publications: Should be completed in about six months.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, under sponsorship of the Ford Foundation.

Previous Digest report: None.

Research Problem. An assessment of urban renewal in the United States taking in questions of the Federal role in housing and urban renewal; taxation and financial aspects; downtown areas; problems of cities; defects, virtues and potentials of program; and proposals for a new program. (CA)

57. URBAN RENEWAL IN THE UNITED STATES

Main Investigator: Martin Anderson.

Status of Research and Publication: Doctoral dissertation for the School of Industrial Management of the Massachusetts Institute of Technology, completed in 1962. Being revised for publication.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. The first part of this study is concerned with developing aggregate statistics which will provide insights into the urban renewal program. These aggregate statistics will then be used to analyze the past record of urban renewal. Some of the main areas to be explored are: (1) the growth of the program; (2) the cost -- both public and private; (3) capital formation in urban renewal areas; (4) the role of the private developer; and (5) time lags and urban renewal. (RWC)

58. METROPOLITAN STRUCTURE AND THE REBUILDING OF CITIES

Main Investigator: Bernard J. Frieden.

Status of Research and Publications: A doctoral dissertation was accepted by M.I.T. in June. An article reporting some of the findings was published last year: "Locational Preferences in the Urban Housing Market", Journal of the American Institute of Planners, XXVII (November 1961), 316-324. Further research has been completed on national trends in the utilization of central-city housing and on social forces underlying the continuing demand for old housing in the "grey areas". Findings of the entire project will be reported in a monograph currently in preparation for the Joint Center for Urban Studies.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report. 9:1-26. (BJF)

59. LOCATION AND LAND USE: A MODEL OF THE URBAN LAND MARKET

Main Investigator: William Alonso.

Status of Research and Publication: Manuscript in press; expected publication, summer 1963.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report. None.

Research Problem. To extend rent and location theory to residential and business uses in the city.

Hypotheses. Economic men.

Method of Study. Economic analysis and empirical investigation.

Major Findings. A revision of many of the conclusions traditionally accepted in land economics and human ecology; these revisions, if correct, would have bearing on many problems of cities, including zoning and urban renewal. (WA)

60. URBAN TRAFFIC

Main Investigators: Aaron Fleisher and Marion Marill.

Status of Research and Publication: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-16; 8:2-30.

Research Problem. The aim of this work is to develop a valid analogue for the real system of urban transportation. Through a series of computer models, Professor Fleisher is attempting to determine the relevant variable and conditions in the aggregate of transportation conditions. From this determination an analogue model will be constructed.

Preliminary work has dealt with the relationship between the form of a city and its transportation network. Computer models of the urban setting were developed for different patterns of land use and traffic predictions. For each model an optimum transportation network was determined. The results have suggested that average value and variability of trip length is insensitive to city form and more sensitive to the decision function. (RWC)

61. RAIL RAPID TRANSIT SYSTEMS

Main Investigators: A. Scheffer Lang and Richard M. Soberman.

Status of Research and Publication: To be published as a monograph.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: 6:2-17; 8:1-17.

Research Problem. This study aims at the identification of the significant physical and economic characteristics of urban rail transit systems. Empirical data on existing North American rail transit operations form the basis for a set of simple models relating transportation cost to live capacity, speed, and other measures of performance. Overall capabilities are to be related to those of other modes of urban transportation.

This study is an outgrowth of an earlier consideration of urban transportation capacity. The results are intended to find their maximum usefulness in planning the allocation of resources between competing modes of urban transportation. (RWC)

62. POLITICS OF METROPOLITAN TRANSPORTATION

Main Investigator: Frank Colcord.

Status of Research and Publication: Doctoral dissertation in Political Science at Massachusetts Institute of Technology.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research Problem. The single policy area of urban transportation is being studied in order to keep the research manageable. This field seems particularly appropriate because it cannot be dealt with by decision-makers on a purely municipal basis. Some degree of interaction among local, state, and even Federal officials in order to meet the most basic needs of the metropolitan area is required.

Method of Study. In his thesis, Colcord will contrast the ideal solutions recommended in the planning literature with the actual decisions which result from the realities of metropolitan politics. He will develop a model of this unstructured political system as it relates to and has its impact upon transportation decisions. The actors in the metropolitan system at all levels, in and out of formal government positions, will be identified and the sources of their power will be examined. These sources will include not only factors internal to the local and state political system, but external forces such as the impact of federal aid programs. The effort will be aimed at finding the means by which these internal and external forces are able to overcome the impediments of an organizational structure where formal control is highly fragmented.

The political aspects of the Boston area's transportation problems will be analyzed as an empirical test of the above model. Using the proposals that have been made locally for rationalization of the system as a benchmark, the actual policies and programs agreed upon by the political decision-makers will be studied to demonstrate the contrast and to reflect the political realities. The emphasis will be placed on the struggle for leadership within the political system, and the means by which and the extent to which these leaders have succeeded in overcoming the lack of a statutory focal point for leadership in the metropolitan structure. (RWC)

63. VIEW FROM THE ROAD

Main Investigators: Donald S. Appleyard, Kevin Lynch and John R. Meyer.

Status of Research and Publications: Completed and published by M.I.T. Press, 1962. 192 pp. $7.50.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University.

Previous Digest report: None.

Research problem. A study of the design of the highway as an aesthetic experience of the motorist in a new dimension of motion which produces its own set of values. It considers the general nature of sequential visual form, analyzes some reactions to real highways, and proposes a technique for designing the view from the road, with illustrations. (KL)

64. THE STRUGGLE FOR SHELTER

Main Investigator: Charles Abrams.

Status of Research and Publication: A preliminary manuscript has been prepared and is presently undergoing revision for publication.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, under sponsorship of United Nations Technical Assistance Program.

Previous Digest report: 7:2-36.

Major Findings. The study is based mainly on missions by the author to 12 countries. It deals with main problems, such as squatting, land problems, levels of training, regional planning, finance, administrative and other aspects of development which should go into preparation of housing and city planning in newly developing urban areas. (CA)

65. URBAN RENEWAL

Main Investigator: Grady Clay.

Status of Research and Publications: In process.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, sponsored by the Ford Foundation.

Previous Digest report: 7:2-35.

Research Problem. An analysis of visible changes in the urban landscape, and the political, economic and other decisions which lead to these changes, with particular reference to urban renewal programs in selected cities. (RND)

66. JOINT CENTER GUAYANA PROJECT IN VENEZUELA

Main Investigators: Norman Williams, Willo von Moltke and others.

Status of Research and Publication: The study is presently underway with headquarters in Caracas. A preliminary work outline has been prepared, and recruiting of the project staff is nearing completion.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University; and the Corporacion Venezolana de Guayana, a development corporation of the Venezuelan National Government.

Previous Digest report: 8:2-31.

Research Problem. The project is attempting to serve three functions: (1) the practical problem of formulating an economic development strategy of the Guayana region including a general plan for a new city at the junction of the Orinoco and Caroni Rivers; (2) the preparation of a number of basic studies dealing with (a) the problems of linking urban regional planning to the national economic development policy; (b) the problem of coordinating economic, social and physical planning in developing countries; the training on the job of people both in Venezuela and Cambridge in the techniques of regional and urban planning in emerging nations. (RWC)

67. LAND TRANSFER IMPROVEMENT - A SUGGESTED APPROACH

Main Investigator: Ted J. Fiflis.

Status of Research and Publication: Research has been completed and the paper is in substantially final form. Publication may be in the form of a monograph or may be in the form of two or more articles in a law review.

Agency: Joint Center for Urban Studies of the Massachusetts Institute of Technology, Harvard University and Harvard Law School.

Previous Digest report: None.

Research Problem. This study is concerned with the high cost and delay in conveyancing of real estate and the insecurity of real estate titles under present methods of conveyancing.

Previous Relevant Research. Most of the research in this area has been applied research. The last previous attempt to gather factual data is embodied in Powell, Registration of the Title to Land in the State of New York, prepared under a grant from the Carnegie Foundation and published in 1938 by the New York Law Society.

Hypotheses. Two hypotheses form the basis of the study: (1) given the fact that the modern trend in conveyancing reform is to make the public records increasingly conclusive, improvements may be made in the recording systems by studying and borrowing from title registration systems of protecting titles to real estate; and (2) existing techniques for converting from a recording system to a title registration system are unnecessarily expensive and lengthy.

Method of Study. Data concerning the delay and expense in conveyancing and the security of titles was gathered by personal interviews, questionnaires and through other primary sources in states where title registration was in practical operation. In addition the English system of title registration was studied through various secondary sources and the primary source of the record in an administrative hearing where the issue was whether title registration should be instituted in the County of Surrey.

Major Findings. Major findings bore out both hypotheses and recommendations have been made for both improvement of existing recording systems and institution of basic changes in title registration systems. (TJF)

68. KANSAS CITY MUNICIPAL ELECTION STUDY

Main Investigator: John G. Grumm.

Status of Research and Publication: In process. To be published as a research monograph by Community Studies, Inc.

Agency: University of Kansas, Department of Political Science, under sponsorship of Community Studies, Inc. of Kansas City.

Previous Digest report: None.

Research Problem. The object of the project is to investigate voter attitudes, motivation and behavior and the role played by political organizations in a local non-partisan election.

Hypotheses. It is hypothesized that the attitudual structure of the voter in regard to local politics is partially independent of, but also partially related to, attitudes and identifications associated with national politics. The Kansas City style of non-partisan local elections seems to result (as was desired by the "reformers") in an obscuring of the connection between local and state and national politics. National party identification therefore would appear to play a minor role in voting decisions of the local electorate. Since party identification has been found to be a major factor in voting nationally, the project is aimed at finding out how the local voter structures the various stimuli in a campaign situation where party identification apparently cannot serve this function.

The manner in which the local political groupings adjust to these conditions, and how their goals and strategies are affected by them will also be subject to investigation.

Method of Study. The study will be based substantially on a sample survey of the Kansas City electorate. A random area sample of approximately 1,000 adult residents of the city will be drawn. Each person in the sample will be interviewed before and after the 1963 city election. The sample survey will be supplemented by interviews with local leaders and party workers. (JGG)

69. INTERCOUNTY COMMUTING IN KENTUCKY

Main Investigator: Charles B. Garrison.

Status of Research and Publication: Completed. Published by agency, May, 1961. 77 pp. Mimeographed.

Agency: University of Kentucky, Bureau of Business Research.

Previous Digest report: None.

Major Findings. About 100,000, or 13 per cent, of Kentucky's non-agricultural workers work in a county other than that of their residence. More than half drive to jobs in adjacent states. The eight counties containing the state's largest cities account for 10 per cent of the non-agricultural employment in immediately adjacent counties and 3 per cent of employment in the next ring of counties. The proportion of commuters is highest in construction, lowest in services. Commuting is also high in manufacturing, mining and government but is low in trade, finance, and transportation and utilities. Size of firm also exerts an important influence. Ninety-seven large firms employing 500 or more workers provide 20.6 per cent of jobs, and account for 34.3 per cent of inter-county commuting. Located in only 25 counties, their employment is distributed to 108 of the states 120 counties. (JWM)

70. THE MIAMI METROPOLITAN EXPERIMENT

Main Investigator: Edward Sofen, Associate Professor, Department of Government, University of Miami.

Status of Research and Publication: Completed. Will be published by Indiana University Press in January, 1963.

Agency: University of Miami, Department of Government and Bureau of Business and Economic Research, under sponsorship of the Ford Foundation.

Previous Digest report: 7:2-40.

Research Problem. Essentially, The Miami Metropolitan Experiment is a historical treatment of the background, internal struggles, and first achievements of Miami's Metropolitan Government. The problem was to examine the Miami milieu, its social forces and power relationships in an attempt to explain the success of the Miami venture.

Previous Relevant Research. (1) "Financial Dilemma Miami-Date Style," National Civic Review (April, 1962), pp. 220-22; (2) A Report on Politics in Greater Miami, Cambridge: Joint Center for Urban Studies of MIT and Harvard University, 1961. (Mimeographed.) (3) "Problems of Metropolitan Leadership: The Miami Experience," Midwest Journal of Political Science, V (Feb. 1961), 18-38; (4) Comparative Basic Costs of Homeownership in Dade County, Coral Gables: Committee on Municipal Research, University of Miami, 1960. (Mimeograph.); (6) Joint Authorship: Wood, Thomas J. and Sofen, Edward, Municipal Finance in Dade County for the Fiscal Year 1960, Coral Gables: Committee on Municipal Research, University of Miami, 1961. (Mimeographed.)

Hypotheses. (1) The Miami Metropolitan Government was a conspiracy of the power elite; (2) the public found the government services intolerable; (3) power relationships within the Miami structure, aside from municipal officials, would be little affected by the change to metropolitan government; (4) Miami was youthful enough so that deep irrational loyalties to municipalities had in most cases not developed; (5) the Miami formula was vague enough to mean different things to different people.

Method of Study. Review of primary and secondary sources and interviews with major actors. Political behaviour data secured from (1) public opinion polls; (2) leadership study; (3) election statistics; and (4) precinct returns on the basis of income and residential swelling.

Major Findings. (1) The formation of Miami metropolitan government was not so much a revolution as an attempt to have the formal political structure coincide more rationally with the informal community power structure; (2) Metro's charter meets the prescription of a charter which is short and obscure; (3) PAS placed the "Good Housekeeping Seal of Approval" on Miami's metropolitan government; (4) Miami was able to coopt first line leaders for its Charter Board; (5) it was the combined efforts of the city oriented officials, the federalists and the ultra consolidationists, a sort of political tossed salad which led to agreement on a federal formula; (6) Miami was able to create a metropolitan government with the very type of support that failed elsewhere because of its rather unique amorphous atmosphere devoid of strongly organized political parties, labor and ethnic groups. (ES)

71. METHODOLOGY FOR STUDYING THE SERVICES OF LOCAL GOVERNMENT

Main Investigators: Peter J. Stalis and James M. Friedlander.

Status of Research and Publications: Completed and published by agency.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: 7:2-55. (FMK)

72. FOUR LOCAL GOVERNMENTS, A COMPARATIVE STUDY OF SERVICES PROVIDED BY EAST DETROIT, OAK PARK, REDFORD TOWNSHIP AND TRENTON, MICHIGAN

Main Investigator: James M. Friedlander and others.

Status of Research and Publication: Research completed; report being edited for publication.

Agency: Southeastern Michigan Metropolitan Community Research Corporation.

Previous Digest report: 8:2-37; 7:2-55.

Research Problem. To identify, evaluate, measure, and compare services offered by four variegated suburban communities which include one township and three cities.

Previous Relevant Research. A Methodology for Studying the Services of Local Government. Stanlis and Friedlander. (Research Digest 7:2-55.)

Hypotheses. (1) Few communities have summary data on the services that they perform, much less quantitative or qualitative analyses. (2) Labor fringe benefits, debt service and equipment depreciation are substantial elements in the cost of governmental services, yet are seldom considered in the determination of costs for the performance of such services. (3) Most efforts at comparing the governmental services between various communities are hampered by the lack of uniform methods of measurement. (4) An intensive comparative study of local governmental services in a metropolitan area will lead to the identification of services which could be performed better or more economically at a higher level of government or through intermunicipal cooperation. (5) There is some degree of intermunicipal cooperation already, even if informal. (6) There is probably a disparity between services performed by those communities which are "rich" and those which are "poor."

Method of Study. As outlined in A Methodology for Studying the Services of Local Government which required some refinement in the process of making this comparative study.

Major Findings. (1) The "richest" community provided 365 services, two "poorer" communities provided about 290 services. (2) The "rich" community performed its services at higher per capita costs, generally at higher unit costs, and often - despite smaller population and fewer units of work - at higher absolute costs. (3) Two communities achieved major savings through cooperation in rubbish disposal. Other examples of cooperation were intermunicipal fire fighting agreements, police communications, animal pound operation, renting of public works equipment, and public library services. (4) The role of county government varies among the counties, and this affects the type and cost of services performed by the communities. (5) Although all four communities have grown rapidly since 1945, their construction of needed capital improvements has varied considerably according to wealth and willingness to pay. (6) Absolute costs for certain services do not vary extensively with population size; this would indicate that many activities could be performed cooperatively among several communities, or by larger communities, at considerable reduction in per capita cost or even unit cost. (7) Record keeping varies considerably. Generally, records are better where the department is more professionalized. There is no uniformity of nomenclature, method of operation, departmentalization of services, organizational structure, record keeping or fiscal bookkeeping. (JMF)

73. SOUTHEASTERN MICHIGAN ECONOMIC STUDY

Main Investigator: Cecil M. Birch.

Status of Research and Publication: A working outline of a program proposal for economic research was prepared and published in September, 1961, for use of the staff. Proposals contained in this outline have subsequently been incorporated into an enlarged program which has been detailed in a request for funds from the Housing and Home Finance Agency of the federal government under its "701" program.

Previous Digest report: 8:1-22.

Research Problem. To devise a program designed to bring about growth in population and incomes in the six-county area of Southeastern Michigan.

Major Findings. Such a program would concentrate on six major research projects. They would be: (1) the Contemporary Setting; (2) the Labor Force; (3) the Automobile Industry; (4) Location Factors; (5) Industrial Development, and (6) Diversification. (JMF)

74. LOCAL ECOLOGICAL COMMUNITY: AN INVESTIGATION OF RELATIVE INDEPENDENCE IN AN URBAN SOCIETY

Main Investigator: Allan G. Feldt.

Status of Research and Publication: Doctoral Dissertation (Ann Arbor, Michigan: University Microfilms, Inc., 1962).

Agency: University of Michigan, Department of Sociology, under major support from the Program for Research in Population and Human Ecology.

Previous Digest report: None

Research Problem. In a modern industrial society, the problem of delimiting community boundaries has become increasingly difficult due to the wide variety of ways in which local communities interact with their hinterland populations and with neighboring communities. Without an adequate means of such delimitation, it becomes difficult to determine accurately the suitable population referrent for any particular community under investigation.

Method of Study. A series of operational criteria for measuring the level of self-sufficiency of population aggregates are developed as a variation on fundamental measures of functional specialization. Arguing that deviations from self-sufficiency in a given industry are indications of interaction with other outlying populations, measures of self-sufficiency are obtained for 10 non-basic or service industries for each of five population aggregates associated with the non-southern SMSA's. That population aggregate which provided the highest level of self-sufficiency for all 10 service industries at once was then taken as the best available approximation to a community and was termed the Local Ecological Community.

Major Findings. Although population configurations corresponding to the SMSA were selected as the Local Ecological Community more often than any other type of configuration, they were not selected as such in the majority of the cases. Population configurations, both larger and smaller than the SMSA, were selected almost as frequently as the SMSA itself. Despite the correspondence between the SMSA and the Local Ecological Community on a conceptual level, their correspondence on an operational level is not strong.

Factors related to the level of self-sufficiency of the various population configurations appear to be primarily associated with the relative proximity of other competing communities within the observed community's hinterland. An investigation was then undertaken to determine the effect on the measurement of other social, demographic, and economic variables of basing their measurement upon population configurations with a relatively high and homogeneous level of self-sufficiency. Preliminary results indicate that the variance of the great majority of such variables is reduced considerably by the exercise of the appropriate controls on the level of self-sufficiency of communities. These findings support the argument that some of the differences which have been observed among "communities" can be attributed to poor delimitation of community boundaries and the resultant inadequate measurement of their population characteristics. (AGF)

75. STIMULATION OF THE POTENTIAL OF THE STATES OF MISSOURI, OKLAHOMA, KANSAS, ARKANSAS, IOWA AND NEBRASKA BY GREATER PARTICIPATION IN SPACE SCIENCE AND TECHNOLOGY

Main Investigators: Howard Gadberry and James Alcott.

Status of Research and Publications: Project initiated November, 1961. Quarterly progress reports are furnished sponsor. Major publications of results and conclusions will not be made before November, 1964.

Agency: Midwest Research Institute, under sponsorship of National Aeromautics and Space Administration.

Previous Digest report: None.

Research Problem. To determine the most effective ways of stimulating the participation of six midwestern states in space science and technology.

Hypotheses. The science and technology of the space effort represents a potentially significant source of long range economic growth for the

Midwest if ways can be found to communicate such information.

Method of Study. An intensive review of NASA activities has provided a large number of space "spin-offs", examples of technology used in the space effort which have potential industrial application. A representative array of such ideas has been presented to public meetings of industrial firms in 12 midwestern cities. Approximately 600 firms have been reached by this effort; industrial participants provide MRI with an index of their technical capabilities and fields of interest to be used as a guide for further dissemination activity. MRI engineers and physical scientists have visited about 200 firms for more intensive discussions of space-derived ideas and their relation to specific industrial problems. Publications and further follow-up activity are planned.

Major Findings. The space program provides a source of highly useful ideas for midwestern industry, particularly in terms of new processes, materials and techniques. Industry for the most part is not aware that there are "practical" applications of space technology and most firms have initial difficulty in identifying ideas of specific value to themselves.

It appears that an active regionally-oriented effort can be effective in the dissemination of information to both educational and industrial communities and that such an effort may materially reduce the customary time-lag of such transfer of information. (JA)

76. LAND FOR HIGHWAYS, THE PUBLIC AS PURCHASER

Main Investigators: James Schwinden, Harvey Nelson and Everett G. Smith.

Status of Research and Publications: Study completed. Publication September, 1962.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-36.

Research Problem. To establish relationship between compensation payments and the extent (or nature) of the property (or rights) taken plus damages as a direct consequence of highway land acquisition.

Hypothesis. That examination of data related to different highway land acquisitions and land prices will permit their classification and will establish relationships or the lack of them.

Major Findings. (1) Using aggregated acquisition data there are relationships between payment rates and the degree of disruption occasioned by land acquisitions. (2) Among data from individual acquisitions there is evidence of a disturbing variability in payment rates. (3) Aware payments are related to appraisals. Appraisals are related to estimated property values but the latter are at a considerably lower level. (JS)

78. GUIDELINES FOR LAND VALUE ESTIMATION

Main Investigators: James Schwinden, P. M. Raup and J. R. Borchert.

Status of Research and Publication: Study completed. Publication expected December, 1962.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-41.

Research Problem. The purpose of the report is to develop and apply methods which will reflect a systematic and objective utilization of market transactions for the estimation of real estate values.

Major Findings. (1) From examination of the process of land marketing it appears that (a) market prices are established for entire parcels without allocation to component parts and, (b) in estimating expected prices one must seek the most likely price at which a property would be marketed. (2) The statistical techniques of regression and correlation are useful in land value estimation (a) for the highway planner as he answers the public's questions on a highway's effect on land values, and (b) for right-of-way acquisitions the estimates could serve to constrain appraisals between the selected upper confidence limit and the level of most likely prices. (JS)

79. BENEFITS AND COSTS OF MODIFICATIONS TO INTERSTATE HIGHWAYS

Main Investigators: James Shwinden and Donald Winkelmann.

Status of Research and Publications: Study completed. Publication expected December, 1962.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-43.

Research Problem. The report examines procedures for making benefits-costs comparisons and the usefulness of some of the techniques employed to measure benefits. The results of some empirical studies are included which show rural originating trip frequency by trip purpose and destination.

Major Findings. (1) The Present Net Worth (PNW) formulation for benefits-costs comparisons has two advantages over presently used formulations: (a) PNW provides an invariable standard for decision which is consistent with the goal of conserving resources and, (b) PNW permits the ranking of entirely different projects in terms of order of priority. (2) Estimates of benefits are extremely sensitive to assumptions made about the preinterstate highway environment and about the changes in travel patterns that are expected to occur postconstruction. Consequently an explicit and comprehensive statement of assumptions should accompany each estimate of benefits. (JS)

80. PROJECTION OF POPULATION AND HIGHWAY TRAFFIC IN MINNESOTA

Main Investigator: J. R. Borchert.

Status of Research and Publication: Study completed. Publication expected December, 1962.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-44.

Research Problem. The report quantifies the population pattern using county data (at 30 year intervals since 1870), it establishes a relationship between the distribution of population and traffic on the state highway system, and it projects population and traffic volume to 1970.

Major Findings. The analysis and projection indicates that the state highway system is now essentially a complete network, which provides practically equal freedom of movement in any direction from any point in the system. It further indicates that the traffic burden on the highway system will become increasingly unevenly distributed geographically, despite general growth throughout the system. This will result from continued concentration of the state's population growth in the Twin Cities and other major urban areas.

81. IMPACT OF THE ST. LAWRENCE SEAWAY ON THE UPPER MIDWEST REGION

Main Investigator: Anne Krueger.

Status of Research and Publications: Research complete. Report currently under review by sponsoring agency.

Agency: University of Minnesota, School of Business Administration, under sponsorship of Upper Midwest Research and Development Council.

Previous Digest report: 8:2-48. (AK)

82. MONTANA'S FOREST PRODUCTS INDUSTRY

Main Investigators: Arnold W. Bolle, Gordon D. Lewis, William K. Gibson and Robert C. Haring.

Status of Research and Publications: Field work completed. First draft in process. Final report due December 31, 1962. Will be published as an Upper Midwest Economic Study Report in 1963.

Agency: Montana State University, Bureau of Business Research and Forest and Conservation Experiment Station, under sponsorship of Upper Midwest Research and Development Council.

Previous Digest report: 9:2-51.

Research Problem. For the last five years the lumber industry has been under the effect of a general decline in product demand induced by a lower level of building construction and increased use of substitutes. The purpose of this study is to determine: (1) changes in the competitive structure of the industry; (2) the industry's ability to adapt; (3) general direction and extent of interrelationship of Montana's forest products industry to the change in demand of the lumber portion of the industry; (4) the specific effect on the natural resources; (5) the effect of increasing pressure from other uses upon the availability of raw material supply for industrial purposes.

Previous Relevant Research. Guthrie & Armstrong, The Western Forest Industry; Bolle, Multiple-Use Management in the Flathead Area; and USFS, Senate Document No. 9, Full Use and Development of Montana's Resources.

Hypothesis. Aggregate demand for timber is declining but utilization of timber is also changing. Shortage of supply in other regions is bringing new industry to Montana. This combination of circumstances places new and greater demands on Montana's forest resource. Growing demand for other uses of the forest increases competition. Trends need to be examined to determine policy and management needs to meet foreseeable need.

Method of Study. Personal interviews formed the basis for the problem investigation. All of the major mill owners in the state were interviewed concerning all phases of their operations. Equipment dealers, bankers, allied business men, and many other interested parties also provided data. Federal and state agencies were interviewed concerning public resource and policy aspects of raw material supply. Credit and investment data that pertained to the Montana forest products industry were obtained both in and out of the state. Appropriate statistical data required in the study were obtained from the literature and agency files.

Major Findings. The Montana forest products industry has made substantial growth in spite of the general decline in the demand for lumber. New industry has come into the state to replace the loss of sawmills. The larger mills are turning toward product diversification to take up the loss in lumber sales. New sawmills that are capable of utilizing small diameter logs have been established. Plywood plants have expanded in the last several years. A pulp and paper plant which utilizes mill residue has been established. The entire industry has been changing in overall structure and composition. The supply of raw material appears to be adequate for existing operations. The supply of pulp type raw material appears to be unlimited.

Expansion along these lines appears to be very possible. Lumber producers are having difficulty in adjustment. Forest land managers are endeavoring to adjust. (AWB)

83. BEEF CATTLE FEEDING IN THE NORTHERN GREAT PLAINS

Main Investigator: Warren L. Trock.

Status of Research and Publications: Research completed. Publication of research report is expected by December 15, 1962.

Agency: Montana State College, Department of Agricultural Economics, under sponsorship of Upper Midwest Research and Development Council.

Previous Digest report: 8:2-54.

Research Problem. The availability of feed, cattle and other resources in the Northern Great Plains has prompted farmers, ranchers and businessmen to become interested in the further development of cattle feeding. While prospects for new and expanded feeding enterprises appear to be good, a careful study of the potential and prospects for cattle feeding in the region is needed. The competitive position of Northern Great Plains cattle feeders needs to be determined, and the effects of an expansion in feeding should be estimated.

Hypothesis. It is hypothesized that cattle feeders in the Northern Great Plains can be competitive with feeders in other regions in the markets for fed cattle and that cattle feeding will, therefore, develop in the region.

Method of Study. Projections of resource use and probable production of agricultural commodities were employed to estimate future output of feed and cattle in the Northern Great Plains. Possible levels of production of fed cattle were then described.

The evaluation of the prospects for development of cattle feeding in the region was based on (1) observations of problems, needs and potentials of production, (2) an analysis of production costs, (3) a study of possible market outlets, (4) an analysis of marketing costs for fed cattle, and (5) other pertinent factors.

Conclusions were drawn relative to the likely development of cattle feeding in the region, and suggestions were made which would facilitate this development.

Major Findings. Factors which will contribute to or impede the development of cattle feeding include: (1) Data concerning costs of cattle feeding indicated that there are some cost advantages which might be exploited by Northern Great Plains cattle feeders. (2) There are and will be opportunities for marketing fed cattle in the growing west coast markets. (3) Seasonality of production of feeder and fed cattle is now a problem. Year-around feeding operations must be developed if feeders are to be competitive. (4) Changes and developments in the packing industry must be watched because of the effects they have on markets for fed cattle. (5) Cattle feeding in the Northern Great Plains will be increased so that by 1975 up to 1.5 million cattle will be placed on feed annually. This is about double the number on feed on an average in the 1956-60 period. (WLT)

84. A MANUAL OF PROCEDURES FOR THE OPERATING AND CAPITAL BUDGET PROCESSES IN LOCAL GOVERNMENTS AND A STUDY OF THE FEASIBILITY OF COMPARATIVE MEASUREMENTS

Main Investigators: Lennox L. Moak, John L. Fava, and Kathryn W. Killian.

Status of Research and Publications: Study begun in March 1961, scheduled for completion in March, 1963. All information relating to current practice in preparation, adoption, and administration of the operating budget has been obtained from 17 cities cooperating in study. Findings and conclusions have been written in draft form. Field work for determination or current practice in capital budgeting mostly completed. Feasibility study on comparative measurement techniques has been concluded; findings are also in rough draft form. Final report is anticipated in June, 1963.

Agency: Municipal Finance Officers Association, under sponsorship of Ford Foundation. For what portion of the project relating to the feasibility of comparative measurement techniques, the services of the Citizens Budget Commission, Inc. are being utilized.

Previous Digest report: 8:2-67.

Research Problem. In many respects this is not a research project; in others it is. The objective is to discover and record desirable practices in municipal budgeting and to make some contributions to knowledge in the field of feasibility of comparative measurements. Despite the wealth of literature in the field of budgeting, that relating to processes themselves is comparatively meager. Therefore, harassed finance officers are forced to live "according to their wits" to meet the exigencies of their local situation -- particularly in the field of capital budgeting. The current project seeks to determine from existing practices the desirable elements of the operating and capital budget processes and to provide some re-evaluation of those elements traditionally included in these processes as well as those currently excluded.

Previous Relevant Research. Previous research has been conducted over the past six years by the Citizens Budget Commission in the field of work measurements and over the past two decades by the Municipal Finance Officers Association in the field of improved budgetary techniques for operating budgets.

Method of Study. The study initially involved development of an outline for the project itemizing the bases and steps in the operating and capital budget processes. Compilation of a bibliography relating primarily to budgeting in local governments has begun. Primary source materials for the study have been received from fourteen cities in the United States and three cities in Canada. Each city has submitted selected documents relating to local budget preparation, execution, and control. Currently, these documents are being reviewed and a description of the budget process as it is currently practiced is being drafted. In addition, research is being conducted to determine the fields in which work measurements are feasible and useful. The findings of each of the foregoing are being analyzed to segregate the elements of a desirable budget process. In order to complete this study, consultants have been engaged for review of the draft materials. (LLM)

85. STATE ECONOMIC PROJECTIONS

Main Investigator: Sidney Sonenblum.

Status of Research and Publication: The Outdoor Recreation Resources Review Commission Report No. 23 will contain the 1976 State projections on population, labor force, and income prepared by the National Planning Association. The report will be published in November, 1962.

Agency: National Planning Association.

Previous Digest report: 8:2-69; 9:1-48. (SS)

86. OCCUPATIONAL EMPLOYMENT PROJECTIONS FOR SOUTHERN STATES

Main Investigators: Mannie Kupinsky, Paul Schweitzer.

Status of Research and Publication: Preliminary planning and collection of data underway

Agency: National Planning Association.

Previous Digest report: None.

Research Problem. Analysis of state changes in occupational distribution of employment under the impact of emerging economic conditions such as new technologies, changing consumption habits, inter-regional migration of plant and people, and the private and public policies designed to adjust to these changing conditions. (SS)

87. REGIONAL ECONOMIC PROJECTIONS SERIES

Main Investigators: Sidney Sonenblum and Mannie Kupinsky.

Status of Research and Publication: Total employment for 1947, 1957, 1960 and 1976 estimated for eash State by major industry division and two-digit manufacturing industries. Personal income and components (such as labor income, proprietors income, etc.) and gross product originating and components (such as employee compensation, dividends, interest, etc.) estimated for each State for 1947, 1957, and 1976. Total population projected to 1976 for each State. Estimates of age and sex distribution in 1976 for each State in preparation. The employment, income, gross product originating, and population data with analyses of these data comprise the 1962 edition of the Regional Economic Projections Series. The first report of the Series covering employment has been published. The Series is available on an annual subscription basis.

Agency: National Planning Association.

Previous Digest report: 7:2-p. 53. (SS)

88. THE OMAHA RESIDENTIAL REAL ESTATE MARKET

Main Investigators: Edgar Z. Palmer and Frank X. Murray.

Status of Research and Publication: Almost ready to go to the printers.

Agency: University of Nebraska, Bureau of Business Research.

Previous Digest report: None.

Research Problem. This project represents a study of the private real estate market of Omaha and vicinity. The purpose of the study is to examine the real estate transactions of this area to determine the cause and effect relationships that may influence the market.

Method of Study. Only individual private dwellings were included in the study; all commercial and industrial buildings, apartments, and other nonresidential structures were excluded. It was thought that (1) newer houses would be more desirable and therefore easier to sell at a greater portion of the asking price; (2) the demand for houses with a larger number of rooms would be greater due to the increase in family size since the war; (3) higher priced houses would be more difficult to market; and (4) sellers waiting longer to complete their sales would on the average receive a lower percentage of their original asking price. Other aims of this study were to find which factors can best explain the variation in sale prices, and to see if there are any variables which could give some indication of the condition of the real estate market.

The listings of the Omaha Realty Exchange Board were used as a basis for this study and are assumed to be representative of all real estate activity in the Omaha area. From these listings a sample was selected and used as a basis for determining the results and conslusions. (EZP)

89. THE NEW JERSEY REGIONAL URBAN RENEWAL SURVEY

Main Investigators: Sidney L. Willis and Walter D. Gaby.

Status of Research and Publications: All of the research has been completed.

Nine technical reports and final report are in draft form and are being reviewed by the Urban Renewal Administration. Printing of the publications awaits the authorization of the Federal government.

Agency: State of New Jersey, Department of Conservation and Economic Development, Division of State and Regional Planning, and Rutgers University, under sponsorship of U. S. Housing and Home Finance Agency.

Previous Digest report: 8:2-71. (SLW)

90. THE INDUSTRIAL DISTRIBUTION OF EMPLOYMENT, PATTERNS AND CHANGE 1947-1967

Main Investigator: Lowell D. Ashby.

Status of Research and Publications: Preliminary draft, 90 per cent complete.

Agency: University of North Carolina, School of Business Administration.

Previous Digest report: None.

Research Problem. The achievement of understanding concerning the employment structure of the nine Census divisions, the forty-eight states and the District of Columbia.

Previous Relevant Research. By the same author "Economic Orientations to Urbanization" and "Industrial Development Trends and Economic Potential" in Urban Growth Dynamics In a Regional Cluster of Cities (Chapin-Weiss, Editors) New York: John Wiley and Sons, Inc., forthcoming. (See Research Digest 9:1-52.) By the same author: The North Carolina Economy, Its Regional and National Setting with Particular Reference to the Structure of Employment. Research Paper Number 7, viii, 305, School of Business Administration, University of North Carolina, Chapel Hill, March 1961. (See Research Digest 9:1-53.)

Hypotheses. While many hypotheses are suggested, not all are subject to formal test, since the data used are at a rather high level of aggregation. Decisions in firms, families and governmental units usually are made in fine detail concerning the exact industrial-regional commitment.

Various measures are applied, however, to check the hypothesis that regions and states are becoming more diversified and structurely more alike.

Method of Study. The basic methods are empirical. Techniques applied permit analysis of employment expansion rates into portions related to industry mix and portions related to the unique competitive performance of the region.

Also a new index has been devised which permits differentiation of structural from non-structural displacement in the growth process.

Major Findings. It is found that the competitive effects in regions are becoming stronger relative to the compositional (industry mix) effects. This is apparently the result of the increasing industrial "homogenization" of regions. (LDA)

91. INDUSTRY AND LOCAL GOVERNMENT

Main Investigator: Ruth L. Mace.

Status of Research and Publication: Completed. Publication expected early 1963.

Agency: University of North Carolina, Institute of Government.

Previous Digest report: 6:2-30.

Research Problem. An examination of relationships among new plants, industrial development organizations, and municipal governments in ten North Carolina cities. (RLM)

92. CHANGES IN CENTER CITY PROPERTY VALUES, 1950-1960, IN TWO NORTH CAROLINA CITIES

Main Investigator: Ruth L. Mace.

Status of Research: To be completed before the end of this year. This will be prepared for publication as a magazine article.

Agency: University of North Carolina, Institute of Government, in cooperation with the Greensboro (N.C.) City Planning Department, the Greensboro firm of Robins and Weill, and the Forsyth County Tax Department.

Previous Digest report: None.

Research Problem. An examination of trends in the value of real property in the central areas of Greensboro and Winston-Salem, North Carolina in the decade of the fifties.

Method of Study and Major Findings. These will be set forth in a paper currently in preparation which will be available in mimeographed form in late November. Hopefully, it will appear in one of the professional journals in early 1963. (RLM)

93. STUDY OF MUNICIPAL FINANCES IN NORTH CAROLINA

Main Investigator: Warren Jake Wicker.

Status of Research and Publication: Research is approximately 75% complete. Publication of findings (offset) expected during spring of 1963.

Agency: University of North Carolina, Institute of Government.

Previous Digest report: None.

Research Problem. To determine the patterns of municipal revenues and expenditures among North Carolina cities; to indicate trends with respect to both between 1950 and 1960; and to analyze these findings, in light of the allocation of responsibility for governmental functions among the cities, the counties and the State, and in relation to size of city, growth rates, and general fiscal policies.

Method of Study. A uniform classification of revenues and expenditures has been developed into which audited revenues and expenditures of a 33-city sample are being placed. In addition, information on a statewide basis (415 Municipalities) is being developed with respect to selected classes of both revenues and expenditures. (WJW)

94. AN IDENTIFICATION OF COMMUNITIES IN THE UNITED STATES MAKING THE GREATEST PROGRESS IN COMPREHENSIVE PLANNING AND DEVELOPMENT

Main Investigator: Julia Anne Connolly (under direction of John A. Parker and Robert T. Daland)

Status of Research and Publication: Available from Urban Studies Program, P. O. Box 1167, Chapel Hill, N.C. $1.00.

Agency: University of North Carolina, Institute for Research in Social Science Urban Studies Program.

Previous Digest report: 5:2-10.

Research Problem. The purpose of this study was to formulate and test an approach for evaluating the quality of local planning throughout the nation. The information derived from this study and subsequent refinements will be used to identify the outstanding planning programs for more intensive research in the parent study, The Role of the Planner. The aim of the latter study is to identify the role or roles played by the planner in the performance of his position, as perceived by planners and others, to consider trends that may affect the planner's role, and to relate the findings of such investigations to planning education.

Previous Relevant Research. Robert T. Daland and John A. Parker, "Roles of the Planner in Urban Development," Chapter 7 in Urban Growth Dynamics (Chapin and Weiss, editors), New York: John Wiley & Sons, Inc., 1962.

Major Findings. While this report makes no pretense to present definitive conclusions, there are, however, general observations that seem reasonable to make about the results of the questionnaire. First, there are at least 20 communities or areas in the United States that are consistently considered to be making the greatest progress in comprehensive planning and development. Second, it is indicated that the greatest progress in planning is being made in the East, North Central and Pacific regions in cities with a population of over 200,000. Third, the panel members generally selected the local public planning agency as the organization responsible for the achievements in planning. Likewise, the survey indicated that the director of the public agency is the individual most frequently accountable for the success of the planning program. Other inferences and observations have been made in this report, but these are considered to be the most reliable. (JAP)

95. FACTORS INFLUENCING LAND DEVELOPMENT: EVALUATION OF INPUTS FOR A FORECAST MODEL

Main Investigators: F. Stuart Chapin, Jr., and Shirley F. Weiss, in collaboration with Thomas G. Donnelly.

Status of Research and Publications: Completed. Available from Urban Studies Program, P. O. Box 1167, Chapel Hill, N. C., August 1962. $3.00.

Agency: University of North Carolina, Institute for Research in Social Science, Urban Studies Program, under sponsorship of U. S. Bureau of Public Roads.

Previous Digest report: None.

Research Problem. The objectives of this study were: (1) to perfect an approach for analyzing a range of factors commonly associated with land development to determine their influence, individually and in various combinations as a mix, on the distribution and intensity of development in a metropolitan area, and (2) to utilize these results in the formualtion of an apporach to forecasting land development in a metropolitan area. The influence of highways on patterns of land development in urban areas was given special attention in relation to other factors that precondition an area for development.

Previous Relevant Research. F. Stuart Chapin, Jr., G. C. Hemmens, and Shirley F. Weiss, in collaboration with Thomas G. Donnelly, Land Development Patterns in the Piedmont Industrial Crescent, Urban Studies Program, P. O. Box 1167, Chapel Hill, N. C., December 1960, $1.00; (Digest report 7:2-41; and Chapter 13 in Urban Growth Dynamics (Chapin and Weiss, editors), New York: John Wiley & Sons, Inc., 1962.

Major Findings. On the basis of the combined experience of the present study and the 1958-60 pilot study under a grant from the Ford Foundation, some firm observations were made about the analytical framework utilized in explaining land development factors. As a research tool multiple regression analysis was found to be useful and flexible, but not necessarily precise in filtering out the net influence of independent factors. While the statistical technique is quite valid, the nature of the inputs is such that it is almost humanly impossible to specify independent variables that are "pure" in the sense that they have little intercorrelation with other independent variables. In the case of the Greensboro, N. C., urban area, 14 independent variables were culled for final testing. Allowing for crude time lags, these succeeded in explaining 66.7 per cent of total land in urban use in 1960, and 52.9 per cent of dwelling density in 1960. Seven independent variables demonstrating a strong influence in the mix were finally selected for consideration as inputs in the forecast model: marginal land not in urban use, accessibility to work areas, assessed value, travel distance to nearest major street, distance to nearest available elementary school, residential amenity, and availability of sewerage. Whether all these variables are manageable for inclusion in the forecast model, and whether an even smaller number can be selected, remains to be determined. This concern for manageable variables, it should be noted, led to the shift in focus from explaining deviation from a circular normal template in the pilot study to explaining the observed pattern of development in the present study.

The probabilistic synthetic model formulated in this study, and described in a schematic diagram, is a dynamic model with a recursive feature to permit distribution of development in increments. It is a construct for the simulation of the many interrelated human actions that follow from decisions to put land into use for urban activities. However, it is an incomplete model, in that it does not take into account the behavioral decision variables but deals only with actions that follow from the decisions. In a broader sense it is only one system of a series of systems which regulate the course of events in the development of urban areas. The model proposed is in a provisional form, and even assuming modifications in the course of experimental tests currently underway, it is bound to require further modification when used in a large systems analysis framework, which takes into account economic, cultural, as well as physical considerations of urban development. (FSC, Jr., and SFW)

96. INDUSTRY AND TRANSPORTATION STUDY, EUGENE-SPRINGFIELD AREA, OREGON

Main Investigators: Donald N. Johnson, Don V. Martin, William Haly III, and J. David Rowe.

Status of Research and Publications: Research completed and results published in three volumes as follows: Part I. Employment Forecast, An Estimate of Lane County Employment for 1980-85. Part II. Industrial Location, A Study of Future Land Needs and Location of Industry. Part III. Highway Study, A Research Study of Traffic Patterns and Highway Needs for 1960 and 1980-85. Part III is published in two sections which are available separately (Section I: Highway Use and Needs; Section II: Study Procedures and Premises.)

Agency: University of Oregon, Bureau of Municipal Research and Service under sponsorship of Central Lane Planning Council, City of Eugene, City of Springfield, Lane County, Oregon State Highway Department, U. S. Housing and Home Finance Agency and U. S. Department of Commerce, Bureau of Public Roads. (DNJ)

Previous Digest report: 8:1-55, 8:2-78.

Research Problem (Part I.) To develop a method to aid in forecasting future employment which measures extent to which employment in various industries in areas of similar size is associated with the population levels of the areas.

Previous Relevant Research. Studies by National Resources Planning Board; P. Sargent Florence; Alexandersson, and others.

Method of Study. Employment was tabulated for 147 classifications for each of 35 SMSAs in nation with population of from 200,000 to 300,000. Ratios of employment per 1,000 persons were computed, and indexes of area employment variation were developed.

Major Findings. Indexes for 25 manufacturing industries and 77 non-manufacturing industries were within a reange in which the relationship between population and employment was considered a significant factor.

Research Problem (Part II.) To develop a method to forecast existing and future traffic pattern through use of gravity model without use of home interview O-D study.

Previous Relevant Research. Gravity models developed by Alan M. Voorhees and others.

Method of Study. Detailed studies of existing and future employment, population, dwelling units, and car ownership for the zones within the area were prepared. Analyses were also made of the distribution of vehicle trips by purpose, the average number of trips per vehicle, interzonal travel times, and travel time factors by trip purpose. Comprehensive traffic counts at a number of screen lines were made.

Major Findings. Zone-to-zone traffic volumes for the present period can be estimated through use of a gravity model, provided that the model can be tested and adjusted by comparing the results with traffic counts at a large number of screen lines within the area.

97. ANALYSIS OF TRIP DISTRIBUTION IN AN URBAN AREA

Main Investigator: Anthony R. Tomazinis.

Status of Research and Publication: Research Completed.

Agency: Penn-Jersey Transportation Study.

Previous *Digest* report: [illegible]:1-58.

Major Findings. Tests were conducted on total auto person trips, total transit person trips, first work auto trips, first work transit trips, and truck trips. The tests have demonstrated an ability to simulate (and predict) the pattern of the trips of urban activities.

The method model is based on the probability theory. It is based on the following two assumptions: (a) that the destination of a trip is selected among trip destinations with equal probability of attraction; and

(b) that for a given outcome of a trip purpose the shorter the trip the greater the satisfaction it provides to the traveler.

The mathematical expression of these two assumptions produces the model of trip distribution utilized by the PJ Transportation Study. (ART)

98. PROJECT WAMBY, THE ECONOMIC AND SOCIAL IMPACT OF NEW AND IMPROVED HIGHWAYS

Main Investigators: John C. Frey, Robert D. Pashek, and H. Kirk Dansereau.

Status of Research and Publications: Research on one segment of project, the Blairsville Case Study, reported below, is complete. Published as Blairsville: A Bypass Study, The Economic and Social Impact of a Highway, A.E. & R.S. 35, The Pennsylvania State University, University Park, Pennsylvania, 1962.

Agency: Pennsylvania State University, Department of Agricultural Economics and Rural Sociology, College of Business Administration, and Department of Sociology under sponsorship of Pennsylvania State Department of Highways and U. S. Bureau of Public Roads.

Previous Digest report: None.

Research Problem. To analyze the socio-economic change that occured during the period 1949-59, and to relate these phenomena to the relocation of U. S. 22, an open access highway which bypassed the Blairsville Business District in 1953.

Previous Relevant Research. Many other highway research projects in various states have carried out and published bypass studies. The Blairsville study drew upon this material and upon the research reported in The Economic and Social Impact of Highways: A Progress Summary of the Monroeville Case Study, Progress Report 219, the Pennsylvania State University Agricultural Experiment Station, University Park, Pennsylvania, 1960 and in Planned Versus Unregulated Development in a Pennsylvania Community, A Case Study, A.E. & R.S. 23. The Pennsylvania State University, University Park, Pennsylvania, 1960.

Method of Study. Historical case study data were back-dated for the study period, through the use of records of local, county, state and federal governments and private profit and non-profit making organizations. Techniques of analysis were those in current and common use by economists and sociologists.

Major Findings. Community leaders and "average citizens" felt that the bypass has proved beneficial. Benefits were thought to acrue to both users and to non-users.

New land uses along the bypass were predominately commercial and light industrial. The land use pattern along the old route (through the business district) remained virtually unchanged. Factors other than the bypass accounted for the greater part of the land use change in the borough during the years 1949-59.

Rates of increase in the value of taxable real property for Blairsville as a whole for the study period appeared to be unaffected by the bypass. However, rates of increase in the value of taxable real property were higher along the bypass than for the rest of the borough.

There is no evidence that the construction of the bypass was related to change in the cost of local government. On the other hand, there was some evidence that the bypass had some effect upon local taxation.

While the number of businesses in the Blairsville area declined slightly during the period 1949-59, employment and power consumption increased. Removal of through traffic made the main business district more attractive as a place to stop. Of the ten new businesses located on the bypass, eight were highway-user oriented.

The removal of through traffic from the main business district alleviated but did not eliminate congestion. Had the bypass not been built, it was estimated that congestion would occur from 7:00 A.M. until 12:00 midnight in 1959.

Change in population appeared not to have been related to the construction of the bypass. The pattern of functional distribution of the labor force remained unchanged. There was a heavy out-migration of teen-age and young adult population.

Blairsville experienced heavy in-migration during the study period. In-migrants were better educated and had a higher median income than the non-migrants. In-migrants had a greater degree of participation in community activities than non-migrants. (CPG)

99. THE SPATIAL DISTRIBUTION OF RESIDENCES AND WORK PLACES IN URBAN AREAS

Main Investigator: Louis K. Loewenstein.

Status of Research and Publication: Completed. (Doctoral dissertation.)

Agency: University of Pennsylvania, Department of City Planning.

Previous Digest report: None.

Research Problem. This dissertation is an empirical study of the location of residences and work places as they are differentiated by eight major industrial categories. From these spatial distributions an approach was suggested to simulate and to study the journey-to-work, based on the flow of employees from home to work within five concentric circles encompassing an urban area. Moreover, a new method was offered for comparing the location of urban land uses between and within cities, a comparative study was made of the journey-to-work patterns in five cities, and a technique was illustrated for converting data from the 1960 Census into spatial parameters. Throughout the study emphasis was placed on: (1) explaining the reasons for the observed locational patterns based on the nature of these activities, and (2) showing the differences between, and the similarities within these industrial categories with respect to their spatial properties.

Method of Study and Hypotheses. The approach suggested for simulating the journey-to-work bypasses the typical origin and destination study and instead is based on synthesizing empirical regularities in the spatial distribution of places of work and places of residence which were noted in five urban areas. Two assumptions underlie this approach: (1) the type of activity which characterizes a work place is of fundamental importance in determining where that work place is located, and (2) the location of a residence is, in part, affected by the location of the particular work place which engages the employee since he seeks to minimize his journey-to-work, *ceteris paribus*. Hence, there is an association between the location of residences and the type of activity in which the household head is engaged.

Major Findings. That the location of work places was spatially differentiated by the industry of employment was demonstrated by studying both visually and statistically the location of land uses in 44 cities. A method was devised which standardized various land use arrangements onto a common scale consisting of five concentric rings. The allocation of land devoted to different uses was computed with a single measurement, the index of concentration. An analysis of variance was made indicating that there was a greater difference in these allocations between these eight categories than within them; i.e. there was a significant difference in these land use patterns at the 1% level ("F"=6.82 with 3.18 being considered significant). Other analytical methods were used to show that the location of residences and the trips between home and work were similarily differentiated by the industry of employment.

Data from transportation studies in Chicago, Detroit, Pittsburgh, Minneapolis, and St. Paul were obtained and the percentage distribution of the number of employees who lived and worked in each of the five rings was computed for each industry of employment. The unweighted arithmetic means of these percentages were determined. In conjunction with the number of workers who live in an urban area as reported by the U. S. Census for each industrial type, these values may be used to distribute the worker's trips to any one of the rings from any one of the rings. A further refinement of this annular distribution was explained which involved the superimposition of a comparably derived sectoral distribution of residences and work places. This method was illustrated for the Philadelphia area and compared with empirical data from an origin and destination study in the region. (LKL)

100. MOTIVE FORCES BEHIND THE PHYSICAL FORM OF THE SPANISH COLONIAL CITY OF 16TH CENTURY SOUTH AMERICA

Main Investigator: Ralph A. Gakenheimer.

Status of Research and Publications: Research completed during two years in Peru and at principal sources of documantation in North America. Manuscript in process.

Agency: University of Pennsylvania, Department of City Planning. (Doctoral dissertation.)

Previous Digest report: None.

Research Problem. To inspect the social, political and economic fabric, as well as the physical form, of the city of 16th century Peru to explain its particular physical structure and character, organization and use of land and character of establishments.

Previous Relevant Research. Master's thesis, which concerned the influence of the Spanish laws for founding of towns on the character of the colonial city in Latin America.

Hypotheses. The social, political and economic character of the urban civilization of the time will be significant indicators of physical form and that their regulation by various agents provides a highly controlled context for study of these cities. (RAG)

10[illegible]. DATA REQUIREMENTS AND METHODS OF ANALYSIS FOR METROPOLITAN ECONOMIC PLANNING AND DEVELOPMENT IN PENNSYLVANIA

Main Investigators: Morris Hamburg and John H. Norton.

Status of Research and Publications: First of three reports, Economic Base Studies for Urban Planning and Development in Pennsylvania completed and available from Bureau of Statistics, Department of Internal Affairs, Room 286, Capitol, Harrisburg, Pennsylvania.

Agency: University of Pennsylvania, Department of Economic and Social Statistics, under sponsorship of Commonwealth of Pennsylvania, Department of Internal Affairs.

Previous Digest report: None.

Research Problem. The first report presents a description and evaluation of economic base studies which have been carried out in Pennsylvania under the Urban Planning Assistance Program ("701 program") of the Federal Housing and Home Finance Agency. The second study will be an evaluative report on data availability for economic studies used in connection with metropolitan planning and development in Pennsylvania, with recommendations on possible improvements, changes and innovations in types of data which might be used for this purpose. The third and final study will attempt to construct a method for analyzing factors in metropolitan development for the purpose of enabling planners to study the implications and outcomes of alternative planning policies. Recommendations will be made on desirable types of metropolitan economic analysis.

Major Findings (First Study. The major deficiency of the "701" economic studies in Pennsylvania is their descriptive nature and lack of analytical content. Generally, there seemed to be a direct relationship between size of area studies and the depth and completeness of the surveys. There was a general absence of careful statistical or economic analysis of past trends, the lack of explicit statements of relationships between relevant demographic and economic factors or serious analysis of dynamic factors making for change in underlying structural relationships. Projections tended to be based on unstated and unformalized presuppositions.

There seems to be a need for the adoption of logical frameworks of analysis in the "701" economic base studies. More careful and detailed specifications of community and regional long range goals are needed. While doubtless much of the information assembled in the "701" economic base studies is potentially useful, there appears to be considerable room for improvement, both from the standpoint of furnishing of more specific and more carefully formulated guidelines by sponsoring agencies and the carrying out of studies with greater depth and utility by the consultants or planning groups. (MH)

102. LOCAL AND REGIONAL IMPACT OF MILITARY EXPENDITURES IN THE UNITED STATES

Main Investigators: Walter Isard, James Ganschow and others.

Status of Research and Publications: In process. Unadjusted primary data resulting from first phase of study published as Awards of Prime Military Contracts by County, State, and Metropolitan Area of the United States, Fiscal Year 1960. Regional Science Research Institute, G.P.O. Box 8776, Philadelphia 1, Pennsylvania, 128 pages. Libraries, businesses and government agencies, $2.00 Individuals, educational, religious and other non-profit groups, $1.00.

Agency: University of Pennsylvania, Department of Regional Science, under sponsorship of U. W. Department of Commerce, Area Redevelopment Administration.

Previous Digest report: None.

Research Problem. To analyze and evaluate local and regional economic effects of changes in levels and composition of defense expenditures. (WI)

103. TRIP LENGTHS AMONG URBAN ACTIVITIES

Main Investigator: Anthony Tomazinis.

Status of Research and Publications: In process.

Agency: University of Pennsylvania, Institute for Urban Studies, under the sponsorship of the U. S. Bureau of Public Roads.

Previous Digest report: None.

Research Problem. This study proposes to study and analyze in depth the variations of the length of trips made by the people living in the Philadelphia-Camden-Trenton urban complex. Relationships between the trip length and the type and location of an establishment, the density of the area, the type of the area, the income of the households, the mode of travel and the purpose of travel will be investigated with the help of electronic computers. The project will be based on the data collected and already initially processed by the Penn-Jersey Transportation Study. In this respect the project is the first analysis in depth of the pertinent data collected by the P.J.T.S. and carries the professional analysis attempted currently by the staff of P.J.T.S. into the areas of advanced research which might ultimately help P.J.T.S. and other planning agencies in this or other urban areas to recommend land-use patterns and transportation systems which maximize the satisfaction of the people in the area and provide the maximum return for each dollar spent on transporation investments. (GM)

104. RELOCATION OF ELDERLY PERSONS

Main Investigators: Chester Rapkin, Mary K. Nenno,

Status of Research and Publications: Three and one-half year study, recently initiated.

Agency: University of Pennsylvania, Institute of Urban Studies, in cooperation with National Association of Housing and Redevelopment Officials, and under sponsorship of the Ford Foundation.

Previous Digest report: None.

Research Problem. The study is devoted to finding procedures for ameliorating the plight of elderly persons who are relocated because of urban renewal, highway construction, and other governmental programs. This project consists of two parts. First, a series of papers will be prepared dealing with the housing problems of the elderly in general and their relocation needs specifically. Second, demonstration projects will be undertaken in approximately five cities, to be selected by the Ford Foundation, to test methods through which the relocation of elderly persons can be facilitated. A final report will be issued containing the study papers and summaries of the experiments conducted in the various cities, and with discussion of the possible application of lessons gained to relocation in other cities or to other groups of persons being relocated. (GM)

105. THE DECLINE OF CITIES

Main Investigator: Erwin A. Gutkind

Status of Research and Publications: Completed. Published October, 1962, by the Free Press of Glencoe.

Agency: University of Pennsylvania, Institute for Urban Studies.

Previous Digest report: 3:2-51.

Major Findings. This book focuses on how the city can regain its creative leadership. It explains the dissociation of city life from the great promises it held and establishes the foundations for a new structure of settlement and pattern of living. The development of cities is reviewed against the historical background of changing concepts of space, time, and scale, and the social implications of this evolution is discussed. A program of action is offered to deal with the problems of space, scale and sprawl, with decentralization, dispersal and regional and national planning; and with the implications of increased mobility. The author's proposals would integrate the neglected countryside and overvalued urban communities in new and efficient ways. (GM)

106. HOUSING [illegible] POLICY

Main Investigator: William G. Grigsby.

Status of Research and Publication: To be published in Spring, 1963 by the University of Pennsylvania Press.

Agency: University of Pennsylvania, Institute of Urban Studies, under sponsorship of Ford Foundation.

Previous Digest report: None.

Major Findings. This study examines selected aspects of the structure and dynamics of housing markets in an attempt to illuminate various issues of public housing policy both at the national and local level. Among the specific areas that are examined are the market for new construction, maintenance of the standing stock, filtering, and the various existing and potential programs of urban renewal. (GM)

107. THE PLACE OF THE IDEAL CITY IN URBAN PLANNING

Main Investigator: Thomas A. Reiner.

Status of Research and Publication: To be published in fall of 1962 by the University of Pennsylvania Press.

Previous Digest report: 6:1-20.

Major Findings. This monograph is a presentation and analysis of the efforts to present solutions to twentieth century urban renewal problems which have been made in the form of ideal communities. It considers the principles and propositions upon which these are based, goals they would achieve, and the implication of these for city planning. (GM)

108. REQUIREMENTS FOR OPEN SPACE LAND IN URBAN AREAS

Main Investigators: William L. C. Wheaton, Ian McHarg, Paul Davidoff, William Grigsby and Mohad Toulan.

Status of Research and Publications: Research still in early stage of collecting information and data. It is expected that the first of two reports will be ready for publication early in the Spring of 1963.

Agency: University of Pennsylvania, Institute for Urban Studies, under sponsorship of The Urban Renewal Administration, the Commonwealth of Pennsylvania, and the State of New Jersey.

Previous Digest report: None.

Research Problem. The project consists of several studies designed to determine the requirements and the needs for open space in metropolitan areas. The outline of each study, however, is so arranged that the final findings will fit in an over-all comprehensive report on the various aspects involved in preserving open land.

Method of Study. The first study involves the preparation of estimates of prospective requirements for each class of open space in terms of area and location. The Philadelphia Standard Metropolitan Area was chosen as a case study. A second study will examine the suitability of various types of controls, or public policies to achieve the reservation of open space in accordance with the classification system developed in the first study.

The third study consists of three phases--the first of which examines the economics of development rights; the second will estimate the actual costs of a complete package program in the Philadelphia Metropolitan Area; and the third will examine the fiscal consequences of alternative open space programs as one way of approaching the question of the fiscal and political feasibility of a broad-gauge program. The major impact studied would be the consequences for the property tax in various types of local government jurisdictions. The fourth study involves Design Treatment in Open Space, which will limit itself to the treatment of the kinds of metropolitan open space which are eligible for Federal grants under the Housing Act of 1961. (GM)

109. MIGRATION AND URBANIZATION IN THE UNITED STATES, WITH SPECIAL REFERENCE TO RECENT TRENDS

Main Investigators: D. S. Thomas, H. T. Eldridge and A. R. Miller.

Status of Research and Publications: Two technical reports have already been issued: Population in 1960 of Areas Annexed to Large Cities of the United States between 1950 and 1960 by Age, Sex, and Color (Technical Paper No. 1, November 1961) and Population in 1960 of Areas Annexed to Large Cities of the United States between 1950 and 1960 by Household Relationship and Marital Status (Technical Paper No. 2, August 1962). A third such report is now being compiled and will deal with the adjustment of data on family income to obtain area comparability between 1950 and 1960.

Agency: University of Pennsylvania, Population Studies Center.

Previous Digest report: 8:2-85.

Research Problem. Analysis of selected aspects of the growth of the largest cities of the United States and their metropolitan areas in recent decades. Emphasis is on changes in population size and composition effected by migration and on concomitant trends in other social and economic characteristics. The primary source materials are from the censuses of population and arrangements have been made with the Bureau of the Census for certain special tabulations of 1960 Densus data on migration to cities. (DST)

110. NEW RESIDENTIAL CONSTRUCTION IN OLDER NEIGHBORHOODS OF PHILADELPHIA FROM 1951 TO 1960

Main Investigators: Bernard C. Meltzer, Albert Greenfield and Company.

Status of Research and Publications: Study is part of an Urban Renewal Demonstration Project. Interim Report No. 7 authorized for release May 25, 1962. 105 pp., mimeographed. Limited number of copies available from agency.

Agency: City of Philadelphia, Redevelopment Authority, under sponsorship of U. S. Housing and Home Finance Agency.

Previous Digest report: 8:2-87.

Research Problem. This study is concerned with the problems connected with the filling in of existing gaps or gaps which may be created by clearance in rehabilitation neighborhoods. The primary purpose of the study is to develop a guide to judge the feasibility of building new houses to fill gaps in residential neighborhoods.

Method of Study. One hundred properties in older neighborhoods on which new dewllings had been constructed between 1951 and 1960 were studied by means of an intensive program involving owners, builders, realtors, officers or mortgage lending institutions, inhabitants of the neighborhoods studied, and the local tradesmen.

Major Findings. Older areas where new houses were constructed were generally in good physical condition, and were characterized by good neighborhood homogeneity. The ethnic factor is a most important determinant of new construction in older neighborhoods. Economic motivation, expressed as the desire for a good investment or for rental income, appeared to be the primary factor responsible for the new houses in only one-third of the cases studied.

New construction in older areas has tended to suffer from a heavy financing penalty. Lack of available sites at reasonable prices was also a major factor in inhibiting new construction in older areas. In general, it appears that, under circumstances similar to those in the cases studied, it is both desirable and practical to encourage construction of new homes in older neighborhoods. (WHL)

111. URBAN RENEWAL IMPACT STUDY

Main Investigator: B. Warner Shippee. Edward E. Smuts, consultant.

Status of Research and Publications: Research completed. Final reports being prepared for early publication.

Agency: Action-Housing, Inc., Pittsburgh. Other sponsoring, cooperating and consulting agencies: Allegheny Conference for Community Development; Allegheny County Redevelopment Authority; City of Pittsburgh; Health and Welfare Federation of Allegheny County; Pennsylvania Economy League (Western Division;) Pittsburgh Regional Planning Association; Regional Industrial Development Corporation, University of Pittsburgh; Urban Redevelopment Authority of Pittsburgh.

Previous Digest report: None.

Research Problem. The Urban Renewal Impact Study is an analysis of the total problem of blight and decay in Pittsburgh and Allegheny County and the scope and complexity of a comprehensive urban renewal program.

Major Findings. The study finds that urban renewal in Pittsburgh has made substantial accomplishments during the past eighteen years. Nevertheless, renewal projects in planning or underway will affect only 16 per cent of the deficient housing in Allegheny County. Eighty of the 129 municipalities in the County have substantial problems of blight but only 13 have undertaken plans for renewal.

The Study calls for an organized and programmed advance on the local renewal front, with new resources of thought, administrative technique and finance marshalled to support the commitment already made to community improvement and renewal.

The major specific recommendations coming from the Study include: (1) Take advantage of population trends and housing requirements and adapt urban renewal efforts to these trends and requirements. The Study identifies the next few years (1962 to 1968) as the most opportune time to push ahead with urban improvement in Allegheny County -- before family formation of the large post-war generation intensifies the demand for housing and upon community favilities. (2) Use urban renewal to strike at the sources of blight and to enhance economic opportunity rather than limit renewal to the removal of symptoms. (3) Establish and sustain County-wide renewal leadership through the County government, County programming and County sources of financing. (4) Encourage the development of program financing rather than project financing in the Federal Urban Renewal Program.

(5) Develop programs for the preservation and renewal of steep slope areas which make up much of Allegheny County's most picturesque natural heritage. (6) Coordinate urban renewal with highway planning, with school planning and with other capital improvement programs from planning through execution. (BWS)

112. DATA PROCESSING AND SIMULATION TECHNIQUES

Main Investigator: Richard K. Gruenther.

Status of Research and Publications: Report published by agency, October, 1962. 42 pp. Offset.

Agency: City of Pittsburgh, Pennsylvania, Department of City Planning.

Previous Digest report: None.

Research Problem. To examine possible use of simulation techniques in planning and administration of cities and urban regions, with particular reference to urban renewal and to the centralized information system presently being established in the Pittsburgh Department of City Planning. (RKG)

113. ECONOMIC STUDY OF THE PITTSBURGH REGION

Main Investigators: Edgar M. Hoover, Benjamin Chinitz and Ira S. Lowry.

Status of Research and Publications: The findings of the study will be reported in a series of volumes to be published in 1963 by the University of Pittsburgh Press. The first of these volumes includes the analysis of the regional economy as a whole and its historical evolution. The second volume analyzes the economy of the Region in terms of its component geographical areas. The third volume assesses future trends and potentialities for economic change. A fourth volume will be a concise summary of the over-all findings of the Study. Additional detailed and technical material may be issued subsequently in monograph form.

Agency: Pittsburgh Regional Planning Association, under sponsorship of Ford Foundation and the Regional Industrial Development Corporation of Southwestern Pennsylvania, with some Commonwealth of Pennsylvania funds.

Previous Digest reports: 7:2-51, 8:2-88.

Research Problem. (1) To analyze the economy of the Pittsburgh Region and of areas within it; to identify the principal economic factors in the Region's development; to provide a basis for anticipation of economic change in the Region and for sound private and public planning. (2) To lay the groundwork for a continuing process and organization which regularly thereafter will take the pulse of the regional economy, and which may serve as a pioneer model for similar undertakings in other metropolitan regions. (3) To advance the study of regional economics. (EMH)

114. THE AMERICAN METALS COMPLEX

Main Investigators: Edgar M. Hoover, Alan E. Fechter, and others.

Status of Research and Publication: Research beginning in fall of 1962, to continue into spring of 1964. No specific publication plans as yet.

Agency: University of Pittsburgh, Center for Regional Economic Studies under sponsorship of Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. This is an analysis of the major metal-producing and metal-working industries of the United States viewed as an industrial complex in relation to that area in the northeastern United States whose past and potential structure and development are most closely related to that complex. (EMH)

115. URBAN RENEWAL READER (working title)

Main Investigators: George S. Duggar and Warner Shippee.

Status of Research and Publication: In process.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs.

Previous Digest report: None.

Previous Relevant Research. Besides Mr. Shippee's previous work at ACTION Housing, and elsewhere, this project continues Mr. Duggar's studies in urban renewal including The Relation of Local Government Structure to Urban Renewal, reprinted by University of California Bureau of Public Administration from Law and Contemporary Problems (Winter, 1961); Federalism and Self-Government in the United States: Urban Renewal as an Example, reprinted from Jahrbuch des Offenflichen Rechts vol. 10, 1961; and The New Renewal, University of California Bureau of Public Administration, 1962. (GSD)

116. SOCIAL AND PSYCHOLOGICAL FACTORS IN URBAN CONSERVATION

Main Investigators: Herbert Maccoby, Bernard Mausner, and Maurice Shapiro.

Status of Research and Publication: In process.

Agency: University of Pittsburgh, Graduate School of Public Health with the cooperation of the Graduate School of Public and International Affairs under sponsorship of National Institutes of Health.

Previous Digest report: None.

Research Problem. A study of social and psychological factors which affect the degree to which individuals participate actively in the maintenance of good housing. (HM)

117. THE COUNCIL-MANAGER FORM OF GOVERNMENT IN PENNSYLVANIA: A CITIZEN'S HANDBOOK

Main Investigator: Joseph A. James.

Status of Research and Publication: Published in October, 1962.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs, Institute of Local Government.

Previous Digest report: None.

Research Problem. This study was prompted by the increasing popularity of, and interest in, the council-manager form of government. The publication develops the history and growth of the plan, particularly in Pennsylvania, and analyzes the character of council-manager communities and their reasons for choosing to operate under the plan. Although the strength of the council-manager plan as a form of government appears to be quite well established, it was a function of this research to explore both its pros and cons. It was also a function of this publication to provide a "model" ordinance to serve as a guide to those communities developing their initial council-manager ordinances and to aid those already operating under the plan. The "model" sets forth provisions for appointment and removal of the manager, qualifications, bond requirements, compensation, managerial powers and duties, and procedural limitations on council. The publication provides such additional information on Pennsylvania managers as tenure, other positions held by managers, salary range, and such personal data as manager education and previous experience. A reading list on the council-manager form of government is also included.

Method of Study. In preparing the Handbook, the Institute relied upon consultation with municipal officials and other individuals interested in local government. The "model" ordinance is based upon a 1952 publication of the Institute. The preparation of that "model" was based upon an analysis of then existing Pennsylvania council-manager ordinances, interviews with municipal managers, and other public officials. (JAJ)

118. RESOURCES IN AMERICA'S FUTURE: PATTERNS OF REQUIREMENTS AND AVAILABILITIES, 1960-2000

Main Investigators: Leonard L. Fischman and Hans H. Landberg, under general supervision of Joseph L. Fisher.

Status of Research and Publication: Research completed. Publication expected April, 1963.

Agency: Resources for the Future, Inc.

Previous Digest reports: 8:1-61; 9:1-63. (HHL)

119. RATIONALIZING PUBLIC INVESTMENT DECISION-MAKING IN URBAN COMMUNITIES

Main Investigator: Jerome W. Milliman.

Status of Research and Publications: In process.

Agency: Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. A great deal of urban public policy requires for effectuation the investment of public funds in long-lived capital facilities. Since these funds constitute a scarce resource and since much in the way of metropolitan development at one end of the scale and satisfaction of urgent needs at the other depend upon efficient conduct of such public policies, the development of a framework to rationalize public investment decisions can make an important contribution to the quality of urban policy making. Thus the objective of this project is to develop a broad framework for public investment decision making which can exploit the best features of such promising concepts as systems analysis, cost-benefit techniques, the budget as a polity document, and social overhead investment as a condition of metropolitan growth and development. (JWM)

120. THE SLUM YOUTH CULTURE

Main Investigator: Bernard Goldstein.

Status of Research and Publications: Preliminary data collection--school data on a sample of those attending school in the study area--has been completed. Main research effort is now being designed, interview schedule being prepared.

Agency: Rutgers University, Urban Studies Center.

Previous Digest report: None.

Research Problem. The research is geared to a program of demonstration projects now being planned; designed to increase the educational, economic and social opportunities of the school age population of an area of a large city generally accepted as having all the classic characteristics of a slum.

The research has two aims: (1) to establish benchmarks against which to measure the impact of the demonstration projects that will be established in subsequent years; (2) to adequately describe and explain the quality of life of the school age population in this area so as to make a scientific contribution and to provide a basis for evaluating the relative need and utility of alternative proposals for demonstration projects.

In addition, the research group is responsible for seeing that the demonstration projects carry with them a research design that will permit an evaluation of the effectiveness of the project and an estimate of its cost.

Method of Study. School data have been collected for some 1800 children in grades 3 through 12. An index has been constructed of "over" achievement, "under" achievement, and "straight-line" achievement. A sample (its proportions yet to be determined) from this broader sample will be interviewed. The interviews will be designed to furnish information on the daily round of activities engaged in by the respondents, their self-image, and the aspirations and expectations concerning education, work, family life and general life chances. (KMcE)

121. RESIDENTIAL MOBILITY IN THE AMERICAN MIDDLE CLASSES

Main Investigator: Robert Gutman.

Status of Research and Publications: Although the main body of the research has been completed and published in the paper "Population Mobility in the American Middle-Classes: Some Social and Psychological Considerations" and will be reprinted in The Environment of the Metropolis, Leonard J. Duhl, Editor, New York, Basic Books, 1963, the research will be continued over an indefinite period.

Agency: Rutgers University, Urban Studies Center.

Previous Digest report: None.

Research Problem. This project is concerned with four aspects of population mobility: an investigation of the reasons people choose to move to suburban settlements; the response of suburban settlements to newcomers; the manner in which newcomers manage to assimilate themselves into the life of these settlements; and the impact of moving on personal adjustment and family behavior.

Method of Study. As the means of investigating these matters, approximately 150 interviews were conducted among newcomers to a variety of settlements located on the fringes of the New York metropolitan region. Insofar as possible, an effort was made to talk with the newcomers within one month of their arrival in the community. Subsequent interviews were conducted over a period of a year, and are still underway.

Major Findings. Refer to publication listed above. (KMcE)

122. SERVICE AREAS AND FUNCTIONS OF SMALL CENTERS IN THE PENNSYLVANIA-NEW JERSEY-DELAWARE METROPOLITAN REGION

Main Investigator: John E. Brush.

Status of Research and Publications: Publication expected June, 1963, in form of a 150-page brochure with maps and graphs.

Agency: Rutgers University, Urban Studies Center.

Previous Digest report: None.

Research Problem. The problem is the analysis of new relationships between urban centers and the residents of the metropolitan hinterland. The old simple pattern of rural service centers is being displaced by growth of non-agricultural employment and increase of population.

Previous Relevant Research. John E. Brush, "The Hierarchy of Central Places in Southwestern Wisconsin," Geogr. Rev., Vol. 43, 1953, p. 380-402; also John Brush and Howard E. Bracey, "Rural Service Centers in Southwestern Wisconsin and Southern England, "geogr. Rev. Vol. 45, 1955, pp. 559-569.

Hypotheses. (1) Small urban centers in the periphery of the metropolitan region have ceased to exhibit well-defined service areas. (2) Trips of the residents for shopping are more or less random within broad limits of time and distance. (3) A diffused geographic pattern of settlement is developing with many ties between the residents and their places of work and shopping.

Method of Study. Field inventory of business and service establishments; mapping of hinterlands by road turnings and traffic flow; analysis of travel data for shopping and employment obtained by the Penn-Jersey Transportation Study of Philadelphia. (KMcE)

123. DEMOGRAPHIC AND ECOLOGICAL CHARACTERISTICS OF THE AGING

Main Investigator: Don F. Heisel.

Status of Research: Initial stages; availability of relevant data is being evaluated.

Agency: Rutgers University, Urban Studies Center and Bureau of Government Research, under sponsorship of the New Jersey Division of Aging.

Previous Digest report: None.

Research Problem. (1) Basic or long run, to develop a stable typology of local areas for the urbanized portion of New Jersey. (2) Immediate or applied, examination - with reference to the areas defined - of the characteristics of the aged as a group. Characteristics will include relative size of the aged group in the total population, sex distribution, family status, mobility patterns, housing, social and ethnic classification, etc. (3) Finally, inquiry will be made into the social and legal conditions affecting the aged. These will include any special tax provisions relating to the aged, social welfare programs (especially at the local level), and so on.

Method of Study. In phase (1), the definition of social areas, the research will proceed along the lines already explored by Shevky and Williams, Shevky and Bell, Tryon, and others. (Shevky and Williams, The Social Areas of Los Angeles, Berkeley, 1949. Shevky and Bell, Social Area Analysis, Stanford, 1955. Tryon, Identification of Social Areas by Cluster Analysis, Berkeley, 1955.) The description and analysis of the characteristics of the aged, phase (2), will employ the standard concepts and procedures of demographic inquiry. Special techniques will be developed if special problems in the data arise. For both of these phases the primary source of data will be the reports of the decennial censuses. Census tract data will be used wherever possible. In phase (3), a particularly important source of data will be the application forms for the $800 senior-citizen exemption from the real property tax. (KMcE)

124. AN EXPLORATION OF THE ADAPTABILITY OF LOCAL GOVERNMENT IN THE PENJERDEL REGION, AS MEASURED BY DEMONSTRATED CAPACITY TO COPE WITH NEW OR EXPANDED PROBLEMS, 1950-1962

Main Investigator: Harris I. Effross.

Status of Research: In process.

Agency: Pennsylvania Economy League (Eastern Division), the Bureau of Government Research of Rutgers University, and the University of Delaware are conducting the research, each in its particular area of the region, under sponsorship of Penjerdel, Inc. of Philadelphia and the Smith, Kline and French Foundation.

Previous Digest report: None.

Research Problem. To determine the extent to which solutions to local governmental problems have been provided by (a) local government's own resources, (b) action of other governmental levels, and (c) interjurisdictional agreements; to determine the suitability of the examined governmental units for the performance of particular functions; to offer recommendations for more effective solutions through (a) existing structural arrangements, (b) greater use of intergovernmental arrangements, and (c) the re-allocation of functions among the various units

Previous Relevant Research. The Penjerdel Local Government Survey, four recently completed monographs.

Method of Study. A determination will be made, wherever possible, of the scope of services provided as of December 31, 1950, based on official records and interviews with appropriate officials. Unsolved problems, recognized as such in 1950, will be pinpointed by interviews with public officials and community leaders and by examination of government records, ordinance books, and local newspapers. Changing demographic and economic conditions will be described. Problems that developed or were aggravated since 1950 will be outlined. Actions by individual communities and cooperative action through intergovernmental arrangements will be summarized.

The scope of services in 1962 will be compared with the scope in 1950. Unsolved problems, recognized as such, will be identified. (KMcE)

125. SERVICE AREAS FOR PUBLIC HEALTH

Main Investigator: Philip H. Burch, Jr.

Status of Research: In process.

Agency: Rutgers University, Bureau of Government Research in cooperation with the Urban Studies Center, under sponsorship of New Jersey Department of Health and the Milbank Memorial Fund.

Previous Digest report: None.

Research Problem. To determine the proper minimum or desirable size of governmental units necessary for the efficient provision of public health services, with particular reference to New Jersey.

Previous Relevant Research. Local Health Units for the Nation, New York, The Commonwealth Fund, 1945; Public Health Areas and Hospital Facilities, Washington, U. S. Public Health Service, United States Government Printing Office, 1951.

Method of Study. An attempt is being made to work backwards, using time and distance as two important considerations, from "ideal" service standards, to arrive at the proper size unit. If sufficient data exist, a comparison will be made of the relative efficiencies of large versus small scale public health operations. The ratios of the administrative and fixed costs to total public health expenditures for various sizes of governmental units will be established. A determination will be made of the actual existing service areas for hospitals and visiting nurse associations in New Jersey. An examination will be made of local public health districts outside of New Jersey to determine the average size of such districts in terms of population and area. (KMcE)

126. RETAIL TRADE IN SOUTH DAKOTA

Main Investigators: V. E. Montgomery and M. L. White.

Status of Research and Publications: Research completed. Copy of report on file in office of Upper Midwest Economic Study.

Agency: State University of South Dakota, Business Research Bureau under sponsorship of Upper Midwest Research and Development Council.

Previous Digest report: 8:2-58.

Research Problem. One particular aspect of the Upper Midwest Economic Study is the investigation of shifts in retail trade activities. Since many of the conclusions obtained from a study of retail trade in South Dakota can be applied in generalized form to the rest of the Upper Midwest Region, a detailed study of retail trade in South Dakota has been made for the period 1948-1961.

The three main aspects of retail trade included are: (1) the influence of city size; (2) the influence of location; and (3) changes according to type of business.

Method of Study. Principal attention in this study was directed to the 129 incorporated towns which have a population of 500 or more, and do 90 per cent of the retail business in the state. Data were drawn chiefly from the files of the South Dakota Department of Revenue covering sales tax receipts (available only for the period 1956-1961) and the Censuses of Business for 1948, 1954 and 1958. Retail businesses were classified in four general types: (1) farm production, supplies; (2) durable goods; (3) non-durable goods; and (4) eating and drinking establishments.

Major Findings. The general opinion that small towns are losing business relative to the larger cities due to the increased mobility of the people is verified here. The number of retail establishments in the communities with populations less than ten thousand declined from 1948 to 1958. Towns with less than 2,500 people lost ten percent of their retail establishments during this period and cities in the 2,500 to 10,000 category had a three percent drop.

There was an increase between 1948 and 1958 in the total volume of retail sales in current dollars in both the cities with more than 2,500 population and the rest of the communities but the rate of increase in the smaller towns was only 57 percent as great as in the major cities. Based on constant dollars (1947-49=100) there was a decrease of three percent in dollar volume in the smaller communities and a seven percent increase in the major cities. Since 1959 the decline in sales in the very smallest towns (less than 500 population) appears to have leveled off at a rate of about 12 percent of total sales, but sales in cities of 10,000 and over have continued to show a gradual increase. By 1961 these cities accounted for nearly half of total retail sales in South Dakota.

This study demonstrates that distance from a large city has a significant influence on retail sales. Even though sales in small communities have been declining, those in the areas farthest from any major cities have maintained a substantially greater share of area sales than have similar sized communities closer to major shopping centers.

Unfortunately the limited information that is available for retail sales by type of business does not provide sufficient information to warrant the drawing of any definite conclusions by type. The data do indicate that of four types of retail business investigated there has been a shifting from the smaller to larger communities in the sales at eating and drinking establishments and farm production stores. Similar shifting does not appear to have taken place in the sales at durable and non-durable goods stores. (VEM)

127. FINANCING LOWER-MIDDLE INCOME HOUSING

Main Investigators: Jack E. Gelfand and Edwin Eames.

Status of Research and Publications: Preliminary drafts of final reports are being reviewed by experts in the field of housing finance. Publication expected early in 1963.

Agency: Temple University, Bureau of Economic and Business Research, under sponsorship of Pennsylvania Department of Commerce, Bureau of Community Development and the Housing and Home Finance Agency.

Previous Digest reports: 8:1-62; 8-2-91; 9:1-64. (JEG)

128. NATIONAL STUDY ON PUBLIC HOUSING URBAN RENEWAL

Main Investigator: James A. Murray.

Status of Research and Publication: Study initiated June 1962. Estimated completion date, January 1964.

Agency: University of Toronto, School of Architecture, for the Ontario Association of Housing Authorities, under sponsorship of the Government of Canada and the Province of Ontario.

Previous Digest report: None.

Research Problem. The area of investigation will embrace social, economic, administrative and architectural aspects of urban renewal, redevelopment and public housing in Canada.

Specifically, the study will examine the following: (1) the place of low-rent, moderate rent and elderly person housing in national and provincial housing programs, as well as priorities for the expenditure of public monies for such programs; (2) the place of public housing in municipal capital programs; (3) the place of public housing in urban redevelopment programs; the role of conservation, rehabilitation and acquisition of existing properties for public housing purposes in implementing such programs; (4) the role of private enterprise in urban renewal and public housing programs; (5) the place of land assembly schemes, under Section 36 of the National Housing Act, in producing low-rent and moderate-rent housing; (6) the machinery for producing low-rent, moderate-rent and elderly persons housing; the local organization required; and the respective roles of Federal, Provincial and Municipal Governments; (7) the role of social agencies in public housing and the need to examine the basic question of how much the limited financial resources of the public housing program should be used for social services and how the existing social resources in the municipality should be used; (8) the need to establish a program of authorizing Federal and Provincial funds for a total community renewal program rather than the project-by-project approach; (9) the need to study tax incentives in improving properties and tax changes which might be directed towards penalizing property neglect.

Previous Relevant Research. Humphrey Carver, Houses for Canadians, University of Toronto Press, 1948; Y. Dube, J. E. Howes and D. L. McQueen, Housing and Social Capital (Royal Commission on Canada's Economic Prospects) Queen's Printer 1957; A Better Place to Live, Ontario Department of Municipal Affairs, Community Planning Branch, 1962.

Method of Study. The study team will consist of a professional representative in each of four areas of social scientific discipline; economics, sociology, legislation and government, and architecture. In addition, an extensive consultant assignment program will be arranged and a research associate maintained. This segment of the study organization is designed to produce the research, evaluation and synthesis leading to policy recommendations on housing and urban renewal.

The tools of research will consist of statistical analysis, housing and renewal literature and individually conducted field appraisals of both foreign and Canadian experience. Emphasis will be placed on material assembly, and research techniques and applied pilot research models will be developed. The four symposia will undertake an evaluation of all the study components in the latter stages of the study. Modifications based on the collective thinking of the participating special interest groups will be introduced before the final report is drafted and approved by the Advisory Committee. (BG)

129. TECHNOLOGY AND URBAN TRANSPORTATION

Main Investigators: John R. Meyer, John F. Kain, Martin Wohl.

Status of Research and Publications: Report completed and submitted to agency.

Agency: United States Government, Executive Office of the President, Panel on Civilian Technology. (Report was prepared in response to a request from the panel, but the views expressed are those of the authors and do not carry the endorsement of the panel.)

Previous Digest report: None.

Research Problem. This analysis and evaluation of technology and urban transportation was conducted for the purpose of identifying useful technological research areas. By way of accomplishing this objective, some limited system design and analysis was performed and alternative transport nodes were compared. Though incomplete, the analysis and costing is considered sufficient for the purpose stated.

Major Findings. The report emphasizes the necessity of comprehensive system-wide analysis in order to project the value and viability of particular transport modes or combinations thereof in specific metropolitan areas. This report does not provide such analysis and no inference should, therefore, be drawn from it regarding the feasibility of specific transport systems.

However, the findings do suggest some reasonable alternative transport systems which should undergo deeper consideration. In this context, planners and engineers are urged to consider public and private transport systems as components of an over-all system, to conduct what in fact are urban transportation system analyses, and to consider and make more efficient use of the existing and extensive urban transportation plant. (MW)

130. DEVELOPMENT OF A COMPREHENSIVE AND CO-ORDINATED RESOURCE PLAN FOR THE SOUTHEAST RIVER BASINS AREA

Main Investigators: U. S. Study Commission, Southeast River Basin, through its staff and through more than 200 contracts with Federal, State and local agencies and universities.

Status: Main report, eight separate basin appendixes and five technical appendixes are about 94 percent complete. Reports will be ready for state and Federal review in January, 1963.

Previous Digest reports: 7:2-57; 8:2-100.

Research Problem. Determine a basis for projecting resource needs to the year 2000 and then developing a plan, with costs and benefits, to meet the needs. The following functions are involved: (1) flood control and prevention; (2) domestic and municipal water supplies; (3) the improvement and safeguarding of navigation; (4) the reclamation and irrigation of land, including drainage; (5) possibilities of hydroelectric power and industrial development and utilization; (6) soil conservation and utilization; (7) forest conservation and utilization; (8) preservation, protection, and enhancement of fish and wildlife resources; (9) the development of recreation; (10) salinity and sediment control; (11) pollution abatement and the protection of public health; and (12) such other beneficial and useful purposes not herein enumerated. (GET)

131. DEVELOPMENT PLAN FOR THE NECHES, TRINITY, BRAZOS, COLORADO, GUADALUPE, SAN ANTONIO, NUECES, AND SAN JACINTO RIVER BASINS AND INTERVENING AREAS

Main Investigators: U. S. Study Commission - Texas.

Status of Research and Publications: Completed, transmitted to Congress August 1, 1962, and ordered printed as House Document #494.

Previous Digest report: 7:2, p. 55. (CDC)

132. COMPARATIVE ADVANTAGE OF U. S. REGIONS (a)

Main Investigator: R. J. Wonnacott

(a) For additional items comprising parts of the Upper Midwest Economic Study, see 81, 82, 83 and 126, in this issue. (Editor's note.)

Status of Research and Publications: [illegible] completed in draft form.
Eventual publication as study report by agency.

Agency: Upper Midwest Research and Development Council.

Previous Digest report: 8:2-59.

Research Problem. To assemble information on inter-area differences in industrial costs in the United States and analyze the potential effects of these differences on the location of industry in the Upper Midwest, and in other areas.

Method of Study. Four location influences have been singled out for detailed analysis: labour costs, proximity to markets, transportation co costs, and state and local taxes. Wages, market proximity and transportation costs were included because they are the most critical influences on location; taxes were analyzed because they are the location factor most amenable to policy control.

One of the difficulties in previous cost studies has been the problem of comparing for example, existing differences in labour costs with differences in transportation costs. In this study these cost comparisons have been reduced to a common measure. This has allowed the specification of those industries in which labour costs are most critical, those industries in which transportation costs are generally the deciding influence, and those industries in which several cost factors considered play an important role.

The comparisons involve a complete breakdown of the U. S. into 13 regions, along with a breakdown of manufacturing industries. The industrial classifications used are the 20 two-digit S.I.C. categories. The major theoretical problem encountered was to specify where likely markets might be in the event an industry locates in a specific area. Markets cannot be specified a priori; to a degree they depend upon where the good is produced. And this market pattern of course will determine the transport costs incurred from each location.

It was necessary, therefore, to develop a market potential model based on two strong preferences by the entrepreneur: the desire to locate as close as possible to the most attractive markets, and the desire to avoid the spatial competition of established producers of the same good. The model, therefore, combines some of the properties of a linear programming approach aimed at transport cost minimization, some of the properties of market or population gravity models, and some of the characteristics of the Chamberlin-Hotelling models of spatial interdependence. (RJW)

133. THE GEOGRAPHIC IMPACT OF THE FEDERAL BUDGET

Main Investigators: Richard Rosenberg, John Adams, Ronald J. Wonnacott.

Status of Research and Publications: Preliminary findings published by agency, October, 1962, as Technical Paper No. 3. (27 pp. offset.)

Agency: Upper Midwest Research and Development Council and University of Minnesota.

Previous Digest report: 8:2-63.

Major Findings. This study estimates the extent to which the federal cash budget redistributes income between areas in the United States. The area from which income is drawn (in the form of federal taxes exceeding expenditures) is the area bounding the Chicago-New York axis. This income is redistributed (in the form of federal expenditures exceeding taxes) to the South, Southwest, the mountain states, and the Pacific Coast.

By 1960 the federal government's fiscal operations had a neutral effect on the Upper Midwest as a whole in the sense that tax assessments from the area were almost as large as federal expenditures. However, within the Upper Midwest the federal government did considerably alter income flows; on balance, funds were withdrawn from Minnesota, while in Montana, North Dakota, and South Dakota federal expenditures exceeded withdrawals. This represents a substantial shift from earlier in the decade; in 1952 the Upper Midwest area received substantially less federal spending than it paid out in taxes. (On the other hand, in 1960, federal expenditures per head of population in the Upper Midwest were well below the national average.)

Not surprisingly, this study confirms the usual generalization that tax collections are more closely related than federal expenditures to the income and population of each area. The progressive nature of federal income redistribution is clearly shown; there is a definite tendency for income to be withdrawn from wealthy areas and spent in poor areas. (Nevertheless, relatively wealthy areas still tend to receive more federal expenditures per capita than do relatively poor areas.) There is also a tendency for industrial areas to be taxed more heavily than agricultural areas (though there is no tendency for federal expenditures to be more heavily concentrated in either).

The figures derived in this report do not show all of the impact of the federal government in redistributing income between states. For one thing, many federal programs have important bearing on the location of industries (e.g. tariffs) even though they do not involve specific federal expenditures. Furthermore, the indirect effects of federal spending in generating income vary from time to time and place to place and according to the type of expenditure in the highly complex way, and it has not been possible to estimate these indirect effects here. (RJW)

134. CHANGING URBAN LAND USES AS AFFECTED BY TAXATION

Main Investigator: Jerome P. Pickard.

Status of Research and Publications: Completed. Published by agency, October, 1962, as Research Monograph Number Six, 104 pp. $4.00.

Agency: Urban Land Institute.

Previous Digest report: None.

Major Findings: (Based on study conferences in Washington, Boston, Pittsburgh, and Newark): Taxation affects the quality and character of urban land uses, and investment in new development or renewal or urban real property. Many kinds of taxes affect land use, directly or indirectly, but the two principal forms of taxes most directly involved are (1) Federal taxation on income and investment returns and (2) local property taxation. There is a wide variety of opinion regarding both the relative importance of tax factors in urban development, and the desirability of coordinating and using the tax mechanism in the direction of urban planning goals. It is quite probable that there are real and long-term differences in these factors among different metropolitan areas. There is inadequate ground work for discussing intelligently, not to mention fully understanding, many critical tax-land use relationships. We urgently need more research to explore these relationships in order to provide a better foundation for decisions. (JPP)

135. PROPERTY TAXATION AND URBAN LAND USE IN NORTHEASTERN NEW JERSEY

Main Investigator: Morris Beck.

Status of Research and Publications: Completed. Publication anticipated in late November or early December by agency.

Agency: Urban Land Institute.

Previous Digest report: None.

Major Findings. In the nine counties of Northeastern New Jersey, local property tax rates show definite relationships with the intensity of urban development in the region. High tax rate communities are generally the most populous, and the most densely populated municipalities. Many of these are older communities located in the regional core area. These places rank low in the per capita market value of real property. Low tax rate communities exhibit opposite characteristics: small total population, low population density, and high value of taxable real property per resident.

Between 1951 and 1960, the total value of taxable real property in the region increased by 86 per cent, to $21.1 billion. Viewed regionally, the growth was uneven, with the oldest and highest density areas growing by only 31 percent whereas the fringe communities with the least density grew by 163 per cent. Effective tax rates and per capita taxes showed a similar relationship. Nevertheless, despite reduction in the differential, tax rates remain substantially higher in the core areas than in the inner and outer rings.

There is a clear tendency for an inverse relationship between effective tax rate and the amount of industrial and commercial real property per resident, but the presence of a high proposition of industrial and commercial property in the tax base does not necessarily guarantee a low property tax rate. The widespread impression that central cities enjoy fiscal advantages over smaller communities because of their wealth in commercial property is not supported by this study. Even in cities with sizeable commercial and industrial wealth, residential property resources per capita are generally so poor that they more than cancel out any advantage, yielding on balance among the lowest property values per resident in the region. (JPP)

136. EMPLOYMENT AND POPULATION ANALYSIS AND PROJECTIONS, SALT LAKE METROPOLITAN AREA, UTAH AND THE UNITED STATES

Main Investigators: Lawrence Nabers and Jewell J. Rasmussen.

Status of Research and Publications: Completed. Published by agency, September, 1962. 133 pp. offset.

Agency: University of Utah, Bureau of Economic and Business Research, under sponsorship of Utah State Highway Department and U. S. Bureau of Public Roads.

Previous Digest report: 8:1-69. (KLL)

137. LEVELS OF GOVERNMENT SERVICES

Main Investigator: Werner Z. Hirsch.

Status of Research and Publication: Results of the study were presented in a paper by Werner Z. Hirsch at the Conference on Public Expenditure Decisions in the Urban Community, sponsored by the Committee on Urban Economics of Resources For The Future, Inc. May, 1962, Washington, D. C. Publication in late 1962.

Agency: Washington University, Institute for Urban and Regional Studies.

Previous Digest report: None.

Research Problem. Government service levels were examined in the light of what government produces, how much, how efficiently and of what quality. The study points out some extremely difficult conceptual and empirical issues arising from the attempt to comprehend and measure service level and its value, efficiency, service quantity and quality. The difference between consumers' (constituents') and producers' (government's) views of service level is developed. The constituents' view centers mainly around the wants-satisfying power of the end product, and the government's view emphasizes the problems encountered in performing the service. Measurements of service levels viewed by constituents and government in monetary and non-monetary terms are explored. Temporal service level change measurements are examined, together with the issue, how certain institutional arrangements might affect service levels and efficiency. These concepts are related to public education, fire protection, refuse collection and water system. (WZH)

138. THE EFFECTS OF TECHNOLOGICAL CHANGE ON CULTURAL CONTINUITY AS EVIDENCED BY THE MORPHOLOGY OF CERTAIN JAPANESE CITIES (1870-1920)

Main Investigators: Thomas J. Norton, Myer R. Wolfe.

Status of Research and Publications: A three year project the initial phase of which was undertaken during the summer of 1962. A monograph reporting progress on the first phase will be issued in the spring of 1963.

Agency: University of Washington, Center for Asian Arts, under sponsorship of the Ford Foundation.

Previous Digest report: None.

Research Problem. This investigation is addressed primarily to the problem of assessing the effects of technological change upon the morphology of cities in Japan.

Previous Relevant Research: Little has been done which has a direct relevance to the problem being investigated. Urban geographers, cultural anthropologists and urban planners have dealt with some aspects of the problem but none have focused on the possibility of utilizing urban morphology as an indicator of cultural continuity.

Hypothesis. A study of the urban morphology of contemporary cultures can provide significant insight into the dynamics of cultural change and continuity and thus contribute positively to the efforts being made to comprehend the increasingly pervasive phenomena of urbanism. The potential value of such a study in alleviating the dislocations caused by technologically induced change in rapidly developing areas will be explored.

Method of Study. A case study approach will be employed. The structure of the urban areas to be studied will be established as it was prior to the introduction of post industrial revolution technology. These areas will then be studied at various points in time after the input of specific components of technology. Japan presents a particularly meaningful area for such a study due to the purposeful and rapid introduction of modern technology which occurred in that country during the late 19th and early 20th centuries. (TJN)

139. CRITERIA FOR THE ESTABLISHMENT OF ADDITIONAL SCENIC AREAS ALONG HIGHWAYS IN THE STATE OF WASHINGTON

Main Investigators: Myer R. Wolfe, Sidney Cohn, Thomas J. Norton.

Status of Research and Publications: Study is Part II of a larger study entitled Outdoor Advertising Control. Project is completed and the report is in the process of being printed.

Agency: Washington State Legislature, Highway Interim Committee.

Previous Digest report: None.

Research Problem. To develop criteria for the designation of scenic areas within which certain outdoor advertising would be prohibited.

Previous Relevant Research. Very little has been done relating to the specific problem of interest here. The State of California published a report in March, 1962 entitled, A Preliminary Plan for Scenic Highways in California which dealt with some aspects of the problem.

Hypothesis. That a set of meaningful criteria could be developed for the guidance of decisions relating to what is and what is not scenic. Since public policy is involved it is necessary that the decision making frame of reference be closely correlated with legal and administrative frames of reference.

Method of Study: Essentially three steps were involved: (1) accumulation of all relevant data available through research including circulation of a questionnaire to all states; (2) development of several alternate sets of criteria; (3) testing in the field of the alternate sets of criteria; (4) relating evaluative systems to administrative systems.

Major Findings. Systems of classification of varying complexity were evolved from the study. Thus a gradation from relatively gross evaluation to rather sophisticated evaluation was possible. The optimal arrangement for evaluating scenic areas called for the utilization of a complex set of criteria by a person or persons possessing skills in the relm of aesthetic judgment. It was recommended that, while expert judgment be employed, the role of the expert should be an advisory one to the policy making body. (TJN)

140. URBAN ECONOMICS, A GUIDE TO RESEARCH ON WASTE, POVERTY AND STAGNATION IN CITIES

Main Investigator: Wilbur R. Thompson.

Status of Research and Publications: First draft completed.

Agency: Wayne University, Department of Economics, under sponsorship of Committee on Urban Economics, Resources for the Future, Inc.

Previous Digest report: None.

Research Problem. The monograph is largely a conceptual and deductive piece ranging widely over as much of the field of economics as the author is able to grasp. The work is divided into two parts: urban-regional economic analysis and the economics of selected urban problems. In the first part, the economist's traditional concepts, such as export multipliers, elasticity of demand, monopoly and oligopoly, and external and internal economies of scale, are applied to the small-area (urban) economy in an operational context. Physical productivity, monopoly power and city size are considered as determinants of local money and real income. Inter-personal and inter-governmental income distribution in politically-fragmented metropolitan areas are integrated in an over-arching framework. Seasonal instability is seen as an urban efficiency problem; the concept of local cycles as an industry-mix phenomena is critically reviewed; a concept of growth instability is added. Urban-regional economic development is viewed both from the demand (for local exports) side and the supply (of local resources) side, with emphasis on labor and entrepreneurship. Finally, the complementarity or substitutability of goals such as affluence, equity, stability and growth is considered in the context of a matrix of their interactions.

In the second half, four leading urban economic problems are considered and research designs suggested. Unemployment and poverty are seen as local problems which must be approached from the supply side -- personal development and adaptation -- rather than as Federal problems of inadequate aggregate demand; welfare policy and manpower planning are seen as critical challenges to urban management. Local public finance in politically fragmented metropolitan areas is framed as the balancing of scale economies and consumer choice in an age of affluence and "product differentiation." The housing section considers core area strategy in urban renewal to attain maxiumu financial leverage; racial-residential patterns in the "grey area" and the economics of "urban sprawl" at the fringe. Finally, the traffic problem is analyzed as a problem in relative prices and resource allocation, with some attention given to technological change and to the need for an experimental approach. (WRT)

141. ELECTION WITH AN ISSUE: VOTING BEHAVIOR OF A METROPOLITAN COMMUNITY IN A SCHOOL FUND ELECTION

Main Investigator: Roberta S. Sigel.

Status of Research and Publications: Completed and reported.

Agency: Wayne State University, Department of Political Science, with assistance from Detroit Board of Education.

Previous Digest report: None.

Research Problem. In a large, urban community who are the friends of the public schools? By friends we mean people willing to tax themselves on behalf of the schools. How stable is their "friendship"? By what media (mass and others) can they be reached?

Hypotheses. School elections are perceived differently by the voter than regular political elections, especially partisan ones. Self-interest will guide his choice but self-interest will often work in opposite directions (children attending public school may make a voter inclined to vote for school taxes while his high property taxes push him to vote against them). The voter is then cross pressured.

In cases of such cross-pressure, the mass media will play a decisive role in affecting his vote. They will be more effective even than personal influence, grass roots organizations, etc. This will be so because education is not considered a political issue but one for the experts. On issues of expertness the mass media, especially the press, is trusted.

Method of Study. Personal interviews with a probability sample of 919 Detroit registered voters one month after the 1959 school fund election.

Major Findings. The hypotheses were borne out with the following additional findings: Parents of children in public school are friends of the school--but very unstable ones. Often they fail to vote. They fail to do so most when the mass media do not strongly support the schools.

The only exception to the above are well-educated white people of the middle class, who are stable supporters of school fund requests. They however are beginning to become a very small minority inside the city limits. Of the remaining people, mostly working class, many send their children to parochial schools and often are opposed to new school taxes. Negro working class voters, on the other hand, are in favor of school spending but often do not vote. Yet this is the group on which, more than any other, future support for the public school must rest in large communities like Detroit. (RSS)

142. THE IMAGE OF THE PRESIDENCY: AN INVESTIGATION INTO THE POLITICAL VIEWS OF URBAN DWELLERS

Main Investigator: Roberts S. Sigel.

Status of Research and Publications: Partially completed; parts have appeared as journal articles; a monograph is visualized for the completed product.

Agency: Wayne State University, Monteith College.

Previous Digest report: None.

Research Problem. Just how do Detroiters view the Presidency (in distinction from individual presidents)? Are they apprehensive of his great powers, or do they want an even stronger leader--and an expert--who can make the crucial decisions for them?

Hypotheses. Americans have ambivalent attitudes towards presidential power. They are afraid lest it be abused but they also want a strong leader who can make his will prevail over Congress and even over the people. The desire for strong leadership is based not merely on apathy or psychological needs but more significantly on a recognition that the crucial problems of the day are too complicated for the layman to solve. Because of the voter's inability or unwillingness to decide major issues for himself, the party and group reference have become the great mediating agents in decision making.

Method of Study. A public opinion survey of 1350 Detroit voters two weeks prior to the 1960 presidential election.

Major Findings. Many of the major ones are still in process of analysis. So far the hypotheses seem proven and little difference is found among different population groups. Negroes and well-educated people, however, are most favorably inclined towards strong leadership.

Subsidiary findings revealed the great liability which Kennedy's religion constituted among White Protestants, and the extreme loyalty of Negroes to the Democratic Party. No Catholic-Republican swing to Kennedy was discovered. Another finding revealed that the candidate's image is largely determined by the image of the party he represents. There is agreement on that among Republicans and Democrats, i.e. Republicans and Democrats agree on the nature of the Kennedy image and they agree similarly on the Nixon image. In each case the image bore great resemblance to the popularly held image of the two respective parties. (RSS)

143. THE FINANCIAL EVOLUTION OF THE MILWAUKEE METROPOLITAN AREA

Main Investigator: Donald J. Curran.

Status of Research and Publication: Doctoral dissertation, in process. Completion expected in February, 1963.

Agency: University of Wisconsin, Department of Economics, under sponsorship of Resources For The Future, Inc.

Previous Digest report: None.

Research Problem. This study is concerned with the public finances of the city of Milwaukee and its nineteen suburbs that lie within Milwaukee County. We want to know what trends are observable over time in the revenue and expenditure patterns of the localities in this area. We further hope to sift out the universal elements in their financial development which are common to all of them from the particular, individual elements that are peculiar to this or that municipality. And from an examination of the past, we hope to offer worthwhile forecasts of two kinds: (1) the future of the localities being studied, and (2) the probably stages of evolution of new fringe areas as they appear.

Hypothesis. There is a tendency for the municipalities of a (fixed) metropolitan area to draw closer to one another over time in their revenue and expenditure patterns.

Method of Study. The unique feature of this investigation is its historical approach, for it examines the finances of this metropolitan area over a forty-year period (1920 - 1960). These four decades are divided up into twelve time periods: every five years from 1930 to 1950, and then every two years from 1950 to 1960. The high quality of records in Wisconsin plus the reliability of its equalization machinery in property assessment makes this historical approach both possible and productive. (DJC)

144. RESOURCES, PEOPLE, AND ECONOMY OF EAST-CENTRAL WYOMING

Main Investigators: Floyd K. Harmston and Richard E. Lund.

Status of Research and Publications: First draft copy of study nearing completion. Final draft should be in the hands of the printer before the first of the year.

Agency: University of Wyoming, Division of Business and Economic Research, and Wyoming Natural Resource Board.

Previous Digest report: 9:1-70.

Research Problem. This section of Wyoming is dominated by agriculture. The problem is to determine the impact of agriculture, problems created by changes in agricultural techniques, and to determine what the future holds as nearly as possible.

Previous Relevant Research. Nothing of this sort has been done for this area. However, we have made similar analyses of twelve other areas of Wyoming.

Hypotheses. The major hypothesis being tested is: An economy heavily dependent upon agriculture must, because of automation trends in the industry, find other sources of basic income to keep itself alive.

Method of Study. Aside from usual studies of trends, the methodology being used is analysis by means of multipliers developed with input-output tables. (FKH)

77. BELTLINE COMMERCIAL - INDUSTRIAL DEVELOPMENT

Main Investigators: James Schwinden and others.

Status of Research & Publications: Study completed. No present publication plans.

Agency: University of Minnesota, Departments of Agricultural Economics and Geography, under contract with Minnesota Highway Department in cooperation with U. S. Bureau of Public Roads.

Previous Digest report: 8:1-40.

Research Problem. A follow-up report on a previously completed study (see Digest report cited above,) this paper provides a view of the changing pattern of land utilization over a 10 year period, develops estimates of the trend in land prices, and examines the results of the land acquisitions for the interstate highway as they affect land prices.

Major Findings. (1) The supply of uncommitted lands (idle or farm) has decreased markedly because of commercial industrial development and highway land acquisitions. (2) It appears that the shrinkage of supply has exerted a strong upward pressure on land prices, a pressure likely to continue until the supply of uncommitted land is exhausted. (3) Highway construction, in addition to shrinking the supply of uncommitted lands, also increases the demand for lands for commercial and industrial development in the study area. Thus the highway affects land prices on both the supply and demand sides. (JS)

BRIEF MENTION

TRANSPORTATION

Niagara Frontier Transportation Study[a]

A research program aimed at alleviating transportation problems in the Buffalo-Niagara Falls area has been launched. Cost of the program, the Niagara Frontier Transportation Study, is estimated to total $1,250,000 which the State of New York and Federal governments will share on a 32-68 per cent basis, respectively. The study will take into consideration all means of surface movement of people and goods in the area. Survey methods will be tested and standardized so that the program staff can carry out similar studies for other areas of the state. It is expected that a final, tested plan for the Niagara Frontier can be completed within two years. The program is under the direction of Roger L. Creighton who formerly was planning consultant for the Chicago Area Transportation Study.

RIVER BASIN DEVELOPMENT

Economic Base Survey of the Potomac River Service Area, 1957-2010[b]

The Office of Business Economics, U. S. Department of Commerce, has released an economic base study of the Potomac River Service Area. The report furnishes a guide for appraising the economic and population growth of the Potomac Valley to 2010.

For purposes of presentation, the 36 counties and 7 cities that make up the Potomac River Area have been grouped into 5 regions, centering on the Washington metropolitan area. The past growth of each of the areas is analyzed in terms of income, employment, population, and households. Evaluation of future growth in the regions is made in terms of these four basic measures.

Overall economic growth of the Potomac Valley, as well as that of the Nation as a whole, is traced by means of personal income, the most comprehensive measure of economic activity available on a geographic basis. Projections of total and average income as well as of population, employment, and households are given for 1965, 1985, and 2010. In addition, the report includes a detailed description of sources and methods of estimation which can serve as a pattern and guide to those who are interested in the measurement and analysis of local area economic conditions.

(a) From ASPO Newsletter, April, 1962.

(b) From Statistical Reporter, April, 1962.

Copies of "Economic Base Survey of the Potomac River Service Area, 1957-2010" may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 55 cents per copy.

HOUSING AND URBAN RENEWAL

Ford Foundation Grants for Study of Slums (c)

The Ford Foundation has announced several grants to selected cities in an attempt to help local government agencies and private organizations coordinate their activities in solving slum problems.

One grant is for $2 million for a study of the social problems of slums in Oakland, California. The city, the state, Alameda County and two private organizations will participate. The study will focus on a neighborhood with a growing proportion of Negroes and persons of Mexican descent, and will include experimental projects in health, education, recreation, probation, youth employment, community organization, and leadership development.

The Foundation has also given the city of New Haven, Connecticut, a $2.5 million grant to test new methods of solving social problems caused by slums. The city's schools are to be geared to encourage people in slums and blighted areas to help themselves. Fifteen new schools will be built and older ones improved so that they can serve as year-round public facilities, open 12 to 16 hours a day. Every aspect of the school system will be organized around serving this community purpose and teachers will be specially trained to deal with problems that come up in urban renewal areas. A new nonprofit organization, Community Progress, Inc., will be set up to operate out of the community school, integrating a wide variety of health, education and welfare services.

NEW URBAN AND REGIONAL RESEARCH AND TRAINING PROGRAMS

Division of Urban Studies, Cornell University

A new Division of Urban Studies has been established at Cornell University. The new division will be a part of the Center for Housing and Environmental Studies, which has appointed Barclay C. Jones, Associate Professor of City and Regional Planning, as Associate Director for Urban Studies. The Division will focus attention on problems of city growth and development and will stimulate and coordinate research projects on urban problems under the investigation of various persons and groups on the Cornell campus.

Several abstracts of work in progress at the new Division are included in this issue of the Digest.

(c) From ASPO Newsletter, June and September, 1962.

Division of Urban Affairs, University of Delaware (d)

A grant from the Ford Foundation has established the Division of Urban Affairs at the University of Delaware, to demonstrate a university program of research, service and education activities in urban areas comparable to agricultural counterparts. The program will transfer and expand the land-grant college approach of the rural field to the urban setting which predominates in the State of Delaware.

The Ford grant was received in the summer of 1961, and the Division has since been operating with a skeleton staff. The initial service being undertaken by the Division is assisting the establishment of planning a agencies and processes, and directing planning aid in smaller municipalities.

In the future the Division will, in conjunction with other organizations, establish a Delaware Data Center which will systematically acquire data in the fields of economics, sociology and government. It will serve as a center for research on urban problems and will work closely with schools and universities through the media of joint appointments, advisory capacity of staff, use of research sources and library, and conferring of fellowships in urban affairs.

Institute of Urban Life, Loyola University

A new Institute of Urban Life has been established in Chicago. The Institute is a non-profit corporation which is affiliated with Loyola University of Chicago for the purpose of developing an interdisciplinary curriculum of urban studies leading to advanced degrees at that institution. The Institute will undertake contract research assignments on urban problems. The University does not exercise control over the research program of the Institute, which is legally distinct from the University. John McMullen Ducey is the President of the new Institute.

Program in Urban and Regional Planning, Northwestern University

Dr. William L. Garrison, Professor of Geography at Northwestern University, has been named to direct the Technological Institute's new program in urban and regional planning. The program will lead to a Ph. D. in planning and is designed to turn out planning researchers. The new graduate curriculum has a core of three planning courses but most of the student's time will be spent taking courses in social sciences, applied mathematics and engineering.

Public Administration and Metropolitan Affairs Program, Southern Illinois University

A Public Administration and Metropolitan Affairs Program, headed by Dr. Seymour Z. Mann, has been established at the Edwardsville Campus of

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(d) From Metropolitan Area Problems, July-August, 1962.

Southern Illinois University. The program is a part of the University-wide Area Services Division. By encouraging and supporting urban research it is intended that the program will become the storage center for all data and materials relevant to the growth and development problems of the Illinois portion of the St. Louis metropolitan area. Through such studies it is anticipated that an enlarged understanding of the economic, social, and political processes in the metropolitan area will result, and that these findings will be made available to citizens and officials to aid them in the making of public policy decisions relevant to area development and inter-governmental cooperative efforts over the whole of the metropolitan area. Research activities, where feasible, will be organized so that they might be complementary and supplementary to related work being conducted in other places. It is also the intention of the program to aid in the development of academic programs that will make available trained public service personnel with a background of urban studies. The professional staff for the Program is drawn primarily from the ranks of regular faculty members.

Department of Urban Studies, American Municipal Association (e)

The American Municipal Association has established a Department of Urban Studies and has named Andrew S. Bullis, Jr. as its Director. Mr. Bullis was formerly the Director of the Bureau of Municipal Affairs of the Commonwealth of Pennsylvania. The Department will undertake basic and long range research into municipal problems, helping cities continue to lead the way in solving their urban problems. Courses of action will be studied for consideration as possible parts of the "National Municipal Policy", the program of the American Municipal Association.

The Department of Urban Studies will also undertake contract work for federal government agencies, using the wealth of experience and resources available to it from its broad membership.

Canadian Council on Urban and Regional Research (f)

Additional information has been received concerning the new Canadian Council on Urban and Regional Research which was formed last spring. The Council has received a $78,000 grant from the Canadian Government from Housing Act funds which is expected to cover operating expenses of the Council for the first 15 months, ending in December, 1963. The Ford Foundation has given the Council a grant of $500,000 to be used over a 5-year period to assist research work in urban and regional problems throughout Canada. It is anticipated that these grants will be supplemented, on an increasing scale, by donations from other sources, public and private.

The principal objectives of the Council are to encourage and support urban and regional research programs, to aid the understanding of planning

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(e) From the American Municipal News, August 14, 1962.

(f) From The Listening Post (Canadian Federation of Mayors and Municipalities) August, 1962, and the ASPO Newsletter, October, 1962.

problems by administrators and the general public, and to provide opportunities for the exchange of research data and techniques. It is anticipated that the Countil's activities will include bibliographical services, data analyses, development and dissemination of technical information and educational aids, and publishing of pertinent literature. Headquarters will be in Ottawa, and membership will be open to governmental representatives and organizations, as well as to those individuals engaged in urban and regional development and allied disciplines. The Council's governing body will consist of members of Canadian academic, governmental and professional fields, from which will be drawn an executive committee to deal with current affairs, and a series of advisory committees which will be in charge of specialized functions. The organization will operate with a full-time professional staff under the guidance of an executive director.

Committee on Urbanization, Social Science Research Council

The Committee on Urbanization of the Social Science Research Council has been meeting since 1958 to study the current state of knowledge concerning urbanization in important areas of the disciplines represented by its members - anthropology, economics, geography, history, political science and sociology. The committee has completed its survey and is now preparing a monograph which will outline the current status of research in urbanization and will identify selected areas needing more research. The following manuscript outline gives an idea of the subjects covered: Ch. 1 Introduction and Overview (Editors); Part I - Status of Research in Urbanization Ch. 2 History (Lampard, Eric E.); Ch. 3 Sociology (Sjoberg, Gideon); Ch. 4 Economics (Thompson, Wilbur R.); Ch. 5 Political Science (Sayre, Wallace S. and Polsby, Nelson W.); Ch 6 Geography (Ginsburg, Norton S. and Mayer, Harold); Part II - Selected Areas of Research, Ch. 7 The Industrial City (Sjoberg, Gideon); Ch. 8 Cities in Densely Populated Countries (Keyfitz, Nathan); Ch. 9 Research Frontiers in Urban Geography (Berry, Brian); Ch. 10 Priorities in Economic Aspects of Urban Research (Vernon, Raymond); Ch. 11 On the Spatial Structure of Cities in the Two Americas (Schnore, Leo F.); Ch. 12 Folk-Urban Continuum (Lewis, Oscar); Folk-Urban Continuum (Hauser, Philip M.); Ch. 13 Demographic Aspects of Urban Research (Hauser, Philip M.); Ch. 14 Urbanization and Economic Development (Hauser, Philip M.); Ch. 15 Next Steps in Urban Research (Editors).

The monograph is scheduled to be published in late 1963 or early 1964. Professor Philip M. Hauser, University of Chicago, is the chairman of the committee.

Regional Research Project, U. S. Department of Commerce

Recent growth experience of the nation's regions is the subject of a comprehensive study currently underway in the U. S. Department of Commerce's Office of Economic Programs, according to Edgar S. Dunn, director. Purpose of the study is twofold. In part, it is intended to provide research information useful for policy guidance within the Department itself, vis-a-vis efforts to promote economic stability and improved rates of economic growth. In part, it is intended to provide new research materials to students of regional and local economics throughout the country.

Growth performance of the various regions will be examined by comparing actual shifts in employment during the decades 1940-1950 and 1950-1960 with the shifts which could have been expected had the component parts of the region's economy experienced the same vote of growth as that experienced in the nation as a whole. Particular attention will be directed to the relative influence of "competitive" and "compositional" effects, "competitive" effects being those attributable to changes in the competitive position of given industries, and "compositional" effects being those attributable not to changes in competitive position but to the mix of activities in the region.

A UNIVAC machine program has been drafted to perform basic computations for all states, metropolitan areas and counties in the country. Data point-outs will be made available on request to other research groups, and several analytical volumes will be prepared by O.E.P.

RESEARCH MATERIALS

New Series of 1960 Population Census Reports (g)

The Bureau of the Census, Department of Commerce, has started publication of a series of reports on the detailed characteristics of the population, based on 25 per cent sample data collected in the 1960 Population Census. This series, designated as PC(1)-D, will include 53 reports-- a United States Summary and one for each of 50 States, the District of Columbia, and Puerto Rico. The first report--Vermont--was issued in March. The series is scheduled to be completed by the end of the year, with the majority of the reports to be published during the summer and fall.

These reports will present cross-classifications by age, color, sex, and other characteristics for most of the subjects covered in the 1960 Census of Population. They will also show more information on families than previously published, as well as data on single years of age, detailed occupation, and detailed industry.

The subjects to be covered include nativity, place of birth, country of origin of the foreign stock, place of residence in 1955, school enrollment by level and type, years of school completed, martial status, families and their composition, fertility, veteran status, employment status, hours worked, weeks worked in 1959, year last worked, occupation, industry, class of worker, place of work, means of transportation to work, and income of persons and families. Each subject will be shown for some or all of the following areas: States and their urban, rural-nonfarm, and rural-farm parts; and large counties, cities and standard metropolitan statistical areas.

(g) From Statistical Reporter, April, 1962.

The reports are individually priced and may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., or any U. S. Department of Commerce field office. Announcement and order forms are available upon request to the Publications Distribution Section, Bureau of the Census, Washington 25, D. C.

Two New Samples of the Population of the United States [(h)]

The Bureau of the Census has completed its plans for making available for public use two samples of the population of the United States, based on the returns of the 1960 Census. These samples were developed in response to strong recommendations by a number of social scientists that such material would be a valuable tool for researchers.

The One-in-a-Thousand Sample.--The Census Bureau will make available on a cost basis reels of magnetic tape or a set of punchcards containing the separate records of the population characteristics of each of approximately 180,000 persons, comprising a 0.1 percent sample of the population of the United States. The information will include substantially all of the characteristics of persons enumerated in the 25 percent sample portion of the 1960 Population Census.

This material will enable potential users to prepare analytical tabulations of the characteristics of the population of the United States. The names of the respondents and certain of the more detailed items on place of residence and some other characteristics will not be revealed and the sample will be limited to a relatively small subsample of the complete set of records. Therefore, it has been determined that making records available in this form will not violate the law under which the census was conducted, which specifies that the records must be treated as confidential.

The most complete record will be available as a 120-digit record for each person on a maximum of 20 reels of magnetic tape suitable for use as input to the more common types of electronic computers. In addition to characteristics of the person, this record will also include selected characteristics of the household, family, and subfamily (if any) of which the person is a member. The record will also contain a few of the characteristics of an "associated person," that is, the spouse of a married adult, or the father or mother of a child. The record also will contain selected characteristics of the housing unit in which the person lives.

On the magnetic tape the record for the head of the household will be followed by the records for the other members of the household. Thus, it will be possible to prepare tabulations in which the characteristics of any person in a family are associated with characteristics of other persons in the family, or with characteristics of the family as a whole or of the housing unit in which the family lives. The sample will be self-weighting, i.e., each person in the sample will be assigned a weight of 1,000.

(h) From the Statistical Reporter, June, 1962.

Estimates for the universe may be obtained by adding three zero's to the uninflated count.

These records also will be available as a set of approximately 180,000, 80-column punchcards. The punchcards will contain most of the characteristics of the person and a selection of the characteristics shown on the tape record of the household, family, subfamily (if any) of which the person is a member, of an associated person, and of the housing unit in which he lives. A household and family number on each punchcard will permit the assembly of punchcards for all members of the same household for more detailed analysis.

The most detailed area identification shown on the record will be the four geographic regions of the United States and the size of urban place, size of urbanized area, and size of SMSA of residence. The information on place of residence in 1955 and on place of work also will be presented in a consolidated form.

The One-in-Ten-Thousand Sample.--The Census Bureau will also make available on a cost basis a set of punchcards comprising a 0.01 percent sample of the U. S. population. This sample will be drawn from the above-mentioned one-in-a-thousand set of punchcards, consist of approximately 18,000 cards, and contain the same population and housing data.

Availability and Cost.--It is anticipated that these materials will be available during the late fall of 1962. The Population Council has provided funds to cover, for nonprofit organizations, their prorated share of the cost of producing the master tapes and punchcards. As a result, for such organizations the cost will be $1,500 for the 0.1 percent sample on tape or punchcards and $500 for the 0.01 percent sample on punchcards, plus shipping charges from Washington, D. C. for either punchcard sample. For other organizations, the cost is expected to be between $4,000 and $6,500 for the 0.1 percent sample and about $750 for the 0.01 percent sample, including their prorated share of the cost of producing the master copy. Further information concerning these materials may be obtained by writing to the Director, Bureau of the Census, Washington 25, D. C.

Housing Reports On Recent Movers (i)

The Bureau of the Census, Department of Commerce, has published the first reports in the Components of Change series designated as Part 1B (Inventory Characteristics) of Volume IV of the 1960 Census of Housing. The Part 1B reports present statistics on the characteristics of present and previous residences of recent movers (households that moved in 1958 or 1959), cross-tabulations of the 1959-1950 value or rent for units that were the "same" in 1950 and 1959, and number of rooms by selected characteristics for new construction. This series comprises separate reports for each of 2 standard consolidated areas (SCA), 15 standard metropolitan statistical areas, and for the United States, by regions. Publication of the SCA and SMSA reports is scheduled for completion by the end of July. The report for the United States is expected to be published by September.

(i) From Statistical Reporter, June, 1962.

Reports for Part 1A of Volume IV (Components of Inventory Change, 1950-1959 Components) have been released for the same 17 metropolitan areas to be covered in the Part 1B series. The report for the United States is expected to be printed in August. The Part 1A reports present the basic counts and characteristics of changes in the housing inventory, 1950 to 1959, such as new construction, conversion, merger, demolition, and units which remained the "same."

The series of reports which constitute Part 2 of Volume IV (Components of Inventory Change, 1957-1959 Components) will present counts and characteristics of changes in the housing inventory, 1957 to 1959. These reports are to be published between August and December 1962.

Copies of reports in the Volume IV, Parts 1A and 1B, series may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Reports for individual areas are 30 cents each and the U. S. summary is $1.

New Guide to Published and Unpublished 1960 Housing Census Data (j)

A data-finding guide covering all final reports as well as unpublished tabulations of the 1960 Census of Housing has been issued by the Bureau of the Census, Department of Commerce. Entitled "U. S. Census of Housing, 1960: Availability of Published and Unpublished Data," the new booklet includes a general index for all series of final reports and detailed subject guides for the individual series.

The general index lists alphabetically all the items in the individual subject guides, and shows the volumes and series in which each appears. The subject guide for each volume (or series) lists the items covered, the tables in which each item appears, all cross-tabulations, the areas for which data are available, and the types of housing units and households for which specific tabulations were made. There is also an appendix showing maximum and minimum detail for the categories and class intervals of the individual items.

A separate section is devoted to material available in unpublished tabulations.

Copies of "U. S. Census of Housing, 1960: Availability of Published and Unpublished Data," (13 pages, 25 cents each) may be purchased from the Bureau of the Census, Washington 25, D. C. A similar publication covering the 1960 Census of Population (35 pages, 50 cents) is also available from the Bureau of the Census.

Metropolitan Housing Reports From 1960 Census of Housing (k)

Publication of the "Metropolitan Housing" reports, Series HC(2), of

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(j) From Statistical Reporter, August, 1962.

(k) From Statistical Reporter, August, 1962.

the 1960 Census of Housing has been started by the Bureau of the Census, Department of Commerce. According to present schedules, publication of this series of reports will be completed nine months earlier than the comparable 1950 reports. Separate reports will be issued for the United States, each of the nine geographic divisions, each standard metropolitan statistical area (SMSA) with 100,000 inhabitants or more in the United States and for the San Juan and Ponce SMSA's in Puerto Rico. There will be separate tables for each city of 100,000 inhabitants or more in the SMSA. The series will subsequently be bound and issued as Volume II of the 1960 Census of Housing. It is expected that all area reports will have been released by the end of September.

The HC(2) series contains cross-tabulations of housing and household characteristics presented separately for owner-occupied and renter-occupied units. Characteristics shown include condition and plumbing, household composition, number of rooms, units in structure, rent, value, and income. Additional data are presented on number of persons, types of households, year occupants moved into unit, year structure was built, equipment items, and ratios of value and rent to income. Separate tabulations are presented for vacant units and for units in which specified facilities are shared or lacking.

Separate tabulations will be shown for SMSA's or cities with 25,000 or more housing units occupied by nonwhites, and for SMSA's and cities in California and Texas with 25,000 or more housing units with white household heads with Spanish surnames. Similar data will be published for New York City and the New York SMSA for housing units with household heads of Puerto Rican birth or parentage.

The "Metropolitan Housing" reports will be individually priced and may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

HHFA - Census Bureau Research Program

The Housing and Home Finance Agency and the Census Bureau have announced that their joint program, "Sales Volume and Sales Prices of New Homes," which was initiated in fiscal year 1962 is to be continued through fiscal year 1963. A preliminary report in the series has been published and a second report is due for publication before the end of November, 1962.

The project entitled "Special Census Data on Housing Conditions of the Elderly" has been completed and selected data from these tabulations are to be published as "Volume VII of the Census Report, Housing of Senior Citizens." Photo copies of these tabulations are now available for purchase. In addition, the HHFA has recently published an analysis of the major findings of the study, entitled "Senior Citizens and How They Live, Part I: The National Scene." Additional analyses are to be published in the near future.

Further information on the HHFA research program may be obtained from Morton J. Schussheim, Assistant Administrator, Office of Program Policy.

Census History Project (l)

As part of its continuing series of publications resulting from the 1960 Census History Project, the Bureau of the Census has issued a report on the processing of data from the 1960 Censuses of Population and Housing. The new report includes a description of the steps taken from the receipt of enumeration books containing the information collected by the enumerators through completion of the tabulations on high-speed electronic computors and preparation of the statistical tables. The title is "United States Census of Population and Housing, 1960: Processing the Data."

Three other reports in the Census History series which have appeared to date describe the principal enumeration forms and procedures of the 1960 Censuses of Population and Housing, the 1959 Census of Agriculture, and the Survey of Components of Change and Residential Finance.

The report on data processing (79 pages, 50 cents) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Statistics In 1962 County & City Data Book Available On Cards (m)

As a byproduct of the method of preparing the 1962 edition of the "County and City Data Book" the Bureau of the Census now has available for the cost of reproduction a deck of punchcards containing all of the statistics to be presented in this volume. Data for the new edition were selected primarily from the 1960 Censuses of Population and Housing, the 1959 Census of Agriculture, the 1958 Censuses of Business, Manufactures, and Mineral Industries and the 1957 Census of Governments. Also included are current data from other governmental and private agency reports. Geographic areas covered are counties, standard metropolitan statistical areas (SMSA's), urbanized areas, and cities and unincorporated places of 25,000 inhabitants or more.

For each county, 161 statistical items are available on cards; for each incorporated city, 163 items; for each SMSA, 128 items; and for each urbanized area and unincorporated place, 67 items. The data are arranged so the material for any one county or city are on 20 cards; for an SMSA on 16 cards; and for an urbanized area or unincorporated place on 8 cards.

The estimated cost of reproduction of the entire set of approximately 82,000 cards is $850 plus shipping charges. Selections of cards for specified areas or particular items may also be purchased at a proportionate reduction in cost, or various items can be combined into one or more cards from a greater number of cards, at cost. The preparation of a computer tape file containing all or part of the data presented on the punchcards and in the Data Book can also be arranged.

(l) From Statistical Reporter, June, 1962.

(m) From Statistical Reporter, June, 1962.

A pamphlet which outlines the contents of the Data Book in the form of the column headings in its tables (these are identical to the card layouts) is available free of charge upon request to the Publications Distribution Section, Bureau of Census, Washington 25, D. C. For more information concerning cost of punchcards or computer tapes, compatability of tapes with various computers, or similar matters, write to: Chief, Statistical Reports Division, Bureau of the Census, Washington 25, D. C.

Manufacturing Plants Data Rearranged (n)

Last year the Bureau of the Census issued a special report from the 1958 Census of Manufactures entitled "Location of Manufacturing Plants by Industry, County and Employment Size," Series MC58(S)-2 (SR No. 285, Sept. '61, p. 131). This report presented establishment counts for each of approximately 425 manufacturing industries (based on the 1957 SIC) by county and employment-size class. Seven employment-size classes were included.

With financial assistance from the Area Redevelopment Administration and others, a companion series of reports has been published with the data rearranged in State, county and industry sequence under the title, "Location of Manufacturing Plants By County, Industry and Employment Size," (Series MC58(S)-3). This is the first time that the data are being published in a county-by-industry sequence.

This publication presents only establishment counts that do not disclose confidential company information. Therefore, considerably more detail can be provided than can be published for other measures of manufacturing activity (employment, payrolls, shipments, etc.) in the census volumes. Accordingly, these two series of publications fill in many of the data gaps necessarily arising in the standard tables of the 1958 Census of Manufactures.

The MC58(S)-3 series consists of a separate report for each of the nine Census geographic divisions, with all counties having one or more manufacturing plants arranged in alphabetical sequence within each State. The industries located in each county appear in the 4-digit SIC (1957) sequence. The employment-size class assigned to each plant is based on the "average" 1958 employment reported for the plant on its 1958 Census of Manufactures return.

The set of reports in county-by-industry sequence, MC58(S)-3, costs $4.50, and in industry-by-county sequence, MC58(S)-2, $6.25. Reports for the various geographic divisions are individually priced. All reports may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., or any Department of Commerce field office. An announcement and order form describing both series of reports may be obtained free of charge from the Publications Distribution Section, Bureau of the Census, Washington 25, D. C.

(n) From Statistical Reporter, May, 1962.

Summary Statistics of 1958 Census of Business (o)

The three final volumes of the 1958 Census of Business have been published by the Bureau of the Census, Department of Commerce. They are Volume I-Retail Trade, Summary Statistics; Volume III-Wholesale Trade, Summary Statistics, and Public Warehousing; and Volume V-Selected Services, Summary Statistics. Each volume includes chapters on employment size, legal form of organization, single units and multiunits, sales (or receipts) size, and tabulations on administrative offices and auxiliaries. In addition, individual volumes include the following material:

Wholesale Trade: Data on commodity line sales, petroleum bulk stations and terminals, receivables and bad-debt losses, and sales by class of customer; special report on public warehouses, and a chapter of the miscellaneous data including material not previously published on vending machine operators, grain elevators, exporters and importers, wagon and truck distributors and rack merchandisers.

Selected Services: Data on power laundries, hotels, motels and tourist courts and motion pictures; and supplementary information on advertising agencies, auto and truck rental, coin-operated amusement devices, bowling establishments and commercial spectator sport establishments.

Retail Trade: Supplementary information on drug stores, lumber yards and merchandise vending machine operators.

Much of the material on the summary statistics volumes was published earlier in the Subject Reports series of the 1958 Census.

Release of the three volumes of summary statistics completes the publication program of the 1958 Census of Business. Three volumes of area statistics (Vol. II-Retail Trade, Vol. IV-Wholesale Trade, and Vol VI-Selected Services) were published earlier.

All bound volumes of the 1958 Census may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Prices are as follows: Vol. I, $7.50, Vol. II, $14.50, Vol. III, $6.75, Vol. IV, $6.00, Vol. V, $6.50, Vol. VI, $13.00.

Preliminary Census of Governments Report on Public School Systems (p)

Data on public school systems for the school year 1961-62 have been issued by the Bureau of the Census, Department of Commerce. Published as a preliminary report of the 1962 Census of Governments under the title "Public School Systems in the United States, 1961-62," the report presents data on

(o) From Statistical Reporter, July, 1962.

(p) From Statistical Reporter, July, 1962.

school districts and dependent school systems for the 1961-62 school year and public school enrollment as of October 1961. It shows numbers of school systems and public school enrollment by States, with distributions by kind of system, enrollment-size, number of schools operated, grades provided, type of area served. The related National totals include figures separately for school systems located within standard metropolitan statistical areas and those outside such areas.

New Reports Define Census County Divisions in 18 States (q)

The first of a series of reports describing the boundaries of census county divisions has been published by the Bureau of the Census, Department of Commerce. Issued under the general title, Census County Division Boundary Descriptions, each report will cover one of the 18 States in which census county divisions have been established for statistical reporting. Census county divisions (CCD's) are county subdivisions with clearly defined permanent boundaries for areas below the county level. CCD's take the place of election districts, townships, or other minor civil divisions which change from time to time. They make accurate comparisons possible from one census to another.

The first report in the series, Arizona (11 pages, 15¢) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

FHA Reprints City Annexation Data (r)

The Federal Housing Administration has reprinted, primarily for use in FHA housing market analysis, a table entitled "Annexations of One-Fourth Square Mile or more by Cities over 5,000, 1961" as well as the accompanying analysis. The table and analysis bring up to date the series of FHA reprints of annexation data published in the Municipal Year Book. The first annexation table reprinted by the FHA was for the years 1948-1957; tables for 1958, for 1959, and for 1960 also have been reprinted.

Some of the data are subject to certain important limitations, including the fact that they are believed to be incomplete for some cities and for some years and that annexation and population figures are local estimates which may be subject to error of an undetermined degree. Despite these and perhaps other limitations, these annexation tables constitute the only single (secondary) source of estimated population annexed each year by each locality.

Single complimentary copies of any of the five table reprints (1948-1957, 1958, 1959, 1960, 1961) are available on request from Mr. E. W. Tomlinson, Division of Research and Statistics, Federal Housing Administration, Washington 25, D. C.

(q) From Statistical Reporter, July, 1962.

(r) From Statistical Reporter, July, 1962.

New Exchange Bibliographies; Council of Planning Librarians

The Council of Planning Librarians has announced the publication or planned publication of several new bibliographies in its series of Exchange Bibliographies. These are:

No. 5. CITY PLANNING: SELECTED REFERENCES FOR CITIZEN GROUPS. By Holway R. Jones, Revised September, 1962. 19 p. $1.00. Annotated. (Available at bulk rates to planning commissioners, citizen organizations, students and teachers: 5 to 9 copies, 30¢ each; 10 or more copies, 20¢ each.)

No. 22. AN ANNOTATED BIBLIOGRAPHY ON UNIVERSITY AND MEDICAL CENTER PLANNING AND DEVELOPMENT. By Kermit C. Parsons, Associate Professor of Regional Planning, Department of City and Regional Planning, College of Architecture, Cornell University, Ithaca, New York. September, 1962. 68 p. $2.00.

In Preparation

No. 23. CENTRAL BUSINESS DISTRICTS. By Mary Vance. Combines material found in nos. 12 and 16 and brings it up to date through September, 1962. To be released in November, 1962.

No. 24. SELECTED BIBLIOGRAPHY ON PLANNING, POLITICS, AND POLITICAL SCIENCE. By Charles E. Patterson, Jr. To be released in December, 1962.

No. 25. SIGNIFICANT PUBLICATIONS ON URBAN LAND USE, 1958-1961. By William F. Powers. To be released in January, 1963.

No. 26. CRAWLEY NEW TOWN: A BIBLIOGRAPHY COVERING THE PERIOD JULY, 1946, to DECEMBER, 1957. By Betty Reynolds. To be released in January, 1963.

Through the cooperation of Professor Francis Violich and the Center for Latin American Studies of the University of California, a new series of bibliographies on urban planning in Latin America was inaugurated in January, 1962. The three bibliographies listed below have been published and several others will be published in the near future.

Latin American Series

No. 1. BIBLIOGRAPHY ON URBAN PLANNING IN LATIN AMERICA. By Francis Violich, Professor of City Planning, Director of the Center for Latin American Studies, University of California, Berkeley. January, 1962. 16 p. $1.00. Annotated.

No. 2. BIBLIOGRAPHY ON URBAN PLANNING IN CHILE. By Francis Violich. April, 1962. 10 p. $1.00. Annotated.

No. 3. BIBLIOGRAPHY ON THE EVOLUTION OF CITIES IN LATIN AMERICA: THE CITIES OF PRE-COLUMBIAN AMERICA; THE COLONIAL CITIES: THE PERIOD FOLLOWING INDEPENDENCE. By Jorge E. Hardoy, Director of the Institute of Urban and Regional Planning, and Professor of Planning, University of the Litoral, Rosario, Argentina. September, 1962. 32 p. $1.00. Annotated.

The bibliographies in the regular series may be ordered singly or any number may be used to begin a subscription of ten consecutive bibliographies for $8.00. A student rate of ten consecutive bibliographies for $5.00 is also available. All orders, with accompanying check or money order, should be sent to Exchange Bibliographies, Council of Planning Libraries, 6318 Thornhill Drive, Oakland 11, California.

The Geography of Transportation

The Institute of Transportation and Traffic Engineering of the University of California has published a new bibliography on the geography of transportation. The work was compiled by Roy I. Wolfe, assisted by Beverly Hickok, and is entitled,"An Annotated Bibliography of the Geography of Transportation". The bibliography lists 792 sources in several divisions including Economics of Transportation, Concepts and Models, Classification of Transportation Systems and Urban Transportation.

Scholarly Books in America

Digest readers who do not already receive "Scholarly Books in America" may be interested to learn of this helpful publication. "Scholarly Books in America" is a listing of the publications of all the major University presses. It is published quarterly by the University of Chicago with the cooperation of the Association of American University Presses. Since many of the books dealing with urban and regional studies are now being published by university presses, this booklet is helpful in keeping abreast of new publications. "Scholarly Books in America" is free and requests for subscriptions should be addressed to the Circulation Office, 1525 East 53rd Street, Chicago 15, Illinois.

ASPO Index to National Planning Conferences

ASPO has recently published the ASPO Index to National Planning Conferences, 1909-1960. This should serve as a valuable tool to urban researchers who are interested in checking on materials from past planning conferences. The papers are listed by speaker and subject with geographic cross references. The Index was prepared by Mary Vance with a Preface by Marjorie Berger. It is available from ASPO, 1313 E. 60th Street, Chicago 37, Illinois. Price is $5.00 to ASPO members and $6.00 to nonmembers.

OTHER

Current Work of the Advisory Committee on Intergovernmental Relations

Two new research projects have been added to the work program of the

Advisory Committee on Intergovernmental Relations since our last report. These projects are:

(1) A study of intergovernmental problems arising from economic and racial disparities between central city and suburban populations.

(2) A study of jurisdictional disparities between costs and benefits of local government programs in metropolitan areas.

Several of the studies reported in earlier issues of the Digest have been approved by the Commission and are now in the process of publication. These include the following:

(1) Measures of state and local fiscal capacity and tax effort.

(2) A directory of Federal statistics for metropolitan areas.

(3) State constitutional and statutory restrictions upon the structural, functional and personnel powers of local governments.

(4) Intergovernmental responsibilities for water supply and sewage disposal in metropolitan areas.

(5) State constitutional and statutory limitations on local taxing powers.

Religious Research Association, Inc. (s)

Persons interested in the problems of the church and city should investigate the Religious Research Association, Inc. This is an organization of social scientists, clergymen, city planners, and others who are working to further the understanding of the role of religion in contemporary life that can be gained through the methods of the behavioral sciences.

The Associations quarterly Review of Religious Research usually contains one or more articles directly applicable to the problems of the church and the city.

Further information on the organization can be had by writing to Religious Research Association, Inc., P. O. Box 228, Cathedral Station, New York 25, New York.

Urban History Group

Many readers of the Digest will be interested in the activities of an informal organization known as the Urban History Group. The organization was formed several years ago to serve as a medium of communication among historians interested in cities and urbanization. The Urban History Group publishes a newsletter which comes out three times a year, and sponsors sessions on urban history at some of the historical association meetings.

(s) From the ASPO Newsletter, October, 1962.

Further information on the group can be obtained from Charles N. Glaab, The State Historical Society of Wisconsin, 816 State Street, Madison 6, Wisconsin.

First Latin American Congress of the Regional Science Association

The Regional Science Association, with the help of the new Centro de Estudios del Desarrollo (CENDES), at the Universidad Central de Venezuela, in Caracas, Venezuela, recently completed the first Regional Science Association meetings to be held in Latin America. The congress was held at CENDES on November 12-14, 1962, and on the following two days Walter Isard conducted a series of open seminars on regional development problems. Participants at the meetings included faculty members of CENDES, staff members of the United Nations Economic Commission for Latin America, the Regional Science Research Institute, the Joint Center for Urban Studies (Howard-M.I.T.), and the regional development groups in Brazil, Venezuela and other South American countries.

AVAILABLE BACK ISSUES OF RESEARCH DIGEST

A few copies of the following back issues of the Research Digest are still available, and may be purchased at the regular price of $1.00 per copy.

Vol. 3	No. 2	November, 1956
Vol. 5	No. 2	November, 1958
Vol. 7	No. 2	November, 1960
Vol. 8	No. 2	November, 1961
Vol. 9	No. 1	April, 1962

Copies of both the Cumulative Index to Volumes 1-7 and the separate Index to Volume 8 are also available. One copy free to subscribers. Extra copies $1.00 each. An Index to Volume 9 will be issued in the near future.

RESEARCH DIGEST

Index to Volume 9

1962

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University of Illinois
Urbana, Illinois

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CONTENTS

SUBJECT INDEX 1

GEOGRAPHICAL INDEX 18

CONTRIBUTOR INDEX 27

SUBJECT INDEX

AGRICULTURE

9:1-43 Agricultural Economy of the Upper Midwest Region

9:1-70, 9:2-144 Resources, People and Economy of East-Central Wyoming

9:1-83 Beef Cattle Feeding in the Northern Great Plains

AVIATION

9:1-9 General Aviation in California

9:1-20 Effect of Noise Created by Airport and Aircraft Operations Upon Surrounding Areas

CENTRAL BUSINESS DISTRICTS

9:1-23 Spatial Variables and CBD Sales

9:1-27 The Future of the Downtown Department Store

9:2-28 Economic Analysis of the Wilmington Metropolitan Region With Emphasis on Its Core Area

9:2-92 Changes in Center City Property Values, 1950-1960, in Two North Carolina Cities

CITIZEN PARTICIPATION

9:1-4 Community Conference Program

9:1-40 Organizing Leadership for Community Development Projects

CITY FORM

9:2-23 The Shapes of American Cities: An Investigation of Selected Parameters of Population Distribution for Selected Cities in the United States in 1940, 1950, and 1960

9:2-100 Motive Forces Behind the Physical Form of the Spanish Colonial City of the 16th Century South America

9:2-138 The Effects of Technological Change on Cultural Continuity as Evidenced by the Morphology of Certain Japanese Cities (1870-1920)

CITY PLANNING

9:1-24	City Planning and Local Politics
9:1-45	Planning for Fast Growth
9:2-24	Planning and Architecture in Eastern Europe Since World War II: Poland
9:2-94	An Identification of Communities in the United States Making the Greatest Progress in Comprehensive Planning and Development
9:2-107	The Place of the Ideal City in Urban Planning

CITY PLANNING - STUDY AND TEACHING

9:2-8	A Critical Evaluation of Recent Experience in Teaching Community and Regional Planning to Students From Recently Independent Countries

COMMERCIAL AREAS

9:1-14	Effects of Intra-Urban Limited Access Thoroughfares on Commercial Land Uses

COMMUNICATIONS

9:1-10	Nature and Economic Significance of Metropolitan Peak Demand Patterns

DATA PROCESSING

9:2-112	Data Processing and Simulation Techniques

DISCRIMINATION

9:1-5, 9:2-10	Interaction Between Discrimination, Interregional Migration and Regional Development

ECONOMIC BASE

9:2-20	The Community Economic Base Study

ECONOMIC PROJECTIONS

9:1-48, 9:2-85	State Economic Projections
9:2-34	The Projected Economic Growth of Hawaii to 1970
9:2-39	The Projected Economic Growth of Illinois to 1971
9:2-87	Regional Economic Projections Series

ECONOMIC STUDIES

9:1-17	Prospectus for a Study of the Economic Growth and Structure of the Los Angeles Regional Economy
9:1-33	Growth and Fluctuations in the Economy of Louisiana, 1947-1959
9:1-34	Quantitative Investigation of Aspects of the Economics of Supply and Demand in the Petroleum Industry
9:1-35	Economic Adjustments to Disarmament
9:1-49	Income and Employment in New Mexico, 1949-1959
9:1-50	New Mexico Since Statehood
9:1-52	Industrial Development Trends and Economic Potential: Urban Growth Dynamics in a Regional Cluster of Cities
9:1-53	The North Carolina Economy
9:1-54	A Theory of the Suburbanization of Manufacturing Activity
9:1-55	Economic Development in Eastern Oklahoma Until 1950
9:1-56	Small Area Employment Estimation in the Philadelphia Area
9:1-65	Potential Economic Development of the United States Southwest
9:1-66	Inter-Community Spillovers of Public Education Costs and Benefits
9:1-67	Seasonal Variation Study
9:1-68	Cyclical Variation Study
9:1-70, 9:2-144	Resources, People, and Economy of East Central Wyoming
9:2-4	Effect of Walsh-Healy Minimum Wages on Regional Industries
9:2-5	A Study of Inter-City Wage Differentials
9:2-6	Income Redistribution in Federal Grants-in-aid

ECONOMIC STUDIES (continued)

9:2-15	A Preliminary Study of the Economic Growth and Structure of the Los Angeles Regional Economy
9:2-20	The Community Economic Base Study
9:2-28	Economic Analysis of the Wilmington Metropolitan Region with Emphasis on Its Core Area
9:2-40	Industrial Community, and Internal Conditions for Small Retailer Survival
9:2-50	Economic History of the American City
9:2-73	Southeastern Michigan Economic Study
9:2-101	Data Requirements and Methods of Analysis for Metropolitan Economic Planning and Development in Pennsylvania
9:2-102	Local and Regional Import of Military Expenditures in the United States
9:2-113	Economic Study of the Pittsburg Region
9:2-114	The American Metals Complex
9:2-132	Comparative Advantage of U. S. Regions
9:2-133	The Geographic Impact of the Federal Budget
9:2-140	Urban Economics, A Guide to Research on Waste, Poverty and Stagnation in Cities

EMPLOYMENT

9:1-49	Income and Employment in New Mexico, 1949-1959
9:1-56	Small Area Employment Estimation in the Philadelphia Area
9:2-31	Employment and Unemployment in East St. Louis, Illinois
9:2-86	Occupational Employment Projections for Southern States
9:2-136	Employment and Population Analysis and Projections, Salt Lake Metropolitan Area, Utah and the United States

HIGHWAY FINANCE

9:1-6	Economic Considerations in the Distribution of Highway Revenues in California

HIGHWAY IMPACT STUDIES

9:1-14	Effects of Intra-Urban Limited Access Thoroughfares on Commercial Land Uses
9:1-60	Highway Impact in Urban Areas
9:2-9	The Impact of Highway Development on Land Use Changes
9:2-32	The Impact of the Interstate Highway System on Madison and St. Clair Counties, Illinois, Phase One: An Analysis of Land Use and Land Value
9:2-77	Beltline Commercial-Industrial Development
9:2-98	Project Wamby, The Economic and Social Impact of New and Improved Highways

HIGHWAYS

9:2-29	Land Use Planning and Control Along the Interstate Highway System in Georgia
9:2-76	Land for Highways, The Public as Purchaser
9:2-79	Benefits and Costs of Modifications to Interstate Highways
9:2-139	Criteria for the Establishment of Additional Scenic Areas Along Highways in the State of Washington

HISTORICAL STUDIES

9:1-29	Class and Mobility in a Nineteenth Century City: A Study of Manual Laborers
9:1-32	The City Beautiful Movement in Kansas City, 1872-1914
9:2-41	Toward the Functional City: A History of the Garden City Concept
9:2-49	Form of House and Settlement Pattern in Pre-Literate Societies
9:2-50	Economic History of the American City

HISTORICAL STUDIES (Continued)

9:2-51	Goals of Municipal Policy in American Regional Cities, 1760-1930
9:2-107	The Place of the Ideal City in Urban Planning

HOUSING

9:1-12, 9:2-16	Determinants of Residential Construction
9:1-26, 9:2-58	Metropolitan Structure and the Rebuilding of Cities
9:1-64	Financial Programs for Lower Middle Income Housing
9:2-42	Relation Between Intensity of Development of Multi-Family Housing Projects and Liveability of Projects
9:2-64	The Struggle for Shelter
9:2-106	Housing Markets and Public Policy
9:2-110	New Residential Construction in Older Neighborhoods of Philadelphia From 1951 to 1960
9:2-116	Social and Psychological Factors in Urban Conservation
9:2-127	Financing Lower-Middle Income Housing
9:2-128	National Study on Public Housing and Urban Renewal

INCOME

9:1-21	County Income Study
9:1-49	Income and Employment in New Mexico, 1949-1959
9:2-4	Effect of Walsh-Healy Minimum Wages on Regional Industries
9:2-5	A Study of Inter-City Wage Differentials

IDEAL CITIES

9:2-107	The Place of the Ideal City in Urban Planning

INDUSTRIAL DEVELOPMENT

9:1-1, 9:2-1	Recent Tax Changes and Industrial Development in Pennsylvania
9:1-47	An Analysis of the Industrial Composition of Metropolitan Areas
9:1-52	Industrial Development Trends and Economic Potential: Urban Growth Dynamics in a Regional Cluster of Cities
9:1-54	A Theory of the Suburbanization of Manufacturing Activity
9:2-36	Inventory and Evaluation of Chicago's Industrial Plant
9-2-75	Stimulation of the Potential of the States of Missouri, Oklahoma, Kansas, Arkansas, Iowa and Nebraska by Greater Participation in Space Science and Technology
9:2-77	Beltline Commercial-Industrial Development
9:2-90	The Industrial Distribution of Employment, Patterns and Change 1947-1967
9:2-91	Industry and Local Government
9:2-96	Industry and Transportation Study, Eugene-Springfield Area, Oregon
9:2-114	The American Metals Complex

LABOR MOBILITY

9:1-29	Class and Mobility in a Nineteenth Century City: A Study of Manual Laborers

LAND USE

9:1-25	Discretion and Certainty in Land Use Controls: The Problem of Non-Euclidean Zoning of Larger Parcels
9:1-57	Land Use Changes in the Philadelphia Area
9:2-9	The Impact of Highway Development on Land Use Changes
9:2-17	The Anatomy of Turkish Cities: A Comparative Study of Land Use in Six Medium-Sized Urban Places

LAND USE (Continued)

9:2-29 Land Use Planning and Control Along the Interstate Highway System in Georgia

9:2-59 Location and Land Use: A Model of the Urban Land Market

9:2-134 Changing Urban Land Uses as Affected by Taxation

9:2-135 Property Taxation and Land Use in Northeastern New Jersey

LAND VALUES

9:1-18 The Valuation of Accessibility

9:1-61 Land Economic Studies

9:2-76 Land for Highways, the Public as Purchaser

9:2-77 Beltline Commercial-Industrial Development

9:2-78 Guidelines for Land Value Estimation

LOCAL GOVERNMENT

9:1-3 Professional, Technical, and Managerial Manpower Needs of the City of New York

9:2-47 Activities of the Boston City Council

9:2-48 Analysis of Boston's Metropolitan District Commission

9:2-51 Goals of Municipal Policy in American Regional Cities, 1760-1930

9:2-70 The Miami Metropolitan Experiment

9:2-71 Methodology for Studying the Services of Local Government

9:2-72 Four Local Governments, A Comparative Study of Services Provided by East Detroit, Oak Park, Redford Township and Trenton, Michigan

9:2-91 Industry and Local Government

9:2-117 The Council-Manager Form of Government in Pennsylvania: A Citizens Handbook

LOCAL GOVERNMENT (Continued)

9:2-124 An Exploration of the Adaptability of Local Government in the Penjerdel Region, As Measured By Demonstrated Capacity to Cope With New or Expanded Problems, 1950-1962

9:2-137 Levels of Government Services

LOCAL GOVERNMENT FINANCE

9:1-37 Local Government Debt in Michigan

9:1-39 Local Income Taxes as a Source of Revenue for Michigan Communities

9:2-33 Comparative Fiscal Capacity and Effort of Units of Government in Madison and St. Clair Counties, Illinois, 1950 and 1960

9:2-84 A Manual of Procedures for the Operating and Capital Budget Processes in Local Governments and a Study of the Feasibility of Comparative Measurements

9:2-93 Study of Municipal Finances in North Carolina

9:2-119 Rationalizing Public Investment Decision-Making in Urban Communities

9:2-143 The Financial Evolution of the Milwaukee Metropolitan Area

METROPOLITAN AREAS

9:1-47 An Analysis of the Industrial Composition of Metropolitan Areas

9:2-70 The Miami Metropolitan Experiment

9:2-122 Service Areas and Functions of Small Centers in the Pennsylvania-New Jersey-Delaware Metropolitan Region

METROPOLITAN AREA PLANNING

9:2-30 Mass Transit in the Metropolitan Area: The Policy Process and the Illinois-Missouri Bi-State Development Agency

9:2-101 Data Requirements and Methods of Analysis for Metropolitan Economic Planning and Development in Pennsylvania

MIGRATION

9:1-5, 9:2-10	Interaction Between Discrimination, Interregional Migration and Regional Development
9:2-109	Migration and Urbanization in the United States, With Special Reference to Recent Trends

OLD AGE

9:2-21	Community Aspects of Housing for the Aged
9:2-104	Relocation of Elderly Person
9:2-123	Demographic and Ecological Characteristics of the Aging

OPEN SPACE

9:2-108	Requirements for Open Space Land in Urban Areas

POLITICS

9:1-24	City Planning and Local Politics
9:1-38	Four-Cities Study of Local Political Processes
9:2-45	City Politics in America: An Interpretation
9:2-46	City Politics Reports
9:2-62	Politics of Metropolitan Transportation
9:2-68	Kansas City Municipal Election Study
9:2-119	Rationalizing Public Investment Decision-Making in Urban Communities
9:2-141	Election With An Issue: Voting Behavior of a Metropolitan Community in a School Fund Election
9:2-142	The Image of the Presidency: An Investigation into the Political Views of Urban Dwellers

POPULATION

9:1-19, 9:2-19	A Theory of Population Distribution
9:1-31	Variations in Demographic Structure Within a Metropolitan Area: Kansas City

POPULATION (Continued)

9:1-70, 9:2-144	Resources, People and Economy of East-Central Wyoming
9:2-23	The Shapes of American Cities: An Investigation of Selected Parameters of Population Distribution for Selected Cities in the United States in 1940, 1950, and 1960.
9:2-80	Projection of Population and Highway Traffic in Minnesota
9:2-123	Demographic and Ecological Characteristics of the Aging
9:2-136	Employment and Population Analysis and Projections, Salt Lake Metropolitan Area, Utah and the United States

PUBLIC ENTERPRISE ECONOMICS

9:1-7	Public Enterprise Economics and Transport Problems

PUBLIC HEALTH

9:2-125	Service Areas for Public Health

PUBLIC WORKS

9:2-2	Research Needs in the Field of Public Works

REAL ESTATE MARKETS

9:1-15, 9:2-11	Analysis of Real Estate Market Behavior From Multiple Listing Bureau Data in the Los Angeles Area
9:1-16, 9:2-12	Comparison of Changes in House Sale Prices with Assessed Values in Los Angeles
9:1-42	Property Tax Assessment in Lansing, Michigan
9:2-13	The Unanchored Subdivision and Legal Problems in the Interstate Sale of Promotional Subdivision Land
9:2-22	Home Buying and Financing Practices
9:2-59	Location and Land Use: A Model of the Urban Land Market
9:2-67	Land Transfer Improvement - A Suggested Approach
9:2-88	The Omaha Residential Real Estate Market

REGIONAL DEVELOPMENT

9:1-5, 9:2-10	Interaction Between Discrimination, Interregional Migration and Regional Development
9:1-28	Static France and Dynamic France
9:1-33	Growth and Fluctuations in the Economy of Louisiana, 1947-1959
9:2-15	A Preliminary Study of the Economic Growth and Structure of the Los Angeles Regional Economy
9:2-132	Comparative Advantage of U. S. Regions
9:2-133	The Geographic Impact of the Federal Budget

RESIDENTIAL AREAS

9:1-2, 9:2-7	Performance Standards for Space and Site Planning for Residential Development
9:2-13	The Unanchored Subdivision and Legal Problems in the Interstate Sale of Promotional Subdivision Land
9:2-44	Location of Metropolitan Residential Areas
9:2-121	Residential Mobility in the American Middle Classes

RESOURCE DEVELOPMENT

9:1-36	An Approach to the Study of Natural Resources Policy: The Michigan Commission's Decision on the Porcupine Mountains Controversy
9:1-63	Resources in America's Future
9:1-69	An Evaluation of Multiple Use Practices on Forested Municipal Watersheds of the Douglas Fir Region
9:1-70, 9:2-144	Resources, People, and Economy of East-Central Wyoming
9:2-82	Montana's Forest Products Industry
9:2-118	Resources in America's Future: Patterns of Requirements and Availabilities, 1960-2000

RETAIL TRADE

9:2-40	Industrial, Community, and Internal Conditions for Small Retailer Survival
9:2-126	Retail Trade in South Dakota

RIVER BASIN PLANNING

9:2-130	Development of a Comprehensive and Co-ordinated Resource Plan for the Southeast River Basin Area
9:2-131	Development Plan for the Neches, Trinity, Bronzos, Colorado, Guadolupe, San Antonio, Nueces, and San Jacinto River Basins and Intervening Areas

SANITATION

9:2-38	The Relation of Factors of Metropolitan Suburban Expansion and the Utilization of On-Site Sewerage Facilities in the Urban Fringe

SITE PLANNING

9:1-2, 9:2-7	Performance Standards for Space and Site Planning for Residential Development

SOCIAL STUDIES

9:2-3	Social Problems and Social Cohesion
9:2-52	The Zone of Emergence
9:2-53	Social Mobility
9:2-55	Ethnic Groups in New York City
9:2-74	Local Ecological Community: An Investigation of Relative Independence in an Urban Society
9:2-116	Social and Psychological Factors in Urban Conservation
9:2-120	The Slum Youth Culture
9:2-121	Residential Mobility in the American Middle Classes

STATE PLANNING

9:2-25	Long Range Needs and Opportunities in New York State

TAXES

9:1-1, 9:2-1	Recent Tax Changes and Industrial Development in Pennsylvania
9:2-6	Income Redistribution in Federal Grants-in-aid

TAXES (Continued)

9:2-134	Changing Urban Land Uses as Affected by Taxation
9:2-135	Property Taxation and Urban Land Use in Northeastern New Jersey

TECHNOLOGY

9:2-35	Impact of Technological Changes on the Chicago Metropolitan Area
9:2-129	Technology and Urban Transportation
9:2-138	The Effects of Technological Change on Cultural Continuity as Evidenced by the Morphology of Certain Japanese Cities (1870-1920)

TRAFFIC PATTERNS

9:1-8	Traffic Patterns in Relation to Capacity Deficiencies
9:1-10	Nature and Significance of Metropolitan Peak Demand Patterns
9:1-11	Problems of Transport Peaks
9:1-58	Trip Distribution in the Philadelphia Area
9:1-59	Trip Generation in the Philadelphia Area
9:2-37	A Study of the Linkage Pattern Between a Central City and the Communities Within Its Region of Influence
9:2-60	Urban Traffic
9:2-69	Intercounty Commuting in Kentucky
9:2-80	Projection of Population and Highway Traffic in Minnesota
9:2-97	Analysis of Trip Distribution in an Urban Area
9:2-99	The Spatial Distribution of Residences and Work Places in Urban Areas
9:2-103	Trip Lengths Among Urban Activities

TRANSIT

9:2-30	Mass Transit in the Metropolitan Area: The Policy Process and the Illinois-Missouri Bi-State Development Agency
9:2-61	Rail Rapid Transit Systems

TRANSPORTATION

9:1-7	Public Enterprise Economics and Transport Problems
9:2-62	Politics of Metropolitan Transportation
9:2-81	Impact of the St. Lawrence Seaway on the Upper Midwest Region
9:2-96	Industry and Transportation Study, Eugene-Springfield Area, Oregon
9:2-129	Technology and Urban Transportation

UNIVERSITIES AND COLLEGES

9:1-41	University Extension Education in an Urban Setting
9:2-26	University-City Joint Ventures in Urban Renewal
9:2-27	University Campus Planning at Cornell University, 1865-1935

URBAN DESIGN

9:1-32	The City Beautiful Movement in Kansas City, 1872-1914
9:2-18	Civic Design Study of the Rocky Mountains and Great Plains Area
9:2-63	View From the Road
9:2-139	Criteria for the Establishment of Additional Scenic Areas Along Highways in the State of Washington

URBAN DEVELOPMENT

9:1-44	Urbanization in the Upper Midwest Region
9:1-52	Industrial Development Trends and Economic Potential: Urban Growth Dynamics in a Regional Cluster of Cities
9:2-38	The Relation of Factors of Metropolitan Suburban Expansion and the Utilization of On-Site Sewage Facilities in the Urban Fringe
9:2-52	The Zone of Emergence
9:2-54	Urban Development of Los Angeles
9:2-64	The Struggle for Shelter

URBAN DEVELOPMENT (Continued)

9:2-66	Joint Center Guayana Project in Venezuela
9:2-95	Factors Influencing Land Development: Evaluation of Inputs for a Forecast Model
9:2-105	The Decline of Cities
9:2-109	Migration and Urbanization in the United States, With Special Reference to Recent Trends

URBAN GEOGRAPHY

9:2-122	Service Areas and Functions of Small Centers in the Pennsylvania-New Jersy-Delaware Metropolitan Region

URBAN RENEWAL

9:1-13, 9:2-14	Urban Renewal in Europe - Its Emergence and Potentials
9:1-46	Urban Renewal in Small Cities in the Upper Midwest Region
9:2-26	University-City Joint Ventures in Urban Renewal
9:2-56	Urban Renewal in the United States
9:2-57	Urban Renewal in the United States
9:2-65	Urban Renewal
9:2-89	The New Jersey Regional Urban Renewal Study
9:2-111	Urban Renewal Impact Study
9:2-115	Urban Renewal Reader
9:2-128	National Study on Public Housing and Urban Renewal

URBAN RESEARCH

9:1-22	Survey of Urban and Regional Research and Education in American Universities

WATER RESOURCES

9:1-51	Estimates of Water Supply and Demand for the United States

WATER RESOURCES (Continued)

9:1-62 Water Pollution - Economic Aspects and Research Needs

9:2-43 State Administration of Water Resources in Wyoming

ZONING

9:1-25 Discretion and Certainty in Land Use Controls: The Problems of Non-Euclideon Zoning of Larger Parcels

GEOGRAPHICAL INDEX

ARKANSAS

9:2-75 Stimulation of the Potential of the States of Missouri, Oklahoma, Kansas, Arkansas, Iowa and Nebraska by Greater Participation in Space Science and Technology

BOSTON, MASSACHUSETTS

9:2-47 Activities of the Boston City Council

9:2-48 Analysis of Boston's Metropolitan District Commission

CALIFORNIA

9:1-6 Economic Considerations in the Distribution of Highway Revenues in California

9:1-9 General Aviation in California

CANADA

9:2-128 National Study on Public Housing and Urban Renewal

CHICAGO, ILLINOIS

9:2-36 Inventory and Evaluation of Chicago's Industrial Plant

CHICAGO (ILLINOIS) METROPOLITAN AREA

9:2-35 Impact of Technological Changes on the Chicago Metropolitan Area

EUGENE-SPRINGFIELD AREA, OREGON

9:2-96 Industry and Transportation Study, Eugene-Springfield Area, Oregon

EUROPE

9:1-13, 9:2-14 Urban Renewal in Europe - Its Emergence and Potentials

FRANCE

9:1-28 Static France and Dynamic France

GEORGIA

9:2-29 Land Use Planning and Control Along the Interstate Highway System in Georgia

HAWAII

9:2-34 The Projected Economic Growth of Hawaii to 1970

ILLINOIS

9:1-21 County Income Study

9:1-24 City Planning and Local Politics

9:2-39 The Projected Economic Growth of Illinois to 1971

IOWA

9:2-75 Stimulation of the Potential of the States of Missouri, Oklahoma, Kansas, Arkansas, Iowa and Nebraska by Greater Participation in Space Science and Technology

JAPAN

9:2-138 The Effects of Technological Change on Cultural Continuity as Evidenced by the Morphology of Certain Japanese Cities (1870-1920)

KANSAS

9:2-75 Stimulation of the Potential of the States of Missouri, Oklahoma, Kansas, Arkansas, Iowa and Nebraska by Greater Participation in Space Science and Technology

KANSAS CITY, MISSOURI

9:1-31 Variations in Demographic Structure Within a Metropolitan Area: Kansas City

9:1-32 The City Beautiful Movement in Kansas City, 1872-1914

9:2-68 Kansas City Municipal Election Study

KENTUCKY

9:2-69 Intercounty Commuting in Kentucky

LOS ANGELES, CALIFORNIA

9:1-14 Effects of Intra-Urban Limited Access Thoroughfares on Commercial Land Uses

LOS ANGELES, CALIFORNIA (Continued)

9:1-15, 9:2-11	Analysis of Real Estate Market Behavior From Multiple Listing Bureau Data in the Los Angeles Area
9:1-16, 9:2-12	Comparison of Changes in House Sale Prices with Assessed Values in Los Angeles
9:1-17	Prospectus for a Study of the Economic Growth and Structure of the Los Angeles Regional Economy
9:2-15	A Preliminary Study of the Economic Growth and Structure of the Los Angeles Regional Economy
9:2-54	Urban Development of Los Angeles

LOUISIANA

9:1-33	Growth and Fluctuations in the Economy of Louisiana, 1947-1959

MIAMI, FLORIDA

9:2-70	The Miami Metropolitan Experiment

MICHIGAN

9:1-36	An Approach to the Study of Natural Resources Policy: The Michigan Conservation Commission's Decision on the Porcupine Mountains Controversy
9:1-37	Local Government Debt in Michigan
9:1-38	Four-Cities Study of Local Political Processes
9:1-39	Local Income Taxes as a Source of Revenue for Michigan Communities
9:1-42	Property Tax Assessment in Lansing, Michigan
9:2-72	Four Local Governments, A Comparative Study of Services Provided by East Detroit, Oak Park, Redford Township and Trenton, Michigan
9:2-73	Southeastern Michigan Economic Study

MILWAUKEE METROPOLITAN AREA, WISCONSIN

9:2-143	The Financial Evolution of the Milwaukee Metropolitan Area

MINNESOTA

9:2-80 Projection of Population and Highway Traffic in Minnesota

MISSOURI

9:2-75 Stimulation of the Potential of the States of Missouri, Oklahoma, Kansas, Arkansas, Iowa and Nebraska by Greater Participation in Space Science and Technology

MONTANA

9:2-82 Montana's Forest Products Industry

NEBRASKA

9:2-75 Stimulation of the Potential of the States of Missouri, Oklahoma, Kansas, Arkansas, Iowa and Nebraska by Greater Participation in Space Science and Technology

NEWBURYPORT, MASSACHUSETTS

9:1-29 Class and Mobility in a Nineteenth Century City: A Study of Manual Laborers

NEW JERSEY

9:2-89 The New Jersey Regional Urban Renewal Survey

9:2-135 Property Taxation and Urban Land Use in Northeastern New Jersey

NEW MEXICO

9:1-49 Income and Employment in New Mexico, 1949-1959

9:1-50 New Mexico Since Statehood

NEW YORK CITY

9:2-3 Professional, Technical, and Managerial Manpower Needs of the City of New York

9:2-55 Ethnic Groups in New York City

NEW YORK STATE

9:2-25 Long Range Needs and Opportunities in New York State

NORTH CAROLINA

9:1-52 Industrial Development Trends and Economic Potential: Urban Growth Dynamics in a Regional Cluster of Cities

9:1-53 The North Carolina Economy

9:2-91 Industry and Local Government

9:2-92 Changes in Center City Property Values, 1950-1960, In Two North Carolina Cities

9:2-93 Study of Municipal Finances in North Carolina

OKLAHOMA

9:1-55 Economic Development in Eastern Oklahoma Until 1950

9:2-75 Stimulation of the Potential of the States of Missouri, Oklahoma, Kansas, Arkansas, Iowa and Nebraska by Greater Participation in Space Science and Technology

OMAHA, NEBRASKA

9-2-88 The Omaha Residential Real Estate Market

PENJERDEL REGION

9:2-124 An Exploration of the Adaptability of Local Government in the Penjerdel Region As Measured by Demonstrated Capacity to Cope With New or Expanded Problems, 1950-1962

PENNSYLVANIA

9:1-1, 9:2-1 Recent Tax Changes and Industrial Development in Pennsylvania

9:2-101 Data Requirements and Methods of Analysis for Metropolitan Economic Planning and Development in Pennsylvania

9:2-117 The Council Manager Form of Government in Pennsylvania: A Citizens' Handbook

PENNSYLVANIA-NEW JERSEY-DELAWARE METROPOLITAN REGION

9:2-122 Service Areas and Functions of Small Centers in the Pennsylvania-New Jersey-Delaware Metropolitan Region

PHILADELPHIA, PENNSYLVANIA

9:1-56	Small Area Employment Estimation in the Philadelphia Area
9:1-57	Land Use Changes in the Philadelphia Area
9:1-58	Trip Distribution in the Philadelphia Area
9:1-59	Trip Generation in the Philadelphia Area
9:2-110	New Residential Construction in Older Neighborhoods of Philadelphia From 1951 to 1960

PITTSBURGH, PENNSYLVANIA

9:2-113	Economic Study of the Pittsburgh Region

POLAND

9:2-24	Planning and Architecture in Eastern Europe Since World War II: Poland

ST. LOUIS METROPOLITAN AREA

9:2-30	Mass Transit in the Metropolitan Area: The Policy Process and the Illinois-Missouri Bi-State Development Agency
9:2-31	Employment and Unemployment in East St. Louis, Illinois
9:2-32	The Impact of the Interstate Highway System on Madison and St. Clair Counties, Illinois. Phase One: An Analysis of Land Use and Land Value
9:2-33	Comparative Fiscal Capacity and Effort of Units of Government in Madison and St. Clair Counties, Illinois, 1950 and 1960

SALT LAKE METROPOLITAN AREA, UTAH

9:2-136	Employment and Population Analysis and Projections, Salt Lake Metropolitan Area, Utah and the United States

SAN FRANCISCO BAY AREA, CALIFORNIA

9:1-10	Nature and Economic Significance of Metropolitan Peak Demand Patterns
9:1-11	Problems of Transport Peaks

SOUTH AMERICA

9:2-100 Motive Forces Behind the Physical Form of the Spanish Colonial

SOUTH DAKOTA

9:2-126 Retail Trade in South Dakota

SOUTHEAST RIVER BASINS AREA

9:2-130 Development of a Comprehensive and Co-ordinated Resource Plan for the Southeast River Basins Area

SOUTHWEST UNITED STATES

9:1-65 Potential Economic Development of the United States Southwest

TEXAS

9:2-131 Development Plan for the Neches, Trinity, Brazos, Colorado, Guadalupe, San Antonio, Nueces, and San Jacinto River Basins and Intervening Areas

TURKEY

9:2-17 The Anatomy of Turkish Cities: A Comparative Study of Land Use in Six Medium-Sized Urban Places

UNITED STATES

9:1-51 Estimates of Water Supply and Demand for the United States

9:1-63 Resources in America's Future

9:2-56 Urban Renewal in the United States

9:2-57 Urban Renewal in the United States

9:2-94 An Identification of Communities in the United States Making the Greatest Progress in Comprehensive Planning and Development

9:2-102 Local and Regional Impact of Military Expenditures in the United States

9:2-109 Migration and Urbanization in the United States, With Special Reference to Recent Trends

9:2-114 The American Metals Complex

UNITED STATES (Continued)

9:2-118 Resources in America's Future: Patterns of Requirements and Availabilities, 1960-2000

9:2-132 Comparative Advantages of U. S. Regions

9:2-136 Employment and Population Analysis and Projections, Salt Lake Metropolitan Area, Utah and the United States.

UPPER MIDWEST REGION

9:1-43 Agricultural Economy of the Upper Midwest Region

9:1-44 Urbanization in the Upper Midwest Region

9:1-45 Planning for Fast Growth

9:1-46 Urban Renewal in Small Cities in the Upper Midwest Region

9:2-81 Impact of the St. Lawrence Seaway on the Upper Midwest Region

9:2-82 Montana's Forest Products Industry

9:2-83 Beef Cattle Feeding in the Northern Great Plains

UTAH

9:2-136 Employment and Population Analysis and Projections, Salt Lake Metropolitan Area, Utah and the United States

VENEZUELA

9:2-66 Joint Center Guayana Project in Venezuela

WASHINGTON, D. C.

9:1-18 The Valuation of Accessibility

WASHINGTON STATE

9:2-139 Criteria for the Establishment of Additional Scenic Areas Along Highways in the State of Washington

WESTERN UNITED STATES

9:2-18 Civic Design Study of the Rocky Mountains and Great Plains Area

WILMINGTON METROPOLITAN AREA, DELAWARE

9:2-28 Economic Analysis of the Wilmington Metropolitan Region With Emphasis on Its Core Area

WYOMING

9:1-70 Resources, People, and Economy of East-Central Wyoming

9:2-43 State Administration of Water Resources in Wyoming

9:2-144 Resources, People, and Economy of East-Central Wyoming

CONTRIBUTOR INDEX

ABRAMS, CHARLES
9:2-56 9:2-64

ADAMS, JOHN
9:2-133

ADAMS, WARREN
9:2-65

ADRIAN, C. R.
9:1-38

AINSWORTH, KENNETH G.
9:1-1 9:2-1

ALCHIN, E.
9:1-40 9:1-41

ALCOTT, JAMES
9:2-75

ALONSO, WILLIAM
9:2-59

ANDERSON, MARTIN
9:2-57

ANDERSON, THEODORE
9:2-44

APPLEYARD, DONALD S.
9:2-63

ARNEST, BERNARD
9:2-18

ASHBY, LOWELL D.
9:1-52 9:1-53 9:2-90

ATKINSON, HARRY W.
9:1-29

BANFIELD, EDWARD C.
9:2-45 9:2-46

BECK, MORRIS
9:2-135

BENOIT, EMILE
9:1-35

BEUTERMANN, ELIZABETH P.
9:1-56

BEYER, GLENN H.
9:2-21 9:2-22

BIRCH, CECIL M.
9:2-73

BISHOP, GEORGE A.
9:2-6

BLEILE, GEORGE W.
9:1-54

BOLLE, ARNOLD W.
9:2-82

BOOTH, E. J. R.
9:1-55

BORCHERT, JOHN R.
9:1-44 9:1-45 9:1-46
9:2-78 9:2-80

BOULDING, KENNETH E.
9:1-35

BOURGUE, PHILIP J.
9:1-67 9:1-68

BOYCE, EARNEST
9:2-2

BOYCE, RONALD R.
9:1-23

BOYD, ARTHUR
9:2-7

BRABB, GEORGE J.
9:1-67

BROOKS, GLENN
9:2-18

BROWN, ROBERT
9:2-18

BRUSH, JOHN E.
9:2-122

BUEHNER, RONALD CHARLES
9:2-4

BUGHER, ROBERT D.
9:2-2

BURCH, PHILIP H., JR.
9:2-125

BURNS, LELARD S.
9:1-17 9:2-15

CARLL, RICHARD R.
9:1-6 9:1-8

CARMACK, JOHN M.
9:2-13

CASE, FRED E.
9:1-15 9:2-11

CHAPIN, F. STUART, JR.
9:2-95

CHERINGTON, CHARLES R.
9:2-48

CHINITZ, BENJAMIN
9:2-113

CLAY, GRADY
9:2-65

COHEN, LEO
9:2-33

COHN, SIDNEY
9:2-139

COLCORD, FRANK
9:2-62

CONNOLLY, JULIA ANNE
9:2-94

COULSON, MICHAEL R. C.
9:1-31

COX, REX W.
9:1-43

CREESE. WALTER L.
9:2-41

CURRAN, DONALD J.
9:2-143

CURRAN, KENNETH
9:2-18

DALAND, ROBERT T.
9:2-94

DANSEREAU, H. KIRK
9:2-98

DAVIDOFF, PAUL
9:2-108

DERAN, ELIZABETH
9:2-40

DERTHICK, MARTHA
9:2-46

DOEBELE, WILLIAM
9:1-25

DONNELLY, THOMAS G.
9:2-95

DUGGAR, GEORGE S.
9:2-115

DURR, FREDERICK
9:2-28

DYER, HERBERT
9:2-1

EAMES, EDWIN
9:2-127

EDGEL, RALPH L.
9:1-49 9:1-50

EDWARDS, A. L.
9:1-37

EFFROSS, HARRIS I.
9:2-124

ELDRIDGE, H. T.
9:2-109

ELIAS, C. EDWARD, JR.
9:2-13

FADEN, ARNOLD M.
9:1-19 9:2-19

FAVA, JOHN L.
9:2-84

FECHTER, ALAN E.
9:2-114

FELDT, ALLAN G.
9:2-74

FERBER, ROBERT
9:2-34 9:2-39

FIFLIS, TED J.
9:2-67

FISCHMAN, LEONARD L.
9:1-63 9:2-118

FISHER, FRANKLIN M.
9:1-34

FISHER, JACK C.
9:2-24

FISHER, JOSEPH L.
9:1-63 9:2-118

FLEISHER, AARON
9:2-60

FOGELSON, ROBERT
9:2-54

FORD, NEIL
9:2-39

FREDLAND, DANIEL R.
9:1-57

FREY, JOHN C.
9:2-98

FRIEDEN, BERNARD
9:1-26 9:2-58

FRIEDLANDER, JAMES M.
9:2-71 9:2-72

GABY, WALTER D.
9:2-89

GADBERRY, HOWARD
9:2-75

GAKENHEIMER, RALPH A.
9:2-100

GANSCHOW, JAMES
9:2-102

GARRISON, CHARLES B.
9:2-69

GEIGER, LOUIS
9:2-18

GELFAND, JACK E.
9:2-127

GERSON, W. G.
9:1-2 9:2-7

GIBSON, WILLIAM K.
9:2-82

GILLFILLAN, WALTER E.
9:1-9

GLAZER, NATHAN
9:2-55

GOLDSTEIN, BERNARD
9:2-120

GOLDSWORTHY, RAYMOND D.
9:1-2 9:1-7

GORDEN, RAYMOND L.
9:2-3

GREBLER, LEO
9:1-12 9:1-13 9:2-14
9:2-16

GREENWOOD, GEORGE W.
9:2-37

GRIGSBY, WILLIAM G.
9:2-106 9:2-108

GRUENTHER, RICHARD K.
9:2-112

GRUMM, JOHN G.
9:2-68

GUFFY, RICHARD E.
9:2-32

GUTKIND, ERWIN A.
9:2-105

GUTMAN, ROBERT
9:2-121

HALY, WILLIAM, III
9:2-96

HAMBURG, MORRIS
9:2-101

HARING, ROBERT C.
9:2-82

HARMSTON, FLOYD K.
9:1-70 9:2-144

HARWOOD-BARNES, G.
9:2-7

HEDGES, CHARLES A.
9:1-11

HEISEL, DON F.
9:2-123

HIGGINS, BENJAMIN
9:1-65

HILL, FOREST G.
9:1-65

HILL, JOHN
9:2-1

HIRSCH, WERNER Z.
9:1-66 9:2-137

HOMBURGER, WOLFGANG S.
9:1-8

HOOVER, EDGAR M.
9:2-113 9:2-114

HOPKINS, EDWARD L.
9:2-38

HUANG, DAVID
9:1-65

INGRAHAM, GORDON
9:2-18

ISARD, WALTER
9:2-102

JACKSON, JOHN N.
9:2-9

JAMES, JOSEPH A.
9:2-117

JOHNSON, DONALD N.
9:2-96

JONES, BARCLAY G.
9:2-23 9:2-25

KAIN, JOHN F.
9:2-129

KATZ, ROBERT D.
9:2-42

KELLY, BURNHAM
9:2-25

KENNEDY, ALBERT J.
9:2-52

KEYES, SCOTT
9:1-21 9:1-22

KILLIAN, KATHRYN W.
9:2-84

KNEESE, ALLEN V.
9:1-62

KNUDTSON, ARVID C.
9:1-43

KRUEGER, ANNE
9:2-81

KUHN, TILLO E.
9:1-6 9:1-7 9:1-10

KUPINSKY, MANNIE
9:2-86 9:2-87

KUTSCHE, PAUL
9:2-18

LANDSBERG, HANS H.
9:1-63 9:2-118

LANG, A. SCHEFFER
9:2-61

LANGFORD, MARILYN
9:2-21 9:2-22

LERNER, DANIEL
9:1-28

LETWIN, WILLIAM
9:2-50

LEWIS, GORDON D.
9:2-82

LOEWENSTEIN, LOUIS K.
9:2-99

LOHR, ALAN F.
9:1-60

LOMAX, W. RICHARD
9:1-3

LOWRY, IRA S.
9:2-113

LUNC, RICHARD E.
9:1-70

LUND, RICHARD E.
9:2-144

LYNCH, KEVIN
9:2-63

MACCOBY, HERBERT
9:2-116

MACE, RUTH L.
9:2-91 9:2-92

MAISEL, SHERMAN
9:1-12 9:2-16

MANN, SEYMOUR Z.
9:2-31

MARCOU, GEORGE T.
9:2-37

MARILL, MARION
9:2-60

MARTIN, DON V.
9:2-96

MAUSNER, BERNARD
9:2-116

MAYHEW, LEON
9:1-30

MCCARLEY, JAMES
9:1-42

MCDONALD, STEPHEN L.
9:1-33 9:1-65

MCHARG, IAN
9:2-108

MELTZER, BERNARD C.
9:2-110

MENHINICK, HOWARD K.
9:2-29

MERTZ, DOUGLAS
9:2-18

MEYER, JOHN R.
9:2-63 9:2-129

MEYER, ROLAND
9:2-35 9:2-36

MICHAEL, HAROLD L.
9:1-60 9:1-61

MILLER, A. R.
9:2-109

MILLIMAN, JEROME W.
9:2-119

MITTLEBACH, FRANK
9:1-15

MOAK, LENNOX L.
9:2-84

MONTGOMERY, V. E.
9:2-126

MOYNIHAN, DANIEL P.
9:2-55

MURDOCK, JOHN C.
9:1-47

MURRAY, FRANK X.
9:2-88

MURRAY, JAMES A.
9:2-128

NABERS, LAWRENCE
9:2-136

NELSON, EASTIN
9:1-65

NELSON, HARVEY
9:2-76

NENNO, MARY K.
9:2-104

NORTHEY, JOHN
9:2-9

NORTON, JOHN H.
9:2-101

NORTON, THOMAS J.
9:2-138 9:2-139

OBERLANDER, H. PETER
9:1-2 9:2-7 9:2-8

OSMAN, JOHN
9:1-4

PAL, DILIP
9:1-23

PALMER, EDGAR Z.
9:2-88

PARDEE, SCOTT E.
9:2-5

PARKER, JOHN A.
9:2-94

PARSONS, KERMIT C.
9:2-26 9:2-27

PASHEK, ROBERT D.
9:2-98

PATTERSON, CHARLES E., JR.
9:1-24

PENDLETON, WILLIAM C.
9:1-18

PHILLIPS, JOSEPH D.
9:2-40

PICKARD, JEROME P.
9:2-134

RAPKIN, CHESTER
9:2-104

RASMUSSEEN, JEWELL J.
9:2-136

RAUP, P. M.
9:2-78

RAYMOND, RICHARD D.
9:1-5 9:2-10

REED, WALLACE E.
9:1-21

REINER, THOMAS A.
9:2-107

RICHARD, JOHN B.
9:2-43

ROACH, MAURICE W. JR.
9:1-20

RODGERS, FELIX C.
9:1-21

ROSENBERG, RICHARD
9:2-133

ROWE, J. DAVID
9:2-96

SASAKI, KUNYE
9:2-34

SCHROLL, BERNARD A.
9:1-20

SCHULTZ, GERALD W.
9:2-17

SCHWEITZER, PAUL
9:2-86

SCHWINDEN, JAMES
9:2-76 9:2-77 9:2-78
9:2-79

SCHUSKY, JANE W.
9:2-31

SCHWAB, ELEANOR A.
9:2-30

SEGELHORST, ELBERT W.
9:1-66

SHADY, ALY M.
9:2-37

SHAPIRO, MAURICE
9:2-116

SHAW, VAN
9:2-18

SHIPPEE, WARNER
9:2-111 9:2-115

SIGEL, ROBERTA S.
9:2-141 9:2-142

SLATE, DANIEL
9:2-34

SMITH, EVERETT G.
9:2-76

SMUTS, EDWARD E.
9:2-111

SOBERMAN, RICHARD M.
9:2-61

SOFEN, EDWARD
9:2-70

SONDERMANN, FRED
9:2-18

SONENBLUM, SIDNEY
9:1-48 9:2-85 9:2-87

SPANO, BART
9:1-20

STALIS, PETER J.
9:2-71

STANLEY, DAVID T.
9:1-3

STEMLIEB, GEORGE
9:1-27

STOVER, V. G.
9:1-63

SULLIVAN, THOMAS
9:2-47

TAYLOR, MILTON C.
9:1-39 9:1-42

TELLER, H. LEO
9:1-69

THERNSTROM, STEPHEN
9:1-29

THOMAS, D. S.
9:2-109

THOMPSON, WILBUR R.
9:2-140

TIEBOUT, CHARLES M.
9:2-20

TOMAZINIS, ANTHONY R.
9:1-58 9:1-59 9:2-97
9:2-103

TOULAN, NOHAD
9:2-108

TROCK, WARREN L.
9:2-83

TWISS, ROBERT H.
9:1-36

U. S. STUDY COMMISSION, SOUTHEAST RIVER BASIN
9:2-130

U. S. STUDY COMMISSION, TEXAS
9:2-131

VARGAS, DAVID J.
9:2-2

VINCENT, JOHN M.
9:2-13

VON MOLTKE, WILLO
9:2-66

WAHL, SYLVIA
9:2-21 9:2-22

WARNER, SAM B, JR.
9:2-51 9:2-52

WARREN, WILLIAM D.
9:2-13

WEISBROD, BURTON A.
9:1-66

WEISS, SHIRLEY F.
9:2-95

WHEATON, WILLIAM L. C.
9:2-108

WHITE, M. L.
9:2-126

WHITING, JOHN W.
9:2-49

WICKER, WARREN, JAKE
9:2-93

WILLIAM, ROBERT C.
9:1-16

WILLIAMS, NORMAN
9:2-66

WILLIAMS, OLIVER
9:1-38

WILLIAMS, ROBERT M.
9:2-12

WILLIS, SIDNEY L.
9:2-89

WILSON, JAMES Q.
9:2-45

WILSON, WILLIAM H.
9:1-32

WINKELMANN, DONALD
9:2-79

WOHL, MARTIN
9:2-129

WOLFE, MEYER R.
9:2-138 9:2-139

WOLLMAN, NATHANIEL
9:1-51

WONNACOTT, R. J.
9:2-132 9:2-133

WOODS, ROBERT A.
9:2-52

XIMENES, VICENTE
9:1-49

YOST, ROBERT C.
9:1-14

Research Digest

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Director: Joseph M. Heikoff

RESEARCH DIGEST
Editor: Scott Keyes
Editorial Assistant: John Fondersmith
Business Manager: Marie F. Broadrick

Editor's Notes

With this issue, the Research Digest enters its tenth year of publication. In retrospect, these have been years of rapid growth in urban and regional research, both theoretical and applied, a growth which we have attempted to reflect at least in part in our pages. Sufficient response from users of the publication has been received to lead us to believe that the effort has been worthwhile, despite the fact that any such enterprise necessarily sometimes makes its sponsors feel like the sorcerer's apprentice.

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CONTENTS

CURRENT RESEARCH PROJECTS Page

UNIVERSITY OF AKRON

Institute for Civic Education

1. Civic Leadership Study 1

FEDERAL RESERVE BANK OF BOSTON

2. Automation and Shifting Skill Needs 1

3. Vocational Education 2

4. Retraining the Unemployed--The New England Experience 3

5. The Property Tax and Local Spending--A Need for Balance 4

UNIVERSITY OF CALIFORNIA (BERKELEY)

Bureau of Business and Economic Research

6. Fiscal Problems of Alternative Land Development Policies 6

7. Geographical Location of Wholesaling 6

8. Consumer Shopping Habits in the East Bay Area . . 7

9. The Impact of Mortgage Credit on Home Purchases and Construction 7

10. The Determinants of Central City Land Values . . 8

11. Future Patterns of Metropolitan Growth and Structure in California 8

Department of City and Regional Planning

12. The Social Goals of Contemporary British Town Planning 8

13. Urban Renewal Problems and Programs in California and Other Western States 9

14. The Daytime Population in Central Business Districts of American Metropolitan Areas 10

UNIVERSITY OF CALIFORNIA (LOS ANGELES)

Graduate School of Business Administration

15. High Rise Building in the Los Angeles Metropolis . . 11

16. Profile of the Los Angeles Metropolis: Its People and Its Homes 12

17. The Relationship Between Local Property Taxes and Land Use Patterns in Los Angeles 13

UNIVERSITY OF CHICAGO

Department of Economics

18. The Valuation of Accessibility 14

UNIVERSITY OF CINCINNATI

Institute of Social Studies

19. Applied Urban Renewal Seminar: Avondale I--Corryville Research Project 14

CENTER FOR COMMUNITY STUDIES

20. Relocation and Mental Health: Adaptation Under Stress 15

DREXEL INSTITUTE OF TECHNOLOGY

21. Air Pollution in the Penjerdel Region 16

GEORGIA INSTITUTE OF TECHNOLOGY

Engineering Experiment Station

22. Land Use Planning and Control Along The Interstate Highway System in Georgia 16

23. Control of Outdoor Advertising Along the Interstate Highway System in Georgia 16

UNIVERSITY OF ILLINOIS

Department of Geography

24. The Movement of Manufacturing Within The Chicago Metropolitan Area, 1955-1962 17

Department of Political Science

25. Politics of Planning in Small Cities 18

26. Urban Mass Transportation in Downstate Illinois Cities 19

Graduate School of Business Administration

27. Factors Influencing Interregional Mortgage Lending by Financial Intermediaries 20

Office of Community Development

28. Community Power and Decision-Making in Three Illinois Cities 22

29. Downtown Change in Middle-Sized Cities 23

INDIANA UNIVERSITY

School of Business

30. Property Holding Real Estate Investment Trusts Operating Under the 1960 Tax Law 25

31. Some Economic Reconsiderations of Zoning--Remedial, Emergent and Utopian 25

32. Remedial Programs for Long-Term Unemployed Blue-Collar Workers 26

Institute for Applied Urban Economics

33. Criteria for Area Development and Redevelopment . . 27

COMMUNITY SERVICE COUNCIL OF METROPOLITAN INDIANAPOLIS

34. A Long Range Plan for Municipal Services in Metropolitan Indianapolis 28

INSTITUTE OF PUBLIC ADMINISTRATION

International Urban Studies Program

35. The Government of the Calcutta Conurbation 28

36. Development Problems in the Industrial-Power Belt, Dhanbad-Asansol-Durgapur 29

37. The Economic Relationships Between Calcutta and Its Hinterland 30

STATE UNIVERSITY OF IOWA

Bureau of Business and Economic Research

38. Iowa Economic Study 31

UNIVERSITY OF KANSAS

Department of Geography

39. Variations in Demographic Structure Within a Metropolitan Area: Kansas City 31

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Civil Engineering Department

40. Highway Transportation Demand 32

UNIVERSITY OF MICHIGAN

Department of Conservation

41. The Potential Impact of International Development Upon the Detroit Area 33

MICHIGAN STATE UNIVERSITY

Institute for Community Development and Services

42. Study Text of Township Zoning Regulations 34

43. Governmental Decision-Making and Related Political Activity in the Metropolitan Area Fringe 34

UNIVERSITY OF MISSISSIPPI

Department of Research in Business and Government

44. Economic Impact of Interstate Highway on Land Use and Land Values 35

45. Sales-Ratio Study of Assessments for State Tax Purposes 35

UNIVERSITY OF MISSOURI

Department of Political Science

46. The Politics of Change: The Effect of Middle-Income Apartment Dwellers on Slum Area Politics . . 36

NATIONAL PLANNING ASSOCIATION

47. Occupational Employment Projections for Southern States 38

48. Regional Economic Projections Series 38

49. Susquehanna and Chesapeake River Basins Economic Base Study 38

UNIVERSITY OF NEBRASKA

Bureau of Business Research

50. Estimating the Number of Business Establishments in Nebraska 39

51. The Omaha Real Estate Market, 1950 to 1960 40

STATE OF NEW JERSEY

Division of State and Regional Planning

52. The Setting for Regional Planning in New Jersey . . 41

53. The Impact of Population and Economic Growth on the Physical Environment of New Jersey 43

REGIONAL PLAN ASSOCIATION, INC.

54. Guidelines for the Future Development of the New York Metropolitan Region 44

UNIVERSITY OF NORTH CAROLINA

Institute for Research in Social Science

55. Urban Growth Dynamics in a Regional Cluster of Cities 46

NORTHWESTERN UNIVERSITY

Center for Metropolitan Studies

56. Social Structure of Urban Society: Kinship and Voluntary Organization 47

57. Social Differentiation in Kingston, Jamaica . . . 47

58. Social Differentiation in Rome, Italy 47

59. Social Differentiation in Accra, Ghana 48

60. Political Integration and the Plural Community: A Study of Integrative Mechanisms in Multi-Municipality Suburban High School Districts . . . 48

OHIO STATE UNIVERSITY

Engineering Experiment Station

61. Analysis and Synthesis of Visual Perception and Environmental Design Relationships 49

PENNSYLVANIA ECONOMY LEAGUE

62. Local Government in the Penjerdel Region 49

UNIVERSITY OF PENNSYLVANIA

Institute of Urban Studies

63. The Origin and Development of a Suburban Community . 50

Regional Science Department

64. Unclassified Defense Contracts: Awards by County, State and Metropolitan Area of the United States, Fiscal Year 1962 50

UNIVERSITY OF PITTSBURGH

Center for Regional Economic Studies

65. Economic Analysis for Community Renewal Planning . . 51

66. Materials for State of the Region Report and Message 51

Institute of Local Government

67. Computerized Model for Gaming the Physical Development of a Community 52

68. Local Organization for Urban Renewal 52

69. Social and Psychological Factors in Urban Conservation 53

SOUTHWESTERN PENNSYLVANIA REGIONAL PLANNING COMMISSION

70. State of the Region Project 54

RUTGERS - THE STATE UNIVERSITY

Department of Geography

71. Service Areas in the Penjerdel Region 54

SWARTHMORE COLLEGE

Department of Political Science

72. Local Government in the Penjerdel Region 55

SYRACUSE UNIVERSITY

Maxwell, Graduate School of Citizenship and Public Affairs, Metropolitan Studies

73. Interlocal Cooperation in Metropolitan Areas 55

74. The Effect of State and Federal Grants-in-Aid on Tax Burdens Within Urban Areas 56

STATE OF TENNESSEE

Tennessee State Planning Commission

75. Kentucky Reservoir Regional Plan Study 56

URBAN LAND INSTITUTE

76. Homes Association Study 57

77. Economic and Land Use Impacts of Two Alternative Property Tax Systems in a Metropolitan County (Milwaukee County, Wisconsin) 58

UNIVERSITY OF WYOMING

Division of Business and Economic Research

78. Resources, People and Economy of East-Central Wyoming 59

79. Markets for Wyoming Industries 60

80. A Study of the Resources, People and Economy of Carbon County, Wyoming 61

81. An Analysis of a Local Economy in a Period of Rapid Transition 62

82. A Study of the Resources, People and Economy of Southwestern Wyoming 63

83. A Study of Wyoming's Out-of-State Tourist Market . 63

BRIEF MENTION

NEW URBAN AND REGIONAL RESEARCH AND TRAINING PROGRAMS

Graduate Program in Urban Affairs, University of Wisconsin-Milwaukee 67
Planning Program - University of Cincinnati 67
Protestant Urban Training Center 67
U. S. Public Health Service 68

RESEARCH MATERIALS

Consumer Expenditures and Income Reports 68
Revised Projection of United States Labor Force 69
1962 County and City Data Book 69
Components of Population Change for Counties and SMSA's . 70
New Reports on 1962 Census of Governments 71
Reports on Changes in Housing, 1957-1959 72
Directory of Federal Statistics for Metropolitan Areas . 73
Data on 1961 Income of Families and Individuals 73
Census Data on Residential Finance for Homeowner Properties 74
New IASI Publication on the Demographic Structure of American Countries 75

RESEARCH PROGRAMS

Metropolitan Area Income Project 75
Housing and Home Finance Agency Research Program . . . 76

BIBLIOGRAPHIES

New Exchange Bibliographies; Council of Planning Librarians 78
Planning Libraries Depository Service 80
Bibliography on Planning Films 80
Urban Real Estate Research 80

OTHER

AIA Urban Design Project 81
AIP - 1967 Commemoration Program 81
UN Committee on Housing, Building and Planning 81
Environmental Health Planning Guide 82

1. CIVIC LEADERSHIP STUDY

Main Investigator: Norman F. Washburne.

Status of Research and Publications: Five year study project which has been underway for one year. No publications to date.

Agency: University of Akron, Institute for Civic Education.

Previous _Digest_ Report: None.

Research Problem. To find and identify groups of citizens of Akron who seem to take little interest in community issues, in an effort to determine if such groups have an established leadership which could involve them in public discussions.

Method of Study. First phase consisted of analysis of socio-economic characteristics of 437 political precincts in Akron based on block statistics from 1960 Census supplemented by field work in selected precincts. Present phase consists of development of interview schedule to be used in subsequent field work, covering specific data such as age, sex, ethnicity, education, transiency, and church membership of the respondents and to elicit measures of the direction and intensity of their feelings concerning such issues as local race relations, cultural opportunities, financing city services, fundamentalist church activities, metropolitan government, labor-management relationships, the welfare state, and American foreign policies.

Preliminary Findings. Average property values of owner-occupied homes and average rents of renter-occupied housing units were combined to form a socio-economic index for each precinct. There proved to be a relatively high positive correlation ($r = .63$) between this socio-economic index and the proportion of the total population of the precinct who registered to vote in 1962. If that proportion can be regarded as an index of interest in public affairs, it can be seen that socio-economic status accounts for a significant proportion of the variance in public interest. (NFW)

2. AUTOMATION AND SHIFTING SKILL NEEDS

Main Investigator: Edwin F. Estle.

Status of Research and Publications: Research completed. Article published in the Federal Reserve Bank of Boston's _New England Business Review_, October, 1962.

Agency: Federal Reserve Bank of Boston.

Previous Digest Report: None.

Research Problem. To assess the affect of automation on the occupational structure of the New England work force.

Hypotheses. Automated production has caused a decline in the need for production workers concomitant with increased demand for non-production workers. New England's growing industries are those which require the highest level of skills; in order to maximize the region's growth, education and training to provide these skills will have to be made more available.

Method of Study. On the basis of material from the Census of Population, the occupational structure of the New England region in 1950 was contrasted with that in 1960.

Major Findings. (1) The proportion of production workers to total employed has declined cyclically, falling to a lower level with each postwar recession, as automated equipment replaced laid-off production workers in the expansion phase of the cycle. (2) Professional, technical, clerical, and sales jobs are becoming a greater proportion of the positions in the region, having increased by 27 per cent between 1950 and 1960. (3) In the past decade skilled craftsmen's positions have increased by seven per cent, the same rate shown by total employment. (4) Semi-skilled positions have fallen off one per cent and unskilled jobs have decreased 17 per cent in the ten year period. (5) To meet these demands for new, higher level skills, more adequate general and vocational educational facilities must be provided. (HCD)

3. VOCATIONAL EDUCATION

Main Investigator: Edwin F. Estle.

Status of Research and Publications: Research completed. Article published in the Federal Reserve Bank of Boston's New England Business Review, November, 1962.

Agency: Federal Reserve Bank of Boston.

Previous Digest Report: None.

Research Problem. To investigate the need for and adequacy of vocational education in New England.

Hypotheses. The disparity between the need for and supply of trained, skilled workers is at the heart of the recent persistent unemployment experience in New England. If the region's demand for additional skilled workers is to be met, an expanded vocational education system, both to retrain the unemployed for existing openings and to upgrade the skills of the employed, is urgently needed.

Research Method. Projections of occupational needs to 1970 were made on the basis of the 1950 and 1960 Census of Population. Interviews were conducted with vocational education officials in the New England states.

Major Findings. (1) In 1960, 28 per cent of New England's workers were in craft occupations. Although New England has only six per cent of the nation's work force, 22 per cent of the unfilled skilled jobs reported by the U. S. Bureau of Employment Security in June 1962 were located in the region. (2) New England's extensive vocational program has expanded rapidly in the postwar years, enrolling four-fifths more students in 1960 than in 1945. In 1960 expenditures per student amounted to $122, double the amount spent on the average nationally. (3) The emphasis of New England's programs, reflecting the region's concentration on manufacturing, is in training for trades and industry; in 1960, New England spent $220 per student in the trades and industrial training programs, almost three times the average national amount. (4) To meet the high costs of specialized training, most of the New England states are establishing regional schools to consolidate facilities and to draw students from several areas. (5) Vocational schools in most New England states are filled to capacity; some have to turn down qualified applicants. State departments of vocational education report that there is virtually 100 per cent placement of the day program graduates in the trades for which they were trained. (6) Currently the region's vocational schools graduate about 10,000 a year from their trades and industry day program; the need for craftsmen is expected to average 16,500 per year to 1970, exceeding the number graduated by about 6,500 a year. To meet this excess demand, the New England states should take steps to add regional facilities and to use idle capacity with additional evening and summer programs. (HCD)

4. RETRAINING THE UNEMPLOYED--THE NEW ENGLAND EXPERIENCE

Main Investigator: Edwin C. Gooding.

Status of Research and Publications: Research completed. Article published in the Federal Reserve Bank of Boston's New England Business Review, August, September, 1962, April, 1963. Statistical appendix also available.

Agency: Federal Reserve Bank of Boston and Massachusetts Division of Employment Security.

Previous Digest Report: None.

Hypothesis. Retraining the unemployed can significantly increase income of persons subject to chronic unemployment, and also decrease the long-run cost of such individuals to government.

Method of Study. (1) Questionnaire survey of retrainees' employment experience before and after retraining was made. (2) A similar questionnaire survey was made of an established control group. (3) Attitude survey was made to determine the extent of interest in retraining among the unemployed. (4) Unemployment compensation records of retrainees and control group records were scanned to compare before and after unemployment compensation costs.

Major Findings. (1) The 35 per cent annual income increases of retrainees was significantly greater than control groups' 10 per cent. (2) Increase in income stemmed primarily from increased steadiness of employment rather than wage increases. (3) Although interest in retraining ran high, previous educational level and old age are significant barriers to retraining. (4) Savings in unemployment compensation might be sufficient to pay entire cost in retraining. (ECG)

5. THE PROPERTY TAX AND LOCAL SPENDING--A NEED FOR BALANCE

Main Investigator: George A. Bishop.

Status of Research and Publications: Research completed. Article published in Federal Reserve Bank of Boston's New England Business Review, December, 1962. Additional statistical materials and notes on sources, etc., are available in a mimeographed supplement.

Agency: Federal Reserve Bank of Boston.

Previous Digest Report: None.

Research Problem. To investigate the relationship between local tax resources, equalized property tax rates and per capita expenditure levels of local governments in New England to determine the influence of variations in local tax resources upon local tax rates and spending and to study to what degree Federal and state aids offset differences in fiscal capacity.

Previous Relevant Research. Such problems in other areas have been examined by Seymour Sacks and William F. Hellmuth in Financing Government in a Metropolitan Area; the Cleveland Experience (Glencoe, Illinois: The Free Press of Glencoe, Inc. 1961); by Robert C. Wood in 1400 Governments; the Political Economy of the New York Metropolitan Region, Cambridge, Massachusetts; Harvard University Press, 1961); by Stanley Scott and Edward L. Feder in a report titled Factors Associated with Variations in Municipal Expenditure Levels; A Statistical Study of California Cities (Berkeley, California; Bureau of Public Administration, February, 1957); and others.

Hypotheses. Tax resources, as measured by equalized property values per capita, are a major factor determining per capita expenditures and equalized property tax rates of localities. The differences in fiscal capacity are strongly related to median family income. The existing Federal and state aids leave a large measure of inequity among local governments in the distribution of fiscal resources and needs.

Method of Study. Equalized property values per capita for 1960 were correlated with equalized property tax rates and per capita expenditures for towns and cities in five New England states (excluding Vermont). Frequency distributions were used relating size of equalized property values per capita to current expenditures, family income, and percentage of intergovernmental revenue to general expenditures.

Major Findings. Wealthy towns generally have lower tax rates and more freedom of choice over how much to spend from local tax sources. Poor towns have the highest effective tax rates. Thus the property tax falls more heavily on low income families and low income towns than on high income families and towns.

State and Federal aids partly offset this difference since not only is more aid given to poorer communities, but also Federal aid is financed in part with taxes that fall more heavily on higher income families. Nevertheless, places with low per capita tax resources often tax themselves at two or three times the rates in more fortunate communities.

In general, size of tax resources--measured by equalized property values per person--is a major influence on both local tax rates and per capita spending. The need for great redistribution of revenues from wealthy to poor towns is clearly evident. Fiscal capacity as measured by equalized or full market value of property per capita should be a more important factor than it now is in formulas for the distribution of state and Federal aid. (MH)

6. FISCAL PROBLEMS OF ALTERNATIVE LAND DEVELOPMENT POLICIES

Main Investigator: Roland S. Artle

Status of Research and Publications: In process.

Agency: University of California, (Berkeley), Bureau of Business and Economic Research, Real Estate Research Program.

Previous Digest Report: None.

Research Problem. Development of an economic model of the San Francisco Metropolitan Area and the use of this model in investigating the impact of public and private investment in construction, transportation and redevelopment upon land values and public finances. (RSA)

7. GEOGRAPHICAL LOCATION OF WHOLESALING

Main Investigator: James E. Vance, Jr.

Status of Research and Publications: In process.

Agency: University of California, (Berkeley), Bureau of Business and Economic Research, Real Estate Research Program

Previous Digest Report: None.

Research Problem. This study has two aspects: (1) To determine the location and physical form of wholesale trade establishments in the San Francisco Bay Area at three periods in time--namely 1908, 1929, and 1962, and (2) to establish the geographical pattern of wholesaling activity in the nation as a whole. These two aspects of the general problem of wholesale trade location are studied in an effort to arrive at a statement of location theory for wholesaling.

The reconstruction of the geographical pattern of wholesale establishments in the Bay Area for 1908 and 1925 is finished, and the inventory of the 1962 pattern was carried out last summer. These have been catalogued and mapped, and analysis of the data is now going on.

Work still to be done concerns first the completion of the national and Bay Area location analysis. With that in hand, the plan is to investigate certain specific problems in wholesaling location such as relocation of the firms, the functional linkages among wholesale firms, conditions of locational stability by type of wholesale establishment, and the physical form and demands of these establishments. (JEV)

8. CONSUMER SHOPPING HABITS IN THE EAST BAY AREA

Main Investigator: Louis P. Bucklin.

Status of Research and Publications: In process. Initial tabulations of data should be available summer, 1963.

Agency: University of California, (Berkeley), Bureau of Business and Economic Research, Real Estate Research Program.

Previous Digest Report: None.

Research Problem. The purpose of this project is to investigate the type of use that consumers make of the various shopping facilities which are available to them. The principal issue to which this research is directed concerns whether consumers who shop in the downtown areas, or planned shopping centers, make use of the opportunity to visit a number of stores to compare prices and qualities, and to purchase a variety of products during the same trip. Issues related to this question concern the type of consumers and their reasons for the shopping habits they have developed. The answer to these and other questions are to be obtained from a completed survey of 500 women shoppers in the East Bay Area. (LPB)

9. THE IMPACT OF MORTGAGE CREDIT ON HOME PURCHASES AND CONSTRUCTION

Main Investigator: Sherman J. Maisel

Status of Research and Publications: In process. An article on the new theory and its statistical test will appear in the June issue of American Economic Review.

Agency: University of California, (Berkeley), Bureau of Business and Economic Research, Real Estate Research Program.

Previous Digest Report: None.

Research Problem. This study has been concerned with bringing together in one place, and improving the economic rationale of mortgage lending operations from the point of view of the mortgage lender and the economy. All existing literature in the field has been reviewed, and an outline has been prepared covering the basic information and analytical tools required for making improvements in this area.

Within this same general area, Professor Maisel has been investigating a method of explaining and forecasting the level of new housing production. This has involved an investigation of existing theories of why housing starts have fluctuated as they have, evolving a new theory, and then attempting to test the new theory statistically. (SGM)

10. DETERMINANTS OF CENTRAL CITY LAND VALUES

Main Investigators: Paul F. Wendt, Wallace F. Smith.

Status of Research and Publications: One phase of this project completed and published as Research Report No. 18, The Dynamics of Central City Land Values--San Francisco and Oakland, 1950-1960, by Professor Wendt. Two other articles are being prepared by Professor Smith. The first, "Forecasting Neighborhood Change," has been submitted to Land Economics for publication. The second paper presents a mathematical model of the filtering process for publication in the fall of 1963.

Agency: University of California (Berkeley) Bureau of Business and Economic Research, Real Estate Research Program.

Previous Digest Report: None. (PFW)

11. FUTURE PATTERNS OF METROPOLITAN GROWTH AND STRUCTURE IN CALIFORNIA

Main Investigator: Wallace F. Smith.

Status of Research and Publications: In process.

Agency: University of California, (Berkeley), Bureau of Business and Economic Research, Real Estate Research Program.

Previous Digest Report: None.

Research Problem. The analysis of the results of the 1960 Census and earlier studies of metropolitan development provided the basis for an empirical study of the development process for multi-family structures. Data are being assembled on the characteristics and background of developers of multi-family housing, land and construction financing, and the processes through which developed properties are transferred to permanent investors. (WFS)

12. THE SOCIAL GOALS OF CONTEMPORARY BRITISH TOWN PLANNING

Main Investigator: Donald L. Foley.

Status of Research and Publication: Essentially completed. Published: "Some Notes on Planning for Greater London," Town Planning Review, 32 (April, 1961), 53-65; "Idea and Influence: The Town and Country Planning Association," Journal of the American Institute of Planners, 28 (February, 1962), 10-17. To be published: Controlling London's Growth: Planning the Great Wen, 1940-1960 (University of California Press, 1963 forthcoming). Manuscript of article, but publication uncertain: "Controlling Office Development in London: A Case Study of Central Local Government Relations."

Agency: University of California, (Berkeley), Department of City and Regional Planning.

Previous Digest Report: 6:1-1, 7:2-4.

Research Problem. This study seeks to identify and report on the major social values, particularly those dealing with the character of cities and urban life, which British town planning is seeking to promote.

Major Findings. The TPR article explores implications of the fact that recommendations of the Royal Commission on Local Government in Greater London will likely lead to a reorganization of, and hence a fresh look at, the main ideas and approaches relied upon in planning for metropolitan London. The JAIP article documents the thesis that the garden city movement has had a very strong impact on British town planning and seeks to interpret why this has been the case. The book examines one of the most important social policy experiments ever carried through with respect to a major world metropolis. It focuses on the main ideas in the wartime advisory plans for Greater London and the degree to which these ideas have been effectively implemented in the nearly two decades since. As suggested by its title it particularly deals with the web-like doctrine providing the rationale behind and the planning concepts for controlling metropolitan growth. The soundness of this doctrine in the light of a now available understanding of the development forces at work during subsequent years is appraised. The mechanism by which changes are taken into account and doctrine modified is subjected to scrutiny. (DLF)

13. URBAN RENEWAL PROBLEMS AND PROGRAMS IN CALIFORNIA AND OTHER WESTERN STATES

Main Investigators: Catherine B. Wurster, Donald L. Foley.

Status of Research and Publications: In process. To be published: "Housing Trends and Related Problems in

California," by Donald L. Foley, Wallace F. Smith and Catherine Bauer Wurster, in a report by the Governor's Advisory Commission on Housing Problems (State of California).

Agency: University of California, (Berkeley), Department of City and Regional Planning, under sponsorship of Ford Foundation and the Governor's Advisory Commission on Housing Problems.

Previous Digest Report: 8:2-7.

Research Problem. Within the context of problem as stated in previous abstract, a first completed phase sought to identify main recent housing trends in California's ten metropolitan areas and to discuss the housing and planning problems that must be faced by the State of California.

Method of Study. Relying mainly on 1960 Census data, analysis has focused on the differential availability of housing for low-income and minority groups, and on the differentials between central city and suburban parts of metropolitan areas.

Major Findings. The overwhelming importance of new housing and a dearth of older housing make for special problems in California metropolitan areas, and especially in California metropolitan suburbs, for low-income in-migrants are seriously restricted in the housing they can obtain. Generally, most suburban areas contain middle-income majority whites, with non-white and Spanish surname residents concentrated in central areas or, in some instances, in certain rural fringe shacktown areas. Both low-income and minority status contribute to difficulties in securing adequate housing at fair cost, and a seriously high proportion of households are forced to spend more than one-third of their income on housing. Informed housing policy at the metropolitan level that fully ties in with physical planning policy is needed. The criteria of good housing must be extended to include good community environment and ready accessibility to employment opportunities and community facilities. (DLF)

14. THE DAYTIME POPULATION IN CENTRAL BUSINESS DISTRICTS OF AMERICAN METROPOLITAN AREAS

Main Investigator: Donald L. Foley

Status of Research and Publications: In process.

Agency: University of California, (Berkeley), Department of City and Regional Planning, aided by grant from the Institute of Social Sciences, University of California, Berkeley.

Previous Digest Report: None.

Research Problem. This study undertakes a comparative analysis of the number of persons entering, having destinations in, and accumulating in the CBD's of American metropolitan areas during the typical weekday. The research aims to enhance our understanding of how CBD daytime population (usually expressed as a rate per 1,000 SMSA population) has varied both over time (for selected metropolitan areas) and between metropolitan areas (for any given time). It is hoped to test and to generate further hypotheses using such measures as indicative of the functional importance of CBD's.

Method of Study. The study will mainly rely on data from the numerous traffic studies that have been carried out. It will bring up to date an earlier study published in the early 1950's that examined data for 61 metropolitan areas (Amer. Sociol. Rev., 17 /October, 1962/, 538-543). Methodological problems of putting data into reasonably standardized form for comparative purposes will be explored, supplementing the earlier work. (DLF)

15. HIGH-RISE BUILDING IN THE LOS ANGELES METROPOLIS

Main Investigators: Leland S. Burns and Frank G. Mittelbach

Status of Research and Publications: In process. Publication date as yet not determined.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program.

Previous Digest Report: None.

Research Problem. The building of high-rise apartment, office and other structures has received considerable impetus in the Los Angeles SMSA during recent years. The purpose of this study is to explain the reasons for the phenomenon and to determine whether or not high-rise developments will continue to be an important part of building operations in the Los Angeles area. The determinants of supply and demand for high-rise space will be explored.

Hypotheses. Among other factors, the building of high-rise structures is influenced by public regulation, economic return both direct and indirect, architectural considerations and sometimes by the need to develop "monuments." The study will explore the role of the various elements in the Los Angeles area.

Method of Study. An inventory of both new and old high-rise buildings in Los Angeles area will be prepared. The relationship between height and building costs will be determined. The changes in rents and rentable area as height increases will be established empirically. Also, the role of permissive factors such as parking regulations, zoning, and building regulations will be studied. A model incorporating the determinants of supply and demand has been developed, and will be tested empirically. (FGM)

16. PROFILE OF THE LOS ANGELES METROPOLIS: ITS PEOPLE AND ITS HOMES

Main Investigators: Leo Grebler, Fred E. Case, James Gillies, Leland S. Burns and Frank G. Mittelbach.

Status of Research and Publications: The first part of this project, "A Comparative Study of Los Angeles" by Leo Grebler is in press; the second part of the study "The Changing Housing Inventory" by Frank G. Mittelbach will go to press shortly; the other parts of the study are in process.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program.

Previous Digest Report: None.

Research Problem. This project draws upon the 1960 Census of Population and Housing for an intensive analysis of the Los Angeles Standard Metropolitan Statistical Area.

Major Findings. Part I of this study points out that the great mobility of the population in Los Angeles reflects continued heavy migration into the area as well as moves by established residents. Los Angeles has the highest ratio of native American population born in another state for any large metropolitan area in the nation. Compared to such areas as New York, Chicago, Philadelphia, Detroit and San Francisco, the Los Angeles SMSA features a population of high educational standards, evidenced by the number of school years completed and college enrollment. Another outstanding feature of Los Angeles is an exceptionally high quality of its housing as measured by minimum Census standards. In some respects, Los Angeles resembles closely other major metropolitan centers. It has a normal age distribution and normal labor force participation. The industrial structure of Los Angeles has also become quite similar to that of the areas compared. Los Angeles density patterns are increasingly approximating that of the other large communities, and these in turn are evolving in a pattern more closely resembling that of Los Angeles. (FGM)

17. THE RELATIONSHIP BETWEEN LOCAL PROPERTY TAXES AND LAND USE PATTERNS IN LOS ANGELES

Main Investigator: Fred E. Case.

Status of Research and Publications: Research in process. Publication date as yet not determined.

Agency: University of California, Los Angeles, Graduate School of Business Administration, Real Estate Research Program, in cooperation with the Lincoln Foundation, Claremont College, Claremont, California.

Previous Digest Report: None.

Research Problem. The study of the incidence of property taxes and their relationship to land uses and land use problems.

Hypotheses. Among the questions which will be studied are the following: (1) To what extent do some of the communities represent areas in which properties are "sheltered" from paying for tax-financed local services by using those of adjacent communities? (2) What is the interdependency between tax rates and the retention or growth of industries? (3) Have the taxes created land use patterns which affect the development of the Los Angeles County regional land use plan? (4) How have the land use patterns affected the total tax revenue and the fiscal position of the various communities?

Method of Study. The communities in Los Angeles County are listed in order, according to the tax rate in each. Representative communities are selected from the various tax rate groupings. Among the information being secured for each community are land use patterns, population characteristics, property prices, building permits, real estate market activity, and fiscal position in recent years. The data will be classified and analyzed in various ways to answer the questions posed. (FGM)

18. THE VALUATION OF ACCESSIBILITY

Main Investigator: William C. Pendleton.

Status of Research and Publications: Completed. Paper based on the study presented at January, 1963, Annual Meeting of Highway Research Board.

Agency: University of Chicago, Department of Economics.

Previous Digest Report: 9:1-18.

Research Problem. To infer from sales prices of residential real estate the value buyers place on accessibility to jobs and the central business district. The study was designed to explore the usefulness of real estate selling price data in evaluating the benefits of transportation investments, particularly urban highway improvements.

Major Findings. The sales prices of single family houses vary consistently with accessibility, other characteristics held constant. Of the measures of accessibility used, the gravity-type index of job accessibility yielded the most significant coefficient, but driving time and the logarithm of distance also provided good fits. The driving time rent gradient was completely absorbed by expected savings in auto operating expenses, thus implying a zero or negative valuation of savings in driving time. Among the incidental findings were the following: (1) more sophisticated and expensive measures of accessibility correlate very highly with linear distance to the CBD or its logarithm, (2) the proportion of job trips to the CBD varies directly with accessibility to the CBD, but considerable sectoral variation exists, and (3) with data on relatively few attributes of residential properties, it is possible to explain more than 90 per cent of the variance in sales price. (WCP)

19. APPLIED URBAN RENEWAL SEMINAR: AVONDALE I - CORRYVILLE RESEARCH PROJECT

Main Investigators: Kenneth E. Corey, Robert C. Hoover, Peter H. Nash, Adina C. Ben-Chorin, Donald L. Brummett, Claudia G. Burghardt.

Status of Research and Publications: Preliminary survey and analysis phases of the project completed. A detailed, illustrated document will be forthcoming in June, 1963.

Agency: University of Cincinnati, Institute of Social Studies, and City of Cincinnati, Department of Urban Development.

Research Problem. The primary research problem involves the investigation of the potential development of the Avondale and Corryville areas as neighborhoods compatible with their surrounding environs by means of fundamental data collection, data mapping, and objective analysis of the information. The subsidiary phases of the research problem involve a case study of enlightenment, in terms of probing, in depth into the ills of rehabilitation and conservation procedures as a type of urban renewal treatment. The Avondale-Corryville area and its administration offers an excellent case study for the political-administrative implications of urban renewal and planning decision making.

Hypotheses. Based upon the analysis of the problem, numerous hypotheses have been formulated, some of which have been verified. Hypothetical examples include: Avondale and Corryville areas can be distinguished by architectural or house type districts, historical districts, ethnic districts, and economic level districts. Some examples of hypotheses in the process of being tested include: nearby cultural institutions will have dynamic and positive roles to play in the renewal of the Avondale-Corryville area; rehabilitation and conservation is economically feasible and attainable; code enforcement is a valuable tool in attaining voluntary rehabilitation; and differential or zoned housing codes are possible.

The above are hypotheses which have been formulated, some of which have been tested and verified; others are still in the process of investigation. (KEC)

20. RELOCATION AND MENTAL HEALTH: ADAPTATION UNDER STRESS

Main Investigators: Erich Lindemann, Marc Fried.

Status of Research and Publications: Study begun December, 1957. Will continue through June 1, 1964.

Agency: Center for Community Studies, an affiliate of Massachusetts General Hospital and Harvard Medical School, under a grant from the National Institute of Mental Health.

Research Problem. The distribution of mental health and illness in a slum area; the relationship between sociocultural and personality factors which foster mental health or mental illness; and the impact of relocation (both the stress of dislocation and the problems of adapting to a new environment) upon mental health and mental illness.

Method of Study. Integrates several methods and types of data: (1) intensive prepost relocation survey interviews, covering a wide range of experiences and attitude items, with a random sample of 580 females and 406 males completing the post-relocation interview; (2) observational and key informant data (including participant-observation study and ethnographic interviews); (3) intensive studies of selected samples for specific purposes to be done over several years (e.g. comparative study of users and non-users of psychiatric, social, medical and legal agencies); and (4) studies of records and documents (e.g. data from service agencies, census data, historical materials.) (PM)

21. AIR POLLUTION IN THE PENJERDEL REGION

Main Investigators: Francis K. Davis, Jr., and Herman Newstein.

Status of Research and Publications: Scheduled for completion in the spring of 1963.

Agency: Drexel Institute of Technology, under sponsorship of the Pennsylvania-New Jersey-Delaware Metropolitan Project, Inc.

Previous Digest Report: None.

Research Problem. A research design for comprehensive studies of air pollution in the Penjerdel region, including feasible alternative procedures to apply effective control measures. (JWB)

22. LAND USE PLANNING AND CONTROL ALONG THE INTERSTATE HIGHWAY SYSTEM IN GEORGIA

Main Investigators: Howard K. Menhinick and Harry W. Atkinston.

Status of Research and Publications: Completion, March 31, 1963. Publication shortly thereafter.

Agency: Georgia Institute of Technology, Engineering Experiment Station, in cooperation with State Highway Department of Georgia and U. S. Bureau of Public Roads.

Previous Digest Report: 9:1-29. (HKM)

23. RECOMMENDATIONS REGARDING CONTROL OF OUTDOOR ADVERTISING ALONG THE INTERSTATE HIGHWAY SYSTEM IN GEORGIA

Main Investigators: W. Carl Biven and Andrew J. Cooper III.

Status of Research and Publications: Published December, 1962.

Agency: Georgia Institute of Technology, Engineering Experiment Station, in cooperation with State Highway Department of Georgia and U. S. Bureau of Public Roads.

Previous Digest Report: None.

Research Problem. To examine the feasibility of the adoption and implementation of the National Standards along the Interstate Highway System within the state of Georgia. (HKM)

24. THE MOVEMENT OF MANUFACTURING WITHIN THE CHICAGO METROPOLITAN AREA, 1955-1962

Main Investigator: Robert L. Koepke.

Status of Research and Publications: In process. Doctoral dissertation.

Agency: University of Illinois, Department of Geography.

Previous Digest Report: None.

Research Problem. During the period 1955-1962, there were 934 manufacturing developments (a new industry, or manufacturing expansion or a movement of a manufacturing plant) in the Chicago Metropolitan Area. The movement of manufacturing plants accounted for the largest part of this total (412 plants moved, or 44 per cent of the total manufacturing developments). The concern of this study is to attempt to explain why these plants moved where they did within this metropolitan area.

Previous Relevant Research. There are several studies concerned with some aspect of the movement of industry within the Chicago Metropolitan Area upon which this study plans to build. None of these, however, have been concerned primarily with understanding why the plants have moved where they have within the whole Chicago Metropolitan Area. Reinemann in a 1955 Ph.D. thesis at Northwestern University was in part interested in the relocation of manufacturing within the Chicago Metropolitan Area. In 1961, the City of Chicago Department of City Planning published a study concerned with Manufacturing in the Chicago Metropolitan Area, especially the city of Chicago and included material on movement. Two unpublished works are Bleile's study of the suburbanization of industry, Ph.D. thesis, Northwestern University, and the updating by the City of Chicago Department of City Planning of its 1961 publication.

Method of Study. This project proposes to answer the question of why by looking at what factors the executives of the plants that moved considered in making the decision, which of these they considered most significant, and why they considered these most significant. This information will be obtained by studying historically, by the use of intensive interviews, the decision of the executives in charge of each plant with fifty or more employees to relocate within the Chicago Metropolitan Area. (RLK)

25. POLITICS OF PLANNING IN SMALL CITIES

Main Investigator: Charles Edwin Patterson, Jr.

Status of Research and Publications: Doctoral dissertation, completed. A newsletter summarizing findings is to be issued by Bureau of Community Planning, University of Illinois in near future.

Agency: University of Illinois, Department of Political Science.

Previous Digest Report: 9:1-29.

Research Problem. The role of city planning in the context of local politics has received little attention. There have been a limited number of case studies of city planning as a political process, but these studies have focused on large cities. Apparently no studies have been made of planning politics in smaller cities, i.e. cities with less than fifty thousand people. In this project interest is therefore focused on city planning politics in four small cities in Illinois in an attempt to identify the partisans of planning issues on a series of related governmental decisions.

Method of Study. In order to understand the group struggle in the cities studied, some background material on the social, economic, and political conditions in each city is included. Since the legal framework within which planning decisions are made is uniform throughout the State of Illinois, it is treated in a separate chapter.

Among the principal questions considered in this study are the following: What identifiable groups are primarily interested in city planning decisions? Do these groups vary in character from city to city? What techniques do they generally rely upon in order to achieve their goals? Have they made city planning an election issue? To what extent have public officials provided leadership in planning policy formation? What has been the result of the infusion of federal grants-in-aid into local planning activity with respect to the initiation of planning projects? And to what extent have plans been followed and enforced by local authorities or modified through amendments and variations? While the case studies presented are not expected to provide definitive answers to their questions, it is hoped that they will contribute to a better understanding of the planning process.

Major Findings. Each of the cities studied is characterized by a lack of partisan local politics and the absence of city planning as a major electoral issue. Most of the activity relative to planning is limited to a very small number of individuals, with leadership generally coming from outside the local government. The chambers of commerce and a few persons with a cosmopolitan orientation are found to be the principal supporters of city planning efforts. Opposition comes principally from people with a strong local orientation, i.e., people who do not concern themselves much with developments outside the local community and generally are unaware of new ideas or the need to change.

The availability of federal grants-in-aid has encouraged some communities, which might not have done so otherwise, to develop a city plan. Also the standards imposed by the federal government has insured the production of technically competent planning surveys. But plans have been frequently modified as a result of political considerations and more frequently criticized for being too rigid or for having failed to allow for peculiarities in the local situation. Planning is not viewed as a technical function of local government, but as a political instrument for promoting one set of values in preference to others. (CEP, Jr.)

26. URBAN MASS TRANSPORTATION WITH SPECIAL EMPHASIS ON DOWNSTATE ILLINOIS CITIES: A STUDY IN THE FORMATION OF PUBLIC POLICY.

Main Investigator: Robert D. Heidorn.

Status of Research and Publications: In process. Doctoral dissertation in Political Science.

Agency: University of Illinois, Department of Political Science.

Previous Digest Report: None.

Research Problem. The research problem involves the fact that if private enterprise finds that it is no longer able to provide mass transportation facilities in cities at a profit, and such service is discontinued, there will be unfortunate consequences which it may be a responsibility of government to avoid. The present study proposes to study decision making relative to mass transportation for cities by government--national, state, and local. The decisions actually made will be noted but it is the decision making process with which the study is primarily concerned.

While consideration will be given to policy making at all three levels of government, emphasis will be placed upon cities. Who has been in the past or is at the present time taking the leadership in forming public policy? What have they favored and what methods or means have they used? An approach suggested by Mr. Peter H. Rossi will be relied upon to find answers to these questions. This approach uses decisions as its reference point. The three Illinois cities selected for intensive study of the results of the decision making process in the area of mass transportation are Bloomington, Champaign, and Springfield. All three of these have given some measure of attention to the problem. A study of policy formation on this critical issue should help us to understand the part private individuals and groups play in influencing action and the making of decisions by the formal officers of local government. (RDH)

27. FACTORS INFLUENCING INTERREGIONAL MORTGAGE LENDING BY FINANCIAL INTERMEDIARIES

Main Investigator: Halbert C. Smith.

Status of Research and Publications: Doctoral dissertation completed. Publication plans not reported.

Agency: University of Illinois, Graduate School of Business Administration, under sponsorship of Mortgage Bankers Association of America.

Previous Digest Report: None.

Research Problem. The ability of regions to develop economically through the creation of real estate resources is affected by differentials among regions in the availability of funds for mortgage investment. Because interregional mortgage lenders must make implicit or explicit decisions concerning the regional placement of mortgage funds, the geographic distribution of mortgage funds is subject to the influence of economic, social, and legal characteristics that vary among geographic areas. Identification of these factors affecting the placement of funds by interregional mortgage lenders is the principal objective of this study.

Previous Relevant Research. Although there has been no previous scientific investigation of this specific problem, there has been recognition of the problem by some writers, particularly Saul B. Klaman, The Postwar Residential Mortgage Market (Princeton: National Bureau of Economic Research, 1961) and Oliver Jones and Leo Grebler, The Secondary Mortgage Market--Its Purpose, Performance, and Potential (Los Angeles: University of California, 1961).

Hypotheses. The dependent variable of the study is the mortgage investment held by the principal interregional mortgage lenders--life insurance companies and mutual savings banks--located outside the boundaries of each state. The independent variables of the study are the economic, social, and legal characteristics of geographic areas embodied in the following hypotheses: (1) Economic characteristics that vary among geographic areas (such as mortgage yields, personal income, unemployment, assets and in-state mortgage investment of financial intermediaries, and employment sources) influence the relative level of mortgage investment held by out-of-state interregional mortgage lenders. (2) Social characteristics that vary among geographic areas (Such as urban population, non-white population, population in various age groups, and population growth) influence the relative level of mortgage investment held by out-of-state interregional mortgage lenders. (3) Legal characteristics that vary among states (such as the statutory redemption period, debtor's rights during statutory redemption, ease of foreign corporations to qualify for making mortgage loans, maximum loan to value ratio permitted on conventional mortgages by life insurance companies, maximum interest rate permitted on a mortgage loan, and the number of state laws unfavorable from the viewpoint of mortgage lenders) influence the relative level of mortgage investment held by out-of-state interregional mortgage lenders. Because mortgage yields were included as an independent variable, it was necessary first to test the hypothesis that differentials in mortgage yields exist among regions of the United States.

Method of Study. Heretofore no statistical evidence had been offered as to the existence or non-existence of regional mortgage yield differentials. The Federal Housing Administration furnished on a confidential basis secondary market prices for comparable mortgages insured by the FHA in each insuring office district. These districts were combined into eight regions, and the data were subjected to a two-classification analysis of variance. This analysis indicated that significant differences in mean mortgage yields exist among the eight regions and among annual time periods.

In addition to regional mortgage yields, the other economic, social, and legal variables were tested in several econometric models for functional relationships with the dependent variable. The economic and social variables were reduced to a per capita basis to provide comparability. The beta coefficients for the variables in each model and the addition of each variable to the equation were tested for significance at the five per cent probability level of error.

Major Findings. The relationships among variables established in the regression models suggested the following conclusions: (1) although states in regions exhibiting significantly higher mortgage yields obtained greater amounts of out-of-state mortgage investment than states in regions exhibiting lower yields, a disequilibrium between supply and demand among regions continues to exist, as evidenced by the yield differentials; (2) economic characteristics of states, as measured principally by per capita personal income and average weekly unemployment, are the most important determinants of the relative levels of mortgage credit supplied by out-of-state financial intermediaries; (3) the ability and willingness of institutions within a state to supply mortgage demand, as evidenced by per capita assets and in-state mortgage investment of financial intermediaries, determine in part the amount supplied by out-of-state sources; and (4) out-of-state mortgage investment is related to the number of state laws unfavorable to mortgage lending. However, individual state laws when classified into two categories, favorable and unfavorable, are not significantly related to per capita amounts of out-of-state mortgage investment. (HCS)

28. COMMUNITY POWER AND DECISION MAKING IN THREE ILLINOIS CITIES

Main Investigators: Herbert V. Gamberg and Nason E. Hall, Jr.

Status of Research and Publications: In process. To be completed by September, 1963.

Agency: University of Illinois, Office of Community Development.

Previous Digest Report: None.

Research Problem. The object of research is the comparative analysis of the structure of power and decision making in three medium-sized metropolitan areas. Special attention is devoted to the interrelationships between social structure and the structure of decision making, and to the implications for the roles of professionals of different decision making structures.

Hypotheses. It is hypothesized that the process by which decisions affecting significant proportions of the metropolitan population are made is partly a function of the modal type of economic organization (specifically size and type of ownership), and the degree of ethnic identification of sub-group populations. The decision making roles played by economic dominants in a community characterized by large scale bureaucratically-organized enterprises tend to be facilitative rather than innovative, passive rather than active, and fluid rather than stable. The roles of economic dominants in communities having a large number of small, home-owned enterprises tend to be innovative, active, and stable. In the first type, major decisions tend to arise and be resolved in a pluralistic manner; in the latter case, decisions tend to be made by a relatively small number of economic and social elites.

The presence of ethnic sub-groups may modify the relationships hypothesized above as a result of cleavages within the economic elite group.

Method of Study. In each city, interviews were conducted with reputed influentials and with persons identified as active in the resolution of three specific community decisions (political actors). Information was obtained from reputational elites as to their roles in each specific decision and in the general decision making structure, their communication with political actors, and the amount of influence exerted. Political actors were asked about communication with reputational elites, their degree of "independence," and the particular decision making role played. Interview data is supplemented by participant observation, voting, and historical data. (NEH)

29. DOWN-TOWN CHANGE IN MIDDLE-SIZED CITIES

Main Investigator: Everett G. Smith, Jr.

Status of Research and Publications: In process. To be completed by September, 1963.

Agency: University of Illinois, Office of Community Development

Previous Digest Report: None.

Research Problem. This study compares and contrasts recent changes in activities located in the downtowns of three middle-sized Illinois cities, Peoria, Rockford, and Springfield, with 181,000, 172,000, and 111,000 persons, respectively, in the urbanized area in 1960. Though each city has special political and economic qualities which tend to alter the rate of downtown change, the direction of change in each place indicates clearly a diminishing role for downtown as the major community center for retail transactions, service functions, and other commercial activities.

Downtown change takes the form of direct and indirect threats to a variety of individuals and groups. Merchants fret over losing business to outlying shopping centers; local governmental officials witness an erosion of an important segment of the property tax base and lament over less revenue from sales taxes; investors in downtown properties and businesses contemplate declining returns; and citizens watch their city center being altered and seem unable to agree on whether downtown is ill, what the nature of the illness is, and what proper treatment should be.

Hypotheses. (1) Adjustments and modifications in downtown activities are connected directly to the relative age of downtown and an increasing dependence upon automobiles. (2) Investigation of programs to manage and direct change in downtown in accordanc with some overall plan suggests that downtown interests strive to preserve the status quo. Unlike the expanding urban fringe surrounding central cities, where public and private interests must cope with problems associated with rapid and uncontrolled growth, downtowns in middle-sized metropolitan areas today resemble those numerous but much smaller places in the country experiencing no growth or only slow growth. A sense of urgency and anxiety permeates downtown interests, but it takes on a special flavor, for it is almost always expressed in terms of how downtown holds on to what it has. In this situation, it is proposed, the general attitude among those with downtown interests reaffirms the preservation of existing relationships instead of stimulating the search for creative adaptations to change.

Major Findings. Analysis of downtown change, based upon data from Polk City Directories, several years of building permit material, selected retail sales and employment information, maps of ownership and assessments, and interviews with downtown merchants as well as with residents in a variety of neighborhoods, emphasizes a general similarity in recent changes downtown within middle-sized metropolitan areas. These data identify retailing problems resulting from diverse and small ownership parcels, broken commercial frontages, traffic congestion, and stationary or declining sales. They illustrate the physical deterioration of downtown structures through absentee ownerships and increasing vacant locations, particularly above ground floors. They show downtowns in middle-sized cities to be declining in importance as the urban focus for retail, service, entertainment, and cultural activities.

Judging from recent experience in Illinois cities, organized responses to downtown change often include groupings of downtown interests attempting to restore, preserve, or, if possible, improve business conditions. These group efforts concentrate largely on the retail function of the center city core and, "to bring the people back downtown," stress such "all-rewarding" issues as treasure hunts, planting shrubs, flag displays, and covered walkways. Private downtown organizations ultimately define their success in sales returns alone. Local government is viewed in a facilitative role, and is brought into power only when private power is stalemated. (EGS)

30. PROPERTY HOLDING REAL ESTATE INVESTMENT TRUSTS OPERATING UNDER THE 1960 TAX LAW

Main Investigator: E. Norman Bailey.

Status of Research and Publications: In process.

Agency: Indiana University, School of Business.

Previous Digest Report: None.

Research Problem. This study is concerned with the efficacy of the practices of property holding real estate investment trust; the problems and constraints they have experienced; and their prospects for growth.

Previous Relevant Research. Because of the relative newness of the law which has engendered the propagation of real estate investment trusts, there has not been any published research directly related to the subject area.

Method of Study. The principal sources of information for this study are: (1) personal interviews with the officers of selected real estate investment trusts and their property management firms; and (2) their registration statements and subsequent documents filed with the Securities and Exchange Commission. It is anticipated that the information realized from these and supplemental sources will provide a basis for the analysis and evaluation of the subject trusts and of their prospects. (WGP)

31. SOME ECONOMIC RECONSIDERATIONS OF ZONING--REMEDIAL, EMERGENT, AND UTOPIAN

Main Investigator: Dean Rickenbach.

Status of Research and Publications: Ph.D. dissertatión to be completed in August 1963.

Agency: Indiana University, School of Business.

Previous Digest Report: None.

Research Problem. How can zoning be improved and made more effective as a tool to implement city planning?

Method of Study. A survey of the zoning institution is presented. The objectives, formulation, adoption, administration and constitutionality of zoning procedures are critically examined. Economic theory is then applied to the phenomenon of zoning. The concept and impact of external diseconomies in urban property are examined. The hypothesis that imperfections in the urban property market justify zoning is scrutinized. An economic model is developed to indicate the allocative efficiency of zoning. 7 . theory of zoning is applied in two specific areas: (1) the firm as a decision making unit influenced by zoning, and (2) the manner in which zoning influences the municipal tax base. Interrelationships between imperfect zoning and the political process of zoning are examined. Finally, methods to improve zoning are suggested and other conclusions are drawn. (WGP)

32. REMEDIAL PROGRAMS FOR LONG-TERM UNEMPLOYED BLUE-COLLAR WORKERS

Main Investigator: Kenton L. Anderson.

Status of Research and Publications: All data are collected, coded, and punched. A computer program is being written at the present time. Expected completion date, August 1963.

Agency: Indiana University, School of Business.

Previous Digest Report: None.

Research Problem. What types of remedial action, if any, are suggested by a statistical analysis of the labor market experience and the personal and economic characteristics variables for all blue-collar temporary extended unemployment compensation claimants in a major labor market area?

Previous Relevant Research. In general, all the reports required under Section 10 of the Temporary Extended Unemployment Compensation Act of 1961, e.g., Temporary Extended Unemployment Compensation Report Series 1-4, as well as special studies conducted at the state or local level in conjunction with this program.

Method of Study. All skilled, semi-skilled, and unskilled workers last employed in manufacturing and registered for Temporary Extended Unemployment Compensation benefits in the Evansville office of the Indiana Employment Security Division are being studied. Information in their records on labor market experience and personal and economic characteristics (26 variables) was collected, coded, and punched into IBM cards. A program utilizing chi-square techniques will test for significant differences between skill levels on each of these variables. It is believed that these results will suggest certain types of remedial action for the subjects of this study. (WGP)

33. CRITERIA FOR AREA DEVELOPMENT AND REDEVELOPMENT

Main Investigator: Edward E. Laitila.

Status of Research and Publications: Preliminary background study of existing literature completed, including development of extensive bibliography. Completion (including publication as dissertation) expected by January 1964.

Agency: Indiana University, Institute of Applied Urban Economics, under sponsorship of Committee on Urban Economics, Resources for the Future, Inc.

Research Problem. What are the "operationally feasible" criteria of an economic nature which can be used in evaluating and designing area development programs? These criteria would take into account some measure of economic welfare, such as per capita income, as the basis for making both public and private decisions of a developmental nature. In addition, the criteria would be designed to integrate an area's development within the context of national economic development, rather than as an independent economic phenomenon.

Previous Relevant Research. Includes work done under a Committee for Economic Development grant by Donald Gilmore and published as Developing the "Little" Economies by the CED. Also of note is Walter Isard's Techniques of Regional Analysis, and Regions, Resources and Economic Growth by Harvey Perloff and associates at Resources for the Future, Inc. Up to the present time, however, no significant research has been conducted on the problem of discriminating between competing areas and development needs. The purpose of this research will be to formulate criteria which can be applied on the many levels of development effort in the economy, in an attempt to substitute economic for political or other standards.

Method of Study. The study will proceed in a number of stages, commencing with a survey of the existing literature, and extending to an analysis of existing and proposed programs of both a public and private nature at the national, regional, state and local levels. A theoretical model of area development will be prepared, together with theoretical criteria which will fit this model. These will then be applied to current or proposed programs as a test of operational feasibility, with modification where necessary. The final result will be a complete model of area development, embodying the operationally feasible criteria. Since the study is only in the preliminary stages no concrete results can be reported at this time. (WGP)

34. A LONG RANGE PLAN FOR MUNICIPAL SERVICES IN METROPOLITAN INDIANAPOLIS

Main Investigators: Sidney E. Zimbalist and John Walls.

Status of Research and Publications: Part One, Welfare Servi ᴗs, covering seventeen major fields, now available, (Community Service Council of Metropolitan Indianapolis, 615 N. Alabama Street, Indianapolis 4, Indiana, $1.00 per copy.) Remaining two sections, covering health and recreation respectively now in process.

Agency: Community Service Council of Metropolitan Indianapolis

Previous Digest Report: None.

Research Problem. The long range planning project of the Community Service Council is to provide guidelines for the future development of community service to 1975 for the Indianapolis metropolitan area. Both public and private services are included. For each of the 17 fields of welfare service in the first report, an analysis of services and needs is given, together with a projection of trends and future requirements. Each field is then designated in one of four categories of recommended development: (1) accelerated; (2) normal; (3) status quo; or, (4) curtailment. In addition, sources of financing are given for each field, and a projection of future requirements of increase or decrease is arrived at. The objective is a systematic, comprehensive analysis, in statistical terms where possible, of trends and future service needs and financial requirements for all fields of community service in this metropolitan area. (SEZ)

35. THE GOVERNMENT OF THE CALCUTTA CONURBATION

Main Investigator: Leslie Green

Status of Research and Publications: In process.

Agency: Institute of Public Administration, International Urban Studies Program, under sponsorship of Ford Foundation.

Previous Digest Report: 8:2-90.

Research Problem. To assist the administrative and fiscal phases of the Calcutta planning operation by (a) a study of the organization, powers and resources of governments, statutory bodies and the like, whether central, state or local, operating within the Calcutta conurbation, and (b) an analysis of conflict and cooperation in the political and administrative fields.

Method of Study. The first stage of the project will cover the national and state framework of government (including statutory bodies); the status, size, organization and powers of local bodies; studies of the services of these governments and bodies undertaken within the conurbation; the costs of such services and methods of financing them. The second stage will examine in detail the formal administrative and financial relations obtaining between such governments and bodies, and the informal political and power relationships obtaining between the centre and state, between these authorities and those of the conurbation, and between the members of the conurbation themselves. It is expected that the result will be a series of case studies dealing with conflict and cooperation within the government and administration of the Calcutta conurbation. (LG)

36. DEVELOPMENT PROBLEMS IN THE INDUSTRIAL-POWER BELT, DHANBAD-ASANSOL-DURGAPUR

Main Investigators: Leslie Green, V. N. Prasad, T. C. Das.

Status of Research and Publications: In process.

Agency: Institute of Public Administration, International Urban Studies Program, under sponsorship of the Ford Foundation, and in cooperation with the Indian Institute of Technology, Karagpur; the Indian Institute of Social Welfare and Business Management.

Previous Digest Report: 8:2-90.

Research Problem. To study selected development problems within the Dhanbad-Asansol-Durgapur complex, such as those concerning the relationship between industrialization and urban growth; the development of ancillary economic activities (industrial, commercial, financial and marketing); the supply, composition, training and turnover of labor; housing and slum clearance; physical planning on a town and regional basis; public administration; public amenities; transport and communications; and public health and welfare, in order to augment knowledge of the wider region within the context of which the Calcutta Metropolitan Planning Organization seeks to solve the development problems of the Calcutta conurbation, and to assist CMPO in that undertaking.

Previous Relevant Research. Diagnostic Survey of the Damodar Valley Region completed on a pilot basis in 1958 by Joint Committee of Government and University bodies under general direction of Professor Prasad. First stage of a study of the socio-economic condition of people living in villages outside the industrial and urban area of Durgapur, "Present and Future Durgapur-A Study of Planned Industrialization in a Rural Area" completed in 1959 by Institute of Social Welfare and Business Management under direction of Professor Das. A critical evaluation of labor welfare programs and their impact on the life of laborers in the Asansol coal mines also completed by same Institute in 1960. Study of rapid urbanization in the Indian steel towns, including Burnpur-Kulti and Durgapur in the Dhanbad-Asansol-Durgapur complex, recently completed by UNESCO Research Center on Social and Economic Development in Southern Asia (Delhi.) Study of inter-group relations at Durgapur also currently underway by Sociological Research Unit of the Indian Statistical Institute. (LG)

37. THE ECONOMIC RELATIONSHIPS BETWEEN CALCUTTA AND ITS HINTERLAND

Main Investigators: Leslie Green, Brian Berry, S. P. Chatterji, N. R. Kar, Ambica Ghosh.

Status of Research and Publications: In process.

Agency: Institute of Public Administration, International Urban Studies Program, under sponsorship of the Ford Foundation.

Previous Digest Report: 8:2-90.

Research Problem. To assist the economic, new town and transportation development phases of the Calcutta planning operation by a thorough analysis of the flows of people, goods and services between the various parts of the Calcutta hinterland and to and from areas outside its borders, with the aim of uncovering (a) rural-urban flows, (b) inter-town flows, and (c) flows to and from the Calcutta conurbation. (LG)

38. IOWA ECONOMIC STUDY

Main Investigators: Not reported.

Status of Research and Publications: In process.

Agency: State University of Iowa, Bureau of Business and Economic Research.

Previous Digest Report: None.

Research Problem. An analysis of the Iowa economy from several points of view. Projections of employment by four digit industrial classification are being made. These in turn are to be disaggregated and allocated to 12 economic areas. A study is also being made of business response to agricultural changes. This will include (1) identifying the type and volume of farm-related businesses in Iowa's towns and cities; (2) projecting changes in such farm-related businesses in the light of possible changes on the farm, in government farm programs, in new tech logy, in market development, or in management organization and techniques; (3) identifying opportunities for expanding farm-related businesses in Iowa; (4) providing a basis for estimating the economic future of Iowa's smaller towns and cities; and (5) improving the over-all understanding upon which the intelligent action of all decision makers ultimately rests. Finally, the project also includes a county income study. The Bureau is working with the Midwest Research Institute and researchers from five other states to improve allocating methodology and augment social accounting systems by collecting secondary data that is now regularly reported to state agencies. (CCS)

39. VARIATIONS IN DEMOGRAPHIC STRUCTURE WITHIN A METROPOLITAN AREA: KANSAS CITY

Main Investigator: Michael R. C. Coulson.

Status of Research and Publications: Scheduled for completion in summer of 1963. Report and publications will follow.

Agency: University of Kansas, Department of Geography, in association with Community Studies Inc., Kansas City.

Previous Digest Report: 9:1-31.

Method of Study. An age-structure index has been developed from five year age groupings. It has been found to adequately describe variations in age structure within the Kansas City tracted area, and is being used as the dependent variable in this study.

Twenty-two variables have been derived from Census data. They describe aspects of sex, race origin, mobility, social status, occupation, density and style of living, for the population.

At present, tests are being carried out on a computer programme, prior to the running of multiple regression analysis. Emphasis will be placed on residuals, and their spatial arrangement. (MRCC)

40. HIGHWAY TRANSPORTATION DEMAND

Main Investigators: A. J. Bone, B. V. Martin and F. W. Memmott, 3rd.

Status of Research and Publications: Project has completed first year of three-year contract. An interim report of the first year's work is in preparation.

Agency: Massachusetts Institute of Technology, Engineering Systems Division, Civil Engineering Department, under sponsorship of Massachusetts Department of Public Works and U. S. Bureau of Public Roads.

Previous Digest Report: 8:2-34.

Research Problem. To develop better techniques for estimating future demand for highway facilities in urban areas. Includes development of a traffic assignment model which incrementally assigns traffic to a highway network taking into account effect of volume on travel time and capacity of system links, comparison of minimum path algorithms to determine their efficiency in terms of computer time and capacity requirements, investigation of volume-delay characteristics, and analysis of continuous traffic volume counts to determine their distributions and to derive a design traffic criteria based on economic considerations rather than magnitude rating, such as 30th highest hour.

Previous Relevant Research. A review and analysis of current methods of traffic estimation and assignment was made and published in Research Report No. 38 of the Joint Highway Research Project of the Massachusetts Institute of Technology and Massachusetts Department of Public Works, "Principles and Techniques of Predicting Future Demand for Urban Area Transportation." 1961. (AJB)

41. THE POTENTIAL IMPACT OF INTERNATIONAL DEVELOPMENT UPON THE DETROIT AREA

Main Investigator: R. L. Meier.

Status of Research and Publications: In process.

Agency: University of Michigan, School of Natural Resources, Department of Conservation.

Previous Digest Report: None.

Research Problem. What are the tasks that can be of assistance in world-wide development? Which of these is suited for the Detroit area? What action is needed for grasping these opportunities? What impact may be expected in the Detroit region if successful? What risks are run if this action is undertaken?

Method of Study. When projecting a future for a metropolitan area, a skeptical point of view must be maintained. W must look for the constraints upon world trade that lie beyond any ability of the city or the state to modify. The scale of these pared-down opportunities must be assessed. A program for development in the direction of international development must be outlined which utilizes the natural, human, and institutional resources that are on hand.

The specific tasks that can be foreseen at this stage are the following: (1) What is the probable level of structural unemployment for the Detroit region for 1970-75? What minima and maxima should be considered for planning purposes? (The range is expected to be so large that sophisticated techniques need not be applied to the data for our purposes.) (2) How is the composition of this resource changing? (Age, sex, experience, etc.) In what urban locales will it reside? (3) What is the projected rate for installing electric power equipment in newly developing territories? What share of this is likely to be nuclear? What specifications seem to be required? (4) How is this newly generated electrical current to be utilized? What equipment cannot be produced readily in a newly developing country? (5) What institutional experience in the Detroit area is relevant? Where in the developed world does the competition exist? What competitive advantages can be found? (6) What other "growth exports" of hardware can be identified in the breakdowns of international trade? Are any of these relevant to the Detroit area? (7) What are the trends in the training of foreign students? It is suspected that Michigan is principally teaching the teachers. Are there opportunities for producing teaching materials to go with the knowledge that is required? Is this opportunity sizeable?

(8) Are there any opportunities for tourism which depend upon international development that can be exploited? (9) How would the exports of hardware, software, and services be financed? Will the modes of finance affect the scale of export or the mix? (10) Is there any systematic approach to such problems which should be used if a more thoroughgoing study were to be undertaken? (RLM)

42. STUDY TEXT OF TOWNSHIP ZONING REGULATIONS

Main Investigator: Robert B. Hotaling.

Status of Research and Publications: In process.

Agency: Michigan State University, Continuing Education Service, Institute for Community Development and Services.

Previous Digest Report: None.

Research Problem. To determine the most appropriate "Level Variation" of zoning regulations pertinent to urbanizing or fringe area metropolitan communities with emphasis on the Michigan Township.

Method of Study. Using a model set of basic zoning regulations and progressively using successively improved study texts in a series of communities in Michigan with the help of local study groups. (WEF)

43. GOVERNMENTAL DECISION MAKING AND RELATED POLITICAL ACTIVITY IN THE METROPOLITAN AREA FRINGE

Main Investigators: Alvin D. Sokolow, Charles Press, Clarence Hein.

Status of Research and Publications: In process.

Agency: Michigan State University, Continuing Education Service, Institute of Community Development and Services, under sponsorship of U. S. Department of Agriculture, Farm Economics Division.

Previous Digest Report: None.

Research Problem. A comparative study of governmental decision making and related political activities in three townships extending out from a core city (Lansing, Michigan) in a metropolitan area.

Hypothesis. The general hypothesis is that governmental functions, decision making patterns, and political activities vary with the extent of urbanization (or more appropriately, suburbanization) ranging from an area adjacent to the core city to a "fringe" location. The three townships form an urban-rural "gradient." Activities of township, school district, and county government agencies are being studied.

Method of Study. Structured and unstructured personal interviews of governmental officials and other local elites, and examination of various kinds of documents. (WEF)

44. ECONOMIC IMPACT OF INTERSTATE HIGHWAY ON LAND USE AND LAND VALUES

Main Investigators: Paul R. Lowry and David McKinney.

Status of Research and Publications: Project is of indeterminant length; another report will be published in 1963.

Agency: University of Mississippi, School of Business and Government, Department of Research in Business and Government.

Previous Digest Report: None.

Research Problem. To study impact of interstate highway on land use and land values in an urban area (Jackson, Hinds County, Mississippi).

Previous Relevant Research. Studies of residential property values remaining in the area of a planned interchange and socio-economic consequences of displaced home owners in same urban area. The studies are predicated on the hypothesis that there will be some kinds of economic impact on the area through which the interstate highway passes.

Method of Study. This particular phase of the study will investigate property sales in a five-year period. Changes in land use will be studied by observation, analysis of aerial photographs and tax records, and by opinion surveys of residents and business owners in the area. (DSV)

45. SALES-RATIO STUDY OF ASSESSMENTS FOR STATE TAX PURPOSES

Main Investigator: Paul R. Lowry.

Status of Research and Publications: In process. Estimate completion date, January, 1964.

Agency: University of Mississippi, School of Business and Government, Department of Research in Business and Government, Bureau of Business and Economic Research.

Previous Digest Report: None.

Research Problem. This project will attempt to make a determination of the level of assessment of real property in each Mississippi county and in the whole of the state.

Hypothesis. The study is predicated on the hypothesis that there are assessment inequities among the counties and that the assessments do not conform to the requirements of the state statutory standard.

Method of Study. The study will attempt to relate the true value of the property as determined by open market sales to the assessed value of the property for state ad valorem purposes in the same year that the sale occurs. (DSV)

46. THE POLITICS OF CHANGE: THE EFFECT OF MIDDLE-INCOME APARTMENT DWELLERS ON SLUM AREA POLITICS

Main Investigator: Richard A. Watson.

Status of Research and Publications: Monograph completed, to be published by Community Studies, Inc. of Kansas City.

Agency: University of Missouri, Department of Political Science, under sponsorship of Community Studies, Inc. of Kansas City.

Previous Digest Report: None.

Research Problem. To determine political changes associated with the location of a middle-income apartment development in the heart of a slum area of Kansas City, Missouri.

Previous Relevant Research. To the author's knowledge no previous research on this particular problem has been published. Of course, general studies relating social class to political behavior are relevant.

Hypotheses. Hypotheses were developed around three major subject areas: (1) Partisan Change. The introduction of the middle-income apartment into the slum area politics will result in gains for the Republican Party and for the local Citizens' Association, which tends to attract persons from middle-income levels. Political organizations will make adjustments to deal with the new clientele. (2) Political Participation. Middle-income people would be generally more interested in political matters than those in low income groups, but most of this interest would be focused at the national and state levels, rather than at the local level. (3) Substantive Policy Issues. Low and middle-income voters living in the redeveloped area will have essentially disparate value systems and that this would be reflected in their attitude toward important issues at the local level.

Method of Study. Three major sources of data were utilized: (1) Election statistics, including general voting results in the area under consideration, as well as individual voting records. (2) Interviews with political party workers, and political candidates. (3) A sample survey of registered voters living in the area.

Major Findings. (1) Partisan Change. Significant inroads have been made into the overwhelming superiority of the Democratic Party. The political impact has been even greater at the local level in favor of the Citizens' Association which attracts not only Republicans, but also some middle-income Democrats. The Democrats and local Democratic Coalition organizations have recruited a different kind of political worker and use generally different tactics on the new group than are employed with the low income persons. The Republican and the Local Citizens' Association organizations have not taken full advantage of the potentialities for political support represented by the new apartment residents. (2) Political Participation. The hypotheses in this area were generally validated. The orientation of the middle-income persons toward national and state, as compared to municipal, politics was reflected in voting turnout patterns for different elections and by their knowledge of national as compared to local political leaders. Surprisingly, both middle and low income groups in the area had a higher electoral turnout in all elections examined (including municipal ones) than the electorate of Kansas City at large. (3) Substantive Policy Issues. The hypotheses in this subject area were generally confirmed. The new apartment dwellers placed an emphasis on non-conflict and honesty in the handling of public business, while the low income persons living in the neighborhood were more concerned with such "bread and butter issues" as slum clearance, hospitals, etc.

The final portion of the study attempts to relate the findings of this particular study to some possible trends in urban politics and suggests that middle-income apartment developments may act as a future source of countervailing political power against the low income groups that have tended to dominate the central cities of our nation in recent years. (RAW)

47. OCCUPATIONAL EMPLOYMENT PROJECTIONS FOR SOUTHERN STATES

Main Investigators: Mannie Kupinsky, Paul Schweitzer.

Status of Research and Publications: Preliminary planning and collection of data under way.

Agency: National Planning Association.

Previous Digest Report: 9:2-55.

Research Problem. Analysis of state changes in occupational distribution of employment under the impact of emerging economic conditions such as new technologies, changing consumption habits, interregional migration of plant and people, and the private and public policies designed to adjust to these changing conditions. (SS)

48. REGIONAL ECONOMIC PROJECTIONS SERIES

Main Investigators: Sidney Sonenblum, Mannie Kupinsky.

Status of Research and Publications: Total employment for 1947, 1957, 1960 and 1976 estimated for each state by major industry division and two-digit manufacturing industries. Personal income and components (such as labor income, proprietors' income, etc.) and gross product originating and components (such as employee compensation, dividends, interest, etc.) estimated for each state for 1947, 1957, and 1976. Total population projected to 1976 for each state. Estimates of age and sex distribution in 1976 for each state in preparation. The employment, income, gross product originating, and population data with analyses of these data comprise the 1962 edition of the Regional Economic Projections Series. The first report of the Series covering employment has been published. The second report covering income and output will be published in March 1963. The Series is available on an annual subscription basis.

Agency: National Planning Association.

Previous Digest Report: 9:2-56. (SS)

49. SUSQUEHANNA AND CHESAPEAKE RIVER BASINS ECONOMIC BASE STUDY

Main Investigator: Louis H. Stern.

Status of Research and Publications: Development of techniques and collection of basic data now under way. Study to take two and one-half years.

Agency: National Planning Association.

Previous Digest Report: None. (SS)

50. ESTIMATING THE NUMBER OF BUSINESS ESTABLISHMENTS IN NEBRASKA

Main Investigators: Edgar Z. Palmer, C. H. Lee.

Status of Research and Publications: Study has been completed and is now in the hands of the printer. Expected to be available in April, 1963.

Agency: University of Nebraska, College of Business Administration, Bureau of Business Research, under sponsorship of Small Business Administration.

Previous Digest Report: 8:1-38; 8:2-70.

Research Problem. To develop a method by which Bureaus of Business Research might find the answer to the question frequently asked: How many business establishments does X city or village have?

Previous Relevant Research. A somewhat similar study was done earlier by the Bureau of Business Research at the University of Nebraska and published as Business Research Bulletin No. 57 under the title, TYPES OF BUSINESS IN NEBRASKA TOWNS. This study is now out of print.

Hypothesis. The hypothesis was that, through a fairly detailed testing of several sources of information in one or more cities, a choice, or choices, of procedures would be arrived at which could feasibly be used in other cities or states to give satisfactory estimates of the number and types of establishments to be found there at that time.

Method of Study. A pilot study of available sources of information was conducted in Lincoln, Nebraska. The procedure involved making a card for each of the business establishments listed by any of the information sources. Each card indicated which of the sources listed the given establishment. Through a detailed analysis of these cards, the various sources and possible combinations of sources were appraised with respect to completeness of coverage, reliability, and other factors. The choice, then, rested on completeness of coverage, work involved in getting the relevant data, and availability in different cities and areas.

Major Findings. Considering the various limitations of each source, it was recommended that a combination of two sources be used rather than a single one. In areas where city directories are available the most satisfactory combination appeared to be the City Directory and the Dun & Bradstreet Rating Book. For other cities a combination of the Rating Book and the Telephone Directory was recommended. In estimating totals for the state and average numbers of establishments of given types, by size of city, a sampling procedure was suggested. Sampling might also be used in a large city, such as Omaha, to reduce the labor involved. (EBS)

51. THE OMAHA REAL ESTATE MARKET, 1950 to 1960.

Main Investigators: Edgar Z. Palmer, Francis X. Murray.

Status of Research and Publications: Study is nearing completion and is expected to be published in May, 1963. (Research Bulletin No. 69).

Agency: University of Nebraska, College of Business Administration, Bureau of Business Research.

Previous Digest Report: 9:2-88.

Research Problem. This project is a study of the private real estate market in Omaha from 1950 to 1960. The purpose of the study is to examine real estate transactions and to determine the cause and effect relationships operating in the market. Among these are the factors which best explain variations in sale price and general indicators of the condition of the market at any particular time.

Method of Study. The study is divided into two major sections. The first section consists of Classification and Results in which all the data are classified and grouped according to their various attributes, regardless of the time of the listing or sale. The second section is a breakdown of the data into quarters based on the date of the listing. The sample of listings was selected from the files of the Omaha Realty Exchange Board.

Three indicators of market acceptance of particular types and classes of houses are employed: (1) the percentage of listed houses which were sold, (2) the time required to complete the sale, and (3) the percentage of the asked price received for the sale. These indicators are also applied to the quarterly data to determine significant movements in the market over the period studied, 1950 to 1960. Time series analysis is also applied to all the quarterly data to determine trend and cycle movements.

Major Findings. The following major conclusions and findings of the study with respect to the period covered seem to be justified: (1) location was the most important factor in determining selling price. (2) the average sale price was approximately 95 per cent of the list price. (3) higher priced houses were more difficult to market. (4) the average time required to complete a sale was a little more than 57 days. (5) the price movements of unsold houses displayed reverse relationship to the Omaha business index fluctuations. (6) the average number of rooms per house sold increased over the period studied by almost 10 per cent.

In addition it has been noted that the time required to complete a sale and the percentage of list price received gave a good indication of the general condition of the real estate market. (EBS)

52. THE SETTING FOR REGIONAL PLANNING IN NEW JERSEY

Main Investigator: James W. Collins.

Status of Research and Publications: Project was completed December, 1961, and available for publication March, 1962, report consists of 99 pages of text and illustrations available at $4.00 per copy from the Division of State and Regional Planning.

Agency: State of New Jersey, Department of Conservation and Economic Development, Division of State and Regional Planning, with the assistance of an urban planning grant from the Housing and Home Finance Agency under Section 701 of the Housing Act of 1954 as amended.

Previous Digest Report: None.

Research Problem. The report investigates and delineates areas recommended for regional planning purposes in and about the state of New Jersey, and includes recommendations as the potential relationship of regional planning to existing levels of government.

Previous Relevant Research. A number of individual research projects preceded the preparation of the final report. Analysis of the geographical patterns of newspaper distribution, retail sales, bank service areas, hospital service areas, telephone volumes and free calling areas, regional high school service areas, labor market areas, joint Chambers of Commerce service areas, radio coverage, traffic studies, and service areas of many social and professional organizations each undertaken. An early draft summarizing a number of these factors was entitled, An Approach to Statewide Regional Planning in New Jersey dated June 3, 1960, prepared by A. Sheybani (this report is not available for distribution)

Hypothesis. The major hypothesis of this report is that urban cores and their tributary areas, aside from existing political subdivision boundaries, constitute the logical areas in which regional planning could be most effective.

Method of Study. The elements of individual analyses and their integration into a system of interrelated findings is presented in summary fashion within the report. Many, but not all working maps and analysis which went into the study are illustrated in the final report. By examining any number of factors which should identify these areas the analysis yielded not only a delineation of these areas but a concept involving the relative importance of major and minor centers and sub-centers.

Major Findings. After delineating suggested regional planning areas it was concluded that regional planning could be accomplished within the framework of existing government providing the planning function were to involve the cooperative participation of more than one level of government. Interstate, intercounty, and intermunicipal planning regions were defined and interrelated to appropriate federal, state, local and county participation according to the scale and magnitude of each region. Regional planning in each of these regions would be devoted to specialized functions, with interstate regional planning being that which is needed in the New York and Philadelphia metropolitan regions. The intercounty regions delineated are essentially the semi-independent, socio-economic units, each having one of the major urban centers of the state. Eighteen such regions are delineated within the state of New Jersey. Intermunicipal regions are essentially groups of closely related municipalities which usually have one minor center as a focus. State and federal governments are visualized as being appropriate levels of government to participate in the interstate planning regions while the state and counties are considered appropriate participants for the intercounty planning. Intermunicipal regions for the most part would be a function of county planning.

A number of natural regions were also designated. These are distinguished from the urban center regions and identified as homogeneous rather than heterogeneous areas. They are essentially areas without any major concentration of population, in which large percentage is governmentally owned. Conservation needs and the rural economy would be given emphasis in planning these regions as compared to the need for planning for and developing a comprehensive urban framework in the urban centered regions. (JWC)

53. THE IMPACT OF POPULATION AND ECONOMIC GROWTH ON THE PHYSICAL ENVIRONMENT OF NEW JERSEY

Main Investigator: Alan Walter Steiss.

Status of Research and Publications: Text and illustrations completed, currently being reviewed by a technical subcommittee of the Governor's Interdepartmental Committee for State Planning. Anticipated date of publication--summer 1963.

Agency: State of New Jersey, Department of Conservation and Economic Development, Division of State and Regional Planning with the assistance of an urban planning grai from the Housing and Home Finance Agency, under Section 701 of the Housing Act of 1954, as amended.

Previous Digest Report: None.

Research Problem. Between 1950 and 1960, 1,231,453 people were added to the population of the State of New Jersey, the greatest increase of any decennial period in the history of the State and equivalent to the total population inhabiting New Jersey at the turn of the century. It is the concern of this study to examine the impact of this growth in population on the physical and economic environment of the state, and, it turn, to provide some insight into the ramifications of the latter upon the future growth in population.

Method of Study. Primarily, this study is an inventory of all of the pertinent writings on the subject of New Jersey's people and economy. An effort has been made to draw certain interrelationships among these diverse writings and to point up areas of conflicting opinions, and gaps in the existing knowledge about the subject. Over two hundred separate sources have been reviewed, compared, and analyzed. The report is divided into five main topics: (1) National Considerations; (2) New Jersey and Megalopolis: (3) New Jersey--Its People; (4) New Jersey--Its Economy; and (5) The Counties and Regions of New Jersey.

Preliminary Findings. Three major factors appear to account for the fact that New Jersey has not been as adversely affected as many neighboring states have been by the westward shift of population which has occurred in the United States in the past several decades: (1) the strategic location of the state in the urban complex of the eastern seaboard; (2) the predominance of "growth" industries in the state's economic base; (3) the overall industrial diversification of the state.

Based on an analysis of the existing conditions and trends, it has been estimated that New Jersey will add another 3,000,000 people to its already swollen population in the next 20 years. Nearly 1,000,000 dwelling units will have to be added to the current supply to meet the potential demands in 1980. Since over half of the state's population growth will result from natural increase, the existing school systems of the state must be expanded to accommodate a million and a half students by 1980, a 50 per cent increase over current enrollment. Nearly a million persons can be expected to be added to the state's present labor force in the next 20 years. An increasing number of these wage earners will be seeking employment in the white collar job categories. With the predicted shorter work week, an increased demand for recreational facilities is also anticipated. One hundred seventy-two additional acres of open space land will be needed at the state, county and local level to accommodate current deficits and meet future demands.

In the future, New Jersey's relative position in the nation's economy will continue to depend upon the vitality of the state's manufacturing activities. It is anticipated that over 400,000 additional jobs in manufacturing must be created to meet the growth in population. However, in the growing competition among the states for industrial rateables, secondary economic activities will be called upon to carry an ever increasing portion of the economic burden. (AWS)

54. GUIDELINES FOR THE FUTURE DEVELOPMENT OF THE NEW YORK METROPOLITAN REGION

Main Investigators: John P. Keith, Stanley B. Tankel, Dick Netzer, Boris Pushkarev, William B. Shore.

Status of Research and Publications: Spread City, Regional Plan Association's Bulletin 100, projecting population, employment, and land use trends by county for the 22-county region to 1985, assuming that current economic trends, popular taste, and public and corporate policies continue, was published in September, 1962. The Goals for the Region Project, a discussion-group program to determine the preferences of citizens for future patterns of regional development, is in process.

Agency: Regional Plan Association, Inc., with cooperation of Harvard Graduate School of Public Administration and Columbia University Bureau of Applied Social Research.

Previous Digest Report: None.

Research Problem. Formulation of guidelines for development of New York Metropolitan Region to 1985.

Previous Relevant Research. The nine-volume New York Metropolitan Region Study, carried out by the Harvard Graduate School of Public Administration between 1956 and 1959 under the direction of Raymond Vernon and published between 1959 and 1961, provided an exhaustive economic and demographic analysis of the New York Region and projected population and employment in the Region to 1985. The Race for Open Space, RPA Bulletin 96, 1960, projected park and open space requirements for the New York Metropolitan Region through 1985, based upon a survey of present recreation, conservation and open space. Commuter Transportation, a report to the Senate Committee on Interstate and Foreign Commerce, 1961, was a survey of commuter transportation facilities and problems in the New Jersey-New York-Connecticut Metropolitan Region with suggested solutions, prepared by Regional Plan Association.

Method of Study. The economic and demographic trends in the New York Metropolitan Region have been analyzed, and the pattern of "spread city" toward which they are leading has been described. The current phase of the study is the Goals for the Region Project, designed to determine the preferences of the citizens of the Region for place of residence, types of housing and yards, travel within the Region to both urban and rural places, modes of transportation to work, place of work, etc. The method being used is as follows: Approximately 1,000 study groups of five to 15 people each will meet weekly for five weeks (during April and May, 1963) for two hours each week to watch a special television program about the development of the Region, to discuss questions relating to the program and to the background reading completed before the meeting, and to fill out questionnaires concerning each participant's views on aspects of the Region's development. The questionnaires will be analyzed and interpreted by Columbia University's Bureau of Applied Social Research. (SHS)

55. URBAN GROWTH DYNAMICS IN A REGIONAL CLUSTER OF CITIES

Main Investigators: Lowell D. Ashby, Kurt W. Back, Charles E. Bowerman, Robert L. Bunting, F. Stuart Chapin, Jr., Frederic N. Cleaveland, Robert T. Daland, David G. Davies, John Gulick, E. William Noland, John A. Parker, William N. Parker, Ralph W. Pfouts, Bradbury Seasholes, Richard L. Simpson, Benjamin Walter, Shirley F. Weiss and Robert L. Wilson.

Status of Research and Publications: Symposium volume, published on December 10, 1962, covers studies completed under a grant from the Ford Foundation: F. Stuart Chapin, Jr., and Shirley F. Weiss, editors. Urban Growth Dynamics in a Regional Cluster of Cities. New York and London: John Wiley and Sons, Inc. $8.95.

Agency: University of North Carolina, Institute for Research in Social Science, Urban Studies Program.

Previous Digest Report: 4:2-40; 7:1-23; 7:2-42; 8:2-75; 9:1-52.

Method of Study. The symposium volume, with chapters written by the 18 main investigators, provides an underlying theoretical organization for the study of the complex ways in which economic development, political control processes, social change and expansion in the physical setting of cities are interrelated. At the same time it focuses on the kinds of conditions, situations and methods of urban change being faced in the Piedmont Industrial Crescent, a regional cluster of cities experiencing strong urbanization pressures for the first time.

The material is organized around four basic policy questions which must increasingly be dealt with by civic leaders in an urbanizing region: What is the growth potential of the region and the economic variables regulating this growth potential? What are the socio-political factors that affect the extent to which the potential may be realized? What are the social correlates of growth of this kind and what are the implications for urban living patterns? What are the factors which govern the physical expansion of urban areas and in what ways may these findings assist in charting growth for the future?

While drawing on current theory in the social sciences, Urban Growth Dynamics places an emphasis on empirical research, reflecting a conviction of the authors that theory must be developed in close contact with reality. (FSC, Jr., and SFW)

56. SOCIAL STRUCTURE OF URBAN SOCIETY: KINSHIP AND VOLUNTARY ORGANIZATION

Main Investigators: Scott Greer and Robert F. Winch.

Status of Research and Publications: Field work in process.

Agency: Northwestern University, Center for Metropolitan Studies.

Previous Digest Report: None.

Research Problem. What is the distribution of voluntary organizational membership types of kinship structure among the sub-areas of American cities? What relevance do these social structures have for, e.g., response to widespread disaster?

Hypotheses: They vary by social area attributes--social rank, ethnicity, lifestyle. They provide the grassroots for informal and formal organizational response to disaster. (SG)

57. SOCIAL DIFFERENTIATION IN KINGSTON, JAMAICA

Main Investigator: Dennis McElrath.

Status of Research and Publications: In process.

Agency: Northwestern University, Center for Metropolitan Studies.

Previous Digest Report: None.

Research Problem. Examination of patterns of social differentiation in Kingston, Jamaica by analysis of sub-area and individual data collected in the 1960 Census of Population. (DM)

58. SOCIAL DIFFERENTIATION IN ROME, ITALY

Main Investigator: Dennis McElrath.

Status of Research and Publications: One article ASR June, 1962. Analysis continues.

Agency: Northwestern University, Center for Metropolitan Studies.

Previous Digest Report: None.

Research Problem. Examination of patterns of social differentiation in Rome by analysis of sub-area data from 1952 and 1960 Census of Population. (DM)

59. SOCIAL DIFFERENTIATION IN ACCRA GHANA

Main Investigator: Dennis McElrath.

Status of Research and Publications: In process.

Agency: Northwestern University, Center for Metropolitan Studies and Center for Social Science Research in Africa.

Previous Digest Report: None.

Research Problem. Examination of patterns of social differentiation in Accra by analysis of sub-area and individual data collected in the 1960 Census of Population. Forms of differentiation examined include social rank, urbanization, migrant status, and ethnic status. Findings indicate, among other things, the paramount role of migration in differentiation structure of Accra. (DM)

60. POLITICAL INTEGRATION AND THE PLURAL COMMUNITY: A STUDY OF INTEGRATIVE MECHANISMS IN MULTI-MUNICIPALITY SUBURBAN HIGH SCHOOL DISTRICTS.

Main Investigator: Louis H. Masotti.

Agency: Northwestern University, Center for Metropolitan Studies.

Previous Digest Report: None.

Research Problem. What are the important formal and informal integrative mechanisms in a plural political system? What are the implications for the organization of political systems?

Hypotheses. (1) The formal integrative structure (i.e. the "constitution") of a plural community does not effectively counteract tendencies within the social and political structures toward disintegration of the community. (2) Integrative mechanisms within its social structure (e.g. homogeneous populations, multiple loyalties) and political structure (cosmopolitan leadership, communication network) increase the probability that a plural community will be effective.

Method of Study. Interviews with community actors; content analysis of community newspapers (18 years); census tract analysis; historical document research. (LHM)

61. ANALYSIS AND SYNTHESIS OF VISUAL PERCEPTION AND ENVIRONMENTAL DESIGN RELATIONSHIPS

Main Investigators: Arnall T. Connell and Richard A. Miller.

Status of Research and Publications: General investigations complete; first draft of findings in formative stage; limited issue report planned for 1964 printing, hopefully to be followed by a traveling exhibit.

Agency: Ohio State University, College of Engineering, Engineering Experiment Station, under sponsorship of New York Chapter, American Institute of Architects.

Previous Digest Report: None.

Research Problem. (1) to sort out of the science of visual perception those concepts and principles which should be treated more formally within the design curriculum in architecture, landscape architecture and city planning; and (2) to find methods and techniques for effectively doing it.

Method of Study. (1) Systematic review of the literature and consultation with scientists and teachers in the field of visual perception. (2) Comprehensive questionnaire survey of design curricula offered at schools of architecture. (3) Perception testing of controlled student groups. (ATC)

62. LOCAL GOVERNMENT IN THE PENJERDEL REGION

Main Investigators: Edwin Rothman, Mitchell J. Hunt, Harris I. Effross, and Paul Dolan.

Status of Research and Publications: Scheduled for completion in summer of 1963.

Agency: Pennsylvania Economy League (Mr. Rothman and Mr. Hunt); Rutgers - the State University, Bureau of Government Research (Mr. Effross); and University of Delaware, Department of Political Science (Mr. Dolan), under sponsorship of the Pennsylvania-New Jersey-Delaware Metropolitan Project, Inc. and the Smith, Kline and French Foundation.

Previous Digest Report: None.

Research Problem. An exploration of the adaptability of local government in the Penjerdel region, as measured by demonstrated capacity to cope with new or expanded problems during the period 1950-1962. (JWB)

63. THE ORIGIN AND DEVELOPMENT OF A SUBURBAN COMMUNITY

Main Investigator: Herbert J. Gans.

Status of Research and Publications: In process. The Pennsylvania-New Jersey-Delaware Metropolitan Project, Inc. has given Dr. Gans a grant to complete his interviewing and bring his manuscript to publication.

Agency: University of Pennsylvania, Institute of Urban Studies.

Previous Digest Report: 5:2-18. (JWB)

64. UNCLASSIFIED DEFENSE CONTRACTS: AWARDS BY COUNTY, STATE, AND METROPOLITAN AREA OF THE UNITED STATES, FISCAL YEAR 1962

Main Investigators: Walter Isard and Gerald J. Karaska.

Status of Research and Publications: Major project was initiated in 1960. This monograph is an interim report and was published in December of 1962.

Agency: World Friends Center, Inc., G.P.O. Box 7376, Philadelphia 1, Pennsylvania; University of Pennsylvania, the Wharton School, Regional Science Department.

Previous Digest Report: 9:2-102.

Research Problem. This monograph is an interim report of detailed studies concerned with the impacts of defense expenditures upon local and regional economies. The main body of this report consists of two lengthy tabulations of values of unclassified defense contracts for fiscal year 1962. The data were taken from the Commerce Business Daily and they cover roughly 40 per cent of all prime contracts awarded by the Department of Defense. (Adjustment factors are included to and in the estimation of total prime defense contracts.) One set of data is a tabulation by four-digit Standard Industrial Classification (SIC) for each county and state of the United States, and a similar tabulation is presented for 210 Standard Metropolitan Statistical Areas.

Previous Relevant Research. A companion volume was published in 1961 which reported similar data for all prime military contracts for fiscal year 1960, viz., Walter Isard and James Ganschow, Awards of Prime Military Contracts by County, State and Metropolitan Area of the United States, Fiscal Year 1960, (Regional Science Research Institute, G.P.O. Box 8776, Philadelphia 1, Pennsylvania).

Major Findings. This report is primarily a tabulation of unclassified defense contracts for counties, metropolitan areas, and states by four-digit SIC. For example, it shows that Allegheny County, Pennsylvania, received $71,387,658 in unclassified prime defense contracts, of which $32,865,782 were awarded to SIC industry 3619 (electrical equipment, n.e.c.); and, $246,858,841 in unclassified contracts were awarded to the Chicago SMSA, of which the largest share, $39,295,983, went to SIC industry 2911 (petroleum refining). Although the data are presented in unanalyzed form, the authors include descriptive materials which take the form of maps and location quotients and serve as measures of the geographic distribution of defense contracts. (GJK)

65. ECONOMIC ANALYSIS FOR COMMUNITY RENEWAL PLANNING

Main Investigators: Benjamin Chinitz, William C. Pendleton.

Status of Research and Publications: Study begun in January, 1963. Detailed planning currently taking place.

Agency: University of Pittsburgh, Center for Regional Economic Studies, under sponsorship of Department of City Planning, Pittsburgh, Pennsylvania.

Previous Digest Report: None.

Research Problem. The primary objective is to develop a computer simulation model that can be used in predicting the impacts of alternative urban renewal programs. An attempt will be made to adapt micro-analytic systems techniques to the problems of urban residential migration and commercial and industrial land use. Projections of employment, population, retail trade, and municipal fiscal prospects will be made in support of the simulation effort. (WCP)

66. MATERIALS FOR STATE OF THE REGION REPORT AND MESSAGE

Main Investigator: Charles L. Leven.

Status of Research and Publications: Begun September, 1962; to be completed December, 1963. Product will be submitted to Southwestern Pennsylvania Regional Planning Commission for incorporation in publications in 1964.

Agency: University of Pittsburgh, Center for Regional Economic Studies, on contract for Southwestern Pennsylvania Regional Planning Commission. (a)

(a) See below, Item 70 for additional information on this project.

Previous _Digest_ Report: None.

Research Problem. To prepare materials for state of the region report and message, including analysis of the economic structure and development of the Pittsburgh Region, and identification of important economic problems and development opportunities; assets and liabilities of the Pittsburgh Region from the standpoint of economic development; economic goals and policies; evaluation of the possible need for a regional data center, and prospectus therefor; and prospectus for development of regional accounts and evaluation of applicability of further model simulation and systems analysis techniques to the region's economy. (EMH)

57. COMPUTERIZED MODEL FOR GAMING THE PHYSICAL DEVELOPMENT OF A COMMUNITY

Main Investigator: Nathan D. Grundstein.

Status of Research and Publications: Research in process.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs, Institute of Local Government.

Previous _Digest_ Report: None.

Research Problem. Construction of a computerized model of a suburban community, surrogate for a class of communities, for purpose of simulating its physical development over time. To permit the participants to play the development of the community under semi-deterministic conditions with no authoritative planning outcome, and with the development dependent on the skill and preferences of the players. (NDG)

58. LOCAL ORGANIZATION FOR URBAN RENEWAL

Main Investigator: George S. Duggar.

Status of Research and Publications: In process.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs, Institute of Local Government.

Previous _Digest_ Report: 3:1-29; 4:1-2; 7:1-1.

Research Problem. To examine changes in organization over time and intercultural differences.

Previous Relevant Research. Research done in 1956 by a group of investigators led to publication of the following, based on comparative study: "Urban Renewal: Current Criticism, and the Search for a Rationale," Public Management, September, 1962; "Administrative Organization for Planning" in ASPO, Planning, 1962; "The Relation of Local Government Structure to Urban Renewal," reprinted by University of California Bureau of Public Administration from Law and Contemporary Problems, Winter, 1961; "Federalism and Self-Government in the United States: Urban Renewal as an Example" reprinted by University of California from Jahrbuch des Offentlichen Rechts v. 10, 1961; "Local Organization for Urban Renewal" Public Management, July, 1958; "Local Leadership for Urban Renewal" Western Political Quarterly, June, 1958; Urban Renewal Administration: Provisions in Redevelopment and Housing Statutes of Seven States UC Bureau of Public Administration, 1957; "Renewal, the Planner, and Public Management" in AIP, Proceedings, 49th Meeting, 1957; and "Urban Renewal Re-Examined" in ASPO, Planning, 1957.

These studies developed the structural concepts of "civic enterprise," "core," and "net" and a leadership concept which makes authority the chief link between successive moments of committed action and bridging the chief link between organizations in a common civic enterprise.

The next effort is to further abstract and generalize and to utilize the process concepts to describe leadership and change in organization, again using urban renewal data. A first step is the unpublished article "The Politics of Urban Renewal: Suggestions for a Conceptual Scheme" APSA, 1961. This examines the significance for power and authority of such departures from role as bridging. (GSD)

69. SOCIAL AND PSYCHOLOGICAL FACTORS IN URBAN CONSERVATION

Main Investigators: Professors Herbert Maccoby, Bernard Mausner, and Maurice Shapiro.

Status of Research and Publications: A preliminary research report will be available in July.

Agency: University of Pittsburgh, Graduate School of Public Health, with the research supported by a grant from the National Institutes of Health, with the cooperation of the Graduate School of Public and International Affairs, Institute of Local Government.

Previous Digest Report: 9:2-116. (HM)

70. STATE OF THE REGION PROJECT

Main Investigators: Pamela J. Hitchcock and R. J. T. Longabaugh.

Status of Research and Publications: Project began September, 1962, to be completed early in 1964. A "State of the Region Message" accompanied by a detailed report of project findings will be published upon completion of the project.

Agency: Southwestern Pennsylvania Regional Planning Commission, with consulting services of Center for Regional Economic Studies, University of Pittsburgh, and under sponsorship of the Ford Foundation.

Previous Digest Report: None.

Research Problem. The Southwestern Pennsylvania Region is facing serious problems of chronic unemployment and general economic and physical decline. The State of the Region Project is designed to affix dimensions to each problem and develop a regional consensus on the relative importance and priorities to be given to each one in formulating development goals for the region. The potentials of the region, and how they might best be maximized, will also be examined. After goals for the region are established, the framework and activities required to accomplish the goals will be developed.

To facilitate the description of the project and to assist in the programming of work and output, the project has been divided into seven principal elements as follows: (1) Goals and Policies for the Region; (2) A Prospectus for a Regional Data Center; (3) A Prospectus for the Application of Analytical Systems Techniques to Regional Planning; (4) A Prospectus for a Regional Leadership Survey; (5) A Prospectus for an Attitudinal Survey of the Region; (6) A Proposal for the Institutionalization of the Project; and (7) The State of the Region Report and Message.

Previous Relevant Research. The Regional Economic Study prepared for the six counties of Allegheny, Armstrong, Beaver, Butler, Washington and Westmoreland in southwestern Pennsylvania by the Pittsburgh Regional Planning Association under the direction of Dr. Edgar M. Hoover. (PJH)

71. SERVICE AREAS IN THE PENJERDEL REGION

Main Investigator: John E. Brush.

Status of Research and Publications: Scheduled for completion in the summer of 1963.

Agency: Rutgers - The State University, Department of Geography, under sponsorship of the Rutgers Research Council and the Pennsylvania-New Jersey-Delaware Metropolitan Project, Inc.

Previous Digest Report: None.

Research Problem. A comparative study of service areas and functions of outlying urban centers in the periphery of the Penjerdel region. (JWB)

72. LOCAL GOVERNMENT IN THE PENJERDEL REGION

Main Investigator: Charles E. Gilbert.

Status of Research and Publications: Scheduled for completion in the fall of 1963.

Agency: Swarthmore College, Department of Political Science, under sponsorship of the Pennsylvania-New Jersey-Delaware Metropolitan Project, Inc.

Previous Digest Report: None.

Research Problem. A study of political organization and competition in local government in the Penjerdel region. (JWB)

73. INTERLOCAL COOPERATION IN METROPOLITAN AREAS

Main Investigators: Roscoe Martin, Alan K. Campbell and Jesse Burkhead.

Status of Research and Publications: In process.

Agency: Syracuse University, Maxwell Graduate School of Citizenship and Public Affairs, Metropolitan Studies, under sponsorship of the Housing and Home Finance Agency.

Previous Digest Report: None.

Research Problem. This project will report on several specific examples of interlocal cooperation and the forms that such cooperation has taken. From such case studies efforts will be made to generalize about the different kinds of cooperative action which are possible and the degree to which they are dependent upon fundamental reforms in government systems. (AKC)

74. THE EFFECT OF STATE AND FEDERAL GRANTS-IN-AID ON TAX BURDENS WITHIN URBAN AREAS

Main Investigators: Alan K. Campbell and Seymour Sacks.

Status of Research and Publications: In process.

Agency: Syracuse University, Maxwell Graduate School of Citizenship and Public Affairs, Metropolitan Studies, under sponsorship of Brookings Institution.

Previous Digest Report: None.

Research Problem. This project will measure the total tax burdens and the composition, size, and other characteristics of revenue bases of the various jurisdictions in 12 to 15 selected metropolitan areas of the United States. The results of these measurements will be correlated with relevant patterns of local expenditure and state and federal aid in order to evaluate the effectiveness of federal and state grants-in-aid. The two year project will provide guidance to all levels of government on the patterns of fiscal variations among different metropolitan jurisdictions, the extent to which grants-in-aid correct fiscal imbalances, and the policy changes that may be necessary to accomplish appropriate fiscal objectives. (AKC)

75. KENTUCKY RESERVOIR REGIONAL PLAN STUDY

Main Investigator: Linzy D. Albert.

Status of Research and Publications: Study of 18 months duration. Preliminary outline available. Research in process.

Agency: Tennessee State Planning Commission, State Planning Office, in cooperation with other state, local and federal agencies.

Previous Digest Report: None.

Research Problem. Research necessary to develop a comprehensive plan for the physical development of a nine-county region on Kentucky Reservoir.

Method of Study. Cooperatively with various agencies, data and research will be conducted to determine the economic base of the region, the resources, and development trend, such that a framework and plan can be projected approximately 20 years. (LDA)

76. HOMES ASSOCIATION STUDY

Main Investigators: Byron R. Hanke, William C. Loring, Jan Krasnowiecki.

Status of Research and Publications: Data analysis and report preparation in process. Extensive field work has been completed. Publication is planned in 1963.

Agency: Urban Land Institute, under sponsorship of Federal Housing Administration, National Association of Home Builders, Office of Civil Defense, Public Health Service--HEW, Urban Renewal Administration and Veterans Administration.

Previous Digest Report: None.

Research Problem. Cluster subdivisions and other new approaches to residential land development, it is claimed, can produce better neighborhoods at lower housing costs. These land planning methods often involve parks, swimming pools and other common facilities proposed for private maintenance by homeowners associations. This study seeks to find out what the problems are in creating and operating common properties and homes associations, and how the problems can be avoided or resolved.

The Urban Land Institute is studying existing subdivisions and community developments with common properties maintained by Homes Associations, with attention to: (1) planning the common properties of Associations; (2) setting the legal foundations of Associations and their properties in covenants and other agreements running with the land; (3) organizing, operating and financing Homes Associations; and (4) managing and maintaining the common properties of Associations.

Included in the common facilities being studied are recreation areas, parks, nature preserves, off-street walkways, neighborhood entranceways, buffer plantings, street lighting, garbage-trash collection, storm drainageways and slope erosion-control areas.

From the study, the Institute will publish a manual-like report to help land developers, planners, builders, lenders, realtors, association officers and government officials in determining what common properties and Association operations make for successful residential development and enduring values for homeowners, lenders and communities. (JPP)

77. ECONOMIC AND LAND USE IMPACTS OF TWO ALTERNATIVE LOCAL PROPERTY TAX SYSTEMS IN A METROPOLITAN COUNTY (MILWAUKEE COUNTY, WISCONSIN)

Main Investigator: M. Mason Gaffney.

Status of Research and Publications: Research work began February, 1963; Urban Land Institute Research-Planning Conference held in Washington, D. C., February 28, 1963; completion of manuscript planned by December, 1963.

Agency: Urban Land Institute, under sponsorship of Lincoln Foundation. Research work is being done by Professor Gaffney at the University of Wisconsin-Milwaukee.

Previous Digest Report: None.

Research Problem. To contrast two modes of property taxation as applied to real property: (1) the ad valorem tax as currently administered in Milwaukee County, and (2) a proposed tax on bare site values (land-value tax). The contrasting impacts of these two modes of property taxation upon land uses and the allocation of factor proportions to land will be studied and analyzed.

Previous Relevant Research. This is the first study under Study Question III, "Land Use Impacts of Alternative Forms of Property Taxation" of the Urban Land Institute program reported in Digest 9:2-134.

Hypotheses. Factor proportions will be shifted by a change to land value taxation in the direction of encouraging more intensive use of land. Urban renewal will be accelerated by this shift. Land values of individual parcels will be affected by the tax change, but aggregate land values will not shift materially, and a slight increase in building volume may be expected.

Method of Study. The elaboration of land economic theory as applied to land use economics involved in the change of tax system is basic to the study. In addition, empirical observation relating to the assessing system, and economic factors involved in the taxation of property and of land will be needed to test theory. In the final stages of study, theory, field observation, and case study will be amalgamated to derive conclusions. (JPP)

78. RESOURCES, PEOPLE, AND ECONOMY OF EAST-CENTRAL WYOMING

Main Investigators: Floyd K. Harmston and Richard E. Lund.

Status of Research and Publications: Completed, being reviewed.

Agency: University of Wyoming, Division of Business and Economic Research and Wyoming Natural Resource Board.

Previous Digest Report: 9:1-70; 9:2-144.

Research Problem. This section of Wyoming is dominated by agriculture. The problem is to determine the impact of agriculture, problems created by changes in agricultural techniques, and to determine what the future holds as nearly as possible.

Previous Relevant Research. Nothing of this sort has been done for this area. However, similar analyses have been made of 11 other areas of Wyoming.

Hypothesis. The major hypothesis being tested is: "An economy heavily dependent upon agriculture must, because of automation trends in the industry, find other sources of basic income to keep itself alive."

Method of Study. Aside from usual studies of trends, the methodology being used is analysis by means of multipliers developed with input-output tables.

Major Findings. In 1959 this area received $53,366,000 in basic income. Agriculturally oriented industries produced 58.9 per cent (agriculture, 36.1 per cent; handlers of farm products, 8.4 per cent; and manufacturing, 14.4 per cent). The state and federal governments provided 23.6 per cent; minerals industries, 6.5 per cent; travelers, 3.4 per cent; and all others, 7.6 per cent.

As a result of this money circulating through the economy, an additional $86,928,000 of income was produced.

This area is losing population fast, particularly in the more active age groups. This trend will probably continue, in spite of the fact that over-all income will probably remain at about the same level as at present. Additional manufacturing industry utilizing agricultural products would be the best possibility for providing additional employment. (FKH)

79. MARKETS FOR WYOMING INDUSTRIES

Main Investigator: Floyd K. Harmston.

Status of Research and Publications: Preview before printing.

Agency: University of Wyoming, Division of Business and Economic Research, under sponsorship of the Small Business Administration.

Previous Digest Report: None.

Research Problem. To determine where Wyoming industries sell their goods and services, and to make comparisons with immediately surrounding states.

Hypothesis. Wyoming industries tend to sell to rather restricted market areas.

Method of Study. Several sources of data were used in this study. Interstate Commerce Commission one per cent waybill samples for a five year period were used for comparison of Wyoming with surrounding states. Two mailed inquiries, one covering the year 1959 and the other covering 1962, were made to the mining and manufacturing industries. The Wyoming Highway Department collected data on truck shipments. The Wyoming state-federal agricultural statistician and Wyoming Public Service Commissions also furnished data. Regions of the United States used for comparison are those used by the U. S. Department of Commerce.

Major Findings. It can be said, generally, that Wyoming has strong market ties to the Great Lakes, Plains, Rocky Mountains, and Far West areas. Weak ties can be found to the Southwest and and still weaker ones to the Mideast, New England, and Southeast regions. Its distribution pattern is different from any of the surrounding states. It is in some ways more restricted. (FKH)

80. A STUDY OF THE RESOURCES, PEOPLE, AND ECONOMY OF CARBON COUNTY, WYOMING

Main Investigator: Floyd K. Harmston.

Status of Research and Publications: Published.

Agency: University of Wyoming, Division of Business and Economic Research, and Wyoming Natural Resource Board.

Previous Digest Report: None.

Research Problem. This study had two objectives. First it is a descriptive study of the area in question. Second it was desired to know what the effect of cyclical changes would be upon economic interrelationships.

Previous Relevant Research. This was the eleventh study of a series of 12 concerning small economies in Wyoming. A study made in Southwestern Wyoming recently tested the effect of a major upheaval in the basic economy.

Hypothesis. The hypothesis being tested was, "Business cycle changes do not cause major changes in the ratios of induced to basic income in a small economy."

Method of Study. Two input-output tables were compiled. One related to the year 1954, which was a particularly slow year in the economy of Carbon County. The other related to 1959, a particularly busy year. Ratio tables were computed, and the endogenous portions of the tables were subtracted from unity matrices and inverted. The ratios were then compared.

Major Findings. Carbon County, Wyoming had a population of 14,937 in 1960, representing a decline of 5.1 per cent from 1950. This was a cyclical rather than a trend proposition, however. A particularly large gain in population occurred between 1940 and 1950. The mobile part of the population was in unattached males.

The economy of the county is heavily dependent upon oil production and refining. Other major industries include livestock production, filling the needs of out-of-county travelers and truckers, transportation, servicing out-of-county shoppers, heavy construction, mining, wholesaling, mineral exploration, and miscellaneous other sources.

While there was some change evident in the two years, for the most part it was minor. In fact the only real change came with a change in the complexion of the construction industry. In

1954 it was dominated by building construction. In 1959 heavy construction dominated.

The conclusion must be that fairly drastic cyclical changes did not cause major changes in the basic to induced income ratios of this particular small economy. (FKH)

81. AN ANALYSIS OF A LOCAL ECONOMY IN A PERIOD OF RAPID TRANSITION

Main Investigator: Richard E. Lund.

Status of Research and Publications: Due from the printers within one month.

Agency: University of Wyoming, Division of Business and Economic Research, under sponsorship of the Small Business Administration.

Previous Digest Report: None.

Research Problem. The area in question is Southwestern Wyoming. The problem is to determine the effect of change upon a small economy that has had a relatively stable economy and is suddenly confronted with loss of a major industry plus the acquisition of other quite different sources of basic income.

Previous Relevant Research. Descriptive analyses were made of this area as of the year previous to the upheaval and as of 1959. Very little has been done in the field of medio-economics. Therefore, this is somewhat of a pioneering work. The theoretical background for this field is very poor.

Hypothesis. The hypothesis being tested here is as follows: "Total economic activity in a local economy has a measurable relationship to basic income to that economy."

Method of Study. Interrelationships were determined by placing information gathered for the year 1953 into an input-output table. Basic income information gathered for 1959 was then used with 1953 ratios to determine what the economy should be like, if no changes occurred in the structure. A 1959 input-output table was utilized to determine how the structure actually looked. By comparing these two sets of data, the areas of major change were easily identified. The various stresses upon small businessmen of this area, caused by these changes, were then analyzed. Changes now on the horizon were also analyzed to determine stresses that will be faced in the years to come.

Major Findings. The hypothesis is true. It is possible to forecast the effect of a major change in the basic structure of a small economy. Hence, a community faced with a loss or gain of a basic income producing industry can determine ahead of time the likely effect of that loss or gain upon its entire economy. This information can then be used to advantage by small businessmen in adjusting their operations to the new situation. The same conclusion holds for the acquisition of new industry. (FKH)

82. A STUDY OF THE RESOURCES, PEOPLE, AND ECONOMY OF SOUTHWESTERN WYOMING

Main Investigator: Richard E. Lund.

Status of Research and Publications: Published.

Agency: University of Wyoming, Division of Business and Economic Research, and Wyoming Natural Resource Board.

Previous Digest Report: None.

Research Problem. This was a non-analytical study of the economy of the region as it existed in 1959 with a projection to 1964.

Previous Relevant Research. A similar study was issued in 1955 concerning the economy as it existed in 1953.

Method of Study. Mostly this is a descriptive study. An input-output table was used to determine the economic relationships in existence. The ratios developed by this method were used in making the projection.

Major Findings. The area is dependent for its basic income upon oil and gas, trona, and other mineral extraction; agriculture; transportation; out-of-area travelers and truckers; and several lesser sources. It contains 38,200 persons. The average hired employee made $3,883 in 1959. Each dollar of basic income introduced into the economy produced an additional 84.2 cents of business, 6.5 cents of local taxes, 12.4 cents of state and federal taxes, and 58.1 cents of personal income. (FKH)

83. A STUDY OF WYOMING'S OUT-OF-STATE TOURIST MARKET

Main Investigator: Robert F. Gwinner.

Status of Research and Publications: Published.

Agency: University of Wyoming, Division of Business and Economic Research, and Wyoming Travel Commission.

Previous Digest Report: None.

Research Problem. Despite the fact that the travel industry represents an important economic activity in the state, the industry has very little knowledge of the tourist market. Therefore, a study of Wyoming's out-of-state tourist market was conducted in order to provide some relevant information for those who must nurture and promote it.

Previous Relevant Research. Only one other Wyoming travel study has been published. In the summer of 1960, a study was conducted in order to determine the impact of out-of-state highway travelers on the Wyoming economy. No previous attempts had been made to analyze any aspect of the travel industry in Wyoming, and the Division's study accomplished the task of providing a base for further study and analysis. It was, however, limited to a descriptive analysis of Wyoming's "highway travelers."

Hypothesis. Based on the major hypothesis that there is a basic difference between a traveler and a tourist, the study of Wyoming's out-of-state tourist market was designed to analyze those out-of-state parties with an expressed recreational interest in Wyoming.

Method of Study. The universe for study was taken from the files of the Wyoming Travel Commission. It was assumed that a travel party with an expressed interest in Wyoming could be defined as one that took the trouble to inquire about the state before embarking upon a trip that included Wyoming.

The analysis was based on the results of a mail survey of 2,000 potential travel parties that wrote to the Wyoming Travel Commission during the first half of 1961. Randomly selected, those parties were considered representative of the larger universe of out-of-state travel parties with an expressed interest in the state of Wyoming. A 40.5 per cent return provided enough relevant data to analyze the market according to several main criteria that are standard procedure in travel research studies.

Major Findings. Although Wyoming's "potential" tourist market exceeds 1.5 million out-of-state travel parties, only a small percentage of these parties can be classified as Wyoming tourists. The larger percentage is characterized by the typical "hurry-through" traveler in search of the "other side of the state." As a result, Wyoming's travel industry is largely underdeveloped in terms of a qualified tourist market.

Unfortunately, Wyoming is overshadowed by two dominant attractions. Both Yellowstone and Teton National Parks represent Wyoming for a large segment of the state's tourists. These people take a direct route to the parks, spend several days there, and then depart by the most direct route. Consequently, a large number of Wyoming tourists only see a small part of the state. Thus, this enviable drawing power of the parks contributes very little to the development of the state's industry and may even be harming it. (FKH)

BRIEF MENTION

NEW URBAN AND REGIONAL RESEARCH AND TRAINING PROGRAMS

Graduate Program in Urban Affairs, University of Wisconsin-Milwaukee

The University of Wisconsin-Milwaukee has established a new graduate Department of Urban Affairs in its College of Letters and Science. The program leads to a Master's Degree in Urban Affairs. The curriculum is designed to provide an integrated and balanced offering of courses in urban affairs, an investigation of methodological approaches to urban research and a proficiency in an occupational specialty in urban affairs. Further information may be obtained from Henry Schmandt, Chairman, Department of Urban Affairs, University of Wisconsin-Milwaukee, Milwaukee 11, Wisconsin.

Planning Program - University of Cincinnati (a)

The University of Cincinnati has initiated a two year program leading to the degree of Master in Community Planning. The program involves the participation of the College of Arts and Sciences; Business Administration; Design, Architecture, and Art; Engineering; Medicine; and the Evening College. It offers a core of courses on planning theory, planning survey and analysis, planning forward programming, land use and facility planning, and planning implementation. A student may elect to concentrate further in specialized aspects of one or a combination of these core areas, or in one of eight specialized disciplines: social service planning; environmental health planning; community organization planning; administrative planning; economic development planning; planning engineering; physical environmental design; and general community planning. A limited number of graduate fellowships and student assistantships are available.

The Department of Geography and Regional Planning of the University of Cincinnati also offers A.B., M.A. and Ph.D. degrees in Regional Planning. Details may be obtained from Dr. Robert C. Hoover, Professor of Planning, University of Cincinnati, Cincinnati 21.

Protestant Urban Training Center (b)

Protestant groups have established the first nationally sponsored interdenominational urban problems training center for

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(a) From ASPO Newsletter, April, 1963.

(b) From Journal of Housing, January, 1963.

clergy and layman. Known as the Urban Training Center, the non-profit corporation is located in Chicago and offers courses and on-the-job training to foster better understanding of urbanism and its implications for the Church. Information on planning and urban renewal is part of the curriculum.

U. S. Public Health Service

A two-week training course, "Urban Planning for Environmental Health" sponsored by the U. S. Public Health Service in cooperation with the Kentucky State Department of Health and the Lexington Fayette County Health Department was given in Lexington, Kentucky, April 1-12. The training course is the most recent of a series of nine given in various parts of the country under Public Health Service auspices.

Norman E. Tucker, chief of Metropolitan Planning and Development Training, at the Public Health Service's Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio, said that the objectives of this training course were to facilitate cooperation between planning and health officials; to examine environmental problems in communities; to increase public awareness of the problem; and to promote inter-governmental cooperation in the planning area.

The course was designed for health and planning personnel, public officials, and lay citizens interested in planning a more healthful community environment. A considerable portion of time was devoted to the initiation and preparation of an environmental health survey of the City of Lexington, including proposed recommendations. This was to be followed by a suggested program for implementation of the recommendations.

It is anticipated that participants will undertake environmental health surveys within their own areas using as a model a planning manual published by PHS, the "Environmental Health Planning Guide." (See below) Staff members of the State Health Department and the Public Health Service regional office in Charlottesville, Virginia will provide some technical assistance where needed.

RESEARCH MATERIALS

Consumer Expenditures and Income Reports

The Bureau of Labor Statistics, U. S. Department of Labor has announced the publication of Consumer Expenditures and Income, Boston, Massachusetts, 1960. The 12 page detailed report compares average family income, expenditures, and savings in Boston for 1960 with those of a similar survey made in 1950. The report shows average family income before and after taxes and relates this data to current living expenses. Individual tables of income and expenditures are presented by breakdowns of income class, family size, age and occupation of family head and tenure of family.

Similar reports are available for New York, Chicago, Detroit, San Francisco, Washington, D. C. and Atlanta. The reports are free and can be obtained by writing to Mr. Wendell D. MacDonald, Regional Director, U. S. Department of Labor, Bureau of Labor Statistics, 18 Oliver Street, Boston 10, Massachusetts.

Revised Projection of United States Labor Force (c)

A report presenting revised projections of the U. S. labor force to 1975 was recently issued by the Bureau of Labor Statistics. The new figures are interim revisions of projections made several years ago based on data through early 1957. The present projections take account of recently revised population projections of the Bureau of the Census and of labor force information accumulated since 1957 which indicated that some of the previously projected trends in labor force participation rates needed to be modified.

In the present set of labor force projections, as in the earlier projections, it was assumed that the economy will operate at relatively high levels of activity, that there will be no significant change in size of the armed forces, and that past trends in labor force participation rates for various age groups of men and women will continue into the future.

The new projections of the labor force are somewhat lower than the earlier projections, chiefly because of greater declines than previously anticipated in labor force participation rates of young men and men aged 65 years and over. A discussion of the methodology and the changes appear in Special Labor Force Report No. 24, "Interim Revised Projections of U. S. Labor Force, 1965-75." Copies are available upon request to the Division of Manpower and Employment Statistics, Bureau of Labor Statistics, Department of Labor, Washington 25, D. C.

1962 County and City Data Book (d)

The 1962 edition of the County and City Data Book, issued by the Bureau of the Census, is a convenient one-volume summary primarily

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(c) Statistical Reporter, November, 1962.

(d) Statistical Reporter, November, 1962.

emphasizing data for all counties and for all cities of 25,000 inhabitants or more. It presents a selection of statistics from the latest censuses of population, housing, agriculture, retail, wholesale, and service trades, manufactures, mineral industries, and governments. It also includes statistics from a variety of other sources on births, deaths, and marriages, bank deposits, electric bills, hospitals, and climate. In addition to those for counties and cities, statistics are shown for each state, division, region, standard metropolitan statistical area (SMSA), urbanized area, and unincorporated place of 25,000 inhabitants or more.

The County and City Data Book also contains maps for each state, showing counties, SMSA's, and all cities of 25,000 inhabitants or more; explanatory notes; source citations; and a special appendix giving the population and land area of all urban places.

As a byproduct of the method of preparing the Data Book, the Census Bureau has available in the form of punchcards and electronic computer tapes all of the statistics presented in the book. Cost of reproduction of the entire set of punchcards (approximately 82,000 cards) is $850. Cost of complete computer tapes (Univac or IBM systems) is $600. Selections of items for specified areas may also be purchased at cost either on punchcards or on tape.

The County and City Data Book (705 pp., $5.25 per copy) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

A pamphlet, "Contents of the County and City Data Book, 1962," which presents the column headings for all of the tables in the book and explains the procedure for ordering punchcards or computer tapes containing the data may be obtained free of charge upon request by writing to the Publications Distribution Section, Bureau of the Census, Washington 25, D. C.

Components of Population Change for Counties and SMSA's (e)

The Bureau of the Census has released a report containing estimates of births, deaths, and net migration for the 1950 to 1960 decade for counties, standard metropolitan statistical areas (SMSA's), state economic areas, and economic subregions. This is the first full compilation of the components of population change ever published for counties.

(e) Statistical Reporter, December, 1962.

Components of change for the total resident (census) population are generally featured in the report, but net civilian migration is presented in addition to net total migration for all counties. With the presentation of detailed data for counties, the user has the opportunity to assemble components of change for any areal unit which can be delimited in terms of counties.

The text of the report includes a review of major regional and metropolitan trends in migration during the 1950's. Summary tables feature components of population change by metropolitan status for regions and geographic divisions, the relationship of migration change to per cent urban in 1960 for nonmetropolitan counties, and the counties and SMSA's with the largest numerical in-migration and the highest rate of in-migration during the 1950 to 1960 decade.

The report also includes estimates of net total migration for 1940 to 1950 for the SMSA's, state economic areas, and economic subregions based on the series published by Donald J. Bogue in "Components of Population Change, 1940-50" so that some historical perspective is provided.

Copies of this report (Current Population Reports, Series P-23, No. 7) "Components of Population Change, 1950 to 1960, for Counties, Standard Metropolitan Statistical Areas, State Economic Areas, and Economic Subregions," (92 pages, $1.00 per copy) may be purchased from the Bureau of the Census, Washington 25, D. C.

<u>New Reports on 1962 Census of Governments</u> (f)

The publication of three additional preliminary reports of the 1962 Census of Governments has been announced by the Bureau of the Census. These reports are:

<u>Assessed Values for Property Taxation</u> (Preliminary Report No. 5)--presents data by state and county on assessed valuations of property subject to local general property taxation. (Related information on the valuation level of real estate assessments is being developed from a nationwide sample of realty sales that occurred during the latter half of 1961 and will be included in a report scheduled for publication in mid-1963).

<u>Governmental Units in 1962</u> (Preliminary Report No. 6)--furnishes summary state-by-state data on local governments and public school systems. (Detailed data on governmental units will be issued in Volume I of the final reports of the census, which is scheduled for publication early in 1963.

(f) <u>Statistical Reporter</u>, December, 1962.

Long-Term Debt of State and Local Governments (Preliminary Report No. 7)--presents estimated nationwide debt totals as of June 30, 1962, with distributions by purpose of issue and by scheduled maturity periods.

The preliminary reports of the Census of Governments may be purchased (No. 5, $1.00; No. 6, 10¢; and No. 7, 10¢)from the Bureau of the Census, Washington 25, D. C.

Reports on Changes in Housing, 1957-1959 (g)

With the publication in November of the report on Inventory Characteristics for the United States and regions, the Bureau of the Census completed the release of Parts 1A and 1B of Volume IV, Components of Change, of the 1960 Census of Housing (SR No. 289, Jan. '62, p. 5). The most recent US report (Part 1B-1) presents statistics on the characteristics of present and previous residence of recent movers and characteristics of selected components of change for the 1950-1959 period. The US report presenting the basic counts and characteristics of the 1950-1959 components of change (Part 1A-1) was released in October.

The first two reports of Part 2, "1957 to 1959 Components," covering the Los Angeles-Long Beach and the New York-Northeastern New Jersey metropolitan areas are scheduled for release in late December. Part 2 reports will include a separate report for the United States, by regions, and for each of nine selected metropolitan areas--the same areas for which separate data were published in the December 1956 National Housing inventory. These reports will present data on changes in the inventory since December 1956, i.e., sources of the 1959 inventory and disposition of the 1956 inventory in terms of such changes as new construction, conversions, mergers, demolitions, and other additions and other losses.

Characteristics will be shown for the units involved in each type of change and also for units which were the same. In addition, for units that were the same in 1956 and 1959, the 1959 characteristics are cross-tabulated by 1956 characteristics for tenure and color of head of household, condition and plumbing facilities, gross rent, and value. For new construction units, rooms, value and gross rent data are cross-tabulated by selected items.

Copies of Volume IV, Series HC(4) reports, may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. (individual area reports for Parts 1A and 1B are 30 cents and the US summaries $1.00; individual area reports for Part 2 are 40 cents, and the US summary is $1.50).

(g) Statistical Reporter, December, 1960.

Directory of Federal Statistics for Metropolitan Areas (h)

The Advisory Commission on Intergovernmental Relations has issued a "Directory of Federal Statistics for Metropolitan Areas." This Directory has been prepared as a reference document for use in identifying the metropolitan area statistics published on a regular basis by the Federal Government. The information is shown in tabular index form, by major and detailed subject, under the following general headings: agriculture; commerce, trade, and finance; construction; education; government; health and vital statistics; housing; income and earnings; labor and employment; law enforcement; manufacturing and mining; population; prices; transportation and communication; and weather.

For each statistical series, the tables identify the date of origin, source publication, and geographic coverage reported: Standard metropolitan statistical area, urbanized area, county, city, urban place, minor civil division, Census tract or city block.

Copies of the "Directory of Federal Statistics for Metropolitan Areas" may be purchased (118 pages, $1.00) from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Data on 1961 Income of Families and Individuals (i)

"Income of Families and Persons in the United States, 1961," was issued recently by the Bureau of the Census. This report, the latest in the P-60 series, presents data on income for families, unrelated individuals, and persons 14 years old and over and is based on information collected in the February and March 1962 Current Population Surveys.

The 42 detailed tables include national figures for 1961 for: (1) families and unrelated individuals by total money income, by farm-nonfarm residence, type of family, age of head, size of family, number of earners, work experience of head, reason for head working part year or not working, region, and color; (2) families by total money income, by number of related children under 18, occupation of head, industry of head, and source of income; and (3) persons 14 years old and over by total money income, by sex, by a group of characteristics similar to those listed above.

(h) Statistical Reporter, January, 1963.

(i) Statistical Reporter, February, 1963.

An introductory text summarizes the effect of price changes and other economic developments on family income. In addition, data on income in 1961 of families and persons by years of school completed, cross-classified by age and color are shown in four detailed tables and analyzed in the text.

Census Data on Residential Finance for Homeowner Properties (j)

Residential Finance--Homeowner Properties was published recently by the Bureau of the Census as Part 1 of Volume V of the 1960 Census of Housing. Data are presented for the United States (total and inside all Standard Metropolitan Statistical Areas), the four Census regions, and 15 SMSA's and two standard consolidated areas. Copies of this publication (416 pages, $4.00) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Detailed distributions are presented for property and owner characteristics of both nonmortgaged and mortgaged properties with one dwelling unit. These characteristics include value, family income, housing expense, housing expense as a per cent of income, year structure built and year acquired, and manner of acquisition.

For mortgaged properties with one dwelling unit, characterististics of the mortgage, property, and owner are shown by government insurance status of the first mortgage in terms of number of properties and amount of outstanding mortgage debt. Among the characteristics shown for mortgaged properties are amounts of loan, debt, and principal and interest payments, type of holder, interest rate, term, and location of holder in relation to property. A number of ratios, such as debt as a per cent of value, are also shown.

Selected characteristics are also shown by type of first mortgage holder. Summary data are shown for homeowner properties with one- to four-dwelling units.

Present plans call for the publication at a later date of a supplement to Part 1 of Volume V which will present selected property, owner, and mortgage characteristics for properties occupied by nonwhite owners. Part 2 of Volume V, scheduled for publication in May, will present data for rental and vacant properties, for the United States, by size of property. Subjects covered are similar to those in Part 1.

(j) Statistical Reporter, February, 1963.

New IASI Publication on the Demographic Structure of American Countries (k)

The Inter American Statistical Institute has recently published an analytical study by the Brazilian demographer Giorgio Mortara entitled "Caracteristicas da Estrutura Demografica dos Paises Americanos (Characteristics of Demographic Structure of American Countries)." This analysis of the results of the censuses taken by the American nations under the Program of the 1950 Census of the Americas presents an extensive series of tables and accompanying texts, both of an informative and an interpretive nature, designed to furnish detailed insight into the principal characteristics of the population and their varied relationships. The original Portuguese version is to be followed by a Spanish and an English edition. The Institute's objective in offering this comprehensive statistical picture of the demographic structure of the American countries to the public is to contribute to the background of information so urgently needed at the present time as a basis for social and economic planning.

The material is presented in six sections corresponding to the following main topics: (1) the population and its geographical distribution; (2) demographic-biological characteristics, sex and age; (3) demographic-political characteristics, national origin and nationality; (4) demographic-social characteristics, marital status and family structure; (5) demographic-cultural characteristics, literacy and level of education; (6) demographic-economic characteristics, economic activity, industry and occupation. Professor Mortara opens each section with analytical comments placing the subject in a general perspective and directing attention to specific findings based upon the tabular presentations that follow. A final section of the study presents some of the author's conclusions.

Copies of this publication are available upon request from the Inter American Statistical Institute, Pan American Union, Washington 6, D. C.

RESEARCH PROGRAMS

Metropolitan Area Income Project

The Office of Business Economics, U. S. Department of Commerce, has commenced work on measuring the personal income flow in Standard Metropolitan Statistical Areas in the United States. When completed there will be available a detailed picture of the personal income structure of each area by type of income and by industrial source of income. The project was begun last fall and is well under way but a completion date has not yet been determined.

(k) Statistical Reporter, February, 1963.

Housing and Home Finance Agency Research Program

HHFA - Census Research Program. Additional information has been received on the HHFA - Census Research Program. The project entitled "Sales Volume and Sales Prices of New Homes" is being continued and several quarterly reports, Census-HHFA C-25 series have been published. Tabulations for project No. 2, "Study of Mortgage Foreclosures" have been completed and are now undergoing analysis and evaluation. A report on project No. 3, "Special Census Data on Housing Conditions of the Elderly," has been published by the Bureau of the Census as Volume VII of the United States Census of Housing, 1960 entitled Housing of Senior Citizens. Project No. 4, "Improved Techniques for Estimating Family Displacements," has been completed and findings are being evaluated.

Housing Study. The HHFA has also begun a study on the "Construction and Financing of Habitable but Incomplete Homes." The purpose of this study is to determine whether the habitable but incomplete (shell) homes which have been purchased in recent years and the financing terms used are providing completed homes of a satisfactory housing quality within the financial means of homeowners in rural and outlying areas. The study involves interviews with a sample of recent purchasers of the habitable but incomplete homes. Findings, evaluations and conclusions will be incorporated in a final report.

Low Income Housing Demonstration Program. The HHFA has published a new program guide, "Low-Income Housing Demonstration Program," which explains the $5 million federal program authorized by the 1961 Housing Act to provide assistance in the development and demonstration of new and improved means for making available better housing for low-income persons and families. Demonstration grants, to public or private agencies may be made by HHFA to test methods of design, construction, conversion, rehabilitation, or financing of such housing. Copies of the guide are available from HHFA Regional Offices or from the HHFA, Washington 25, D. C.

Mass Transportation Demonstration Studies. Information has also been received from the HHFA concerning the progress of several mass transportation demonstration projects. The Urban Mass Transportation Grant Program was authorized in the Housing Act of 1961. Demonstration grants may be made for projects designed to contribute to the improvement of mass transportation or to reduce the need for it. A federal grant of up to two-thirds of the cost may be made for demonstration projects. The following projects have been reported:

(1) Analysis of the Seattle Monorail Operation. This study, conducted by the University of Washington

is now completed and is available from HHFA. The investigation showed that the Seattle monorail was somewhat superior to a modern railway in vibration characteristics; noise levels, both inside and outside the trains, were about the same as those of a bus; the four-foot columns supporting the tracks did not increase the accident rate on the street; and there was overwhelming public acceptance of the monorail by riders.

(2) Study of Effect Upon Bus Ridership of a Substantial Service Increase. This study has been completed and is available from the Detroit Department of Street Railways. The results of the study show that better bus service resulted in an increase of more than 12 per cent in the number of passengers who rode buses during the eight-week project period. Doubling the number of buses did not have an adverse effect on the flow of other traffic using the same streets.

(3) Effect of Full Scale Transit Service in New Suburban Areas. This study, being conducted by the Memphis Transit Authority, was initiated in January, 1963, and will be completed in June, 1965. The project involves new or increased service in three rapidly devleloping suburban areas. Data will be collected to determine whether this increased service increases transit volume.

(4) Use of Small Buses in the CBD. This study is being conducted by the District of Columbia Government with the assistance of the Washington Metro Area Transit Commission, D. C. Transit System, Inc., and Downtown Progress. The study will test whether small buses, seating 12 to 18 passengers, circulating in the downtown business center on a frequent-service schedule with a five-cent fare, will attract enough riders to effectively facilitate the movement of people, reduce traffic congestion, and stimulate business activity.

(5) Study of a Park-and-Ride Station Outside the CBD. This study, conducted by the New York Superintendent of Public Works with the assistance of the Tri-State Transportation Committee, will be initiated in April, 1963, and completed in 1965. The study seeks to determine if a convenient park-and-ride station outside the CBD will attract new patrons to rail service and divert passengers from the existing city-center station.

(6) Testing Automatic Fare Collection and Ticket Validation. Agency is the New York Superintendent of Public Works, assisted by the Tri-State Transportation Committee. Project involves the installation of equipment at two suburban railroad stations and the analysis of the effectiveness of the equipment.

(7) Study of Effects of Service Improvements and Fare Reductions. Agency is the Massachusetts Mass Transportation Agency. The project involves new and increased service and fare experiments in the Boston metropolitan area and in the urban areas of Fitchburg, Worcester, and Pittsfield. Two railroads, the Metropolitan Transit Authority, and a number of bus carriers are participating.

(8) Study of Effect of High Quality Commuter Railroad Service. Agency is the Southeastern Pennsylvania Transportation Compact (SEPACT). Project involves studying the effects of increased and improved train service, lower fares, better parking facilities at suburban stations, and feeder-bus services on two separate, but mutually supporting, rail commuter lines.

BIBLIOGRAPHIES

New Exchange Bibliographies; Council of Planning Librarians

The Council of Planning Librarians has announced the publication of the following bibliographies in its regular series.

No. 23. CENTRAL BUSINESS DISTRICTS. By Mary Vance, Librarian, Department of City Planning and Landscape Architecture, University of Illinois. January, 1963. 116 p. $3.00. Combines material formerly found in Nos. 12 and 16 and brings it up to date through September, 1962.

No. 24. SELECTED BIBLIOGRAPHY ON PLANNING, POLITICS, AND POLITICAL SCIENCE. By Charles E. Patterson, Jr., Department of History and Government, Lehigh University. February, 1963. 17 p. $1.00. Subscriptions to the regular bibliography series may be ordered singly or any number may be used to begin a subscription of ten consecutive bibliographies for $8.00. A student rate of ten consecutive bibliographies for $5.00 is also available.

Latin American Series

Bibliography number four has been issued in the Latin American series.

No. 4. URBAN PLANNING IN COLOMBIA. By Francis Violich. December, 1962. 11 p. $1.00. Annotated. This series is not included on regular subscriptions. Individual issues in English at $1.00 each may be ordered from the Council (see address above), or a subscription for all issues may be placed at a cost of $5.00. Spanish editions are available without charge from Latin American Urban Planning Research, Room 203, City and Regional Planning Building, University of California, Berkeley 4, California.

Eastern European Series

The Council of Planning Librarians has also announced a new series of Exchange Bibliographies on urban planning in Eastern Europe. The six bibliographies in this set are being compiled under the direction of Dr. Jack C. Fisher, Department of City and Regional Planning, College of Architecture, Cornell University.

The following titles are included in the series and will be issued periodically over about a year's time.

No. 1. AN ANNOTATED BIBLIOGRAPHY OF SOVIET URBAN AND REGIONAL PLANNING AND LOCAL ADMINISTRATION (Western Language Sources)

No. 2. BIBLIOGRAPHY OF SOVIET URBAN AND REGIONAL PLANNING AND ADMINISTRATION (Russian Language Sources)

No. 3. BIBLIOGRAPHY OF POLISH PHYSICAL PLANNING.

No. 4. BIBLIOGRAPHY OF POLISH URBANIZATION AND URBAN GEOGRAPHY

No. 5. BIBLIOGRAPHY OF YUGOSLAV PHYSICAL PLANNING

No. 6. BIBLIOGRAPHY OF YUGOSLAV URBANIZATION AND URBAN GEOGRAPHY

This is a special series not included in regular Exchange Bibliography subscriptions. Subscriptions may be ordered at a cost of $8.00 for the set, or bibliographies may be ordered individually at $1.50 each.

All orders, with accompanying check or money order, should be sent to Exchange Bibliographies, Council of Planning Librarians, 6318 Thornhill, Oakland 11, California.

Planning Libraries Depository Service

The Council of Planning Librarians has announced a new depository and distribution service. Several planning libraries will act as depository and distribution centers for planning publications that planning offices or individuals may wish to discard. The available publications will be listed on duplicate exchange lists circulated among planning libraries. The system should be especially useful in helping new planning libraries build up their collections. For further information about the service, write to:

Melva J. Dwyer, Secretary
Council of Planning Librarians
Fine Arts Room, The Library
University of British Columbia
Vancouver 8, British Columbia, Canada

Bibliography on Planning Films (1)

ASPO has published a revised edition of its bibliography, Motion Picture Films on Planning, Housing and Related Subjects, a listing of more than 60 films with information on the subject matter covered as well as where and how they may be rented. The purchase price is \$1.00 for ASPO members; \$1.50 for nonmembers. Write to ASPO, 1313 E. 60th St., Chicago 37, Illinois.

Urban Real Estate Research

The Urban Land Institute has published Research Monograph No. 8, Urban Real Estate Research: 1961. This continues the yearly inventory of urban real estate research begun in 1959 and covering the period 1946 through 1961. Research monograph No. 8 was edited by Jerome P. Pickard and Arlene G. Balahan. The work reviews real estate research completed or in progress and includes 335 short abstracts of studies and publications related to real estate. Copies of the monograph may be obtained from the Urban Land Institute, 1200 18th Street, N. W., Washington 6, D. C.

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(1) From ASPO Newsletter, February, 1963.

AIA Urban Design Project

The American Institute of Architects has established an urban design committee to study and encourage better urban design. The committee is now engaged in the following activities:

Publication of a 12-article series on urban design, to be published every other month in the AIA Journal. The subject is "Urban Design: The Architecture of Towns and Cities." The first article was published in the December, 1962, AIA Journal.

Preparation for a series of seminar meetings for AIA members at a regional level. These were started in March and will be held as requested thereafter.

Liaison work with government and other related professional agencies in matters of urban design.

AIP - 1967 Commemoration Program

The American Institute of Planners intends to observe its 50th year of activity (1967) with a special program of meetings and publications. Planning for the 1967 program is still in an early stage but two committees, Research and Publications, have been established. The present thinking is that the Commemoration should develop material that can be used both for public and internal education. The Commemoration Committee is considering the publication of monographs of pioneers in the planning profession. These would take the form of biographical sketches showing in what way these selected individuals have contributed to the development of planning in the United States. Similar to the monographs, but more intensive and of wider range, would be the publication of a history of the AIP. More complete details on the program will be announced later.

UN Committee on Housing, Building and Planning (m)

A new United Nations Committee on Housing, Building and Planning recently held its first meeting. Twenty-one nations were elected to the Committee by the UN Economic and Social Council: Argentina, Canada, Chile, Colombia, Costa Rica, Denmark, France, Greece, Hungary, Indonesia, Iran, Israel, Italy, Japan, Madagascar, Nigeria, Romania, Tanganyika, the U.S.S.R., the U.A.R., and the U.S.A. The United States was represented by William L. C. Wheaton professor of city planning at the University of Pennsylvania.

(m) From ASPO Newsletter, April, 1963.

The Committee stressed the growing importance of housing, building and planning in the face of the increasing rate of urbanization in developing countries. It urged an increased allocation of international resources to the solution of these problems, emphasizing the necessity for trained personnel in the developing countries and the establishment of the institutions for building, saving, mortgage-lending, and the planning and regulation of urban development. The Committee also urged an expansion of pilot and demonstration projects in the developing countries as a means for showing their citizens and governments how housing activities might be expanded.

Other recommendations were for the establishment of regional research, training and educational institutions in each of the major developing regions of the world and the coordination of housing, building, and planning activities with economic development through the regional economic commissions and through the use of the UN Secretariat as a coordinating agency. Finally, the Committee urged an expansion of international lending for housing, the provision of community facilities--particularly sewer and water systems--and the development of building industries. It stressed, however, that massive international lending for these activities would create serious balance of payments problems for the borrowing nations.

Representatives of International Labor Organization, the Food and Agriculture Organization, the United Nations Educational, Scientific and Cultural Organization, the International Bank, and the World Health Organization were present and, in addition, representatives of the International Federation for Housing and Planning, the Inter-American Planning Society, and the International Union of Local Authorities. Other nongovernmental organizations represented were the International Institute of Administrative Sciences, the International Cooperative Alliance, and trade union and religious groups.

The full U. S. Mission consisted of Dr. Wheaton, Mr. Roy Burroughs, HHFA, and Messrs. Leighton Van Nort, Herman Kleine, and John Means, State Department. The next meeting of the Committee will be held in January, 1964.

Environmental Health Planning Guide

This government publication, covering air pollution, sewerage, water, housing, refuse, and radiological health, is designed for use by community groups, by health officials, and by city planners. It provides information on how to evaluate health related services and facilities in the community from a planning standpoint. Its use should provide the community with a better view of the factors contributing to a healthful environment now and in the future. It can be obtained from the Superintendent of Documents, of the Government Printing Office in Washington, D. C., at 45 cents per copy.

AVAILABLE BACK ISSUES OF RESEARCH DIGEST

A few copies of the following back issues of the Research Digest are still available, and may be purchased at the regular price of $1.00 per copy.

Vol. 3	No. 2	November, 1956
Vol. 5	No. 2	November, 1958
Vol. 7	No. 2	November, 1960
Vol. 8	No. 2	November, 1961
Vol. 9	No. 1	April, 1962
Vol. 9	No. 2	November, 1962

A few copies of the Index to Volume 8 are also available. One copy free to subscribers. Extra copies $1.00 each.

Research Digest

Volume 10 *Number 2* *November, 1963*

Bureau of Community Planning · University of Illinois

UNIVERSITY OF ILLINOIS

BUREAU OF COMMUNITY PLANNING
Director: Joseph M. Heikoff

RESEARCH DIGEST
Editor: Scott Keyes
Editorial Assistant: George Crain
Business Manager: Brenda Nolan

Editor's Notes

Two changes are noted above in the staff responsible for getting out the *Digest*. Mrs. Marie Broadrick, former business manager, is now employed elsewhere in the University of Illinois, and has been replaced by Mrs. Brenda Nolan, while John Fondersmith, editorial assistant for the past two years, is now working as a planner with the Peace Corps in Lima, Peru, and has been replaced by George Crain, a new graduate assistant at the Bureau of Community Planning. Also, it should be noted that beginning with this issue, the subscription rate of the *Digest* becomes $4.00 p rganizations, a necessity which we are ing by their prompt renewals.

The Index to . (SK)

Founded in 19 ie Urban Planning Research Group, the R semi-annually in April and November he University of Illinois. Its obj cation among individuals and group Abstracts are invited covering rese well underway on which significant pro ojects recently completed. Brief not this field are also desired, as are speci of the publication. Subscription is $4.00 rganizations. Address all communica nity Planning, University of Illinoi llinois

CONTENTS

CURRENT RESEARCH PROJECTS Page

FEDERAL RESERVE BANK OF BOSTON

1. State Aid for Education in New England. 1

BROWN UNIVERSITY

Department of Economics

2. Capital Exports and Growth Among U. S. Regions. 2

STATE OF CALIFORNIA

Department of Health

3. Hospital Utilization. 3

UNIVERSITY OF CALIFORNIA (BERKELEY)

Center for Real Estate and Urban Economics

4. Age-Income-Headship Relationships in Housing. 3

5. The Low Rise Speculative Apartment. 4

UNIVERSITY OF LOS ANGELES (LOS ANGELES)

Graduate School of Business Administration

6. Profile of the Los Angeles Metropolis: Its People and Its Homes. 4

7. Patterns of Land Development and Prices in the Los Angeles SMSA 5

8. Savings and Mortgage Markets in California: the Position and Performance of the Savings and Loan Industry . . 6

CITY UNIVERSITY OF NEW YORK (HUNTER COLLEGE)

Urban Research Center

9. An Attitudinal Survey of Political Party Participants in the Metropolis. 7

COLUMBIA UNIVERSITY

Teachers' College

10. A Taxonomy of Patterns of Control Exercised Over Local School Districts by the Various States 8

UNIVERSITY OF CONNECTICUT

Agricultural Experiment Station

11. Population Trends in Connecticut and the Northeast. . . 9

12. Projected School and College Enrollment in Connecticut. 11

13. The Population Explosion. 11

CORNELL UNIVERSITY

Department of City and Regional Planning

14. University-City Joint Ventures in Urban Renewal 12

15. University Campus Planning at Cornell 13

CENTER FOR COMMUNITY STUDIES

16. Relocation and Mental Health: Adaptation Under Stress. 13

SOUTHERN ILLINOIS UNIVERSITY (EDWARDSVILLE)

Public Administration and Metropolitan Affairs Program

17. Employment and Unemployment in East St. Louis, Illinois 14

18. Comparative Fiscal Capacity and Effort of Units of Government in Madison and St. Clair Counties, Illinois, 1950 and 1960. 15

19. Urbanism in Illinois: Its Nature, Importance and Problems 15

20. Recruitment and Development Patterns of Leadership in the Negro Community: A Case Study. 16

21. Public Attitudes and Air Pollution in the St. Louis Metropolitan Area. 17

UNIVERSITY OF ILLINOIS

Bureau of Community Planning

22. The Budget in Central Management Planning 17

Department of City Planning and Landscape Architecture

23. Relation Between Intensity of Development and Livability of Multi-Family Housing Projects. 18

24. Design and Housing Intensity. 19

25. Re-use Potential and Restoration Procedures for Sand and Gravel Operations 19

Engineering Experiment Station

26. Water Resources System Design by Operations Research. . 20

Institute of Government and Public Affairs

27. Municipal Budgeting in Illinois: Some Preliminary Observations 20

28. Budgeting in the Illinois Political System. 21

INDIANA UNIVERSITY

Department of Economics

29. Some Economic Reconsiderations of Zoning: Remedial, Emergent and Utopian 22

30. Remedial Programs for Long-Term Unemployed Blue Collar Workers 23

IOWA STATE UNIVERSITY

Agricultural and Home Economics Experiment Station

31. Business Response to Agricultural Change 25

32. Economic Appraisal of Regional Adjustments in Agricultural Production and Resource Use to Meet Changing Demand and Technology 26

33. Factors Affecting the Demand for Farm Labor 27

34. Growth and Investment in the Livestock Slaughtering Industry 28

Department of Economics and Sociology

35. Structural Economic Integration 29

36. Effects of Government Farm Programs Upon Regional Changes in Crop Production 30

JOINT CENTER FOR URBAN STUDIES OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY AND HARVARD UNIVERSITY

37. Design of the Central City. 31

38. Political Economy 31

39. Voting on Public Expenditure Issues 32

40. Urban Growth and the Form of the City 32

41. Metropolitan Planning in the United States. 33

42. Optimal Allocation of Traffic Flows 33

43. Fair Housing Demonstration Project in Boston: An Evaluation of Techniques. 33

44. Urban Social Stratification 34

45. Social Change and Political Upheaval in France, 1930-1960. 34

46. The Assimilation of Migrants to American Cities 35

KANSAS STATE UNIVERSITY

Engineering Experiment Station

47. An Application of Gravity Model Theory to a Small City in Kansas Using a Small Sample of Origin-Destination Data 35

UNIVERSITY OF KANSAS

Department of Political Science

48. Kansas City Municipal Election Study. 37

MICHIGAN STATE UNIVERSITY

Institute for Community Development and Services

49. Gaming-Simulation Studies in Urban Resources Allocation 38

School of Labor and Industrial Relations

50. Michigan Vocational Education Evaluation Study: Evaluation of Curriculum 39

UNIVERSITY OF MICHIGAN

Institute of Public Administration

51. Comparative Study of U. S. River Basin Planning Commissions in Southeastern United States and in Texas 41

Legislative Research Center

52. Interstate Metropolitan Areas 42

53. Administrative Law and Local Government 42

54. The Finances of Metropolitan Government 43

Department of Conservation

55. The Potential Impact of International Development Upon the Detroit Area. 44

MUNICIPAL FINANCE OFFICERS ASSOCIATION

56. A Manual of Techniques for the Preparation, Consideration, Adoption, and Administration of Operating Budgets and a Manual of Suggested Practice for the Preparation and Adoption of Capital Programs and Capital Budgets by Local Governments. 44

NATIONAL PLANNING ASSOCIATION

57. Metropolitan Economic Projection Series 47

58. Occupational Employment Projections for Southern States 48

59. Regional Economic Projections Series. 48

NEW YORK UNIVERSITY

Graduate School of Public Administration

60. The Economics of the Property Tax in the United States 48

UNIVERSITY OF NORTH CAROLINA

Institute of Government

61. Trends in Market Value of Real Property in Central Areas of Two North Carolina Cities 49

OHIO STATE UNIVERSITY

Bureau of Business Research and Department of Geography

62. Factors of Industrial Location in Ohio. 50

Natural Resources Institute

63. The Economic and Social Impact of a Multiple Purpose Resource Development Project in Guernsey County, Ohio. 51

UNIVERSITY OF PENNSYLVANIA

Department of Economic and Social Statistics

64. Data Requirements and Methods of Analysis for Metropolitan Economic Planning and Development in Pennsylvania. 51

Fels Institute of Local and State Government

65. Finances of Suburban Municipalities 52

66. Open Space in Metropolitan Areas. 53

Institute of Urban Studies

67. Study of Urban Land Utilization and Costs 54

Management Science Institute

68. An Area Data Service Feasibility Study. 55

UNIVERSITY OF PITTSBURGH

Center for Regional Economic Studies

69. American Metals Industry Study. 56

70. Appalachian Project 56

71. The Economics of Flood Plain Use and Regulation 57

RUTGERS-THE STATE UNIVERSITY

Urban Studies Center

72. Social and Cultural Factors Related to School Achievement. 58

73. Residential Stability In American Cities. 58

74. Demographic and Ecological Characteristics of the Aging. 59

75. Service Centers and Consumer Interaction on the Metropolitan Fringe: Studies in the Penjerdel Region 59

76. Factors Affecting Large Cities' Meeting of Functional Requirements. 60

77. The Relationship Between the Provision of Library Services and the Socioeconomic Status of Communities. 60

78. Application of Input-Output Analysis to Regional Economies of New Jersey. 61

79. A Measurement of "Sense of Community" 61

80. Municipal Politics in Newark. 62

81. Costs and Benefits in Urban Renewal Decision. 62

82. The Planner as a Political Actor: A Comparative Study. 63

83. Changes in Municipal Expenditure Patterns as a Function of Changes in Population. 63

UNIVERSITY OF TEXAS

School of Architecture

84. International Border Planning 64

UNIVERSITY OF TORONTO

School of Architecture

85. Planning Aspects of Outdoor Recreation. 64

URBAN LAND INSTITUTE

86. Home Associations Study 65

87. Present and Potential Rule of State and Local Taxation in Preservation and Development of Open Land in Urban Areas. 66

UNIVERSITY OF WASHINGTON

Center for Asian Arts

88. The Effects of Technological Change on Cultural Continuity as Evidenced by the Morphology of Certain Japanese Cities. 66

WAYNE UNIVERSITY

Department of Economics

89. Urban Economics, A Guide to Research on Waste, Poverty and Stagnation in Cities 66

WESTERN RESERVE UNIVERSITY

Department of Sociology

90. Urban Kinship Networks. 67

UNIVERSITY OF WISCONSIN

Industrial Relations Research Center

91. Geographical Mobility of Wisconsin Workers. 68

92. Appraisal of Training Programs in Depressed Areas with Area Programs 68

Graduate School

93. Delineation and Structure of Rental Housing Areas, 1960 69

UNIVERSITY OF WYOMING

Division of Economic and Business Research

94. Application of an Input-Output Framework to a Community Economic System. 69

UNIVERSITY OF UTAH

Bureau of Economic and Business Research

95. Standards for Traveler Studies. 70

UNIVERSITY OF BRITISH COLUMBIA

School of Architecture

96. Performance Standards for Space and Site Planning for Residential Development. 70

UNIVERSITY OF CALIFORNIA (SAN DIEGO)

Institute of Marine Resources

97. The Planetary Food Potential. 71

Scripps Institute of Oceanography

98. Resources from the Sea. 73

UNIVERSITY OF PITTSBURGH

Department of Urban Affairs

99. Organization for Citizen Participation in Urban Renewal. 74

Department of Urban Affairs and Department of Engineering and Mines

100. Principles of Physical Planning Contributing to the Reduction of Vulnerability from Nuclear Attack 74

Department of Urban Affairs

101. Local Organization for Urban Renewal. 75

102. Building Permit Information System. 75

WESTERN RESERVE UNIVERSITY

Department of Sociology

103. Behavior and Attitude in a Biracial Middle Income Housing Community: The Ludlow Study 76

UNIVERSITY OF ILLINOIS

Bureau of Community Planning

104. A Study of the Linkage Pattern Between a Central City and the Communities Within its Region of Influence 78

BRIEF MENTION

NEW URBAN AND REGIONAL RESEARCH AND TRAINING PROGRAMS

University of Connecticut. 81
New York University. 81
University of Pittsburgh 82
San Diego State College. 82
University of Toronto. 83
University of Wisconsin-Milwaukee. 83
Regional Science Association, Summer Training Institute. . . . 84
Conference on Recent Advances in the Statistical Analysis of Spatial Distributions. 84

RESEARCH MATERIALS

"Statistical Services of the U. S. Government" Revised 84
Federal Statistical Directory, 1963. 85
New Materials, U. S. Bureau of the Census:
State and Local Tax Revenue 85
Property Tax Base 86
Senior Citizens 87
Rural Housing 87
Subject Reports, 1960 Population Census 88
Publications of National Center for Health Statistics. 88
Atlas on U. S. Military Contracts. 90
Conference on Regional Data Needs. 90

BIBLIOGRAPHIES

Housing for the Aged 90
Urban Real Estate Research 91
Water Resources. 91

HOUSING

Ford Foundation Grants for Gray Area Studies 91
HHFA Grants for Experiments in Low-Income Housing. 92

TRANSPORTATION

HHFA Mass Transportation Demonstration Studies 93

OTHER

Public Control of Private Land Uses Study. 94
Current Work Program, Advisory Commission on
Intergovernmental Relations 94
Follow-Up Study of ARA Trainees. 95
Study of Residence and Migration of College Students 96

1. STATE AID FOR EDUCATION IN NEW ENGLAND

Main Investigators: George A. Bishop and Mary Ann Hunter.

Status of Research and Publications: Completed. Article published in the Boston Federal Reserve Bank's New England Business Review, September, 1963. An additional statistical supplement with notes, tables, and sources is available.

Agency: Federal Reserve Bank of Boston.

Previous Digest Report: None.

Research Problem. What are the effects of state aid for current education purposes in New England? Does it equalize opportunities for good schooling in both rich and poor communities? Does state aid function as a substitute for local property taxes? Or does it stimulate additional spending for improved school programs by local authorities?

Previous Relevant Research. Such problems for the New York area have been examined in The State and Local Government...The Role of State Aid by S. Sacks, R. Harris, and J. Carroll, Comptroller's Studies in Local Finance No. 3, 1963. A study by Jerry Miner, Social and Economic Factors in Spending for Public Education, covers about a thousand school districts in 21 states.

Hypotheses. Local tax resources are the major determinants of the amounts spent on public schools. Where local tax resources are low, state aid can equalize opportunities by financing good schooling without resort to added local taxes. A second goal of state aid is to reduce the local property tax burden. A third goal--but one that conflicts with the second--is to stimulate spending for improved education.

Method of Study. Multiple correlation analysis was used to determine the effects of state aid. The analysis covered 1,400 towns and cities in New England. For the year 1961-62 the analysis determined the correlation between expenditures per pupil and the major factors presumably affecting expenditures: state aid per pupil, equalized property valuation per pupil, and the size of school membership.

Major Findings. In New England state aid for schools is substantially less than the national average of state grants for education. This aid has been more effective in stimulating spending on education in smaller places than in metropolitan areas. In general, however, its effect has largely been to substitute for added property taxes.

In most states revised formulas for "foundation" aid and current equalized property values are needed to reduce existing inequities.

Massachusetts has the most obsolete formula and still uses 1945 valuations to determine local ability to pay for schools. Data for 1961 show no significant relationship between per pupil state foundation aid and current valuations in Massachusetts. (RBN)

2. CAPITAL EXPORTS AND GROWTH AMONG U. S. REGIONS

Main Investigator: J. T. Romans.

Status of Research and Publications: Completed and submitted as doctoral dissertation.

Agency: Brown University, Department of Economics.

Previous Digest Report: None.

Research Problem. Major objectives of study were (1) to develop estimates of gross state income and product for states, including estimates of transmission of capital between states, and (2) to determine extent to which differentials in state and regional growth rates are explained by pattern of net interstate and interregional capital flows.

Method of Study. Basic approach was to distribute to each state that portion of each component of the gross national income and product accounts for which it was responsible. For some components, state data were available; for others, proxy variables were used to allocate the national totals to states. The result was a single entry accounting system of gross income and product by states. Although largely without internal checks or balances, it follows the logic of the national income accounts. Allocating national accounting figures in this manner allowed state figures for consumption, gross saving, and net taxes to be estimated and summed to yield estimates of gross state income. Summing state consumption, gross investment, and government purchases of goods and services yielded estimates of domestic spending or domestic absorption by states. Net exports on current account, or net "foreign" investment, was the most commonly used measure of capital flows in this study, and was computed as a residual by deducting this domestic absorption from gross state income. The computations were carried out for two cycle peak years, 1953 and 1957.

Hypotheses. That regional growth rates are a function of net "foreign" disinvestment, i.e. that regional economic growth is to a large degree dependent upon the net importation of capital from other (slower growing) regions. Also, that transmission of capital between states should tend to bring about a convergence of state income differentials as high income states export capital to low income states. Such a flow of capital from high to low income states could take place either because of a lower rate of return on investment in high wage (and, thus, high income) areas or because a surplus of saving is generated in high income states as a result of the geographic concentration of wealth owners (the property income receivers) in these states.

Major Findings. A very significant portion of the per capita or per worker income differentials between states was due to the size of the property income share of personal income. The property income share also largely determined each state's position as a net exporter or net importer. There was also strong evidence of convergence of per capita incomes between 1929 and 1959, as well as a strong positive relation between net imports and growth. An appreciable portion of the growth of the faster growing states appeared to be financed through the importation of capital from the slower growing states. (JTR)

3. HOSPITAL UTILIZATION

Main Investigators: Daniel L. Drosness and John Derry.

Status of Research and Publications: In process. Report to be issued in 1965.

Agency: State of California, Department of Public Health, Bureau of Hospitals, under sponsorship of U. S. Public Health Service.

Previous Digest Report: None.

Research Problem. To develop a methodology for regular collection, analysis and use of precise information on hospital utilization on a statewide basis. Specifically, the project will seek to achieve the following objectives: (1) identification of that data (relating to hospital utilization) which is essential to improved hospital planning; (2) development of a methodology for collection; (3) development of methods of analysis; and (4) establishment of methods of applying such data. (JL)

4. AGE-INCOME-HEADSHIP-TENURE RELATIONSHIPS IN HOUSING

Main Investigator: Wallace F. Smith.

Status of Research and Publications: In process. Completion expected by mid 1964.

Agency: University of California (Berkeley), Center for Real Estate and Urban Economics.

Previous Digest Report: None.

Research Problem. A model and a set of parameters related to the demand for rental housing.

Hypothesis. (1) Income is related to headship and tenure, and (2) age is related to headship and to tenure.

Method of Study. Census tapes containing data for one person of every one thousand will be used to describe relations among age, income, headship and tenure. A blend of standardization and regression methods will be used. (WFS)

5. THE LOW RISE SPECULATIVE APARTMENT

Main Investigator: Wallace F. Smith.

Status of Research and Publications: In process. Publication in monograph form expected in early 1964.

Agency: University of California (Berkeley), Center for Real Estate and Urban Economics.

Previous Digest Report: None.

Research Problem. Who develops low rise apartments, what are their motivations, what is the procedure in development and sale, and why has this activity increased so markedly?

Previous Relevant Research. Equity investment has been studied by Grebler and Winnick, but emphasis was not on speculative motivations.

Hypotheses. (1) Market conditions explain the upsurge in rental construction; (2) specific conditions favor low rise speculative development; and (3) such development will continue to be a factor in urban growth.

Method of Study. Survey of rental properties developed since 1957 in Oakland and in Walnut Creek, California. Developers, builders, lenders and purchasers have been contacted by questionnaire and/or interview.

Major Findings. Preliminary indications are that all three hypotheses appear to be confirmed. (WFS)

6. PROFILE OF THE LOS ANGELES METROPOLIS: ITS PEOPLE AND ITS HOMES

Main Investigators: Leo Grebler, Fred E. Case, James Gillies, Leland S. Burns, and Frank G. Mittelbach.

Status of Research and Publications: Part I, "Metropolitan Contrasts," by Leo Grebler, and Part 2, "The Changing Housing Inventory: 1950-1959," by Frank G. Mittelbach have been published. Parts 3, 4 and 5 which will deal with financing of residences, the minority population, and the economic and social structure of the communities in the Los Angeles SMSA are in draft form.

Agency: University of California (Los Angeles), Graduate School of Business Administration, Real Estate Research Program.

Previous Digest Report: 10:1-16.

Major Findings. Findings of Part I were discussed in previous Digest report. Part II deals with the changing residential face of Los Angeles in the period 1950 to 1959. It draws for analytical purposes on the Components of Inventory Change series of the U. S. Census of Housing, 1960. Attention is called to the fact that the housing inventory in the Los Angeles SMSA is characterized by both turmoil and stability. Units held over from 1950 have been relatively well taken care of, remaining at approximately the same quality level, using Census definitions, or slightly better than in 1950. Occupants in old and new dwelling units varied markedly with the new units being characterized by a high incidence of "normal" households, a relatively small number of persons 65 years and older, and a large proportion of households with children under six years of age. Comparisons between 1955/56 and 1958/59 indicate that the surge to the outlying areas by those people already living in the Los Angeles SMSA may be subsiding. The rapid growth of the outlying areas apparently owes a great deal to the behavior of immigrants to Los Angeles. (FGM)

7. PATTERNS OF LAND DEVELOPMENT AND PRICES IN THE LOS ANGELES SMSA

Main Investigator: Frank G. Mittelbach.

Status of Research and Publications: In process. Completion expected by December, 1964.

Agency: University of California (Los Angeles), Graduate School of Business Administration, Real Estate Research Program, under sponsorship of U. S. Housing and Home Finance Agency.

Previous Digest Report: None.

Research Problem. There are reasons to believe that suburban land costs since World War II have risen more rapidly than other major components of housing costs and the general price level. The study investigates the role of the several factors which have contributed to the increasing relative scarcity of land in the Los Angeles metropolis, and examines prospects for the future.

Method of Study. One phase in this study involves determination of the amount and quality of developable land accessible to major employment centers. The purpose is to establish whether or not an absolute shortage is likely to be experienced within the foreseeable future under various assumptions of intensity of development. In another phase of the study vacant parcels of land ten acres or more are identified at different points in time in two suburban growth areas selected for detailed investigation. Parcels of land which eventually were transferred to an urban use and those which were not will be studied to determine factors which have contributed to their particular use or non-use. Finally, the study will systematically trace the prices of parcels of land both vacant and urban and will explore the factors influencing price changes. (FGM)

8. SAVINGS AND MORTGAGE MARKETS IN CALIFORNIA: THE POSITION AND PERFORMANCE OF THE SAVINGS AND LOAN INDUSTRY

Main Investigators: Leo Grebler and Eugene F. Brigham.

Status of Research and Publications: Report has been published and is available from sponsor. ($3.25)

Agency: University of California (Los Angeles), Graduate School of Business Administration, Real Estate Research Program, under sponsorship of California Savings and Loan League, Pasadena.

Previous Digest Report: None.

Research Problem. To analyze market performance in terms of the allocative efficiency of the California savings and mortgage markets and the operating efficiency of the California savings and loan industry, which plays an important part in these markets.

Previous Relevant Research. Several descriptive analyses of the relevant markets and institutions exist, but they have usually failed to apply the rigorous concepts of the theory of competition. Edward S. Shaw's recent study "Savings and Loan Market Structures and Market Performance" investigates state chartered savings and loan associations in California without reference to the market habitat in which they operate.

Hypotheses. Inter-industry as well as intra-industry competition must be considered in any examination of the competitive structure of financial markets. The operating ratios of financial institutions of the same type bear a functional relationship to their asset and liability composition and their various modes of operation.

Method of Study. The study includes the first multiple-regression analysis of operating ratios of savings and loan associations. In addition to standard analysis of existing data, special surveys were used to obtain new estimates of out-of-state deposits held by California savings associations and for various other purposes.

Major Findings. California savings and loan associations operate in a mortgage market which is relatively competitive by the standards of the general economy. However, the system shows a slight degree of oligopoly resulting from the restricted movement of funds between geographic submarkets, limited entry and heterogeneity of product. Altogether, the capacity of the California associations to channel out-of-state funds into the state has enhanced economic welfare. California savings and loan associations are typically high-cost firms as compared to other parts of the country. Higher costs are offset with higher revenues and they usually end up with relatively high net profits. Available data failed to indicate significant internal economies of scale in the California savings and loan industry. (FGM)

9. AN ATTITUDINAL SURVEY OF POLITICAL PARTY PARTICIPANTS IN THE METROPOLIS

Main Investigators: Robert S. Hirschfield, Bert E. Swanson, and Blanche D. Blank.

Status of Research and Publications: Completed. Published: "A Profile of Political Activists in Manhattan," The Western Political Quarterly, Vol. XV, No. 3, September, 1962.

Agency: City University of New York, under sponsorship of Citizenship Clearing House.

Research Problem. To describe and analyze the socio-economic background, policy attitudes, and political activity of political party committeemen and committeewomen in New York City. To compare this with the pictures drawn by previous studies of city machine politicians.

Previous Relevant Research. Harold F. Gosnell, Machine Politics: Chicago Model (Chicago: University of Chicago Press, 1937); Sonya Forthal, Cogwheels of Democracy (New York: William-Frederick Press, 1946); William Mosher, "Party Government Control at the Grass Roots," National Municipal Review, Vol. 24 (1935); David H. Kurtzman, Methods of Controlling Votes in Philadelphia (Philadelphia: privately printed, 1935); Hugh Bone, Grass Roots Party Leadership (Seattle: University of Washington Press, 1952).

Hypotheses. (1) Socio-economic status (class) is not the dominant determinant in the composition of urban political organization; (2) the major determinants of political affiliation are ideological; there are significant ideological differences among the political parties; (3) the political activist views his party organization primarily as an instrument for effectuating policies rather than as a source of personal gain; (4) all urban political parties draw their personnel largely from the "middle class;" (5) the party in power occupies the "middle of the road" in urban politics; the other parties deviate from center in inverse proportion to their chances of winning office; (6) the dominant party's personnel are much more "professional" in their political attitudes and activities than the members of the minority parties; and (7) religious affiliation and depth of family roots in America are major factors in determining the member's degree of "liberalism" or "conservatism."

Method of Study. Sample survey.

Major Findings. The data gathered on all three parties lead to two general conclusions regarding the nature of urban politics in the United States. First, ideological orientation--more than socio-economic status--is apt to determine the urban activists' political affiliation. The parties' memberships are characterized far less by income, education, and occupation than by varying attitudes toward social and political change, governmental power and policies, minority groups, and established institutions and ideas. Second, there is a "new look" among today's political activists. They are "respectable," solid middle-class citizens. The party "hack" of fiction, films, and the traditional literature is hard to find among the young, well-educated, affluent, and socially acceptable committeemen--and women--of the 1960's. Concomitantly, both the nature of political motivation and the character of political activity have changed. The contemporary politician considers his party organization an instrument for effectuating policy rather than a haven of personal security. He tends to be more interested in social reform than in catering to individual constituents. (BES)

10. A TAXONOMY OF PATTERNS OF CONTROL EXERCISED OVER LOCAL SCHOOL DISTRICTS BY THE VARIOUS STATES

Main Investigator: Charles Burnett Hayes.

Status of Research and Publications: Completed and submitted as doctoral dissertation.

Agency: Columbia University, Teachers' College.

Previous Digest Report: None.

Research Problem. The major purpose of this study is to provide a categorization of the states with respect to a number of controls exercised over education at the state level and a determination of what patterns exist among the states in exercising these controls.

Method of Study. In selecting the controls for study, a search was made of publications of the United States Office of Education, the National Education Association, the codes of school laws of the various states and writings of various persons on matters relative to the problem under study. A graduate seminar in educational administration was polled with regard to the significance of the controls and for additional ones. All data were gathered from documents in which controls are presented as they are written in state laws. Actual practice in some cases may differ from the law. It was not a part of this study to show the differences between the two.

The writer made judgments as to which controls to study on the bases of their importance in educational operations, the influence which they have upon all classes of school districts of a state, the emphasis and frequency with which they were treated in the literature, and the feasibility of finding pertinent data. The controls selected for study were: (1) local school district organization; (2) required school subjects; (3) textbook selection; (4) selection of local school board members; (5) selection of chief state school officers; (6) teacher certification; (7) teacher tenure; (8) budget approval by non-school agencies; (9) vote on local school budget; (10) vote on tax levies; (11) tax rate for current operating expenses; and (12) school audits.

Major Findings. Conclusions drawn from this study may be summarized as follows: There are enough similarities among the states on a group of twelve controls exerted over school districts by the states that the states can be grouped by control patterns. From the control patterns differentiated, it would seem that some states exercise a number of controls over education in such a manner so as to encourage local initiative. Other groups of states tend to exercise controls in such a manner that they would seem to affect greater centralization. Although these are tentative findings and are subject to modifications by subsequent study and to the practical application of the laws, it seems that there are some states which operate with a high degree of state control and others which operate with a low degree of state control. (CBH)

11. POPULATION TRENDS IN CONNECTICUT AND THE NORTHEAST

Main Investigator: Edward G. Stockwell.

Status of Research and Publications: Continuous project in cooperation with Regional Research Project NE-31, "The Effects of Urban-Industrial Expansion on Northeastern Agriculture." Three reports have been published as follows: (1) Edward G. Stockwell, Illustrative Projections of the Population of the New England States, by Age and Sex, 1960-1980, University of Connecticut, AES Progress Report No. 51 (February, 1963). Mimeographed, 29 pages. (2) Edward G. Stockwell and Dorothy G. Ingalls, Illustrative Projections of the Population of the Middle Atlantic States, by Age and Sex, 1960-1980, University of Connecticut, AES Progress Report No. 53 (May, 1963). Mimeographed, 20 pages. (3) Edward G. Stockwell, Dorthy G. Ingalls, and Helene P. Matterson, Illustrative Projections of the South Atlantic States of the Northeast Region, by Age and Sex, 1960-1980, University of Connecticut, AES Working Paper (July, 1963). Mimeographed, 18 pages.

Agency: University of Connecticut, College of Agriculture Experiment Station.

Previous Digest Report: None.

Research Problem. Projections of the population, by age and sex, for the 12 states that make up the Northeast region (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and West Virginia), for quinquennial years through 1980.

Method of Study. Projections were prepared by means of a life table survival method, and are based on the assumptions that recently observed age-sex patterns of fertility, mortality, and migration will not change during the projection period. A detailed description of the methodology is contained in the report for the New England States (Progress Report No. 51).

Major Findings. Bearing in mind that population projections are not predictions, these figures indicate a fairly wide variation in growth patterns within the region during the next two decades, ranging from a population decline of 14 per cent in West Virginia to an increase of well over 100 per cent in Delaware. Connecticut, Maryland, and New Jersey can all anticipate increases of two thirds or more between 1960 and 1980, while the remaining seven states will experience population gains of between 16 per cent (Vermont) and 43 per cent (New Hampshire).

Although there are occasional variations among individual states, the general pattern for the region as a whole revealed by the projections is that future growth will be greatest for the population under 25 and over 65 years of age (a notable exception is West Virginia, where an 11 per cent decline in young people is projected for 1980). There are two important implications of this general pattern: first, the problems of providing adequate facilities for the education of youth and for the maintenance of senior citizens will become intensified; and secondly, the responsibility for alleviating these problems will have to be borne by a smaller proportion of the total population. (EGS)

12. PROJECTED SCHOOL AND COLLEGE ENROLLMENT IN CONNECTICUT

Main Investigator: Edward G. Stockwell.

Status of Research and Publications: Completed. See Edward G. Stockwell and Robert H. Weller, The Population of Connecticut: Illustrative Projections of School and College Enrollment, 1960-1980, University of Connecticut, AES Progress Report No. 52 (May, 1963). Offset, 12 pages.

Agency: University of Connecticut, College of Agriculture, Experiment Station.

Previous Digest Report: None.

Research Problem. To project, within reasonable limits, prospective number of school and college students in Connecticut in 1965, 1970, 1975 and 1980.

Method of Study. Three different assumptions are made pertaining to the trend in age-sex specific school enrollment rates during the next two decades, and the resulting three sets of rates are applied to a projection of the total population by age and sex based on a life table survival method.

Major Findings. Bearing in mind the limitations inherent in such projective techniques, the resulting figures indicate that the number of potential students 5-24 years of age will increase from 41 to 54 per cent between 1960 and 1980. The projected growth is not uniform for all segments of the school population. Percentage increases will be relatively slight among elementary school children (this group is already quite large, due to the effects of the postwar baby boom); but the high schools and colleges can anticipate very large increases as the postwar birth cohorts age. The problem of increased enrollments is already being felt in the high schools, and by the end of the 1960 decade the colleges will be receiving applications from approximately twice as many students as they do today. Clearly, the colleges of Connecticut face a very real need to expand their facilities in order to meet the educational needs of her young people. (EGS)

13. THE POPULATION EXPLOSION

Main Investigator: Edward G. Stockwell.

Status of Research and Publications: Completed. See Edward G. Stockwell, The Population Explosion: World, National, and Local, University of Connecticut, AES Bulletin No. 378 (July, 1963). Offset, 15 pages.

Agency: University of Connecticut, College of Agriculture, Experiment Station.

Major Findings. This brief article summarizes historical and present population growth trends in the world as a whole, in the United States, and in Connecticut, with special attention being given to the determinants and consequences of these trends. The "theory of demographic transition" is discussed in relation to historical growth patterns, and the differential roles played by fertility, mortality, and migration (international and internal) in both past and recent population growth are described. Although the actual processes through which current growth is taking place on these three levels are not the same, it is readily apparent that all have been characterized by relatively "explosive" population growth since the end of the Second World War. On the international level, recent growth has been greatest among the so-called underdeveloped nations of Asia, Africa, and Latin America, where it is posing a serious problem to current efforts to stimulate economic development and to raise the levels of social and economic well-being. While the Malthusian population problem is not a real threat in the United States, the rapid and substantial increase in the number and proportion of young people generated by the postwar baby boom has put serious pressure on our educational facilities, and under current trends, will continue to do so. This problem becomes even more serious in a State like Connecticut which has to contend with fairly heavy in-migration, as well as the cumulative effects of the postwar fertility revival. (EGS)

14. UNIVERSITY-CITY JOINT VENTURES IN URBAN RENEWAL

Main Investigator: Kermit C. Parsons.

Status of Research and Publications: First stage of field work completed; articles published Journal of Higher Education, Vol. XXIV, Numbers 1 & 4 (January, April 1963), "A Truce in the War Between Universities & Cities" and "Universities & Cities." Reprinted by Division of Urban Studies, Cornell Center for Housing & Environmental Studies. Additional field work to be completed December, 1964. Additional publication: form undetermined at this time.

Agency: Cornell University, College of Architecture, Department of City and Regional Planning, under sponsorship of Cornell University Ford Foundation Public Affairs Research Fund.

Previous Digest Report: 9:2-26.

Major Findings. The long standing antipathy between Anglo-American universities and cities is traced from the six hundred year old rural seclusion of the English University. American urban universities are awakening to the responsibilities and opportunities of this environment. Two significant developments are recorded: the influence of Section 112 of the Housing Act of 1959 on university participation in urban renewal and the various emerging forms of non-profit corporations acting as catalysts for joint city-university renewal. (KCP)

15. UNIVERSITY CAMPUS PLANNING AT CORNELL UNIVERSITY

Main Investigators: Kermit C. Parsons, and Keith Sutherland.

Status of Research and Publications: Research continuing, article to be published early 1964 in Journal of the Society of Architectural Historians. Monograph to be published 1965.

Agency: Cornell University, College of Architecture, Department of City and Regional Planning, supported by grants from Cornell University.

Previous Digest Report: 9:2-27. (KCP)

16. RELOCATION AND MENTAL HEALTH: ADAPTATION UNDER STRESS

Main Investigators: Erich Lindemann and Marc Fried.

Status of Research and Publications: Basic collection of data has been completed and processed, and is now being analyzed and written up. Project began December 1, 1957, and will continue through June 1, 1964. The following papers have been published or accepted for publication: Fried, Marc and Lindemann, Erich: "Sociocultural Factors in Mental Health and Illness," Amer. J. Orthopsychiat., 1961, 31, 87-101; Gans, Herbert: "The Human Implications of Current Redevelopment and Relocation Planning," J. Amer. Inst. of Planners, 1959, 25, 15-25; Gans, Herbert: The Urban Villagers, Glencoe: The Free Press, 1962; Fried, Marc and Gleicher, Peggy: "Some Sources of Residential Satisfaction in an Urban Slum," J. Amer. Inst. of Planners, 27, 1961, 305-315; Fried, Marc: "Grieving for a Lost Home," In: Leonard J. Duhl (Ed.), The Urban Condition, New York: Basic Books, 1963; Ryan, Edward: "Individual Identity in an Urban Slum," In: Leonard J. Duhl (Ed.), The Urban Condition, New York: Basic Books, 1963; Hartman, Chester: "Social Values and Housing Orientations," J. Soc. Issues, 1963, 19, 113-131; Fried, Marc: "The Transitional

Function of Working-Class Communities: Implications for Forced Relocation," to be published in: Mildred Kantor, (Ed.), Mobility and Mental Health, D. Van Nostrand, 1964; Hartman, Chester: "The Limitations of Public Housing: Relocation Choices in a Working-Class Community," to be published in the J. Amer. Inst. of Planners, November, 1963; Zola, Irving Kenneth: "Observations on Gambling in a Lower-Class Setting," Soc. Problems, 1963, 10, 353-361; Fried, Marc and Levin, Joan: "The Social Function of the Urban Slum," to be published in Scientific American; Fried, Marc: "Effects of Social Change on Mental Health," to be published in the Amer. J. Orthopsychiat., January, 1964.

Agency: Center for Community Studies, an affiliate of Massachusetts General Hospital and Harvard Medical School, under sponsorship of National Institute of Mental Health.

Previous Digest Report: 10:1-20. (PM)

17. EMPLOYMENT AND UNEMPLOYMENT IN EAST ST. LOUIS, ILLINOIS

Main Investigator: Jane Schusky.

Status of Research and Publications: Initial analysis has been completed and will be published late in the fall of 1963.

Agency: Southern Illinois University (Edwardsville) Public Administration and Metropolitan Affairs Program.

Previous Digest Report: 9:2-31.

Research Problem. To assess the level and impact of unemployment and underemployment in East St. Louis, Illinois. The study was designed to examine employment and unemployment as characterizing various sub-sectors of the resident population of the city, and the effect of job holding or the lack thereof on the family and on the community.

Method of Study. This study uses a two-stage random sample of approximately 1,300 households in the city of East St. Louis. A questionnaire has been administered in each of these households with supplemental items obtained in households with unemployed or under-employed family heads. Analysis of the data has followed, and comparisons have been made with census and Department of Labor statistics.

Major Findings. It was found that the general level of unemployment in the city was far above the average for the nation and the state. This unemployment most affects the Negro citizenry which comprises approximately half of the population of East St. Louis. The effects of this high level of unemployment show themselves in disparity of income, of housing conditions and of attitudes toward the employment problem and its possible solutions. Family conditions are not found to vary markedly as a result of unemployment because of a general residential and class distribution placing the unemployed in circumstances not too unlike those of their employed neighbors. (JWS)

18. COMPARATIVE FISCAL CAPACITY AND EFFORT OF UNITS OF GOVERNMENT IN MADISON AND ST. CLAIR COUNTIES, ILLINOIS, 1950 AND 1960

Main Investigator: Leo Cohen.

Status of Research and Publications: Completed and published by agency, March, 1963.

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program.

Previous Digest Report: 9:2-33. (SZM)

19. URBANISM IN ILLINOIS: ITS NATURE, IMPORTANCE AND PROBLEMS

Main Investigators: Jack Isakoff and Seymour Z. Mann.

Status of Research and Publications: Preliminary draft of report completed.

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program, under sponsorship of State of Illinois, Governor's Council of Economic Advisors.

Previous Digest Report: None.

Research Problem. It is proposed that the Governor's Council of Economic Advisors prepare a series of background studies that will enable policy proposals to be made that will guide Illinois during the decade of the seventies and that will serve as guides to what must be done now to accomplish what will need doing during the seventies. This particular study attempts to establish the relationship between growth and development possibilities in the state as a whole as such might be related to the growth and development of the several metropolitan areas in the state. In addition, it develops a set of policy proposals that will relate to state action needed and action needed in terms of intergovernmental relations improvements if the social, political and economic potential of the metropolitan areas is to be fully achieved. (SZM)

20. RECRUITMENT AND DEVELOPMENT PATTERNS OF LEADERSHIP IN THE NEGRO COMMUNITY--A CASE STUDY

Main Investigators: Elliott Rudwick and Seymour Z. Mann.

Status of Research and Publications: Field work interviewing now underway, methodology for panel activity now being developed. Completion not expected until mid-1964.

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program.

Previous Digest Report: None.

Research Problem. This will essentially be a case study using East St. Louis as a model. East St. Louis, with a total population of some 82,000, is almost evenly divided between white and Negro. The emphasis in the study will be placed on political leadership defined broadly. There has been a long history of Negro involvement with local political organizations and dating from the early 1900's allegations of colonization, vote buying, etc. At the same time, Negroes have held political office at various levels, but never in proportion to their population, although over the years both parties have encouraged Negro voting. At the present time, there is much ferment within the Negro community with old leadership being challenged in the formal political organizations, in the established Negro community organizations--even in church leadership--much of this obviously related to the intensified civil rights movement. The problem will be to assess forces which have given rise to the past and present leadership elements in the community and to examine and evaluate the forces at work producing the emergent leadership. Furthermore, the study will attempt to categorize and classify kinds and types of leadership in terms of style, capacity and the social milieu from which particular leaders have arisen.

It will attempt, further, to project what might be expected in the way of leadership-followership patterns under given kinds of political systems and given kinds of socio-economic circumstances. The relationship between events perceived of as significant to the well-being of the Negro community or perceived of as threats to the well-being of the community and their relationship to leadership recruitment and development will be investigated.

Method of Study. Leadership elements since 1950 will be developed, based on precinct committee people lists, all Negroes who have either run for or have been elected to political office (including all offices in which an East St. Louis electorate was in whole or in part involved), and all Negroes who have held appointive governmental positions in organizational locations strategic to the maintenance or extension of the control or influence of the dominant political factions or groupings. Data will be elicited through an interview program.

In addition, parallel panels drawn from the white and Negro communities will be used to assess the meaning and significance of event perception in the community and to determine the community's evaluation of leadership selection and performance. (SZM)

21. PUBLIC ATTITUDES AND AIR POLLUTION IN THE ST. LOUIS METROPOLITAN AREA

Main Investigators: Seymour Z. Mann and Jane W. Schusky.

Status of Research and Publications: To be published early in 1964.

Agency: Southern Illinois University (Edwardsville), Public Administration and Metropolitan Affairs Program, and University of Chicago, National Opinion Research Center, under sponsorship of U. S. Public Health Service.

Previous Digest Report: None.

Research Problem. To determine public awareness of and attitudes toward various community problems with a focus on air pollution. To determine in what manner complaints are registered, attitudes are formed and action proposed toward the solution to such problems.

Method of Study. A survey of 1,000 residents of the St. Louis Metropolitan Area. An area probability sample was devised to give data on the city and county of St. Louis and on Madison and St. Clair Counties, Illinois. The National Opinion Research Center conducted all field work in this project with analysis and report to be done by Metropolitan Affairs. (SZM)

22. THE BUDGET IN CENTRAL MANAGEMENT PLANNING

Main Investigator: Joseph M. Heikoff.

Status of Research and Publications: In process. Initiated September, 1963.

Agency: University of Illinois, Bureau of Community Planning, under sponsorship of International City Managers' Association.

Previous Digest Report: None.

Research Problem. Budgeting is an important element in governmental decision making, but it does not appear to have been applied to community planning. The study objective is to discover how budgeting may be used more effectively to integrate departmental functional plans for public health, transportation, education, recreation, and public safety, as well as for land use planning and regulation. Its hypothesis is that the budget should be the conscious financial expression of governmental policies for community development. Development policies include the ordering of priorities, allocating resources, integrating departmental programs, and relating operating costs to capital investment.

Method of Study. Examination of budgeting theory and planning theory to be followed by field studies of the relation of budgeting to planning in several Illinois communities. Complementary case studies will be sought in public administration literature. Current budgeting and planning practice will be evaluated to discover how budgeting can be used more effectively by management for community planning. (JMH)

23. RELATION BETWEEN INTENSITY OF DEVELOPMENT AND LIVABILITY OF MULTI-FAMILY HOUSING PROJECTS

Main Investigator: Robert D. Katz.

Status of Research and Publications: Completed. Published by Federal Housing Administration, Technical Studies Program, FHA No. 509 (Title same as title of research with addition of sub-title - Design Qualities of European and American Housing Projects.)

Agency: University of Illinois, Department of City Planning and Landscape Architecture, under sponsorship of the Graduate College of the University of Illinois, the American Institute of Architects, and the Federal Housing Administration.

Previous Digest Report: 8:2-24; 9:2-42.

Major Findings. Measures of intensity vary in their influence on housing quality. Of a variety of measures examined, density and building type and size are most closely related to aspects of quality (twelve aspects of design quality are identified, defined, and illustrated with photographs of recent housing projects in the United States and Western Europe.) Standards regulating the intensity of housing development have not resulted in significant improvements in design quality. This observation together with the fact that the sites, objectives, and programs for housing vary considerably, even within a single city, are used to support arguments in favor of more flexible standards. Importance of design as a factor in housing appraisal has been neglected in recent years.

Report includes an appendix of site plans and development characteristics of 60 projects. Plans are printed at similar scales to permit comparisons. (RDK)

24. DESIGN AND HOUSING INTENSITY

Main Investigator: Robert D. Katz.

Status of Research and Publications: Research still in the early stage of collecting data and field investigation. It is expected that several reports will be prepared for publication in 1965.

Agency: The University of Illinois, Department of City Planning and Landscape Architecture, under sponsorship of the Federal Housing Administration and the Urban Renewal Administration.

Previous Digest Report: None.

Research Problem. This investigation is aimed at three specific questions. One, are the findings of an earlier study (see Digest report 9:2-42) valid when a great variety of multi-family developments are investigated in cities selected to give a range of climatic, site, and geographic conditions? Two, what are characteristics of site planning that permit increasing the density of single-family housing without loss of livability? And three, what has been the effect of different land disposition procedures, design advisory services and plan review, and site design responsibility on the quality of site design of housing in urban renewal areas? (RDK)

25. RE-USE POTENTIAL AND RESTORATION PROCEDURES FOR SAND AND GRAVEL OPERATIONS

Main Investigator: Anthony M. Bauer.

Status of Research and Publications: In process. Completion expected in September, 1964.

Agency: University of Illinois, Department of City Planning and Landscape Architecture, under sponsorship of National Sand and Gravel Association.

Previous Digest Report: None.

Research Problem. The expanding development of the nation is generating an increasing demand for sand and gravel materials. Economics of transportation limit the distance of a mining operation from the construction sites, often resulting in the operation being located adjacent to or within an expanding metropolitan area. This often leads to public relations problems with surrounding land owners and communities, difficulties with local zoning and land use regulations, and a loss of natural resources within an economic hauling radius to more acceptable land uses. The objective of this program is to identify the problems common to the sand and gravel industry as they apply to land use; to prepare restoration planning procedures; and to illustrate to the sand and gravel industry the re-use potentials.

Method of Study. A wide variety of sand and gravel operations will be reviewed to determine specific problems and to study adaptability of a range of potential re-uses. Questionnaires will be submitted to members of the industry and an investigation on how zoning and land use regulations will effect restoration projects will be conducted. Also the study will include development of restoration procedures with emphasis on pre-planning and progressive restoration techniques. (AMB)

26. WATER-RESOURCES SYSTEM DESIGN BY OPERATIONS RESEARCH

Main Investigator: Ven Te Chow.

Status of Research and Publications: Study to be incorporated in Handbook of Applied Hydrology by Ven Te Chow, to be published by McGraw-Hill Book Co., Inc., New York, New York in 1964.

Agency: University of Illinois, Engineering Experiment Station and Center for Advanced Study.

Previous Digest Report: None.

Research Problem. This research is being conducted to study and develop the methods of synthetic hydrology and the use of mathematical models in the planning and development of water resources systems. The approach is analytical and mathematical, including various methods of probability, programming technique, and operations research. During the past year, an extensive study of the existing literature was made, and new approaches are being developed and tested. (VTC)

27. MUNICIPAL BUDGETING IN ILLINOIS: SOME PRELIMINARY OBSERVATIONS

Main Investigator: Thomas J. Anton.

Status of Research and Publications: Draft completed; publication expected shortly.

Agency: University of Illinois, Institute of Government and Public Affairs.

Previous Digest Report: None.

Research Problem. The chief purpose of this investigation was to describe the procedures followed by three Illinois cities (circa 100,000) in putting together their budgets. Viewing budgeting behavior as a form of decision-making behavior, the research focused on the questions "How are issues or problems defined?," "How are alternative policies formulated?," and "What criteria are used to choose between alternatives?"

Method of Study. Interviews with local officials were the principal sources of data, supplemented by newspaper clips and other available documentary materials.

Major Findings. The budget process was discovered to be substantially identical in the two cities operating under the manager form of government. However, different kinds of decisions were made in the two manager cities. In the third city, operating under the aldermanic form, the budget process differed, but budgetary outcomes appeared to be similar to the outcomes in one of the manager cities. (TJA)

28. BUDGETING IN THE ILLINOIS POLITICAL SYSTEM

Main Investigator: Thomas J. Anton.

Status of Research and Publications: Research completed; monograph in preparation.

Agency: University of Illinois, Institute of Government and Public Affairs.

Previous Digest Report: None.

Research Problem. This study is designed to describe and explain the system of behavior in terms of which the State of Illinois formulates its biennial budgets. Though focused principally on the activities surrounding the adoption of the budget for the period 1963-65, the study also draws upon relevant historical data concerning persistent patterns of budgeting activity. The activity itself is treated as a form of decision-making behavior and the patterns which emerge are viewed as products of organizational, rather than individual, rationality. Conclusions then attempt to assess the significance of budgeting in terms of the functions performed by this activity in the Illinois political system.

Method of Study. The study is built upon data gathered through an extensive interview program, observation of budget activity, and review of existing literature with regard to Illinois finance. An initial program of interviews with budget officials from various state agencies was followed by further interviewing and observation of budget preparation in two state departments. The budgets of these agencies were then followed through successive stages of the budget process to provide a firm basis for generalizations about that process. Extensive observation of committee hearings, legislative debate and other legislative activity provides the basis for an assessment of the relative importance of the various participants in the budget process and the kinds of decisions they produce. (TJA)

29. SOME ECONOMIC RECONSIDERATIONS OF ZONING--REMEDIAL, EMERGENT, AND UTOPIAN

Main Investigator: Dean Rickenbach.

Status of Research and Publications: Completed and submitted as doctoral dissertation.

Agency: Indiana University, Graduate School of Business, Department of Economics.

Previous Digest Report: 10:1-31.

Research Problem. To examine historical and contemporary concept of zoning and apply formal economic theory in an analysis of that phenomenon. Question study attempts to answer is: How can zoning be made more effective as a tool to implement city planning? Question is prompted by disappointing literature on zoning, unsatisfactory results of zoning and city planning, and belief in efficacy of market mechanism of decision making.

Major Findings. To analyze the extent to which externalities can develop in a competitive market system a deductive model was used. By comparing different combinations of land-uses, external effects were deduced. It was shown that in combinations of land-uses, external effects can be classified as either neutral, unilaterally complementary or unilaterally uncomplementary and mutually complementary or mutually uncomplementary. Competitive forces can be expected to preclude the need for zoning in many land-use mixes and only when external diseconomies exist or where they are potentially a threat, do we find private incentives for zoning. External diseconomies provide justification for zoning legislation.

It was pointed out that the special features of urban property do not violate the necessary conditions for competition, and that a competitive conceptualization is appropriate for analyzing the impact of external diseconomies on urban property. This impact centers on the demand side. Introduction of external diseconomies reduces the demand (i.e., the capital value) for the property it directly affects. Since external diseconomies are related to "individual tastes" we can expect them to vary from one individual to another. The market impact of external diseconomies is capricious in nature and functionally related to individual tastes, incomes, location, and the supply and demand of "affected" and "unaffected" structures. In general, however, external diseconomies tend to raise rents on unaffected property and lower them on affected property.

It was shown that existing or potential external diseconomies adversely affect the decision to invest in urban property. Moreover, granted certain assumptions, external diseconomies can adversely influence the volume of building, the building-to-land intensity, the design of buildings, and the durability and quality of construction going into new buildings, and consequently can influence the pattern and level of metropolitan growth.

An examination of "imperfect zoning" in the political process of zoning indicated a tendency to over-zone intensive uses of property. Improper zoning admits weaknesses and incongruities in the democracy of zoning when "special" privileges are granted to certain individuals. Problems of under-zoning are not directly attributed to the politics of zoning.

Application of economic analysis to the institution of zoning indicates (1) the economic justification for zoning, (2) the nature, impact, and problems of external diseconomies in urban property, and (3) how zoning can improve patterns of land utilization or make them worse. While economic analysis can indicate the need/or effects of zoning, political analysis indicates that these needs and effects are likely to be compromised. Flexibility and adaptability in zoning are major policy needs. Accordingly, a number of policy implications were examined, and suggestions for further study were made. (JWM)

30. REMEDIAL PROGRAMS FOR LONG-TERM UNEMPLOYED BLUE-COLLAR WORKERS

Main Investigator: Kenton L. Anderson.

Status of Research and Publications: Original study completed in 1961. Revised and updated in 1963.

Agency: Indiana University, Graduate School of Business, under sponsorship of U. S. Area Redevelopment Administration.

Previous <u>Digest</u> Report: 10:1-32.

<u>Research Problem</u>. A study of 1,280 blue-collar temporary extended unemployment compensation claimants last employed in manufacturing, and whose residence is in or adjacent to Vanderburgh County, Indiana. Study presents and analyzes data concerning selected personal, economic, and social characteristics, and examines certain hypotheses regarding relationship of these characteristics to each other and to length of unemployment.

<u>Major Findings</u>. (1) All blue-collar skill levels, i.e., skilled, semi-skilled, and unskilled, should be included in any proposal to improve the long run employability of workers at the lower end of the occupational ladder. (2) Female, as well as male workers are in need of education, training, and retraining programs. This conclusion is supported by the fact that the sex and skill level variables in this study were related and the relationship was significant at the .001 level of confidence. (3) Almost seven-eighths of all claimants in this study are under 55 years of age and thus, hopefully, have at least ten more years of gainful employment. Of these claimants, 16 per cent are skilled, 35 per cent are semi-skilled, and 49 per cent are unskilled. (4) Of all three skill classifications, skilled claimants had completed relatively more years of school than semi-skilled claimants and they in turn had completed more years of school than unskilled claimants. However, given the projected upturn in unemployment for workers with low skills and number of years of school, it is evident that skilled claimants should be included in proposals for further education, training, and retraining workers with inadequate formal education and occupational skills. (5) Most of the primary wage earners in this study would probably be very unlikely candidates for relocation to another area or for retraining programs, since almost one-half had three or more dependents and nearly all dependents are young children unable to shift to a non-dependent status should the budget be pinched further in order to participate in a retraining and/or relocation effort. (6) Less than one-fifth of all claimants lived in "redevelopment areas" in Evansville, but nearly half were under 35 years of age. This age group accounts for one-half of all semi-skilled and unskilled claimants living in this area. Therefore, efforts to raise the education level and/or specific job skills should be focused primarily on these claimants. (7) Given the number of young children of the claimants, the place of residence in the area, and length of residence in the area (most claimants had lived in the area over 20 years), efforts to relocate workers in other areas of the nation with better employment opportunities should be centered on claimants living in urban areas and specifically in larger metropolitan areas. These claimants are younger, may have weaker ties to the community, and therefore, are more willing to move than claimants living in smaller cities or rural areas. (8) Efforts to improve the employability of claimants in this study should be focused on the younger urban claimants at the lower level of educational attainment and skill. (JWM)

31. BUSINESS RESPONSE TO AGRICULTURAL CHANGE

Main Investigators: Wilbur R. Maki and Jerald R. Barnard.

Status of Research and Publications: Research and analysis about three-fourths complete. Three publications will be completed Spring 1964: (1) Iowa Economic Projections and Interindustry Relations, 1954-1974, Mimeographed report of the Iowa College - Community Research Center; (2) Prospects of Iowa's Economy and People in 1974. Part I: Agricultural Change and State Economic Growth. Research Bulletin of the Iowa Agricultural and Home Economics Experiment Station, and Center for Agricultural and Economic Development Cooperating; and (3) Prospects of Iowa's Economy and People in 1974. Part II: Agricultural Trading Patterns and Regional Development, Research Bulletin, Iowa Agricultural and Home Economics Experiment Station.

Agency: Iowa State University, Agricultural and Home Economics Experiment Station, in cooperation with Iowa College - Community Research Center, and Center for Agricultural and Economic Development.

Previous Digest Report: None.

Research Problem. The agricultural revolution in Iowa has been accompanied by many social and economic problems. Principal among these has been the decline in rural population with its social and economic impact upon local business and social institutions. The objectives of this study are, therefore, to provide information and understanding of the specific effects of a changing agriculture upon business and social institutions in different areas of the state and to ascertain the relation of different policy instruments in the private and public sectors that may be used to promote the economic growth of the state.

Previous Relevant Research. (1) Wright, Deil S., Robert W. Marker, and Garlyn H. Wessel, A Half-Century of Local Governmental Finances: The Case of Iowa - 1910-1960, Institute of Public Affairs, University of Iowa, Iowa City, 1963; (2) Kaldor, Donald R., Ward W. Bauder and Marvin W. Troutwein, Impact of Industrialization on Farming and Farm Living in an Eastern Iowa Community, Research Bulletin, Iowa Agricultural and Home Economics Experiment Station; (3) Funk, Herbert, Effects of Industrialization on Business Firms in a Rural Area, Unpublished Ph. D. dissertation, Iowa State University, 1963.

Method of Study. The general characteristics of the Iowa economy were first studied in their historical setting. The prospective growth of the state economy was ascertained initially by extrapolation of historical trends of population, labor force, employment, income and productivity. The structural characteristics of the state economy were developed through use of a 33 sector Leontief input-output model for the base year 1954. The impact of agricultural change on Iowa's economic growth was studied in terms of new industries and accelerated rates of industrial development. Needed business and institutional adjustments to agricultural change also were studied to relate the effects of state-level estimates of business activity to the problems of individual communities and their various business activities. Throughout the study emphasis was primarily upon the major determinates of economic change--population, employment, income, and wealth. (JRB)

32. ECONOMIC APPRAISAL OF REGIONAL ADJUSTMENTS IN AGRICULTURAL PRODUCTION AND RESOURCE USE TO MEET CHANGING DEMAND AND TECHNOLOGY

Main Investigator: Ray F. Brokken.

Status of Research and Publications: Present phase of project to be completed in 1963. Publication of model and results will appear in a State Agricultural Experiment Station Bulletin or a USDA Technical Bulletin in the latter part of 1964.

Agency: Iowa State University, Agricultural and Home Economics Experiment Station, under sponsorship of Farm Production Economics Division, Economic Research Service, U. S. Department of Agriculture.

Research Problem. Objective of study is to determine "optimal" location of crop and livestock production among many producing areas within the United States of America under various assumptions regarding regional product demands and levels of technology. The criterion of least total cost of production is taken as the condition for optimality.

Previous Relevant Research. Earlier phases of this project dealt with the production of feed grains and wheat. Optimal spatial production patterns were determined using several different linear programming models. This work is reported in: (1) Egbert, Alvin C. Programming regional adjustments in resource use for grain production. Unpublished Ph. D. thesis. Ames, Iowa, Library, Iowa State University of Science and Technology. 1958. (2) Egbert, Alvin C., and Heady, Earl O. Regional adjustments in grain production: a linear programming analysis, U. S. Department of Agriculture. Agricultural Research Service. Technical Bulletin 1241, and supplement, 1961. (3) Egbert, Alvin C., Heady, Earl O., and Brokken, Ray F. Regional changes in grain production. Center for Agricultural and Economic Adjustment. Iowa State University, Ames, Iowa, CAEA Report 14T. 1962.

Method of Study. Several linear programming models of crop and livestock production and distribution are employed. Each model features a spatial situation involving many crop producing areas within 20 larger livestock producing and product demand regions for the United States. Each model features production alternatives in feed grains, wheat, soybeans, cotton and harvested roughage in each crop producing area. Land use adjustment possibilities allow crop production areas to shift from intensive to extensive land use alternatives or non-use of land. The livestock production possibilities deal with the production of milk, beef and pork. Interregional transportation possibilities for feed, livestock, and livestock products are also featured. Three basic models are proposed: (1) a model employing coefficients for a historical period will be used to compare the results of the crop-livestock production-distribution model with pattern of wheat and feed grain production obtained from a more aggregative model dealing only with wheat and feed grains, (2) a model that will employ coefficients representing the level of technology in 1965, and (3) a model that will employ a set of normative coefficients. (RFB)

33. FACTORS AFFECTING THE DEMAND FOR FARM LABOR

Main Investigator: Glenn A. Helmers.

Status of Research and Publications: Project was initiated in 1962 and will be completed sometime in 1964. Publication will be in form of doctoral dissertation and a U. S. Department of Agriculture bulletin.

Agency: Iowa State University, Agricultural and Home Economics Experiment Station, under sponsorship of Farm Production Economics Division, Economic Research Service, U. S. Department of Agriculture.

Previous Digest Report: None.

Research Problem. Analysis of supply of and demand for resources used in agricultural production. Farm labor as a resource in agriculture has declined in absolute amount and in relation to other inputs. Capital inputs have substituted for farm labor in agricultural production. Technology and other forces have been important in changes in labor utilization and also in substitution of capital inputs for farm labor. Regionally there have been differential changes in farm labor utilization and the relation between hired and family farm labor.

The objective of this study is to analyze the structure of the demand for hired, family, and total farm labor. The supply structure of farm labor will also be considered due to the difficulty in separating supply and demand of labor. Several objectives will be studied as they relate to the demand, supply, and utilization of farm labor in agriculture: (1) the relation of non-farm economic conditions to labor leaving agriculture; (2) the forces which have caused capital inputs to be substituted for labor in agriculture; (3) the effect of farm returns and the ratio of farm to non-farm returns to labor utilization in agriculture; (4) what effect technology, prices of competing resources, and other prices have on farm labor; (5) determine the time lags required before these forces operate; (6) examine the structure of demand and supply of hired, family, and total farm labor nationally and regionally.

Method of Study. Several regression models will be used in analyzing the empirical demand for family, hired, and total farm labor. This will be done nationally and regionally. Use will be made of different functional forms and time lags will be stressed. Time series and cross sectional analysis will be employed. Because of the difficulty in separating the supply and demand of farm labor, especially family labor, the simultaneous equation approach will be used in the study. (GH)

34. GROWTH AND INVESTMENT IN THE LIVESTOCK SLAUGHTERING INDUSTRY

Main Investigators: Wilbur R. Maki, Richard Suttor and Roger Truesdale.

Status of Research and Publications: Theoretical model has been specified in general form and part of needed data have been collected. A research bulletin may be published within 6 to 9 months.

Agency: Iowa State University, Department of Economics and Sociology.

Previous Digest Report: None.

Research Problem. To achieve a better understanding of the forces within firms and the relationships between firms which cause growth in the meat packing industry. Study will provide a basis for future research dealing with changes in marketing efficiency in farm related businesses, and the consequences of these changes for both farmers and consumers.

Previous Relevant Research. Some of the relevant theoretical background for this study is provided by A Behavioral Theory of the Firm by Richard M. Cyert and James G. March, and Microanalysis of Socioeconomic Systems: A Simulation Study by Guy Orcutt, et. al. One of the more relevant empirical studies is the University of California Giannini Foundation Research Report No. 260, Economies of Scale in Beef Slaughter Plants by Samuel H. Logan and Gordon A. King.

Hypotheses. One series of hypotheses pertain to rate of capital expenditures in meat packing facilities in relation to the supply of livestock and the degree of the competition for the livestock supply area of the meat packing plant. A secondary series of hypotheses pertain to the nature of the long-run average cost of production curve for slaughtering plants (i.e., it is nonincreasing for all levels of plant capacity but when the cost of livestock procurement are considered the long-run cost curve becomes increasing after a certain level of capacity is attained. The exact point at which the function becomes increasing will depend upon the density of livestock production and the nature of competition for the supply of livestock.)

Method of Study. A microeconomic simulation model of the livestock slaughtering industry in Iowa is being developed. Costs of production, cost of obtaining livestock, transportation costs, and distribution and selling costs will be combined into total short-run cost function for the firm. Short-run cost functions and fixed costs will be used in deriving long-run cost or planning curve. Also, data on density of livestock production and location and size of present slaughtering facilities in Iowa will be needed for empirical implementation of the model. Model will then be used to simulate competitive interaction and growth and decline of firms over time. (RES)

35. STRUCTURAL ECONOMIC INTEGRATION

Main Investigator: Paul van Moeseke.

Status of Research and Publications: Theoretical analysis completed. Data for the E.E.C. are now being collected with considerable difficulty. Publication of E.E.C. input-output tables (expected end 1963) should allow publication as a journal article by mid-1964.

Agency: Iowa State University, Department of Economics and Sociology, under sponsorship of National Science Foundation.

Previous Digest Report: None.

Research Problem. An interindustry approach to the study of efficient economic integration among regions with known input-output flows. The E.E.C. provides the empirical background of the study.

Part of the theoretical basis of the project are extensions of input-output analysis that incorporate choice and substitution on both supply and demand sides as explained, e.g., in Chenery and Clark /1, ch. 4/.

Method of Study. Various models are studied, aimed at extremizing by linear programming a chosen scalar optimand (joint gross product, total factor use) under restrictions deriving from capacity and factor supply forecasts and minimum (e.g. contemporary) final-use levels. Conjunction of anticipated capacity and resource limitations with demand minima generates an adjustable program sequence of gradual transition toward adoption of the most efficient techniques. Choice, within each industry, lies with the set of 'regional' production functions. The requirement that all industrial sectors must appear in the final solution substantially alleviates the computational burden. One may then derive several efficiency measures of integration, with respect to any of the aforementioned scalar criteria, as ratios between the programming optima and the actual current sums of the corresponding values per nation. The concept of an efficiency measure is related to Debreu's /2/ coefficient of resource utilization.

Further, the basic activity-analytic model is adapted to encompass, next to the dual categories of outputs and quasirents, the ternary category of regional expansion coefficients. The model allows the determination of equilibrium vectors of (a) production levels, (b) quasirents, and (c) regional expansion coefficients from given target vectors of (1) wage levels (per industry), (2) national products (per region), and (3) final uses (per commodity). Although nonlinear, the model can readily be linearized.

Previous Relevant Research. (1) Chenery, H. B. and Clark, P. G. Interindustry economics. Wiley, New York, 1959; (2) Debreu, G. The coefficient of resource utilization. Econometrica 19: 273-92, 1951. (PVM)

36. EFFECTS OF GOVERNMENT FARM PROGRAMS UPON REGIONAL CHANGES IN CROP PRODUCTION

Main Investigator: Norman K. Whittlesey.

Status of Research and Publications: Project currently near completion. Final report, a doctoral dissertation, will be forthcoming by January 1964. A technical bulletin reflecting the findings of this study should be published during 1964.

Agency: Iowa State University, Department of Economics and Sociology, under sponsorship of Economic Research Service, U. S. Department of Agriculture.

Research Problem. To estimate effects of changes in farm programs directed toward wheat and feed grains on regional crop production and resulting effects on equilibrium prices of land and farm products. Study uses interregional competition linear programming models for estimating shifts in regional crop production in United States agriculture. The criterion of least total cost of production and distribution of farm products is used for determining the optimum allocation of crop production.

Previous Relevant Research. (1) Egbert, Alvin C. Programming regional adjustments in resource use for grain production. Unpublished Ph. D. thesis, Ames, Iowa, Library, Iowa State University of Science and Technology. 1958. (2) Egbert, Alvin C., and Heady, Earl O.

Regional adjustments in grain production: a linear programming analysis. U. S. Department of Agriculture. Agricultural Research Service. Technical Bulletin 1241. 1961; Technical Bulletin 1241, Supplement. 1961.

Method of Study. Linear programming has been used to study the spatial equilibrium of the production and distribution of wheat, feed grains, soybeans, and cotton in U. S. agriculture. The models are composed of 144 crop producing regions and 31 consuming regions including the entire conterminous United States. Production of all relevant crops in each producing region is restricted by available cropland and production quotas for each major crop. The land restraints and production quotas are used to simulate various government programs involving wheat and feed grains. Also, variations in assumed price levels were used to reflect changes in demand for farm products and the resulting effects upon regional production. One model features the recognition of land quality within producing regions. Thus, the marginal cropland within a producing region may be retired or employed to satisfy the conditions of optimality described above. (NKW)

37. DESIGN OF THE CENTRAL CITY

Main Investigator: Donald Appleyard.

Status of Research and Publications: In progress; no termination or publication date has been set.

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University.

Previous Digest Report: None.

Research Problem. A study of the design possibilities of the central district of cities. The work builds on earlier studies of perceptual images of people who live and work in cities. The focal point is the fit between the visual image and the functional pattern. The principal survey and design media is the path sequence and network. The study is aimed at suggesting guidelines for urban design that combine presently unappreciated visual qualities with a sense of meaning and purpose. (RWC)

38. POLITICAL ECONOMY

Main Investigator: Edward C. Barfield.

Status of Research and Publications: In process. No publication or termination date has been set.

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University.

Previous Digest Report: None.

Research Problem. An analysis of the logic of choice and of the structure of the choice mechanism in situations in which prices are not set by a competitive market; the theory is developed with special reference to choice problems faced in metropolitan areas. (RWC)

39. VOTING ON PUBLIC EXPENDITURES ISSUES

Main Investigators: Edward C. Banfield and James Q. Wilson.

Status of Research and Publications: In process. No definite publication or termination date has been set.

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University, under sponsorship of Rockefeller Foundation.

Previous Digest Report: None.

Research Problem. To determine which sectors of the electorate tend to vote for and against various types of local public expenditures issues. Work will be based on an analysis of voting returns from several cities, Cleveland, Chicago, Miami, Los Angeles, and others. (RWC)

40. URBAN GROWTH AND THE FORM OF THE CITY

Main Investigator: Stephen Carr.

Status of Research and Publications: In process. No publication date has been set.

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University.

Previous Digest Report: None.

Research Problem. To evaluate changing perceptual form and public image of Rome at various periods during its modern growth. Special attention will be paid to fit of the images, with changing activity patterns, social structure, and basic site and history. An important purpose is to study the adaptability of such a rich and unified city form to the exigencies of rapid growth. (RWC)

41. METROPOLITAN PLANNING IN THE UNITED STATES

Main Investigators: Charles Haar, William Nash, Bernard Frieden, Ralph Conant, and Frank Colcord.

Status of Research and Publications: In process. Completion expected in January, 1964, as a mimeographed report to U. S. Senate Subcommittee on Intergovernmental Relations.

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University.

Previous Digest Report: None.

Research Problem. To assess effectiveness of metropolitan planning in the United States. Study will also seek to determine what new federal policies should be advanced to strengthen metropolitan planning, and what political obstacles at the local level stand in the way of improved planning efforts. Field studies in 15 metropolitan areas focus on the character of existing regional planning agencies, and on the political acceptability of certain legislation now pending in the U. S. Senate Subcommittee on Intergovernmental Relations. (RWC)

42. OPTIMAL ALLOCATION OF URBAN TRAFFIC FLOWS

Main Investigator: Alan Hershdorfer.

Status of Research and Publications: In process.

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University.

Previous Digest Report: None.

Research Problem. To formulate a mathematical model of traffic routing controls applicable to urban street networks which takes into account the relation between traffic volume and velocity, the dynamic evolution of congestion conditions, and the desirability of applying controls so as to minimize total system cost. (RWC)

43. FAIR HOUSING DEMONSTRATION PROJECT IN BOSTON: AN EVALUATION OF TECHNIQUES

Main Investigators: Helen Kistin, James Beshers, Thomas Pettigrew, Chuck Tilly, and James Q. Wilson.

Status of Research and Publications: In process. Completion expected in 1965.

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University; Fair Housing, Inc., Boston; and U. S. Housing and Home Finance Agency.

Previous Digest Report: None.

Research Problem. To evaluate methods developed by Fair Housing, Inc. of Boston to identify sales and rental housing opportunities for families of ethnic minority and other socially disadvantaged groups in the metropolitan area. The evaluation is intended to provide guidelines in other communities where similar organizations seek fair housing goals. The report may also have a significant bearing on federal policy development in fair housing programs. (RWC)

44. URBAN SOCIAL STRATIFICATION

Main Investigators: Edward Otto Laumann, Charles Ackerman, and Andrew Effrat.

Status of Research and Publications: Research in process. An initial article, "Ethnic Congregation - Segregation, Stratification, and Assimilation," will be published in the May 1964 issue of Social Forces. (Co-authors James S. Beshers and Benjamin Bradshaw).

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University.

Previous Digest Report: None.

Research Problem. Nature of the impact of occupational rank and other status characteristics (ethnicity, education, class identification) on social interaction, social mobility, and economic ideology in the urban setting. Social interaction is taken to include intermarriage, friendship, residential and associational patterns. (RWC)

45. SOCIAL CHANGE AND POLITICAL UPHEAVAL IN FRANCE, 1930-1960

Main Investigator: Charles Tilly.

Status of Research and Publications: In process. Several articles and monographs will be published in various places over the next four years. The first of these is "Reflections on the Revolutions of Paris," forthcoming in Social Problems.

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University.

Previous Digest Report: None.

Research Problem. To develop classifications and measures of the forms and intensities of political disturbances in France from 1930-1960; to analyze the evolution of the form and the incidence of political disturbances during that period; to investigate in detail the relationship between major social changes, especially urbanization, and the appearance of political disturbances. (RWC)

46. THE ASSIMILATION OF MIGRANTS TO AMERICAN CITIES

Main Investigator: Charles Tilly.

Status of Research and Publications: In progress; no termination or publication date has been set. An article on the study, "The Assimilation of Rural and Urban Migrants to Wilmington, Delaware," was presented to the Rural Sociological Society in August 1962.

Agency: Joint Center for Urban Studies of Massachusetts Institute of Technology and Harvard University, and University of Delaware, under sponsorship of U. S. Department of Agriculture.

Previous Digest Report: None.

Research Problem. To develop and test a theory to account for differences in rates and modes of assimilation among migrants to cities. Research deals especially with relationships of (a) modes and rates of assimilation of migrants to different aspects of urban organization, (b) transfer of statuses, memberships and skills from old community to new, (c) nature of initial attachments of migrants to their cities of destination (e.g. via family vs. via transfer within a national firm, (d) similarity of communities of origin and destination, (e) status of the migrant. Principal data are drawn from 300 interviews with a quota sample of household heads in Wilmington, Delaware. (RWC)

47. AN APPLICATION OF GRAVITY MODEL THEORY TO A SMALL CITY IN KANSAS USING A SMALL SAMPLE OF ORIGIN-DESTINATION DATA

Main Investigator: Bob L. Smith.

Status of Research and Publications: Completed. Report available from Highway Planning Department, Kansas Highway Commission, Topeka, Kansas.

Agency: Kansas State University, Engineering Experiment Station, under sponsorship of Kansas Highway Commission and U. S. Department of Commerce, Bureau of Public Roads.

Research Problem. Application of the gravity model in which the model parameters--trip production, trip attraction and travel time factors--were estimated using data obtained from a small sample of home interviews taken in a sample of origin-destination (O-D) survey zones.

Method of Study. A gravity model was calibrated using the estimations of trip productions and attractions obtained from the small sample of O-D interviews. An additional model was calibrated using the productions and attractions obtained from the comprehensive O-D survey. The resulting distributions were compared with the distributions obtained from the comprehensive survey.

In the sample study, information obtained from interviews from 402 dwelling units in 14 selected zones in the survey area was utilized. The comprehensive O-D study consisted of 2,528 interviews obtained from a 20 per cent sample of dwelling units from all 83 zones in the survey area. The comprehensive survey was conducted in 1959 in Hutchinson, Kansas which had a population of approximately 38,000 persons. The study was limited to the consideration of auto-driver trips in which each trip had both its origin and destination within the survey area.

The auto-driver trips were classified according to trip purpose and the three trip purposes of home-work, home-other, and non-home were studied in detail.

The study was concerned with "present day" traffic rather than with the estimation of future traffic; however the data used in the development of estimating equations for trip attractions and trip productions were those which one could expect to be obtained quickly and economically, and that one could expect to estimate reasonably well for the future.

Major Findings. Current zonal trip productions and attractions were adequately estimated from the mathematical models developed from the small sample of home interviews. Best estimates resulted for home-based trip productions, but estimates of non-home-based trip productions and all trip attractions appeared to be adequate for planning purposes.

Travel time factors for the distribution of trips were satisfactorily estimated by calibrating the gravity model with trip length frequency data developed from the small sample of home interviews.

The gravity model using trip productions and travel time factors developed from the small sample of home interviews distributed trips among all zones to give an adequate reproduction, for planning purposes, of the trip distribution obtained in the comprehensive O-D study. (BLS)

48. KANSAS CITY MUNICIPAL ELECTION STUDY

Main Investigators: John G. Grumm and Howard Neighbor.

Status of Research and Publications: In final analysis and writing stage. Plan to publish as a book through a commercial or university press.

Agency: University of Kansas, Department of Political Science, under sponsorship of Community Studies, Inc., Kansas City, Missouri.

Previous Digest Report: 9:2-68.

Research Problem. To investigate voter attitudes, motivation and behavior and the role played by political organizations and leaders in a local non-partisan election.

Hypotheses. It is hypothesized that the attitudinal structure of the voter in regard to local politics is partially related to attitudes and identifications associated with national politics. Although the institution of "non-partisan" elections is designed to obscure the connection between local elections on the one hand and state and national on the other, the fact that party identifications has been found to play such a major role in voting in the latter suggests that it must play some role in structuring voter attitudes toward local electoral contests. The manner in which the local political groupings adjust to these conditions, and how their goals and strategies are affected by them will also be subject to investigation.

Method of Study. The study is based primarily on a sample survey of the Kansas City electorate. A random area sample of approximately 800 adult residents of the city was drawn. Each person in the sample was interviewed three times: just before the primary, just before the general, and just after the general election. The sample survey was supplemented by interviews with local leaders and party workers.

Major Findings. Preliminary results indicate that there is considerable confusion on the part of the average voters as they approach the local election. This is probably the major cause of low voter turnout in the local as compared to the national elections. In this setting the major political parties were not very active, as such, but a number of other political organizations (some of them transitory) became quite active. One of their major activities was the passing out on election day and before, of printed "slates" or "sample ballots." The voters relied heavily on these to help structure the otherwise confusing perceptions of the local campaign. The role played by the voters' national party affiliations is significant but indirect. Many of the differences found between the voting behavior of Republicans and Democrats in surveys of national elections held true for this local contest. For example, the Republican-oriented voters participated in the local elections (both primary and general) to a significantly greater degree than did the Democratic-oriented voters. (JGG)

49. GAMING-SIMULATION STUDIES IN URBAN RESOURCE ALLOCATION

Main Investigator: Richard D. Duke.

Status of Research and Publications: Rudimentary simulation has been completed. Current efforts are devoted to testing and elaboration of design features. Several successful trial "runs" have been completed. A report is anticipated in the fall of 1964.

Agency: Michigan State University, Continuing Education Service, Institute for Community Development and Services under a National Science Foundation Faculty Fellowship.

Research Problem. The objective of the research will be to develop a dynamic gaming-simulation of urban land use decision processes to be used primarily for teaching purposes. Its potential value includes its ability to: make explicit the decision-making processes involved; enable a player to view the consequences of a previous decision while the circumstances are fresh in his mind, through compression of time span; force the player to view the decision from the various roles portrayed, creating a broadened perspective for his future actions; familiarize the player with the relative quantities (of land or money, for example) which are involved in the decisions; introduce various decision assisting tools (capital improvement programming in this case); force the student to evaluate the goals, objectives and value structure which are inherent in his decision.

Previous Relevant Research. Gaming-simulation techniques have been developed and successfully employed in many areas, including business management, war games, and industrial planning; chess is a well known example of an early form of this technique. Guetzkow demonstrates an immediate application of this technique for teaching in the area of International Relations. In addition, he argues the usefulness of this tool for theory development: a game or model is constructed, forcing clarification and enunciation of existing theory; the game is played under varying circumstances, the analysis of play result suggesting change or additions to the theoretical base. This process can be repeated indefinitely.

Method of Study. The gaming-simulation, as now conceived, would be a three-player game with "upset" techniques designed against each player. A fourth player would exchange places with any player "bumped" by the automatic upset provisions. The major characteristics of the gaming-simulation are that simultaneous decisions are required on a two-level basis at each "cycle." The first level of decision is private and involves personal gain; the second involves some public issue, generally a capital improvement. Resources are limited for each level of decision, and each decision results in deterministic consequences at a later date. Second level decisions will revolve around the capital improvement program, with each player being able to influence, and/or be influenced by the program. Attempts will be made to introduce new variables and techniques, and different categories of players. If available, teams will be selected by general category (e.g. city officials, graduate students, faculty, professional planners, real estate men, politicians, etc.) and the results of their play noted. Observations will be maintained on the number of decisions reached, growth rates attained, level of services rendered, etc. These will be analyzed in the final report.

Techniques for increasing the number of variables, the number of players, and the rate of play will be explored. Research potentials of the technique will be considered, particularly as a device for estimating the effects of alternative decisions and for determining the best strategy to achieve a particular objective. Experiments in teaching a particular technique (e.g. Capital Improvement Programming) will be considered. (RDD)

50. MICHIGAN VOCATIONAL EDUCATION EVALUATION STUDY: EVALUATION OF CURRICULUM

Main Investigator: Sigmund Nosow.

Status of Research and Publications: Completed. Available December, 1963 from Michigan State University, School of Education as Chapter III of entire study, or in monograph form from School of Labor and Industrial Relations

Agency: Michigan State University, School of Labor and Industrial Relations, under sponsorship of Michigan State Department of Public Instruction, Division of Vocational Education.

Previous Digest Report: None.

Research Problem. Evaluation of contemporary vocational education in Michigan's public secondary schools in light of the emergent structure of the labor force and the changing needs of the economy.

Method of Study. The adequacy of curriculum was determined by whether the offerings in vocational education seemed consistent with the needs of those labor markets for which youths were being prepared.

Three crucial sets of variables were considered significant to vocational education (other than quality of facilities, teachers, and counseling): the changing occupational and industrial structures of the local community, the state, the region, and the nation; demographic patterns of change such as age and sex composition of given communities, participation rates in the labor force, and patterns of in- and out-migration within the state and regionally; and finally, the actual curricular offerings-types and relative distributions of courses in the three fields of vocational preparation, agriculture, trade and industry, and business (office and distributive).

Labor force and demographic data for the entire state and for each of the counties were brought together for the decades 1940-1950 and 1950-1960. These were projected into the 1970's and were compared with past trends and future projections for the region and for the entire country. Not only were changing job opportunities explored, but the background characteristics of the unemployed (age, sex, color, and education) were extensively analyzed.

Curricular offerings for every public school district in Michigan which had kindergarten through 12th grade classes were brought together. Since the county has been widely used as the operational unit for labor market and demographic data, school districts were also combined for entire counties for the analysis.

Major Findings. While in the broadest sense the problems of vocational education reflect marked shifts in the entire economy as they affect employment opportunities and the changing occupational structure, different types of needs and planning for vocational education emerge for the varied localities and school districts. While educators must recognize statewide, regional, and national economic and social trends, they must also recognize the problems characteristic of their own communities.

In Michigan, as in most of the industrial states of the North Central region, the rural areas, removed from the densely populated industrialized cities, have continuously lost their youth through out-migration. Vocational training for local labor markets, often reflected in undue concentration in vocational agriculture, for example, makes little sense. Comparative data of the type presented in this study allow administrators to evaluate their own programs in the light of curricular offerings in other school districts and areas.

As the data suggest, local communities often offer rather diverse programs in an effort to adequately prepare youths for the world of work, both for those who remain at home and those who migrate elsewhere. However, communities with small enrollments frequently dissipate resources in an effort to face realistically the demands of the labor market beyond local boundaries. It is apparent from our analysis that area-wide vocational programs provide one of the few adequate solutions to the problem of training out-state youth for the world of work.

As well as the problem of dropouts which are of major concern to both rural and urban areas, educators in the larger urban centers are beset by the inability of youths from socially underprivileged groups to find job placement, with or without vocational training. Jobs traditionally available to the poorly educated and the socially underprivileged are rapidly dwindling making training for employment an absolute responsibility for all segments of the community.

In order to relieve some of the pressure from employment coming from the 18-24 age group serious effort must be made to train as many as are capable for the technical occupations in which there is going to remain a serious manpower shortage. Community colleges which are ideal for providing this type of training must resist the demands to make them into two-year preparatory schools for the senior colleges throughout the state and region. It should also be recognized that educational institutions cannot be expected to face the brunt of this problem without direct assistance and cooperation from industry. (SN)

51. COMPARATIVE STUDY OF U. S. RIVER BASIN PLANNING COMMISSIONS IN SOUTHEASTERN UNITED STATES AND IN TEXAS

Main Investigator: Robert H Pealy.

Status of Research and Publications: Studies of both commissions now in first draft. These will be combined into a single monograph. Publication expected in early spring, 1964.

Agency: University of Michigan, Institute of Public Administration.

Previous <u>Digest</u> Report: None.

<u>Research Problem</u>. To evaluate, from an analysis of the southeast and Texas experience, the usefulness of the study commission form of organization in comprehensive river basin planning.

<u>Previous Relevant Research</u>. This study is related to a previously published monograph by the investigator, entitled <u>Comprehensive River Basin Planning: The Arkansas-White-Red Basins Inter-Agency Committee Experience</u>.

<u>Hypotheses</u>. The basic hypothesis was that the decision-makers of both commissions would, because of their past experience, training, and associations tend to perceive the crucial issues in terms of the interests of the federal water agencies or state interests which the decision-makers represented; their perceptions would therefore tend to cause them to favor those interests in crucial matters. Evidence tends to substantiate the hypothesis. (RHP)

52. INTERSTATE METROPOLITAN AREAS

Main Investigator: John M. Winters.

Status of Research and Publications: Completed and published in Legal Problems of Metropolitan Areas Series, Michigan Legal Publications, Ann Arbor, December 1962. Paperbound, 110 pp. $2.00.

Agency: University of Michigan, Law School, Legislative Research Center.

Previous Digest Report: None.

Research Problem. Twenty-six interstate (and three international) metropolitan areas have special problems arising because different state laws control taxation, planning and zoning, the handling of mass transportation facilities, etc. Three methods are available for effectuating cooperation between the states which each have legal jurisdiction over parts of interstate metropolitan areas: (1) the formal interstate compact, entered into by the concurrence of the states involved and consented to by Congress pursuant to the United States Constitution; (2) various types of working arrangements at the state level without congressional consent; and (3) various types of cooperation by the local governments. Each type of cooperation is discussed in terms of its general legal theory, the actual uses made of it to solve particular problems related to the metropolitan area, its potentialities for expansion for specific purposes, and its general value for these various purposes.

Conclusions. The best policy in dealing with interstate metropolitan area problems is to provide for a general type of local cooperation act and to give any state agencies which deal with these problems the power to cooperate with other states and their local governments. The formal interstate compact with congressional consent should be used only when cooperating governments are unable to solve a particular problem. (WJP)

53. ADMINISTRATIVE LAW AND LOCAL GOVERNMENT

Main Investigator: Bernie R. Burrus.

Status of Research and Publications: Completed and published in Legal Problems of Metropolitan Areas Series, Michigan Legal Publications, Ann Arbor, May 1963. Paperbound, 139 pp. $2.00

Agency: University of Michigan, Law School, Legislative Research Center.

Previous Digest Report: None.

Research Problem. Protection of the individual when he is confronted by administrative action by local government. A detailed examination is made of administrative practices with respect to (1) the issuing of permits, licenses, and certificates and (2) special assessments. Administrative practices of the federal and state governments are sketched briefly to provide a background for the discussion of local law.

Constitutional limitations upon administrative action, rules of practice, procedural limitations, and judicial review (all on the local level) are discussed.

A Model Administrative Review Act for Municipal Governments is presented. Three Appendices show in tabular form how 16 states have enacted Administrative Procedure Acts. There has been no corresponding development at the local governmental level.

"Though by no means complete and all-embiasive as a solution to the problem of the Individual versus the State (in its local manifestation), such minimal limitations...as the Model Act embodies should constitute a valuable first step in realigning the balance between governmental absolutism and individual rights at this level." (WJP)

54. THE FINANCES OF METROPOLITAN AREAS

Main Investigator: Larry Elison.

Status of Research and Publications: Completed. Probable publication date December 1963 as paperbound monograph in Legal Problems of Metropolitan Areas Series. (12th and last in the series.)

Agency: University of Michigan, Law School, Legislative Research Center.

Research Problem. To explore the sources of metropolitan finance and the expenditures made by the metropolitan area within the legal frame of reference in an effort to determine what type of government organization and what variety of tax structure is best suited to function legally, effectively, and economically within the standard metropolitan area.

"A study of the metropolitan financial picture should explain the position of present local financial systems; suggest tax possibilities most likely to break the barricades delaying government reorganization; and suggest alternative types of local organization most advantageous and acceptable based on present tax-fiscal arrangements or the most suitable tax structures for present political organizations. Finally, in proposing financial reformation for local government, it is important to give foremost consideration to flexible plans capable of coping with the continually changing problems encountered in the unpredictable metropolitan format." (WJP)

55. THE POTENTIAL IMPACT OF INTERNATIONAL DEVELOPMENT UPON THE DETROIT AREA

Main Investigator: Richard L. Meier.

Status of Research and Publications: Report in preparation, ready in November 1963.

Agency: University of Michigan, School of Natural Resources, Department of Conservation.

Research Problem. What growth elements in international trade could lead to the enhancement of the economic base of the Detroit area? In what way does the prospective emphasis upon economic development in the poorer parts of the world reflect upon a metropolitan area in the United States engaged in manufacturing?

Major Findings. The largest single opportunity by far is in the production of electric power generating equipment and large electric motors. A technological investigation suggested that this equipment may well move to assembly line production in the next decade and a Detroit location offered transport advantages. A brief impact study was carried out to discover land use conflicts generated.

Conclusion. It is concluded that emphasis upon international specialization is inadequate. The unemployment problem requires solution in provision of local services. New kinds of regional accounts are proposed. (RLM)

56. A MANUAL OF TECHNIQUES FOR THE PREPARATION, CONSIDERATION, ADOPTION, AND ADMINISTRATION OF OPERATING BUDGETS AND A MANUAL OF SUGGESTED PRACTICE FOR THE PREPARATION AND ADOPTION OF CAPITAL PROGRAMS AND CAPITAL BUDGETS BY LOCAL GOVERNMENTS

Main Investigators: Lennox L. Moak and Kathryn W. Killian.

Status of Research and Publications: The study was initiated in March 1961 and has been completed. Publication of the findings is expected in December 1963.

Agency: Municipal Finance Officers Association, under sponsorship of Ford Foundation.

Previous Digest Report: 8:2-67; 9:2-84.

Research Problem. In many respects this is not a research project; in others it is. The objective is to discover and record desirable practices in municipal budgeting. Despite the wealth of literature in the field of budgeting, that relating to processes themselves is comparatively meager. Therefore, harassed finance officers are forced to live "according to their wits" to meet the exigencies of their local situations, particularly in the field of capital budgeting. The current project seeks to determine from existing practices the desirable elements of the operating and capital budget processes and to provide some re-evaluation of those elements traditionally included in these processes as well as those currently excluded.

Previous Relevant Research. Research has been conducted over the past two decades by the Municipal Finance Officers Association in the field of improved budgetary techniques for operating budgets.

Method of Study. An outline was developed for the project detailing certain of the bases of budgeting and the development of municipal budgeting and itemizing each step in the operating and capital budget processes. Primary source materials for the study were received from fourteen cities in the United States and three cities in Canada. Each city submitted selected documents relating to its local budget preparation, adoption, and control procedures. These documents were reviewed and a description of current budget procedures was compiled from the foregoing and the findings of extensive field interviews. Draft materials were reviewed by the representatives of the participating cities, the Committee on Budgeting of the Municipal Finance Officers Association, and consultants engaged for the project.

Major Findings. In an introductory section of the Operating Budget Manual the authors have traced the development of municipal budgeting in the United States and Canada and the bases upon which the budget is built including the legal, political, and economic forces, among others, which influence budgetary requirements. As regards the administrative base, the authors have concluded that given the wide array of organizational patterns which have worked successfully there is no single "best" location for a central budget agency. However, such an agency should be responsible to the chief executive and the choice narrows to three basic alternatives: (1) a principal budget officer who is part of the office of the chief executive, (2) a principal budget officer who heads a cluster of administrative services or housekeeping functions, known as a chief administrative officer, or (3) a centralized department of finance. The manual recommends the specific data to be secured by the central budget agency regarding departmental needs and prescribes a system of forms designed to secure such information. A recommendation is also made as to the allocation of time throughout the budget cycle and the types of information to be transmitted to the operating departments from the central budget or finance office, e.g., price lists, personnel data, and historical data.

Regarding the estimating process used by the departments, the following generalizations have been made with respect to the cities surveyed: (1) in determining work program requirements departmental personnel in each of the cities rely on open-end budgeting or work measurement; (2) in establishing personnel needs work measurement is the principal factor in the majority of cooperating cities; in the remainder historical is relied upon; (3) in the field of contractual services the survey cities, without exception, rely on open-end budgeting coupled with historical analysis; (4) in estimating the cost of materials and supplies, historical analysis and workload measurement account for the methods used in all of the cities; (5) in determining equipment needs, most cities have progressed to the use of a fixed ceiling for items to be replaced. However, in some instances, open-end budgeting is once again utilized.

The manual details specific procedures for the review of departmental requests by the central budget agency, the chief executive, and the legislative body. For example, recommendations have been made for the assignment of budget office personnel to specific departments both during budget preparation and throughout the year; that, if the central budget agency holds independent hearings, those conducted by the chief executive for departmental representatives be on a selective basis; that the budget data submitted to the legislative body be so organized as to facilitate, rather than hinder, that body's study of budget detail as well as a recommendation that staff assistance, either an auditor or specially designated staff, be assigned to the legislative body to aid it in its review.

In the final chapters of the manual the authors describe the system of budgetary controls currently in effect in all of the survey cities, noting that some of these controls (including some of the most widely used controls) work against, rather than for, effective budget execution. For example, the manual inveighs against the unquestioning use of an allotment system, sustained "job freezes," processing requisitions for authorized but unfilled positions through the budget office, etc. Finally, the manual treats of the post-audit of finances and recommends that cities move in the direction of a post-audit of performance.

The introduction to the Capital Budget Manual describes the development of this aspect of budgeting and summarizes the bases on which the budget must be built, detailing only the administrative base. In the field of capital programming and capital budgeting a wide variety of organizational patterns is encountered. The general pattern for assignment of these responsibilities is to (1) an "administrative" planning commission, (2) a planning director subject to a planning commission, and (3) an ad hoc capital improvement program committee. Among these patterns the authors prefer an "administrative" planning commission but this does not foreclose the possibility of the successful use of the other types of arrangement.

The manual recommends the specific data to be secured by the capital program agency regarding departmental needs and prescribes a system of forms designed to secure such information. A recommendation is also made as to the allocation of time throughout the budget cycle. It is further recommended that each department be staffed to discharge the following activities related to the preparation of the capital program it is seeking: (1) maintenance of a comprehensive inventory of the department's physical facilities; (2) maintenance of records showing the patterns of use of such facilities; (3) maintenance of records indicating the cost of operation and maintenance of each of these facilities; (4) provision of estimates of prices of facilities sought, preparation of the preliminary and final plans for such facilities (on its own, in cooperation with another department, or by contract), supervision of the work involved in construction of the facilities; (5) conversion of work program statements into physical facilities; (6) determination of the impact of a new facility on its own operating costs.

Once the departments have prepared their capital program requests, the manual recommends an intermediate review--part of it to be carried out by the central budget agency and part by a technical review unit staffed by architects and engineers that are independent of the departments that have prepared the plans, specifications, and cost estimates for the individual projects. Next, it is the responsibility of the capital program agency to determine changes between the departmental request and any previous requests, relate proposed projects to the city's comprehensive development plan and long-term work programs, hear departmental representatives, prepare a plan of financing, and transmit a recommended capital program to the chief executive. Once again, the details of executive and legislative review are specified as in the Operating Budget Manual. This manual concludes with recommendations concerning the amendment process on the presumption that other elements of capital budget execution are related to other broad fields and therefore not subject to inclusion in a manual such as the current undertaking. (LLM)

57. METROPOLITAN ECONOMIC PROJECTION SERIES

Main Investigators: Mannie Kupinsky and Sidney Sonenblum.

Status of Research and Publications: Development of techniques and collection of basic data well underway.

Agency: National Planning Association.

Previous Digest Report: None.

Research Problem. Projections of population, employment, personal income, and output for about 60 selected standard metropolitan areas. (MK)

58. OCCUPATIONAL EMPLOYMENT PROJECTIONS FOR SOUTHERN STATES

Main Investigators: Mannie Kupinsky and Paul Schweitzer.

Status of Research and Publications: Study completed.

Agency: National Planning Association.

Previous Digest Report: 9:2-55; 10:1-38.

Research Problem. Analysis of state changes in occupational distribution of employment under the impact of emerging economic conditions such as new technologies, changing consumption habits, interregional migration of plant and people, and the private and public policies designed to adjust to these changing conditions. (MK)

59. REGIONAL ECONOMIC PROJECTIONS SERIES

Main Investigators: Sidney Sonenblum, Mannie Kupinsky, and Ahmad Al-Samarrie.

Status of Research and Publications: Total employment for 1947, 1957, 1960 and 1976 estimated for each state by major industry division and two-digit manufacturing industries. Personal income and components (such as labor income, proprietors' income, etc.) and gross products originating and components (such as employee compensation, dividends, interest, etc.) estimated for each state for 1947, 1957, and 1976. Total population projected to 1976 for each state. Estimates of age and sex distribution of population and labor force in 1976 for each state have been worked up. The employment, income, gross product originating, and population data with analyses of these data comprise the 1962 edition of the Regional Economic Projection Series. The first report of the Series covering employment has been published. The second report covering income and output was published in March 1963. The third report, containing state population, labor force, and net migration data, will be published in December 1963. The entire series is available on an annual subscription basis.

Agency: National Planning Association.

Previous Digest Report: 9:2-56; 10:1-38. (MK)

60. THE ECONOMICS OF THE PROPERTY TAX IN THE UNITED STATES

Main Investigator: Dick Netzer.

Status of Research and Publications: Project initiated in October 1962, as a two-year study, with publication scheduled for the end of that period.

Agency: New York University, Graduate School of Public Administration, under a grant from the Program of Studies in Government Finance, The Brookings Institution.

Previous Digest Report: None.

Research Problem. After a long historic decline in its relative importance in state and local government finance, the role of the property tax has stabilized in the last decade. It is producing large and increasing amounts of revenue, keeping pace with rising public expenditures. Yet, the many deficiencies of the tax--its administrative weakness, its regressivity, its impact on housing and economic development--are no less severe than they were a generation and more ago when the tax was being denounced by scholars from all sides. Moreover, new problems have arisen in the application of high property tax rates in an urban society, in the form of intra-metropolitan fiscal difficulties and tax-induced changes in land use patterns and plans. No comprehensive study of the property tax has been made since the late 1920's, although many new and relevant data are available to assist such an appraisal.

Method of Study. The study will be partly analytical and partly empirical, relying heavily on existing sources of data in the Census of Governments, the economic, population, and housing Censuses, the national income accounts, and the national wealth estimates. It will analyze who actually pays the tax, by sector of the economy, industry, income group, and geographic components of urban areas, and relate tax payments to measures of income and wealth. It will appraise the economic and land use effects of the tax, and its future productivity. Finally, it will examine the case for reform of the property tax and/or substitution of other revenue sources. (DN)

61. TRENDS IN MARKET VALUE OF REAL PROPERTY IN CENTRAL AREAS OF TWO NORTH CAROLINA CITIES

Main Investigator: Ruth L. Mace.

Status of Research and Publications: Completed. Paper to be published as a journal article. A few copies of a mimeographed, preliminary version are available on request.

Agency: University of North Carolina, Institute of Government, in cooperation with the Greensboro (N. C.) City Planning Department, the Greensboro firm of Robins and Weill, and the Forsyth County Tax Department.

Previous Digest Report: 9:2-92.

Research Problem. The problem was to identify and document trends in the market value of center city real property in Greensboro and Winston-Salem, North Carolina over the 1950-1960 decade.

Method of Study. It was recognized at the outset that the best way to determine the market value of real property is to find out about the sums of money involved in actual sales. We suspected, however, and soon convinced ourselves that relatively few transfers take place in city centers. Therefore, a variety of methods were employed, with the research design for each city being largely determined by available data sources.

Major Findings. Findings of the study suggest stagnation or decline in real property market values in both cities, with declines apparently corresponding in time to suburban shopping center construction. There were, however, significant exceptions to the over-all downtrend. In particular, rising values were observed in the zones of changing uses immediately adjacent to and around the inner commercial cores. (RLM)

62. FACTORS OF INDUSTRIAL LOCATION IN OHIO

Main Investigators: Henry L. Hunker and Alfred J. Wright.

Status of Research and Publications: Currently awaiting page proof. Publication expected within 1-2 months. Will appear as a hard-back volume.

Agency: Ohio State University, Bureau of Business Research and Department of Geography.

Previous Digest Report: None.

Research Problem. A study of 545 manufacturing firms which located in Ohio since 1939 with respect to the reasons for location in Ohio.

Major Findings. Of the total sample, 61 per cent of the firms had established in the state as independent operations, 24 per cent as branch plants of national organizations, and the remainder as branches of Ohio firms. Approximately 80 per cent of the participants were interviewed; the remainder received questionnaires. Among the major reasons listed for location in Ohio were market accessibility, labor, materials accessibility, availability of buildings and sites, residence of the owner, and transportation facilities. But other factors such as community size, tax structure, research facilities, and industrial linkage were also found to be contributing and, occasionally, decisive influences. Each of the 18 separate factors considered in the study is evaluated in terms of its impact upon the patterns of industrial location in Ohio. A summary and conclusion bring together the major points relative to the role the individual factors play in plant location decisions. (HLH)

63. THE ECONOMIC AND SOCIAL IMPACT OF A MULTIPLE PURPOSE RESOURCE DEVELOPMENT PROJECT IN GUERNSEY COUNTY, OHIO

Main Investigators: Wade Andrews, John S. Sitterley, A. J. Wright, and Charles A. Dambach.

Status of Research and Publications: An M.S. Thesis by James R. Taylor on economics of agriculture in the area completed and submitted to Department of Agricultural Economics and Rural Sociology. A study of social impact of the project has been completed by Wade H. Andrews and Larry Hines, and a report filed with Natural Resources Institute. A study of industry related to development of the project, by Nelson V. Frazier, to be submitted as a doctoral dissertation in the Department of Geography, is in process.

Agency: Ohio State University, Natural Resources Institute, in cooperation with the Department of Agricultural Economics and Rural Sociology and the Department of Geography.

Previous Digest Report: None.

Research Problem. The study concerns the economic and social impact of the displacement of agriculture from a thirty thousand acre area of land in the eastern part of the State for the purpose of establishing a water supply reservoir to enhance industrial development in the City of Cambridge, Ohio, and to provide recreational facilities accessible to the heavy populated northeastern part of the State. A major objective is to measure all related economic and social benefits as a consequence of project development from a base line established before project initiation.

Method of Study. The method of study has been to determine pre-project land use, economic return from land use, level of living of the resident population, status of social institutions within and influenced by the project area, industrial and other business activity within and related to the project area. As the project develops resurveys will be made to determine economic and social changes which take place. (CAD)

64. DATA REQUIREMENTS AND METHODS OF ANALYSIS FOR METROPOLITAN ECONOMIC PLANNING AND DEVELOPMENT IN PENNSYLVANIA

Main Investigators: Morris Hamburg, John H. Norton, and Thomas W. Langford, Jr.

Status of Research and Publications: This project has resulted in a series of three studies: (1) M. Hamburg, Economic Base Studies for Urban Planning and Development in Pennsylvania, April, 1962; (2) M. Hamburg and J. H. Norton, An Evaluation of Selected Data Requirements and Availability for Urban Economic Planning and Development in Pennsylvania; and (3) M. Hamburg and T. W. Langford, Jr., Selected Methods of Analysis for Urban Economic Planning and Development in Pennsylvania: Commentary on Regional Economic Accounting Systems, Benefit-Cost Analysis and Statistical Decision Theory. The second and third studies are in press and will be published in November or December, 1963. Copies of all papers may be obtained (without charge) from Bureau of Statistics, Department of Internal Affairs, Commonwealth of Pennsylvania, Harrisburg, Pennsylvania.

Agency: University of Pennsylvania, Department of Economic and Social Statistics, under sponsorship of Department of Internal Affairs, Commonwealth of Pennsylvania.

Previous Digest Report: 9:2-101.

Research Problem. Of the three papers listed above, the first is a background study which presents a description and evaluation of economic surveys, usually called economic base studies, which were carried out in Pennsylvania under the "701 program" of the Federal H.H.F.A.

The second is an evaluative report on selected regional and local area data requirements and availability for economic studies in urban planning and development in Pennsylvania. Three critical categories of information are examined: population, employment and personal income. Recommendations are presented on possible changes and improvements in these data.

The third discusses selected frameworks and methods of analysis useful in connection with public policy formulation and evaluation and for improvement of decision-making in urban economic planning and development. A regional economic accounting system for Pennsylvania is presented and a combination of benefit-cost analysis and modern statistical decision theory is developed as a formal method for the appraisal of governmental investment projects. (MH)

65. FINANCES OF SUBURBAN MUNICIPALITIES

Main Investigators: Morton Lustig and John T. McHugh.

Status of Research and Publications: In process. Completion expected within six months.

Agency: University of Pennsylvania, Fels Institute of Local and State Government, Government Consulting Service, under sponsorship of the Fels Fund.

Research Problem. The major objective is to gain a better understanding of differences in local governmental services and tax burdens in "rich" and "poor" suburbs. Better understanding may, in turn, illuminate the need for change in methods of financing local government or in channels or methods of providing governmental services. A secondary objective is to analyze the impact of real property taxes on different groups of taxpayers within the same group of suburban municipalities. This analysis will also test the "equity" of the real property tax.

Method of Study. Interviews with officials in each of the municipalities under study to obtain data on revenues, expenditures, and services performed by the municipality, school district, and authority, Review of published material, focused primarily on the complex matter of property tax "impact." Some parts of this analysis are too intricate for the study at hand and will not be pursued further.

Preliminary Findings. (1) Differences in wealth are reflected in both differences in service levels and in tax load. (2) The "poor" municipalities save by performing some services at a lower level and by omitting other services entirely. The omitted services such as refuse collection, may cost the taxpayer more as private services than they would as governmental services. (3) Wealth does not always stimulate a higher level of services (4) "Poor" municipalities use non-property taxes to distribute the tax burden; "wealthy" municipalities are more likely to concentrate on property taxes. (5) State aid effectively cancels much of the difference between "wealthy" and "poor" school districts. (6) Among individuals, the property tax is apparently regressive, taking a larger proportion of income from low-income families than from high-income families. (ML)

66. OPEN SPACE IN METROPOLITAN AREAS

Main Investigators: Morton Lustig and Lawrence Levine.

Status of Research and Publications: One part of the study relating to conservation, chiefly wet-lands, completed and published. See Metropolitan Conservation: Implications for Open Space Policy, Planning, and Implementation. 54p., mimeo. The more general part of the study relating to overall requirements scheduled for completion in six to nine months.

Agency: University of Pennsylvania, Fels Institute of Local and State Government. Government Consulting Service.

Research Problem. One objective is to develop a unified concept of open space for a metropolitan area. In particular, this part of the study is directed to the non-recreational uses of open land, including the concepts of open space to separate one metropolitan area from another and open space to guide or limit the overall size of metropolitan areas. A second objective is to explore in depth one type of open space--conservation areas, particularly those related to the movement and containment of water. In both parts, the project will be related to several basic points: (1) defining the objectives of acquiring or controlling open space; (2) defining standards for the types and characteristics of land (or water) areas which satisfy the objectives; (3) selecting the devices for acquiring or controlling open space which are most appropriate for each type of open space; and (4) reviewing the governmental problems, including intergovernmental conflict, involved in establishing large areas of permanent open space.

Major Findings. The conservation report notes the importance of water-related areas to reducing flood hazards, providing adequate water supply, maintaining storm drainage. Land important for these purposes can also be used for, or in conjunction with, other open space objectives such as recreation, preservation of historical or scenic areas, and separation of urban areas. Both purchase and regulation are needed for the large land areas involved, and the state is probably the best agency to exercise leadership in this field. (ML)

67. STUDY OF URBAN LAND UTILIZATION AND COSTS

Main Investigators: Chester Rapkin, Grace Milgram, and Christine Mansfield.

Status of Research and Publications: Project begun July 1, 1963. To be completed in 18 months.

Agency: University of Pennsylvania, Institute for Urban Studies, under sponsorship of Housing and Home Finance Agency.

Previous Digest Report: None.

Research Problem. Using a section of the Philadelphia metropolitan area as representative of development in the area, an intensive study will be made of the rate at which vacant land came into urban use since 1945, and the effect of such development on land prices, in an attempt to explore the relationships among the rate of utilization; changing land costs and governmental, institutional, and individual actions which affect these. Such factors as changing time-distance from the central business district, zoning designations, the installation of public facilities, the type of ownership, and the purposes for which the land is eventually used will be examined, as well as the effect of the general economic development and population growth of the area. It is hoped that the results of the study will be helpful in the formulation of governmental policies affecting land costs and utilization. (GM)

68. AN AREA DATA SERVICE FEASIBILITY STUDY

Main Investigators: Wroe Alderson and Stanley J. Shapiro, with H. Leomer, J. V. Mowll, D. F. Rowlands, E. Smolensky, and T. W. Langford.

Status of Research and Publications: Research was completed as of September, 1962. A decision concerning publication of the final report has not yet been made. A general discussion, however, may be found in Business Horizons, Volume VI, No. 2 (Summer 1963) "A Metropolitan Data Bank for the Business Community" by W. Alderson and S. J. Shapiro.

Agency: University of Pennsylvania, Management Science Institute, under sponsorship of Pennsylvania - New Jersey - Delaware Metropolitan Project, Inc., (Penjerdel).

Previous Digest Report: [illegible]

Research Problem: The design of an Area Data Service capable of providing the region with current and complete data on pertinent economic activity and demographic phenomena. Emphasis was to be placed on establishing a service that would meet the planning and decision making needs of public agencies, private institutions and business firms. Various types of systems were to be considered and attention paid to conditions unique to the region.

Major Findings: The research staff considered the present status of related undertakings in various metropolitan areas and the expressed desires of many regional economists. Interviews with representatives of government agencies, health and welfare organizations, business firms, citizens' planning groups, and regional economists revealed that inadequate, incomplete and inaccurate data was only one of the problems being encountered. In many cases lack of an adequate analytical framework for interpreting existing information and guiding future data collection was the real difficulty.

The report presents five possible designs for an area data service operating in the eleven county Penjerdel region. These include: (1) a secondary data utilization center, (2) a parcel level, land-use, real-property inventory, (3) a design emphasizing changes over time in locational patterns and intra-regional movement, (4) a system of regional social accounts, and (5) a capital expenditure evaluation (cost-benefit) model. Designs 2-5 were advanced both as alternatives in their own right or as additional functions of a statistical service collecting and processing secondary data. Also discussed were how each of the proposed area data services would serve public agencies and the business community, possible sources of financial support for such a service, and relevant factors concerning personnel selection and organizational structure. (TWL)

69. AMERICAN METALS INDUSTRY STUDY

Main Investigators: Edgar M. Hoover and Alan Fechter.

Status of Research and Publications: In process.

Agency: University of Pittsburgh, Center for Regional Economic Studies, under sponsorship of Resources for the Future, Inc.

Previous Digest Report: 9:2-114.

Research Problem. This project attempts to explain the spatial shifts that have occurred in the group of industries which produce and fabricate metals and metals products.

Method of Study. Data are being compiled from the U. S. Bureau of the Census' periodic Census of Manufacturers describing output and employment in these industries by states and regions to determine the spatial shifts that have occurred over the past 70 years. These shifts will be evaluated alongside of population shifts and changing regional patterns of wage rates and access to raw materials.

A detailed analysis will be made of the post-war period. The spatial shifts of these industries will be examined to see if they have been in response to changes in profit rates in different areas of the country. Regional factors which give rise to these profit rate differentials will also be analyzed to determine which economic variables exert the most influence on them. (AEF)

70. APPALACHIAN PROJECT

Main Investigator: Benjamin Chinitz.

Status of Research and Publications: First report due January 1, 1964.

Agency: University of Pittsburgh, Center for Regional Economic Studies, under sponsorship of Area Redevelopment Administration.

Previous Digest Report: None.

Research Problem. To produce a diagnosis of the economy of the Appalachian Region and a plan for stimulating its more rapid development The project was inaugurated in response to the establishment by President Kennedy of a special commission to develop a program for the Appalachian Region. The study is an interdisciplinary one, involving sociologists, political scientists, geographers, educators, as well as economists.

The staff for this project has been recruited from within the Center, other parts of the University, other universities, and private consultants. In addition to the staff working at the Center, the contract provides for staff assistance to the President's Appalachian Region Commission in Washington. The research program at the Center will attempt to identify the causes of sluggish economic development in the region and develop a framework for testing the feasibility of programs designed to raise the level of productivity and create a better balance of the supply of and the demand for labor. Included in the agenda will be an examination of the natural resources of the region and their potential contribution to the economy, the influence of transportation and the development of the human resources of the region. The political and social structure will also receive intensive study. (BC)

71. THE ECONOMICS OF FLOOD PLAIN USE AND REGULATION

Main Investigator: William C Pendleton

Status of Research and Publications: Study begun in April, 1963.

Agency: University of Pittsburgh, Center for Regional Economic Studies, under grant from Resources for the Future, Inc.

Previous Digest Report: None.

Research Problem. The study views public management of land use in the flood plain as a variable that may be used along with management of the flood as a means of reducing flood damages. The optimum combination of these inputs will be analyzed with a view to providing useful guides to efficient land use regulation The patterns of development on selected flood plains in the Pittsburgh Region will be studied and an attempt will be made to identify and estimate the costs and benefits associated with alternative combinations of flood protection, flood proofing, and controls over land use in these areas.

Previous Relevant Research. The series of studies conducted at the University of Chicago under the direction of Gilbert White constitute the most relevant body of knowledge in this area. Most of these have been published in the Department of Geography Research Papers series. (WCP)

72. SOCIAL AND CULTURAL FACTORS RELATED TO SCHOOL ACHIEVEMENT

Main Investigators: Bernard Goldstein, and William M. Phillips, Jr.

Status of Research and Publications: Field work is to begin in November 1963, and is scheduled for completion by August, 1964. Project is scheduled for completion by September 30, 1965.

Agency: Rutgers-The State University, Urban Studies Center, under sponsorship of U. S. Office of Education.

Previous Digest Report: 9:2-120.

Research Problem. The study is a phase of the Newark Youth Opportunities Unlimited extension project. The purpose is twofold: to establish benchmarks against which to measure the effects of subsequent interventions in the form of demonstration projects; to gain insight and understanding into the way of life of youngsters growing up in this kind of an area, in order to better appreciate what the world looks like to them, and what it would take to interest them in exerting a greater effort to obtain an adequate education.

Method of Study. Interviews of a sample of youth from grades 4, 6, 8, 10, and 12 in schools in the project area (including in the sample dropouts who "should" have been in the specific grades), as well as to have at least one participating observer living in the area. The analysis of the data will focus on the deviant cases, those who achieve in school at a level different from what would be expected on the basis of social background. (HG)

73. RESIDENTIAL STABILITY IN AMERICAN CITIES

Main Investigators: Robert Gutman and Judith Getis.

Status of Research and Publications: Project has been redesigned to include some new measures of residential stability. Data are now being prepared for analysis on IBM 1620 computer. Sample has been reduced to include data only for 55 SMSA's of 500,000 population or over and 25 cities of 250,000 population or over according to 1960 census.

Agency: Rutgers-The State University, Urban Studies Center.

Previous Digest Report: 9:2-121.

Research Problem. To study the rate of population turnover in central cities and suburban portions of Standard Metropolitan Statistical

Areas in the United States, based on data from the Federal Census of 1960.

Method of Study. Six measures of residential stability for each SMA have been calculated and the research is now directed to testing several different alternative explanations of the variations in these rates among the SMA's. (HG)

74. DEMOGRAPHIC AND ECOLOGICAL CHARACTERISTICS OF THE AGING

Main Investigator: Don Heisel.

Status of Research and Publications: Analysis is completed and is presently being written up. Final Report expected before the end of 1963.

Agency: Rutgers-The State University, Urban Studies Center, under sponsorship of New Jersey State Division of Aging.

Previous *Digest* Report: 9:2-123.

Research Problem. Description and analysis of demographic and ecological characteristics of older persons in New Jersey, with particular attention to the impact of the "Senior Citizens' Tax Exemption." (HG)

75. SERVICE CENTERS AND CONSUMER INTERACTION ON THE METROPOLITAN FRINGE: STUDIES IN THE PENJERDEL REGION

Main Investigators: John E. Brush and Howard L. Gauthier, Jr.

Status of Research and Publications: Field work and statistical analysis have been completed. Report in preparation; publication expected in late 1963.

Agency: Rutgers-The State University, Department of Geography, under sponsorship of the Rutgers Research Council and the Pennsylvania-New Jersey-Delaware Metropolitan Project, Inc.

Previous *Digest* Report: 10:1-71.

Research Problem. The studies undertaken in Bucks County, Pennsylvania and in Burlington and Gloucester Counties, New Jersey, on the fringes of the Philadelphia-Trenton metropolitan region are designed to gain understanding of the spatial patterns of old and new service centers in areas of rapid population increase. Decentralization of population and of consumer services seem to be altering the fundamental relationship of service areas as previously analyzed and understood by geographers, planners and other social scientists.

Hypotheses. The interaction of consumers with numerous shopping centers and highway strips is more or less random within vague limits of time and travel cost.

Method of Study. Attention is first concentrated on the spatial grouping of business establishments and second, upon the orientation, frequency and length of trips made by local residents for shopping and personal business. Establishments and trips are both classified into nine business or service types in order to determine the linkages characterizing consumer movements. The data on existing service and shopping facilities were obtained in the field by the Rutgers Geography Department. Trip data were obtained in household interviews, made by personnel of the Penn-Jersey Transportation Study.

Major Findings. Preliminary results show evidence that well defined consumer travel gradients exist in the metropolitan fringe. Service areas can be discerned although close spacing of service centers and overlapping of travel gradients creates boundaries of only relative predominance between competing service centers. A quantitative probability model has been developed in an effort to simulate the reported volume and geographic pattern of consumer trips. Fundamental to the model's concept is the consumer's desire to minimize travel cost and time and the specialized purpose of the trip. The interaction is replicated by considering various trip purposes and the relative accessibility of places providing facilities which can satisfy the consumer. (JEB)

76. FACTORS AFFECTING LARGE CITIES' MEETING OF FUNCTIONAL REQUIREMENTS

Main Investigators: Harry Bredemeier, and Elizabeth Clark.

Status of Research and Publications: Basic data collected; not yet coded or analyzed. Project will be continued during 1963-64.

Agency: Rutgers-The State University, Urban Studies Center.

Previous Digest Report: None.

Research Problem. Statistical indices of difficulties, mechanisms for coping with them, and degree of success achieved are being constructed for the four basic social system problems of adaptation, integration, pattern maintenance and decision-making for all cities over one million population. (HG)

77. THE RELATIONSHIP BETWEEN THE PROVISION OF LIBRARY SERVICES AND THE SOCIO-ECONOMIC STATUS OF COMMUNITIES

Main Investigators: Milbrey Jones and Mary V. Gaver.

Status of Research and Publications: Completed as a doctoral dissertation entitled, "Socio-Economic Factors and Library Service to Students" (Graduate School of Library Service, Rutgers-The State University). Available from the University of Michigan microfilm files.

Agency: Rutgers-The State University, Urban Studies Center and Graduate School of Library Service.

Previous Digest Report: None.

Research Problem. An investigation of the relationship between the quantity and quality of library services and the socio-economic status of the communities served. A comparative study of six New Jersey cities and towns. (HG)

78. APPLICATION OF INPUT-OUTPUT ANALYSIS TO THE REGIONAL ECONOMIES OF NEW JERSEY

Main Investigators: Ahmed Kooros and Norman Lindsey.

Status of Research and Publications: Statistical and survey analyses have been completed. Report (58 pp.) is in preparation.

Agency: Rutgers-The State University, Urban Studies Center.

Previous Digest Report: None.

Research Problem. The application of the input-output technique to regional economic analysis of the State of New Jersey. Utilizes the construction of matrices of the stock and flow coefficients in order to indicate those industries and economic activities which will have the greatest impact upon the economy of the state, and help in the forecasting of future economic activities. (HG)

79. A MEASUREMENT OF "SENSE OF COMMUNITY"

Main Investigators: Carol E. Leggitt, Robert Gutman, and David Popenoe.

Status of Research and Publications: Interviews to be conducted in 1963-64.

Agency: Rutgers-The State University, Urban Studies Center.

Previous Digest Report: None.

Research Problem. The task to be addressed by this research is that of isolating both theoretically and operationally the subjective phenomena which is referred to as a "sense of community," that is, the individual's sentiments and feelings which relate to the local community in which he lives. It is hoped that it will be possible to test its variation within specific communities of similar size in New Jersey which differ by their degree of metropolitanization. Sense of community will be analyzed tentatively on the four dimensions of belonging, identification, communality, and commitment. It is felt that sense of community is complemented in the individual's orientation by the two categories of knowledge or information and judgment or evaluation. In the future, it is hoped that this measuring instrument can be applied in communities which differ according to functional interdependence (economic, political, and social) and physical distinctiveness (referred to as "imageability" by city planners). (HG)

80. MUNICIPAL POLITICS IN NEWARK

Main Investigators: Gerald Pomper and Alan Shank.

Status of Research and Publications: An article on "Ethnicity and Non-partisan Elections" has been prepared An informal report on Newark Politics has been completed for office use.

Agency: Rutgers-The State University, Urban Studies Center.

Previous Digest Report: None.

Research Problem. A study of various aspects of local politics in the city of Newark, New Jersey. During the past year, particular attention has been devoted to the effect of the non-partisan electoral system on the politics of Newark, the influence of ethnic affiliations, and the role of political parties in municipal affairs.

Method of Study. An intensive study of the 1962 mayorality and councilmanic election was undertaken. This involved statistical analyses, newspaper research and a series of interviews. In the next phase of this work, a detailed study of Negro leadership in Newark is being undertaken. (HG)

81. COSTS AND BENEFITS IN URBAN RENEWAL DECISION

Main Investigator: David Popenoe.

Status of Research and Publications: First stage completed (Ph.D. thesis, Department of Planning, University of Pennsylvania, 1963). Available from the University of Michigan microfilm files under the title, Costs and Benefits in Urban Renewal Decision: A

Study of the Theory of Rational Planning in the Public Sector. Work is continuing (1963-64) on the development of a social cost-benefit analysis.

Agency: Rutgers-The State University, Urban Studies Center.

Previous Digest Report: None.

Research Problem. An investigation of the use of cost-benefit analysis in urban renewal, which includes a review of the economic approach, a critique of its limitations, and some suggestions for a more "rational-social" approach. The cost-benefit approach is elaborated in reference to the more general framework of the rational planning process. (HG)

82. THE PLANNER AS A POLITICAL ACTOR: A COMPARATIVE STUDY

Main Investigator: Francine Rabinovitz.

Status of Research and Publications: In process.

Agency: Rutgers-The State University, Urban Studies Center.

Previous Digest Report: None.

Research Problem. An analysis of the types of roles and environments associated with "effective" and "ineffective" planning in four communities and their relation to the influence of planners and the incidence of planning. (HG)

83. CHANGES IN MUNICIPAL EXPENDITURE PATTERNS AS A FUNCTION OF CHANGES IN POPULATION

Main Investigator: George Sternlieb.

Status of Research and Publications: The first dependent variable, expenditure on fire protection has been analyzed. To be completed in 1963.

Agency: Rutgers-The State University, Urban Studies Center.

Previous Digest Report: None.

Research Problem. This study takes up the common expenditure elements of the 50 largest U. S. cities.

Method of Study. Utilizes the STRAP program of the 1620 computer, and analyzes the interrelationship between them and a variety of independent variables. The basic program has been checked out, and in order to insure validity, a theoretical model has been hand computed. (HG)

84. INTERNATIONAL BORDER PLANNING

Main Investigator: Martin S. Kermacy.

Status of Research and Publications: In process. Initial phase consists of support for Eagle Pass-Piedras Negras pilot project of San Antonio Chapter, A. I. A.

Agency: University of Texas, School of Architecture, in cooperation with Comite Internacional de Desarrollo Urbano Fronterizo, an international committee consisting of a Mexican delegation representing the Colegio y Sociedad de Arquitectos Mexicanos, and a U. S. delegation representing the American Institute of Architects.

Previous Digest Report: None.

Research Problem. To develop basic data illuminating the unique international planning problems of the border region as a whole, and in relation to this framework, to produce case studies based on the problems of specific U. S. - Mexico urban centers.

Method of Study. Physical planning and architectural studies exploratory rather than definitive in nature, emphasizing the larger implications of the data within the context of the region, and giving particular consideration to the unique problems presented by the intimate relationship of a U. S. and a Mexican city within one organic urban complex. (MSK)

85. PLANNING ASPECTS OF OUTDOOR RECREATION

Main Investigator: E. Mattyarouszky.

Status of Research and Publications: Research completed. Interim report in process.

Agency: University of Toronto, School of Architecture, Division of Town and Regional Planning.

Previous Digest Report: None.

Research Problem. Development of criteria to determine the selection of areas suitable for recreation, and then application in formulating solutions for recreational needs of major urban populations. While

Toronto is used for convenience as a case study, research is directed toward establishment of criteria of general applicability.

Major Findings. (1) Exceptional importance of the so called "water oriented" activities. Some problems connected with these activities are: selection of areas where the physical requirements for water are adequate; lack of standards for the recreational use of water, waterfront, etc.; and incompatability of different water oriented recreational activities. (2) Growing importance of "wilderness areas." Canada's specific advantage in this field. (3) Need for establishing a guiding policy about the recreational use of "multiple use" areas. Need for legislative and administrative measures concerning: the arrangement of the status of parks and their jurisdiction; the role of different authorities; the importance and urgency of a coordinating authority; the regulation of the application of standards. (AJD)

86. HOME ASSOCIATIONS STUDY

Main Investigators: Byron R. Hanke, William C. Loring, and Jan Z. Krasnowiecki.

Status of Research and Publications: Field work and data analysis have been completed. Completion of manuscript scheduled for December, 1963. Publication as a Technical Bulletin planned for early 1964.

Agency: Urban Land Institute, under sponsorship of Federal Housing Administration, National Association of Home Builders, Office of Civil Defense, Public Health Service--HEW, Urban Renewal Administration and Veterans Administration.

Previous Digest Report: 10:1-76.

Research Problem. To study techniques of development and management of common areas and facilities by home owners associations; to determine what the problems are in creating and operating such properties and associations, and how they can be avoided or resolved; and to develop a practical guide for land developers, planners, builders, lenders, realtors, association officers, and government housing officials to use in determining what properties and facilities make for successful residential development and enduring values at lower costs.

Major Findings. Preliminary findings on the basis of field work and data analysis show remarkably high home owner satisfaction and enjoyment from the parks, recreation facilities, and other common properties owned and maintained at reasonable cost to the individual home owners. Such associations and their common facilities have a favorable effect on the marketability of homes within the developments. Serious problems seldom occur when the developments and associations have good land planning, sound legal foundations, initial guidance and support by the developer, and a definite understanding, before sales start, of the rights and obligations of home owners. (GCT)

87. PRESENT AND POTENTIAL ROLE OF STATE AND LOCAL TAXATION IN PRESERVATION AND DEVELOPMENT OF OPEN LAND IN URBAN AREAS

Main Investigators: John E. Rickert and Roger R. Conant.

Status of Research and Publications: In process.

Agency: Urban Land Institute, under sponsorship of Housing and Home Finance Agency.

Previous Digest Report: None.

Research Problem. Study will analyze effects of state and local taxes on retention of undeveloped land in the National Capital Region, with special emphasis on the rural-urban fringe areas of the region and open areas beyond the urban fringe zone, in Montgomery and Prince George Counties, Maryland, and in Fairfax, Loudoun and Prince William Counties, Virginia.

Method of Study. Will contain both theoretical and empirical elements, with major effort on the latter. (JPP)

88. THE EFFECTS OF TECHNOLOGICAL CHANGE ON CULTURAL CONTINUITY AS EVIDENCED BY THE MORPHOLOGY OF CERTAIN JAPANESE CITIES

Main Investigators: Thomas J. Norton and Myer R. Wolfe.

Status of Research and Publications: A bibliography in Japanese and Western languages has been prepared which relates to the first phase of the study. This material is primarily historical and deals with the morphology of the cities of Tokyo, Osaka, and Kyoto.

Agency: University of Washington, Center for Asian Arts, under sponsorship of Ford Foundation.

Previous Digest Report: 9:2-138. (TJN)

89. URBAN ECONOMICS, A GUIDE TO RESEARCH ON WASTE, POVERTY AND STAGNATION IN CITIES

Main Investigator: Wilbur R. Thompson.

Status of Research and Publications: Preliminary draft entitled A Preface to Urban Economics: Toward a Conceptual Framework for Study and Research (320 pp.) has been published by Resources for the Future, Inc., Washington, D. C.

Agency: Wayne University, Department of Economics, under sponsorship of Committee on Urban Economics, Resources for the Future, Inc.

Previous Digest Report: 9:2-140. (WRT)

90. URBAN KINSHIP NETWORKS

Main Investigators: Marvin B. Sussman and Sherwood B. Slater.

Status of Research and Publications: Data collection has been completed, preliminary analyses completed, and papers presented. Publication of journal articles planned. Copies available upon request.

Agency: Western Reserve University, Department of Sociology, under sponsorship of Vocational Rehabilitation Administration.

Previous Digest Report: None.

Research Problem. (1) To investigate the structure and functions of kinship networks of a stratified random sample of Metropolitan Cleveland households; (2) To compare the kinship networks of families with chronically ill and families without chronically ill members; (3) To estimate the normative form of kinship networks for Cleveland families; (4) To determine sources of variation in kinship networks.

Previous Relevant Research. Sussman's previous work in New Haven and Cleveland has served as a model for this currently expanded project in kinship networks.

Hypotheses. Numerous a priori hypotheses are tested. These are derived from consideration of the problems being investigated. The major hypothesis tested, and the basis for further conceptualizations, is that there exists in urban families a continuum of isolation-integration that can be used to categorize the structure and function of kinship networks.

Method of Study. A stratified random sample of 500 households, 100 in each of five metropolitan census tracts, were interviewed. Information was obtained about household composition, social and demographic characteristics, frequency and reasons for communication and the exchange of aid. Kin through first cousins were enumerated, geographical location and lineage was determined. Indexes of structural and functional integration are developed and data has been transferred to IBM cards for analysis and statistical testing.

Major Findings. Major findings to date support the hypothesis that there is in the Cleveland metropolitan area a network of integrated kin related families that are modally propinquitous, and engaged in communication and exchange of aid. Between 76 and 96% of the families are to some degree and in some manner integrated with their kin. Only 4 to 24% of the families can be considered as entirely isolated. This indicates that most urban families are involved in an operating kinship network.

Social class, race, education, occupation, age of head, and family life cycle as individual factors do not differentiate families according to degree of kinship network integration. Ethnicity, nativity and religion are factors which individually differentiate high and low propinquity of kinship networks; collectively the factors related to minority group status are associated with significantly higher propinquity of the networks. This is concluded to be a manifestation of the segregation and status of ethnic and religious minorities in the past. (SBS)

91. GEOGRAPHICAL MOBILITY OF WISCONSIN WORKERS

Main Investigator: Gerald G. Somers.

Status of Research and Publications: Two year project nearing completion; book to be published in Spring of 1964.

Agency: University of Wisconsin, Industrial Relations Research Center, under sponsorship of Wisconsin State Employment Service.

Previous Digest Report: None.

Research Problem. To determine the factors motivating geographic mobility of labor, the characteristics of mobile and non-mobile workers, the investment made by mobile workers in geographic movement, and the gains and costs involved in geographic movement.

Method of Study. The study involves the utilization of interview data on over 800 respondents in the Fox River Valley communities and 200 respondents who have moved into Madison and Milwaukee from distances of at least 50 miles in the last five years. The sample of Madison and Milwaukee in-migrants was selected on a random basis from the files of Wisconsin income tax returns. The study also has provided an opportunity for evaluation of income tax returns as a source of data on labor mobility, and comparison of data on income tax forms with interview survey responses has provided a basis for evaluation of survey response information. (GGS)

92. APPRAISAL OF TRAINING PROGRAMS IN DEPRESSED AREAS WITH ARA PROGRAMS

Main Investigator: Gerald G. Somers.

Status of Research and Publications: Two year project ending February 1, 1964; book to be published in Spring of 1964.

Agency: University of Wisconsin, Industrial Relations Research Center, under sponsorship of Ford Foundation.

Previous Digest Report: None.

Research Problem. To evaluate the effectiveness of recent and current retraining programs for unemployed workers, as a guide to policy formation in the expanded programs about to be initiated. The essential criteria by which these programs are to be judged are their success in placing workers in useful employment and their contribution to the reduction of unemployment in distressed economic areas.

Method of Study. Data are being gathered on all aspects of retraining programs in as wide a variety of environmental circumstances as possible. Over 1500 interviews have been conducted among unemployed workers in West Virginia and less intense surveys are proceeding in other parts of the country. Analysis of the interview returns has involved the use of about 20 coders and will also involve extensive computational service. (GGS)

93. DELINEATION AND STRUCTURE OF RENTAL HOUSING AREAS, 1960

Main Investigator: Herman G. Berkman.

Status of Research and Publications: Data processing being completed; publication is anticipated within the year.

Agency: University of Wisconsin, (Milwaukee), Graduate School.

Previous Digest Report: None.

Research Problem. Examination of census tracts in Milwaukee during the period 1940 through 1960 reveals a continuing pattern of relationship between physical characteristics of housing and population types. Indications are that families displaying certain characteristics filter through specific types of housing areas. These areas, known as the S-T-A-R types, are functional residential areas. The structure of these areas is related to families in various stages of their life cycle. (HGB)

94. APPLICATION OF AN INPUT-OUTPUT FRAMEWORK TO A COMMUNITY ECONOMIC SYSTEM

Main Investigators: Floyd K. Harmston and Richard E. Lund.

Status of Research and Publications: Preliminary draft being circulated for review.

Agency: University of Wyoming, Division of Economic and Business Research.

Previous Digest Report: None.

Research Problem. This report represents largely a compilation of the thinking and experience of the authors resulting from their work in applying a Leontief type static input-output model to small community systems. Some argument concerning the theoretical basis and advantages and disadvantages are included. Details for delineating industries and defining measurement units as well as data collection procedures are given. (REL)

95. STANDARDS FOR TRAVELER STUDIES

Main Investigator: Richard E. Lund.

Status of Research and Publications: Completed and published. Available from Western Council on Travel Research, P. O. Box 8066, Foothill Station, University of Utah, Salt Lake City, Utah.

Agency: University of Wyoming, Division of Economic and Business Research and University of Utah, Bureau of Economic and Business Research.

Previous Digest Report: None.

Research Problem. This publication is essentially a procedures and definitional manual for studying visitors to a prescribed area. (REL)

96. PERFORMANCE STANDARDS FOR SPACE AND SITE PLANNING FOR RESIDENTIAL DEVELOPMENT

Main Investigators: H. Peter Oberlander, W. G. Gerson, and Arthur Boyd.

Status of Research and Publications: Investigation into factors determining spacing of buildings is presently concerned with noise, as a characteristic of space control standards. Studies of fire spread by radiative heat transfer and of daylight adequacy are now complete. Other characteristics to be investigated include air, privacy, traffic and outdoor space.

Agency: University of British Columbia, School of Architecture and Graduate Program in Community and Regional Planning, under sponsorship of Division of Building Research, National Research Council, Ottawa.

Research Problem. To develop rational criteria based on the different environmental components of fire, air, noise, etc., so that reasonable and meaningful space standards might be determined and correlated in a performance system for evaluating spatial relationships existing between buildings.

Previous Relevant Research. An annotated bibliography of the subject literature was published by the sponsors in August, 1961. Following this a report entitled Performance Standards for Space and Site Planning for Residential Development was published in July, 1963. It contains the results of an investigation of development controls and advances and hypotheses for a proposed technique for residential space and site planning based on a performance standard system. The next report to be completed, entitled Space Between Buildings as a Means of Preventing the Spread of Fire, consists of an evaluation of selected residential areas according to data from recent basic research by the National Research Council, Division of Building Research. The last report to be completed, entitled Daylight as a Characteristic of Space Control Standards contains the results of a pilot study of daylighting conditions in a multiple family-dwelling area.

The pilot study assesses daylighting conditions by integrating a calculation and field measurement techniques with daylighting judgements of tenants.

Method of Study. The method of study has consisted of systematic investigation and evaluation of space and site planning criteria by the direct application of information to selected residential test areas. (HPO)

97. THE PLANETARY FOOD POTENTIAL

Main Investigator: Walter R. Schmitt.

Status of Research and Publications: Manuscript (25,000 words) completed, under consideration by publisher.

Agency: University of California, (San Diego), Institute of Marine Resources.

Previous Digest Report: None.

Research Problem. Are the natural resources of the earth sufficient to provide an adequate diet to a sharply increased world population? How could this generally be accomplished? What dietary contribution can we expect from the sea?

Method of Study. Search of the literature was combined with original research in an effort to gain perspectives on this complex problem. The accuracy of many data and results is low, and better determinations will no doubt entail revisions. However, conclusions drawn from the study are believed to be essentially valid.

Hypotheses. The proposition is derived that the world population will eventually stabilize at between 15 and 60 billion, consequently the dietary requirements of 30 billion people are taken as a measure of the problem. Radiant energy is considered to be the irremedial natural condition which limits the potential productivity of the plants. A further condition derives from the investigation itself, namely that suggested remedial actions must make good economic sense.

Major Findings. The food problem is primarily a socio-economic problem. Improvements in this area must go hand in hand with the application of technical measures. The productivity potential of each major mode--agriculture, silviculture, aquaculture, and microbial culture--in terms of organic matter is greater than the requirements of 30 billion people. In agriculture an up to four-fold expansion of the acreage planted to food crops appears ecologically possible. But amount and quality of water and fertilizers, in particular phosphorus, generally limit food production before land does. Other measures to improve productivity are also discussed including the complementary relationship between them. In silviculture forests constitute huge sources of organic matter. They are nutritionally insignificant at present, but may yet be made to yield a digestible product. Moreover, agricultural land won from tropical rain forests could be highly productive once the difficult nutrient and access problems were resolved. In aquaculture, which offers the best hope for a protein hungry planet, the sea presently provides about five per cent of all dietary protein (or 15 per cent of its animal component). With improvement of juridicial and economic conditions, and the application of modern technology to the sea, this share could potentially increase to 33 per cent for 30 billion people. Fertilization, the by-passing of trophic levels, and other cultivation measures are discussed.

A very productive and resource efficient method of providing food-energy is available in hydroponics, the soilless culturing of crops; while up to 5000 lb/ac of consumable animal protein yearly could be produced from livestock feeding pens linked with algae cultured in sewage versus 150 lb/ac from fertilized fish ponds, 40 lb/ac from the sea off Peru, and 20 lb/ac from livestock in good pasture. But even this is topped by the productivity of certain microorganisms, e.g., 1/2 ton of yeast can potentially biosynthesize over 50 tons of protein in 24 hours.

Several other environments--salt marshes, swamps, polar and sub-polar regions, deserts and mountains, are examined for their food productivity potential. Lastly, the amounts and fluxes of the major substances essential to the production of organic matter--water, carbon dioxide, nitrogen, soils and nutrients, and sea water--are investigated. (WRS)

98. RESOURCES FROM THE SEA

Main Investigators: John D. Isaacs and Walter R. Schmitt.

Status of Research and Publications: Completed and published in "International Science and Technology" June, 1963.

Agency: University of California (San Diego), Scripps Institution of Oceanography, Marine Life Research Group.

Research Problem. Study focuses on marine resources of food, power, and minerals, but other resource aspects of the sea--waste disposal, transportation, military use, recreation, aesthetics, and scientific challenge--are also touched on.

Major Findings. Sea food landings in the world have doubled since World War II to some 40 million tons annually. The diets of many countries are critically dependent on these landings. This is not to say that the sea could provide significant amounts of man's food-energy requirements. These are adequately supplied by agriculture. Rather, sea-food is invaluable as a source of animal protein to a protein hungry world. The sea's net primary productivity of protein is estimated at approximately 2×10^{16} grams per year, the demand of animal protein by a future world population of, say, 30 billion is near 4×10^{14} grams per year. This indicates that we have no need to harvest the primary phytoplankton. Instead even a future 30 billion people could continue to exploit the concentrating action of the fishes.

The harvesting of such volumes of sea food is subject to many factors, technical and otherwise. Economical, juridicial, and natural factors control the use of modern gear and the distance to the fishing grounds. Taste determines which species are fished. We expect that in time legislation, both nationally and internationally, will be passed which will attract a variety of cultivation efforts to many parts of the oceans. Estuarine flats, reefal lagoons, and sections of the continental shelves will surely see the initial application.

The sea's power potential is untapped. The world's energy consumption shows a trend away from renewable energy (75% of total consumption in 1860) toward nonrenewable energy (80% of total consumption today). The renewable sources of energy--tidal, organic, and thermal--generally are small and difficult to harness. Only the thermal energy contained in the oceans possesses sufficient potential, measured on the power demand in 2000 A.D., to justify eventual large scale exploitation. But the nonrenewable sources of energy--fission energy of thorium and uranium and fusion energy of deuterium and hydrogen--represent a near inexhaustible reserve of power once the fusion process is tamed.

Two kinds of mineral reserves involve the sea: minerals dissolved or suspended in discrete concentrations in sea water, and minerals below the ocean floor. Salt, magnesium, and bromine are examples of the first kind, recovered in large scale evaporation basins. Manganese and phosphorite nodules, which precipitate in considerable amounts from the oceanic brine, also belong in this group. Of the second group, only petroleum and perhaps helium have thus far become economically important. (JDI and WRS)

99. ORGANIZATION FOR CITIZEN PARTICIPATION IN URBAN RENEWAL

Main Investigators: George S. Duggar and Clifford C. Ham.

Status of Research and Publications: Report completed; submitted for publication.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs, Department of Urban Affairs.

Previous Digest Report: None

Research Problem. Devise a structure for citizen participation that promises to be more effective than a Mayor's Committee (as required under existing URA regulations). (CCH)

100. PRINCIPLES OF PHYSICAL PLANNING CONTRIBUTING TO THE REDUCTION OF VULNERABILITY FROM NUCLEAR ATTACK

Main Investigators: Clark D. Rogers and Robert Harding.

Status of Research and Publications: First report due January 1, 1964.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs, Department of Urban Affairs and the Department of Industrial Engineering, School of Engineering and Mines.

Previous Digest Report: None.

Research Problem. To identify the principles of physical planning which would tend to reduce the vulnerability of urban areas to nuclear attack. A very simple computer model will be developed to test patterns for vulnerability. (GSD)

101. LOCAL ORGANIZATION FOR URBAN RENEWAL

Main Investigator: George S. Duggar.

Status of Research and Publications: Continuing project.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs, Department of Urban Affairs, in cooperation with International Federation for Housing and Planning, Standing Committee on Urban Renewal, and International Union of Local Authorities.

Previous Digest Report: 3:1-29; 4:1-2; 7:1-1; 10:11-68.

Research Problem. The organizational element of "commitment," with "action" and authority postulated as one of the three elements of a civic enterprise, as well as of an organization, was further examined in the course of a Conference on the subject of "Functional Changes of Central Areas and General Objectives of Renewal or Conservation" (Rome, Italy 1, 2, 3 April 1963). The conference participants urged the "different meanings" of urban renewal between the United States and Europe, (Dr. G. A. Wissink) and among the regions of Europe (van der Hoff), thus tending to substantiate the contention, in this continuing research project, that value commitments be considered an element of the civic enterprise system, not merely as a determining factor in the external environment of the system. Accordingly, comparative study is needed among civic enterprises which share "an" objective, not "the" objective, and structures should be described in respect to differences in commitment patterns as well as action and authority patterns. Differences in action patterns were also emphasized, as expected, in contrasting references to renewal and restructuring operations in Rome, Milan, Venice and Genoa. (GSD)

102. BUILDING PERMIT INFORMATION SYSTEM

Main Investigators: C. D. Rogers and Jo Godley.

Status of Research and Publications: Report due January 1, 1964. Pilot study report submitted November 15, 1963.

Agency: University of Pittsburgh, Graduate School of Public and International Affairs, Department of Urban Affairs.

Previous Digest Report: None.

Research Problem. Design an automated building permit system which will cululate with a multi purpose report providing information for various city departments.

Previous Relevant Research. Various staff studies prepared by Mr. Rogers and the personnel at Urban Data Center, University of Washington. (GSD)

103. BEHAVIOUR AND ATTITUDE IN A BIRACIAL MIDDLE INCOME HOUSING COMMUNITY: THE LUDLOW STUDY

Main Investigators: Marvin B. Sussman and Eleanor K. Caplan.

Status of Research and Publications: This is a five year investigation which began in 1958. One doctoral dissertation, Attitude and Behaviour in a Middle Class Biracial Neighborhood: A Situational Approach to Relationship and Prediction, by Eleanor K. Caplan, was completed and submitted in 1962. Other findings to date are to be published in monograph form. Additional research is in process.

Agency: Western Reserve University, Department of Sociology.

Previous *Digest* Report: None.

Research Problem. To study systematically over a five year period the ecological, social-psychological, and sociological factors which effect residential mobility in a middle-class residential area during the *process* of racial invasion. Specific aims are: (1) to study rate of racial change; (2) to study the range and extent of white and Negro attitude toward living in a biracial neighborhood, and the factors associated with attitude; (3) to study how such factors as attitude and reference groups change during the five year period; and (4) to study factors associated with residential movement in and out of the neighborhood.

Method of Study. A random sample consisting of 167 single-family households was selected for interviewing in 1958. This sample comprises 39.9 per cent of the 419 single-family homes of Ludlow Elementary School District. The household units in the 1958 random sample were then used as a panel for interviews in 1959, 1960, 1961, and 1962. The interview schedule consisted of structured and unstructured questions.

Three types of analyses are used to study residential mobility. Each level necessitates a different design though the same data are used for all. These are (1) Descriptive. The rate of change, attitudes, and characteristics of the population are described at one year intervals and comparisons made from one year to the next. (2) Exploratory. Because knowledge is limited in the area of residential mobility, all possible relationships will be explored between independent variables, such as age, length of residence, etc., and the dependent variable of movement. This is an *ex post facto* design. (3) Longitudinal. By following individual changes over time, one can determine whether patterns of changes in such things as attitude and reference groups are associated with residential mobility.

Major Findings. (1) Rate of change shows an approximate ten per cent increase in Negro residents each year from 1955 to 1960 with a decrease down to 5.4 per cent in 1962. (2) The number of original white residents moving each year reached a peak in 1959 and dropped in 1960. The number moving in 1960, 1961 and 1962 remained constant. However, the percentage of white residents who move the following year shows gradual increase after the 1960 drop. (See Table 2.) (3) Using an ex post facto design, the major 1958 characteristic differentiating movers from nonmovers is attitude toward remaining in the neighborhood with Negroes. It is hypothesized from this finding that three subpopulations based on attitude are present in the neighborhood and that reasons for movement would be different for each group. (4) Many significant differences were found among the characteristics of the three subpopulation groups. The conclusion is that the three groups do differ and that reasons for movement or nonmovement must be studied within each group. Data on characteristics associated with movement within each group are now being analyzed. (EKC)

TABLE 1

PERCENTAGE DISTRIBUTION OF RACIAL COMPOSITION OF LUDLOW SAMPLE BY YEAR AND RATE OF CHANGE

Race	1958	1959	1960	1961	1962
TOTAL (167)	99.8%	99.8%	99.9%	100.0%	100.0%
White	74.8%	67.6%	58.1%	51.5%	46.1%
Negro	23.9	30.5	40.7	48.5	53.9
Vacant	1.1	1.7	1.1	0.0	0.0
Rate of Change	23.9%*	6.6%	10.2%	7.8%	5.4%

* Approximate change from 1955.

TABLE 2

RATE OF RESIDENTIAL MOVEMENT OF ORIGINAL WHITE RESIDENTS

Year	Number moving since previous year	Per cent of original white residents (N=167)	Per cent of white residents from previous year
1958	40*	23.9%	23.9%
1959	19	11.4	15.2
1960	13	7.8	11.5
1961	14	8.4	14.4
1962	15	9.0	17.4
TOTAL	101	60.5%	

* Approximate change from 1955 based on number of Negro residents in 1958.

104. A STUDY OF THE LINKAGE PATTERN BETWEEN A CENTRAL CITY AND THE COMMUNITIES WITHIN ITS REGION OF INFLUENCE

Main Investigators: George W. Greenwood, Aly M. Shady, and George T. Marcou.

Status of Research and Publications: One report entitled, "A Survey of the Literature on Inter-Community Traffic," has been published as part of the Highway Research Board Bulletin 347, Trip Characteristics and Traffic Assignment. The research project final report is presently being edited for anticipated publication by the University of Illinois Engineering Experiment Station.

Agency: University of Illinois, Bureau of Community Planning and Engineering Experiment Station, under sponsorship of Highway Research Board.

Previous Digest Report: 8:2-20.

Research Problem. The goal of this research project is to develop inter-community traffic models which will make possible the estimation of inter-community traffic in the aggregate and also by individual trip purposes. These models are to be developed from relationships between travel data between Champaign-Urbana and other communities in East Central Illinois and data pertaining to such characteristics as the population, employment, motor vehicle registration, retail sales, etc., of the communities linked with Champaign-Urbana.

Method of Study. Regional travel patterns for East Central Illinois were examined utilizing motor vehicle travel data obtained from the external interview portion of a comprehensive origin-destination study conducted in Champaign-Urbana in 1958. A theory of inter-community competition was then hypothesized and developed conceptually. This analytical framework was founded on the basic tenets of the gravity concept of human interaction.

Inter-community traffic estimation models were empirically developed for work, business, work and business (combined), shopping, pleasure, school, and medical purpose trips and for a total trips or all trip purposes category. Regression analysis was the principal model building technique employed although factor analyses was applied also in the case of the total trips category as an additional test of the validity of the inter-community competition concepts.

Major Findings. (1) The 14 county analysis area proved to be a satisfactory analytical unit for developing inter-community traffic models. (2) Stratification of trips by purpose achieves greater homogeneity in the data as well as providing flexibility in the selection of community indices to measure the effects of internal competition. (3) Attracted and produced trips are functionally different groups and should be separately estimated. (4) Division of the total analysis region into core and fringe areas provides greater homogeneity in the data and in the effect of inter-community competition, and it allows more flexibility in selection of the most appropriate variables and their transformations by means of which to predict a particular type of functional behavior. These consequences contribute toward models providing improved explanation of the relationship between the independent variables and inter-community traffic. (5) The impact of distance (travel time) on the generation of inter-community traffic varies among trip purposes, between the trips produced and trips attracted categories, and between the core and fringe areas of the analysis region. (6) Multivariate techniques, regression analysis and factor analysis, show comparable results which support the inter-community concept hypothesized in the study.

More specific findings together with overall conclusions and recommendations for further research will be included in the project final report.

BRIEF MENTION

NEW URBAN AND REGIONAL RESEARCH AND TRAINING PROGRAMS

University of Connecticut

An Institute of Urban Research, designed to facilitate research undertakings in the urban field by existing faculty, has been established by the University of Connecticut. Director of the Institute is William N. Kinnard, Jr. According to Professor Kinnard, the Institute will serve as a clearing house for information about research grant funds; develop an inventory of information about the abilities and interests of staff members; sponsor a series of colloquia on urban research activities and developments, particularly in the state of Connecticut; and administer such grants or contracts as may become available for interdepartmental studies.

New York University (a)

Beginning with the fall of 1963, NYU's new planning program will lead to the degree of Master of Planning. Two years in residence are necessary; 54 points of course work with an average grade of B, and a thesis are required.

The curriculum encourages analytical knowledge of population, the family, social groups and forces, social legislation, employment and income generation, economic and locational analysis, fiscal policy, political and government organization and administration, public finance, and the law. At the same time it provides the theory of planning, analytical and survey techniques, including presentation and design techniques, and courses on implementation. Planning elements, concepts, standards, goals, and methods are presented so as to enable sound synthesis. The core of the program is the Workshop in Planning Design, in which the student's acquaintance with the professional tools of planning is developed in conjunction with knowledge obtained in his other courses through the analysis and solution of specific planning problems.

In addition to the required courses and accepted equivalents, each candidate shall select such additional courses in consultation with his advisor as shall complement his previous training and experience insofar as his professional planning career is concerned. A knowledge of the fundamentals of statistics must be demonstrated. Satisfactory completion of an approved course will fulfill this requirement or the student may stand a special examination.

(a) From Bulletin of the Association of Collegiate Schools of Planning, Summer, 1963.

University of Pittsburgh (b)

A program of studies leading to the degree of Master of Urban and Regional Planning became available at the University of Pittsburgh beginning in September, 1963. It is being inaugurated at this time primarily for two reasons: (1) to serve some of those who first enrolled in the urban renewal curriculum but wish to take the M.U.R.P. degree instead of the M.P.A., and (2) to serve part-time, employed persons living within reasonable commuting distance. Scheduling of classes during the first few years of the program is being arranged with special consideration for the latter group.

Relevant practical experience of at least three months is a requirement for the degree. Full-time students will normally complete the course requirements and thesis in four trimesters, or 20 months. Part-time students who take two courses each trimester can complete the course work, short of thesis, in 28 months. The program emphasizes professional planning practices and skills, with enrichment by study of the two intellectual streams which provide the primary sources for urban planning: knowledge of the process of urban change, and knowledge of the processes of decision and control.

Central feature of the program is the sequence of four trimester courses in professional planning practices: Theory and Practice of Urban Planning, Planning Land Use and Transportation, Planning Facilities and Services, and the preparation of the Urban General Plan.

To develop knowledge of the process of urban change and the process of decision and control two additional sequences of courses are provided, one within the Urban Affairs Department and one based on the general academic resources of the School, University and community. The sequence within the Urban Affairs Department includes Urban Analysis, Urban Renewal Survey, and Urban Development Law.

Through the School's Core Courses and through electives the student of planning can study the common ground between planning theory and the theory of communication, decision, and control. He can also register in courses in other schools to pursue such studies and for relevant course work on urban change and on other urban professional practice.

San Diego State College (c)

Admission of first students in the fall of 1964 will mark the culmination of efforts to establish a planning program at San Diego State

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(b) From Bulletin of the Association of Collegiate Schools of Planning, Summer, 1963.

(c) From Bulletin of the Association of Collegiate Schools of Planning, Summer, 1963.

College, California. The curriculum will be developed from existing courses in six different departments, and will require the establishment of eight new courses--six in planning, and one each in political science (planning law and administration) and economics (local and regional economics). It will thus be a broadly based curriculum, with specialization achieved through the choice of electives, the thesis topic, and orientation of workshop projects.

It is intended that for the first several years the planning program be "housed" in the Department of Political Science, whose chairman, Dr. Richard Bigger, will be its administrative head. Direct responsibilities for program initiation, however, will rest with an "administrator"--a political science faculty member--until the hiring of the first planning instructor. After this period a review of the progress of the program will indicate the appropriateness of establishing a separate Department of Urban Planning. The program would consist of 56 semester units, of which 29 would be in planning courses (including a 6-unit thesis) six each in geography, economics, and political science, three in sociology, and six units of electives. A planning internship is required, desirably in the summer between the two years of academic work.

University of Toronto (d)

Beginning in the fall of 1963 a new two year planning program is being offered in the Division of Town and Regional Planning at the University of Toronto leading to the degree of Master of Science in Urban and Regional Planning.

The Division has been offering a Diploma in Town and Regional Planning for over a decade. This is a one-year graduate course and students who perform satisfactorily in it may be given credit for the first year of the two-year Master's course. It is anticipated that many students who have been awarded the Diploma during the past 10 years will return for the second year.

The new degree course covers such subjects as theory I and II of planning, engineering, local government, law, land economics, housing and sociology, urban geography, statistics and method, history and transportation. Project work is carried on simultaneously during both years and includes subdivisional layout, the preparation of master plans and their written documents, urban design, and regional studies and advisory proposals.

The courses are directed by Dr. A. J. Dakin, Professor of Planning and Head of the Division.

University of Wisconsin-Milwaukee (e)

The University of Wisconsin-Milwaukee has established a new graduate Department of Urban Affairs in its College of Letters and Science. The one-year

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(d) From Bulletin of the Association of Collegiate Schools of Planning, Autumn, 1963.

(e) From ASPO Newsletter, April, 1963.

program, which leads to a Master's Degree in Urban Affairs, consists of five core seminars and electives for concentration in specialties such as urban economics, housing and redevelopment, public administration, community organization, social welfare, and transportation. Further information on the program, which began this fall can be obtained from Henry Schmandt, Chairman.

Regional Science Association, Summer Training Institute

A summer training institute in regional science, designed primarily for college teachers in the social sciences, will be held during the summer of 1964 on the Berkeley Campus of the University of California, under the joint sponsorship of the Regional Science Association, the National Science Foundation, and the Center for Research in Real Estate and Urban Economics of the University. Dates for the conference are June 14 through July 24. Stipends of $450, plus $90 for each dependent, are available. Applications must be received by February 21. Further information may be obtained from Professor Duane F. Marble, Department of Geography, Northwestern University, Evanston, Illinois.

Conference on Recent Advances in the Statistical Analysis of Spatial Distributions

A summer conference on recent advances in the statistical analysis of spatial distributions will be offered for college and university teachers of geography from August 16, 1964 through August 29, 1964, at Northwestern University in cooperation with the National Science Foundation. Stipends for living expenses will be awarded to each of the participants; modest travel grants will also be available.

The Conference will review recent work in the areas of contiguity problems, aggregation and autocorrelation in spatial series, and studies of the structure and identification of two-dimensional point and line distributions.

Applications must be postmarked on or before March 15, 1964. Notification of stipend grants will be mailed on about April 1, 1964, and recipients will have until May 1 to accept or decline the awards. All inquiries about the Conference should be addressed to: Dr. Duane F. Marble (SSC), Department of Geography, Northwestern University, Evanston, Illinois, 60201.

RESEARCH MATERIALS

"Statistical Services of the U. S. Government" Revised (f)

The Office of Statistical Standards, Bureau of the Budget, has issued the 1963 revised edition of Statistical Services of the United

(f) From Federal Statistical Reporter, August 1963, No. 308.

States Government. Copies ($1.00 each) are now available from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

In the revision, Part I is a description of the statistical system of the United States Government and Part II presents brief descriptions of the principal economic and social statistical series collected by government agencies. Part III, Principal Statistical Publications of Federal Agencies, includes what was formerly the appendixes--a statement of the statistical responsibilities and a listing of the principal statistical publications of each agency. The chart, The Federal Statistical System, is included as an insert.

Federal Statistical Directory, 1963

The Federal Statistical Directory, 1963, lists 3,800 persons in Federal agencies who are engaged on statistical programs. Their activities include planning statistical programs, clearing reporting forms under the Federal Reports Act, data collection and data processing, publishing statistical information, research on social and economic problems, and applying statistical methods to Government operations. The Directory is designed to be a guide to these activities and to facilitate communication with offices concerned with statistical programs.

The basic listing shows the agency structure of the statistical activity and gives, for each individual, his functional title, telephone number and room location. A name index lists everyone shown in alphabetic order.

The present publication is the nineteenth edition of this Directory, the first having been issued in 1935. It is also compiled by the Office of Statistical Standards, Bureau of the Budget from lists prepared by the agencies involved, and is available at 55 cents per copy from the Superintendent of Public Documents.

New Materials, U. S. Bureau of the Census

State and Local Tax Revenue (g) A new series of reports entitled "Quarterly Summary of State and Local Tax Revenue" will be introduced shortly by the Bureau of the Census. The initial quarterly summary, covering the first quarter of 1963, will appear in August, following publication of a background report that will furnish quarterly data for the calendar year 1962.

(g) From Federal Statistical Reporter, July 1963. No. 307.

Tax revenue for the current and prior periods will be presented as estimated nationwide totals by level of government and type of tax, as state-by-state data for several major types of state taxes, and as figures on property tax collections for each of the 123 county areas that had at least 250,000 inhabitants in 1960.

These data are based primarily upon quarterly mail surveys which cover the tax administering agencies of all state governments, a limited group of major local units having major nonproperty taxes, and the local agencies responsible for property tax collection in each of a stratified random sample of approximately 500 county areas.

Property Tax Base (h) "Taxable Property Values" (Volume II of the 1962 Census of Governments) was recently issued by the Bureau of the Census. While the presentation generally resembles that of the corresponding report of the 1957 Census of Government, it includes some additional kinds of data.

The report provides statistics on assessed valuations by major class of taxable property (state-assessed, locally assessed realty, and locally assessed personalty) by state and county and for individual cities of over 300,000. It gives further detail on locally assessed real estate in each state in estimated distributions of the number and assessed value of such property by value-size and use-class (residential, commercial, and industrial property, acreage and farms, and vacant lots), with some related distributions for several hundred major counties.

The report also presents, by states, the number of measurable sales, assessed value, sales price, and indicated average assessment ratios for various use-classes of property, using data collected in a sample survey of real estate sales completed during the latter half of 1961. Related figures regarding sales of single-family houses are shown for about 500 local assessing areas (mainly counties) having 50,000 or more inhabitants, and for individual cities of over 300,000.

"Taxable Property Values" (160 pages, $1.00 per copy) may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

(h) From Federal Statistical Reporter, August 1963, No. 308.

Senior Citizens (i) Special tabulations of data on senior citizens for places with populations of 10,000 to 100,000 in approximately 35 states will be available in mid-October from the Bureau of the Census. These tabulations, based on data from the 1960 Censuses of Population and Housing, were sponsored by the Housing and Home Finance Agency and a number of local housing authorities.

Data will be presented on tenure, number of persons in unit, number of persons 60 and over in unit, year structure was built, year household head moved into unit, gross rent, and rent-income ratio. In addition to these housing subjects, such population characteristics as age, relation to head of household, household composition, and individual and household income will be included.

Photocopies of the tabulations will be available from the Housing Division, Bureau of the Census, Washington, D. C. 20233, at a cost of $6 for each place.

The Bureau announced the availability of additional tabulations on senior citizens last year (SR No. 293, May '62, p. 62). These tabulations presented data for the United States as a whole, for each state, 212 standard metropolitan statistical areas, and all places of 100,000 inhabitants or more.

Rural Housing (j) Publication of "Rural Housing," Volume VI of the 1960 Census of Housing, by the Bureau of the Census makes available data on the characteristics of occupied rural-nonfarm and rural-farm housing units separately, by economic subregion.

Five of the tables present cross-tabulations for selected characteristics by number of rooms, tenure, rent status, condition and plumbing, income, and year structure built for each of the 121 economic subregions of the United States.

A sixth table is a cross-tabulation of data, by condition and plumbing, for units occupied by nonwhite owners, and a corresponding cross-tabulation of nonwhite renter units. This table is for the United States and for each of the 31 subregions in which there are 10,000 or more units with nonwhite household heads.

The remaining table provides data on selected characteristics of vacant rural nonfarm units.

(i) From Federal Statistical Reporter, September 1963, No. 309.

(j) From Federal Statistical Reporter, June 1963, No. 306.

Copies of Rural Housing (800 pages, $6.00) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Subject Reports, 1960 Population Census (k) Publication of seven additional "Subject Reports," Series PC(2), of the 1960 Census of Population, has been announced. The new reports are: PC(2)-1B Persons of Spanish Surname ($1.50), PC(2)-1C Nonwhite Population by Race ($1.75), PC(2)-1D Puerto Ricans in the United States (70 cents), PC(2)-2B Mobility for States and State Economic Areas ($3.00), PC(2)-2C Mobility for Metropolitan Areas ($2.25), PC(2)-5B Educational Attainment ($1.25), PC(2)-6A Employment Status and Work Experience ($1.75).

Announcements which provide descriptions of all PC(2) reports are available upon request to the Publications Distribution Section, Bureau of the Census, Washington, D. C. 20233, or by telephoning (Government through-dialing) 157-406.

Copies of the reports may be purchased from Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Publications of National Center for Health Statistics (1)

The National Center for Health Statistics, Public Health Service, HEW, has revised its publication program and combined a number of series under the heading of Vital and Health Statistics (Public Health Service, Publication Number 1000). Its eleven series will include all of the Center's principal statistical publications except "Vital Statistics of the United States" (the annual vital statistics volumes) and the "Monthly Vital Statistics Report." Thus, the series will supersede "Health Statistics from the U. S. National Health Survey" and "Vital Statistics--Special Reports." The National Vital Statistics Division will continue to issue separately certain items from "Vital Statistics of the United States," and will maintain a mailing list or lists for their distribution. Separate mailing lists will be maintained for each of the series described below except that Series 1 will be sent to everyone on a Vital and Health Statistics mailing list. The new publication will include the following types of reports:

General Series Series 1. Programs, definitions, procedures.--Reports which describe the general programs of the National Center for Health Statistics and its offices and divisions, data collection methods used, definitions, and other material necessary for understanding the technical characteristics of published data. Series 2. Research in

(k) From Federal Statistical Reporter, October 1963, No. 310.

(1) From Federal Statistical Reporter, April 1963, No. 304.

statistical methodology.--Studies of new statistical methodology including: experimental tests of new survey methods, studies of vital statistics collection methods, new analytical techniques, objective evaluations of reliability of collected data, contributions to statistical theory. Series 3. Analytical Studies.--This series comprises reports presenting analytical or interpretive studies based on vital and health statistics. The primary aim of these reports will not be to publish new tabulations of data, but to carry the analysis of data further than the expository type analyses given in other series. The series is not limited with regard to the type of statistical analysis to be covered. Series 4. Committee reports and documents.--Final reports of major committees concerned with vital and health statistics. Documents such as recommended model vital registration laws and revised birth and death certificates will be published in this series. Committee working papers and reports of limited or temporary interest will not be included. (Series 5 through 9 reserved for future use.)

Health Survey Series Series 10. Health Interview Survey statistics.--Statistics on illness, accidental injuries, disability, use of hospital, medical, dental, and other services, and other health-related topics, based on data collected in a continuing national household interview survey. Series 11. Health Examination Survey statistics.--Data from the direct examination, testing, and measurement of national samples of the population of the United States, including the medically defined prevalence of specific diseases, and distributions of the population with respect to various physical and physiological measurements. Series 12. Health Records Survey statistics.--Reports on the health characteristics of persons in institutions, and on hospital, medical nursing, and personal care received, based on national samples of establishments providing these services and samples of the residents or patients, or of records of the establishments. (Series 13 through 19 reserved for future use.)

Vital Statistics Series Series 20. Mortality data.--Various special reports on mortality giving data other than that in the annual volume Vital Statistics of the United States or in the Monthly Vital Statistics Report--tabulations by cause of death, age, etc., time series of rates, data for geographic areas, states, cities, etc. Series 21. Natality data.--Data on birth by age of mother, birth order, geographic areas, state, cities, time series of rates, etc.--compilations of data not included in the regular annual volumes or monthly reports. Series 22. Marriage and divorce statistics.--Tabulations of data on marriage and divorce by various demographic factors, geographic areas, etc. Series 23 Data from vital statistics surveys.--This series will include tabulations based on a special program of sample surveys related to vital records. The subjects being covered in these surveys are varied, including such topics as mortality by socioeconomic classes, hospitalization in the last year of life, X-ray exposure during pregnancy, etc.

Reports in each series will be issued when ready, and not on a periodic basis. Reports in some of these series will be appearing soon, but other series will not be started until later. The frequency with which reports will be issued in each series will vary.

Atlas on U. S. Military Contracts

An Atlas on Military Contracts in the United States has been prepared by Walter Isard and Gerald J. Karaska, of the Department of Regional Science, Wharton School, University of Pennsylvania and can be obtained at 25¢ per copy from World Friends Research Center, Inc., GPO Box 7376, Philadelphia 1, Pennsylvania. The Atlas deals with prime contract data for the period 1960 through 1962, and aims to present in a concise and easily perceived form some of the important data on the geographic distribution of military and related expenditures. Purpose of the Atlas is to make possible intelligent discussion and public debate on policy issues pertaining to the local employment impact of military expenditures, and to assist counties and metropolitan areas in planning for possible changes in the level and composition of such expenditures. Previous volumes in this series include (1) Awards of Prime Military Contracts by County, State, and Metropolitan Area of the United States, Fiscal Year 1960, and (2) Unclassified Defense Contracts: Awards by County, State and Metropolitan Area of the United States, Fiscal Year 1962.

Conference on Regional Data Needs

Regional data needs and availability was the subject of a one day conference held in Washington, D. C. early in October, under the joint sponsorship of the Federal Statistics Users' Conference and the Committee on Regional Accounts. Purpose was to examine the regional economic information (county, metropolitan area, economic area, state, and multi-state regions) currently available from Federal, state and local governments, and from private agencies; to evaluate its usefulness in terms of present-day needs; and to seek a consensus as to the most urgent needs for improvement to help guide the course of future regional statistical programs. A summary of the proceedings, showing areas of consensus and areas of importance but on which there is no consensus, is to be prepared. Address of the Federal Statistics Users' Conference is 1420 New York Avenue, N. W., Washington 5, D. C.

BIBLIOGRAPHIES

Housing for the Aged

A new bibliography, Housing for the Aged: A Reading List for Architects, has been issued by the Library, Office of the Administrator, Housing and Home Finance Agency. Covering such fields as background of the housing situation, housing needs and preferences, health and related problems, institutional care, architecture, private financing, and governmental programs, the bibliography lists some 120 items, together with a number of periodicals and publishers for further reference.

Urban Real Estate Research

Urban Real Estate Research - 1962, edited by Jerome P. Pickard and Arlene G. Balaban, has just been issued as Research Monograph No. 9 by the Urban Land Institute, 1200 18th Street N. W., Washington, D. C. This is the fourth in the series of annual research inventories bringing up to date the first survey prepared by David Rowlands in 1959. Altogether, the five volumes now in print span the period 1946-1962, and cover significant work completed or in process on physical, economic and social aspects of urban land use. A feature of the latest volume is a rearrangement of the section covering work in process, together with a cross-referencing where applicable to more detailed project statements which have appeared in the Research Digest.

Water Resources

A recent bibliography dealing with water resources is An Annotated Bibliography on Water Problems, by Richard D. Duke and Paul Nickel. (Michigan State University, Institute for Community Development. Technical Bulletin B-29. July, 1962.) Approximately 100 items are listed, arranged according to policy and administration, organization, research, basin planning, economic analysis, land planning, legal aspects, and other bibliographies.

HOUSING

Ford Foundation Grants for Gray Area Studies (m)

Since our previous issue, the Ford Foundation has provided two additional grants, its third and fourth, for "gray area" studies. A grant of $1.7 million was given to the Philadelphia Council for Community Advancement to finance study and work on ways of solving social problems in Philadelphia. The council, a nonprofit corporation, was established to consolidate the efforts of various interested groups. North Philadelphia has been chosen as the primary target area for a demonstration project, because of the density of its population (largely Negro) and its great need for improvement. The over-all study, however, will be designed to benefit all Philadelphia.

(m) From ASPO Newsletter, May and November, 1963.

A $1.9 million grant has been given by the Ford Foundation to Action for Boston Community Development, a nonprofit organization, to help solve social problems caused by the Boston slums. The money will finance a five-year program. Previous grants went to Oakland, California and New Haven, Connecticut.

HHFA Grants for Experiments in Low-Income Housing (n)

Boston, New York and San Francisco are each the recipient of an HHFA grant for developing new and improved means of providing low-income citizens with housing.

The Boston grant ($52,800) is for a study of how best to relocate low-income workers to suburban areas. The money goes to Fair Housing, Inc., organized in 1962.

Fair Housing will provide, without charge to carefully selected families counseling and advice on buying and renting low-cost homes in suburban areas. Noting the trend in industry to relocate from center city to the suburbs, the study will attempt to find the best method of bringing low-income workers close to their jobs.

The New York City Housing Authority will organize a program for converting old but structurally sound buildings into housing for large, low-income families. The program calls for the conversion of the top two floors of existing buildings into 8- or 9-room duplex apartments that will house families of ten or more.

The Authority hopes that by using existing buildings, it will be able to reduce costs by 35 per cent. To develop this program the Authority has received a grant of $764,351. The demonstration will be carried out over 18 months and evaluation of the program will be made by a New York university.

The San Francisco program will aid low-income families who show promise of earning more in the future. Sixty families in this category who have been displaced by urban renewal will be relocated into three middle-income cooperative and condominium developments. There they will pay rents based on their income with the federal grant making up the difference.

The subsidy will continue for no more than four years and, if all goes well, it is hoped that they will by this time be able to purchase the unit in which they have lived. The test families will be mixed with

(n) From ASPO Newsletter, September, 1963.

middle-income families without distinction, and during the rental period they will be prepared for home ownership.

The San Francisco Development Fund, a newly formed nonprofit corporation which sponsors welfare programs in connection with urban renewal, will use the $244,607 grant to conduct the program. The results will be evaluated by two university groups and the local Community Fund.

Philadelphia, Washington, D. C., Glassboro, New Jersey, the University of Florida, and Michigan City, Indiana also received grants for low-income demonstrations. The Philadelphia grant, like the one given to New York, is for an evaluation of the feasibility of using existing structures in a low-income housing program. The Washington grant was given to a District of Columbia nonprofit organization which will provide technical assistance and service to sponsors of private, low-income housing.

The Borough of Glassboro, New Jersey will use its federal grant to test a method of reducing monthly payments on new homes purchased by families who now own their own homes but are being displaced by urban renewal. The University of Florida will carry out a demonstration for testing procedures for determining the credit acceptability of low-income applicants for FHA-insured mortgage loans. Michigan City, Indiana receives a grant for design and demonstration of the "stacking" of factory-built dwellings to achieve low-density, multi-level housing for low-income families.

TRANSPORTATION

<u>HHFA Mass Transportation Demonstration Studies</u> (o)

The use of the digital computer in scheduling bus operations will be tested under another in the series of mass transportation grants approved by HHFA. Purpose of the demonstration is to determine whether the expense of using a computer, instead of manual calculations, would yield sufficient advantage in terms of service, schedule improvements and economies in operation and supervision. The test will be conducted by Kansas State University's Engineering Experiment Station with at least four public transportation systems participating in the program--Kansas City Transit, Inc., Cincinnati Transit Company, St. Louis Public Service Company, and one or two others yet to be announced. The project, expected to cost $18,705, will be divided into three stages covering a period of 15 months.

Another HHFA demonstration grant ($291,667) was approved for study of current and future public transportation needs in southeastern Pennsylvania.

(o) From ASPO Newsletter, September, 1963.

The funds will be used by the Southeastern Pennsylvania Transportation Compact (SEPACT) which will contribute $145,833 to the three-year study.

Other HHFA demonstration grants in transportation: Detroit ($224,400), supplemented by $112,200 in local funds to study the effects of more frequent transit service; the Tri-State Transportation Committee of New York, New Jersey and Connecticut ($1,299,087), for a demonstration of the effects of faster schedules, more frequent service and expanded parking facilities on commuter rail systems; New York City ($3,185,000), for two-thirds of the cost of studying the improvement of existing transportation in the five boroughs; New York State ($99,160), added to $49,580 in state money to show to what extent people in the "outer ring" will switch from cars to rapid transit if frequency and speed of service are increased; Metropolitan Government of Nashville and Davidson County, Tennessee ($400,000), with $200,000 in local funds to determine the economic feasibility of new mass transportation service; San Francisco Bay Area Rapid Transit District ($4,886,000), to pay two-thirds of the cost of a test system for studying new concepts in rapid transit design, construction and operation.

OTHER

Public Control of Private Land Use (p)

The Ford Foundation has announced a grant of $500,000 to the American Law Institute for a series of studies and monographs on the public control of private land use. The studies are planned to examine the basic economic and social aspects of land use control as well as the legal aspects, with a view to making a fundamental re-evaluation of presently held doctrine in the field.

The project will be under the general supervision of an Advisory Committee, with Richard F. Babcock of Chicago serving as chairman. The monographs and studies will be prepared by reporters. Experts and advisors from the fields of law, planning, architecture, housing, health, and public administration will be drawn into the study.

A workshop on land use control problems, sponsored by the American Society of Planning Officials in February 1960, and Mr. Babcock's 1962 study of zoning under a Ford Foundation grant to ASPO laid the groundwork for the new grant.

Current Work Program, Advisory Commission on Intergovernmental Relations

As of August 1, 1963, the current work program of the Advisory Commission on Intergovernmental Relations (Washington, D. C. 20575),

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(p) From ASPO Newsletter, May, 1963.

included the following subjects:

Taxation and Finance. (1) Cooperative Tax Administration (Continuing Project) Note: Reports on Federal-State cooperation with respect to cigarette taxes and documentary transfer taxes are under preparation. (2) Effect of Tax and Expenditure Practices on Location of Industry and Economic Development. (3) Role of Equalization of Needs and Resources in the Structure and Operation of Federal Grants-in-Aid.

Metropolitan Areas. (1) Performance of Urban Functions: Local and Areawide Note: Final editing of the draft report on this subject is being completed for consideration by the Commission at its next meeting. (2) Intergovernmental Problems Arising from Economic and Racial Disparities Between Central City and Suburban Populations. (3) Jurisdictional Disparities Between Costs and Benefits of Local Government Programs in Metropolitan Areas. (4) Intergovernmental Problems in Relocation of Displaced Persons and Businesses in Urban Areas.

Other Aspects of Intergovernmental Relations. (1) Statutory and Administrative Controls Associated with Federal Grants for Public Assistance. (2) State Laws and Criteria for Formation of Special Purpose Districts and Authorities.

Follow-up Study of ARA Trainees in Six States (q)

The United States Employment Service, U. S. Department of Labor, and several affiliated State Employment Services are undertaking a follow-up study of ARA trainees in six states--Rhode Island, Pennsylvania, West Virginia, Wisconsin, Michigan, and Indiana. A sample of approximately 600 trainees (as well as their employers and instructors) will be surveyed, about 50 to 150 trainees in each of the six participating states. The major occupations to be covered are clerk-typist, clerk-stenographer, auto mechanic, and machine tool operator. In addition to the trainees, the survey will cover a small sample of about 300 unemployed workers who are as nearly comparable as possible to the ARA trainees with respect to such variables as age, sex, educational attainment, duration of unemployment, and prior occupational and industry attachment.

The purpose of this project is to determine the extent to which workers are in an improved labor market position as a result of their ARA training and whether the improvement is continuing, and to identify the factors conducive to the success or failure of the program. All data will be obtained from Employment Service records and by personal interviews conducted by university researchers and State Employment Service staff. Each employer and instructor will be interviewed once. Each

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(q) From Federal Statistical Reporter, July 1963, No. 307.

trainee will be interviewed at two-month intervals over a period of one year. Information will be obtained in the initial interview on the trainee's personal characteristics and educational and vocational background. Subsequent interviews will maintain a complete post-training labor force record. After an orientation meeting of participating State Employment Service and college staff, the interviewing phase of the study will begin. It is expected that this phase of the study will be completed by the fall of 1964.

Preliminary analysis of the data will be made at the state level; final analysis and presentation will be made by national office staff.

Study of Residence and Migration of College Students (r)

The Office of Education, Department of Health, Education and Welfare, will conduct a survey on the residence and migration of college students in fall 1963. The questionnaire will be sent to the approximately 2,100 institutions which offer work creditable to a bachelor's degree. The survey will provide national data on the extent of student migration for purposes of college study; in-migration and out-migration for each state will be shown.

Migration as here defined means having a permanent address on the college record in a state other than that in which the college is located. The most recent survey of college student migration was done by the American Association of Collegiate Registrars and Admissions Officers in fall 1958, and the Office of Education conducted one in 1949-50. The present survey will show the current trend in migration patterns in comparison with the results of previous surveys.

A preliminary report is expected by April 1964 and the final report by December 1964.

(r) From Federal Statistical Reporter, July 1963, No. 307.

AVAILABLE BACK ISSUES OF RESEARCH DIGEST

A few copies of the following back issues of the Research Digest are still available, and may be purchased at the regular price of $1.00 per copy.

Vol. 3	No. 2	November, 1956
Vol. 5	No. 2	November, 1958
Vol. 7	No. 2	November, 1960
Vol. 8	No. 2	November, 1961
Vol. 9	No. 1	April, 1962
Vol. 9	No. 2	November, 1962
Vol. 10	No. 1	April, 1963

A few copies of the Index to Volume 8 are also available. One copy free to subscribers. Extra copies $1.00 each.

Beginning with the current issue (Vol. 10, No. 2) back issues will be priced at $2.00 per copy for individuals and $3.00 for organizations.