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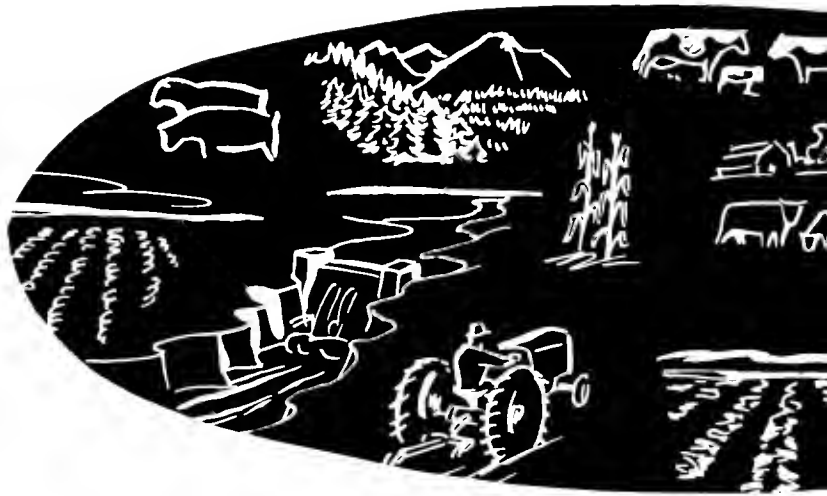
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METHODS and PROCEDURES



SPECIAL REPORTS



1954 Census of Agriculture

U.S. Bureau of the Census

United States Census of Agriculture: 1954

U. S. Department of Commerce
Sinclair Weeks, *Secretary*

Bureau of the Census
Robert W. Burgess, *Director*

Volume III

SPECIAL REPORTS

Part 12

Methods and Procedures

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Prepared under the supervision of

RAY HURLEY

Chief, Agriculture Division

**HOW THE CENSUS WAS TAKEN • DESCRIPTION OF
METHODS AND PROCEDURES •**



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SUGGESTED IDENTIFICATION

U. S. Bureau of the Census. *U. S. Census of Agriculture: 1954.* Vol. III, Special Reports,
Part 12, Methods and Procedures

U. S. Government Printing Office, Washington, D. C., 1956.

PREFACE

Volume III, Special Reports, comprises one of the volumes presenting final summaries and results for the 1954 Census of Agriculture. The purpose of Part 12 is to outline the methods and procedures used in taking and compiling the results of the 1954 Census of Agriculture.

Since 1920, the Bureau of the Census has taken once each 5 years a Census of the Nation's farms and agricultural production. The increasing complexity of agriculture, and the accelerated rate of agricultural changes, resulting from increased technological developments and mechanization, have made the taking of a Nationwide Census of Agriculture a complex and difficult task. This report describes briefly the methods and procedures devised and used for meeting the many problems involved in the 1954 Census of Agriculture of the United States.

This report was prepared under the supervision of Ray Hurley, Chief, Agriculture Division, and with the assistance of Orvin Wilhite, J. Thomas Breen, and Henry A. Tucker.

December 1956

UNITED STATES CENSUS OF AGRICULTURE: 1954

REPORTS

Volume I.—Counties and State Economic Areas. Statistics for counties include number of farms, acreage, value, and farm operators; farms by color and tenure of operator; facilities and equipment; use of commercial fertilizer; farm labor; farm expenditures; livestock and livestock products; specified crops harvested; farms classified by type of farm and by economic class; and value of products sold by source.

Data for State economic areas include farms and farm characteristics by tenure of operator, by type of farm, and by economic class. Volume I is published in 33 parts.

Volume II.—General Report. Statistics by Subjects, United States Census of Agriculture, 1954. Summary data and analyses of the data for States, for Geographic Divisions, and for the United States by subjects.

Volume III.—Special Reports

Part 1.—Multiple-Unit Operations. This report will be similar to Part 2 of Volume V of the reports for the 1950 Census of Agriculture. It will present statistics for approximately 900 counties and State economic areas in 12 Southern States and Missouri for the number and characteristics of multiple-unit operations and farms in multiple units.

Part 2.—Ranking Agricultural Counties. This special report will present statistics for selected items of inventory and agricultural production for the leading counties in the United States.

Part 3.—Alaska, Hawaii, Puerto Rico, District of Columbia, and U. S. Possessions. These areas were not included in the 1954 Census of Agriculture. The available current data from various Government sources will be compiled and published in this report.

Part 4.—Agriculture, 1954, a Graphic Summary. This report will present graphically some of the significant facts regarding agriculture and agricultural production as revealed by the 1954 Census of Agriculture.

Part 5.—Farm-Mortgage Debt. This will be a cooperative study by the Agricultural Research Service of the U. S. Department of Agriculture and the Bureau of the Census. It will present, by States, data based on the 1954 Census of Agriculture and a special mail survey conducted in January 1956, on the number of mortgaged farms, the amount of mortgage debt, and the amount of debt held by principal lending agencies.

Part 6.—Irrigation in Humid Areas. This cooperative report by the Agricultural Research Service of the U. S. Department of Agriculture and the Bureau of the Census will present data obtained by a mail survey of operators of irrigated farms in 28 States on the source of water, method of applying water, number of pumps used, acres of crops irrigated in 1954 and 1955, the number of times each crop was irrigated, and the cost of irrigation equipment and the irrigation system.

Part 7.—Popular Report—The American Farmer in 1954. This report is planned to be a general, easy-to-read publication for the general public on the status and broad characteristics of United States agriculture. It will seek to delineate such aspects of agriculture as the geographic distribution and differences by size of farm for such items as farm acreage, principal crops, and important kinds of livestock, farm facilities, farm equipment, use of fertilizer, soil conservation practices, farm tenure, and farm income.

Part 8.—Size of Operation by Type of Farm. This will be a cooperative special report to be prepared in cooperation with the Agricultural Research Service of the U. S. Department of Agriculture. This report will contain data for 119 economic sub-

regions (essentially general type-of-farming areas) showing the general characteristics for each type of farm by economic class. It will provide data for a current analysis of the differences that exist among groups of farms of the same type. It will furnish statistical basis for a realistic examination of production of such commodities as wheat, cotton, and dairy products in connection with actual or proposed governmental policies and programs.

Part 9.—Farmers and Farm Production in the United States.

The purpose of this report is to present an analysis of the characteristics of farmers and farm production for the most important types of farms as shown by data for the 1954 Census of Agriculture. The analysis deals with the relative importance, pattern of resource use, some measures of efficiency, and problems of adjustment and change for the principal types of farms. The report was prepared in cooperation with the Agricultural Research Service of the U. S. Department of Agriculture.

The list of chapters (published separately only) and titles for each chapter are as follows:

Chapter I—*Wheat Producers and Wheat Production*

II—*Cotton Producers and Cotton Production*

III—*Tobacco and Peanut Producers and Production*

IV—*Poultry Producers and Poultry Production*

V—*Dairy Producers and Dairy Production*

VI—*Western Stock Ranches and Livestock Farms*

VII—*Cash-Grain and Livestock Producers in the Corn Belt*

VIII—*Part-Time Farming*

IX—*Agricultural Producers and Production in the United States—A General View*

✓ **Part 10.—Use of Fertilizer and Lime.** The purpose of this report is to present in one publication most of the detailed data compiled for the 1954 Census of Agriculture regarding the use of fertilizer and lime. The report presents data for counties, State economic areas, and generalized type-of-farming areas regarding the quantity used, acreage on which used, and expenditures for fertilizer and lime. The Agricultural Research Service cooperated with the Bureau of the Census in the preparation of this report.

✓ **Part 11.—Farmers' Expenditures.** This report presents detailed data on expenditures for a large number of items used for farm production in 1955, and on the living expenditures of farm operators' families. The data were collected and compiled cooperatively by the Agricultural Marketing Service of the U. S. Department of Agriculture and the Bureau of the Census.

✓ **Part 12.—Methods and Procedures.** This report contains an outline and a description of the methods and procedures used in taking and compiling the 1954 Census of Agriculture.

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Chapter I—PLANNING AND PREPARING FOR THE CENSUS

The planning for the 1954 Census of Agriculture was performed largely by staff members with experience in connection with one or more prior Censuses of agriculture or other Censuses. The results of the prior Censuses were available to this staff in the form of published reports, staff appraisals, records of work performed, and copies of detailed procedures, and these were used as a basis for planning.

Planning the Agriculture Questionnaire.—Planning for the questionnaire content began in connection with the sample Census of Agriculture taken in 1953 in the States of Virginia and Utah. The questions proposed for the 1954 Census were pre-tested in this sample Census taken in October–November 1953. This pretest involved the use of about 130 enumerators and the enumeration of approximately 7,600 farms scattered throughout the two States. The work of the enumerators during this pretest was observed by technical staff members, the questionnaires were edited and coded, tabulations were made, and reports presenting data from this pretest were published in March, 1954.

Selecting the questions.—The questions included in the 1954 Census of Agriculture were selected from requests and suggestions received from many sources, such as the United States Department of Agriculture, State Agricultural Colleges, farm publications, farm organizations, individuals, etc. The first list of questions deemed by the technical staff of enough importance to be considered for inclusion in a Nationwide Census of Agriculture was prepared in April 1953.

The selection of questions to be included in the Census was made on the basis of the advice and recommendations of a special advisory committee appointed by the Director of the Bureau of the Census. This special advisory committee included persons recommended by, and representatives of the following organizations:

- Associations of Land Grant Colleges and Universities
- National Association of Commissioners, Secretaries, and Directors of Agriculture
- American Farm Bureau Federation
- Agricultural Publishers Association
- Farmers Educational and Cooperative Union of America
- Farm Equipment Institute
- National Grange
- The American Farm Economics Association
- Census Advisory Committee, American Statistical Association
- United States Department of Agriculture
- National Council of Farmer Cooperatives

In selecting questions to be included in the Census, the special advisory committee and the technical staff gave consideration to the possibility of obtaining satisfactory information more efficiently in some other way than through the Census of Agriculture, to the adequacy of the information that might be obtained through the Census, to the availability of data from other sources, to the usefulness of the data, and to the cost of securing and compiling the information. A reduced facsimile of an Agriculture Questionnaire (A1) appears on pages 8 to 11.

The special advisory committee also made recommendations regarding the publication of data for the Census, and the making of special surveys and reports in connection with the Census.

Establishing enumeration districts.—In order to secure the complete coverage of all areas, and to make assignments of work to individual enumerators, it was necessary to divide the area of the United States into small areas, called enumeration districts. The size of these small areas was determined by the amount of work each enumerator was expected to perform and by boundaries of existing local minor civil divisions, such as townships, districts, etc. Generally, it was planned to establish enumeration districts that would provide 150 to 160 hours of work for each enumerator. Usually, enumeration districts contained all of one or more minor civil divisions. Records of the work time, number of farms, and number of dwellings as shown by the 1950 Censuses of Agriculture, Population and Housing were used as a basis for estimating the workload for proposed enumeration districts. Enumeration districts were established so that all parts were contiguous and so that natural barriers would not impede travel. Generally, incorporated places, unincorporated places, and urbanized areas having a population of 1,000 or more in 1950 were made separate enumeration districts. Likewise, incorporated and unincorporated places of less than 1,000 population were made separate enumeration districts if they had relatively few farms and more than 150 dwelling units in 1950.

In 37 out of the 48 States, enumeration district boundaries were established to conform to existing boundaries of townships or similar minor civil divisions. In 5 States, enumeration district boundaries conformed only in part to boundaries of minor civil divisions as the enumeration district boundaries were drawn along township or section lines, roads, or streams. In 5 States, permanent statistical areas had been established using natural features as boundaries and these areas or combinations thereof were used as enumeration districts.

The total number of enumeration districts established was 41,221 of which 11,127 were for incorporated or similar urban places. The 30,094 enumeration districts outside of urban areas contained an average 153 farms each. The 11,127 enumeration districts for urban areas contained approximately 170,000 farms or an average of 15 farms each.

Base maps for use in indicating enumerators' districts were obtained generally from State Highway Departments. For areas with a high concentration of farms, the enumerators' maps were on a scale of approximately 2 inches per mile. For sparsely settled areas, the enumerators' maps were on a scale of one-fourth inch per mile. Blue line prints were made of these base maps for use in outlining enumeration districts. The boundaries of the enumeration districts were indicated with a colored pencil on the enumerators' maps. These maps usually covered areas somewhat larger than the enumeration district so as to facilitate their use by enumerators in determining location of the enumeration district boundaries. In order to maintain records and controls for enumeration districts, each enumeration district was assigned an identification number. This identification number contained two parts—one part identified the county and the other part identified the enumeration district within the county. Each enumeration district also contained a label, that identified the name, if any, of the area comprising the enumeration district.

Our Census report will be used for statistical purposes only and cannot be used for purposes of taxation, investigation, or regulation.

Bureau of the Budget No. 41-5425
Approval expires December 31, 1955

HAY CROPS If two or more cuttings count the acres only once but give total production of all cuttings.

Were any of the following hay crops cut this year? For each kind of hay cut, answer these questions:

[27] ALFALFA and ALFALFA MIXTURES FOR HAY (and for dehydrating) None Yes

28. CLOVER, TIMOTHY, and mixtures of clover and grasses FOR HAY None Yes

29. LESPEDEZA FOR HAY None Yes

30. OATS, WHEAT, BARLEY, RYE, or other small grain cut FOR HAY None Yes

31. WILD HAY (prairie, range, or marsh grass) cut FOR HAY None Yes

32. Any OTHER HAY? None Yes

ALFALFA SEED, CLOVER, GRASS, AND OTHER FIELD SEED CROPS:

33. Were any alfalfa seed, clover seed, grass seed, and/or other field seed crops harvested this year? No Yes

34. How much ALFALFA SEED was harvested? Acres * Pounds

35. How much SWEETCLOVER SEED was harvested? Acres * Pounds

36. How much VETCH SEED was harvested? Acres * Pounds

37. What OTHER FIELD SEED CROPS were harvested? (Give name) Acres * Pounds

COTTON, POTATOES, AND OTHER CROPS

WHICH OF THE FOLLOWING CROPS WERE HARVESTED THIS YEAR—

For each crop, answer these questions:

[38] Cotton? None Yes

39. Broomecot? None Yes

40. Sugarcane or Sorghum for Sirup? None Yes

41. Irish potatoes for home use or for sale? None Yes

42. Sweetpotatoes for home use or for sale? None Yes

VEGETABLES FOR HOME USE AND FOR SALE

43. Were any vegetables, sweet corn, or melons harvested this year—

(a) For home use? No Yes

(b) For sale for fresh market or to canners, freezers, or other processors? No Yes

HOW MANY ACRES WERE OR WILL BE HARVESTED THIS YEAR FOR SALE—

(Report tenths of an acre, such as $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{4}$, etc. If two or more plantings of the same crop were made, either on the same land or on different land, report the total harvested acres of the several plantings. Include acres of vegetables harvested from land from which other crops were also harvested.)

44. Cantaloupes and melons? Acres and bushels * 136

45. Dry onions? Acres and bushels * 133

46. Watermelons? Acres and bushels * 140

47. Other? (See list below.) Acres and bushels * 10

48. What was the value of all vegetables SOLD or TO BE SOLD this year? \$ 100

BERRIES AND OTHER SMALL FRUITS

[49] Were any berries or other small fruits harvested this year for sale? No Yes

Give the name of each and the acres and quantity harvested in the spaces provided below.

(Report tenths of an acre, such as $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{4}$, etc. Do not include nonbearing area.)

Acres * Quarts

Acres * Quarts

Blackberries, boysenberries, strawberries

C-3 TREE FRUITS, NUTS, AND GRAPES:

[50] Are any fruit or nut trees or grapevines on this place? No Yes

(a) Are there as many as 20 fruit and nut trees and grapevines of all kinds? No Yes

51. How much land is in bearing and nonbearing fruit orchards, groves, vineyards, and planted nut trees? Acres * 10

52. APPLES? Bu. 201

53. PEACHES? Bu. 202

54. PEARS? Bu. 205

55. CHERRIES? Lb. 208

56. PLUMS and PRUNES? Bu. 211

57. APRICOTS? Bu. 214

58. GRAPES? Lb. 220

59. IMPROVED PECANS? Lb. 241

60. WILD or SEEDLING PECANS? Lb. 242

61. OTHER PLANTED TREE FRUITS and NUTS?

[62] Are there any other crops (not mentioned before) that were or will be harvested this year on this place? No Yes

Section IV.—LAND USE THIS YEAR, 1954

63. (Copy acres from question 11) Acres

Now we want to distribute the ACRES IN THIS PLACE according to how they were used this year. After you have accounted for a field or plot do not count this land again. Be sure to account for all the land. Give only whole acres.

CROPLAND

64a. From how many acres of land were CROPS HARVESTED (including hay cut) this year? Acres

64b. How many acres of cropland were in cultivated summer fallow this year? Acres

64c. How many acres of cropland have not been accounted for? Acres

WOODLAND

65a. How many acres of woodland were pastured or grazed this year? Acres

65b. How many acres of woodland were not pastured or grazed this year? Acres

OTHER LAND

66. How many acres were in other pasture (not cropland pasture and not woodland pasture) this year, 1954? Acres

Section V.—IRRIGATION, LAND-USE PRACTICES, AND CONSERVATION THIS YEAR, 1954

68. Of the land from which crops were harvested (reported in question 64a), how many acres were IRRIGATED this year? Acres

[69] If "None," check and skip to question [69].

(a) Are there any crops that were not irrigated? No Yes

(b) What are the names of crops that had the entire acreage irrigated? Acres

[69] Of the land used only for pasture or grazing reported in questions 64b, 64c, and 66, how many acres were irrigated this year? Acres

70. How many acres of ROW CROPPS or CLOSE-STANDING CROPS were in strips this year for wind erosion control? Acres

71. How many acres of cropland used for CHAIN or ROW CROPS this year were fatted on the contour? Acres

FIGURE 1.—The Agriculture Questionnaire (Form A1)—Continued.

Section VI—FOREST PRODUCTS AND NURSERY AND GREENHOUSE PRODUCTS THIS YEAR, 1954

FOREST PRODUCTS

72. Was any firewood, fuelwood, fence posts, lumber, or other forest products cut this year for home use or for sale? No *If "No," check and skip to question [74].* Yes

(a) How many cords of FIREWOOD and FUELWOOD were or will be cut this year on this place? None Cords _____

(b) How many FENCE POSTS were or will be cut this year on this place? None Number _____

73. How much was or will be received this year from the sale of firewood, fence posts, logs, lumber, pulpwood, piling and poles, bark, bolts, Christmas trees, hewn timbers, mine timber, and other miscellaneous forest products? None sold \$ _____/00

NURSERY AND GREENHOUSE PRODUCTS, FLOWER AND VEGETABLE SEEDS AND PLANTS, AND BULBS

74. Were any nursery or greenhouse products, flower or vegetable seeds or plants, flowers, or bulbs grown for sale this year? No *If "No," check and skip to question [75].* Yes

	(1) Area (Report tenths of an acre, such as $\frac{1}{2}$, $\frac{1}{4}$, etc.)	(2) How much was or will be the value of sales? Dollars
75. How many acres of NURSERY PRODUCTS (trees, shrubs, vines, ornamentals, etc.) did you have this year?	Acres * _____/10	\$ _____/00
76. How many CUT FLOWERS, POTTED PLANTS, FLOWER GREENS, and BEDDING PLANTS were grown this year for sale—	Square feet _____	\$ _____/00
(a) Under glass?	Acres * _____/10	\$ _____/00
(b) In open?	Square feet _____	\$ _____/00
77. How many of the following were produced this year for sale? Vegetables grown under glass, flower seeds, vegetable seeds, vegetable plants, bulbs, and mushrooms—	Square feet _____	\$ _____/00
(a) Under glass or in house?	Acres * _____/10	\$ _____/00
(b) In open?	Square feet _____	\$ _____/00

Section VII—LIVESTOCK NOW ON THIS PLACE AND LIVESTOCK PRODUCTION THIS YEAR, 1954

Include all animals on this place owned by you and by others. Also, include any animals belonging to this place but grazing on national forests, grazing districts, or on open range.

CATTLE AND CALVES

78. How many CATTLE and CALVES of all ages are on this place? None (Include all cows and all other cattle and calves, both dairy and beef, on this place.) *If "None," check and skip to question [83].*

OF THIS TOTAL—

(a) How many are COWS? Include heifers that have calved _____

(b) How many are heifers and heifer calves? (Do not include any heifers that have calved.) _____

(c) How many are bulls, bull calves, steers, and steer calves? (The total for questions (a), (b), and (c) must equal the number for question 78.) _____

COWS MILKED YESTERDAY:

79. How many COWS and HEIFERS were MILKED YESTERDAY? None

80. How many MILK COWS were on this place yesterday? Include dry milk cows and milk heifers that have calved None

81. How many GALLONS of MILK were produced yesterday? _____

82. How many POUNDS of BUTTER were CHURNED last week? None

DAIRY PRODUCTS SOLD AND TO BE SOLD THIS YEAR, 1954

83. Was any MILK, CREAM, BUTTER, or CHEESE sold this year, 1954? No *If "No," check and skip to question [84].* Yes

	(1) Quantity	(2) How much was or will be the value of sales? Dollars
(a) How much WHOLE MILK was or will be sold this year? <input type="checkbox"/> None	(1) Lb. of milk OR (2) Lb. of butterfat OR (3) Gallons of milk	\$ _____/00
(b) How much CREAM was or will be sold this year? <input type="checkbox"/> None (If cream sold by gallon, multiply the number of gallons by 2 1/2 to get pounds of butterfat.)	Lb. of butterfat	\$ _____/00

SHEEP AND LAMBS

84. How many EWES, RAMS, WETHERS, and LAMBS of all ages are on this place? None *If "None," check and skip to question [85].*

OF THIS TOTAL—

(a) How many are LAMBS under 1 year old? _____

(b) How many are EWES 1 year old and over? _____

(c) How many are RAMS and WETHERS 1 year old and over? _____ (The total for questions (a), (b), and (c) must equal the number for question 84.)

GOATS AND KIDS, AND MOHAIR CLIPPED

85. How many GOATS and KIDS of all ages are on this place? None *If "None," check and skip to question [86].*

OF THIS TOTAL—

(a) How many are ANGORA GOATS and KIDS? _____

(b) How many are OTHER GOATS and KIDS? (The total for questions (a) and (b) must equal the number for question 85.) _____

86. How many goats and kids were CLIPPED this year? None *If "None," check and skip to question [87].*

(a) How many POUNDS of MOHAIR and KID HAIR were CLIPPED this year (1954) including both spring and fall shearings? _____

MULES AND HORSES:

87. How many MULES, HORSES, COLTS, and PONIES are on this place? None *If "None," check and skip to question [88].*

OF THIS TOTAL—

(a) How many are MULES and MULE COLTS? _____

(b) How many are HORSES and COLTS, including ponies? (The total for questions (a) and (b) must equal the number for question 87.) _____

HOGS AND PIGS

88. How many HOGS and PIGS of all ages, including sows and boars, are on this place? None *If "None," check and skip to question [89].*

OF THIS TOTAL—

(a) How many were born since June 1, this year? _____

(b) How many were born before June 1, this year? (The total for questions (a) and (b) must equal the number for question 88.) _____

SOWS AND GILTS FARRROWING:

89. How many sows and gilts farrowed between December 1, last year, and June 1, this year? None

90. How many sows and gilts farrowed since June 1, this year, or will farrow before December 1? None

ANIMALS SOLD AND TO BE SOLD ALIVE THIS YEAR, 1954.

(Report all sales from this place whether made by you or by others. Report as sold animals turned over to or sold for your landlord. Be sure to include animals which you will sell before January 1, 1955.)

WAS ANY OF THE FOLLOWING ANIMALS SOLD OR WILL ANY BE SOLD THIS YEAR (1954)—	(1) How many were or will be sold this year?	(2) How much was or will be the value of sales? Dollars
96a. HOGS and PIGS sold or to be sold? <input type="checkbox"/> None	Number	\$ _____/00
96b. CALVES sold or to be sold? <input type="checkbox"/> None	Number	\$ _____/00
96c. CATTLE, not counting calves, sold or to be sold? <input type="checkbox"/> None	Number	\$ _____/00
96d. SHEEP and LAMBS sold or to be sold? <input type="checkbox"/> None	Number	\$ _____/00
96e. HORSES, MULES, COLTS, and PONIES sold or to be sold? <input type="checkbox"/> None	Number	\$ _____/00

WOOL SHORN THIS YEAR, 1954:

91. How many sheep and lambs were shorn this year (1954)? None (Number) _____

If "None," check and skip to question [92].

(a) How many pounds of wool were shorn this year (1954)? _____ (Pounds)

POULTRY:

(Report all sales from this place whether made by you or by others. Report as sold all poultry and poultry products turned over to or sold for your landlord. Be sure to include as sold any chickens, broilers, eggs, turkeys, etc., which you will sell before January 1, 1955.)

92. Are there now any chickens, turkeys, or other poultry on this place or were there any on this place this year? No *If "No," check and skip to question [93].* Yes

	Number	Dollars
93. How many CHICKENS, 4 months old and over, are on this place? (Hens, pullets, roosters, etc.) <input type="checkbox"/> None	_____	X X X
94. How many CHICKENS were or will be SOLD this year—	_____	\$ _____/00
(a) Broilers? (Report all broilers sold from this place including those raised for others under contract.) <input type="checkbox"/> None	_____	\$ _____/00
(b) Old hens, roosters, pullets, and other chickens? <input type="checkbox"/> None	_____	\$ _____/00
95. How many dozens of chicken EGGS were or will be SOLD this year? <input type="checkbox"/> None	Doz. _____	\$ _____/00
96a. How many TURKEYS and TURKEY FRYERS were raised this year? (Include those raised from poults bought, poults hatched on this place, or raised for others under contract, whether sold, eaten, or now on hand.) <input type="checkbox"/> None	Light breeds _____ Heavy breeds _____	X X X X X X
96b. How many TURKEY HENS on hand now, are you keeping for breeding in 1955? <input type="checkbox"/> None	Light breeds _____ Heavy breeds _____	X X X X X X
97. How many DUCKS, GEES, and other poultry (not counting chickens and turkeys) were RAISED this year? <input type="checkbox"/> None (Name kind) _____	_____	X X X
98. How much was or will be received this year from the sale of TURKEYS, DUCKS, GEES, and miscellaneous poultry, and THEIR EGGS? (Do not include chickens and chicken eggs.) <input type="checkbox"/> None sold	X X X	\$ _____/00

FIGURE 1.—The Agriculture Questionnaire (Form A1)—Continued.

This block for use by ENUMERATOR: (a) Fill column 14 of A1. Is this place listed in a shaded square? No Yes

Section VIII.—FERTILIZER AND LIME
 Include all fertilizer and lime purchased, or to be purchased before January 1, 1955, for use on this place, whether purchased by you or by your landlord.

[99] How much COMMERCIAL FERTILIZER and FERTILIZING MATERIAL was purchased this year? None Total: \$ _____/00 (Acres on which used)

If "None," check and skip to question [101].

100. On which crops was FERTILIZER USED this year—
 For each crop, answer these questions

	(1) On how many acres was fertilizer used?		(2) How many tons were used?
	Acres	Tons	
(a) Hay and cropland pasture? <input type="checkbox"/> None	_____	_____	_____
(b) Other pasture (not cropland)? <input type="checkbox"/> None	_____	_____	_____
(c) Corn? <input type="checkbox"/> None	_____	_____	_____
(d) Cotton? <input type="checkbox"/> None	_____	_____	_____
(e) Fruits, vegetables, and potatoes? <input type="checkbox"/> None	_____	_____	_____
(f) Other crops? <input type="checkbox"/> None (Give name)	_____	_____	_____

[101] How much LIME or LIMING MATERIAL was purchased this year? None Total: \$ _____/00 (Acres limed)

Section IX.—SELECTED FARM EXPENDITURES, THIS YEAR, 1954
 Include all expenses paid, or to be paid before January 1, 1955, by you and by your landlord for this place.

102. How much was or will be SPENT this year for—

	Dollars
(a) MACHINE HIRE? (Include custom work, such as tractor hire, threshing, combining, silo filling, baling, ginning, plowing, and spraying) <input type="checkbox"/> None	\$ _____/00
(b) HIRED LABOR? (Do not include housework, custom work, or contract construction work. Include cash payments only) <input type="checkbox"/> None	\$ _____/00
(c) FEED for livestock and poultry? (Include cost of grain, hay, mill feeds, concentrates, and roughages, also, amounts paid for grinding and mixing feed.) <input type="checkbox"/> None	\$ _____/00
(d) GASOLINE and other petroleum FUEL and OIL for the farm business? <input type="checkbox"/> None	\$ _____/00

Section X.—FARM LABOR

103. About how many hours the work of Sept. 26-Oct. 2 did you (the person in charge of this place) do farm work or chores on this place? (Check one)

(a) How many OTHER MEMBERS OF YOUR FAMILY did 15 hours or more of farm work or chores on this place the week of Sept. 26-Oct. 2 WITHOUT RECEIVING CASH WAGES? None

(b) How many HIRED PERSONS did any farm work or chores on this place the week of Sept. 26-Oct. 2? (Include members of your family receiving cash wages) None

If "None," check and skip to question [104].

HOW MANY OF THESE HIRED PERSONS WORKING THE WEEK OF SEPT. 26-OCT. 2 WERE EMPLOYED FOR—

(c) 150 days or more during this year? None

(d) Less than 150 days during this year? None

(e) What were the rate of pay and hours of work of these hired persons (question 103(b))? (Enter information below.)

(1) How many of these hired persons were paid on a—	(2) What was the agreed cash rate of pay? (If more than one person, give average)	(3) How many hours per person were these workers expected to work to earn this pay?
Monthly basis? (Person) _____	\$ _____/00 per month (Dollars only)	_____ hours per month
Weekly basis? (Person) _____	\$ _____/00 per week (Dollars only)	_____ hours per week
Daily basis? (Person) _____	\$ _____/00 per day (Dollars only)	_____ hours per day
Hourly basis? (Person) _____	\$ _____ per hour (Dollars & Cents)	X X X
Piecework basis? (Person) _____	X X X	X X X

Section XI.—OFF-FARM WORK AND OTHER INCOME

[104] How many days this year did you work off your farm? Include work at a nonfarm job, business, profession, or on someone else's farm. (Check one)

(Do not include exchange work. Include days you expect to work off your farm before Jan. 1, 1955)

(a) Did any other member of your family living with you have a non-farm job, business, profession, or work on someone else's farm this year? No Yes

(b) Have you any income this year from any of the following sources—sale of products from land rented out, cash rent, boarders, old-age assistance, pensions, veterans' allowances, unemployment compensation, interest, dividends, profits from nonfarm business, and help from members of your family? No Yes

If "None" for question 104 and "No" for both questions (c) and (b), skip to question [106].

105. Will the income which you and your family receive from work off the farm and from other sources (listed in questions 104, (a), and (b)) be greater than the total value of all agricultural products sold or to be sold from your place this year? No Yes

Section XII.—FACILITIES AND EQUIPMENT NOW ON THIS PLACE
 Include equipment and facilities that are temporarily out of order.

[106] Do you have on this place—

(a) Telephone? No Yes

(b) Piped running water? No Yes

(c) Electricity? No Yes

(d) Television set? No Yes

(e) Home freezer (for quick freezing and storing foods. Do not include refrigerator)? No Yes

(f) Electric pig brooder? No Yes

(g) Milking machine? No Yes

(h) Power feed grinder (suitable for grinding and crushing grain)? No Yes

107. HOW MANY OF THE FOLLOWING ARE ON THIS PLACE—
 Include equipment, whether owned by you or by others, kept on this place.

	Number
(a) Grain combines (for harvesting and threshing grains or seeds in one operation)?	_____
(b) Corn pickers?	_____
(c) Pick-up balers?	_____
(d) Field forage harvesters (for field chopping of silage and forage crops)?	_____
(e) Motortrucks (include pick-ups)?	_____
(f) Wheel tractors other than garden?	_____
(g) Garden tractors?	_____
(h) Crawler tractors (track-laying, caterpillar)?	_____
(i) Automobiles (belonging to you, to hired workers, or to others living on this place)?	_____
(j) Artificial ponds, reservoirs, and earth tanks?	_____

Section XIII.—MISCELLANEOUS INFORMATION
 FARM VALUE, MORTGAGE DEBT, AND CASH RENT:

108. About how much would the land and the buildings on it sell for? (Give either total value or value per acre. Do not give assessed values)

	Acres	Total value Dollars	Value per acre Dollars
(a) LAND OWNED BY YOU? (from question 4) <input type="checkbox"/> None	_____	\$ _____/00 or \$ _____	_____
(b) LAND RENTED FROM OTHERS? (from question 6) <input type="checkbox"/> None	_____	\$ _____/00 or \$ _____	_____
(c) LAND MANAGED FOR OTHERS? (from question 9) <input type="checkbox"/> None	_____	\$ _____/00 or \$ _____	_____
(d) LAND RENTED TO OTHERS? (from question 10) <input type="checkbox"/> None	_____	\$ _____/00 or \$ _____	_____

109. Is there any MORTGAGE DEBT on land and buildings owned by you? No Yes

110. If you rent from others any land for cash, what is the amount of CASH RENT for the year? \$ _____/00 (Dollars only) No land rented for cash

111. On what date was this questionnaire filled? (Give month and day) _____, 1954

112. Who furnished the information given in this report? (Check which)

Operator Hired laborer

Wife or other member of operator's family Neighbor

Landlord Other _____

NAME _____

REMARKS _____

ENUMERATOR'S RECORD—To be filled by Census Enumerator

STATE _____ COUNTY _____ F. D. No. _____

TOWNSHIP OR PRECINCT _____

Have you reviewed each section of this questionnaire? No Yes

Certified by _____ Enumerator _____ Date _____ (Month) _____ (Day) _____, 1954

Checked by _____ (Crew Leader) _____ Date _____ (Month) _____ (Day) _____, 1954

FIGURE 1.—The Agriculture Questionnaire (Form A1)—Continued.

For example, if the enumeration district comprised an entire township, the enumeration district description consisted of the name of the township. The boundaries of enumeration districts were indicated on a copy of a county map retained for office use. A negative photoprint copy was made of these county maps for use by Crew Leaders. The preparation of enumerator maps was started in the latter part of May and completed in early September 1954. A reduced facsimile of a typical map furnished an enumerator is shown in figure 11.

Funds for the Census.—General specifications and costs for the various phases of the 1954 Census of Agriculture were prepared in 1953. However, in 1953 a decision was made that the 1954 Census of Agriculture would be taken for only a sample of the farms, and the budget request submitted to Congress in January 1954 provided for the appropriation of \$2,400,000 for the fiscal year beginning July 1, 1954 for the taking of this sample Census. However, the Congress decided that a complete Census of Agriculture should be taken in 1954 and an appropriation of \$16,000,000 was made by Congress on July 2, 1954. During the last week of May 1954, it appeared likely that Congress would approve the taking of a complete Census rather than a sample Census of Agriculture, and the plans that had been developed for a sample Census were modified and work on preparing for a complete Census was started during the last week of May 1954. However, lack of funds limited preparatory work during June 1954 to the starting of the preparation of enumerators' maps, revising plans, and getting proof copies of questionnaires and some instructional materials.

The plans for a complete Census of Agriculture prepared in 1953 called for an expenditure of approximately \$18,000,000 for the fiscal year beginning July 1, 1954, and for the expenditure of an additional \$6,000,000 to complete work on the Census. The appropriation of \$16,000,000 for the fiscal year beginning July 1954 required a revision of the plans and specifications of the Census. The necessary changes in plans because of the reduction in appropriation were made during July and August 1954. A total of \$6,000,000 was requested to complete work on the Census during the period July 1955 to December 31, 1956. Congress appropriated \$5,500,000 of this amount. However, because of economy in Census operations and reduced costs, \$1,000,000 of the \$21,500,000 funds appropriated were not expended for the Census of Agriculture and the increased cost, of \$400,000 to \$500,000, arising from the pay raise of approximately 7 percent approved by Congress effective March 1955, was absorbed.

The time schedule.—The satisfactory and efficient performance of a large number of different jobs required in connection with a Nationwide Census, many performed at different locations, required the establishment of a detailed time schedule so that each job was scheduled, and so that personnel, machines, instructions, and materials were available when required. A detailed time schedule for most operations connected with the Census was prepared in 1953 and was revised May 20, 1954, when it appeared that funds would likely be appropriated for the Census. The following outline shows the time schedule for many of the major parts of the job:

I. General:

1. Questionnaire content determined—May 20, 1954
2. Preparation of enumerator maps—May 20 to October 2, 1954
3. Shipment of materials for enumeration to field offices—August to October 2, 1954
4. Recruitment of field personnel—August 9 to October 27, 1954
5. Enumeration—October 2 to December 15, 1954

I. General—Continued

6. Editing and coding of questionnaires—December 1954 to August 1955
7. Punching of tabulating cards—December 1954 to September 1955
8. Tabulation of data for counties and States—March to October 1955
9. Issuance of preliminary county and State data—March 1955 to January 1956
10. Issuance of final reports containing State and county data—October 1955 to September 1956
11. Issuance of subject report presenting State and United States data—December 1956
12. Completion of special tabulations—November 1956
13. Completion of special reports—December 31, 1956
14. End of Census work—December 31, 1956

II. Planning and policy:

- Revised plans and detailed specifications for the Census—June to September 1954
- Qualification of field personnel established—June 4, 1954
- Location for office processing determined—July 1954
- Personnel policy regarding employment, promotions, etc., of temporary office personnel established—June 30, 1954
- Preparation of budget for completing work during period July 1, 1955 to December 31, 1956—August 1954

III. Operations related to the enumeration:

- Enumerator maps prepared—May 20 to October 2, 1954
- Forms and instructions for use in the enumeration sent for printing:
 - Agriculture Questionnaires for enumerators' use—Approved for printing, July 29 to August 16, 1954
 - Agriculture Questionnaires for mail distribution—August 6 to August 16, 1954
 - Enumerators' record book—July 20, 1954
 - Employee appointment forms—June 1954
 - Portfolio for use by enumerators—June 1954
 - Enumerators' Instruction Book—June 21, 1954
 - Crew Leaders' Instruction Book—August 5, 1954
 - Instructions for supervisors of Agriculture Field Offices—July 24, 1954
 - Training materials for enumerators—July 5 to 25, 1954
- Shipment of materials to field offices:
 - Office forms and supplies—August 28, 1954
 - Enumerators' portfolios and training materials—August 28 to October 2, 1954
 - Materials for publicity regarding Census—September 1, 1954
- Appointment of Agriculture field supervisors—August 9, 1954 to September 13, 1954
- Training of technical instructors—August 23 to 28, 1954
- Training of Agriculture field supervisors—August 10 to September 13, 1954
- Appointment of crew leaders—August 23 to October 11, 1954
- Crew leader training—September 23 to October 11, 1954
- Enumerators appointed—September 27 to November 1, 1954
- Enumerator training—September 27 to November 8, 1954
- Packaging of Agriculture Questionnaires for mail distribution—September 7 to October 28, 1954
- Distribution of Agriculture Questionnaires by mail—September 21 to October 30, 1955
- Training of enumerators of quality check for Census—January 2 to 10, 1955
- Enumeration for quality check for Census—January to June 1955

IV. Operations related to editing, coding, tabulating, and publication of data:

- Receipt, editing, and coding of questionnaires:
 - Recruitment of office personnel—October 1954 to March 1955
 - Training of supervisors—October to December 10, 1954
 - Instructions printed—November 1954
 - Training materials prepared—November 1954
 - Editing and coding starts—November 24, 1954
 - Editing and coding completed—July to August 1955
- Punching of tabulating cards:
 - Card forms outlined—May 27, 1954
 - Card forms designed and ordered—July 14, 1954
 - Machine requirements determined and machines rented—September 29, 1954
 - Instructions for punching prepared—November 1954
 - Training materials prepared—November to December 1954
 - Training of supervisors—November 1954
 - Punching begins—December 9, 1954
 - Punching completed—August 25, 1955
- Correction of punch cards:
 - Specifications for selection of cards with possible errors completed—August 15, 1954
 - Selection of cards—February 5 to September 24, 1955
 - Correction of cards—March 5 to October 22, 1955
- Making of tabulations:
 - Outline of tabulation plans completed—June 29 to July 13, 1954
 - Tabulation forms designed and ordered—October 1954 to February 1955
 - Machine requirements determined and machines ordered—July 1954
 - Tabulation of county data—March 19 to October 14, 1955
 - Tabulation of State economic area data—June 1955 to April 1956
 - Tabulation of subregion data—May 1956 to December 1956
- Checking and review of tabulations:
 - Instructions completed—March 16, 1955
 - County tabulations—April 16 to November 19, 1955
 - State economic area tabulations—July 1955 to March 1956
 - Economic subregion tabulations—May 1956 to October 1956
- Preparing statistical tables for typing:
 - Table forms sent for printing:
 - Preliminary reports—January 27, 1955 to April 5, 1955
 - Final reports—March 20, 1955 to July 29, 1955
 - Preparation of county tables:
 - Preliminary reports—April to December 1955
 - Final reports—June 1955 to April 1956
 - Preparation of State economic area tables—August 1955 to April 1956
 - Preparation of subregion tables—May 1956 to October 1956

IV. Operations related to editing, coding, tabulating, and publication of data—Continued

- Typing of statistical tables:
 - Preliminary reports—May to December 1955
 - County, State economic area, and State—August 9, 1955 to May 26, 1956
 - Subregions—August 1956 to November 1956
- Printing of reports:
 - Preliminary—April 30 to December 24, 1955
 - Final—County, State economic area, and State—December 1956
 - Subregion—March 1957
 - Final—State and United States Summary—December 1956
 - Special reports—August 1956 to June 1957

Very detailed time and progress schedules were established for each operation. For example, the time schedule established for the issuance of preliminary reports for States and counties was as follows:

1955 week ending—	<i>Number of preliminary reports to be issued</i>
May 14.....	20
May 21.....	30
May 28.....	40
June 4.....	60
June 11.....	80
June 18.....	100
June 25.....	100
July 2.....	100
July 9.....	100
July 16.....	100
July 23.....	100
July 30.....	100
Aug. 6.....	100
Aug. 13.....	100
Aug. 20.....	100
Aug. 27.....	100
Sept. 3.....	100
Sept. 10.....	100
Sept. 17.....	100
Sept. 24.....	100
Oct. 1.....	100
Oct. 8.....	100
Oct. 15.....	100
Oct. 22.....	100
Oct. 29.....	100
Nov. 5.....	100
Nov. 12.....	100
Nov. 19.....	100
Nov. 26.....	130
Dec. 3.....	140
Dec. 10.....	150
Dec. 17.....	150

The time schedule for operations related to the enumeration was varied according to areas of the country as the date for the start of the enumeration varied. The Act of Congress setting the date for the enumeration for the 1954 Census of Agriculture permitted some variations in the date for starting of the enumeration. In areas where the harvesting of crops was completed early and where weather and road conditions made travel in

early winter difficult, the enumeration was started in October. The dates for the beginning of the enumeration for various parts of the country are shown in figure 2.

Adherence to the time schedule was checked periodically and administrative action was taken to correct situations that were delaying the work. The established time schedule was adhered to in almost every case.

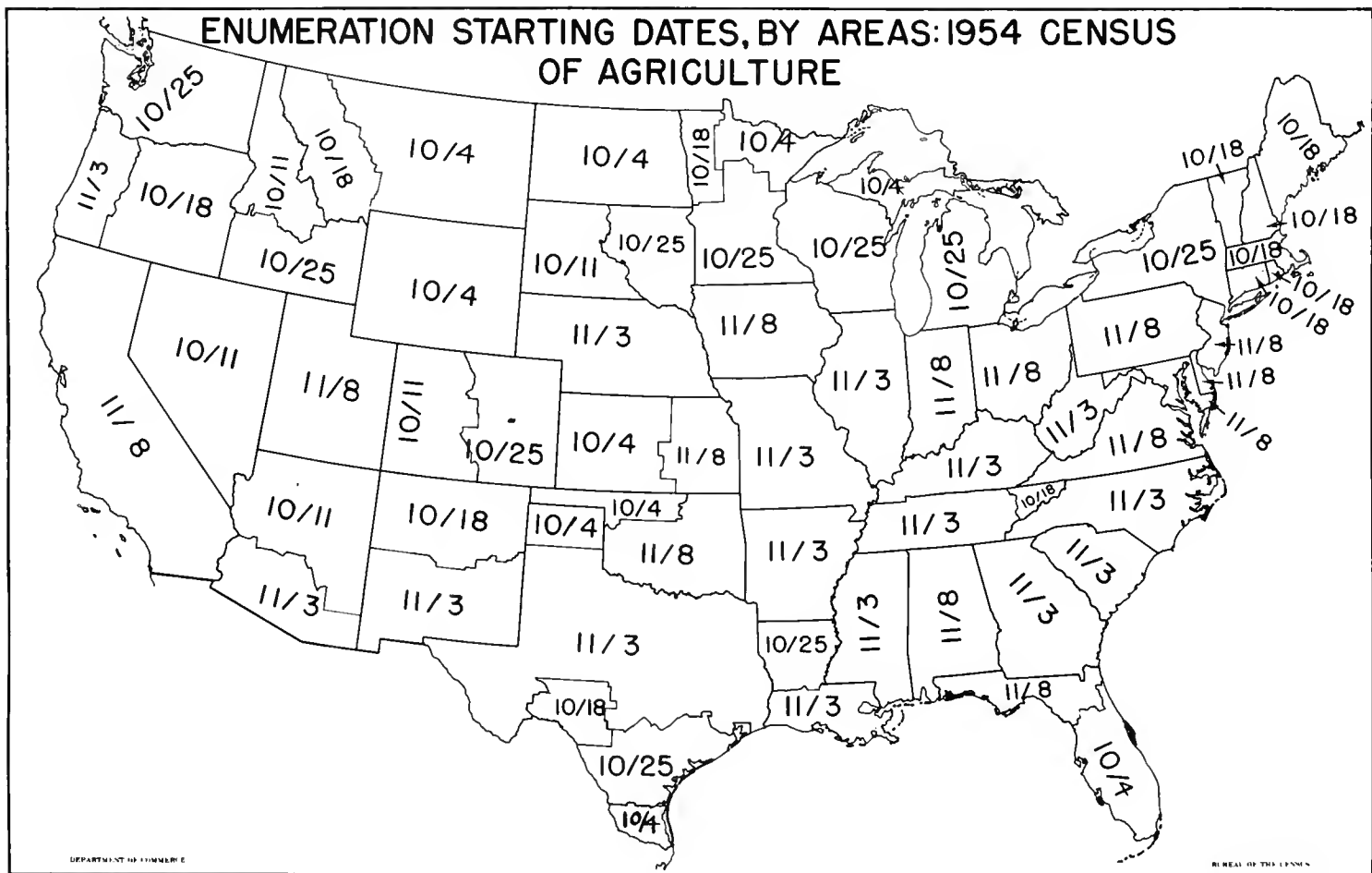


FIGURE 2.—Enumeration starting dates, by areas: 1954 Census of Agriculture.

CHAPTER II—THE ENUMERATION

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1954 CENSUS OF AGRICULTURE

FIELD ORGANIZATION CHART

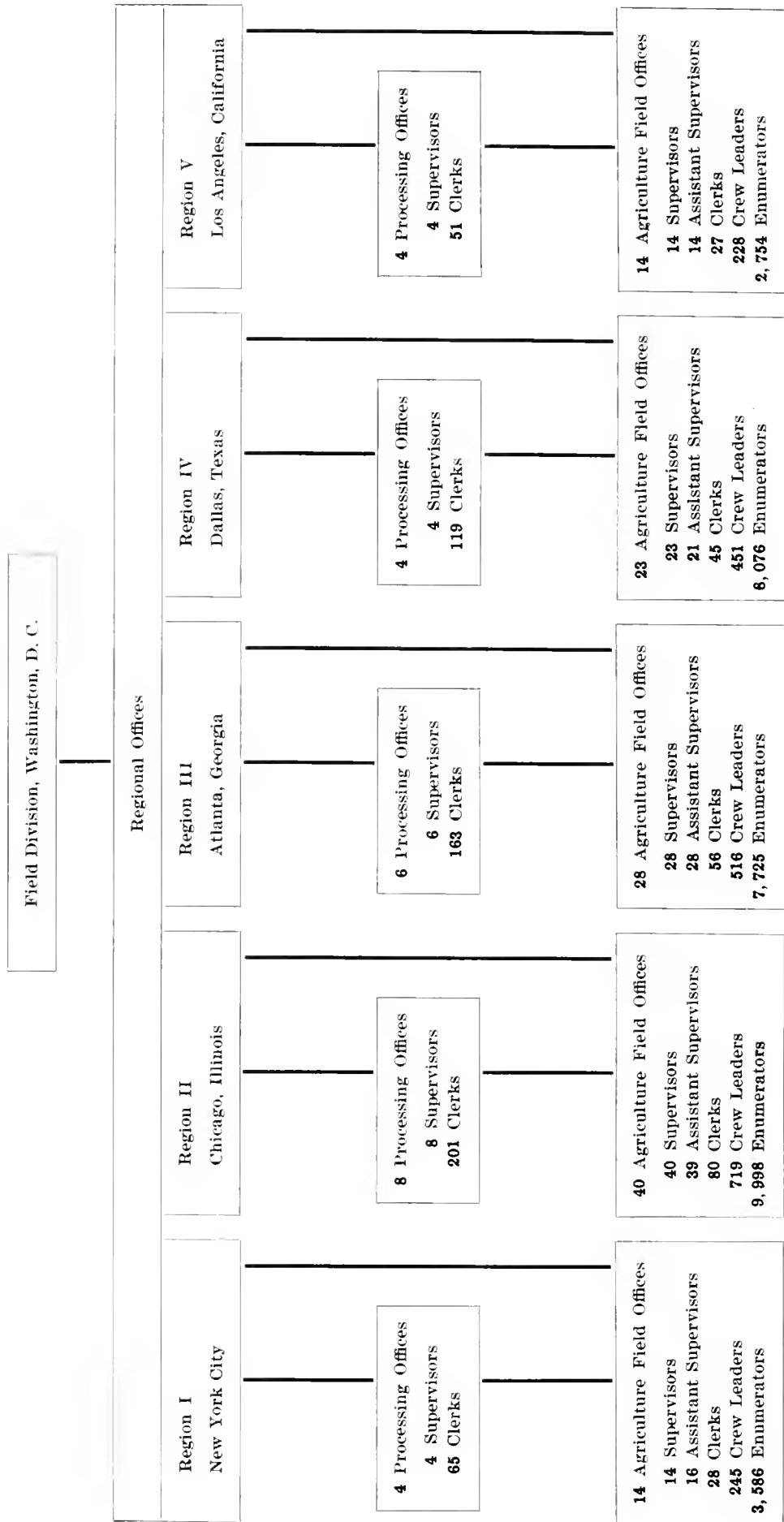


FIGURE 3.—Field Organization Chart.

CHAPTER II—THE ENUMERATION

The job.—The enumeration required the organization of a field staff for the purpose of visiting all areas in the United States and obtaining the required information regarding each place and farm, the setting up of temporary offices, the selection and training of personnel, the supervision and control over personnel and operations, the actual enumeration, the checking of the enumeration, and the paying of personnel.

Organization of field staff.—The field staff was organized by function and by area. The outline on page 18 shows the organization and size of the field staff used for the 1954 Census of Agriculture.

The 5 Regional Offices and a considerable part of their personnel existed before work on the Census of Agriculture was undertaken and formed a part of the permanent staff of the Bureau of the Census. The entire organization below the level of Regional Offices was established temporarily for the 1954 Census of Agriculture. The 26 processing offices were supervised largely by permanent field personnel, who were reassigned temporarily from the permanent jobs of supervising current field activities of the Bureau of the Census. Except for the personnel of the Regional Offices and the supervisors of the 26 processing offices, a temporary field staff was recruited and employed for a limited period for work on the 1954 Census of Agriculture.

The Regional Offices.—The Regional Offices exercised general control over all field work. They assisted particularly in obtaining office space, selection of supervisors and other personnel for processing offices and Agriculture Field Offices, and for the handling of unforeseen problems. The personnel for each regional office, the average days of employment, and their average salary per 40-hour week were as follows:

Kind of personnel	Number employed	Average days of employment	Average salary per week
Supervisors.....	1	85	\$170
Assistant Supervisors.....	2	100	105
Clerks.....	1	100	61

Field Processing Offices.—Processing offices were established to provide trained supervisory personnel for the purpose of selecting, appointing, controlling, paying, and checking the work of the large number of temporary employees, most of whom did not have any prior experience in Government work and procedures.

The supervisors of processing offices were appointed during the period July to September 1954 and were employed on an average of 20 weeks. A brief outline of the work the supervisor performed during these 20 weeks follows:

First week:

- Obtain space, supplies and equipment for processing office
- Recruit administrative clerk

Second, third, and fourth week:

- Organize office and train administrative clerk
- Recruit and train clerk-typist and payroll clerk
- Assist supervisors of Agriculture Field Offices in recruiting crew leaders
- Supervise the processing of crew leader appointments

Second, third, and fourth week—Continued

- Supervise preparation of payroll work sheets for personnel in processing office and in Agriculture Field Offices

Fifth through eighth week:

- Submit progress reports as required
- Assist supervisors of Agriculture Field Office to recruit enumerators
- Process enumerator appointments
- Recruit and train shipping clerk for processing office
- Supervise the preparation of payroll work sheets for personnel in processing office and Agriculture Field Offices

Ninth and tenth week:

- Recruit and train editing and tabulating clerks
- Supervise the preparation of payroll work sheets for paying enumerators for training and for enumerators employed by the hour
- Supervise the preparation of payroll work sheets for personnel in processing office and in Agriculture Field Offices

Eleventh through sixteenth week:

- Supervise the editing and tabulation of data for completed enumeration districts
- Return incomplete and not acceptable work of enumerators for completion and/or correction
- Inform supervisors of Agriculture Field Offices of unsatisfactory work and advise crew leaders on how to handle unsatisfactory work of enumerators
- Supervise the preparation and approval of payrolls for work completed by enumerators
- Supervise the preparation of payroll work sheets for personnel in processing office and in Agriculture Field Offices
- Prepare summary of completed enumeration districts by county and submit summary to Washington for approval
- Ship materials for counties completed to central processing offices

Seventeenth through twenty-fifth week:

- Supervise the editing and tabulation of data for completed enumeration districts
- Return incomplete and not acceptable work of enumerators to crew leader for completion and/or correction
- Inform crew leaders of unsatisfactory work performed by enumerators and how to handle this unsatisfactory work
- Supervise the preparation and approval of payroll for work completed by the enumerators
- Prepare summary of completed enumeration districts by counties and submit the summary to Washington for approval
- Prepare a final report on all work completed
- Terminate all employees and close office

The administrative clerk supervised the clerical operations in the processing office particularly during the frequent periods when the supervisor was away checking on field operations and progress. All payrolls for enumerators, crew leaders, personnel in Agriculture

Field Offices, etc., were checked and in most cases prepared in the office of the Field Processing Office supervisor by the payroll clerk. Payrolls of employees employed by the month and day were prepared once every two weeks, separate payrolls were prepared for each enumerator for his training and for each enumeration district he completed. Payrolls were sent to the Washington office for final audit and for the issuance of checks.

The appointments of all field personnel were prepared in the processing office. This work was performed by the appointment clerk. A description of the work of the tabulating clerks is given on page 69.

The personnel used in each processing office, the average length of employment, and average salary were as follows:

Kind of personnel	Number employed per office	Average days of employment (including overtime)	Average salary per 40-hour week
Supervisors and assistant.....	1-2	1 161	\$117
Administrative clerk.....	1	95 ³ / ₄	66
Payroll clerk.....	1	74 ³ / ₄	61
Receiving and shipping clerk.....	1	34 ³ / ₄	37
Tabulating clerks.....	² 15	24 ³ / ₄	37
Typist.....	³ 4	23	57

¹ Total days for all 26 offices were 6,778.

² Number per office varied from approximately 10 to 50.

³ The number varied by office. The total number for the 26 offices was 114.

Agriculture Field Offices.—Agriculture Field Offices were established for the purpose of supervising and controlling the enumeration in a specific geographic area. In some cases, this area included as much as a State and in other cases only a few counties. In determining areas for which agriculture field offices would be established, the workload both in terms of the number of farms to be enumerated as well as the total land area to be covered were considered. The average number of farms per agriculture field office was approximately 40,000.

The number of personnel for each Agriculture Field Office, the average days of employment, and the average salary per 40-hour week were as follows:

Kind of personnel	Number employed per office	Average days of employment (including overtime)	Average salary per 40-hour week
Supervisor.....	1	88 ¹ / ₂	\$97
Assistant supervisor.....	1	84	82
Administrative clerk.....	1	87 ¹ / ₂	67
Clerk.....	1	59 ¹ / ₂	57
Crew leaders.....	¹ 18	52	66
Enumerators.....	¹ 253	17 ¹ / ₄	46

¹ The number varied by office.

The work performed by the supervisor and assistant supervisor of the Agriculture Field Offices varied by weeks as follows:

First week:

Arranged for office space and equipment
 Recruited administrative clerk
 Arranged for appointment of assistant supervisor
 Issued press releases and provided newspapers etc., with information about Census

Second week:

Attended training classes

Third, fourth, and fifth weeks:

Organized office and trained administrative clerk
 Contacted persons for obtaining lists of enumerators in each county
 Recruited crew leaders
 Arranged for crew leader training
 Issued press releases and provided newspapers etc., with information about Census

Sixth week:

Supervised crew leader training classes
 Issued press releases and provided newspapers etc., with information about Census

Seventh, eighth, and ninth week:

Supervised crew leaders in selection of the enumerators
 Issued press releases and provided newspapers etc., with information about Census

Tenth week:

Supervised enumerator training
 Issued press releases and provided newspapers etc., with information about Census

Eleventh to the fourteenth week:

Supervised the enumeration
 Prepared and submitted progress reports
 Visited crew leaders and enumerators

Fifteenth and sixteenth week:

Terminated appointments of enumerators
 Supervised crew leaders in checking work of enumerators for completeness and coverage

Seventeenth and eighteenth week:

Supervised the completion of work in enumeration districts where work was not fully satisfactory
 Terminated appointments of crew leaders
 Closed office as instructed
 Terminated all employees

The administrative clerk usually served as a secretary for the Agriculture Field Office and assisted the office clerk in preparing the various required reports. These reports, to whom submitted, and their frequency are shown in figure 4.

The work of the supervisor and assistant supervisor required considerable travel. During the period of their employment the supervisors or assistant supervisors were away from their headquarters on the average for 19 days and traveled an average of 5,013 miles.

The job of the crew leader was concerned largely with the selection, training, and supervision of enumerators. One crew leader was appointed for each 10 to 18 enumerators. The area assigned each crew leader usually consisted of a county or combination of one county and a part of another county.

Crew leaders were appointed 5 weeks before the actual start of the enumeration. The distribution of the crew leaders' 52 days' work was as follows:

Attending training class.....	5 days
Recruiting enumerators, obtaining enumerator training space and materials, and making a list of 15 places in each enumeration district.....	16 days
Training enumerators.....	4 days
Recruiting and training enumerators for replacement, etc.....	3 days
Supervising enumerators during enumeration.....	19 days
Checking enumerators' work and shipping materials.....	5 days

Crew leaders were required to visit enumerators at least twice and to check their work on the job. The miles traveled by crew leaders during their employment averaged 927.

The duties of enumerators are described under "The Enumeration." Enumerators were paid \$14 for completing the training and either \$1.25 per hour worked plus \$0.07 for each mile of travel by personally owned automobile or \$0.07 for each line filled on Form A2, \$0.40 to \$1.00 per Agriculture Questionnaire filled plus \$0.07 per mile for use of their personally owned automobile plus \$0.04 per mile traveled in personally owned automobile for the time spent in traveling. Enumerators worked on an average of 17.25 days each.

**FLOW CHART OF REPORTING SYSTEM
for Enumeration Period**

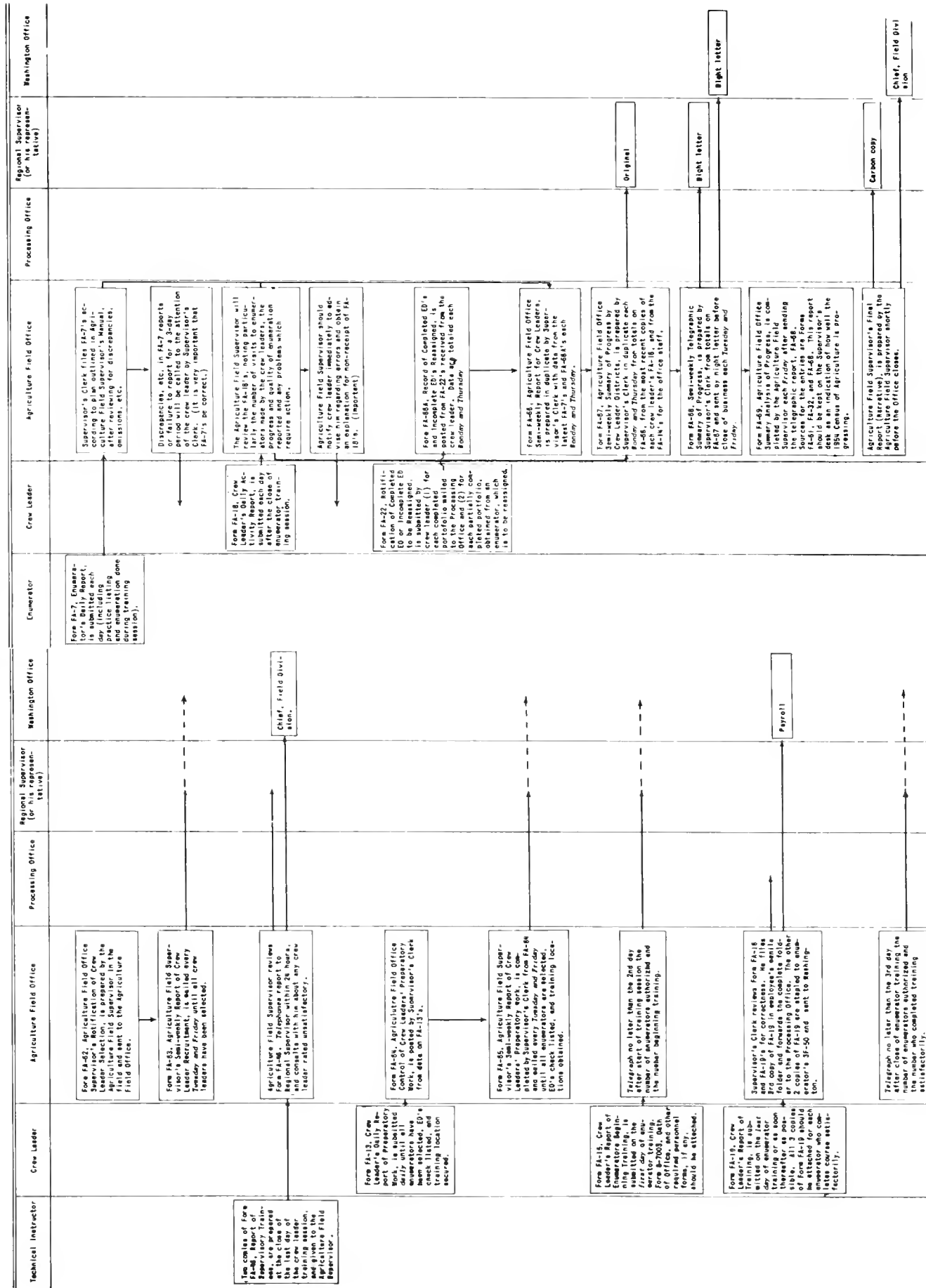


FIGURE 4.—Flow chart of reporting system for enumeration work.

Selection of personnel.—Except for supervisors and personnel of Regional Offices and supervisors of processing offices, all field jobs for the 1954 Census of Agriculture were temporary and were not under the civil-service system. Personnel for these jobs were usually selected from lists of candidates recommended by Senators, Congressmen, or by State and local political organizations. Qualifications were established for supervisors and assistant supervisors of Agriculture Field Offices. These qualifications were evaluated during and after a personal interview. Further evaluation was made of these personnel during the training classes prior to their beginning the performance of their jobs. Crew leaders, clerks, and enumerators were required to take tests. The tests given clerks were similar to those given to civil-service applicants. An example of the test given crew leaders and enumerators is shown in figure 5. Minimum grades were established for crew leaders and enumerators and persons whose grades were less than these minima were not considered for appointment, unless no other qualified person could be recruited.

Both crew leaders and enumerators were required to be citizens of the United States, to have at least a high school education or its equivalent, to be physically able to discharge the duties involved, to be able to write neatly and legibly, to be able to do simple arithmetic quickly and accurately, to be able to talk easily with people and gain their cooperation, to have some knowledge of farming and farm operations, and to have the use of an automobile. Preference was given to qualified veterans.

Most of the crew leaders and enumerators had no previous experience in collecting data. Farmers and farmers' wives made up the largest group. Persons previously associated with law enforcement or tax assessment or collection were not employed because respondents might associate them with their previous jobs and hesitate to give required Census information.

Training of personnel.—Nearly all the personnel used for the 1954 Census of Agriculture did not have prior experience in connection with a Census and many did not have any prior experience working at a government job. Therefore, all personnel were required to attend and satisfactorily complete a training course. The training of supervisors, assistant supervisors, crew leaders, administrative clerks, payroll clerks, and tabulating clerks was performed largely by personnel from the Washington Office of the Bureau of the Census or other cooperating government agencies. The training of enumerators was given by crew leaders.

The training classes usually were limited to less than 20 persons and in the case of enumerators to less than 10 persons. Training guides and training aids were provided for training at all levels. In order to insure uniform training for all personnel and to apporportion training in accordance with the various parts of the job, the persons who performed the training were required to use training guides. These training guides provided detailed time schedules for the training, an outline and in some cases the actual statement of the material to be presented to the trainees. In order to insure uniformity of training and to facilitate the adherence to time schedules, a considerable part of the crew leader and enumerator training was given by the use of recordings and film strips. The training program also included the use of exercises, practice work, and trainee participation in training class exercises. The training program for crew leaders and enumerators required not only the filling out of a training questionnaire but also some actual enumeration. In the case of the enumerators, the training periods were limited to 4 hours each day in order to facilitate learning and the retention of the learning.

A. OUTLINE OF TRAINING OF AGRICULTURE FIELD SUPERVISORS AND ASSISTANTS

Duration of training:

Four days—9 a. m. to 4 p. m. with 1 hour for lunch and two 15 minute rest periods

First day:

1. Description of his job (1 hour)
2. Technical training (4½ hours). (This consisted largely of a description of the job to be done, a description of the forms and questionnaires to be used by enumerators, an outline of the crew leader and enumerator training programs, methods used for determining how much enumerators were to be paid, etc.)

Second day:

1. Description of training program for subordinates (½ hour)
2. Description of crew leader responsibility (½ hour)
3. How to select and recruit personnel (4½ hours)

Third day:

1. Obtaining space, equipment, supplies and services (1 hour)
2. Preparing payrolls, etc. (¾ hour)
3. Conducting publicity in connection with the Census (½ hour)
4. Preparing of correspondence, etc. (¾ hour)
5. Confidential nature of Census data (¼ hour)
6. Supervisor's responsibilities for managing personnel (¾ hour)
7. Questions (1½ hours)

Fourth day:

1. Preparation of reports and use of controls (4¼ hours)
2. Questions regarding work; other duties (1¼ hours)

B. TRAINING OF CREW LEADERS

Duration of training:

Five days

First day:

1. Description of his job (1½ hours)
2. Participation in a training program that comprised the same training programs given enumerator
 - (a) How to use maps (¼ hour)
 - (b) Discussion of Agriculture Questionnaire A1 and form A2 (1¼ hours)
 - (c) Discussion of home training Agriculture Questionnaire (½ hour)
 - (d) How to enumerate (1 hour)
 - (e) Practice in enumeration in class room (2¼ hours)
 - (f) Assignment of enumeration district for enumerator and for practice training (½ hour)

Second day:

1. Eight hours of actual enumeration in an area nearby to training location, under the field supervision of instructor

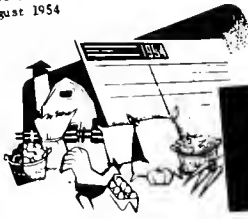
Third day:

1. Discussion of problems encountered during actual enumeration (1¼ hours)
2. How to review each enumerator's work (1½ hours)

Fourth day:

1. Practice presentation as an instructor using materials to be used in training enumerators (3 hours)
2. Hours of work, pay rates and inquiries relating thereto (¼ hour)
3. Locating training space (¼ hour)
4. Selecting enumerators (1 hour)

Pers 165 Form B
August 1954



1954 CENSUS OF AGRICULTURE

This booklet contains three short tests, map reading, arithmetic problems, and following instructions. The questions need not be taken up in order. Answer first those that you can answer without any delay, then use the remainder of the time on the questions you have passed over. You should answer the questions even when you are not perfectly sure that your answers are correct. Try to complete all three tests in the time allowed.

Time allowed - 60 minutes

Name _____ Year of Birth _____

District Office _____ Date _____

DO NOT WRITE IN THIS BLOCK

TEST 1 (Map) _____

TEST 2 (Arith. Prob.) _____

TEST 3 (Instructions) _____

Not to be shown to unauthorized person in or out of the Bureau of the Census.

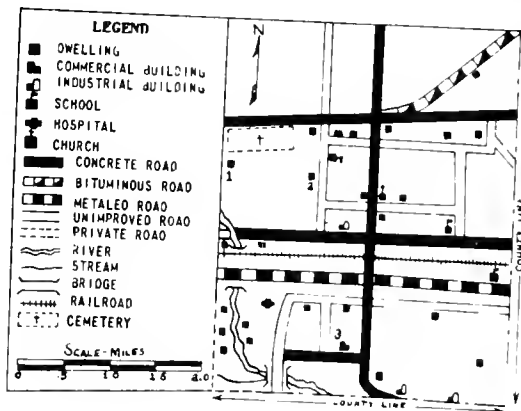
TEST 1

MAP READING (All questions on this page refer to map on p. 3.)

- Place an "X" beside the dwelling nearest the east county line. (See legend for the symbol for "dwelling." Locate east county line on the map. Locate the dwelling symbol that is nearest to the east county line.) Ans. on map
 - Place an "X" beside the school nearest a metaled road. Ans. on map
 - How many dwellings are within one (1) mile of the south county line? (Count dwellings only—use map scale and a pencil or other straight edge to measure the distance.) Ans. _____
 - How many dwellings are located in the area west of the river and north of the railroad? Ans. _____
 - What is the straight-line distance (to the nearest whole mile) from the commercial building marked "3" to the railroad? (Use scale and pencil or other straight edge to measure distance) (Ans. to nearest whole mile) _____
 - Traveling by road, how far is it (to the nearest whole mile) from the church to the hospital? (Ans. to nearest whole mile) _____
 - What is the straight-line distance (to the nearest whole mile) from the church to the southwest corner of the map? (Ans. to nearest whole mile) _____
- Indicate the following changes on the map by drawing in the appropriate symbol.
- Bituminous road from dwelling "1" to dwelling "2." (See legend for the symbol for a "Bituminous road." Draw that symbol in the location specified.) Ans. on map
 - a school 1.0 miles due north of the hospital. Ans. on map
 - an industrial building just across the road from and directly south of the commercial building which is marked "3." Ans. on map

- 2 -

TEST 1—continued



- 3 -

TEST 2

ARITHMETIC

Use the "Conversion Table" to do the problems below.

Conversion Table

Alfalfa seed:	1 Bushel equals 60 pounds
Timothy seed:	1 Bushel equals 45 pounds
Apples:	1 Bushel equals 48 pounds
Apples:	1 Ton equals 41.67 bushels or 2,000 pounds
Cherries:	1 Quart equals 1 3/4 pounds

For example: Convert—

- 5 Bushels Alfalfa seed = 300 lbs.
Since 1 bushel of alfalfa seed is equivalent to 60 lbs., then 5 bu. are equivalent to 5 x 6 or 300 lbs.
The answer is 300, so 300 has been written in.
- 90 lbs. Timothy seed = 2 bu. Since 45 lbs. of Timothy seed are equivalent to 1 bu.—then 90 lbs. are equivalent to $\frac{90}{45}$ or 2 bu.
The answer is 2 so 2 has been written in.

Do the problems below in a similar manner.

Space for Calculations

- 20 bushels Alfalfa seed = _____ lbs.
- 4 1/2 bushels Apples = _____ lbs.
- 120 pounds Apples = _____ lbs.
- 7 pounds Cherries = _____ qts.
- 3 1/3 bushels Timothy seed = _____ lbs.
- 200 Tons Apples = _____ bu.
- 90 pounds Alfalfa seed = _____ bu.
- 200 quarts Cherries = _____ lbs.
10. A rancher reports his yield of apples for two orchards as follows:
ORCHARD A = 1,440 pounds
ORCHARD B = 40 bushels
Compute his total crop for the two orchards in pounds and in bushels.
_____ lbs. _____ bushels

- 4 -

FIGURE 5.—Selection Aid for Enumerators (Pers. 165 Form B).

TEST 3

FOLLOWING INSTRUCTIONS

On the basis of the information furnished, you are to complete the entries called for below.

For example—Given the following information—

On October 2, 1954, Mr. Jones will have been operating this farm for four years. He lives on this farm and was 56 years old on his last birthday.

Complete the following entries:

RESIDENCE AND AGE OF PERSON IN CHARGE

Do you live on this place? [X] Yes
How old were you on your last birthday? 56
When did you begin to operate this place? 1950

"YES" is checked since the information indicates that Mr. Jones is the person in charge and that he lives on the farm in question. His age on his last birthday is given as 56.

Complete the following entries in a similar way.

Mr. Jones has 3 horses, 2 colts, and 2 mules. One of his sons has a pony and in addition he boards 2 horses for friends.

Fill in the following:

Include all animals on this place owned by you and by others.

MULES AND HORSES

- 1. How many MULES, HORSES, COLTS, and PONIES are on this place?
2. (a) How many are MULES and MULE COLTS?
3. (b) How many are HORSES and COLTS, including ponies?

TEST 3—Continued

Mr. Jones indicates that he owns 1 tract of 12 acres of cropland and 1 tract consisting of 8 acres of cropland, 2 acres of woodland and 2 acres of wasteland. He has also been using rent-free 6 acres of pastureland belonging to Mr. Smith.

Fill in the following:

OWNED LAND

- 4. How many acres of land do you OWN?
ALL LAND OWNED. Include not only cropland but also pastureland, woodland, wasteland, etc.

LAND RENTED FROM OTHERS

- 5. How many acres of land do you RENT FROM OTHERS including any worked on shares?

During most of the week of Oct. 24-30 Mr. Jones was ill. He worked about 3 hours a day on Monday and Tuesday and an additional 4 hours over the week-end.

- 6. About how many hours the week of Oct. 24-30 did you (the person in charge of this place) do farm work or chores on this place?

- 7. How many OTHER MEMBERS OF YOUR FAMILY did 15 hours or more of farm work or chores on this place the week of Oct. 24-30 WITHOUT RECEIVING CASH WAGES?

- 8. How many HIRSD PERSONS did any farm work or chores on this place the week of Oct. 24-30?

TEST 3—Continued

Mr. Jones harvested 525 bushels of Irish potatoes this year from 4 acres. He sold 500 bushels, and used the remainder on the farm. He also harvested 15 bushels of sweetpotatoes from a strip he estimates to be about 1/10 an acre. He used 5 bushels on the farm and sold the other 11 bushels.

Fill in the following:

- 9. Irish Potatoes for home use?
10. Sweetpotatoes for home use or for sale?

This year Mr. Jones paid \$150 to have his wheat threshed, \$75 for tractor hire and \$15 for filling a silo. He pays a hired hand \$160 a month throughout the entire year. He also paid a day hand \$65 during the year for work on the farm.

Fill in the following:

- 11. How much was or will be SPENT this year for—
(a) MACHINE HIRE
12. (b) HIRSD LABOR
13. (c) FEED for livestock and poultry

TEST 3—Continued

Mr. Jones estimates that he has purchased 4 tons of fertilizing material this year to be used on 20 acres. The material cost him an average of \$50 per ton. He used the fertilizer as follows:

- 1 ton on 7 acres of corn
2 tons on 6 acres of potatoes
1/2 ton on 3 acres of oats
1/2 ton on 4 acres of hay

Fertilizer was not used on any other crops or acreage.

NOTE: Convert all fractions of tons to tenths, i.e., 1/10, 2/10, 3/10, etc.

Fill in the following:

- 14. How much COMMERCIAL FERTILIZER and FERTILIZING MATERIAL was purchased this year?

On which crops was FERTILIZER USED? For each crop, answer these questions (If none, check none.)

- 15. (a) Hay and cropland pasture?
16. (b) Other pasture (not cropland)?
17. (c) Corn?
18. (d) Wheat?
19. (e) Fruits, vegetables, and potatoes?
20. (f) Other crops?

Table with columns: (1) On how many acres was fertilizer used? and (2) How many tons were used? Rows for crops A-CORN, B-WHEAT, C-FRUIT, VEGETABLES, AND POTATOES, D-OTHER CROPS.

FIGURE 5.—Selection Aid for Enumerators (Pers. 165 Form B)—Continued.

Fourth day—Continued

5. Preparing for the checking of coverage (¼ hour)
6. Preparing for making assignments of enumerators to enumeration districts (¼ hour)
7. Training enumerators (½ hour)
8. Questions (¼ hour)

Fifth day:

1. How to review enumerator's work (2 hours)
2. How to replace enumerators and make reassignments (¾ hour)
3. Completing the job (¾ hour)
4. Issuing materials and supplies to the crew leader for his area (1¾ hours)

C. TRAINING OF ENUMERATORS

Duration of training:

A total of 12 hours on 4 different days

First day:

1. Description of his job (1¼ hours)
2. How to use enumerator's map (Training given by presenting film strip and recording "Your Map is Your Guide") (¼ hour)
3. Explanation of Agriculture Questionnaire (A1) (1½ hours)
4. Review Agriculture Questionnaire filled out at home by each enumerator (½ hour)
5. Explanation of how to fill questionnaires (Instruction given by film strip and recording) (1 hour)

Second day:

1. Instructions on how to fill questionnaires, continued (Instructions given by film strip and recording) (¾ hour)
2. Practice enumeration in class room. The enumerators acted as the enumerator and the crew leader as the respondent (3 hours).
3. Assignments of enumeration districts and distribution of supplies for enumeration on third day (¼ hour)

Third day:

1. Actual enumeration in an assigned area

Fourth day:

1. Discussion of problems encountered during enumeration on third day (1¼ hours)
2. Individual review of each enumerator's work (1½ hours)
3. Assignment of enumeration districts and delivery of work materials (1¼ hours)

Office space, supplies, and equipment.—It was necessary not only to obtain office space, but also equipment and supplies for the use of the large number of temporary personnel required for taking the Census. Office space was secured only for Field Processing Offices and Agriculture Field Offices. It was necessary for crew leaders and enumerators to use their own homes as their headquarters and offices.

In obtaining office space for Field Processing Offices and Agriculture Field Offices every effort was made to obtain free space. The first source explored was space in Federally owned or controlled buildings, such as Post Office buildings. Local governments and civic organizations were asked for free space in such public buildings as court houses, city halls, and schools. Free space was obtained for 82 of the 145 Field Processing and Agriculture Field Offices. The space used by Field Processing Offices averaged about 2,100 square feet per office. For the Agriculture Field Offices, about 975 square feet were used per office.

Several methods were used to obtain furniture, equipment, and supplies for the Field Processing and Agriculture Field Offices. Furniture was borrowed from Post Offices, other Government agencies, and local organizations. Much Government-owned used furniture was obtained free by transfer from regional governmental warehouses. When free furniture was not obtainable,

items of reconditioned furniture were procured from regional supply centers of Federal Supply Service.

Reconditioned adding machines and typewriters also were purchased from Federal Supply Service regional supply centers. Some reconditioned office machines from the Department of Commerce stock were shipped to field offices, and, upon completion of the enumeration, returned to Washington for use during the central processing operations. In other cases, adding machines and typewriters were rented locally by the Field Processing and Agriculture Field Office Supervisors.

Record players and film projectors were required for training crew leaders and enumerators. This equipment was supplied from stocks returned from the 1950 Census and was shipped to the Agriculture Field Offices for distribution to the crew leaders. Two training records and film strips were prepared for training crew leaders and enumerators. One, "Your Map is Your Guide", with a running time of 12 minutes, explained and illustrated how to use the maps provided for each enumeration district. The other, "Enumeration Instructions," with a running time of 54 minutes, was shown to the enumerators in two separate sessions; Part 1, in the last period of the first day's training session; and Parts 2, 3, and 4 at the beginning of the second day's training session. This film strip explained and illustrated the use of the various enumeration forms and how to conduct an interview by the device of having the training class accompany an enumerator from his breakfast table at home until the end of his first interview.

Paper, pencils, paper clips, and other standard office supplies were purchased from Federal Supply Service. These supplies were purchased and distributed by two different methods. Under the first method, the anticipated needs of each field office, conservatively estimated, were reported to regional supply centers of the Federal Supply Service, where packages containing the requested supplies were prepared for each field office to open in their regions. When the field office was ready to open, the supply centers shipped the supplies and usually, these supplies arrived the day the field office opened. Under the second method, the supplies were purchased in bulk for delivery in Washington. These bulk supplies supplemented the "packaged" supplies delivered direct, and were shipped to field offices as required.

Most of the supplies used by the enumerator, including the questionnaires, were assembled in Washington and placed in each enumeration district portfolio. A reserve supply of enumeration forms was sent to each Agriculture Field Office and to each crew leader.

Packaging and distributing enumerator's supplies.—Most of the supplies used by the enumerators, including the questionnaires, were assembled in Washington and placed in the enumerator's portfolio.

A separate portfolio (see fig. 6) was prepared for each enumeration district. The portfolio was made of two pieces of heavy cardboard, 13 inches wide and 20 inches long, attached together by a canvas hinge to form a folder. An open-topped, accordion-pleated heavy paper envelope was fastened inside the cardboard folder, with the opening in the envelope next to the canvas hinge. Thus the top piece of cardboard, when folded over, formed a full-length flap to help hold the contents securely. An elastic cord, attached to the back piece of cardboard, could be stretched around the portfolio to hold it closed.

The exact contents of the portfolio varied according to the location and expected number of farms in the enumeration district. In general, supplies of the following items were included:

- Enumeration district map
- Enumerator's Record Book
- Agriculture Questionnaires
- Enumerator's Daily Report (preaddressed post card form)
- Specified Farm Coverage Cards (if required)
- Writing board and clip
- Blank envelopes

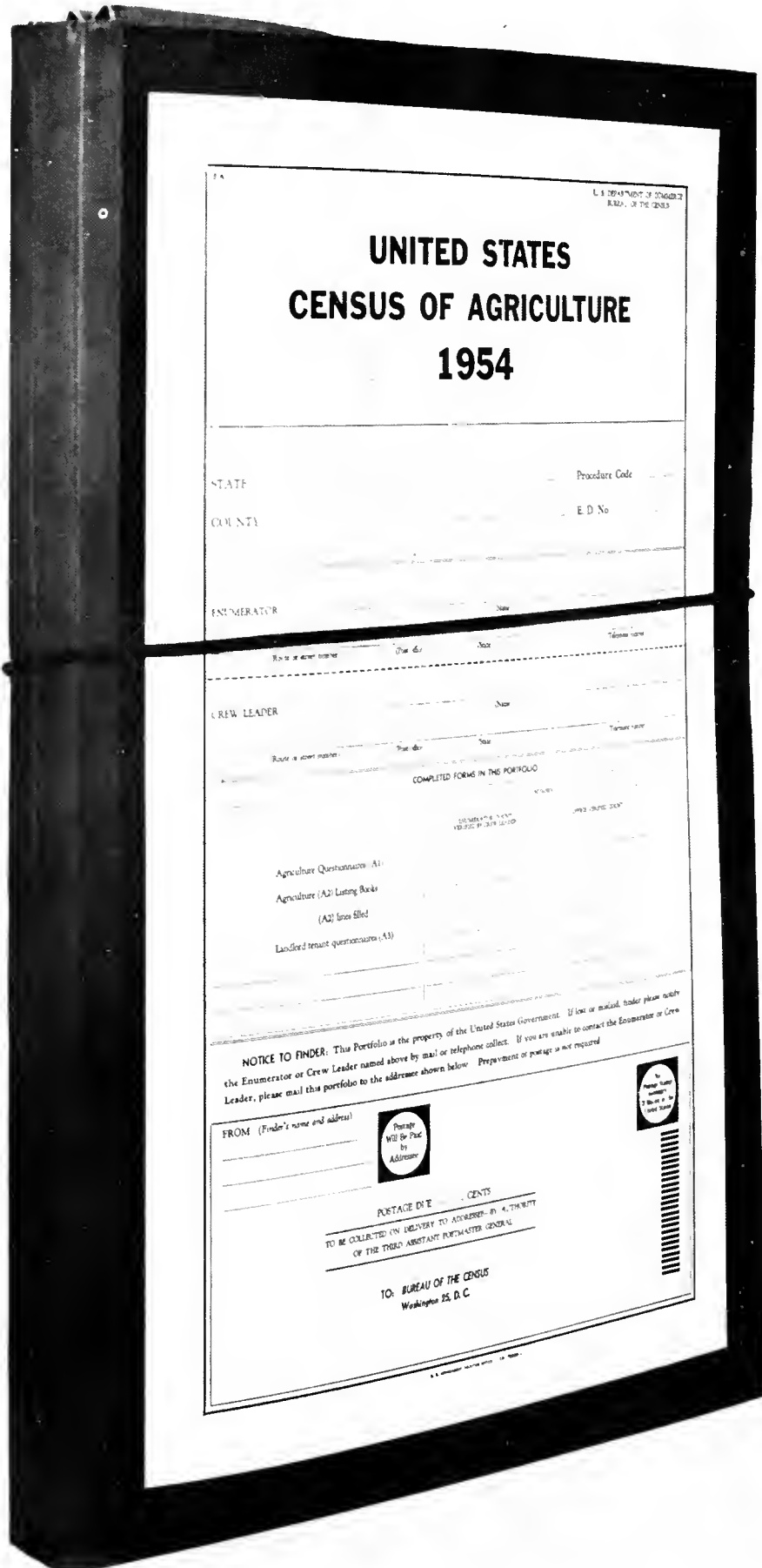


FIGURE 6.—The portfolio.

Forty-two thousand enumerator's portfolios required for the Census were assembled and packaged in Washington. The forms and supplies were inserted in the portfolios at successive stations along a waist-high rack composed largely of roller wheels. Bulk supplies of a given kind were brought to each station on "skids" by hydraulic-lift trucks. As the portfolios moved from one end of the rack to the other, the required number of each type of supply was inserted. Forms required in small numbers were counted. The number of forms, such as the Agriculture Questionnaire, required in large numbers for each enumeration district, was determined by use of a measuring "spoon".

The filled portfolios were labeled for specific enumeration districts, packed by crew leader districts into wooden or cardboard boxes, and shipped to the Agriculture Field Offices. The portfolios for enumeration districts in each area were given to the respective crew leader on the last day of his training. He took these in his automobile and distributed them to enumerators on the last day of enumerator training. The wooden boxes were stacked and used as shelves in the Agriculture Field Offices. After enumeration had been completed, the portfolios were packed in the same wooden boxes for shipment to the Central Operation Offices.

Distribution of Agriculture Questionnaires by mail.—Approximately 7,900,000 copies of the Agriculture Questionnaire were distributed by mail to boxholders on the rural routes in all States except Alabama, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and 53 of 75 counties in Arkansas. These ques-

tionnaires, mailed about 2 weeks before the enumeration began, were accompanied by a letter asking the farm operator to examine the questionnaire and to answer the questions prior to the visit of the enumerator. (See fig. 7 for copy of letter.) When the enumerator made his visit he was instructed to ask for the questionnaire, check it, and obtain whatever information was needed to complete it. This procedure enabled the farmer to know in advance what information was required and provided some leeway of time within which he could supply the answers at his own convenience. This procedure was of particular importance to those farmers who preferred to supply the information on the basis of their records. Expected results were that the quality of the information would be improved and the work of the enumerator expedited. Records show that in the area in which the Agriculture Questionnaire was distributed by mail, the enumerator obtained and used the mailed questionnaire in 43 percent of the cases and that the questionnaire had been filled out completely by 23 percent of the farm operators in the area.

The questionnaires for distribution by mail were printed in Chicago, Ill. Consequently, arrangements were made for distribution from Chicago to the local post offices in all parts of the country. A crew of about 25 temporary employees was recruited to pack the questionnaires into bundles of 50, and to tie, label, and sack them for delivery to approximately 34,000 post offices. This operation was performed from September 2 to November 2, 1954 and required 3,851 hours of work by clerical and supervisory personnel.

ENUMERATION PROCEDURES

The enumerator was assigned a specified area or an enumeration district for which he was to perform the enumeration. For this area he was furnished a map.

Enumerator maps were used to insure the completeness of the work of the enumerator. Thus, enumerators were usually required to visit and to make a record of all dwellings indicated on the map. However, in order to keep the cost of the Census within reasonable limits and to make the enumerator's job appear reasonable to him, exceptions were made to this requirement. In the 11,127 enumeration districts comprising incorporated places and urban areas, the enumerator was provided with a list of the names, addresses, and description in terms of acreage and kind of farm for all farms included in the 1950 Census of Agriculture. For these enumeration districts the enumerator was required to visit and locate only the farms listed for the 1950 Census and any other places which, on the basis of information he obtained, were likely to be engaged in farm production. Also in 14,798 enumeration districts in rural areas, the enumerator was permitted, with the approval of his crew leader to omit the listing and mapping of dwellings in built-up areas containing 50 or more dwellings. The crew leader was to indicate on the enumerator's map the part of the enumeration district in which the enumerator was to begin his work. The instructions to the enumerator outlined a systematic method for the enumerator to follow in making his visits in order to insure

the complete coverage of all parts of the enumeration district.

The enumerator was required to list each dwelling and place in his enumeration district on Form A2 (see fig. 9) and to enter answers, as required, for columns 1 to 16. The answers to the questions in columns 3 to 13 of Form A2 provided the basis for the enumerator to determine when he was to fill an Agriculture Questionnaire (Form A1), and a Landlord-Tenant Questionnaire (Form A3). (See fig. 10. This questionnaire was used in approximately 900 counties in the southern part of the United States where a considerable proportion of the farms were operated by croppers and share-tenants.) Form A2 was also used to designate a sample of places for which additional information was to be obtained and to record notes about places to which another visit would be required. Form A2 was used to designate a sample of places through the use of shaded squares that appeared on every fifth line. Enumerators were required to indicate by means of placing an "X" in a square, the size group in terms of acreage of the place for which the Agriculture Questionnaire was filled. If the size group was indicated in a shaded square, then the enumerator was required to obtain additional information on the Agriculture Questionnaire for the place listed on that line. Columns 16 and 17 of the Form A2 were used as a record to indicate when the enumeration for the line had been completed as well as when another visit would be needed to complete the enumeration.

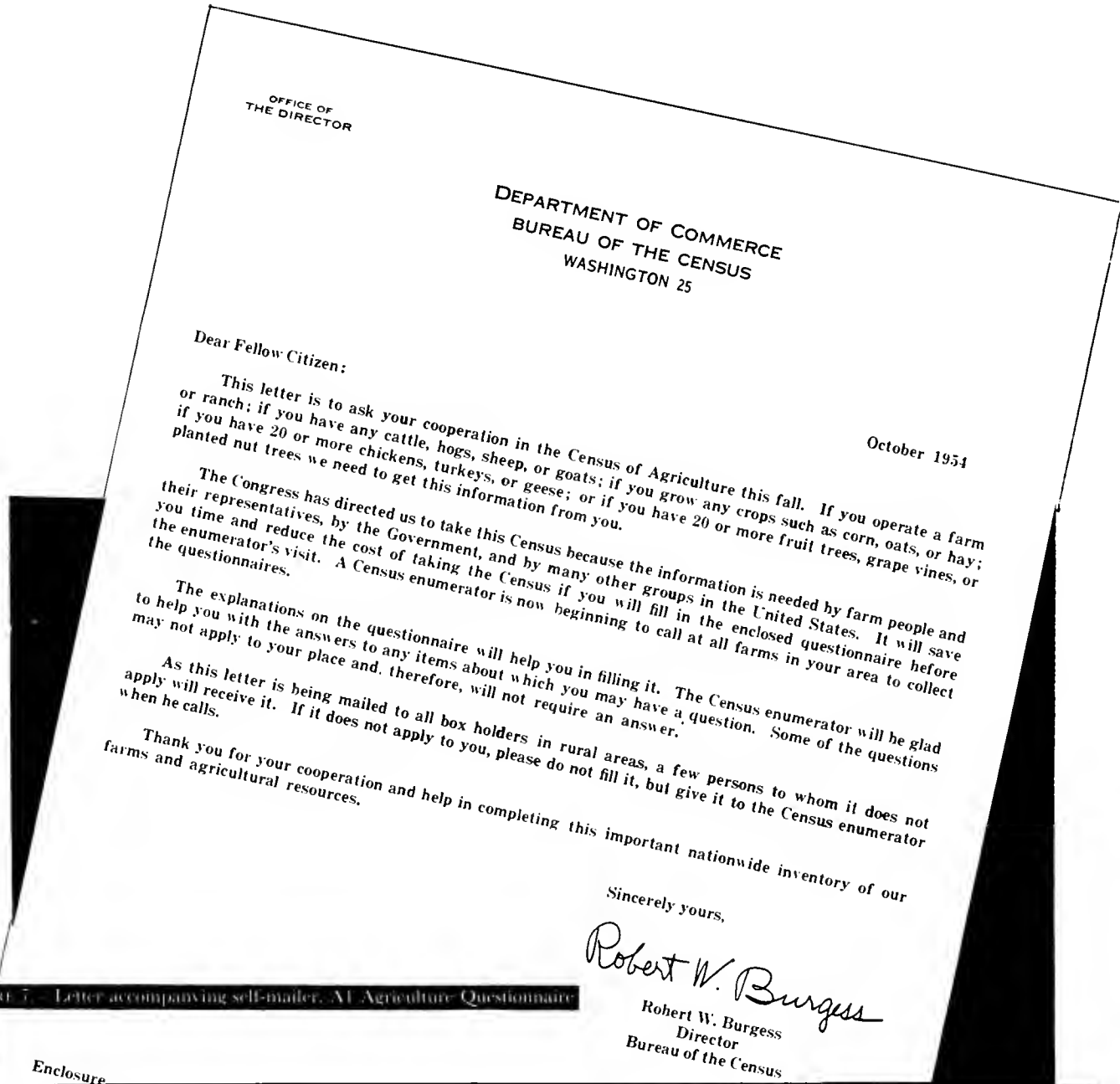


FIGURE 7. Letter accompanying self-mailer, AI Agriculture Questionnaire

U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON 25, D. C.
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, \$300
(GPO)

**RURAL-, STAR-ROUTE OR POST-OFFICE
BOX HOLDER
LOCAL**

FIGURE 8. Address label, self-mailer, AI Agriculture Questionnaire.

A2	Line number	Name of road, etc.	PART I.—AGRICULTURAL OPERATIONS (If "Yes" for any column 3 to 8, slip to col. 9. If "No" for all columns 3 to 8, fill 15 and 16.)		PART II.		PART II.—SOURCE OF INFORMATION, ETC.—Continued				Date completed (Enter date only after you have answered all questions and have completed an AI if required.)	Callback information and remarks								
			Does this person have agricultural operations lives? ("Yes" in any col. 3 to 8, slip to col. 9.)		Does this person have agricultural operations lives? ("Yes" in any col. 3 to 8, slip to col. 9.)		To an AI to be filled? (a) "Yes" in col. 9 & (b) "No" in col. 10		Are Sections VIII through XIII as AI to be filled? (a) Mark X on the basis of entry for question II on AI in the proper shaded square. (b) Fill square VIII through XIII as AI if you have placed X in shaded square.											
			(1) Does this person live on a farm (or ranch)?	(2) Any crops such as wheat, corn, soybeans, or tobacco?	(3) 20 or more chickens, turkeys, and geese?	(4) 20 or more fruit trees, vines, and nut-planted trees?	(5) Any vegetables, berries, or green-house products grown for sale?	(6) Yes	(7) No	(8) Yes	(9) No	(10) Yes	(11) No	(12) Person from whom information was obtained	(13) Person on line	(14) Under 30 acres	(15) 30 to 99 acres	(16) 100 to 299 acres	(17) 300 to 999 acres	(18) 1,000 acres & over
321			No	No	No	No	No	No	No	No	No	No	No	Person on line						
322			No	No	No	No	No	No	No	No	No	No	No	Person on line						
323			No	No	No	No	No	No	No	No	No	No	No	Person on line						
324			No	No	No	No	No	No	No	No	No	No	No	Person on line						
325			No	No	No	No	No	No	No	No	No	No	No	Person on line						
326			No	No	No	No	No	No	No	No	No	No	No	Person on line						
327			No	No	No	No	No	No	No	No	No	No	No	Person on line						
328			No	No	No	No	No	No	No	No	No	No	No	Person on line						
329			No	No	No	No	No	No	No	No	No	No	No	Person on line						
330			No	No	No	No	No	No	No	No	No	No	No	Person on line						
331			No	No	No	No	No	No	No	No	No	No	No	Person on line						
332			No	No	No	No	No	No	No	No	No	No	No	Person on line						
333			No	No	No	No	No	No	No	No	No	No	No	Person on line						
334			No	No	No	No	No	No	No	No	No	No	No	Person on line						
335			No	No	No	No	No	No	No	No	No	No	No	Person on line						
336			No	No	No	No	No	No	No	No	No	No	No	Person on line						
337			No	No	No	No	No	No	No	No	No	No	No	Person on line						
338			No	No	No	No	No	No	No	No	No	No	No	Person on line						
339			No	No	No	No	No	No	No	No	No	No	No	Person on line						
340			No	No	No	No	No	No	No	No	No	No	No	Person on line						

FIGURE 9.—A2 listing form.

U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

Form A3 LANDLORD-TENANT QUESTIONNAIRE
Census of 1954
Agriculture

Section I—ASK LANDLORD THESE QUESTIONS ABOUT ALL TENANTS

1. What are the names of all your tenants...
2. What is the land acreage...
3. What does he pay you...
4. Do you own the land...
5. How many acres of land do you own...
6. Land rented from others...
7. Adding acre owned and acre rented, we get...
8. Add the record for each of the tenants listed above...
9. Obtain totals for that portion of the farm...
10. Add lines A, B, C...
11. This line for Office use only

Section II—PERSON NOW IN CHARGE AND ACREAGE UNDER HIS CONTROL

1. What is your name? (Last, first, middle)
2. What is your address? (Include a new No.)
3. How? (Crop, Other, What else?)
4. Do you operate the land as a hired manager? If yes, name the owner and the hired manager.

Section III—TO BE FILLED BY ENUMERATOR

1. How many acres of the work...
2. How many acres of the work...
3. How many acres of the work...
4. How many acres of the work...
5. How many acres of the work...
6. How many acres of the work...
7. How many acres of the work...
8. How many acres of the work...
9. How many acres of the work...
10. How many acres of the work...
11. How many acres of the work...
12. How many acres of the work...
13. How many acres of the work...
14. How many acres of the work...
15. How many acres of the work...
16. How many acres of the work...
17. How many acres of the work...
18. How many acres of the work...
19. How many acres of the work...
20. How many acres of the work...

Section IV—ASK LANDLORD THESE QUESTIONS ABOUT THOSE TENANTS WHO PAY (OR RECEIVE) A SHARE OF THE CROPS

1. How much COTTON...
2. How much COTTON...
3. How much COTTON...
4. How much COTTON...
5. How much COTTON...
6. How much COTTON...
7. How much COTTON...
8. How much COTTON...
9. How much COTTON...
10. How much COTTON...
11. How much COTTON...
12. How much COTTON...
13. How much COTTON...
14. How much COTTON...
15. How much COTTON...
16. How much COTTON...
17. How much COTTON...
18. How much COTTON...
19. How much COTTON...
20. How much COTTON...

FIGURE 10.—A3 Landlord-Tenant Questionnaire.

Generally, the enumerator was required to list on Form A2 all dwellings and places in his enumeration district. The line number on Form A2 on which each dwelling or place was listed, was to be entered on the enumerator map, near to the location of the dwelling or place on the map. An illustration of the listing of places on Form A2 is given in figure 11 and an illustration of the enumerator's map showing the line numbers corresponding to dwellings and places is given in figure 12. This method used for indicating places enumerated on the enumerator's map aided in insuring that the enumerator had visited all places in the enumeration district and that the coverage of all parts of the enumeration district was complete.

In approximately 225 counties where there were a considerable number of farm operators who did not reside on their farms and where the farms were relatively large, enumerators were required to indicate on Form FA-100 (see fig. 13) the line number on Form A2 on which the operator of each 40 acres comprising the farm was located.

When an Agriculture Questionnaire or a Landlord-Tenant Questionnaire was required, the enumerator obtained, when avail-

able, the copy of the Agriculture Questionnaire the operator had received by mail, or took a questionnaire from his portfolio and asked whatever questions were required for completing and checking the filling of the questionnaire. The enumerator was instructed to make his entries on the questionnaires and other records legible and make entries only when necessary or required by the questionnaire. (For example, if the answer to a question was "0", the enumerator was instructed to make no entry.)

Sections VIII through XII of the Agriculture Questionnaire were to be filled only for a sample of farms. This sample consisted of places listed on the Form A2 with the size of the place indicated in a shaded square and in addition, in selected States, places having an exceptionally large entry for a specified item. The specifications determining the additional places that formed a part of the sample when the entry for a specified item was exceptionally large, were given at the beginning of Section VIII of the Agriculture Questionnaire.

Enumerators in the selected counties in which the Landlord-Tenant Questionnaire was used, were provided with special instructions for filling this questionnaire.

Form A2

Line number	Name of road, etc.	For each place with any land located in the ED— A. WHEN SOMEONE LIVES ON THE LAND IN THIS ED Enter name of head of household, or		Part I—AGRICULTURAL OPERATIONS (If "Yes" for any columns 3 to 8, skip to col. 9. If "No" for all columns 3 to 8, fill 12 and 13.)										Part II		Part II—SOURCE OF INFORMATION, ETC.—Continued					Date completed (Enter date only after you have answered all questions and have completed all A1 if required.)	Callback information and remarks	Line number
		B. WHEN NO ONE LIVES ON THE LAND IN THIS ED (a) Enter name of person who rents land, grows crops on shares, or uses land for livestock, or (b) If no one rents the land or uses the land for livestock, enter the name of the owner of the land		Does this person or any member of his household have this year—	Does this person have agricultural operations where he lives? (Yes in any col. 4 to 8 indicates agricultural operations)	Does this person live in your ED?	Person from whom information was obtained	Is an A1 to be filled? (a) "Yes" in col. 9 & "No" in col. 10 (b) "No" in col. 9 & "Yes" in col. 10	Are sections VIII through XIII on A1 to be filled? (a) Mark X on the basis of entry for question 11 on A1 on the proper square below. (b) Fill Sections VIII through XIII of A1 if you have placed X in shaded square					(15)	(16)								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	Under 30 acres	30 to 99 acres	100 to 299 acres	300 to 999 acres	1,000 or over	(15)	(16)	(17)			
1	State Highway 15	John M. Kelly	X						X	X	John M. Kelly	X			X			Nov. 4		1			
2		John Burns																			2		
3																					3		
4																					4		
5																					5		
6																					6		
7																					7		
8																					8		
9																					9		
10																					10		
11																					11		
12																					12		
13																					13		
14			John Smith	X						X	X	John Smith	X			X			Nov. 4	Home training questionnaire	14		
1	State Highway 15	John Burns	X						X	X	John Burns	X			X			Nov. 4		1			
2		George Smith	X	X	X	X	X	X										Nov. 4		2			
3		Charles White	X																		3		
4		David Watson	X	X						X	X	David Watson	X								4		
5																					5		

FIGURE 11.—A2 Listing form (illustrative example).

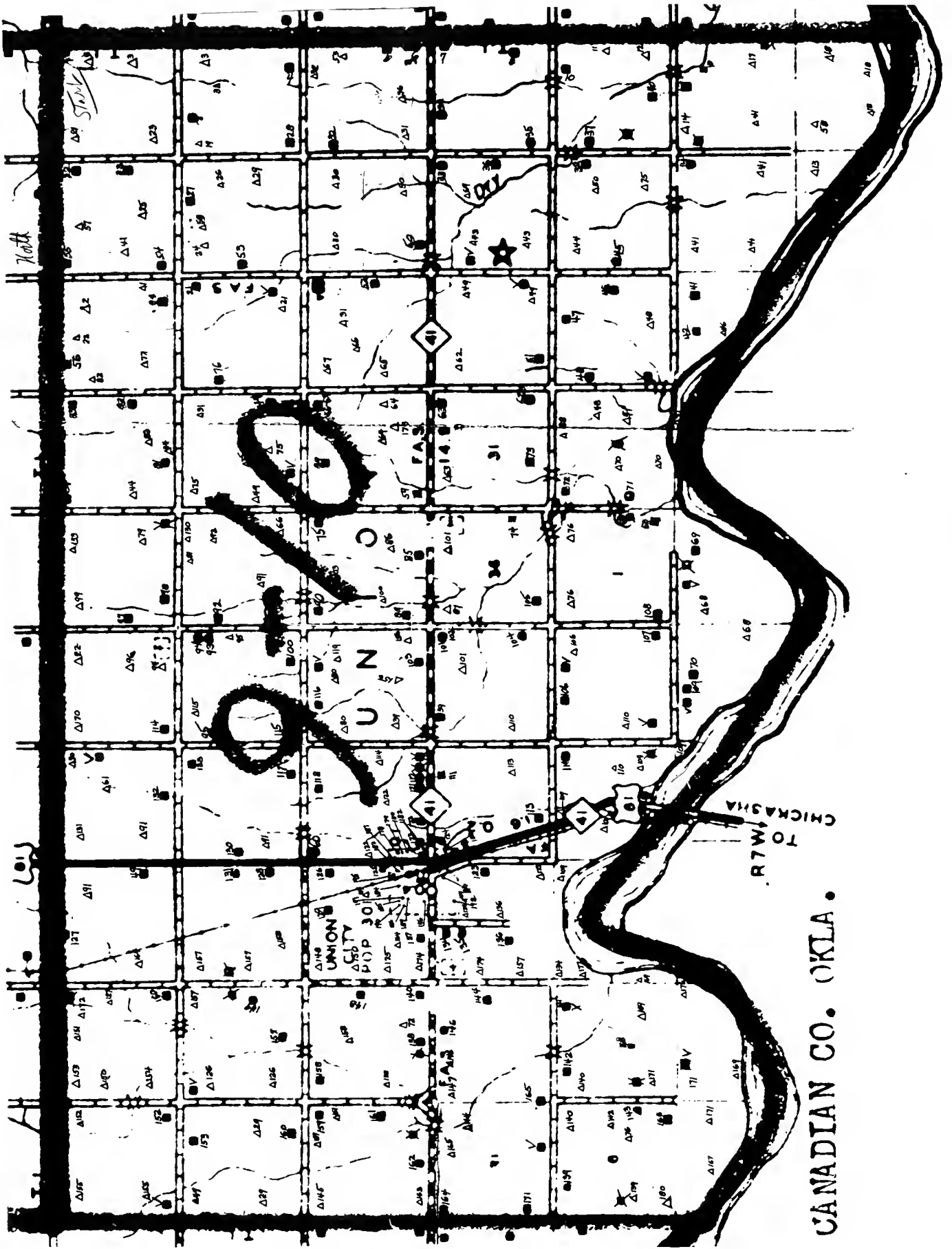


FIGURE 12.—Reduced facsimile of enumerator's map.

Form FA-100 (7-1-54) U. S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS 1954 CENSUS OF AGRICULTURE	State KANSAS County MASON E.D. No. 22-3 Sheet <u>2</u> of <u>3</u> Sheets Enumerator ALFRED L. PATTON
MAP FOR CHECKING ENUMERATION OF FARMS IN SPECIFIED TOWNSHIP AND RANGE SURVEY AREAS.	

TOWNSHIP 2 N RANGE 3 W

67	66	65	64	63	62	61	60	57	57	56	56	55	55	54	54	53	53	53	53	52	52	52	52
68	66	65	65	63	63	60	60	57	56	56	56	55	55	54	54	53	53	53	53	52	52	52	52
69	69	65	65	62	62	61	60	57	57	58	58	55	55	54	54	53	53	53	53	52	52	52	52
71	71	65	65	62	62	61	61	57	57	58	58	55	55	54	54	53	53	53	53	52	52	52	52
72	72	73	73	74	74	74	74	44	44	44	44	44	44	54	54	54	54	54	54	51	51	51	51
72	72	73	73	74	74	74	74	44	44	44	44	44	44	54	54	54	54	54	54	51	51	51	51
73	73	73	72	72	75	75	72	44	44	44	44	44	44	45	45	46	46	48	48	49	49	51	51
73	73	73	72	72	75	75	72	44	44	44	44	44	44	45	45	46	46	48	48	49	49	51	51
76	76	77	77	78	78	78	78	44	44	44	44	44	44	45	45	46	46	48	48	49	49	50	50
76	76	77	77	78	78	78	78	44	44	44	44	44	44	45	45	46	46	48	48	49	49	50	50
79	79	79	79	78	78	78	78	42	42	42	42	43	43	43	43	43	43	40	40	41	41	41	41
79	79	79	79	80	80	80	80	42	42	42	42	43	43	43	43	43	43	40	40	41	41	41	41
80	80	80	80	80	80	80	80	82	82	83	83	43	43	43	43	45	45	40	40	40	40	40	40
80	80	81	81	80	80	80	80	82	82	83	83	43	43	43	43	43	43	40	40	40	40	40	40
86	86	86	86	85	85	84	84	83	83	83	83	43	43	43	43	43	43	10	10	10	10	39	39
86	86	86	86	85	85	84	84	83	83	83	83	43	43	43	43	43	43	10	10	10	10	39	39
87	88	89	89	89	89	84	84	8	8	8	8	8	8	8	8	10	10	10	10	38	38	38	38
88	88	89	89	89	89	84	84	8	8	8	8	8	8	8	8	10	10	10	10	38	38	36	36
89	89	89	89	90	90	84	84	8	8	8	8	8	8	8	8	9	9	10	10	38	38	35	35
89	89	89	89	90	90	84	84	8	8	8	8	8	8	8	8	9	9	10	10	12	12	34	34
91	92	93	93	4	4	7	7	8	8	8	8	8	8	8	8	9	9	9	9	12	12	33	33
96	95	94	94	4	4	7	7	8	8	8	8	8	8	8	8	9	9	9	9	12	12	32	32
97	2	2	4	4	4	6	6	8	8	8	8	8	8	8	8	9	9	9	9	12	12	32	32
98	2	2	4	4	4	6	6	8	8	8	8	8	8	8	8	9	9	9	9	12	12	32	32
1	2	2	3	4	4	6	6	8	8	8	8	8	8	8	8	9	9	9	9	12	13	14	15

Remarks *Lines 8, 38, 53, 79, 80, 97 + 98 have land in adjoining townships*

FIGURE 13.—Map for checking enumeration of farms in specified township and range survey areas (Form FA-100).

In order to facilitate his work or provide records needed for control and payment for work, the enumerator was required to keep five other records. All except one of these were bound together with Form A2, to form a single booklet, called the Enumerator's Record Book. The records and the purpose of each were as follows:

Record of Work and Travel (Form FA-3).—This record provides a detailed record of the enumerator's travel, hours of work, and amount of work accomplished each day. The summary in part B of this record, was used for the calculation of the payment due the enumerator for his work in a completed enumeration district. (An illustrative copy of Form FA-3 appears in fig. 14.) This record also provided the information the enumerator needed for filling out his daily report of work. (See Form FA-7 in fig. 15.)

Enumerator's Daily Report (Form FA-7. See fig. 15).—This form was a preaddressed post card to the Agriculture Field Supervisor. The information needed for filling out this report was obtained from the Record of Work and Travel (Form FA-3). The enumerator was instructed to mail this report each day. This report served as a basis for indicating the amount of work performed each day and for measuring the progress of the enumeration.

Record of Telephone and Other Costs (Form FA-4. See fig. 16).—This record was maintained by the enumerator for the purpose of providing a basis for the payment of charges paid for telephone calls, etc.

Record of A2 Listings Requiring Crew Leader Action (Form FA-5. See fig. 17).—This form was used to list the names and addresses for operators living more than 15 miles outside the enumeration district, operators who refused to give the necessary information, and operators of places for which the enumerator was unable to obtain the required information. The purpose of this form was to secure a record for the crew leader of cases where the crew leader was required to take additional action in order to complete the enumeration.

Enumerator's Callback Record (Form FA-6. See fig. 18).—This record provided a summary, at a convenient place, of the places for which the enumerator was required to make other visits in order to complete his work.

Supervision of the enumerator and checking of his work.—The actual supervision of the enumerator by the crew leader began during the training period. The enumeration work performed by the enumerator during the training period was reviewed during the last day of the enumerator's training. After the completion of the training, crew leaders were required to devote full time during the enumeration period to visiting the enumerator while he was working in his enumeration district. The first of these visits was to be made, if possible, during the first few days of his work. The least capable enumerators were to be visited first. The duration of the crew leader's first visit was to be at least 3 hours and that of subsequent visits 1 to 2 hours. On the last visit the crew leader checked the work for the enumeration district completed by the enumerator and if the work was acceptable, took the materials for the completed enumeration district with him. Records indicate that the average number of visits by crew leaders to enumerators was 4.1. The kind and amount of review of the enumerator's work at each visit of the crew leader were outlined by the crew leader's instructions. At the first visit, the crew leader was instructed to observe at least one interview by the enumerator when he was filling out an Agriculture Questionnaire, and to help and to suggest improvements in interviewing. The crew leader was also required to review all the questionnaires and forms filled by the enumerator during his first day's work and

to check the enumerator's map to see that it was being used properly.

The review of questionnaires and forms involved the checking of Form A2 to see that entries were being made properly; that the indication of lines comprising the sample was being accurately made; the checking of Agriculture Questionnaires to determine that all entries were legible, that all required questions had been answered, and that Sections VIII through XII had been filled where required; and the comparison of entries for items that could be checked with the entries for other items on the questionnaire. The crew leader made a record of his checking on Form FA-18 (see fig. 19) and indicated on Form FA-17 (see fig. 20) the items which he thought would need checking on his subsequent visits. If the crew leader found the enumerator's work satisfactory, he was instructed to review every tenth Agriculture Questionnaire filled after his first visit. The crew leader was required to sign each Agriculture Questionnaire that he checked. In his review of materials for completed enumeration districts, the crew leader was instructed to make a complete review of the Enumerator's maps to see that the entire enumeration district had been covered, the Form FA-2 and the Agriculture Questionnaire had been completed satisfactorily, all specified farms had been accounted for, all callbacks had been made, and that the Forms FA-3 and 4 had been filled out accurately. The crew leader checked and completed the filling of part B of Form FA-3, so that the information in this part could be used as a basis for paying the enumerator for his work.

A review and summary of each enumerator's work was made in the Field Processing Office before the payment to the enumerator for his work was approved. This review and summary was made primarily by tabulating clerks. When work for an enumeration district was completed and approved by the crew leader, the completed work was mailed by the crew leader to the Field Processing Office. The crew leader was provided with cardboard boxes for mailing each enumerator's portfolio.

The first checking of the enumerator's work in the Field Processing Office consisted of the verification of the amount of work completed, miles traveled, hours worked, etc., in order to provide data for preparing the enumerator's payroll.

The work submitted for the first 3 enumeration districts by the crew leader was given a detailed intensive review in order to insure that the crew leader was making an adequate review of each enumerator's completed work. This review consisted of the checking to see that (1) each farm listed on the list of specified farms had been enumerated or satisfactorily accounted for, (2) an Agriculture Questionnaire had been obtained for each place for which the entries on Form A2 indicated that an Agriculture Questionnaire was required, (3) the designation of places in the sample had been performed accurately, (4) Section VIII-XII of the Agriculture Questionnaire had been filled completely, (5) the A2 line number had been entered for each place on the enumerator's map, and that all callbacks listed in Form FA-6 had been completed or a satisfactory explanation given. The results of this intensive review were recorded in Section II of Form FA-91 (see fig. 21).

For all enumeration districts except the first 3 received from the crew leaders, a review was made to determine (1) how many Agriculture Questionnaires were missing, (2) that the enumerator's section below Section VIII of the Agriculture Questionnaire had been properly filled, and (3) that the enumerator's map and other forms were present. If Agriculture Questionnaires were missing, form letters were mailed to the farm operators requesting that a report be submitted. A summary of the results of this review was recorded in Sections 3 and 4 of Form FA-91.

Form FA-3 U. S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS RECORD OF PRODUCTION AND TRAVEL

State *Kansas*
County *Osceola*
ED Number *21-7*

Part A—DAILY RECORD

Date (1)	Speedometer readings		Miles driven		Agriculture ques. obtained (Form A1)		Hours worked at piece rates		Hours worked at hourly rate	
	Start of official travel (2)	Ending of official travel (3)	Today (4)	To date (5)	Today (6)	To date (7)	Today (8)	To date (9)	Today (10)	To date (11)
	11-9-54	32,110	32,131	21	21	12	12	9	9	
11-10-54	32,166	32,190	24	45	13	25	10	19		
11-12-54	32,233	32,249	16	61	14	39	9 1/4	28 1/4		
11-13-54	32,270	32,282	22	83	10	49	6	34 1/4		
11-15-54	32,293	32,303								
11-15-54	32,313	32,329	16	99	12	61	9	43 1/4		
11-16-54	32,360	32,372	12	111	11	72	8 3/4	52		
11-17-54	32,375	32,386	11	122	12	84	10	62		
11-18-54	32,390	32,400	10	132	10	94	8 1/2	70		
11-19-54	32,416	32,430	14	146	12		10			
11-20-54	32,435	32,442	15	161			9			
	32,450	32,458								
11-22-54	32,508	32,51								
11-23-54	32,520	32,								
11-24-54										

Note: Enter last entries in columns (5), (7), (9), and (11) on first line on next page.

FIGURE 14.—Record of production and travel (Form FA-3).

U. S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS WASHINGTON 25, D. C. OFFICIAL BUSINESS

CENSUS OF AGRICULTURE

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, \$300 (GPO)

DATE *11-12-54* CREW LEADER'S NAME *Laurence S. Miller* E. D. NO. *21-7*

COUNTY *Osceola* STATE *Kansas*

Instructions: Complete and mail to your Field Office at close of each workday.

OPERATIONS	TODAY	TOTAL INCLUDING TODAY
A. Agriculture Questionnaires Filled (A1)	14	39
B. Hours Worked at Piece Rates	9 1/4	28 1/4
C. Hours Worked at Hourly Rate		
D. Miles Driven	16	61
E. Total Lines Filled on Form A2		81
F. Callbacks Pending		3

Is This E. D. Now Complete?
 No
 Except for Callbacks
 Yes

David A. Barton
(Enumerator's Signature)

Form FA-7 Enumerator's Daily Report
GPO 87278-B

FIGURE 15.—Enumerator's daily report (Form FA-7).

METHODS AND PROCEDURES

Form FA-3 (Continuation)

Date (1)	Travel				Agriculture ques. obtained (Form A1)		Hours worked at piece rates		Hours worked at hourly rate	
	Speedometer readings		Miles driven		Today (6)	To date (7)	Today (8)	To date (9)	Today (10)	To date (11)
	Start of official travel (2)	Ending of official travel (3)	Today (4)	To date (5)						
Totals carried forward										

Count questionnaires to verify this entry.

Part B.—PRODUCTION AND CLAIM SUMMARY

Item (1)	Number (2)	Rate (3)	Amount claimed (4)		Payroll verification		Final ED total (7)
			Dollars (4)	Cents (4)	Number (5)	Cost (6)	
1. Agriculture quest. (A1)—Total	248	X X X X	X X X X	X X			
2. A1.—Sample not required	199	Each \$.50	99	50			
3. A1.—Sample required and completed	49	Each \$.70	34	30			
4. Landlord-tenant quest. (A3)		Each \$					
5. Listings completed (A2)	492	Each \$0.07	34	44			
6. Transit time (miles driven)		Mile \$					
7. Hours worked at hourly rate		Hour \$					
8. Total—Lines 2+3+4+5+6+7			168	24			
9. Total miles driven	281	Mile \$0.07	19	67			
10. Total telephone charges			2	77			
11. Road, bridge, and ferry tolls				45			
12. Total—Lines 9+10+11			22	89			

Must equal the number of the last line filled minus any lines crossed out.

Transfer these entries from FA-4.

CERTIFICATION OF COMPLETION

This is to certify that I have, on this date, completed the enumeration of the district indicated above and the returns, in the quantities shown, have been duly and truthfully made in accordance with law and my oath of office. I further certify that miles shown and telephone calls and other toll costs on which reimbursement is claimed, were authorized and were completed for purposes of official census business, and that hours reported were worked on the days specified.

David A. Barton November 30, 1954
(Enumerator's Signature)

I certify that I have received the completed portfolio with all the documents accounted for; that I have reviewed the material submitted and find the enumeration has been completed satisfactorily for this enumeration district. I further certify that the amount shown for number of questionnaires, hours worked, miles driven, and other charges should be paid.

Lawrence S. Miller November 30, 1954
(Crew Leader's Signature)

Do Not Remove This Form From Book

FIGURE 14.—Record of production and travel (Form FA-3)—Continued.

Form FA-4

U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
RECORD OF TELEPHONE CALLS AND ROAD,
BRIDGE, AND FERRY TOLLS

State *Kansas*
County *Adcock*
ED Number *21-7*

INSTRUCTIONS

Part A: Use a separate line for each paid toll call, completing columns 1 through 6. Enter local calls made on any one day on a separate line, completing column 1 and columns 7 through 9. Attach receipts for all toll calls in excess of \$1.00. Enter total of all telephone cost in column 10 when ED is completed.

Part B: Enter road, bridge, and ferry tolls in part B, and attach all receipts.

Part A.—TOLL AND LOCAL TELEPHONE CALLS. (Receipt must be attached for each toll call of more than \$1.00)

Do not remove this form from this listing book

Date (1)	Person called (2)	TOLL CALLS				LOCAL CALLS			Total tele- phone cost (10)	
		Points between which call was made		Minutes charged for (6)	Total toll cost paid (6)	Number calls (7)	Cost per call (8)	Total cost paid (9)		
		From— (3)	To— (4)							
11-12						2	\$.10	\$.20		
11-13						1	.10	.10		
11-15	<i>Lawrence & Miller</i>	<i>Sunflower</i>	<i>Flatland</i>	5	\$.72					
11-16						1	.10	.10		
11-17						3	.10	.30		
11-19	<i>John A. Fell</i>	<i>Sunflower</i>	<i>Wheaton</i>	5	.95					
11-22						1	.10	.10		
11-26						1	.10	.10		
11-29						2	.10	.20		
PAGE TOTALS (Enter on first line of next page)							\$1.67	11	\$1.10	\$2.77

Enter person called and points between which call was made for all toll calls.

Attach a receipt for each toll call of more than \$1.00 to FA-4.

REMARKS:

(Continued on next page)

FIGURE 16.—Record of telephone calls and road, bridge, and ferry tolls (Form FA-4).

Form FA-4 (Continuation)

Date (1)	Person called (2)	TOLL CALLS				LOCAL CALLS			Total tele- phone cost (10)
		Points between which call was made		Min- utes charged for (5)	Total toll cost paid (6)	Num- ber calls (7)	Cost per call (8)	Total cost paid (9)	
		From— (3)	To— (4)						
Totals carried forward from preceding page									
					Total	\$1.67	11	\$1.10	\$2.77

If you have to use telephone section of continuation sheet, enter totals from preceding page.

Attach each receipt for road, bridge and ferry tolls to FA-4.

Part B.—ROAD, BRIDGE, AND FERRY TOLLS. (Receipts for each must be attached)

Date (1)	Item (2)	Total cost (3)	Date (1)	Item (2)	Total cost (3)
11-16	Flatland Ferry	\$ 25	Total carried forward		
11-23	Trickle River Bridge	10			
11-23	Trickle River Bridge	10			
		Total			
		\$ 45			Total

Enter totals here when you complete your ED.

Be sure to sign FA-4.

CERTIFICATION

I hereby certify that telephone costs and road, bridge, and ferry tolls claimed herein were paid by me and were incurred in the conduct of official business for the Bureau of the Census.

November 30, 1954 (Date)

David C. Barton (Signature of Enumerator)

Do Not Remove This Form From This Listing Book

Figure 16.—Record of telephone calls and road, bridge, and ferry tolls (Form FA-4)—Continued.

Form FA-5 U. S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS		State <i>Kansas</i>		
ENUMERATOR'S RECORD OF A2 LISTINGS REQUIRING CREW LEADER ACTION		County <i>Adcock</i>		
		ED Number <i>21-7</i>		
List at the end of each day any A2 Listings with "No" in Column 3 and "No" or "Don't know" in Column 10 or where the person lives more than 15 miles outside your ED. (Where the person lives less than 15 miles outside your ED, you will visit the person to obtain the necessary information and to complete the A1 if an A1 is required. Also list any incomplete callbacks within your ED for which you have made repeated calls (personal or telephone) but have failed to locate a responsible person who could give sufficient information to complete the A1 questionnaire. Also list any refusals. Discuss this listing with your Crew Leader each time he visits you.				
Date (1)	A2 line No. (2)	Name and mailing address of operator or owner (3)	Reason not completed (4)	Crew Leader's action and date (5)
11-9	3	<i>Marvin L. Williams Route 28, Box 625 Dixon, Kansas</i>	<i>Operator lives about 25 miles outside my E.D.</i>	<i>11-10 Will check with enumerator in ED 21-8. LSM</i>
11-12	35	<i>Eli W. Stone Route 7, Box 581 Inez, Kansas</i>	<i>Owner refused to give any information.</i>	<i>11-13 Will visit myself. LSM</i>
11-13	48	<i>Arthur L. Jones 17 Edmon St. Kansas City, Kansas</i>	<i>Lives outside my E.D.</i>	<i>11-18 Outside my District. Will complete F.A. 21 LSM</i>
11-19	11	<i>William E. Murray Inez, Kansas</i>	<i>Have made repeated calls but haven't been able to locate person who can give information.</i>	<i>11-20 Will assign to Jones LSM</i>
Enumerator fills columns (1), (2), (3) and (4).		Crew Leader enters action he is going to take and date of his discussion.		

FIGURE 17.—Enumerator's record A2 listings requiring crew leader action (Form FA-5).

Form FA-6

ENUMERATOR'S CALLBACK RECORD

U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

INSTRUCTIONS

Use this Form FA-6 as a check list of ALL callbacks which you have indicated in Column 16 or 16 of the Listing Form A2.

AT END OF EACH DAY, enter in Column 2 the A2 line number for each place on which you will be required to make another call to obtain information to complete the listing and/or Agriculture Questionnaire.

DURING EACH DAY that you make an attempt to interview persons on your callback list, enter the date in Columns 3 through 9. Identify telephone callback by the letter "T" preceding the date entry.

NOTE: If you have referred a callback to your Crew Leader on Form FA-6, use Column 10 to record the date such referral was made.

Date (1)	A2 line No. (2)	Date of personal visit or telephone call						Date callback completed (9)	Remarks (10)
		First callback (3)	Second callback (4)	Third callback (5)	Fourth callback (6)	Fifth callback (7)	Sixth callback (8)		
11-9	11	11-10	T 11-12	T 11-13	11-15	T 11-16	11-19	11-19	Callback referred C.L. 11-22
11-9	19	11-10	T 11-12	11-15				11-15	Call after 6:00 p.m.
11-10	20	11-12	11-15					11-15	George will return the 15th.
11-12	36	11-16						11-16	Call at 8:00 a.m. Tues.

Identify telephone calls by placing the letter T before the date entry.

Use Remarks Column to record useful information.

Additional remarks or footnotes

FIGURE 18.—Enumerator's callback record (Form FA-6).

FA-18 U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

CREW LEADER'S DAILY ACTIVITY REPORT

A. CREW LEADER: LAWRLNCE S MILLER B. DATE: NOV. 6, 1954

A report of your daily activities must be completed and forwarded to your Agriculture field office each day. List each enumerator visited in column 1. Enter the ED number in column 2; enter number of interviews observed in column 3; enter number of AI's reviewed in column 4. Review the enumerator's work for each item listed in columns 5-12; determine whether or not his work is satisfactory. Enter estimated completion date in item 13.

FOR EACH ITEM LISTED BELOW ENTER "YES" IF ENUMERATOR'S WORK IS SATISFACTORY. ENTER "NO" IF UNSATISFACTORY AND EXPLAIN IN ITEM 14 (AND ON FORM FA-17) THE CORRECTIVE ACTION TAKEN AND THE ADDITIONAL INSTRUCTIONS GIVEN TO THE ENUMERATOR.

NAME OF ENUMERATOR VISITED	ED NO.	NUMBER OF INTERVIEWS OBSERVED	NUMBER OF AI'S REVIEWED	A2 LISTINGS		AI'S REVIEWED		USE OF MAPS AND PLATTING NUMBERS		ADJ. RECORDS		PRODUCTION RATE	MILEAGE	OTHER (SPECIFY)	EST. DATE COMPLETION
				(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)				
1. CHARLES C. OLIVER	22-2	2	3	YES	NO	YES	NO	NO	NO	NO	YES	YES			11-30
2. WILLIAM H. HOWE	21-1	2	4	NO	YES	YES	NO	NO	YES	NO	YES	NO			11-24
3.															
4.															
5.															

14. EXPLANATION OF "NO" ENTRIES IN COLUMNS 5 TO 12:
 6 - didn't understand meaning of shaded squares reviewed all work 4 7 - didn't understand how to 9 - reviewed 9 connected 1. made connections Enum will return & pick up info for Sects VII - XIII. Use A2 numbers on map. 8 - didn't understand how to 5 - missed listing instructed Enum. He will 11 - Mileage per AI seems to be excessive! plot A2 numbers on map. List and immediately place by. misc'd. Dismissed many economical method of coverage.

15. DESCRIBE BRIEFLY OTHER WORK PERFORMED TODAY AND REPORT ANY NEW ASSIGNMENTS OR REASSIGNMENTS GIVING ENUMERATOR'S NAME, ED NO. AND RATE AT WHICH ASSIGNMENT IS MADE.

16. MILES DRIVEN TODAY: 43 TO DATE: 584

17. ED'S TRANSMITTED TO PROCESSING OFFICE TODAY

ED NO. ED NO. ED NO.

Signature: Lawrence S. Miller (CREW LEADER'S SIGNATURE)

Annotations:
 - Enter number of interviews observed and number of AI's reviewed. (points to column 3)
 - Enter ED's trans- mitted to process- ing office today. (points to item 17)
 - Enter mileage today and mileage to date. (points to item 16)
 - Enter estimated date of ED completion. (points to column 15)
 - For Cols. 5-12, en- ter "Yes" if work is satisfactory; "No" if work is unsatis- factory. If unsatis- factory, explain in Item 14 and on FA-17. (points to columns 5-12)

FIGURE 19.—Crew leader's daily activity report (Form FA-18).

METHODS AND PROCEDURES

FA-17

U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

RECORD OF ENUMERATOR

1 ENUMERATOR
CHARLES C. OLIVER

2 ADDRESS
**303 E. HIGH ST.
LIBERTYVILLE, KANSAS**

3 PHONE NO **54 LIBERTYVILLE**

4 TRAINING

(A) OATH OF OFFICE COMPLETED

(B) RANK **15**

5 COLOR OF AUTOMOBILE
DK. GREEN CHEV.

6 LICENSE NO **6306**

7 ED'S ASSIGNED

ED NO **22-2** RATE **50¢, 70¢**

ED NO _____ RATE _____

ED NO _____ RATE _____

I RECORD OF VISITS

VISIT NO	DATE	SUMMARY OF CORRECTIVE ACTION TAKEN AND ADDITIONAL INSTRUCTION GIVEN AS REPORTED ON FA-18
1.	11-6	Didn't understand meaning of shaded squares. Reviewed all work and made corrections. Enum. will return and pick up info. for Sects. VIII-XIII. Didn't understand how to plot A2 numbers on map. Reviewed and corrected entries on FA-3.
2.	11-10	Seems to be taking too much time per A1. Discussed ways of enumerating faster. Errors on FA-3. Corrected entries and explained mistakes. Enum. didn't understand relationship between FA-7 and FA-3. Enumerated outside his ED. Went over ED boundaries + discussed area. Check during next visit.
3	11-17	ED boundaries observed - OK. Excessive callbacks outstanding. Discussed with Enum. methods for reducing callbacks.

Enter an "X" in (A) if Enumerator's Oath of Office is completed and an "X" in (B) if You have entered Enumerator's training class rank in the space provided.

Enter ED assignment and rate of pay.

Enter color, make and license number of Enumerator's car.

Enter date and summary of visit as reported on FA-18.

FIGURE 20.—Record of enumerator (Form FA-17).

B&R

Records of unsatisfactory work by the enumerator were recorded on Form FA-91 and the crew leader was informed immediately of the errors and inadequacies found during the review of the enumerator's work. If the review indicated 5 or more Agriculture Questionnaires (other than those for absentee farm operators) were missing, then the enumerator's work was returned to the crew leader with instructions to have the missing Agriculture Questionnaires obtained.

When the material for all enumeration districts in a county had been received and recorded, an additional review of the enumeration was performed before the enumeration was considered satisfactory. This review included the checking to see that all specified farms in the county had been enumerated or satisfactorily accounted for, the insertion into the proper enumeration district of any Agriculture Questionnaires received by mail from absentee operators or operators of farms not enumerated by the enumerator and the preparation of a county summary on Form FA-88. (See fig. 22 for an example of FA-88.) The data on FA-88 for 1954 was obtained by adding information from the Agriculture Questionnaire. The data for 1950 and for the check item 1954, were entered on the Form FA-88 before it was sent to the Field Processing Office. The data for 1950 were taken from tabulations for the 1950 Census of Agriculture. The data for the check item, 1954, represented, when available, the acreage of a selected crop—usually one of the following: corn, wheat, cotton, tobacco or rice. The check data were available only for the county and were obtained from the Commodity Stabilization Service of the United States Department of Agriculture. The acreage for the crops selected for check items represented the measured acreage before harvest.

The data on Form FA-88 were compiled for two purposes: (1) To determine that the sampling procedures had been followed and (2) to determine that the coverage of the Census was reasonably complete. Criteria for the acceptability of the Census was established prior to the enumeration for each of these two purposes. The following table was used for determining the acceptability of the sampling procedure.

ACCEPTANCE TABLE FOR PERCENT OF FARMS IN SAMPLE

Total in column (7) of FA-88	Acceptable limits (in percentages)	
	Not less than—	Not more than—
Less than 100.....	(*)	(*)
100 to 199.....	13.0	27.0
200 to 299.....	14.0	26.0
300 to 399.....	15.0	25.0
400 to 499.....	16.0	24.0
500 to 599.....	16.6	23.4
600 to 699.....	16.8	23.2
700 to 799.....	17.1	22.9
800 to 899.....	17.3	22.7
900 to 999.....	17.4	22.6
1,000 to 1,249.....	17.6	22.4
1,250 to 1,499.....	17.8	22.2
1,500 to 1,749.....	18.0	22.0
1,750 to 1,999.....	18.1	21.9
2,000 to 2,499.....	18.3	21.7
2,500 to 2,999.....	18.5	21.5
3,000 to 3,999.....	18.7	21.3
4,000 to 4,999.....	18.8	21.2
5,000 to 7,499.....	19.0	21.0
7,500 and over.....	19.2	20.8

*All counties to be accepted.

Acceptable percentages for the coverage of farms, land in farms, and for the check items were established for each county and were indicated on the FA-88 when it was sent to the Field Processing Office.

Form FA-88's for all counties, including those not meeting the established standards, were sent to Washington for review and approval by the Chief of the Agriculture Division. Of FA-88's for 3,100 counties, 2,389 were approved when they were submitted to Washington. For 711 counties, additional checking and work were required before they were approved. The additional work included the obtaining of missing questionnaire for specified farms, the checking of enumerator maps for indication of areas not enumerated, the reenumeration of areas, and the obtaining of the required information when the Section VIII through XII of the Agriculture Questionnaire was not filled.

Control over time schedule and cost of the enumeration.—The enumeration involved the employment of a large number of persons at one time and the expenditure of as much as \$350,000 each work day. In order to insure that the enumeration would be completed within the planned time period and with the funds allotted for this purpose, time schedules were established for all important operations, and the number of employees, maximum length of employment, and the rates of pay of all personnel were prescribed. Checks on the compliance with established controls both for time of performance of jobs and the employment of personnel, and for the expenditure of funds were made on the basis of required reports. For enumerators, the number of employees authorized, the rate of pay, the maximum mileage and the maximum hours of employment, were furnished each crew leader on Form FA-32. (See fig. 23.) Most enumerators were paid on a piece-rate basis and for miles traveled in personally owned automobiles. These piece rates were established on the basis of records of work performance for prior Censuses, distance to be traveled, and the estimated time that would be required to fill questionnaires. In areas where the distance between farms was great, and in urban areas, enumerators were paid \$1.25 per hour of work plus \$0.07 per mile traveled by personally owned automobiles. The average hourly earnings for enumerators employed on a piece rate was \$1.15 plus payment for mileage traveled by automobile.

The date when enumerators were to begin the work was prescribed, and enumerators were required to work at least 8 hours each day until they had completed their jobs. Checking on the amount of work performed, hours of work, miles traveled, etc., was accomplished through the review and summarization of Form FA-7. This enumerator's daily work report was mailed at the end of each day to the supervisor of the Agriculture Field Office and the Form FA-3 was reviewed by the crew leader each time he visited the enumerator. Supervisors of Agriculture Field Offices notified crew leaders whenever it appeared an enumerator's work was not being performed on schedule and twice each week supervisors of Agriculture Field Offices were requested to submit to supervisors of Field Processing Offices and to Washington a summary showing number of enumerators working, Agriculture Questionnaires filed, miles traveled, hours worked, etc. These reports were reviewed carefully and immediate action was taken when the work was not being completed as scheduled.

The number of crew leaders, field supervisors, assistant field supervisors, and the number of each kind of clerical employee, as well as the duration of their appointment, were prescribed in advance of their employment and appointment. Extension of appointments were made in case of some employees but only upon approval from Washington. During the period of recruitment and hiring, crew leaders and supervisors were required to submit reports showing the number of employees recruited. Action was taken whenever necessary to insure that the authorized staff had been recruited and were trained and on the job on the day scheduled.

METHODS AND PROCEDURES

Form FA-91 (10-20-54)	U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS	State _____ County _____ E.D. Number _____	
1954 CENSUS OF AGRICULTURE RECORD OF PORTFOLIO REVIEW			
Section 1 - PAYROLL VERIFICATION REVIEW			
A. Incomplete Section IV of A1's	None	Number	A2 line Nos.:
B. Sample within 5%	Yes	No	If "No," _____ %
C. A3's missing	None	Number	
D. Hrs. claimed within 10% (hourly ED's)	Yes	No	If "No," Allowed _____ Claimed _____
E. Miles claimed within 10%	Yes	No	If "No," Allowed _____ Claimed _____
F. Receipts or certifications missing	Yes	No	If "Yes," describe:
Section 1 completed by (Review clerk) _____			
Section 2 - INTENSIVE REVIEW			
A. Missing FA-101's	None	Number	
B. Missing A1's for A2 line Nos.	None	Number	A2 line Nos.:
C. Sampling correct	Yes	No	If "No," A2 line Nos.:
D. Sample sections missing	None	Number	A2 line Nos.:
E. E.D. Map completed	Yes	No	
F. FA-100 completed	Yes	No	
G. FA-30 completed	Yes	No	
H. FA-17 in portfolio	Yes	No	
I. FA-5 column (5) completed	Yes	No	
J. FA-6 columns (9) or (10) completed	Yes	No	
Section 2 completed by (Review clerk) _____			
Section 3 - TABULATION REVIEW			
A. Missing A1's for followup	None	Number	A2 line Nos.:
B. E.D. Map in portfolio	Yes	No	
C. FA-100 in portfolio (if required)	Yes	No	
D. FA-30 in portfolio ("C" ED's)	Yes	No	
Section 3 completed by (Review clerk) _____			
Section 4 - FOLLOW-UP REVIEW			
A. Requests for missing receipts, certifications or materials mailed on (date) _____			<input type="checkbox"/> None
B. FA-92's mailed (if required) on (date) _____			<input type="checkbox"/> None
C. FA-93's mailed (if required) on (date) _____			<input type="checkbox"/> None
D. FA-94's mailed (if required) on (date) _____			<input type="checkbox"/> None
Section 4 completed by (Review clerk) _____			
Section 5 - SUPERVISORY ACTION			
Describe corrective action taken by Supervisor, if any required by review entries above:			
Supervisor _____			
Enter any Remarks on reverse side			

FIGURE 21.—Record of portfolio review (Form FA-91).

Form FA-88 (10-18-54)		U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS				A. Sample A1's for county = <u>21-2-5</u>			Approved by <u>R. McCurdy</u>		Sheet <u>1</u> of <u>1</u> Sheets	
COUNTY SUMMARY 1954 CENSUS OF AGRICULTURE Land Area 776,960 Acres		B. Coverage for county			Acceptable Lists			State 45 NORTH DAKOTA		County 364 Ramsay		
		1. Farms (Col. 4 ÷ Col. 3) = <u>100.6</u>			90 or higher			Date <u>12-1-54</u>				
		2. Land in Farms (Col. 10 ÷ Col. 9) = <u>102.9</u>			97 or higher							
		3. Check 100 (Col. 12 ÷ Col. 11) = <u>24.4</u>			98 or higher							
		Check item, 1954			Crop <u>All wheat</u>			A2, line numbers		10,000 acres or more		
		Acres <input checked="" type="checkbox"/> Bales <input type="checkbox"/>			Check Date (11)							
		Land in Farms (Acres)			1954 (10)							
		1950 (9)			1954 (10)							
		Sample 1,000 acres or more (6)			Total completed (5)							
		Total A1's (4)			Total (Col. 4, Col. 6) (7)							
		1950 (Total farms) (3)			Total completed (5)							
		1954 (2)			Total completed (5)							
1	C	3	1	0	0	(*)	0	0				
2	A	184	190	64	25	117,487	117,410	32,058	none			
3	B	200	208	52	15	109,680	116,233	27,794	none			
4	A	157	157	53	24	105,044	105,673	27,618	none			
5	A	173	170	60	38	119,994	121,669	29,894	none			
6	A	158	156	46	21	91,612	98,631	16,483	none			
7	A	129	142	42	10	67,783	67,564	14,480	none			
8	A	155	136	43	15	81,180	76,739	13,366	none			
9	A	120	133	50	25	72,019	79,785	17,270	none			
10		Urban Areas				3,890						
County Totals		1,279	1287	470	173	768,729	783,603	240,465	178,913			

FIGURE 22.—Coverage evaluation by ED's (Form FA-88).

METHODS AND PROCEDURES

ED NO.		PRO- CEDURE CODE	METHOD OF PAYMENT			NUMBER OF A1'S 1950	NUMBER OF DWELLINGS 1950	MAXIMUM MILEAGE ALLOWANCE	MAXIMUM MILEAGE ALLOWANCE PER A1	MAXIMUM HOURS ALLOWED IF PAID AT HOURLY RATE
(1)	(2)	HOURLY RATE \$1 25 PER HOUR (3)	PIECE RATE FOR A1'S WITH SECTIONS VIII THRU XIII NOT REQUIRED (4)	PIECE RATE FOR A1'S WITH SECTIONS VIII THRU XIII REQUIRED (5)	(6)						(7)	(8)	(9)	(10)	(11)
<p>Form FA-32 (7-22-54) U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS</p> <p>CREW LEADER AUTHORIZATIONS FOR ENUMERATOR RECRUITMENT AND RECORD OF PIECE RATES AND MILEAGE ALLOWANCES 1954 AGRICULTURE CENSUS</p> <p>A. CREW LEADER OIST. NO. 5 B. COUNTY Adcock C. STATE Kansas E. C.L. NAME Lawrence S. Miller F. NUMBER OF ENUMERATORS AUTHORIZED TOTAL 9 RURAL 8 URBAN 1</p>										
1	A		.50	.70		132	193	343	2.6	
2	B		.50	.70		153	373	398	2.6	
3	C	1.25				84		202	2.4	63
4	C	1.25				18		43	2.4	14
5	C	1.25				17		41	2.4	13
6	C	1.25				13		31	2.4	10
7	A		.50	.70		249	351	697	2.8	
8	A		.50	.70		226	348	633	2.8	
9	B		.50	.70		152	382	395	2.6	
10	A		.50	.70		152	222	426	2.8	
11	A		.50	.70		165	231	429	2.6	
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
TOTAL						1361		3638		100

84) 63.0 ← $.75 = \frac{3}{4}$ of an hr. per A1

In 1 hour an enumerator could do 1 1/3 A1's; multiplying by 8, you get 10.6 A1's which would be the standard of production expected for the 3rd. ED in Adcock County.

ORIGINAL: TO PROCESSING OFFICE: cc: TO A.F.O. cc: TO CREW LEADER
(Use reverse side for remarks) COMN-DC-40302

FIGURE 23.—Crew leader authorization for enumerator recruitment and record of piece rates and mileage allowances, 1954 Agriculture Census (Form FA-32).

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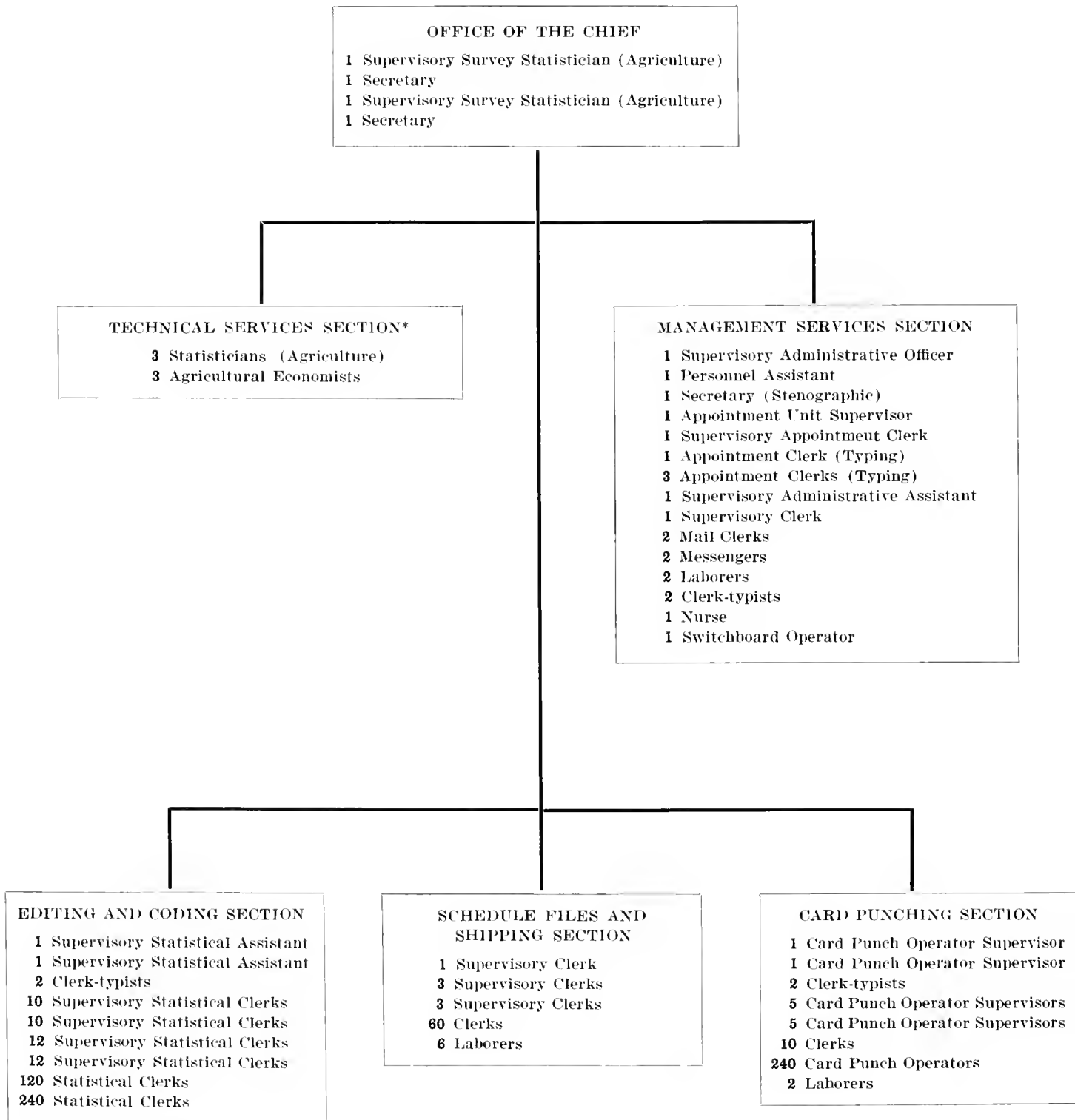
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CENSUS OPERATIONS OFFICE

DETROIT, MICH.

PITTSBURG, KANS.



*This staff was supplemented by detail of technical personnel from the Washington office.

FIGURE 24.—Organization Chart—Central Operations Office.

CHAPTER III.—CENTRAL OFFICE PROCESSING AND PUBLICATION

CENTRAL OFFICE PROCESSING

The job.—The objective of central office processing was to record the information obtained by enumerators so that data could be summarized and published in a useable and meaningful form. The job involved the inspection of questionnaires for completeness and consistency of information, arrangement of questionnaires by geographic areas, the entering of codes to provide for the meaningful classification of data, the preparation of punch cards, the detection and correction of errors arising both during the enumeration and during the office processing, the tabulating of the data, and the preparation and printing of statistical tables and reports.

Organization for the job.—The conversion of information obtained by enumerators for individual farms into published releases and reports required the organization of groups of trained personnel for performing the major central office operations. Since these operations were performed during a relatively short period, a considerable number of temporary employees were required. During this period of large-scale central office processing, the available permanent staff comprised less than 5 percent of the total personnel employed and were used largely for preparing plans and instructions, training personnel, technical review, overall supervision, and direction of the work. The major operations involved in central office processing were receipt and control of questionnaires, etc., editing and coding of questionnaires, punching tabulating cards, checking tabulating cards and tabulations for errors and consistency, the preparation of tabulations and the preparation and printing of statistical tables and reports.

The following table indicates the approximate number of employees engaged in operations related to central office processing for the first month in each quarter.

Month	Number of employees	Month	Number of employees
July 1954.....	116	October 1955.....	880
September 1954.....	139	January 1956.....	680
January 1955.....	960	April 1956.....	640
April 1955.....	1,560	July 1956.....	400
July 1955.....	1,325	October 1956.....	250

The temporary staff was recruited in accordance with civil-service regulations, largely from registers established from examinations given primarily to provide personnel for Census work. The temporary staff was given temporary appointments usually not to exceed 1 year. When the work required employment for more than a year, an extension of employment was made of personnel who had been trained for the performance of the work yet to be performed. In all central office processing, specialization and mechanical devices were used whenever possible to expedite handling and to reduce costs. A large part of the supervisory staff for clerical and machine operations consisted also of temporary employees. Permanent personnel occupied only key positions and positions requiring detailed knowledge of procedures or technical knowledge of agriculture.

The technical staff comprised a very important part of the total staff although the costs for the technical staff amounted to less than 3 percent of the total cost of the Census. The employment of the technical staff totaled approximately 1,100 man-months. About 70 percent of these man-months were provided by permanent staff.

All personnel were given special training for the work and the kind and duration of this training is described under the various operations. Standards for both quantity and quality of work were established for all major processing operations and all personnel were required to meet these requirements in order to retain their jobs. For many operations, employees, whose work performance exceeded substantially the minimum work requirements, were given incentive payments.

Because of lack of office space, central operations offices were established for about 11 months in Pittsburg, Kans., and Detroit, Mich. All Agriculture Questionnaires were received, edited and coded, and cards punched at those two offices. All other operations were performed in Washington, D. C.

RECEIPT AND CONTROL OVER QUESTIONNAIRES

After the checking had been completed in the 26 Field Processing Offices, the questionnaires were arranged by counties and shipped in boxes to one of the two central operations offices. The number of counties for which the questionnaires, materials, etc. were received at the 2 central operations offices by months were as follows:

Month	Number of counties for which questionnaires were received—	
	During month	To date
December or earlier, 1954.....	949	949
January 1955.....	1,059	2,018
February 1955.....	329	2,347
March 1955.....	439	2,786
April 1955.....	242	3,028
May and later, 1955.....	72	3,100

When the materials and questionnaires were received at the two central operations offices, they were checked to determine that all the required materials for a county were present and the Agriculture Questionnaires were separated and placed in portfolio covers (these were cardboard covers, see fig. 26). Approximately 400 Agriculture Questionnaires were placed in each portfolio and the portfolio was properly labeled. Portfolios comprised the unit for work assignment for subsequent operations and the portfolios for a county were transmitted to the next operation as a unit. The portfolios were kept in a central file when not in use and records were maintained of the location and status of processing for each county.

After the completion of the editing and coding, the questionnaires for a county were rearranged. The Agriculture Questionnaires comprising the sample (questionnaires for which information in Sections VIII through XII was required) were numbered with a numbering machine, for the purpose of having a means of identification for the punching of tabulating cards, and were then placed in portfolios separate from those questionnaires not in the sample. All questionnaires were arranged by minor civil divisions and a sheet containing the minor civil division name and code was inserted in the portfolio in front of the first questionnaire for the minor civil division. For each county, questionnaires comprising the sample were numbered consecutively starting with the number 8,000 while questionnaires not in the sample were numbered consecutively starting with 1. Questionnaires for "specified farms" were numbered consecutively starting with X001.



FIGURE 25.—View of Interior of Central Operations Office, Pittsburg, Kans.

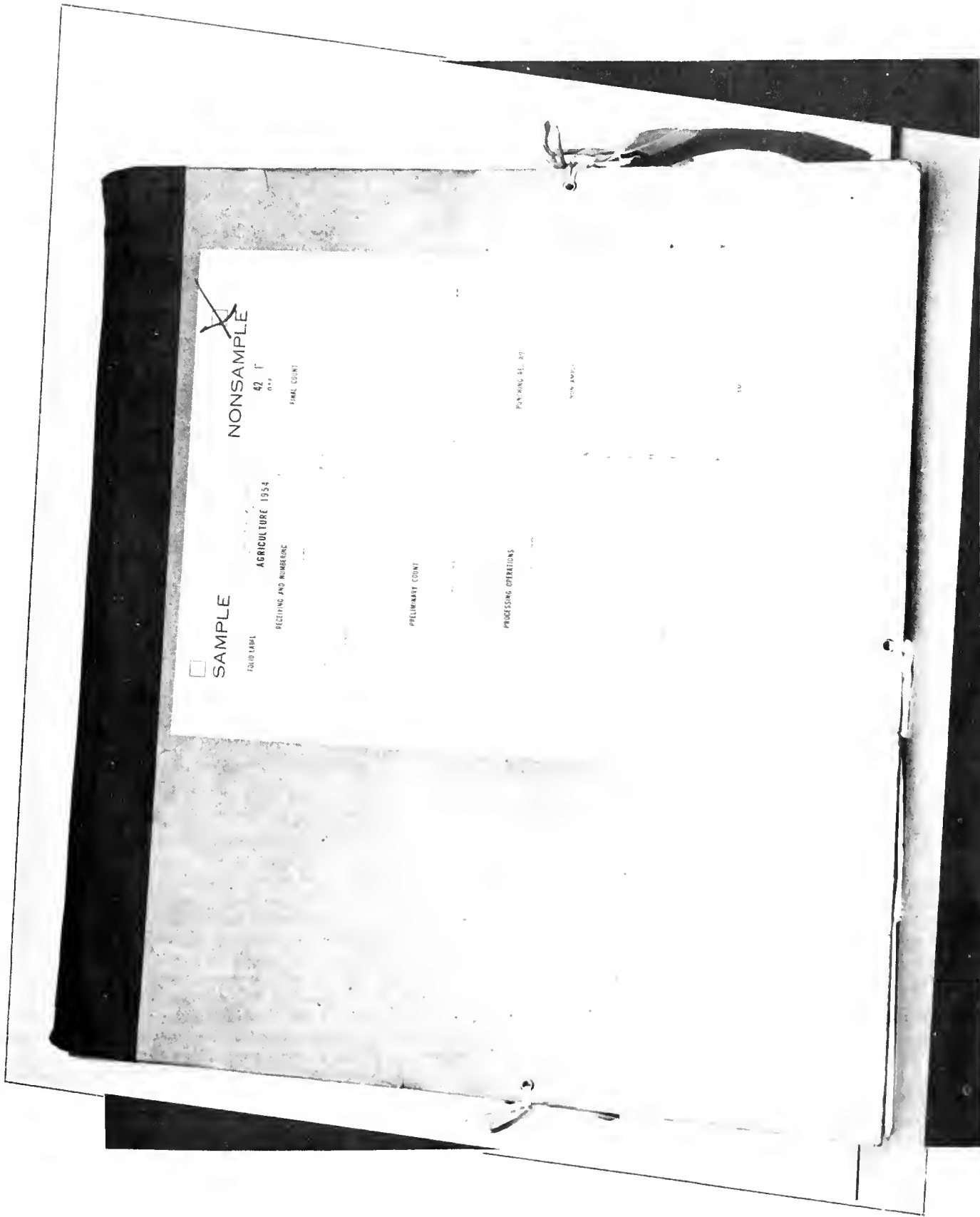


FIGURE 26.—Portfolio cover—A1 Agriculture Questionnaire.

EDITING AND CODING THE AGRICULTURE QUESTIONNAIRE

Each individual questionnaire was checked, edited, and coded by clerks. The checking consisted of seeing (1) that the questionnaires were completely filled out; (2) that the acreage of individual crops harvested was in reasonable agreement with the acreage of cropland harvested when 100 or more acres of cropland harvested were reported; (3) that the acres of land classified according to use accounted for the entire farm acreage of farms having 200 acres or more; (4) that the total of the acreage for the various uses of corn, sorghum, soybeans, cowpeas, and peanuts was in reasonable agreement with the total acreage reported for all purposes for each of these crops; (5) that the age and sex breakdown for cattle, hogs, and sheep, added to approximately the total number of such animals of all ages; and (6) that all entries for related items were reasonably consistent.

Editing consisted of the identification and withdrawal of questionnaires filled for places not qualifying as farms; the selection of questionnaires with entries of unusually large size for review by the technical staff; the selection of groups of questionnaires with common reporting errors in an individual enumeration district for referral to technical personnel for review; and the correction of obvious inconsistencies, such as reporting in an incorrect unit, or reporting in an improper place on the questionnaire. Entries determined to be in error were often referred to the technical staff and corrected on the basis of relationships existing on nearby farms, or, if the entries were large, on the basis of correspondence with the farm operator. In case of information missing for a group of questions, estimates were prepared on the basis of adjacent questionnaires for farms with similar operations, and, in some cases, on the basis of information obtained by mail from the operators. When estimates were made, letters were mailed to the farm operators to verify the information and, if the estimates were not in reasonable agreement with the information contained in the replies, the entries were corrected before the tabulations were made.

The detailed instructions for editing and coding of the Agriculture Questionnaire were as follows:

General.—Each Agriculture Questionnaire was to be examined individually. Figures written so poorly that they might not be read correctly were to be rewritten. Fractions were to be canceled for all questions for which the Agriculture Questionnaire did not provide for the reporting of fractions. For questions for which the questionnaire provided for the reporting of fractions, all fractions were to be converted into tenths. All entries for cents except for wage rates of hired employees working by the hour were to be canceled. Questionnaires with entries of 10,000 acres or more for acres in the place; \$25,000 or more of forest products sold; 1,000 or more cattle; 10,000 or more sheep, goats, or poultry; \$20,000 or more expenditure for fertilizer, hired labor, or feed; an expenditure of \$5,000 or more for lime; a value of land and buildings of \$1,000,000 or more; or for Indian Reservations were to be referred for review by the technical staff.

Misplaced entries were to be crossed out and entered in the proper space. Entries in a unit of measure different from the unit of measure shown on the Agriculture Questionnaire were to be converted into the appropriate unit of measure.

Questionnaires for places that might qualify as farms were to be selected for review by the technical staff. Questionnaires that did not contain entries of at least one of the following were selected for examination in regard to meeting the criteria of a farm:

- (1) \$150 or more for total value of sales for vegetables, other field crops, nursery and greenhouse products, livestock and poultry and poultry products, and for forest products.

- (2) One or more cows, or two or more calves on hand.
- (3) Three or more hogs on hand.
- (4) Five or more sheep on hand.
- (5) Fifty or more poultry on hand.
- (6) Three or more acres harvested for corn, sorghum, small grains, soybeans, cowpeas, peanuts, dry field and seed peas and beans.
- (7) Five or more acres of hay other than sorghum, soybean, cowpeas or peanut hay.
- (8) One or more acres of tobacco, cotton, potatoes, vegetables for sale, orchard, nursery and greenhouse products, or irrigated land.
- (9) Five or more acres of cropland of all kinds.

Section I.—The editing and coding clerk entered a code for color of operator. The code was **1** for white operators, **2** for Negro operators, and **3** for other.

Section II.—The editing and coding clerk was furnished the following guide for determining the tenure of the farm operator:

Question 4	Question 8	Question 9	Other conditions	Classification	Code
Acres	None	None	Q.4-Q.10-Acres in This Place (Section IV).	Full owner..	1
Acres	Acres	None	Q.4+Q.6-Q.10-Acres in This Place (Section IV).	Full owner..	2
None	None	Acres	See instructions preceding the table.	Manager....	3
None	Acres	None	Q.6-Q.10-Acres in This Place (Section IV).	Tenant.....	See below.

Question 7	Question 8				Class of tenant	Code
	a	b	c	d		
No	Yes	No	No	-----	Cash.....	4
No	Yes	Yes in either or both		-----	Share-cash.....	5
No	No	Yes	No	-----	Crop-share.....	6
No	No	No	Yes	-----	Livestock-share.....	7
Yes	-----	-----	-----	-----	Cropper.....	8
No	No	No	No	Yes	Other.....	9
No	No	No	No	No	Unspecified.....	0

Questionnaires that would be coded "manager" were to be referred to the technical staff for review unless:

- a. The value of all farm products sold was \$5,000 or more.
- b. The acres in the farm were 1,000 or more.
- c. There were reported on the questionnaire, 10 or more acres in orchard, or nursery and/or greenhouse products, or 50 or more cattle of all ages, 25 or more milk cows, 1,000 or more poultry on hand, sold or raised.

Possible code numbers for the classification of the farm by color, tenure, irrigation, economic class of farm and type of farm were printed in the center column of the Agriculture Questionnaire. Coding was performed by circling the number representing the appropriate code.

Section III.—In the case of such crops as corn, sorghum, soybeans and cowpeas, for which the questionnaire provided for reporting the total acres for all purposes, the editing clerk was required (1) to enter a total acres when this total was not entered, but acres were reported for the various uses, (2) to enter acres and quantity harvested when total acres were reported without acreage and quantity harvested being reported for any use, and (3) when the total acres for all purposes was 100 or more, to add the acres for the several uses, check the added total against the total for all purposes, and to refer the questionnaire for review by the technical staff if the difference in the two totals was 20 acres or more.

Questionnaires for which the yield per acre exceeded 100 bushels for popcorn, sorghum, small grains, soybeans, cowpeas, or 10 or more tons for any hay crop or 50 bushels, 1,000 pounds or ½ ton per tree for any fruit were to be referred to the technical staff for review.

The quantity sold was to be checked against the quantity harvested and if the quantity sold exceeded the quantity harvested, the quantity sold was to be reduced to equal the quantity harvested.

If the quantity sold was not reported, estimated quantities sold were to be entered when the quantity harvested was (1) 100 bushels or more for rice or flaxseed, or (2) 200 bushels or more for corn, grain sorghums, wheat, rye, oats, buckwheat or barley, and there were no livestock or poultry reported on the farm, sold or raised. Likewise, estimated quantities sold were to be entered when the total bushels of corn, grain sorghums, oats and barley harvested but not sold were more than 30 times the number of cattle, horses, and hogs on hand or sold. However, no estimates of quantity sold were to be entered unless the estimate was at least 100 bushels. When the quantity of hay harvested was 25 tons or more, and none was reported as sold, the entire amount harvested was to be entered as sold when the number of horses, mules, sheep or cattle on hand or sold, did not exceed 1.

The acreage of land in fruit orchards, etc. (question 56) was to be estimated when there was no entry and the number of trees was 50 or more, or the number of grapevines was 500 or more. The editing and coding clerk was furnished a table of the number of trees per acre for various kinds of fruits for use in calculating the acreage.

Codes were to be entered for the crops reported in questions 35, 50, 54, 64, and 65. An example of these codes for question 54 is as follows:

<i>Crop</i>	<i>Code</i>
Blackberries.....	186
Cranberries.....	192
Currants.....	199

When there were no entries for acres in Section III, and there was an entry of 10 or more acres for question 67*a*, entries were to be estimated for Section III.

Section IV.—The entry for question 66, *Acres in The Farm* was to be checked with the acres reported for questions 4 to 6, 10 and 11. If there were no entries for questions 67 to 70, the entries were to be calculated. If the entry for question 67*a* was 100 acres or more, the entry was to be compared with the total of the acreages of crops harvested as listed in Section III. Differences of 20 acres or more, not accounted for by the harvesting of two or more crops from the same land, were to be referred for review by the technical staff.

Section V.—Acres for question 71 were checked to acres in question 68 and were corrected if greater than acres for question 68.

In the 20 States where irrigation was important additional coding was performed to provide for tabulation of data for irrigated farms and irrigated crops. Each questionnaire was coded to indicate whether all the cropland harvested was irrigated, part of the cropland harvested was irrigated, or none of the cropland harvested was irrigated. On farms on which part of the cropland harvested was irrigated, the crop code in Section III for each crop that was harvested from irrigated land was changed by adding 4 to the hundreds digit for the code. For example, the code number for cotton was 270. If the cotton was harvested from irrigated land, this code was changed to 670.

Section VI.—Estimates were to be entered for sales if none were reported by the enumerator when the entry exceeded 50 cords for firewood, 1,000 for the number of fence posts or 25,000 boardfeet for sawlogs and veneer logs. If area (acres or square feet) was reported and no sales reported or vice versa, for nursery or greenhouse products, the questionnaire was to be referred for review by the technical staff.

Section VII.—For cattle, sheep, and hogs, the questionnaire was to be inspected to see if there was an entry for a total when there

were entries for the various age and sex groups comprising the total, or vice versa. Entries were to be made when there was a total but no entry for the various age and sex groups, and vice versa. If the total was 100 or more, the age and sex groups were to be added and the sum checked with the total. Differences of 20 or more were referred for checking by the technical staff.

For questions 81 and 83 entries for cows milked or milk produced yesterday were estimated when there was an entry for one question and no entry for the other question. Entries were to be corrected for question 82, when the entry was less than for question 81.

Questionnaires with 5 or more cows milked (question 81) and no dairy products sold were referred for review by the technical staff.

Questionnaires with probable errors in value of dairy products sold and number of animals sold were to be referred to the technical staff for checking. Questionnaires to be referred included those with a value of whole milk sold of less than \$0.01 or more than \$0.10 per pound; of less than \$1 or more than \$100 per head sold for hogs, sheep or calves; of less than \$10 or more than \$1,000 per head for cattle, horses, or mules; of less than \$0.25 or more than \$2.00 per chicken sold; or of less than \$0.10 or more than \$1.00 for each dozen of eggs sold.

Questionnaires with 2 or more sows farrowing or 10 or more hogs on hand, and no hogs reported as sold; 10 or more cattle or 5 or more cows and no cattle or calves sold; 10 or more sheep and no sheep or lambs sold; or with 10 or more sheep, and no wool shorn were to be referred for review by the technical staff.

Estimates were to be entered when 100 or more chickens and no sales of eggs or chickens were reported and when there were 20 or more turkeys, ducks or geese and no sales were reported.

Codes were to be entered for each kind of poultry for question 97.

Section VIII.—Sections VIII to XII were edited by the review clerk as the editing of these sections was performed only for questionnaires in the sample and as the sorting of the questionnaires into sample and nonsample groups was not performed until after the review of the work of the editing and coding clerk.

For questions 100 and 101, entries for acres were estimated when there were entries for tons or dollars, and vice versa. For question 100 entries of less than \$10 or more than \$100 per ton and for question 101, entries of less than \$1 or more than \$20 per ton were referred for checking by the technical staff.

Section IX.—When there was no entry for question 102, and there were hired workers reported for question 103*b*, estimates were entered. Questionnaires with no report for question 102*b* and, with reports of \$10,000 or more for the sale of vegetables, or nursery and greenhouse products, or 10 or more acres in orchards, were referred to the technical staff for review.

Section X.—The entry for 103*b* was checked with the entries for 103*c* and 103*d*, and inconsistencies were corrected.

Section XI.—Usually no special editing was performed for this section.

Section XII.—Usually no special editing was performed for this section.

Section XIII.—The entries for acres in this section were checked with the entries in Section II and the required corrections were made. For question 108, the total value was computed and entered if only the average value per acre was reported. When both total value and value per acre were given, the calculation of the total value was checked, but changes were made only when the calculated value exceeded the reported value by \$10,000 or when the reported value was double or more the calculated value.

Coding for economic class of farm and type of farm.—The coding of farms by economic class of farm and by type of farm required estimating the total value of farm products sold. The estimates for the various groups of farm products sold were entered when required under the "Remarks" section of the Agriculture Questionnaire. The questionnaire contained the value of farm products sold for:

- Vegetables
- Other-field crops
- Forest products
- Nursery and greenhouse products
- Dairy products
- Livestock
- Poultry and poultry products

For many crops the quantity sold was shown in Section III. The value of each crop sold was calculated by multiplying the quantity sold by State average prices. The State average prices were obtained in cooperation with the Agricultural Marketing Service of the United States Department of Agriculture, from a sample of dealers, buyers, farmers, etc.

For crops for which the quantity sold was not shown in Section III, the value of sales was to be calculated by multiplying the quantity harvested by State average prices, if the calculated value for the crop would amount to \$100 or more.

Except for farms operated by institutions, etc. (those were coded 9 for economic class), the economic class of farm for questionnaires with a total value of \$1,200 or more or under \$250 was determined by the amount of the value of all farm products sold. The code was as follows:

Total value of farm products sold	Code
\$25,000.....	1
\$10,000 to \$24,999.....	2
\$5,000 to \$9,999.....	3
\$2,500 to \$4,999.....	4
\$1,200 to \$2,499.....	5
Under \$250.....	8

If the total value of farm products sold was \$250 to \$1,199, the code for economic class was determined by the entries for questions 104 and 105. If the entry for question 104 was 100 days or more or if the answer for question 105 was "Yes", the code for economic class was 7. All other questionnaires with a total value of farm products sold of \$250 to \$1,199 were coded 6 for economic class.

The coding of type of farm was performed only for questionnaires with an economic class code 1 to 6, or 9. The type of farm was determined by comparing the value of the sales for a farm product or a group of farm products with the total value of all farm products sold. Usually, the type of farm was determined by the farm product or group of farm products that accounted for 50 percent or more of the value of all farm products sold.

Training of editing and coding clerks.—At the beginning of the training period each employee was given a memorandum outlining the work requirements for the training period. Briefly these requirements were as follows:

- (1) Editing and coding 10 training questionnaires during the training period with not more than six coding errors, nor more than ten other errors.
- (2) Editing and coding a portfolio of 350 or more Agriculture Questionnaires in 5½ working days with less than 15 coding errors per 100 questionnaires and less than 50 other errors per 100 questionnaires.

Each employee was provided with the following materials:

- (1) Instructions for editing and coding A1's.
- (2) A code card giving all the codes to be used.
- (3) A copy of a reference note for referring questions. (See fig. 27.)
- (4) A sheet containing various conversion factors for weights and measures.
- (5) A slip to be inserted in place of questionnaire removed from a portfolio
- (6) A training questionnaire.
- (7) A Landlord-Tenant Questionnaire.
- (8) Red pencils.

FORM 2-36 (11-6-54)		U. S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS		STATE
REFERENCE NOTE (Folio)				COUNTY
<input type="checkbox"/> EDITING <input type="checkbox"/> REVIEWING				FOLIO NO.
E. D.	A2 LINE NOS.			
E. D.	A2 LINE NOS.			
E. D.	A2 LINE NOS.			
E. D.	A2 LINE NOS.			
E. D.	A2 LINE NOS.			
REMARKS				
TECHNICIAN (Name)				DATE

COMM-DC 42914

FIGURE 27.—Reference note (Form 2-36). Used for referring questions for technical review.

Generally, editing and coding clerks were trained in groups of 10 to 20. The instructor, after asking the trainees to follow along with him, read the instructions from the beginning, holding up each form as it was mentioned in the instructions so that the clerks would become familiar with the terms used. A black-board was utilized as much as possible. Its use was particularly effective in explaining the following procedures:

- (1) Rewriting or canceling entries.
- (2) Converting fractions.
- (3) Converting units of measure.
- (4) Entering codes.
- (5) Presenting editing problems.
- (6) Filling out reference notes.
- (7) Illustrating incomplete or impossible entries.

The giving of instructions required about 8 hours.

Editing of 10 training questionnaires.—The use of the instructions was emphasized. The first Agriculture Questionnaire was given out for editing and coding. The trainees were not permitted to discuss the questionnaire with other clerks. No question covering a specific point was answered by the instructor. General questions which seemed appropriate were answered so that the whole training group could hear both the question and the answer. When most of the group had completed the editing of the first training questionnaire the editing of the questionnaire was discussed and the correct editing entries on the training questionnaire were given. Clerks were told where to look in their instructions to find why they had made errors. If the same error was made by several clerks the appropriate paragraph in the instructions was read by the instructor. After the trainees signed their names on the questionnaires, these were collected for recording the number of errors.

The remaining 9 training questionnaires were given out in groups of three. The same procedure was followed as outlined for the first training questionnaire.

The 10 training questionnaires were corrected as soon as possible and the number of errors recorded. The corrected questionnaires were given back to the trainees so that they could see their errors.

Editing of the first portfolio.—During the editing of the first portfolio, the supervisors were instructed to circulate through the group of trainees to:

- (1) Answer necessary questions concerning procedures.
- (2) Help clerks find the paragraph in the instructions needed to determine whether entries on the questionnaire were correct.
- (3) Observe clerks to see if they were working systematically and following procedure as outlined in their instructions.
- (4) Check codes to make sure editors were coding correctly.
- (5) Review several edited and coded questionnaires.
- (6) See that reference notes were made correctly when required.

The progress of editing and coding clerks in learning and becoming proficient in the performance of their work is indicated by the following data on questionnaires edited and errors made by weeks of experience.

Weeks of experience	Number of Agriculture Questionnaires edited and coded per hour	Number of errors per 100 Agriculture Questionnaires		
		Total	Coding errors	Other errors
1	11	18.7	5.2	13.6
2	20	17.3	4.8	12.5
3	20	14.1	3.6	10.5
4	21	11.6	2.8	8.8
5	23	8.8	2.1	6.6
6	24	6.7	1.6	5.2
7	25	5.1	1.3	3.8
8	27	4.6	1.2	3.5
9	27	3.9	1.1	2.9
10	30	3.5	.9	2.6
11	30	3.5	.9	2.6
12	31	3.3	.8	2.5
13	33	3.4	.8	2.6
14	34	2.7	.7	2.0
15	35	2.8	.7	2.1
16	36	2.6	.6	2.0
17	36	2.4	.6	1.8
18	36	2.0	.5	1.5
19	37	1.7	.5	1.3
20	36	1.7	.4	1.3
21	39	1.5	.4	1.1
22	40	1.1	.3	.8
23	41	1.1	.3	.8
24	42	1.2	.4	.8
25	42	.9	.3	.6
26	44	1.0	.3	.6
27	45	.8	.3	.6
28	46	1.2	.3	.9
29	47	1.2	.4	.8
30	49	1.2	.5	.7
31	49	.9	.4	.6
32	51	2.0	.6	1.4
33	52	.9	.3	.6
34	56	1.0	.5	.5

The work of the editing and coding clerks was reviewed. Clerks were selected for review work from the editing and coding clerks. The review clerks were given 4 hours of additional instruction. These 4 hours were devoted to reading of the instructions, making out a sample verification record (see fig. 28), observing a demonstration of how to sort the Agriculture Questionnaires representing the sample from other questionnaires, and to practicing the determination of codes for economic class of farm and for type of farm.

The job of the review clerk was to review either on a complete basis or a sample basis the work performed by the editing and coding clerks, to prepare a record of errors found in the work of the editing and coding clerks, to sort the questionnaires into two groups—those comprising the sample and those not comprising the sample—and to determine and enter the codes for economic class of farm and type of farm on questionnaires comprising the sample.

Until the error records indicated each editing and coding clerk was performing work of a satisfactory quality, all editing and coding work was verified completely. Editing and coding work was considered satisfactory if there were less than 3 coding and 8 other errors per 100 Agriculture Questionnaires. When the quality of editing and coding became satisfactory, only every tenth questionnaire was completely verified. If the verification of every tenth questionnaire indicated the work was not of acceptable quality, then all questionnaires were reviewed and all subsequent work of the editing and coding clerk was reviewed until the record of errors indicated that the work was of acceptable quality.

The performance of review clerks improved as their knowledge and skill improved and also as the work of editing and coding

METHODS AND PROCEDURES

Form 2-43 (11-18-54)		U. S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS			State	
VERIFICATION RECORD					County	
					Name		Folio number
Date edited		<input type="checkbox"/> Editor <input type="checkbox"/> Reviewer		Unit number		
		<input type="checkbox"/> All A1's verified <input type="checkbox"/> Sample of A1's verified (A2 line numbers ending in _____)		Number of questionnaires		
Type of error	Sections I-II Color-tenure (a)	Section III Crops (b)	Sections IV-VI Irrigation (c)	Section VII Livestock (d)	Total (Non-sample) (e)	Sections VIII-XIII (Sample) Class and type (f)
1. Poorly written figures not corrected						
2. Figures entered by editing clerk, illegible						
3. Fractions and decimals not cancelled						
4. Fractions not converted or incorrectly converted						
5. Correct entries changed unnecessarily						
6. Sum of detail \pm 20 does not equal total						
7. Sum of detail \pm 100 does not equal total						
8. Specified cross-checks not made						
9. Sizeable production or inventory and no value of products sold						
10. Other relationships not questioned						
11. Not coded						
12. Coded incorrectly						
13. Other (Specify)						
Total						
Remarks						
Name of reviewer				Unit number		Date

Comm-DC 43246

FIGURE 28.—Verification record (Form 2-43). For recording errors for editing and coding.

clerks improved. The following data indicate work performance by review clerks by weeks of experience on the job.

Weeks of experience	Number of questionnaires reviewed per hour		Weeks of experience	Number of questionnaires reviewed per hour	
	On a complete basis	On a sample basis (10 percent of questionnaires)		On a complete basis	On a sample basis (10 percent of questionnaires)
1.....	11	42	16.....	60	98
2.....	24	60	17.....	62	97
3.....	25	66	18.....	64	103
4.....	29	71	19.....	66	97
5.....	34	70	20.....	64	101
6.....	38	79	21.....	63	106
7.....	43	72	22.....	55	99
8.....	50	76	23.....	67	105
9.....	50	80	24.....	79	102
10.....	47	84	25.....	62	110
11.....	53	86	26.....	91	115
12.....	55	93	27.....	60	125
13.....	58	96	28.....	71	128
14.....	63	90	29.....	88	142
15.....	61	97	30.....	79	135

The use of sample verification of editing and coding resulted in the saving of approximately 45,000 man hours in reviewing. The number and proportion of the Agriculture Questionnaires reviewed on a complete basis by week, after review on a sample basis was started, were as follows:

Week	Agriculture Questionnaires reviewed		
	Total	On complete basis	On a sample basis (10 percent of questionnaires)
	<i>Number</i>	<i>Percent</i>	<i>Percent</i>
1.....	56,244	85.8	14.2
2.....	142,992	84.3	15.7
3.....	128,526	74.8	25.2
4.....	119,783	78.7	21.3
5.....	130,278	73.2	26.8
6.....	153,067	80.0	20.0
7.....	162,567	76.9	23.1
8.....	184,742	63.2	36.8
9.....	201,976	55.7	44.3
10.....	206,372	49.6	50.4
11.....	210,533	46.6	53.4
12.....	221,399	42.5	57.5
13.....	214,820	38.5	61.5
14.....	210,864	35.1	64.9
15.....	213,337	26.5	73.5
16.....	197,176	29.5	70.5
17.....	212,481	27.3	72.7
18.....	222,535	26.6	73.4
19.....	206,793	22.8	77.2
20.....	193,669	14.2	85.8
21.....	167,560	14.2	85.8
22.....	144,338	10.5	89.5
23.....	157,805	13.0	87.0
24.....	167,526	9.2	90.8
25.....	129,592	9.1	90.9
26.....	90,957	5.0	95.0
27.....	96,759	7.8	92.2
28.....	113,608	13.0	87.0
29.....	65,393	18.5	81.5
30.....	26,111	24.3	75.7

PUNCHING

In order to provide for compilation of data, all information in the Agriculture Questionnaires was transferred to punch cards. Ten separate punch cards were used. (See fig. 29 for copies of these cards.) The punch card used for each part of the Agriculture Questionnaire is indicated in the column "Office use only" on the questionnaire. (See fig. 1.) For example, the information for questions 66 to 72 on the Agriculture Questionnaire was punched on the A card. The number of cards punched for all Agriculture Questionnaires was as follows:

Card type	Number of cards (thousands)	Card type	Number of cards (thousands)
Total.....	30,136	I.....	3,831
A.....	4,856	J.....	398
C.....	9,889	K.....	3,522
G.....	1,142	L.....	1,101
H.....	3,674	M.....	1,082
		N.....	642

Cards L, M, and N were required only for Agriculture Questionnaires in the sample. The punching was performed on International Business Machine Company's type 024 punching machine. (See fig. 30.)

All the personnel employed for card punching were temporary and none had any prior experience in punching. All employees were given a training course consisting of approximately 80 hours. During the first 40 hours the punching machine operator was trained, in how to use the punching machine, by means of a series of punching exercises and 6 tests. The second 40 hours of the training consisted of punching cards from a portfolio of Agriculture Questionnaires prepared for training purposes and the completion of 3 tests. The appointments of operators who did not satisfactorily complete tests given during training were terminated.

Generally, punching machine operators were trained to punch, and punched, only one of the 10 types of cards. Work units assigned to punch operators consisted of one or two portfolios of Agriculture Questionnaires (400 to 800 Agriculture Questionnaires).

The number of cards punched per hour varied according to the experience of the punching machine operator and the type of card. The average number of cards punched per hour for each card type was as follows:

Type of card	Average number punched per hour	Type of card	Average number punched per hour
All cards.....	147	I.....	150
A.....	134	J.....	47
C.....	158	K.....	187
G.....	133	L.....	102
H.....	167	M.....	162
		N.....	114

METHODS AND PROCEDURES

A	CARD NUMBER	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	RESIDENCE	AGE OF OPERATOR	YEAR	HOLD OPERATION	HOME GARDEN	TOTAL LAND IN FARMS	CROPLAND				WOODLAND		OTHER LAND		IRRIGATED LAND		CONSERVATION		EXCESS RELEASE	SIZE																																										
																HARVESTED	PASTURED	CULTIVATED SUMMER FALLOW OR OTHER	OTHER OR IDLE	PASTURED	NOT PASTURED	TOTAL	IMPROVED	NOT PASTURED	CROPLAND HARVESTED	PASTURE ON TOTAL	COVERED STRIPPED CROPS			ON CONTOUR	EXCESS RELEASE	SIZE																																							
C	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	CORN OR SORGHUMS										EXCESS RELEASE	SIZE																																																			
									FOR GRAIN					FOR SILAGE							SORGHUM FORAGE																																																		
G	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	FOREST PRODUCTS CUT IN 1954										HORTICULTURAL SPECIALTIES										EXCESS RELEASE	SIZE																																									
									FIREWOOD AND PULPWOOD (CORDS)					FENCE POSTS (NUMBER)					SAWLOGS AND WEEPER LOGS (BOARD FEET)					PULPWOOD (CORDS)							VALUE OF (SALES)					TREES TAPPED					GALLONS OF SYRUP					POUNDS OF SYRUP					WILDBERRY PRODUCTS					FLOWERS AND FLOWERING PLANTS, ETC.					VEGETABLE SEEDS, PLANTS, ETC.										
H	CARD NUMBER	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	CATTLE AND CALVES										WHOLE MILK SOLD					CREAM SOLD					EXCESS RELEASE	SIZE																																								
										TOTAL	COWS	HEIFERS AND HEIFER CALVES	BULLS, STEERS, AND STEER CALVES	COWS MILKED YESTERDAY	MILK COWS ON HAND	MILK PRODUCED YESTERDAY	BUTTER CHURNED LAST WEEK	UNIT	QUANTITY	VALUE OF SALES	POUNDS OF BUTTERFAT	VALUE OF SALES																																																	
I	CARD NUMBER	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	ANIMALS SOLO ALIVE										EXCESS RELEASE	SIZE																																																		
										HORSES AND MULES		HOGS AND PIGS		SHEEP FARMED		HOGS AND PIGS		CALVES				CATTLE		SHEEP AND LAMBS		HORSES AND MULES																																													
J	CARD NUMBER	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	SHEEP AND LAMBS					GOATS AND KIDS					SHEEP SHORN					EXCESS RELEASE	SIZE																																													
										TOTAL	UNDER 1 YEAR	1 YEAR AND OVER	EMES	RAMS AND WETHERS	TOTAL	ALBUCA	OTHER	NUMBER	POUNDS OF WOOL																																																				
K	CARD NUMBER	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	CHICKENS SOLD										CHICKEN EGGS SOLD					TURKEYS RAISED					OTHER POULTRY RAISED					EXCESS RELEASE	SIZE																																			
										BROILERS		OTHERS		DOZEN		VALUE OF SALES		LIGHT BREEDS		HEAVY BREEDS		LIGHT BREEDS		HEAVY BREEDS		NUMBER		NUMBER		VALUE OF SALES OF OTHER POULTRY AND PRODUCTS																																									
L	CARD NUMBER	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	FACILITIES										EQUIPMENT - NUMBER										LAND OWNED										LAND RENTED FROM OR MANAGED FOR OTHERS										LAND RENTED TO OTHERS										CASH RENT										EXCESS RELEASE	SIZE
										TELEPHONE	WATER	ELECTRICITY	TELEVISION	WATER CREEPER	MILKING MACHINE	WHEAT GRINDERS	CRACKERS	COBB CRIBS	COBB PICKERS	PICK-UP BUCKETS	WAGON	WHEEL	TRAC-TOR	GRADER	WAGON	AUTOMOBILES	OTHER VEHICLES	AND EARTH-TAGS	ACRES	VALUE OF LAND AND BUILDINGS	ACRES	VALUE OF LAND AND BUILDINGS	ACRES	VALUE OF LAND AND BUILDINGS	ACRES	VALUE OF LAND AND BUILDINGS	ACRES	VALUE OF LAND AND BUILDINGS	ACRES	VALUE OF LAND AND BUILDINGS	ACRES	VALUE OF LAND AND BUILDINGS	ACRES	VALUE OF LAND AND BUILDINGS	ACRES	VALUE OF LAND AND BUILDINGS																									
M	CARD NUMBER	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	CASH EXPENDITURES - 1954										HIRED WORKERS										EXCESS RELEASE	SIZE																																								
										MACHINE HIRE		HIRED LABOR		FEED FOR LIVESTOCK AND POULTRY		GASOLINE OIL ETC		TOTAL		MONTHLY BASIS		WEEKLY BASIS		DAILY BASIS		HOURLY BASIS		PERSONS				OPERATOR		FAMILY		BOTH		BOTH		EXCESS RELEASE		SIZE																													
N	CARD NUMBER	STATE	COUNTY	E. D.	QUESTIONNAIRE NUMBER	COLOR	TENURE	IRRIGATION CLASS	P. 1-3 TYPE	COMMERCIAL FERTILIZER PURCHASED										COMMERCIAL FERTILIZER USED										LIME PURCHASED										EXCESS RELEASE	SIZE																														
										TENS		TOTAL COST		ACRES ON WHICH USED		HAY CROPS		PASTURE		CROP 3		CROP 4		FRUITS VEGETABLES		OTHER CROPS		TENS		TOTAL COST		ACRES LIME																																							

FIGURE 29.—Punch cards used for the 1954 Census of Agriculture.

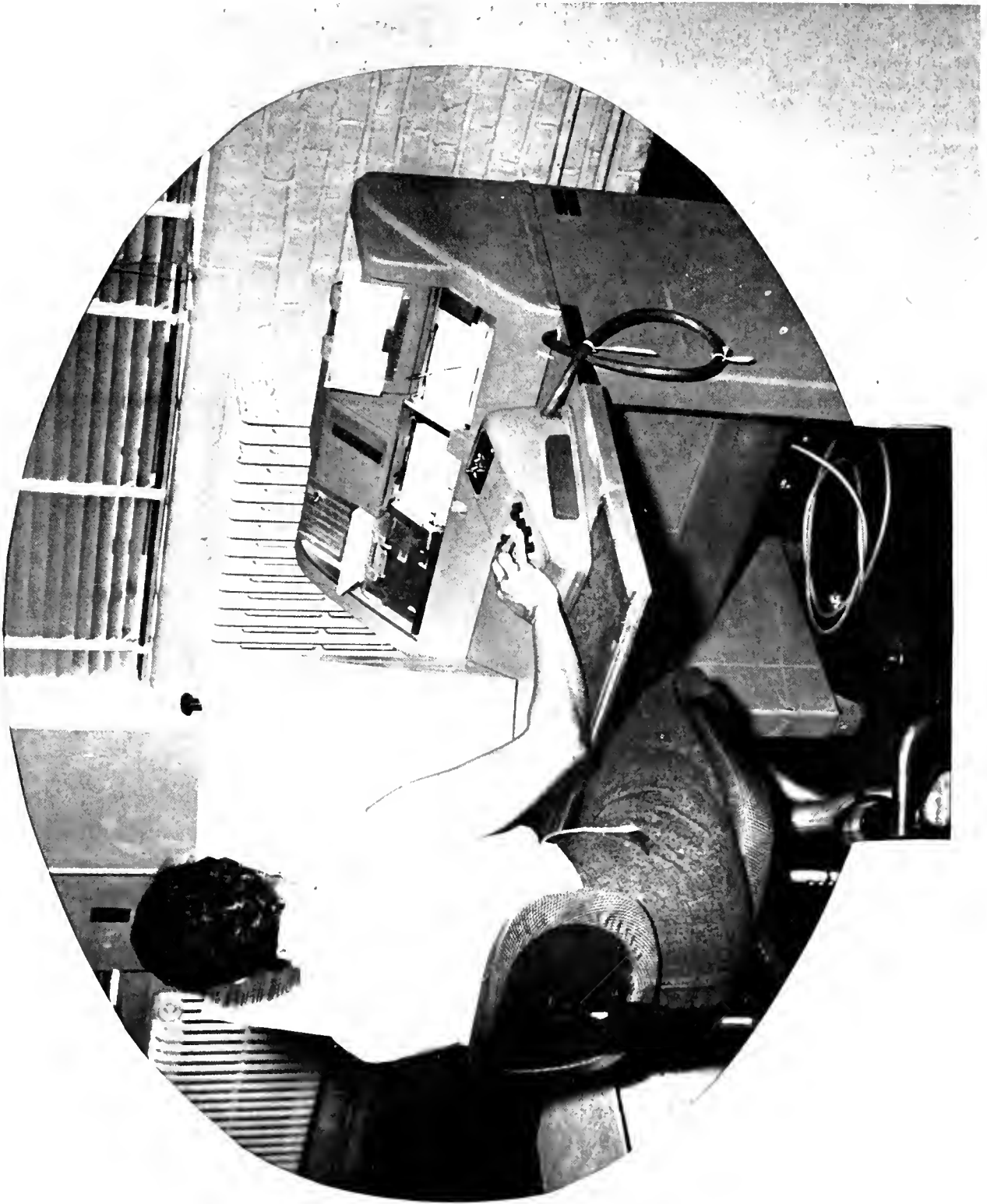


FIGURE 30.—I B M type 024 Punching Machine.

Figures 31 and 32 indicate the relationship of the weeks of experience of punching machine operators to the number of cards punched for C card at the Pittsburg Operation Office and for the H card at the Detroit Operation Office. The quantity of cards punched per hour was influenced by a system of incentive pay. Operators who punched more than a prescribed number of cards of acceptable quality during a 2-week period were given extra pay for each 100 cards punched above the established standard. Incentive pay was paid for approximately one-third of all cards punched and approximately 71.4 percent of all cards were punched by operators during periods for which they received incentive pay.

The punching of cards was verified either completely or on a sample basis. The purpose of verification was not to eliminate all errors but to insure that the level of errors was kept within acceptable levels. Until the verification of punched cards indicated the work was of satisfactory quality, the work of each punching machine operator was verified 100 percent. Verification was performed by the use of a manually operated verifier. (See fig. 33.) All cards found in error were corrected.

As soon as it was determined that less than 6 percent of the cards punched by a punching machine operator contained errors and that the number of cards not punched did not exceed 1.2 percent, only a sample of 4 percent of the work of the card punching machine operator was verified. However, when the errors found in the 4-percent sample indicated that the quality of the work was not acceptable, the work of the operator was verified 100 percent, until the record of errors indicated that the work was of satisfactory quality. Card punching machine operators were required to produce work of acceptable quality within a given time period in order to be retained as an employee and in order to receive incentive payment for the work performed in excess of established standards. Card punching machine operators with the poorest work performance were assigned to verification work. Except for excess cards (cards representing unusually large quantities for an item), cards found in error during verification on a sample basis were not corrected.

The use of sample verification of cards resulted in a saving of approximately 140,000 man hours. The number and proportion

DISTRIBUTION OF OPERATORS BY CARDS PUNCHED PER HOUR,
BY WEEKS OF EXPERIENCE
(C CARD PITTSBURG OPERATION OFFICE)

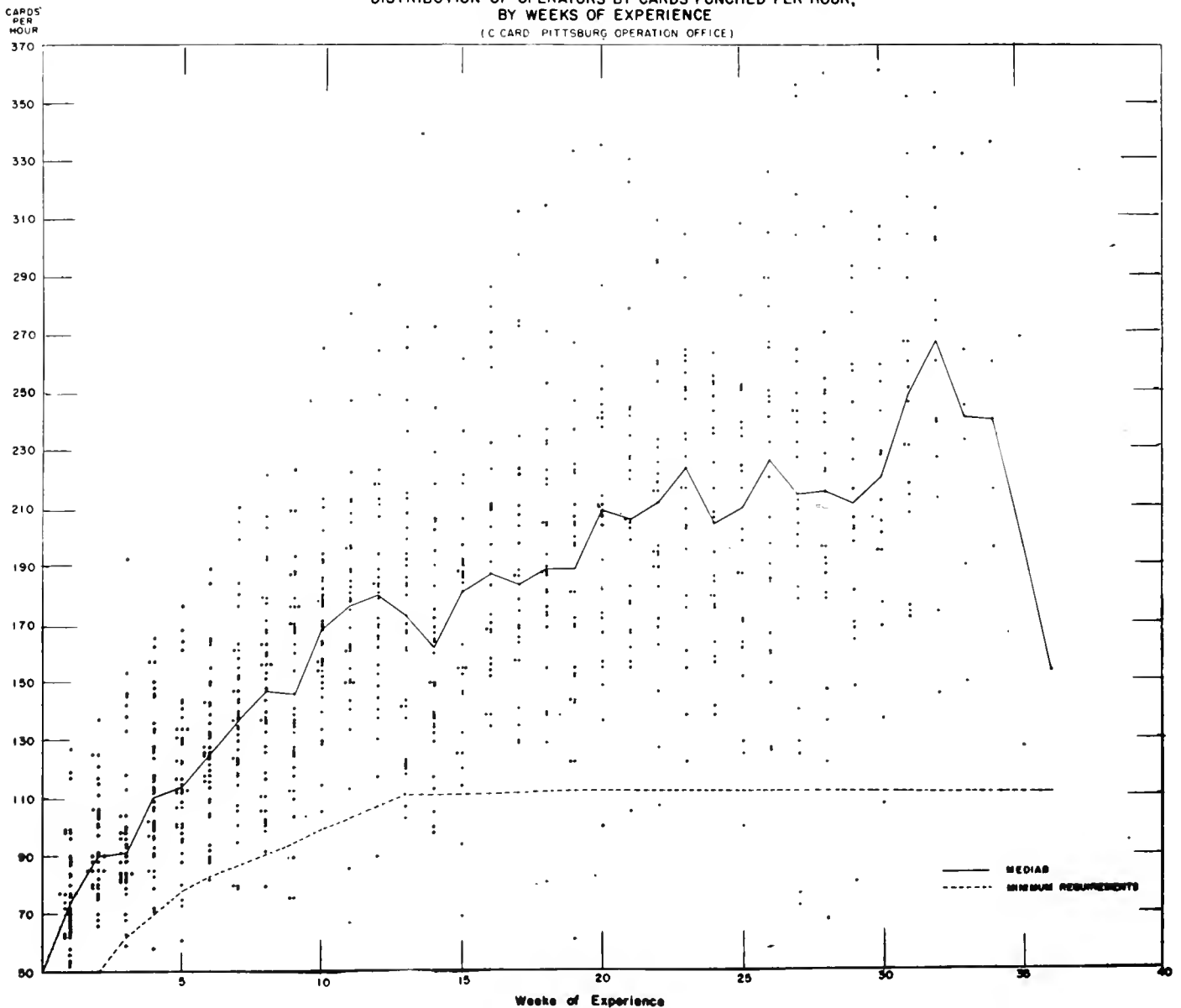


FIGURE 31.—C cards punched per hour by weeks of experience, Pittsburg Operations Office.

of the cards verified on a 100 percent basis and on a sample (4 percent) basis by two-week periods were as follows:

Period	Cards verified		
	Total	On 100 percent basis	On a sample basis
	<i>Number</i>	<i>Percent</i>	<i>Percent</i>
Prior to Mar. 13.....	4,873,279	23.9	76.1
Mar. 14 to Mar. 26.....	2,567,911	6.1	93.9
Mar. 27 to Apr. 9.....	2,732,089	4.2	95.8
Apr. 10 to Apr. 23.....	2,346,108	4.7	95.3
Apr. 24 to May 7.....	2,476,149	4.1	95.9
May 8 to May 21.....	2,169,117	4.6	95.4
May 22 to June 4.....	2,278,096	3.6	96.4
June 5 to June 18.....	2,470,653	3.9	96.1
June 19 to July 2.....	1,885,249	27.6	72.4
July 3 to July 16.....	1,986,001	3.7	96.3
July 17 to July 30.....	1,909,290	2.7	97.3
July 31 to Aug. 13.....	1,392,863	0.7	99.3
Aug. 14 to Aug. 26.....	1,049,598	0.5	99.5

Correction of punching and other errors prior to publication.—The checking for errors before the publication of data was per-

formed at three stages—before tabulation, after tabulation, and just prior to publication.

Before tabulation, all punch cards were subject to an examination by means of electric statistical machines for possible errors. Mechanical methods were used to select punch cards which lacked required information, those on which the data punched were inconsistent or unreasonable, and those with data of sufficient importance to warrant further verification. Specifications were established for each card type so as to select cards having any of the characteristics of these three groups and all cards were passed through the Census Multicolumn Sorter for the purpose of selecting these cards. Before the selection of error cards was made, reproductions of C cards were made, so that the information for only one crop appeared on a C card. (The information for as many as 3 crops was punched on a C card. See fig. 26.) The specifications for the selection of cards for further verification were as follows: (See fig. 26 for copies of the cards and fig. 1 for a copy of the Agriculture Questionnaire.)

DISTRIBUTION OF OPERATORS BY CARDS PUNCHED PER HOUR, BY WEEKS OF EXPERIENCE
(IN CARD-OF-TIME OPERATION UNIT)

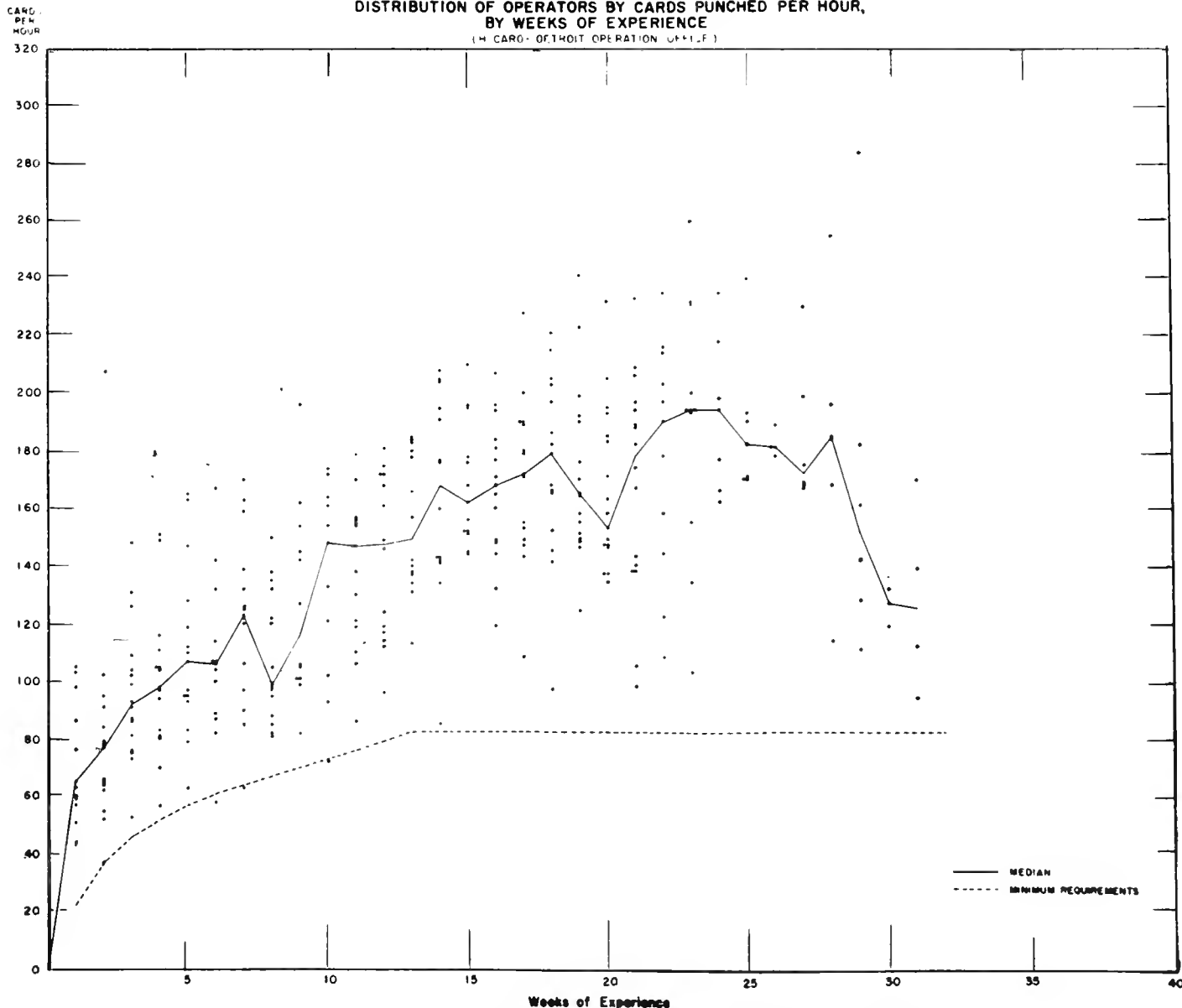


FIGURE 32.—H cards punched per hour by weeks of experience, Detroit Operations Office.



FIGURE 33.—Machine used for verifying punched cards.

All Cards

1. All excess cards. (These were cards punched for entries with figures larger than the maximum number that could be punched in the column or columns provided on the punch card.)
2. All cards with misplaced "X". If there was no entry on the questionnaire for an item, an "X" was to be punched in the first column provided for punching the item on the punch card. Cards with the "X" punched in a column other than the first column would contain errors, and hence were selected.

Card A

1. The number of acres for any land use greater than the total acres in the farm.
2. "Total land" divided by ten (10) greater than any use.
3. Acres reported as "improved other pasture" greater than all other land used for pasture.
4. 1,000 or more acres in any CROPLAND group.
5. 20 acres or more of cropland harvested for a card with a code of 8 for economic class.
6. Cards classified as "cropland wholly irrigated" with a number for "acres of total cropland harvested" in excess of "irrigated cropland harvested."
7. Cards classified as "cropland partly irrigated" with the same entries for "total cropland harvested" and "irrigated cropland harvested."
8. Any entry for "acres of irrigated cropland harvested" in excess of "total acres of cropland harvested."
9. No number for "acres of irrigated land" with an "irrigated-farm" code.
10. Any entry of less than 10 years for "age of operator."
11. Any entry for "year began operation" between 55 and 99 indicating the years 1855-1899 or 1955 to 1999.
12. All cards for farms of less than 3 acres.
13. All entries for color code, tenure code, or class code other than those provided for by the coding scheme.
14. Any entry for "irrigated pasture," greater than the entry for "cropland pastured" or the entry for "improved pasture."
15. The number for acres in either "conservation practices" greater than the acres for "cropland harvested."
16. The economic class code of 9 with a code for type of farm other than 12.
17. Any "crop" type of farm code and no entry for "acres of cropland harvested."
18. 1,000 or more total acres in farm not classified as a "specified farm."

Card C for corn

1. Total acreage of corn for all purposes reported without an entry of acres for grain, silage, or hogged off.
2. Total acreage for all purposes less than the acreage reported for any use.
3. Any "total acreage" report of 400 or more acres.
4. All reports with quantity harvested without acreage harvested or acreage harvested without quantity harvested.
5. All reports of 1,000 or more bushels of grain per acre harvested for grain.
6. Any total production of 1,000 bushels of grain on a farm having \$1,200 or less "value of all products sold."
7. 100 or more tons of silage produced per acre harvested, or 200 tons or more in total.
8. Less than 1 ton of silage per acre harvested.
9. Bushels of corn sold exceeding bushels of corn harvested for grain.

Card C for sorghums

1. Total acreage for all purposes without an amount either for acreage for grain, acreage for silage or acreage hogged or grazed.
2. Total acreage for all purposes less than the acreage for any use.
3. Any total acreage for all purposes of 400 or more acres.
4. All reports with quantity harvested without acreage or acreage harvested without quantity harvested.
5. All reports of 1,000 or more bushels of grain per acre harvested, 100 or more tons of silage per acre, or 10 or more tons of hay per acre harvested.
6. Acres exceeding the corresponding quantity harvested except for acreage hogged off which required no quantity harvested entry.
7. Bushels of grain sold in excess of bushels of grain harvested.

Card C for crops other than corn and sorghum

1. Quantity harvested without acreage. When space for quantity was provided for on the questionnaire, all reports of acreage without quantity harvested.

In addition to the general specifications for all crops there were additional conditions for specific crops as follows:

Small Grains, Sugarbeets, Tree Fruits

1. Production in excess of 100 units per acre or per tree of bearing age.
2. Quantity harvested less than quantity sold or acreage harvested.

Hay Crops, Cotton

1. Production in excess of 10 units per acre harvested.
2. Less than one-tenth unit of production per acre harvested.

Tobacco, Seed Crops, Potatoes

1. Production in excess of 1,000 units per acre harvested.
2. Less than 1 unit of production per acre harvested.

Small Fruits

1. Production of 100 or more units without acreage.

Vegetables

1. Ten or more acres of any crop.

Other Crops

1. Twenty or more bushels of potatoes without acreage.
2. Production of tree fruits or nuts with entry for trees of non-bearing age only.
3. Trees of bearing age in excess of 100 with no entry for quantity harvested.
4. Entries of acreage harvested without quantity harvested.

Card G

1. All sales of \$1,000 or more.
2. More than 100,000 board feet of lumber cut with no entry for the sale of forest products.
3. No dollar amount representing sales but with an entry of 100 or more cords of firewood cut, or 1,000 or more fence posts cut or any number of cords of pulpwood cut.
4. Maple trees tapped without report for maple syrup made; or gallons of syrup or pounds of sugar made and no number for number of trees tapped.
5. More than 1 gallon of syrup or one-tenth pound of sugar per tree tapped.
6. Any report of \$50,000 or more for sales of horticultural products.
7. Any report of acreage or glass area in horticultural specialties with no number for "value of sales"; or value of sales and no amount for area.

Card H

1. Number of total cattle reported without a number for any age-sex subgroup.
2. 100 or more cows on hand with no calves or heifers on hand.
3. Number of cows milked yesterday greater than total number of cows on hand.
4. Number in any age-sex subgroup greater than number of total cattle.
5. Number of milk cows on hand exceeding total of all cows.
6. Less than one-tenth of milk cows on hand reported as having been milked yesterday.
7. Milk cows on hand numbering five or more and none reported as having been milked yesterday.
8. More than 10 gallons of milk production per cow milked yesterday.
9. An amount punched for quantity of whole milk or cream sold without an amount for dollars or the number of dollars without the quantity sold.
10. Ten or more cows milked yesterday with no amount of dairy products sold for the year.
11. More than \$1,000 income from dairy products sold for every cow milked.
12. Milk reported as being sold for less than 10 cents a gallon or less than 1 cent a pound.
13. Value of cream sold more than \$10 per pound of butterfat or less than 10 cents per pound of butterfat.

Card I

1. Number of horses or mules greater than the total of both kinds.
2. Number of hogs in either of two age groups larger than total for both groups.
3. A number for total hogs with no number for either age subgroup.
4. Ten or more total hogs on hand and none sold.
5. The number of "hogs born before June 1" less than the total of all ages without a number for "hogs born since June 1."
6. The number of "sows farrowed or to farrow" greater than "total hogs on hand."
7. Two or more sows on hand but no report for "hogs sold."
8. The average value of hogs sold less than \$1 each.
9. The average value of calves sold less than \$1 each.
10. The average value of cattle sold less than \$1 each.
11. The average value of sheep or lambs sold less than \$1 each.
12. The average value of horses or mules sold less than \$1 each.
13. The value of hogs sold averaging more than \$100 each.
14. The value of cattle or calves sold averaging more than \$1,000 each.
15. The value of sheep sold averaging more than \$100 each.

Card J

1. All cards with a number for sheep 1 year of age or over with no number for "wool shorn."
2. All cards with number for total sheep with no number for the age-sex classification. All cards with the number for the age-sex group exceeding the total sheep.
3. All cards with 100 or more pounds of wool per sheep shorn or less than 1 pound per sheep shorn.
4. All cards with total goats and with number for kind of goats not shown.
5. All cards with more than 10 pounds of mohair per goat clipped or less than 1 pound of mohair per goat clipped.
6. All cards with a report for goats clipped less than one-tenth of the number of Angora goats on hand.

Card K

1. All cards with 100 or more chickens on hand with no number for either chickens sold or eggs sold.
2. All cards on which the amount for "value of other chickens sold" or amount for "value of broilers sold" is less than one-tenth of the number punched for "number sold."
3. All cards on which the amount for "value of other chickens sold" or the amount for "value of broilers sold" is more than ten (10) times the number punched for "number sold."
4. All cards on which the amount for "value of eggs sold" is more than ten (10) times or less than one-tenth (1/10) the number representing "dozen sold."
5. All cards with ten or more turkeys raised or 100 or more of "poultry other than chickens or turkeys" raised without a report of sales for "other poultry and poultry products" or miscellaneous poultry reported as sold and no entry for "number raised."
6. All cards with 1,000 or more chickens on hand.

Card L

1. Numbers for value of land and buildings larger than 1,000 times the number for acres.
2. Land values of less than \$1 per acre provided value was reported.
3. Acres of "land rented to others" in excess of entry for "land owned" or "land rented from others."
4. Entry for "cash rent paid" greater than 10 percent of "value of land rented from others," or no entry for acres rented from others but with an amount for "cash rent paid."
5. Any column for farm facilities punched other than "yes" or "no."
6. "Yes" report for "mortgage debt" with no number for "acres owned."
7. A card coded as "livestock-share tenant" with a crop type of farm code.
8. Cards with incorrect tenure codes such as:
 - Full owner with no "land owned."
 - Part owner with no entry for either land owned or land rented from others.
 - Tenant with no entry for "land rented from others" or with entry for "land owned."
 - Manager with no entry for "acres managed."
 - Economic class codes 8 or 9 with entry "other than miscellaneous" for type of farm.
9. Report of "value" without an accompanying acres entry.
10. Ten or more ponds, 3 or more garden tractors.
11. Any digit in column for class, color, tenure, type of farm codes other than that specifically provided by the code.

Card M

1. All cards representing \$20,000 or more for any expenditure.
2. Hired labor expenditures of \$5,000 or more without hired workers on farm or any number of hired workers with no amount shown for cash expenditure for hired labor.
3. All reports of \$5,000 or more of expenditures for gasoline and oil, or for machine hire, and any hired labor in amount of \$5,000 or more, if the economic class code was 5 or higher.
4. Any number for total hired workers without the number to be employed "less than 150 days" or "more than 150 days" or the number of workers in either of these subgroups exceeding the total or the number of workers unequal to total workers when only one subgroup was reported.
5. Any card with reports for monthly, weekly, or daily workers with the corresponding reports for the number of hours, number of workers, or amount of wages paid missing.
6. All reports for hourly workers with either the number of workers or the rate of pay missing.

Card M—Continued

7. All reports for hours worked by monthly workers of 400 or more hours or less than 100 hours, for weekly workers of 100 or more hours or less than 20 hours, and for daily workers of 20 or more hours.
8. Any card representing 10 or more workers for any basis of pay group.
9. All cards whereon all the expenditure items were punched "X."
10. All punches for color, tenure, economic class, or type of farm other than that provided by the appropriate code.

Card N

1. More tons of fertilizer applied to crops than the total of tons purchased.
2. More than 200 pounds of fertilizer applied per acre of hay or pasture.
3. More than 1 ton of fertilizer applied per acre of crop fertilized.
4. Absence of number for either tons, cost, or acres on which applied.
5. An amount for tons of fertilizer purchased with no entry for "acres of crops on which used."
6. Absence of number for lime for either tons, cost, or acres on which applied.

The number of cards selected for each type for further verification was as follows:

Card type	Total number of cards	Cards selected by mechanical edit	
		Number	Percent of total cards
All cards.....	38,410,859	3,143,893	8.2
A.....	4,856,169	274,508	5.7
C-1 (corn).....	2,961,609	215,494	7.3
C-2 (sorghums).....	372,657	62,883	16.9
C-3.....	14,828,890	1,188,824	8.0
G.....	1,141,986	52,013	4.6
H.....	3,673,804	452,188	12.3
I.....	3,831,383	160,862	4.2
J.....	397,529	58,473	14.7
K.....	3,521,887	101,619	2.9
L.....	1,100,542	205,288	18.7
M.....	1,081,911	202,209	18.7
N.....	642,492	169,532	26.4

All cards selected by the mechanical edit were listed on an IBM type 402 tabulating machine (see fig. 41). These listings were reviewed by members of the technical staff. Cards that appeared to be in error were marked on the listings. These cards and all excess cards (cards containing very large entries) were checked to the Agriculture Questionnaires and corrections were made when required. The following table indicates the number and proportion of each type of card corrected.

Type of card	Cards corrected		
	Total number of cards	Percent of cards selected	Percent of total cards punched
All cards.....	1,327,918	42.2	3.3
A.....	152,500	55.6	3.2
C-1 (corn).....	117,940	54.7	4.0
C-2 (sorghums).....	22,091	35.1	5.9
C-3.....	394,100	33.2	2.7
G.....	11,947	23.0	1.0
H.....	198,839	44.0	5.4
I.....	75,881	46.4	2.0
J.....	6,784	11.6	1.6
K.....	50,712	49.9	1.4
L.....	70,470	34.3	6.5
M.....	152,869	75.6	14.1
N.....	73,785	43.5	11.5

Checking for errors after tabulation involved the checking of totals for counties, minor civil divisions, or other geographic areas for possible mistakes. Part of this checking was clerical in nature, and involved the checking for consistency of totals for the same or

similar item on various tabulations. The major part of this checking was performed by technical staff and involved comparison of totals, averages and ratios for adjacent areas, for the 1954 and prior Censuses, and of totals and averages with data secured from other sources.

Prior to publication, the data in statistical tables were checked and reviewed. Checking comprised the comparison of data in various tables for consistency and the review involved the visual examination of the data by the technical staff.

ADJUSTMENT OF DATA FOR THE SAMPLE PRIOR TO TABULATION

Description of the sample.—The sample used for the 1954 Census of Agriculture consisted of specified farms and one-fifth of the remaining farms. Thus, the sample for most areas comprised somewhat more than 20 percent of all farms and in fact represented 22.5 percent of all farms in the United States. Farms in the sample comprised a larger proportion of all farms in the Western States than in other geographic areas.

The actual selection of farms in the sample was made by Census enumerators as part of the enumeration procedure. The enumerator listed the head of each household or each place on a single line on Form A2 and determined whether an agriculture questionnaire was to be obtained. If he filled an Agriculture Questionnaire, he was required to indicate in which one of the 5 size-of-farm groups the farm belonged. Each line on the Form A2 contained squares listing 5 size-of-farm groups. The enumerator was required to indicate for each farm or place enumerated in which of these 5 size-of-farm groups, the farm or place belonged. A random fifth of the squares for each of four of these 5 size groups was lightly shaded. (See fig. 9 for a facsimile of a page of Form A2.) If the farm was indicated as belonging in a shaded square, the farm was included in the sample. The fifth square, always shaded, was provided for indicating all farms of 1,000 acres or more; thus all farms of 1,000 or more acres were included as a part of the sample.

In some States, all farms with more than a specified acreage of cropland harvested, or irrigated cropland harvested, or more than a specified number of total cattle and calves on hand, milk cows on hand, or chickens sold also were included in the sample regardless of the size of farm. These farms, and all farms of 1,000 acres or more, were designated as "specified farms."

Adjustment of the sample.—For the 1954 Census of Agriculture, it was considered desirable to make adjustments in the sample in order to improve the accuracy of estimates based upon tabulation of data for the sample.

An adjustment in the 20 percent part of the sample was made by a process essentially equivalent to stratifying the farms in the sample by size, for the purpose of (1) improving the reliability of the estimates from the sample on an economic area level, and (2) for the purpose of reducing the effects of possible biases introduced because some Census enumerators did not follow perfectly the method devised for selecting the farms in the sample. In order to adjust the sample for each State economic area, counts were obtained of all farms except "specified farms" and of sample farms except "specified farms" for each of ten size-of-farm groups based on "acres in this place." The 10 size-of-farm groups were as follows: Under 10 acres, 10 to 29 acres, 30 to 49 acres, 50 to 69 acres, 70 to 99 acres, 100 to 139 acres, 140 to 179 acres, 180 to 259 acres, 260 to 499 acres, and 500 to 999 acres. In determining the extent of the adjustment the difference between the number of farms in the sample exclusive of "specified farms" and the total number of farms exclusive of "specified farms" divided by 5 was obtained for each size group. The actual adjustment for each size group in the sample was made by eliminating tabulating cards for farms when too many were included in a size group and by duplicating all tabulating cards for one or more farms when too few were included in the sample size group. The farms for which all the information was eliminated or duplicated were selected at

random from counties over- or under-represented in each size group in the State economic area. Although adjustments were made in 98 percent of the counties in the United States, the gross adjustments involved were small, averaging 3.2 percent for farms eliminated and 4.0 percent for farms duplicated for the United States. These adjustments are summarized in the following table:

SUMMARY OF SAMPLE ADJUSTMENT BY SIZE OF FARM FOR THE UNITED STATES: 1954 CENSUS OF AGRICULTURE

Size of farm	Number of farms	Adjustment in number of farms		Total adjustment	
		Farms duplicated	Farms eliminated	Farms duplicated plus farms eliminated	Net adjustment (number of farms)
Total.....	4, 782, 416	37, 181	29, 928	67, 119	+7, 243
Under 10 acres.....	484, 291	7, 676	977	8, 653	+6, 699
10 to 29 acres.....	713, 335	7, 468	1, 903	9, 371	+5, 565
30 to 49 acres.....	499, 496	5, 048	1, 886	6, 934	+3, 162
50 to 69 acres.....	346, 323	3, 204	1, 768	4, 972	+1, 436
70 to 99 acres.....	517, 740	3, 661	2, 919	6, 580	+742
100 to 139 acres.....	491, 158	3, 076	3, 205	6, 281	-129
140 to 179 acres.....	461, 651	2, 562	3, 253	5, 815	-691
180 to 259 acres.....	463, 698	1, 974	4, 220	6, 194	-2, 246
260 to 499 acres.....	482, 246	1, 886	5, 109	6, 995	-3, 223
500 to 999 acres.....	191, 697	626	4, 698	5, 324	-4, 072
1,000 acres or more.....	130, 481				

In order to illustrate the sample adjustment process, the actual calculations for Economic Area 3b in New York consisting of Chemung, Schuyler, Steuben, Tioga, and Tompkins counties is described. The following table shows the summary for the State economic area, of the total number of farms in each size group; the sample number that would be expected in a 20 percent sample, obtained by dividing the total number excluding "specified farms"

Size group (total acres in place)	Total number farms ¹	Expected number in sample (total number divided by 5)	Actual number in sample as designated by enumerator	Difference between expected number and actual number	Adjustments to be made
Under 10.....	491	98.2	90	-8.2	Duplicate information on 8 questionnaires.
10 to 29.....	596	119.2	99	-20.2	Duplicate information on 20 questionnaires.
30 to 49.....	492	98.4	105	+6.6	Eliminate information on 7 questionnaires.
50 to 69.....	734	146.8	142	-4.8	Duplicate information on 5 questionnaires.
70 to 99.....	988	197.6	200	+2.4	Eliminate information on 2 questionnaires.
100 to 139.....	1,379	275.8	258	-17.8	Duplicate information on 18 questionnaires.
140 to 179.....	1,007	201.4	192	-9.4	Duplicate information on 9 questionnaires.
180 to 259.....	1,247	249.4	267	+17.6	Eliminate information on 18 questionnaires.
260 to 499.....	1,103	220.6	230	+9.4	Eliminate information on 9 questionnaires.
500 to 999.....	199	39.8	43	+3.2	Eliminate information on 3 questionnaires.

¹ Excludes specified farms.

by five; the actual number designated as sample farms, the difference between the expected number and the actual number, and the direction of the adjustments specified in each size group.

The direction of the adjustments to be made in each size group was determined by the direction of the net difference for all counties in the State economic area. To illustrate the allocation of adjustments among counties, data are given for size group "under 10 acres" in the preceding table.

County	Total number farms ¹	Expected number sample farms	Actual number sample farms	Difference
Chemung.....	78	15.6	10	-5.6
Schuyler.....	69	13.8	13	-0.8
Steuben.....	113	22.6	20	-2.6
Tioga.....	121	24.2	25	+0.8
Tompkins.....	110	22.0	22	0.0
Total.....	491	98.2	90	-8.2

¹ Excludes specified farms.

In this illustration 8 duplications were allocated to Chemung, Schuyler, and Steuben counties as the original sample in these counties was less than 20 percent. Tioga and Tompkins counties were not assigned adjustments in this size group because the original sample was equal or greater than 20 percent. The actual allocation of the adjustments to the various counties was made one at a time and each adjustment was assigned the county with the greatest ratio for the difference between expected sample size and actual sample size to the standard deviation. In this example the ratios were as follows: Chemung County, 1.59; Schuyler County, 0.24; Steuben County, 0.61. Therefore, the first adjustment was assigned Chemung County. After this adjustment the new ratio for Chemung County became 1.30; the difference for that county continued to be the largest, therefore, the second adjustment was made in Chemung County. The table at bottom of page indicates the sequence of adjustments as they were determined.

The selection of the questionnaire for which the tabulating cards were to be duplicated (or eliminated) was made by a random process. In this example, 5 questionnaires were selected at random from the 10 farms with less than 10 acres in Chemung County, for duplication.

When the questionnaires to be duplicated or eliminated had been selected, colored finder tabulation cards with "ears" were punched with the identifying information for these questionnaires and these cards were inserted with the punch cards for the county. These finder cards readily identified cards for questionnaires that were to be duplicated or eliminated. Cards to be eliminated were removed from the file before making the tabulations and cards to be duplicated were duplicated with a reproducing punch and placed in the file for tabulating. The adjustments for the sample were made only when the cards for the sample were to be used for making tabulations.

Chemung County		Schuyler County		Steuben County	
Ratio ¹	Adjustment	Ratio ¹	Adjustment	Ratio ¹	Adjustment
1.59	Assigned 1st adjustment (duplication).	0.24	Assigned 8th adjustment.	0.61	Assigned 5th adjustment.
1.30	Assigned 2d adjustment.				.38	Assigned 7th adjustment.
1.02	Assigned 3d adjustment.			.14	
.74	Assigned 4th adjustment.				
.45	Assigned 6th adjustment.				
.17					
Summary	5 adjustments assigned Chemung County		1 adjustment assigned Schuyler County		3 adjustments assigned Steuben County

¹ Ratio of the deviation of the sample number from the expected sample number to the standard deviation.

TABULATION

All tabulating work was performed by the use of punch cards by electric tabulating equipment. The table below indicates the number and duration of use of various types of punching and tabulating equipment for the Census, including the preparation of special tabulations for special reports. The tabulations were prepared using Census-built and International Business Machine Company statistical machines. (See table below and figs. 34 to 43.)

Tabulation sheets showing tabulations made by counties appear in the appendix. Tabulations made for State economic areas and for subregions were similar to those made by counties. Tabulations for the L, M, and N cards at the county level and for all tabulations for State economic areas and for subregions included only the cards for farms in the sample. As it was necessary to multiply the totals for cards for farms, except specified farms, in the sample by 5 in order to obtain an estimated total for all farms,

tabulating machines were modified to mechanically make this multiplication during the tabulating. Illustrative examples of the various diagrams used on the several tabulating machines are given in figures 44, 45, 46, and 47.

Several steps were taken to maintain quality of the tabulating work. For most tabulations, card counts were established in advance and if the tabulation did not show a total card count within 3 of this control count, the tabulations were not usually considered acceptable and were rerun. In order to prevent errors arising because of machine failure, test decks of cards (see fig. 48) were established for each tabulation. These test decks were tabulated 4 times each 8 hours and if the tabulation did not show the correct totals, immediate steps were taken to locate the cause of the error. Immediately after the completion of tabulations, the tabulated data of a sample comprising one-tenth of the horizontal lines were examined for evidence of machine errors.

NUMBER OF PUNCHING AND TABULATING MACHINES BY TYPE USED BY MONTHS FOR THE 1954 CENSUS OF AGRICULTURE*

Month and year	Punching machine (IBM type 024)	Punching machine used for card correction (IBM type 031)	Collator to match, merge, and check sequence of cards (IBM type 077)	Sorting machine (IBM type 082)	Counting and tabulating machine (IBM type 101)	Tabulating machine (IBM type 402)	112 counter accounting machine capacity 150 cards per minute (IBM type 407)	Reproducing gang-punching, summary punch machine capacity 100 cards per minute (IBM type 514)	90 or 120 selector combination multi-column sorter and 60 counter unit tabulator (Census machine 487 and 489)	Multi-column sorter 80 column board wired (Census machine 488)	Census 60 counter unit tabulator old type not combined with multi-column sorter (Census machine 581)	Census 60 counter unit tabulator combined with multi-column sorter with modernizations (Census type 582)
<i>1954</i>												
November.....	43			1				1				
December.....	207			1		1		1				
<i>1955</i>												
January.....	327	18	2	9	1	1		7	5		3	1
February.....	328	26	3	9	1	6		8	8	2	3	2
March.....	330	26	3	15	5	12		12	11	2	4	3
April.....	315	26	5	18	7	12		12	14	3	4	3
May.....	299	26	3	18	8	12		10	14	3	4	3
June.....	299	26	6	18	8	15	2	13	14	3	4	3
July.....	236	26	6	24	10	17	5	14	15	5	4	3
August.....	116	26	5	27	10	14	5	12	15	5	4	3
September.....	3	26	5	27	10	11	5	7	14	5	4	3
October.....	1	9	3	21	6	8	5	7	13	5	5	1
November.....	1	9	2	21	6	8	5	6	13	5	5	1
December.....	1	6	1	17	5	6	5	5	13	5	5	1
<i>1956</i>												
January.....	1	3	4	10	5	4	3	6	13	5	7	1
February.....	6	8	3	11	5	4	3	6	6			
March.....	13	4	3	11	4	4	3	6	6	1		
April.....	36	6	2	11	3	4	3	6	6	1		
May.....	76	7	2	6	1	3	1	4	3	1		
June.....	18	2	1	6		3		4	3	1		
July.....	18	2	1	6		3		4	1	1		
August.....	8	1		5		2		2	1	1		
September.....	11	2		5		2		2	1	1		
October.....	9	2		9		3		3	1	1		
November.....	7	2		5		2		3	1	1		
December.....	7	2		5		2		2	1	1		

*IBM refers to machines of the International Business Machines Co.

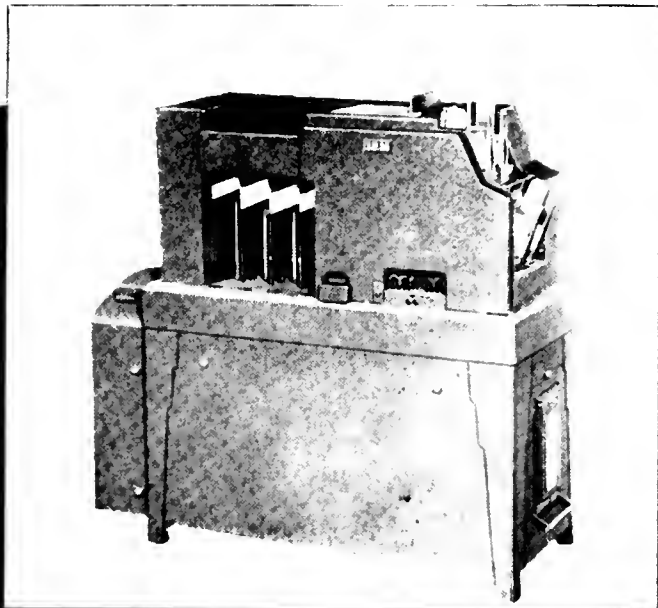


FIGURE 34.—I B M type 077 collator.

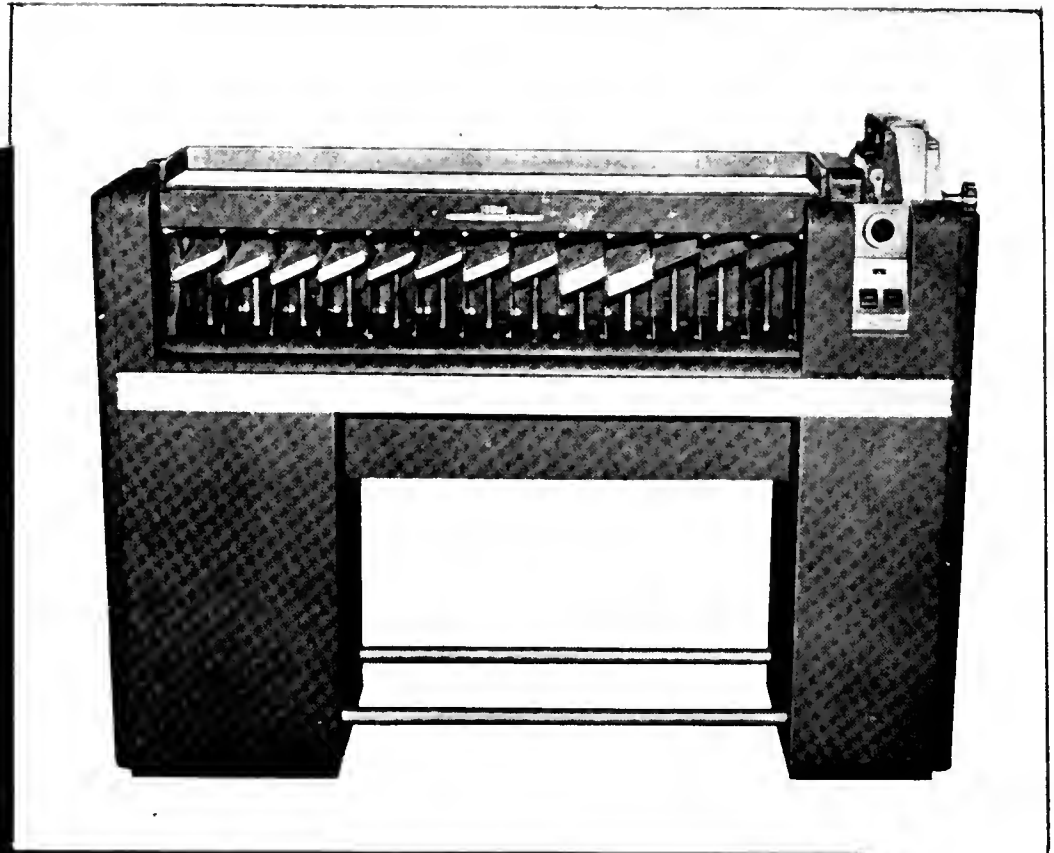


FIGURE 35.—I B M type 082 sorting machine.

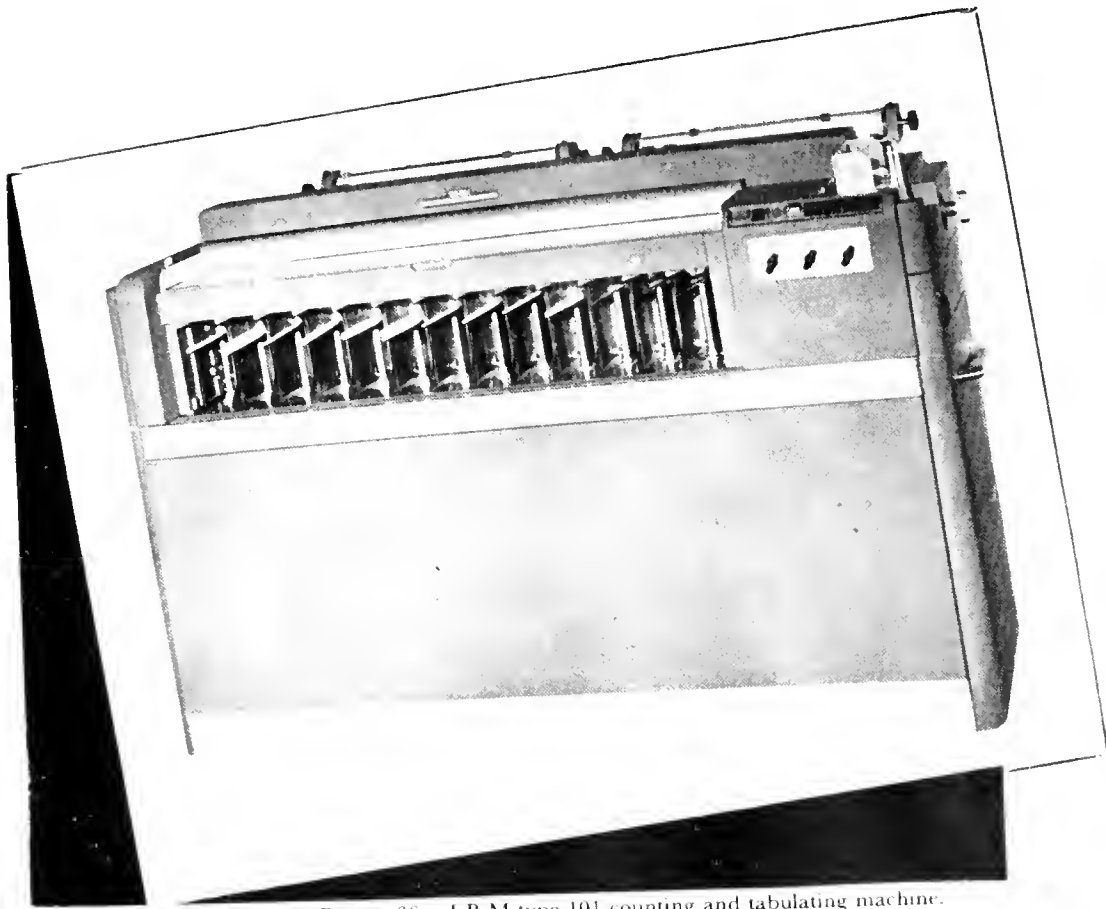


FIGURE 36.—I B M type 101 counting and tabulating machine.

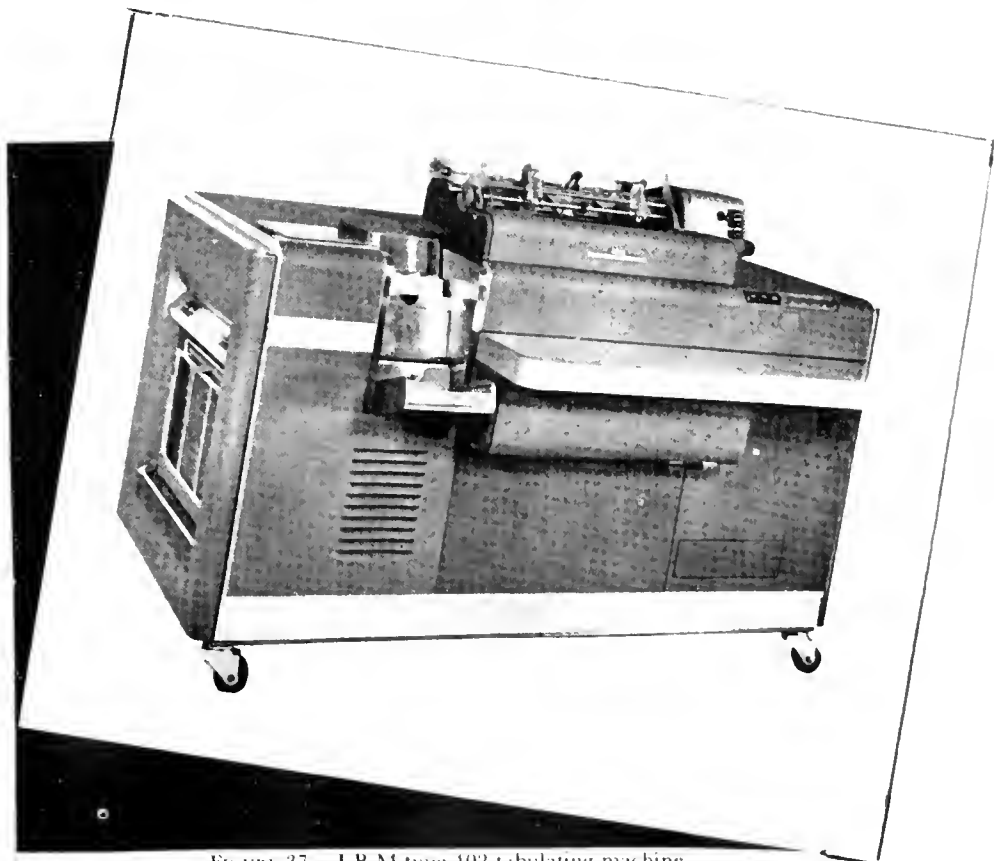


FIGURE 37.—I B M type 402 tabulating machine.

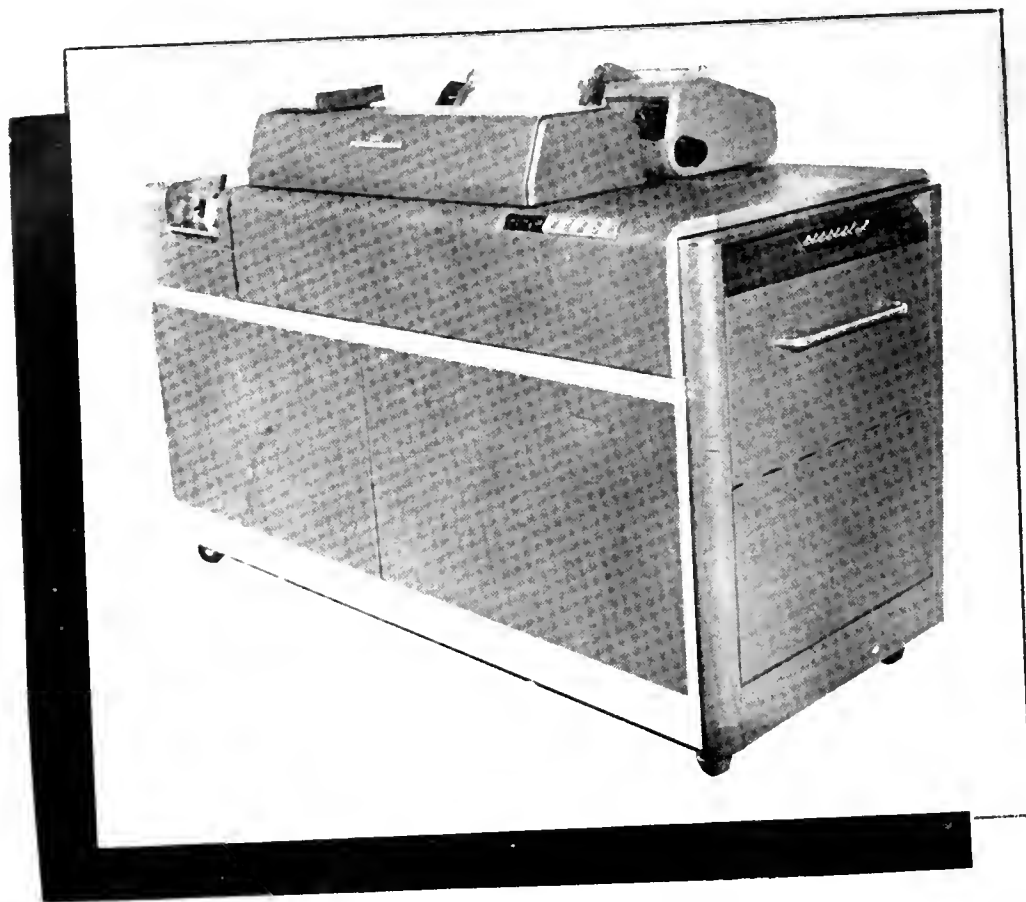


FIGURE 38. I B M type 407 accounting machine.

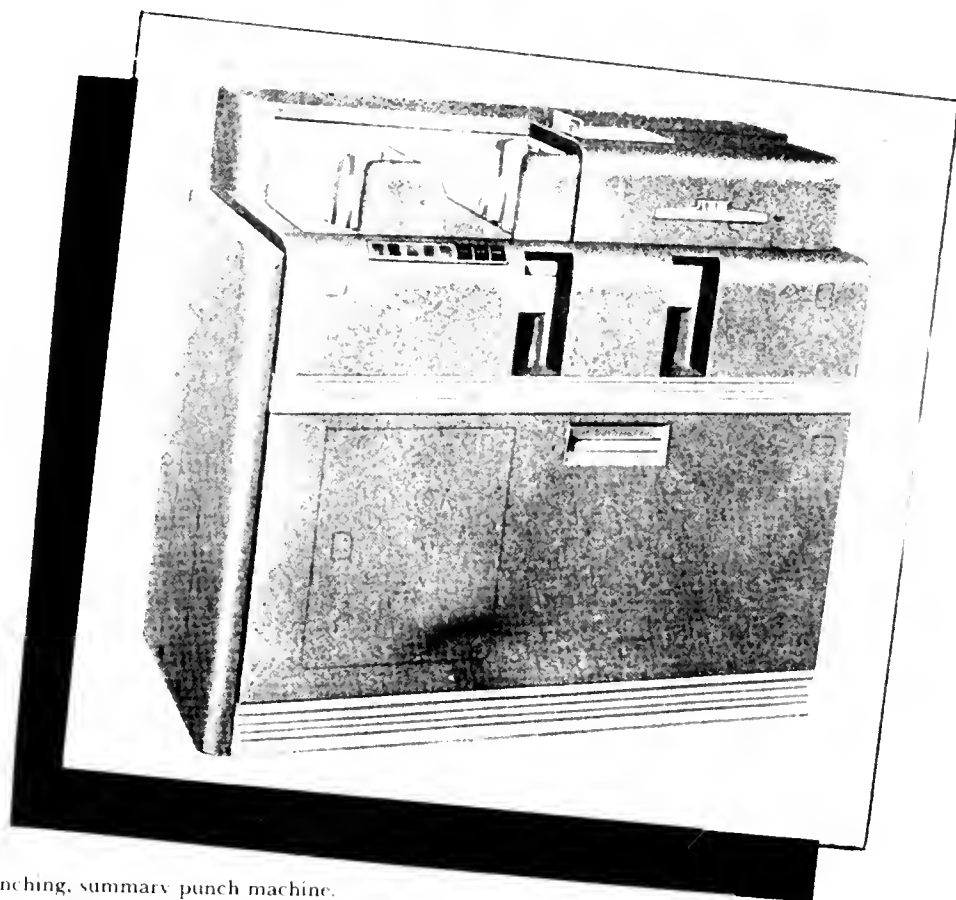
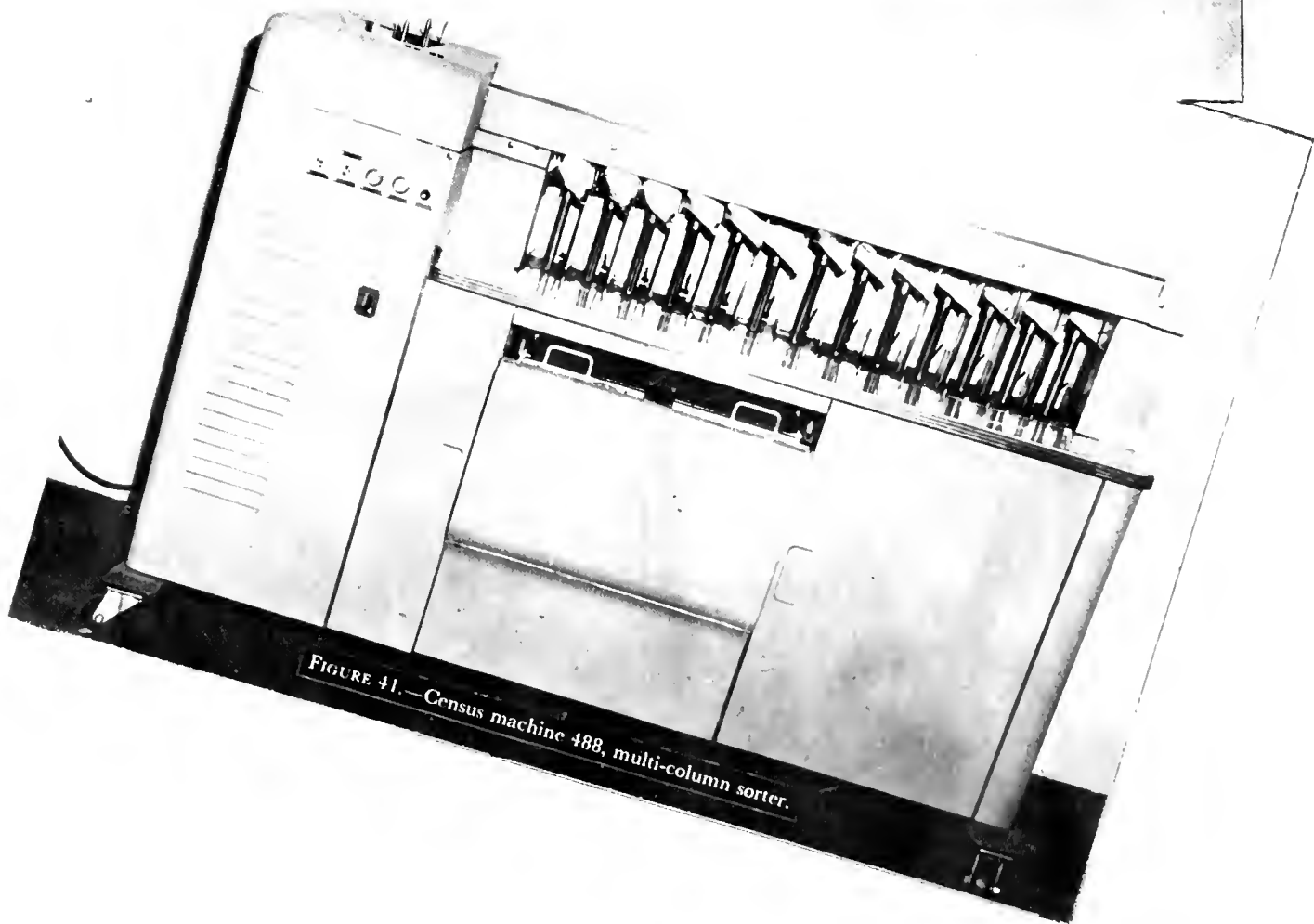


FIGURE 39.—I B M type 514 reproducing, gang-punching, summary punch machine.



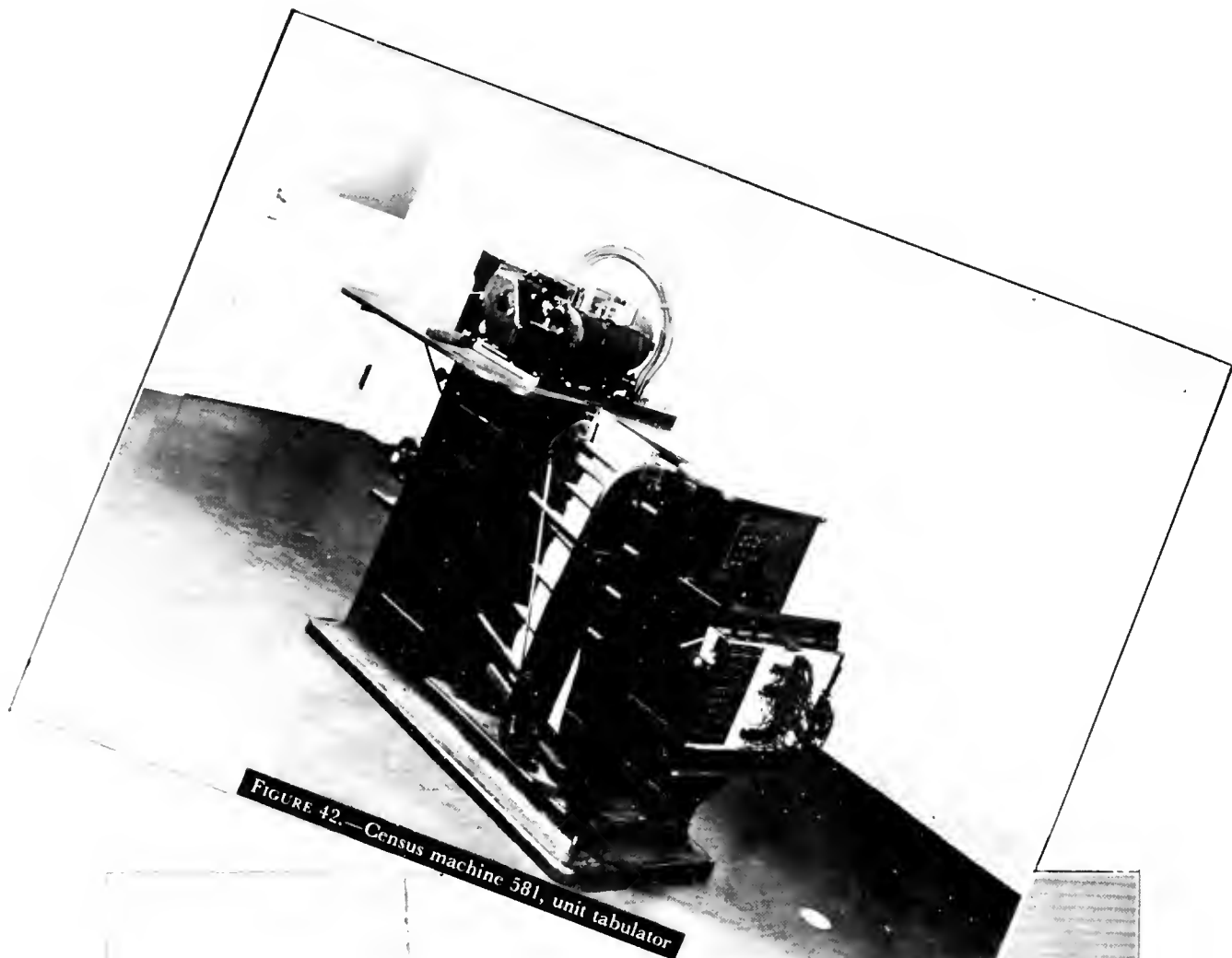


FIGURE 42.—Census machine 581, unit tabulator



FIGURE 43.—Census machine 582, multi-column sorter and unit tabulator

IBM
 Science of Organization
 INTERNATIONAL BUSINESS MACHINES CORPORATION
 ELECTRONIC STATISTICAL MACHINE, TYPE 101 CONTROL PANEL
 Model 120-01
 As Chgd. Mechanical Part
 M750-A-C-24

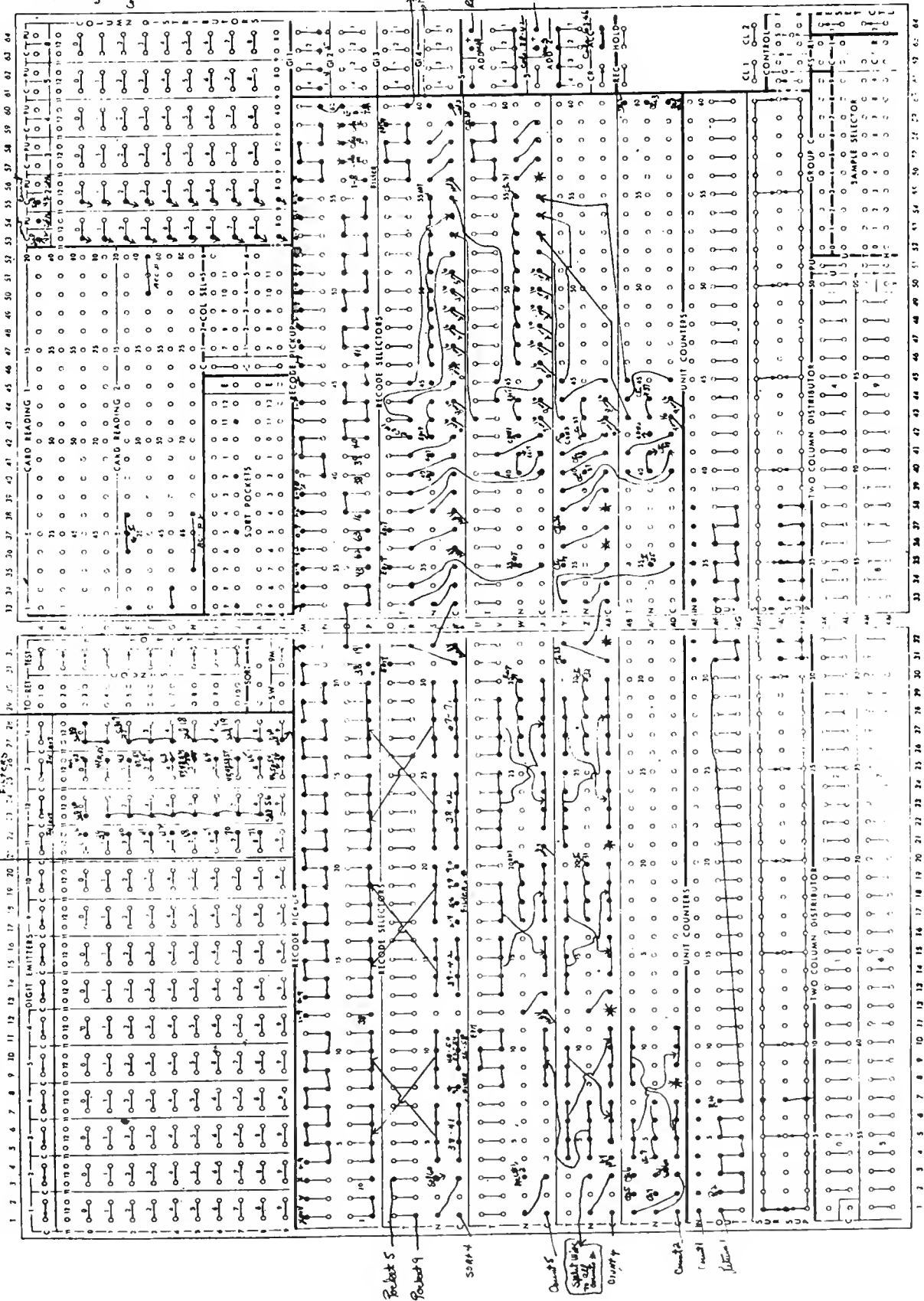


FIGURE 44.—Illustrative example of wiring diagram, type 101, control panel.

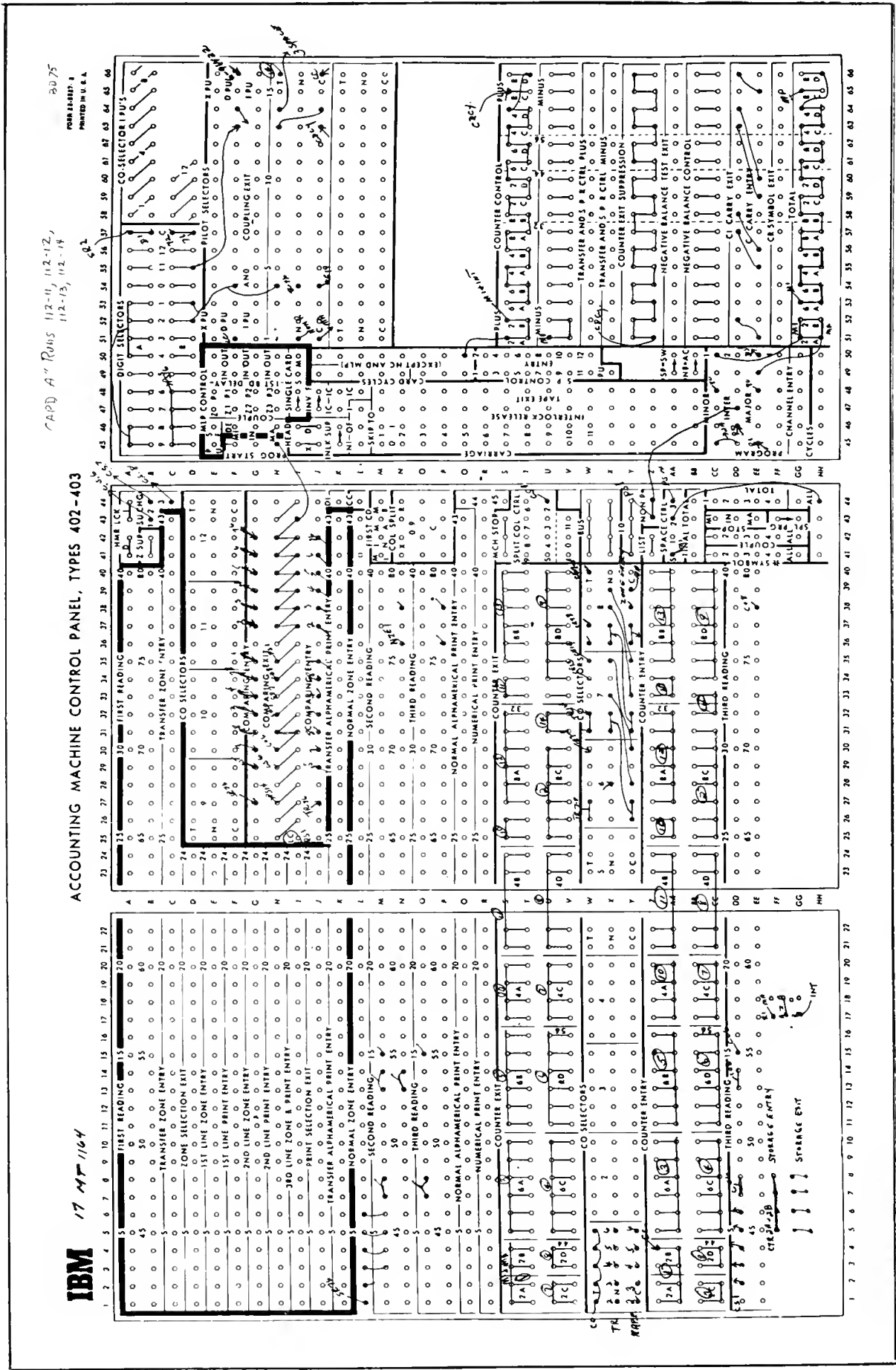


Figure 45.—Illustrative example of wiring diagram, type 402-403, control panel.

IBM

INTERNATIONAL BUSINESS MACHINES CORPORATION
ACCOUNTING MACHINE, TYPE 407 CONTROL PANEL

PRINTED IN U.S.A.

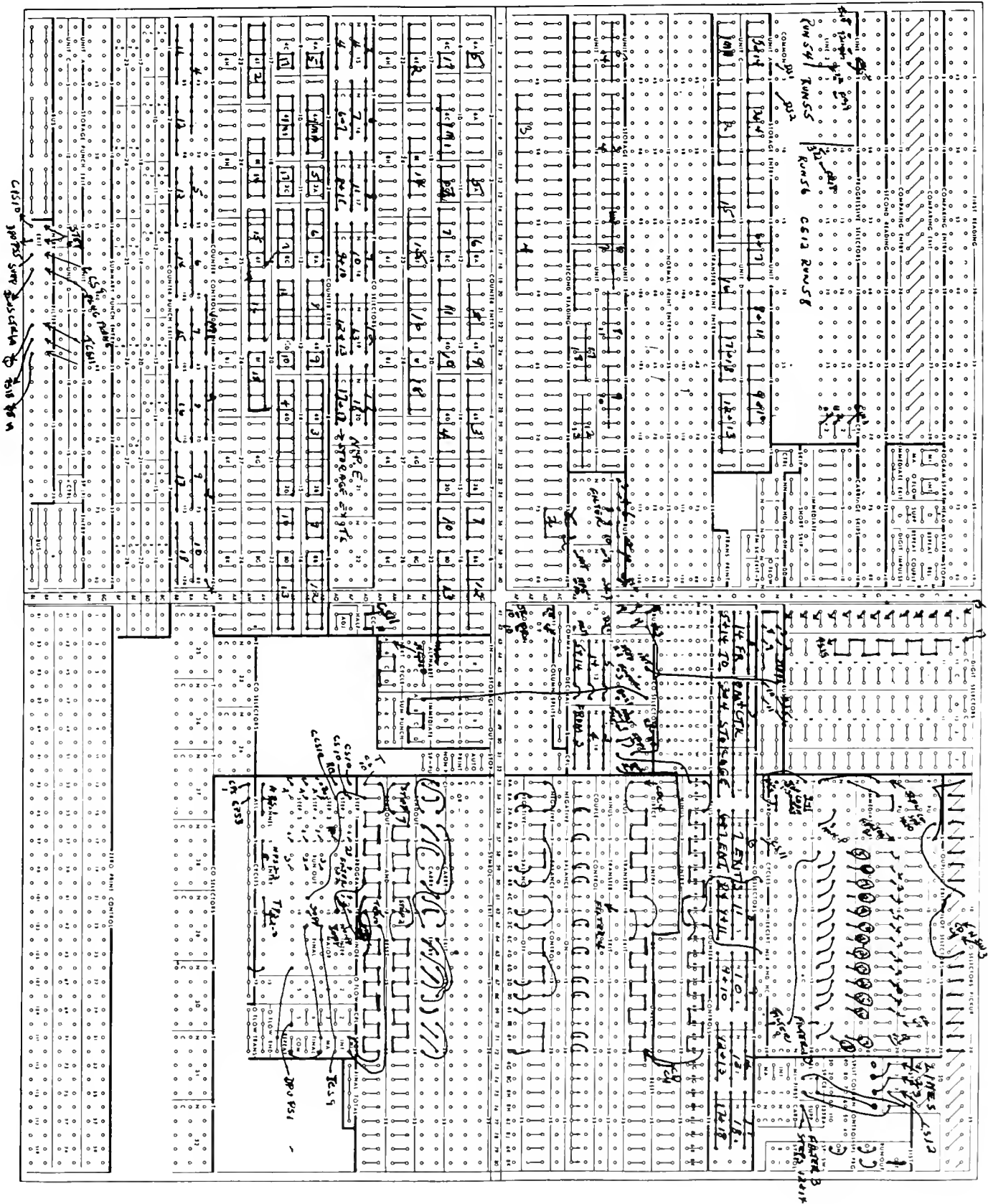


FIGURE 46.—Illustrative example of wiring diagram, type 407, control panel.

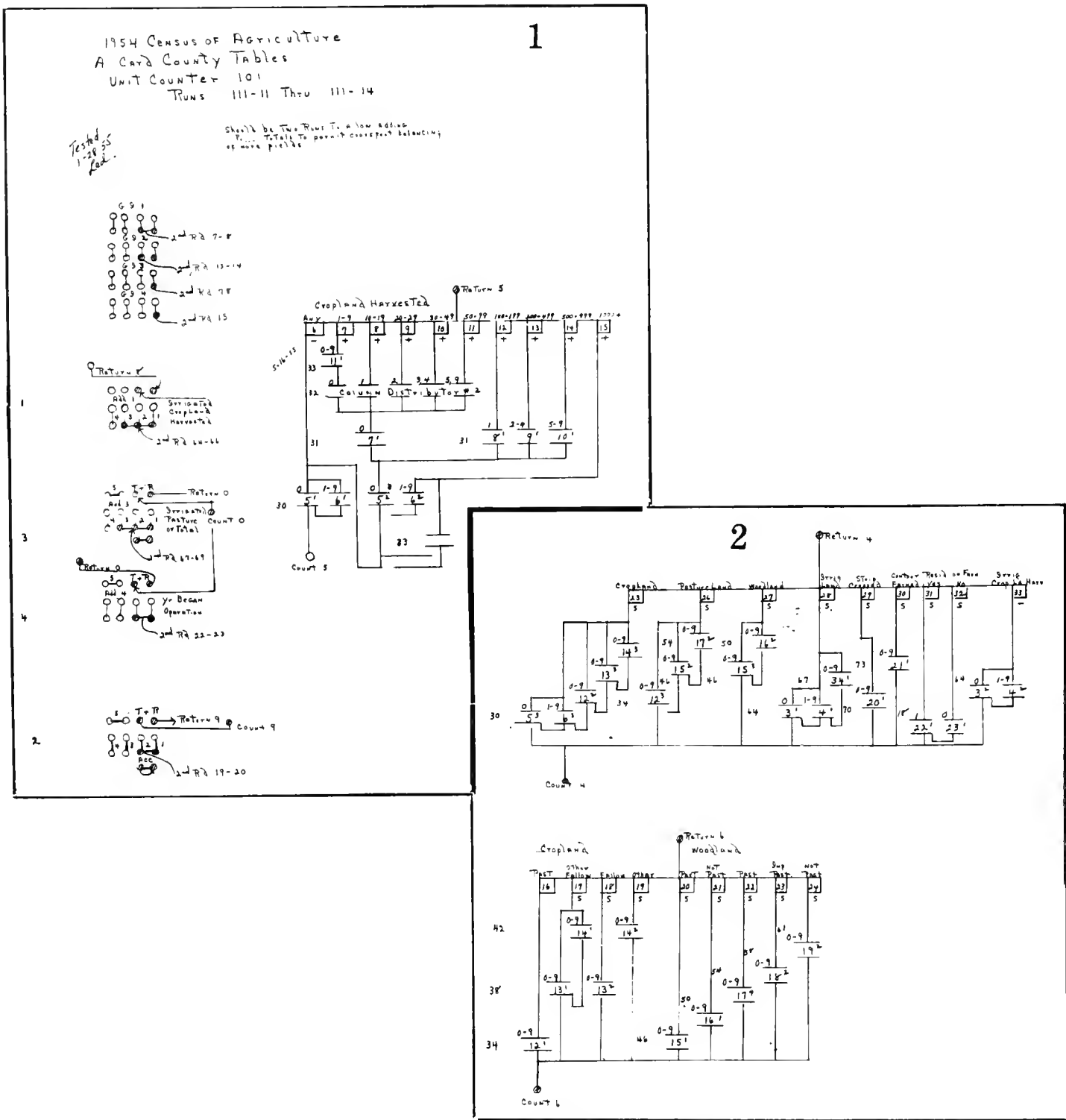


FIGURE 47.—Illustrative example of wiring diagram, unit counter 101.

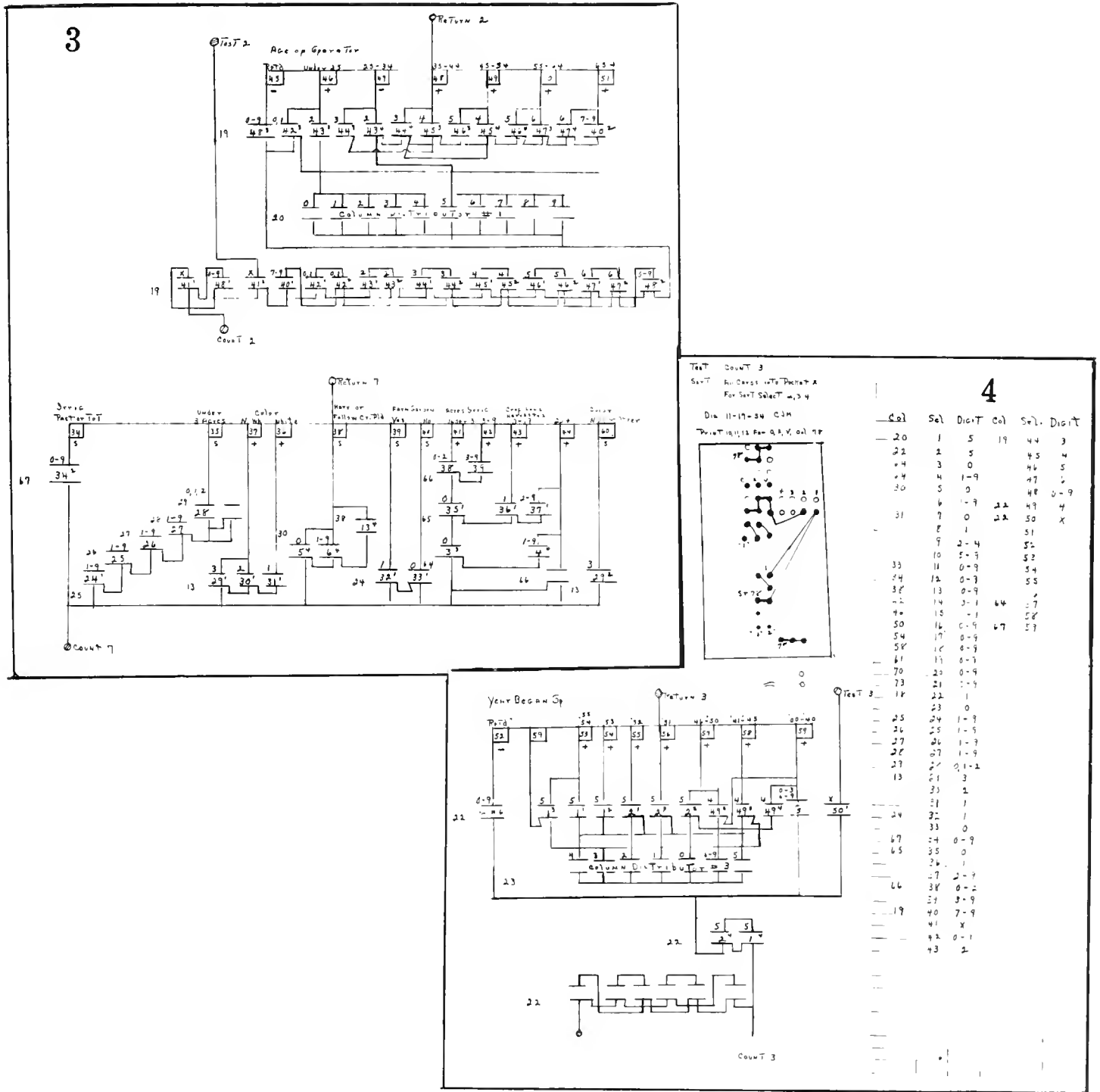


Figure 47.—Illustrative example of wiring diagram, unit counter 101—Continued.

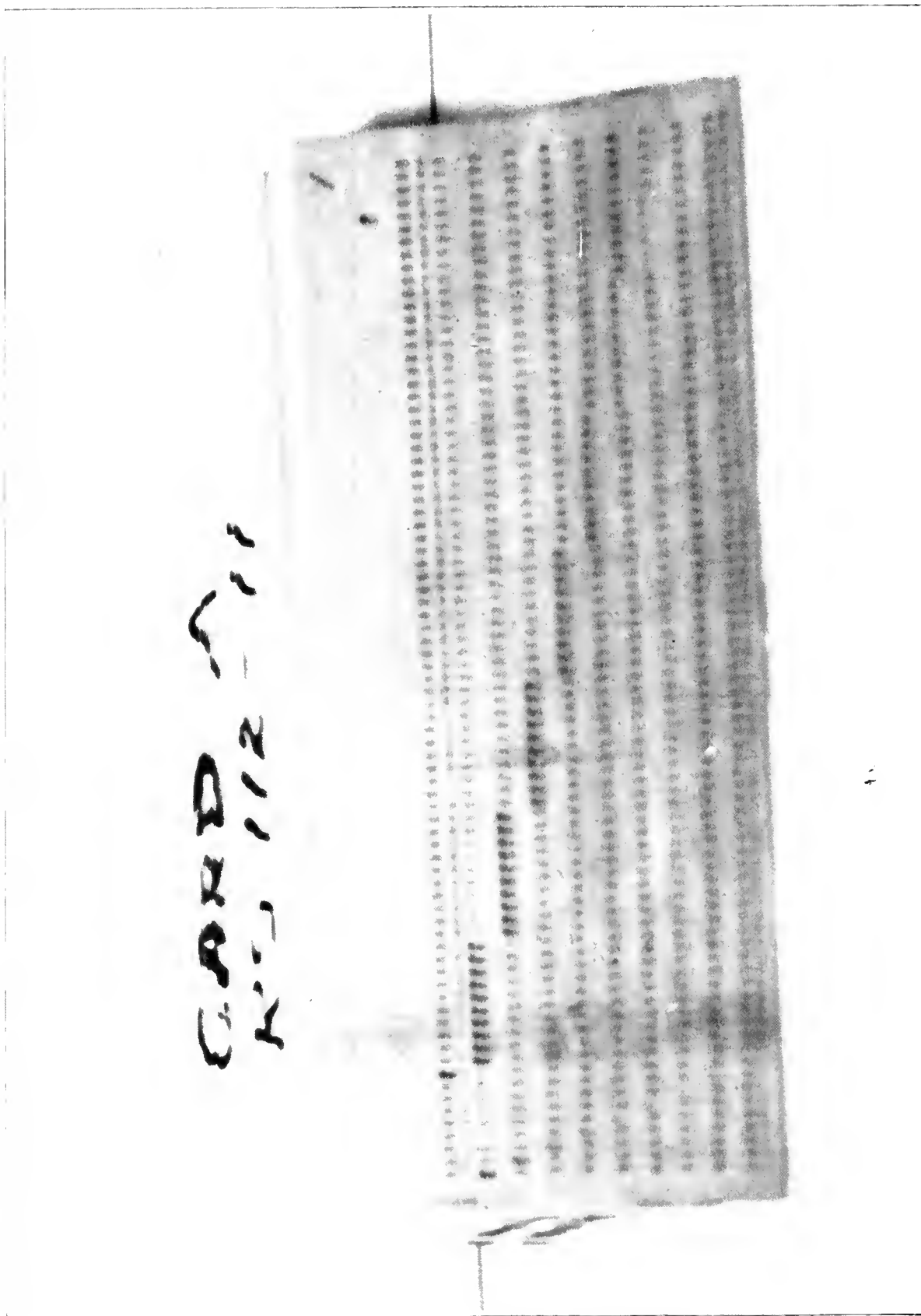


FIGURE 48.—Test decks of cards used to discover tabulating machine errors.

EVALUATION OF THE COMPLETENESS OF THE CENSUS

Generally, reliable data to indicate the completeness of the Census of Agriculture are not available from other sources. Programs for providing measures of the completeness of the Census were a part of the 1950 and 1954 Censuses of Agriculture. These programs required the making of a special survey to provide estimates regarding the completeness of the counting of the number of farms, and the acres of land in farms, cropland harvested, corn, wheat, and cotton.

For 1954, two samples were used for this special survey. The first sample comprised 772 small geographic areas or segments in rural areas in 319 counties. These small areas usually contained 4 or 5 farms each and the total number of farms for all these areas was 2,800. The location of the 319 counties containing these small areas is indicated by figure 49.

The sample of segments was selected by grouping the counties in the United States in 200 groups so that each group had slightly less than 30,000 farms according to the 1950 Census of Agriculture. For each of these groups, a sample of counties was selected with probabilities proportionate to the number of farms in 1950. In the part of the 200 groups of counties, where the acreage of wheat and cotton was important, the selected sample was spread among about 50 additional counties in order to reduce variability of the sample for the acreage of wheat and cotton. Within the counties selected for the sample, a sample of segments, each comprising 3 to 5 farms, was selected so that the sample would be self-weighting at the proportion of 1 in 1,500.

The second sample was obtained after the completion of the enumeration by drawing the boundaries of the 772 segments on the enumerator's maps and making a list by the use of the Form A2 of all places which the Census enumerator indicated as located within the segment area. This list sample, covered to a large extent, the same places and farms as the 772 segment sample.

This list sample was supplemented by taking a sample of 1 out of 950 farms of 1,000 to 9,999 acres (this resulted in a sample of 120 farms) and a sample of 1 in 20 of all farms of 10,000 acres or more (this resulted in a sample of 365 farms).

The evaluation program called for the re-enumeration of all places in the 772 segments and all places listed in the list sample. A group of 60 specially selected and trained enumerators were used for this re-enumeration. They were given 40 hours of training and were provided with detailed questionnaires for recording the information. Aerial photographs or other detailed maps were given them for the 772 segments. The enumerators were required to indicate on the aerial photograph (see fig. 50 for an illustrative example) or on special maps, the location, and boundaries of every field within the segment. Detailed information regarding the area and agricultural use of each field was obtained. Enumerators were required to account for the area of the segment. Enumerators were instructed to fill Agricultural Questionnaires for any place or farm found in the segment and not included in the list sample. For places and farms in the list sample, and not located within the 772 segments, enumerators were instructed to obtain detailed information regarding the area comprising the farm and its agricultural use.

After the completion of the reenumeration the reports of the special enumerators were checked against the Agriculture Questionnaires filled by the Census enumerators by Central Operations Office personnel. In all cases, when there were significant differences between the two reports, another special enumerator was sent to check and obtain a report for the reasons for the differences.

Estimates on farms missed in the Census were obtained on the basis of detailed records and maps of all places located within the 772 segments. Estimates on the coverage of land in farms, and the acreage of cropland harvested, wheat, corn, and cotton harvested were based on the detailed data for farms included in the list sample, and located outside the segment as well as on the detailed data for farms in the 772 segments.

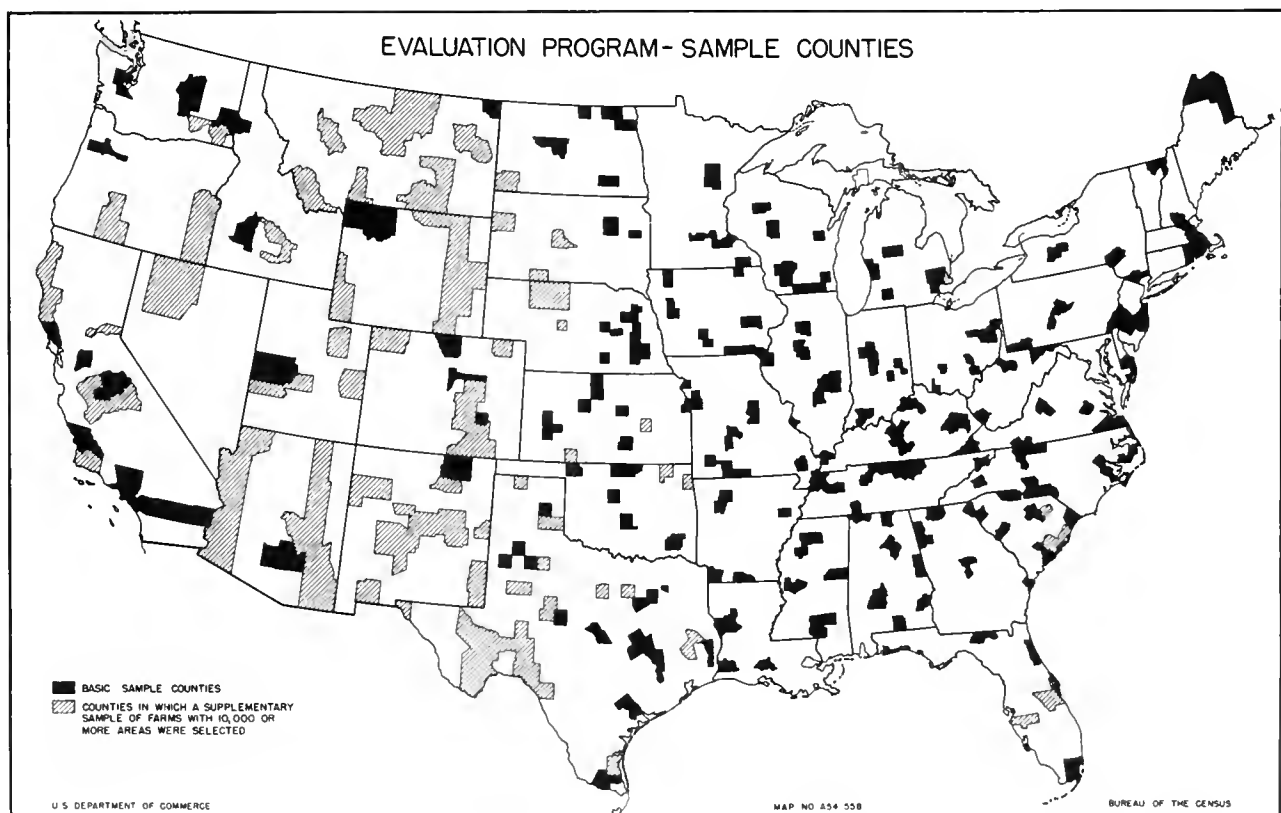


FIGURE 49.—Evaluation program—Location 319 counties comprising sample used in evaluating completeness of enumeration.

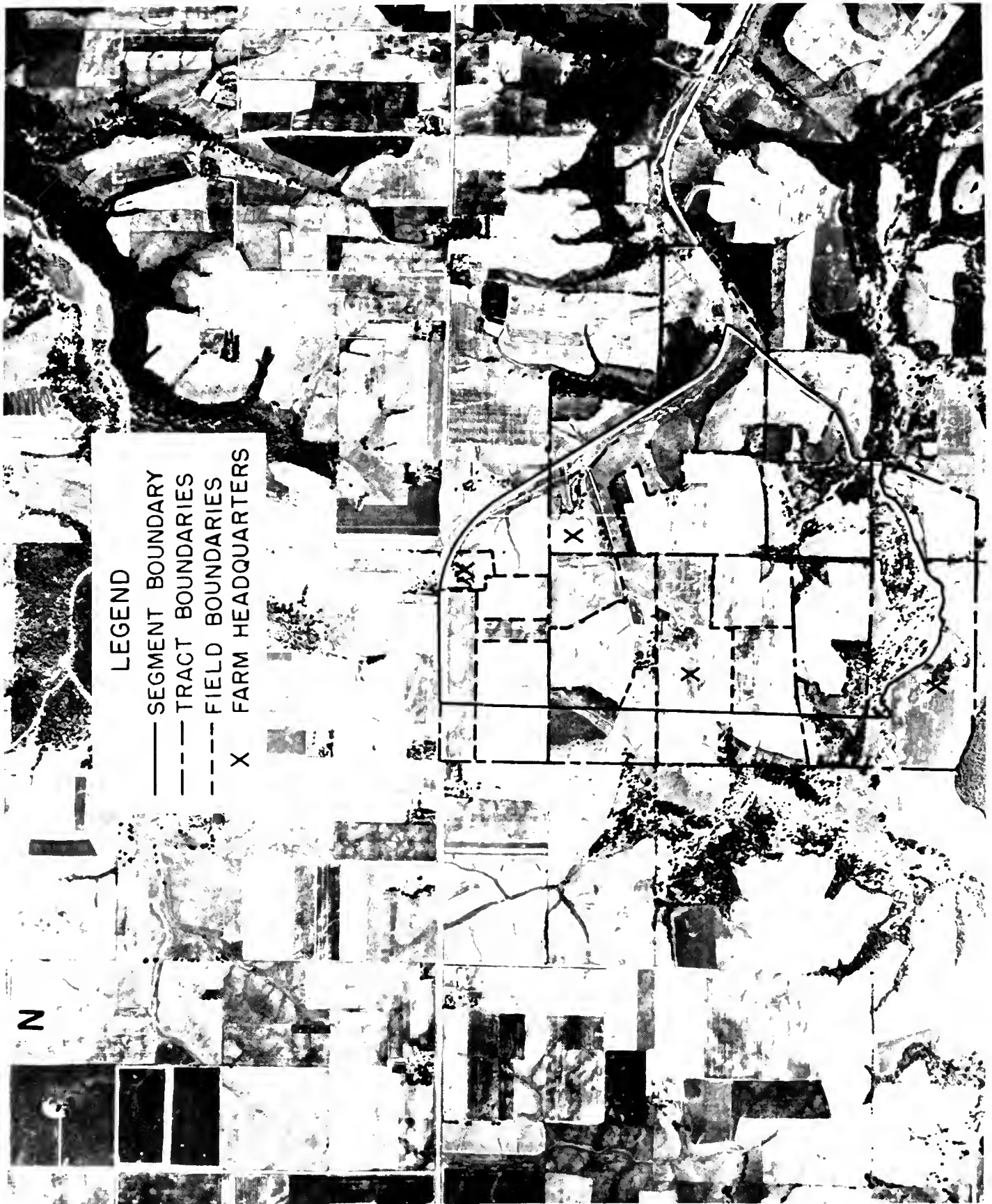


FIGURE 50.—Aerial view with sample segment delineated.

PREPARATION AND PUBLICATION OF REPORTS

Reports are the important end product of a Census. The kinds of data to be published determine not only the content of the questionnaire but also the kinds of tabulation made.

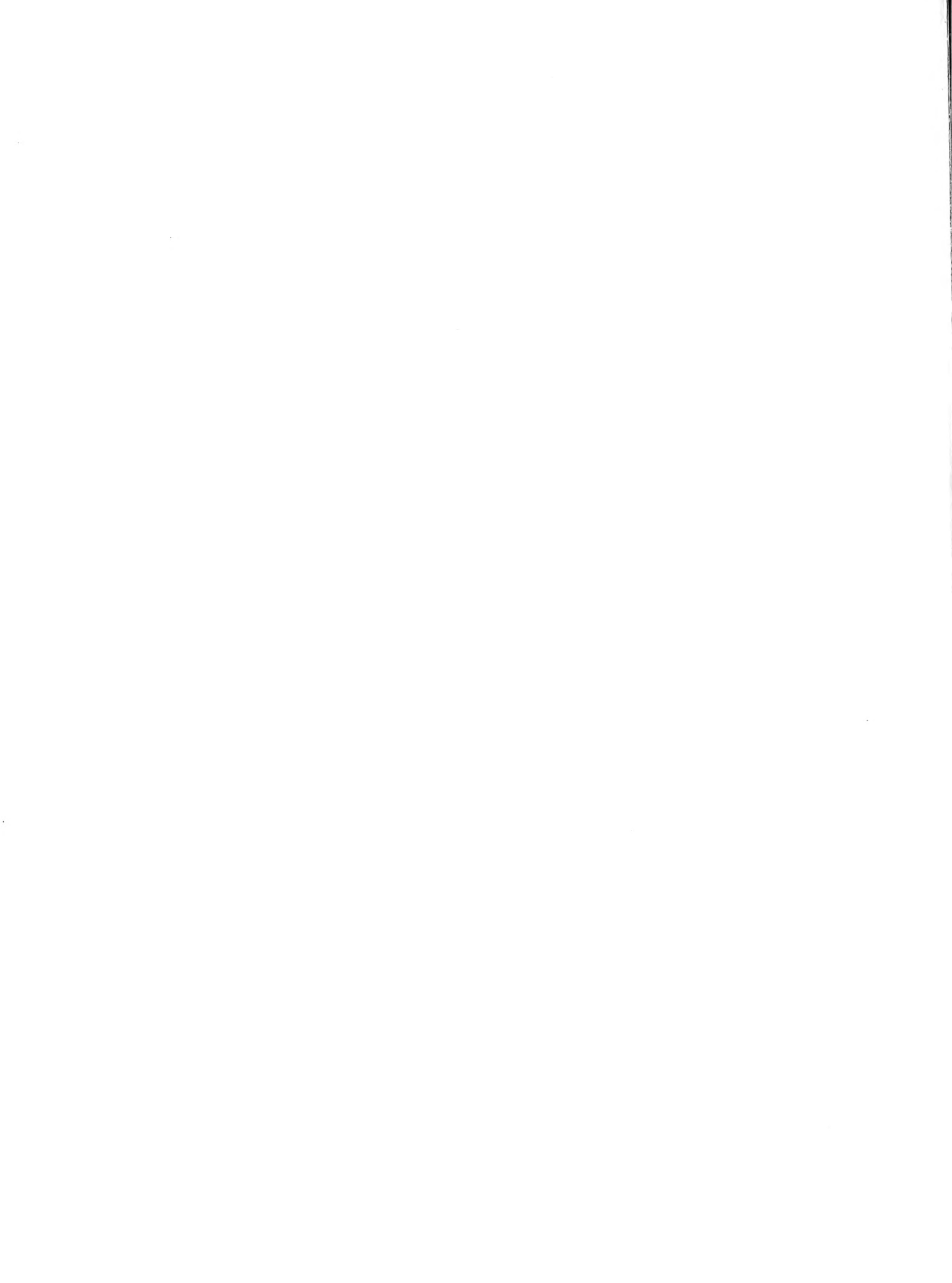
The form of reports was related to timing. Every effort was made to make the basic data for counties and States available as soon as possible. The series of releases AC54-1 and AC54-2 were issued with data for each county and State as soon as the data became available. (See appendix, figs. 51 and 52, for facsimiles of these releases.) The time schedule for the issuance of preliminary release, AC54-1, is given on page 13. Final reports appeared in three volumes. Volume I contained detailed data for counties, State economic areas, and States. Volume II contained a summary by subject for States and geographic divisions of the data presented in Volume I. Volume III comprised special reports. A list with a brief description of all final publications for the 1954 Census of Agriculture appears on page IV.

The publication process.—Generally, the offset or multilith printing process was used for printing reports for the 1954 Census

of Agriculture. The setting of type was limited largely to texts for all reports and for the preparation of analytical reports.

In preparing copy for printing, work tables were prepared from the tabulations. These work tables (see appendix, fig. 53 for an illustrative example) had preprinted stubs and an indication of the source of the data. The data were posted on these forms and tables were reviewed by subject-matter technical staff before being sent for typing for offset printing or multilithing. Preprinted forms (see fig. 54 for an illustrative sample) were used for preparing typed copy. The typing was performed with electric typewriters. After typing, a photoprint was made of the typed table and this photoprint was used for verification of the typing. Verification of the typing was usually accomplished by proofreading headings, notes, and a sample of the lines containing data for each page. The verification of data was usually accomplished by adding the typed data and checking with established totals.

Printing.—The printing of preliminary reports was performed by the Department of Commerce. The printing of final reports (Volumes I, II, and III) was performed by the United States Government Printing Office, using either its own facilities or that of contractors.



APPENDIX

DESCRIPTION OF PRELIMINARY REPORTS OF THE 1954 CENSUS OF AGRICULTURE

Series AC54-1.—One 4-page report for each county and for each State in the United States, one summary report for the United States, one each for the North, the South, and the West.

These reports presented preliminary results on number of farms, farm characteristics, acreage in farms, value of land and buildings, uses of land, farm facilities and equipment, specified classes of livestock, specified crops harvested, and fertilizer and lime used. Available comparable data from the 1950 Census of Agriculture were also included.

Series AC54-2.—Value of Farm Products Sold by Source.—This series supplemented Series AC54-1. There was one report for each State with data by counties, and one for the United States with statistics by States. The report presented information on the value of sales of field crops, vegetables, fruits and nuts, and horticultural specialties; the value of sales of dairy products, poultry and poultry products, livestock and livestock products; and the value of sales of forest products.

Series AC54-3.—Consisted of preliminary reports presenting data on selected items from the 1954 Census of Agriculture as follows:

No. 1—Farm Expenditures for Gasoline and Other Petroleum Fuel and Oil.

No. 2—Farm-Mortgage Debt Rises with Increasing Farm Land Values.

No. 3—Summary of selected items from the 1954 Census of Agriculture by Congressional Districts, by States. Data were presented for number of farms, value of products sold, selected facilities, and principal crops, for Congressional Districts with 1,000 or more farms.

Press releases.—Several hundred advance reports, on almost as many subjects, were prepared and issued as press releases. Among these releases were reports on the following:

Statistics for selected items of inventory and agricultural production for the leading 100 counties of the United States.

Sales from farms of different economic classes, for States and for the United States.

Summary reports for the United States on selected items such as farms classified by value of farm products sold in 1954; average age of the American farmer; increase in farm facilities and equipment; expenditures for selected items; etc.

All preliminary and advanced reports or releases were superseded by the final volumes of the 1954 Census of Agriculture. For a description of final reports, see page 1V.

1954 CENSUS OF AGRICULTURE—Preliminary
FARMS • FARM CHARACTERISTICS • FARM PRODUCTS

U. S. DEPARTMENT OF COMMERCE
Bureau of the Census

April 1955

LIBERTY COUNTY, GEORGIA

(57-089) Series AC54-1

This release presents figures from the 1954 Census of Agriculture, together with available comparative data from the 1950 Census of Agriculture. The figures from the 1954 Census are preliminary and are subject to revision. A similar report will be released for every county in the United States. A preliminary report, carrying State totals only, will be issued following the publication of figures for all of the counties in the State. After that, final figures for this county and for other counties in the State will be published in a State Report.

Generally, the data for both 1954 and 1950 are based upon the tabulation of reports for all farms in the county. However, the 1954 and 1950 data for items followed by a star (*) represent estimates for all farms made on the basis of reports from a sample of approximately 20 percent of the farms. These estimates are subject to sampling errors and hence will not agree exactly with totals obtained by a tabulation of data for all farms. Inventory items are for October-November for 1954 and for April for 1950; and production items are for the calendar years 1954 and 1949.

Item	County total	Item	County total
FARMS, ACREAGE, AND VALUE		FARMS BY SIZE	
Farms.....number 1954....	607	Under 10 acres.....number 1954....	236
.....1950....	548	.....1950....	159
Approximate land area.....acres 1954....	326,400	Under 3 acres.....number 1954....	67
Proportion in farms.....percent 1954....	31.0	.....1950....	6
Land in farms.....acres 1954....	101,029	3 to 9 acres.....number 1954....	169
.....1950....	107,554	.....1950....	153
Average size of farm.....acres 1954....	166.4	10 to 29 acres.....number 1954....	172
.....1950....	196.3	.....1950....	175
Value of land and buildings*.....average per farm, dollars 1954....	10,217	30 to 49 acres.....number 1954....	68
.....1950....	6,018	.....1950....	64
.....average per acre, dollars 1954....	51.81	50 to 69 acres.....number 1954....	31
.....1950....	33.36	.....1950....	39
Land in farms according to use:		70 to 99 acres.....number 1954....	20
Cropland harvested.....farms reporting 1954....	488	.....1950....	25
.....1949....	500	100 to 139 acres.....number 1954....	15
.....acres 1954....	4,038	.....1950....	17
.....1949....	5,618	140 to 179 acres.....number 1954....	9
1 to 9 acres.....farms reporting 1954....	385	.....1950....	8
.....1949....	348	180 to 219 acres.....number 1954....	3
10 to 19 acres.....farms reporting 1954....	60	.....1950....	9
.....1949....	93	220 to 259 acres.....number 1954....	5
20 to 29 acres.....farms reporting 1954....	19	.....1950....	7
.....1949....	29	260 to 499 acres.....number 1954....	16
30 to 49 acres.....farms reporting 1954....	12	.....1950....	17
.....1949....	15	500 to 999 acres.....number 1954....	14
50 to 99 acres.....farms reporting 1954....	11	.....1950....	14
.....1949....	10	1,000 acres and over.....number 1954....	18
100 to 199 acres.....farms reporting 1954....	...	.....1950....	14
.....1949....	4	FARMS BY COLOR AND TENURE OF OPERATOR	
200 acres and over.....farms reporting 1954....	1	Farms by color of operator:	
.....1949....	1	White operators.....number 1954....	209
Cropland used only for pasture.....farms reporting 1954....	142	.....1950....	166
.....1949....	115	Nonwhite operators.....number 1954....	398
.....acres 1954....	1,962	.....1950....	382
.....1949....	4,389	Farms by tenure of operator:	
Cropland not harvested and not pastured.....farms reporting 1954....	255	Full owners.....number 1954....	550
.....1949....	124	.....1950....	458
.....acres 1954....	2,507	Part owners.....number 1954....	33
.....1949....	1,167	.....1950....	58
Woodland pastured.....farms reporting 1954....	260	Managers.....number 1954....	3
.....1949....	167	.....1950....	4
.....acres 1954....	57,448	All tenants.....number 1954....	21
.....1949....	72,491	.....1950....	28
Woodland not pastured.....farms reporting 1954....	176	Proportion of tenancy.....percent 1954....	3.5
.....1949....	215	.....1950....	5.1
.....acres 1954....	13,235	Cash tenants.....number 1954....	2
.....1949....	15,537	.....1950....	8
Other pasture (not cropland and not woodland).....farms reporting 1954....	107	Share-cash tenants.....number 1954....	...
.....1949....	57	.....1950....	1
.....acres 1954....	4,175	Share tenants.....number 1954....	3
.....1949....	1,497	.....1950....	4
Improved pasture.....farms reporting 1954....	55	Crop-share tenants.....number 1954....	1
.....acres 1954....	2,544	.....1950....	2
Other land (house lots, roads, wasteland, etc.).....farms reporting 1954....	564	Livestock-share tenants.....number 1954....	2
.....1949....	499	.....1950....	2
.....acres 1954....	17,664	Croppers.....number 1954....	10
.....1949....	6,855	.....1950....	6
Irrigated land in farms.....farms reporting 1954....	...	Other and unspecified tenants.....number 1954....	6
.....1949....	...	.....1950....	9
.....acres 1954....	...	SPECIFIED FACILITIES AND EQUIPMENT*	
.....1949....	...	Telephone.....farms reporting 1954....	37
Land in cover crops turned under for green manure.....farms reporting 1954....	34	.....1950....	14
.....acres 1949....	227	Electricity.....farms reporting 1954....	518
Cropland used for grain or row crops farmed on contour.....farms reporting 1954....	...	.....1950....	380
.....acres 1954....	...	Television set.....farms reporting 1954....	94
FARM OPERATORS		Piped running water.....farms reporting 1954....	187
Residing on farm operated.....operators reporting 1954....	580	Home freezer.....farms reporting 1954....	124
.....1950....	521	.....1950....	34
Not residing on farm operated.....operators reporting 1954....	11	Electric pig brooder.....farms reporting 1954....	...
.....1950....	21	Power feed grinder.....farms reporting 1954....	10
With other income of family exceeding value of agricultural products sold*.....operators reporting 1954....	498	Milking machine.....farms reporting 1954....	2
.....1949....	342	.....1950....	1
Working off their farm, total*.....operators reporting 1954....	454	Grain combines.....farms reporting 1954....	3
.....1949....	343	.....1950....	3
100 days or more.....operators reporting 1954....	398	number 1954....	3
.....1949....	263	.....1950....	3
		Corn pickers.....farms reporting 1954....	...
		.....1950....	...
		number 1954....	...
		.....1950....	...
		Pick-up hay balers.....farms reporting 1954....	10
		.....1950....	1
		number 1954....	10
		.....1950....	1
		Field forage harvesters.....farms reporting 1954....	12
		.....1950....	12
		Artificial ponds, reservoirs, and earth tanks.....farms reporting 1954....	16
		.....1950....	18

FIGURE 51.—Facsimile of preliminary report Series AC54-1.

METHODS AND PROCEDURES

2—LIBERTY COUNTY, GEORGIA

FARMS, FARM CHARACTERISTICS, AND FARM PRODUCTS

Item	County total	Item	County total
SPECIFIED FACILITIES AND EQUIPMENT* —Continued		FARMS BY TYPE OF FARM* —Continued	
Motortrucks.....farms reporting 1954...	188	Poultry farms.....number 1954...	...
.....1950...	143	.....1950...	6
.....cumber 1954...	225	Livestock farms other than dairy and poultry.....number 1954...	142
.....1950...	161	.....1950...	27
Tractors.....farms reporting 1954...	82	General farms.....number 1954...	...
.....1950...	56	.....1950...	26
.....cumber 1954...	103	Primarily crop.....number 1954...	...
.....1950...	75	.....1950...	19
Wheel tractors other than garden.....farms reporting 1954...	82	Primarily livestock.....number 1954...	...
.....1950...	39	.....1950...	...
.....cumber 1954...	90	Crop and livestock.....number 1954...	...
.....1950...	53	.....1950...	7
Garden tractors.....farms reporting 1954...	6	Miscellaneous and unclassified farms.....cumber 1954...	384
.....1950...	6	.....1950...	470
Crawler tractors.....farms reporting 1954...	7		
.....cumber 1954...	6	FARMS BY ECONOMIC CLASS*	
.....1950...	7	Commercial farms.....cumber 1954...	117
Automobiles.....farms reporting 1954...	196	.....1950...	94
.....1950...	176	Class I (value of products sold, \$25,000 or more).....number 1954...	1
.....cumber 1954...	205	.....1950...	4
.....1950...	198	Class II (value of products sold, \$10,000-\$24,999).....number 1954...	1
Farms by class of work power:		.....1950...	1
No tractor, horses, or mules.....farms reporting 1954...	275	Class III (value of products sold, \$5,000-\$9,999).....number 1954...	5
No tractor and only 1 horse or mule.....farms reporting 1954...	215	.....1950...	9
No tractor and 2 or more horses and/or mules.....farms reporting 1954...	31	Class IV (value of products sold, \$2,500-\$4,999).....number 1954...	16
Tractor and horses and/or mules.....farms reporting 1954...	37	.....1950...	29
Tractor and no horses or mules.....farms reporting 1954...	45	Class V (value of products sold, \$1,200-\$2,499).....number 1954...	44
		.....1950...	25
FARM LABOR*		Class VI (value of products sold, \$250-\$1,199).....number 1954...	50
Week of Oct. 24-30:		.....1950...	26
Family and/or hired workers.....farms reporting 1954...	473	Other farms.....cumber 1954...	486
.....persons 1954...	620	.....1950...	454
Family workers, including operator.....farms reporting 1954...	469	Part-time ¹.....number 1954...	116
Operators.....persons 1954...	444	.....1950...	86
Unpaid members of operator's family.....farms reporting 1954...	108	Residential (with less than \$250 value of products sold).....cumber 1954...	370
.....persons 1954...	128	Abnormal (public and private institutional farms, etc.).....number 1954...	...
Hired workers.....farms reporting 1954...	25		
.....persons 1954...	48	HORSES AND MULES	
		Horses and/or mules.....farms reporting 1954...	305
SPECIFIED FARM EXPENDITURES*		.....1950...	376
Specified farm expenditures.....farms reporting 1954...	593	.....cumber 1954...	377
.....1949...	475	.....1950...	507
Machine hire and/or hired labor.....farms reporting 1954...	302		
.....1949...	174	CATTLE AND DAIRY PRODUCTS	
Machine hire.....farms reporting 1954...	200	Cattle and calves.....farms reporting 1954...	359
.....1949...	83	.....1950...	334
dollars 1954...	18,264	.....cumber 1954...	5,794
.....1949...	1,775	.....1950...	5,478
Hired labor.....farms reporting 1954...	167		
.....1949...	139	CATTLE AND DAIRY PRODUCTS	
dollars 1954...	47,641	Cows, including heifers that have calved.....farms reporting 1954...	337
.....1949...	65,558	.....1950...	323
Feed for livestock and poultry.....farms reporting 1954...	505	.....cumber 1954...	3,361
.....1949...	409	.....1950...	3,403
dollars 1954...	104,043	Milk cows.....farms reporting 1954...	90
.....1949...	87,822	.....1950...	148
Gasoline and other petroleum fuel and oil.....farms reporting 1954...	107	.....cumber 1954...	328
.....1949...	99	.....1950...	326
dollars 1954...	36,448	Heifers and heifer calves.....farms reporting 1954...	242
.....1949...	18,164	.....number 1954...	1,420
Commercial fertilizer.....farms reporting 1954...	496	Steers, bulls, and steer calves.....farms reporting 1954...	206
dollars 1954...	56,541	.....number 1954...	1,011
tons 1954...	1,290	Whole milk sold.....farms reporting 1954...	2
acres on which used 1954...	5,808	.....1949...	9
Lime and liming materials.....farms reporting 1954...	55	.....gallons 1954...	54,300
tons 1954...	595	.....1949...	26,157
dollars 1954...	4,037	.....dollars 1954...	26,600
acres limed 1954...	655	Cream sold.....farms reporting 1954...	...
Crops on which commercial fertilizer was used, 1954:		.....1949...	1
Hay and cropland pastured.....farms reporting...	63	.....pounds of butterfat 1954...	...
.....acres on which used...	242	.....1949...	10
Other pasture.....farms reporting...	44	.....dollars 1954...	...
.....acres on which used...	257		
Corn.....farms reporting...	1,205	HOGS	
.....acres on which used...	374	Hogs and pigs.....farms reporting 1954...	262
.....acres on which used...	466	.....1950...	418
Cotton.....farms reporting...	2,773	.....number 1954...	4,873
.....acres on which used...	50	.....1950...	4,517
.....acres on which used...	68	Born before June 1.....farms reporting 1954...	434
Fruits, vegetables, potatoes, etc.....farms reporting...	155	.....number 1954...	2,677
.....acres on which used...	156	Born since June 1.....farms reporting 1954...	275
.....acres on which used...	85	.....number 1954...	2,196
Other crops.....farms reporting...	121	Sows and gilts farrowing.....farms reporting 1954...	248
.....acres on which used...	172	.....number 1954...	696
.....acres on which used...	450	June 1 to December 1.....farms reporting 1954...	201
		.....number 1954...	386
		Average date of enumeration.....1954...	11/14-11/20
FARMS BY TYPE OF FARM*		POULTRY AND POULTRY PRODUCTS	
Field-crop farms other than vegetable and fruit-and-nut.....number 1954...	70	Chickens, 4 months old and over, on hand.....farms reporting 1954...	455
.....1950...	18	.....1950...	450
Cash-grain.....number 1954...	...	.....number 1954...	12,452
.....1950...	...	.....1950...	8,723
Cotton.....number 1954...	...	Chickens sold.....farms reporting 1954...	14
.....1950...	6	.....1950...	56
Other field-crop.....cumber 1954...	70	.....number 1954...	380
.....1950...	12	.....1950...	2,061
Vegetable farms.....number 1954...	5	Broilers sold.....farms reporting 1954...	...
.....1950...	...	.....number 1954...	...
Fruit-and-nut farms.....number 1954...	...	.....dollars 1954...	...
.....1950...	...	Hens, roosters, pullets, etc.....farms reporting 1954...	14
Dairy farms.....number 1954...	2	.....number 1954...	380
.....1950...	1	.....dollars 1954...	381

¹Part-time farms include those with value of products sold of \$250-\$1,199 and operator either reporting 100 days or more of off-farm work or reporting other income exceeding value of agricultural products sold.

FIGURE 51.—Facsimile of preliminary report Series AC54-1—Continued.

Item	County total	Item	County total
POULTRY AND POULTRY PRODUCTS—Continued		SPECIFIED CROPS HARVESTED—Continued	
Chicken eggs sold.....farms reporting 1954...	30	Annual legumes—Continued	
1949...	92	Soybeans grown for all purposes—Continued	
dozens 1954...	12,670	Soybeans harvested for beans.....farms reporting 1954...	...
dollars 1954...	5,454	1949...	1
Turkeys raised.....farms reporting 1954...	23	acres grown alone 1954...	...
1949...	18	acres grown with other crops 1954...	...
number 1954...	37	bushels 1954...	13
1949...	945	Soybeans cut for hay.....farms reporting 1954...	2
Light breeds.....farms reporting 1954...	10	1949...	2
number 1954...	97	acres grown alone 1954...	11
Heavy breeds.....farms reporting 1954...	13	acres grown with other crops 1954...	3
number 1954...	300	tons 1954...	13
Turkeys kept for breeding.....farms reporting 1954...	26	1949...	2
number 1954...	76	Soybeans hogged or grazed, or cut for	
Light breeds.....farms reporting 1954...	18	silage.....farms reporting 1954...	...
number 1954...	52	acres grown alone 1954...	...
Heavy breeds.....farms reporting 1954...	8	acres grown with other crops 1954...	...
number 1954...	24	Soybeans plowed under for green	
ANIMALS SOLD ALIVE		manure.....farms reporting 1954...	2
Cattle, hogs, sheep, horses, or mules sold		acres grown alone 1954...	2
alive.....farms reporting 1954...	5	acres grown with other crops 1954...	10
1949...	253	Cowpeas grown for all purposes.....farms reporting 1954...	86
dollars 1954...	99,936	1949...	173
1949...	137,789	acres grown alone 1954...	284
Cattle and/or calves sold alive.....farms reporting 1954...	135	1949...	420
1949...	144	acres grown with other crops 1954...	105
number 1954...	1,507	1949...	206
1949...	1,327	Cowpeas harvested for dry peas.....farms reporting 1954...	64
Cattle sold alive, excluding calves...farms reporting 1954...	100	1949...	171
number 1954...	674	acres grown alone 1954...	40
dollars 1954...	27,048	acres grown with other crops 1954...	48
Calves sold alive.....farms reporting 1954...	103	bushels 1954...	461
number 1954...	833	1949...	663
dollars 1954...	19,831	Cowpeas cut for hay.....farms reporting 1954...	19
Hogs and pigs sold alive.....farms reporting 1954...	192	1949...	42
1949...	196	acres grown alone 1954...	185
number 1954...	2,861	acres grown with other crops 1954...	12
1949...	2,676	tons 1954...	246
dollars 1954...	51,982	1949...	202
Horses and mules sold alive.....farms reporting 1954...	8	Cowpeas hogged or grazed, or cut for	
number 1954...	37	silage.....farms reporting 1954...	25
dollars 1954...	1,075	acres grown alone 1954...	59
SPECIFIED CROPS HARVESTED		acres grown with other crops 1954...	45
Corn:		Cowpeas plowed under for green	
Corn for all purposes.....farms reporting 1954...	426	manure.....farms reporting 1954...	...
1949...	464	acres grown alone 1954...	...
acres 1954...	2,461	acres grown with other crops 1954...	...
1949...	3,022	Peanuts grown for all purposes.....farms reporting 1954...	20
Harvested for grain.....farms reporting 1954...	407	1949...	49
1949...	434	acres grown alone 1954...	17
acres 1954...	1,801	1949...	46
1949...	2,470	acres grown with other crops 1954...	42
bushels 1954...	21,588	1949...	79
1949...	34,099	Peanuts harvested for picking or	
Cut for silage.....farms reporting 1954...	3	threshing.....farms reporting 1954...	4
1949...	...	1949...	33
acres 1954...	5	acres grown alone 1954...	1
1949...	...	acres grown with other crops 1954...	4
tons..green weight 1954...	92	pounds 1954...	1,230
1949...	...	1949...	3,218
Hogged or grazed, or cut for green or		Peanut vines or tops saved for hay or	
dry fodder.....farms reporting 1954...	64	forage.....farms reporting 1954...	2
1949...	42	1949...	12
acres 1954...	655	acres grown alone 1954...	2
1949...	552	acres grown with other crops 1954...	2
Sorghums:		tons 1954...	1
Sorghum for all purposes except sirup...farms reporting 1954...	1	1949...	20
1949...	...	acres grown alone 1954...	53
acres 1954...	5	1949...	103
1949...	...	acres grown with other crops 1954...	65
Small grains:		bushels 1954...	308
Wheat threshed or combined.....farms reporting 1954...	...	1949...	87
1949...	...	263	
acres 1954...	...	Hay crops, excluding specified annual legumes and sorghum hay:	
1949...	...	Alfalfa, clover, and their mixtures cut	
bushels 1954...	...	for hay.....farms reporting 1954...	...
1949...	...	acres 1954...	...
Oats threshed or combined.....farms reporting 1954...	11	tons 1954...	...
1949...	12	Lespedeza cut for hay.....farms reporting 1954...	...
acres 1954...	68	1949...	1
1949...	518	acres 1954...	...
bushels 1954...	800	1949...	4
1949...	6,932	tons 1954...	...
Barley threshed or combined.....farms reporting 1954...	...	1949...	4
1949...	...	Oats, wheat, barley, rye, or other small grains	
acres 1954...	...	cut for hay.....farms reporting 1954...	15
1949...	...	1949...	5
bushels 1954...	...	acres 1954...	180
1949...	...	1949...	57
Other grain threshed or combined.....farms reporting 1954...	4	tons 1954...	117
acres 1954...	7	1949...	56
bushels 1954...	75	Other hay cut.....farms reporting 1954...	10
Annual legumes:		acres 1954...	35
Soybeans grown for all purposes.....farms reporting 1954...	4	tons 1954...	35
1949...	21	Other field crops:	
acres grown alone 1954...	13	Crimson clover seed harvested.....farms reporting 1954...	...
1949...	36	1949...	...
acres grown with other crops 1954...	13	acres 1954...	...
1949...	110	1949...	...
		bushels 1954...	...
		1949...	...
		Lespedeza seed harvested.....farms reporting 1954...	...
		1949...	2
		acres 1954...	...
		1949...	6
		pounds 1954...	...
		1949...	1,500

FIGURE 51.—Facsimile of preliminary report Series AC54-1—Continued.

METHODS AND PROCEDURES

4—LIBERTY COUNTY, GEORGIA

FARMS, FARM CHARACTERISTICS, AND FARM PRODUCTS

Item	County total	Item	County total
SPECIFIED CROPS HARVESTED—Continued		SPECIFIED CROPS HARVESTED—Continued	
Other field crops—Continued		Tree fruits, nuts, and grapes—Continued	
Lupine seed harvested.....farms reporting 1954...	...	Peaches.....farms reporting 1954...	24
1949...	...	1950...	145
acres 1954...	...	Trees of all ages.....number 1954...	115
1949...	...	1950...	613
pounds 1954...	...	Trees not of bearing age.....number 1954...	13
1949...	...	Trees of bearing age.....number 1954...	102
Irish potatoes harvested for home use or for sale.....farms reporting 1954...	60	Quantity harvested.....bushels 1954...	...
1949...	98	1949...	27
acres 1954 ¹ ...	4	Pears.....farms reporting 1954...	38
1949 ² ...	8	1950...	219
bushels 1954...	637	Trees of all ages.....number 1954...	709
1949...	893	1950...	1,738
Sweetpotatoes harvested for home use or for sale.....farms reporting 1954...	123	Trees not of bearing age.....number 1954...	14
1949...	284	Trees of bearing age.....number 1954...	695
acres 1954 ¹ ...	29	Quantity harvested.....bushels 1954...	...
1949 ² ...	158	1949...	795
bushels 1954...	1,908	Cherries.....farms reporting 1954...	...
1949...	8,529	1950...	9
Cotton harvested.....farms reporting 1954...	46	Trees of all ages.....number 1954...	...
1949...	69	1950...	12
acres 1954...	109	Trees not of bearing age.....number 1954...	...
1949...	244	Trees of bearing age.....number 1954...	...
bales 1954...	78	Quantity harvested.....pounds 1954...	...
1949...	111	1949...	25
Tobacco harvested.....farms reporting 1954...	56	Plums and prunes.....farms reporting 1954...	22
1949...	137	1950...	183
acres 1954...	48	Trees of all ages.....number 1954...	109
1949...	104	1950...	1,018
pounds 1954...	130,525	Trees not of bearing age.....number 1954...	4
1949...	107,599	Trees of bearing age.....number 1954...	105
Sugarcane or sorghum harvested for syrup.....farms reporting 1954...	71	Quantity harvested.....bushels 1954...	...
1949...	212	1949...	31
acres 1954...	25	1950...	30
1949...	83	1950...	107
gallons 1954...	1,538	Trees of all ages.....number 1954...	79
1949...	6,206	1950...	238
Root and grain crops hogged or grezed, other than corn, sorghums, and annual legumes.....farms reporting 1954...	33	Trees not of bearing age.....number 1954...	13
1949...	14	Trees of bearing age.....number 1954...	66
acres 1954...	671	Quantity harvested.....pounds 1954...	...
1949...	128	1949...	1,467
Vegetables harvested for home use (other than Irish and sweet potatoes).....farms reporting 1954...	554	1950...	33
1949...	482	1950...	186
Vegetables harvested for sale.....farms reporting 1954...	44	Vines of all ages.....number 1954...	130
1949...	45	1950...	400
acres 1954...	105	Vines not of bearing age.....number 1954...	1
1949...	67	Vines of bearing age.....number 1954...	129
Sold.....dollars 1954...	4,806	Quantity harvested.....pounds 1954...	1,000
1949...	4,534	1949...	3,301
Snap beans (pole and bush types).....farms reporting 1954...	1	Improved pecans (budded, grafted, or top-worked).....farms reporting 1954...	36
1949...	(3)	1950...	177
acres 1954...	1	1950...	346
Green lima beans.....farms reporting 1954...	1	Trees of all ages.....number 1954...	1,029
1949...	1	1950...	16
acres 1954...	1	Trees not of bearing age.....number 1954...	330
Cabbage.....farms reporting 1954...	2	Trees of bearing age.....number 1954...	839
1949...	(3)	Quantity harvested.....pounds 1954...	3,741
acres 1954...	2	1949...	5
Cantaloups and muskmelons.....farms reporting 1954...	1	Wild or seedling pecans.....farms reporting 1954...	34
1949...	1	1950...	58
acres 1954...	1	1950...	186
Sweet corn.....farms reporting 1954...	2	Trees not of bearing age.....number 1954...	...
1949...	(3)	Trees of bearing age.....number 1954...	...
acres 1954...	2	Quantity harvested.....pounds 1954...	50
Cucumbers and pickles.....farms reporting 1954...	24	1949...	267
1949...	41	Nursery and greenhouse products, flower and vegetable seeds and plants, 1954:	...
acres 1954...	10	Nursery and greenhouse products, flower and vegetable seeds and plants, flowers, bulbs, and mushrooms.....dollars...	...
Okra.....farms reporting 1954...	2	Nursery products (trees, shrubs, vines, ornamentals, etc.).....farms reporting...	...
1949...	5	acres...	...
acres 1954...	1	Sold.....dollars...	...
Sweet peppers and pimientos.....farms reporting 1954...	...	Flowers and flowering plants grown for sale:	...
1949...	...	Grown under glass.....farms reporting...	...
acres 1954...	...	square feet...	...
Squash.....farms reporting 1954...	2	Grown in open.....farms reporting...	...
1949...	(3)	acres...	...
acres 1954...	2	Sold.....farms reporting...	...
Tomatoes.....farms reporting 1954...	5	dollars...	...
1949...	4	Vegetables grown under glass, flower and vegetable seeds and plants, bulbs, and mushrooms produced for sale:	...
acres 1954...	25	Grown under glass or in house.....farms reporting...	...
Watermelons.....farms reporting 1954...	53	square feet...	...
1949...	2	Grown in open.....farms reporting...	...
acres 1954...	2	acres...	...
Other vegetables.....acres 1954...	2	Sold.....farms reporting...	...
Berries and other small fruits harvested for sale:	...	dollars...	...
Strawberries.....farms reporting 1954...	...	Forest products, 1954:	...
1949...	...	Firewood (and fuelwood) cut.....farms reporting...	129
acres 1954...	...	1950...	693
1949...	...	cords (4'x 4'x 8')...	46
quarts 1954...	...	Fence posts cut.....farms reporting...	11,095
1949...	...	1950...	23
Tree fruits, nuts, and grapes:	...	number...	1,338
Land in bearing and nonbearing fruit orchards, groves, vineyards, and planted nut trees.....farms reporting 1954...	34	Sawlogs and veneer logs cut.....farms reporting...	64
1950...	346	thousands of bd. ft...	4,331
acres 1954...	59	Pulpwood cut.....farms reporting...	...
1950 ³ ...	92	cords...	...
Apples.....farms reporting 1954...	9	Value of firewood, fence posts, logs, lumber, pulpwood, and piling and poles sold.....farms reporting...	72
1950...	39	1949...	53,439
Trees of all ages.....number 1954...	22		
1950...	84		
Trees not of bearing age.....number 1954...	2		
Trees of bearing age.....number 1954...	20		
Quantity harvested.....bushels 1954...	...		
1949...	1		

¹For 1954, does not include acreage for farms with less than 20 bushels harvested.
²For 1949, does not include acreage for farms with less than 15 bushels harvested.
³Reported in small fractions.
⁴For 1954, does not include acreage for farms reporting less than 20 fruit and nut trees and grapevines.
⁵For 1950, does not include acreage for farms reporting less than 1/2 acre.

FIGURE 51.—Facsimile of preliminary report Series AC54-1—Continued.

1954 CENSUS OF AGRICULTURE—Preliminary
FARMS • FARM CHARACTERISTICS • FARM PRODUCTS

U. S. DEPARTMENT OF COMMERCE
Bureau of the Census

March 1956

IDAHO

(No. 82) Series AC54-2

VALUE OF FARM PRODUCTS SOLD BY SOURCE

The value of farm products sold in Idaho amounted to \$332,125,790 in 1954, an increase of 18.2 percent from the sales of \$281,025,323 in 1949, according to the results of the 1954 Census of Agriculture released by the Bureau of the Census, U. S. Department of Commerce. The value of farm products sold in 1954 in Idaho, according to source of sales, was as follows: Field crops other than vegetables, fruits, and nuts, \$185,145,886; livestock and livestock products, other than dairy and poultry products, \$90,654,325; dairy products, \$37,731,469; fruits and nuts, \$6,507,486; poultry and poultry products, \$5,503,846; forest products, \$1,551,888; and horticultural specialties (nursery and greenhouse products), 1,433,936.

A comparison of the value of farm products sold, by source, for 1954 and 1949 follows:

Source	1954	1949
All crops sold, total.....	\$196,684,262	\$153,836,501
Field crops (other than vegetables and fruits and nuts).....	185,145,886	146,027,104
Vegetables.....	3,596,954	3,345,976
Fruits and nuts.....	6,507,486	3,201,619
Horticultural specialties.....	1,433,936	1,261,802
All livestock and livestock products sold, total.....	133,889,640	126,321,394
Dairy products.....	37,731,469	27,817,955
Poultry and poultry products.....	5,503,846	6,134,311
Livestock and livestock products (other than dairy and poultry products).....	90,654,325	92,369,128
Forest products, total.....	1,551,888	867,428

Data for 1954 for individual counties in the State are given on page 2.

DEFINITIONS AND EXPLANATIONS

Total value of farm products sold.—The data given represent the value of farm products sold based on information obtained from farm operators in the 1954 Census of Agriculture. The total value of all farm products sold represents the total of sales from each farm regardless of who shared in the receipts. The landlord's share of the crops and livestock sold and, also, the livestock which the landlord took from the tenant's farm were considered as sales from the tenant's farm. The value of all crops sold represents the value of crops sold from the harvest of 1954 regardless of when sold. The sales of livestock and livestock products represent the sales during 1954 regardless of when the livestock were raised or produced.

In obtaining the value of farm products sold from farm operators, census enumerators were instructed to obtain the gross value of all sales without deductions of any kind. However, in the case of milk, poultry, eggs, etc., deductions were often made by the buyers of farm products for hauling, handling, marketing, etc., before making payments to farmers. In such cases, farmers often considered the amount received after the deductions of marketing cost as the gross value of farm products sold.

The data given for the value of all farm products sold represent totals for all farms regardless of the amount sold. In the case of part-time farms, residential farms, etc., the value of all farm products sold may have been very small. Therefore, the average value of farm products sold per farm, computed on the basis of the data given in the accompanying table, may not indicate accurately the value of all farm products sold by commercial farms. Data on the number of commercial farms and for all farms classified by economic class

are given in the preliminary report, Series AC54-1, issued for each county.

The value of farm products sold does not include income of farm operators from nonfarm sources, government payments for soil conservation, lime and fertilizer furnished, nor subsidy payments, etc.

The value of livestock and livestock products sold, the value of farm products sold, the value of vegetables sold, and the value of horticultural specialties sold were obtained from each farm operator at the time of enumeration during the period October to December 1954. The values of field crops and fruits and nuts sold were calculated by multiplying the quantity sold by State average prices obtained by the Agricultural Marketing Service of the U. S. Department of Agriculture in cooperation with the Bureau of the Census. The value of field crops includes all crops sold except vegetables, fruits and nuts, forest products, and horticultural-specialty crops (nursery and greenhouse crops). The value of vegetables sold does not include the value of Irish potatoes or sweetpotatoes sold. The value of fruits and nuts sold includes the value of berries and small fruits sold. The quantity sold for the principal crops was obtained from each farm operator, while the quantity sold for less important crops and for fruits and nuts was estimated.

The statistics given in this release will be included in Volume I of the reports of the 1954 Census of Agriculture. Detailed data for a large number of items for the 1954 Census of Agriculture have already been published for each county and the State in Series AC54-1.

FIGURE 52.—Facsimile of preliminary report Series AC54-2.

METHODS AND PROCEDURES

2—IDAHO

VALUE OF FARM PRODUCTS SOLD BY SOURCE: 1954

State and county	All farms (number)	Value of all farm products sold (dollars)										
		Total	All crops sold					All livestock and livestock products sold				Forest products
			Total	Field crops ¹	Vegetables	Fruits and nuts	Horticultural specialties	Total	Dairy products	Poultry and poultry products	Livestock and livestock products ²	
The State...	38,735	332,125,790	196,684,262	185,145,896	3,596,954	6,507,486	1,433,936	133,829,640	37,731,469	5,503,846	90,654,325	1,551,480
Ade.....	2,007	11,619,157	2,802,230	2,017,078	210,390	185,921	388,841	8,811,927	4,981,566	473,902	3,356,459	5,000
Adams.....	283	2,121,150	549,265	192,303	205	356,717	40	1,518,874	114,288	20,341	1,384,245	53,011
Bannock.....	873	6,644,395	4,068,913	4,050,989	741	17,933	4,250	2,575,182	611,483	179,526	1,784,173	300
Bear Lake.....	759	3,163,872	1,088,676	1,087,701	35	940	...	2,075,196	618,195	43,566	1,413,435	...
Benevise.....	440	2,584,708	1,898,917	1,898,161	216	540	...	478,972	137,620	61,799	279,553	206,819
Bingham.....	2,160	21,744,327	15,456,133	15,402,181	7,274	24,027	22,651	6,288,194	1,915,448	224,680	4,148,066	...
Blairstown.....	321	3,846,727	1,063,904	1,058,290	...	214	5,400	2,782,148	235,741	16,170	2,530,237	675
Boise.....	142	600,840	97,996	96,376	...	1,620	...	486,816	22,934	13,022	450,860	16,028
Bonner.....	1,150	1,871,364	352,259	322,744	231	19,244	10,040	1,396,204	711,654	80,273	604,277	122,901
Bonneville.....	1,483	16,180,566	11,332,636	11,285,110	5,401	7,183	34,942	4,844,963	1,151,963	219,108	3,473,892	2,967
Boundary.....	596	2,405,720	1,543,461	1,537,636	161	3,607	2,057	748,007	405,992	52,036	289,979	114,252
Butte.....	271	2,562,188	1,358,719	1,358,385	...	334	...	1,209,469	76,435	46,644	1,086,390	...
Camas.....	131	1,813,527	1,373,476	1,373,430	40	6	...	439,785	29,219	7,557	403,009	266
Canyon.....	4,183	32,072,372	17,800,659	14,062,957	1,358,207	1,837,363	542,132	14,266,218	6,733,944	600,223	6,932,051	5,495
Caribou.....	578	6,353,221	3,825,607	3,825,432	...	175	...	2,527,614	493,091	61,750	1,967,773	...
Cassia.....	1,225	13,892,923	7,706,287	7,691,203	104	1,520	13,460	6,186,436	1,236,527	154,738	4,795,171	200
Clark.....	67	1,019,605	191,015	190,982	...	33	...	828,590	28,486	2,389	797,715	...
Clearwater.....	389	1,308,210	897,635	892,044	3,122	2,469	...	249,259	41,274	28,700	179,285	161,316
Custer.....	290	2,099,951	494,423	494,198	50	175	...	1,604,828	66,852	14,416	1,523,560	700
Elmore.....	407	3,629,143	1,174,509	1,158,771	13,234	2,504	...	2,444,234	118,047	77,321	2,248,866	10,400
Franklin.....	1,098	5,988,799	2,742,441	2,653,495	77,171	4,975	6,800	3,246,358	1,520,515	615,784	1,110,059	...
Fremont.....	892	10,100,429	7,021,041	7,016,302	716	4,023	...	3,077,888	480,466	90,315	2,507,107	1,500
Gem.....	916	6,278,951	2,664,365	550,843	174,689	1,938,483	350	3,593,308	1,543,290	109,381	1,940,637	21,278
Gooding.....	1,038	8,682,887	3,678,685	3,628,850	33,328	3,652	12,855	5,004,190	1,435,859	170,745	3,397,586	12
Idaho.....	1,090	9,638,946	6,293,851	6,278,054	1,410	14,387	...	3,028,795	313,419	115,129	2,580,231	316,300
Jefferson.....	1,247	9,992,414	6,681,582	6,656,194	8,275	11,505	5,008	3,310,832	987,650	126,785	2,196,397	...
Jerome.....	1,122	15,781,779	9,301,911	9,270,652	11,850	3,854	15,555	6,479,868	1,144,183	82,755	5,252,930	...
Kootenai.....	1,324	4,236,432	2,315,007	2,181,436	36,075	24,081	73,415	1,756,181	812,327	386,638	557,216	165,244
Latah.....	1,309	11,042,694	9,456,914	9,422,437	3,750	17,152	13,575	1,437,411	466,899	118,533	851,979	148,369
Lemhi.....	491	3,046,683	345,383	335,332	806	7,745	1,500	2,701,300	208,082	68,434	2,424,784	...
Lewis.....	391	6,713,143	6,261,744	6,151,219	110,085	440	...	380,248	24,414	30,307	325,527	71,151
Lincoln.....	413	3,983,054	2,019,387	2,019,147	15	150	75	1,963,667	636,673	59,367	1,267,627	...
Madison.....	902	8,608,769	5,339,439	5,318,976	816	10,562	9,065	3,269,330	786,000	226,909	2,256,421	...
Minidoka.....	1,067	12,262,465	8,627,217	8,602,410	13,420	907	10,480	3,635,248	881,161	94,343	2,659,744	...
Nez Perce.....	938	9,906,768	8,414,028	7,741,611	561,412	55,905	55,100	1,403,582	248,280	133,410	1,021,892	89,158
Oneida.....	485	4,253,997	2,940,163	2,934,790	5,373	...	...	1,313,834	191,108	61,890	1,060,836	...
Owyhee.....	744	8,063,225	3,736,929	3,558,972	51,032	109,095	17,830	4,326,296	714,391	33,557	3,578,348	...
Payette.....	1,113	7,425,788	3,457,796	1,502,109	397,413	1,515,324	42,950	3,967,644	1,520,517	112,009	2,335,118	348
Power.....	397	5,910,876	4,933,473	4,933,005	50	418	...	977,403	198,644	27,978	750,781	...
Shoshone.....	168	207,545	18,994	4,204	1,463	337	12,995	173,686	38,845	57,056	77,785	14,860
Teton.....	447	2,894,030	1,611,664	1,605,683	3,458	2,523	...	1,279,766	413,417	16,719	849,630	2,600
Twin Falls.....	2,406	32,371,545	20,828,136	20,254,205	249,772	212,039	112,120	11,543,362	2,700,727	288,371	8,554,264	47
Valley.....	206	1,373,013	574,561	573,152	1,000	409	...	786,886	56,555	19,279	711,052	11,566
Washington.....	776	5,821,592	2,342,826	1,956,837	253,564	111,975	20,450	3,469,641	652,288	79,981	2,737,372	9,125

¹Other than vegetables and fruits and nuts.²Other than dairy and poultry products.

FIGURE 52.—Facsimile of preliminary report Series AC54-2—Continued.

U. S. DEPARTMENT OF COMMERCE
Bureau of the Census
County of Agriculture: 1884

Entered	1884	1885
AGRS		
Computed		
Verified		

Source	(For definitions and explanations, see text)	1884	1885	Section Total
188-11, col. 1	Farms, acreage, and value			1
C.T. 1 line 1	Farms, acreage, and value			2
Line 2 col. 1	Approximate land area			3
Line 2 col. 2	Proportion to farms			4
Line 2 col. 3	Land owned by farm operators			5
Line 2 col. 4	Land owned by others			6
Line 2 col. 5	Land in average farms			7
Line 2 col. 6	Land in farms			8
C.T. 1 line 2	Average size of farm			9
Line 2 col. 1	Value of land and buildings			10
C.T. 1 line 3	Average per acre, dollars			11
C.T. 1 line 4	Average per acre, dollars			12
C.T. 1 line 5	Average per acre, dollars			13
C.T. 1 line 6	Average per acre, dollars			14
C.T. 1 line 7	Proportion of farms reporting value			15
C.T. 1 line 8	Land in farms according to use			16
C.T. 1 line 9	Cropland harvested			17
C.T. 1 line 10	Cropland harvested			18
C.T. 1 line 11	Cropland harvested			19
C.T. 1 line 12	Cropland harvested			20
C.T. 1 line 13	Cropland harvested			21
C.T. 1 line 14	Cropland harvested			22
C.T. 1 line 15	Cropland harvested			23
C.T. 1 line 16	Cropland harvested			24
C.T. 1 line 17	Cropland harvested			25
C.T. 1 line 18	Cropland harvested			26
C.T. 1 line 19	Cropland harvested			27
C.T. 1 line 20	Cropland harvested			28
C.T. 1 line 21	Cropland harvested			29
C.T. 1 line 22	Cropland harvested			30
C.T. 1 line 23	Cropland harvested			31
C.T. 1 line 24	Cropland harvested			32
C.T. 1 line 25	Cropland harvested			33
C.T. 1 line 26	Cropland harvested			34
C.T. 1 line 27	Cropland harvested			35
C.T. 1 line 28	Cropland harvested			36
C.T. 1 line 29	Cropland harvested			37
C.T. 1 line 30	Cropland harvested			38
C.T. 1 line 31	Cropland harvested			39
C.T. 1 line 32	Cropland harvested			40
C.T. 1 line 33	Cropland harvested			41
C.T. 1 line 34	Cropland harvested			42
C.T. 1 line 35	Cropland harvested			43
C.T. 1 line 36	Cropland harvested			44
C.T. 1 line 37	Cropland harvested			45
C.T. 1 line 38	Cropland harvested			46
C.T. 1 line 39	Cropland harvested			47
C.T. 1 line 40	Cropland harvested			48
C.T. 1 line 41	Cropland harvested			49
C.T. 1 line 42	Cropland harvested			50
C.T. 1 line 43	Cropland harvested			51
C.T. 1 line 44	Cropland harvested			52
C.T. 1 line 45	Cropland harvested			53
C.T. 1 line 46	Cropland harvested			54
C.T. 1 line 47	Cropland harvested			55
C.T. 1 line 48	Cropland harvested			56
C.T. 1 line 49	Cropland harvested			57
C.T. 1 line 50	Cropland harvested			58
C.T. 1 line 51	Cropland harvested			59
C.T. 1 line 52	Cropland harvested			60
C.T. 1 line 53	Cropland harvested			61
C.T. 1 line 54	Cropland harvested			62
C.T. 1 line 55	Cropland harvested			63
C.T. 1 line 56	Cropland harvested			64
C.T. 1 line 57	Cropland harvested			65
C.T. 1 line 58	Cropland harvested			66
C.T. 1 line 59	Cropland harvested			67
C.T. 1 line 60	Cropland harvested			68
C.T. 1 line 61	Cropland harvested			69
C.T. 1 line 62	Cropland harvested			70
C.T. 1 line 63	Cropland harvested			71
C.T. 1 line 64	Cropland harvested			72
C.T. 1 line 65	Cropland harvested			73
C.T. 1 line 66	Cropland harvested			74
C.T. 1 line 67	Cropland harvested			75
C.T. 1 line 68	Cropland harvested			76
C.T. 1 line 69	Cropland harvested			77
C.T. 1 line 70	Cropland harvested			78
C.T. 1 line 71	Cropland harvested			79
C.T. 1 line 72	Cropland harvested			80
C.T. 1 line 73	Cropland harvested			81
C.T. 1 line 74	Cropland harvested			82
C.T. 1 line 75	Cropland harvested			83
C.T. 1 line 76	Cropland harvested			84
C.T. 1 line 77	Cropland harvested			85
C.T. 1 line 78	Cropland harvested			86
C.T. 1 line 79	Cropland harvested			87
C.T. 1 line 80	Cropland harvested			88
C.T. 1 line 81	Cropland harvested			89
C.T. 1 line 82	Cropland harvested			90
C.T. 1 line 83	Cropland harvested			91
C.T. 1 line 84	Cropland harvested			92
C.T. 1 line 85	Cropland harvested			93
C.T. 1 line 86	Cropland harvested			94
C.T. 1 line 87	Cropland harvested			95
C.T. 1 line 88	Cropland harvested			96
C.T. 1 line 89	Cropland harvested			97
C.T. 1 line 90	Cropland harvested			98
C.T. 1 line 91	Cropland harvested			99
C.T. 1 line 92	Cropland harvested			100

FIGURE 53.—Facsimile of work sheet or posting form County Table 1.

U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE COMMERCE
OFFICE OF APPLICANCES 1934

DATE	
RECEIVED	
RECEIVED	
RECEIVED	

State..... COUNTY TABLE 1.—(12 sections) Section B

County Table 1.—FARM, HOUSE, VEHICLE, VALUE, AND FARM OPERATIONS, COLLECTED BY 1933 AND 1934

County	Item (For definitions and explanations, see text)	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
	FARM, ACTUAL, AND VALUE-CON.																												
	Improved and better...																												
	Other land (open, half, road, wetland, etc.)																												
	Original land in farm...																												
	Lead in open or new crop...																												
	Building on farm worked...																												
	and building on farm worked...																												

FIGURE 53.—Facsimile of work sheet or posting form County Table 1—Continued.

[1 (1)]

STATISTICS FOR COUNTIES

County Table 1.—FARMS, ACREAGE, VALUE, AND FARM OPERATORS: CENSUSES OF 1954 AND 1950—Continued

[Data for items shown in *italics* are based on reports for only a sample of farms. See text]

Item (For definitions and explanations, see text)	
FARMS, ACREAGE, AND VALUE	
1	Farms.....number 1954...
2	.....1950...
3	Approximate land area.....acres 1954...
4	Proportion in farms.....percent 1954...
5	<i>Land owned by farm operators.....acres 1954...</i>
6	<i>Land rented from others by farm operators.....acres 1954...</i>
7	<i>Land managed by farm operators.....acres 1954...</i>
8	<i>Land rented to others by farm operators (see text).....acres 1954...</i>
9	Land in farms.....acres 1954...
10	.....1950...
11	Average size of farm.....acres 1954...
12	.....1950...
Value of land and buildings:	
13	Average per farm.....dollars 1954...
14	.....1950...
15	Average per acre.....dollars 1954...
16	.....1950...
17	Proportion of farms reporting value.....percent 1954...
Land in farms according to use:	
18	Cropland harvested.....farms reporting 1954...
19	.....1949...
20	.....acres 1954...
21	.....1949...
22	1 to 9 acres.....farms reporting 1954...
23	.....1949...
24	10 to 19 acres.....farms reporting 1954...
25	.....1949...
26	20 to 29 acres.....farms reporting 1954...
27	.....1949...
28	30 to 49 acres.....farms reporting 1954...
29	.....1949...
30	50 to 99 acres.....farms reporting 1954...
31	.....1949...
32	100 to 199 acres.....farms reporting 1954...
33	.....1949...
34	200 acres and over.....farms reporting 1954...
35	.....1949...
36	Cropland used only for pasture..farms reporting 1954...
37	.....1949...
38	.....acres 1954...
39	.....1949...
40	Cropland not harvested and not pastured.....farms reporting 1954...
41	.....1949...
42	.....acres 1954...
43	.....1949...
44	Woodland pastured.....farms reporting 1954...
45	.....1949...
46	.....acres 1954...
47	.....1949...
48	Woodland not pastured.....farms reporting 1954...
49	.....1949...
50	.....acres 1954...
51	.....1949...
52	Other pasture (not cropland and not woodland).....farms reporting 1954...
53	.....1949...
54	.....acres 1954...
55	.....1949...
56	Improved (see text).....farms reporting 1954...
57	.....acres 1954...
58	Other land (house lots, roads, wasteland, etc.).....farms reporting 1954...
59	.....1949...
60	.....acres 1954...
61	.....1949...
62	Cropland, total.....farms reporting 1954...
63	.....1949...
64	.....acres 1954...
65	.....1949...
66	Land pastured, total.....farms reporting 1954...
67	.....1949...
68	.....acres 1954...
69	.....1949...
70	Woodland, total.....farms reporting 1954...
71	.....1949...
72	.....acres 1954...
73	.....1949...
74	Irrigated land in farms.....farms reporting 1954...
75	.....1949...
76	.....acres 1954...
77	.....1949...
78	Cover crops turned under and land planted to another crop.....farms reporting 1954...
79	.....acres 1954...
80	Cropland used for row or grain crops farmed on contour.....farms reporting 1954...
81	.....acres 1954...
FARM OPERATORS	
82	Residing on farm operated.....operators reporting 1954...
83	.....1950...
84	Not residing on farm operated..operators reporting 1954...
85	.....1950...

FIGURE 54.—Facsimile of preprinted form for offset typing of County Table 1.

DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS CENSUS OF AGRICULTURE 1954		CROP NAME _____	COUNTY TABULATION NO. 931-11 931-12		C-3 CARD PART I	AGE-CULTURE					
STATE _____		NUMBER OF FARMS REPORTING AND ACRES, PRODUCTION, AND AMOUNT SOLD;				MACHINE TABULATION					
COUNTY _____		<input type="checkbox"/> 11 BY E.D. WITHIN CROP <input type="checkbox"/> 12 BY IRRIGATED FARMS ONLY WITHIN CROP				MACHINE TABULATION					
ACRES, TREES, ETC. (FIELD 1)		ACRES, TREES, ETC. (FIELD 2)		FARMS REPORTING ACRES, TREES, ETC. (FIELD 3)				FARMS REPORTING ACRES, TREES, PRODUCTION, ETC. (FIELD 2)			
TOTAL		TOTAL		TOTAL				TOTAL			

DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS CENSUS OF AGRICULTURE 1954		CROP NAME _____	COUNTY TABULATION NO. 931-11 931-12		C-3 CARD PART II	AGE-CULTURE									
STATE _____		NUMBER OF FARMS REPORTING AND ACRES, PRODUCTION, AND AMOUNT SOLD;				MACHINE TABULATION									
COUNTY _____		<input type="checkbox"/> 11 BY E.D. WITHIN CROP <input type="checkbox"/> 12 BY IRRIGATED FARMS ONLY WITHIN CROP				MACHINE TABULATION									
AMOUNT SOLD (FIELD 4)		FARMS REPORTING PRODUCTION, AMOUNT SOLD, ETC. (FIELD 3)		IRRIGATION				CROP CODE CHECK				E D CHECK COUNTS			
TOTAL		TOTAL		TOTAL				TOTAL				TOTAL			

DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS CENSUS OF AGRICULTURE 1954		COUNTY TABULATION NO. 102 - 11				G CARD	AGE-CULTURE								
STATE _____		FARMS REPORTING AND PRODUCTION AND VALUE OF SALES OF FIRE WOOD, FENCE POSTS, SAWLOGS AND PULPWOOD.				MACHINE TABULATION									
COUNTY _____		FARMS REPORTING MAPLE TREES AND MAPLE TREE PRODUCTS, BY E.D.				MACHINE TABULATION									
SORT INDICATION		FIRE WOOD CUT		SAW LOGS CUT		PULPWOOD CUT		VALUE OF SALES		FARMS BY PRODUCT		TREES TAPPED		SUGAR MADE	
TOTAL		TOTAL		TOTAL		TOTAL		TOTAL		TOTAL		TOTAL		TOTAL	

STATE _____		COUNTY _____		STATE AND COUNTY		FARMS REPORTING AND PRODUCTION AND VALUE OF SALES OF FIRE WOOD, FENCE POSTS, SAWLOGS AND PULPWOOD.		FARMS REPORTING MAPLE TREES AND MAPLE TREE PRODUCTS, BY E.D.					
FIRE WOOD CUT		SAW LOGS CUT		PULPWOOD CUT		VALUE OF SALES		FARMS BY PRODUCT		TREES TAPPED		SUGAR MADE	
TOTAL		TOTAL		TOTAL		TOTAL		TOTAL		TOTAL		TOTAL	

FIGURE 55.—Facsimile of county tabulation sheets.—Continued.

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 122 - 11
CATTLE, MILK COWS, BUTTER CHURNED, WHOLE MILK SOLD, CREAM SOLD,
AND VALUE OF SALES OF DAIRY PRODUCTS, BY ED.

H CARD

STATE	COUNTY	SORT INDICATION	TOTAL NUMBER OF FARMS	TOTAL CATTLE ON HAND	COWS	MILK COWS	WHOLE MILK SOLD			CREAM SOLD			COWS MILKED YESTERDAY	MILK PRODUCED YESTERDAY	BUTTER CHURNED LAST WEEK
							GALLONS	POUNDS	POUNDS OF BUTTER FAT	VALUE OF SALES	POUNDS OF BUTTER FAT	VALUE OF SALES			
			(31)	(74)	(23)	(34)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
TOTAL															

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 131-11
NUMBER OF FARMS REPORTING HORSES OR MULES, HOGS AND PIGS,
SOWS FALLOWED OR TO FAREW, ANIMALS SOLD ALIVE AND NUMBER
AND VALUE OF SALES OF SHEEP AND LAMBS; BY ED

I CARD PART I

STATE	COUNTY	SHEEP AND LAMBS SOLD ALIVE	SHEEP AND LAMBS SOLD ALIVE VALUE OF SALES	ANIMALS SOLD ALIVE										HORSES AND MULES										HOGS AND PIGS										SOWS FALLOWED OR TO FAREW	ZERO CHECK																
				NO. OF SHEEP	NO. OF LAMBS	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE																			
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)
TOTAL																																																			

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 131-11
NUMBER OF FARMS REPORTING HORSES OR MULES, HOGS AND PIGS, SOWS
FALLOWED OR TO FAREW, ANIMALS SOLD ALIVE AND NUMBER AND VALUE
OF SALES OF SHEEP AND LAMBS; BY ED

I CARD PART II

STATE	COUNTY	SHEEP AND LAMBS SOLD ALIVE	SHEEP AND LAMBS SOLD ALIVE VALUE OF SALES	ANIMALS SOLD ALIVE										HORSES AND MULES										HOGS AND PIGS										SOWS FALLOWED OR TO FAREW	ZERO CHECK																		
				NO. OF SHEEP	NO. OF LAMBS	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE			CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE	CATTLE
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)		
TOTAL																																																					

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 132 - 11
FARMS REPORTING AND NUMBER OF HORSES AND MULES, HOGS AND PIGS,
SOWS, AND NUMBER AND VALUE OF SALES OF ANIMALS SOLD ALIVE; BY ED

I CARD

STATE	COUNTY	TOTAL HORSES AND MULES	TOTAL HOGS AND PIGS	HOGS SOLD ALIVE		CATTLE SOLD ALIVE		CALVES SOLD ALIVE		PORKERS		SOWS FALLOWED	
				NUMBER	VALUE OF SALES	NUMBER	VALUE OF SALES	NUMBER	VALUE OF SALES	NUMBER	VALUE OF SALES	NUMBER	VALUE OF SALES
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
TOTAL													

STATE	COUNTY	FARM NO.	STATE	COUNTY	FARM NO.
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100	101	102

FIGURE 55.—Facsimile of county tabulation sheets.—Continued.

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 142-11

FARMS REPORTING AND NUMBER OF TOTAL SHEEP, LAMBS, EWES, RAMS, AND WETHERS, SHEEP SHORN AND DISTRIBUTION OF FARMS REPORTING SHEEP, BY E. D.

J CARD

STATE _____

COUNTY _____

SORT INDICATION	FARMS REPORTING	SHEEP AND LAMBS NUMBER	FARMS REPORTING		EWES NUMBER	RAMS AND WETHERS NUMBER		LAMBS UNDER 1 YR. OLD NUMBER		SHEEP SHORN		TOTAL OF FARMS REPORTING SHEEP												
			FARMS REPORTING	NUMBER		FARMS REPORTING	NUMBER	FARMS REPORTING	NUMBER	FARMS REPORTING	NUMBER	POUNDS OF WOOL	UNDER 23	23-49	50-99	100-999	1000-9999	10000 AND OVER						
1	2,3	16,81	7,61	119,721	1,611,111	177,301	31,341	23,101	136,411	136,401	12	13	14	15	16	17	18	19	20	21	22	23	24	25
TOTAL																								

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 151-11

NUMBER OF FARMS REPORTING CHICKENS ON HAND, CHICKENS AND CHICKEN EGGS SOLD, TURKEYS RAISED AND TURKEYS KEPT FOR BREEDING, POULTRY PRODUCTS AND OTHER POULTRY RAISED AND SOLD, BY E. D.

K CARD PART I

STATE _____

COUNTY _____

SORT INDICATION	OTHER POULTRY VALUE OF SALES	E.O.	OTHER CHICKENS SOLD, VALUE OF SALES	FOOS SOLD VALUE OF SALES	TOTAL NUMBER OF FARMS	FARMS REPORTING														FARMS BY NUMBER OF CHICKENS ON HAND										ZERO CHECK		
						CHICKENS ON HAND	CHICKENS SOLD AMT	EGG CHICKEN SOLD	CHICKEN EGGS SOLD	TURKEYS KEPT FOR BREEDING	TURKEYS RAISED	OTHER POULTRY RAISED	OTHER	UNDER 23	23-49	50-99	100-199	200-999	1000-9999	10000 AND OVER												
1	2,3	16,81	7,61	119,721	1,611,111	177,301	31,341	23,101	136,411	136,401	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
TOTAL																																

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 151-11

NUMBER OF FARMS REPORTING CHICKENS ON HAND, CHICKENS AND CHICKEN EGGS SOLD, TURKEYS RAISED AND TURKEYS KEPT FOR BREEDING, POULTRY PRODUCTS AND OTHER POULTRY RAISED AND SOLD, BY E. D.

K CARD PART II

STATE _____

COUNTY _____

SORT INDICATION	FARMS REPORTING	E.O.	FARMS REPORTING CHICKENS (BROILERS) SOLD										CHICKEN EGGS SOLD DOZENS										TURKEYS RAISED EIGHT BREEDS										ZERO CHECK
			UNDER 2,000	2,000-4,000	4,000-8,000	8,000-16,000	16,000-32,000	32,000-62,000	AND OVER	UNDER 100	100-400	400-800	800-1,600	1,600-3,200	3,200-6,000	AND OVER	UNDER 23	23-49	50-99	100-199	200-999	1,000-9999	AND OVER										
1	2,3	16,81	7,61	119,721	1,611,111	177,301	31,341	23,101	136,411	136,401	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
TOTAL																																	

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 152-11

NUMBER OF CHICKENS ON HAND, CHICKENS AND CHICKEN EGGS SOLD, TURKEYS RAISED, TURKEY NENS KEPT FOR BREEDING, OTHER POULTRY RAISED AND VALUE OF SALES OF OTHER POULTRY AND POULTRY PRODUCTS, BY E. D.

K CARD

STATE _____

COUNTY _____

SORT INDICATION	TOTAL NUMBER OF FARMS	CHICKENS ON HAND	CHICKENS SOLD		EGGS SOLD	TURKEYS KEPT FOR BREEDING		TURKEYS RAISED		DUCKS RAISED	VALUE OF SALES OF OTHER POULTRY PRODUCTS	OTHER POULTRY RAISED						
			BROILERS	OTHER		LIGHT BREEDS	HEAVY BREEDS	GEESSE	QUINNELS									
1	2,3	16,81	7,61	119,721	1,611,111	177,301	31,341	23,101	136,411	136,401	12	13	14	15	16	17	18	19
TOTAL																		

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

**COUNTY TABULATION NO. 912-11 912-12
922-11 922-12**

NUMBER OF FARMS REPORTING AND ACRES HARVESTED, PRODUCTION, AND AMOUNT OF CORN OR SORGHUMS SOLD,

C-1; C-2 CARD

STATE _____

COUNTY _____

CORN OR SORGHUMS FOR ALL PURPOSES	CORN OR SORGHUMS HARVESTED FOR GRAIN	CORN OR SORGHUMS CUT FOR SILAGE	CORN OR SORGHUMS PRODUCED OFF OR GRAINED OR CUT FOR STOCKS OR FEED	SORGHUMS CUT FOR FORAGE OR HAY	SORGHUMS SOLD FOR GRAIN	SORGHUMS SOLD AS FODDER	C-1 CORN		C-2 SORGHUMS															
							ACRES	BUSHELS	ACRES	TONS														
1	2,3	16,81	7,61	119,721	1,611,111	177,301	31,341	23,101	136,411	136,401	12	13	14	15	16	17	18	19	20	21	22	23	24	25
TOTAL																								

FIGURE 55.- Facsimile of county tabulation sheets.—Continued.

METHODS AND PROCEDURES

1954 Census of Agriculture
COUNTY TABULATION No. 115-11
L CARD
NUMBER OF FARMS BY CLASS, BY TYPE, WITHIN SAMPLE AND SPECIFIED FARMS

State _____
 County _____

GROUP INDICATION	LINE No.	TOTAL NUMBER OF SAMPLE FARMS (1)	NUMBER OF SAMPLE FARMS BY CLASS OF FARM								Other Farms (9)	Part-Time (10)
			Commercial Farms (2)	I (3)	II (4)	III (5)	IV (6)	V (7)	VI (8)			
	1											
	2	NO. OF SAMPLE FARMS BY CLASS OF FARM										
	3	Residential (11)	Abnormal (12)	Field Crop Farms Other Than Vegetable and Fruit-Nut (13)	Cash Grain (14)	Cotton (15)	Other Field Crops (16)	Vegetable (17)	Fruit and Nut (18)	Dairy (19)	Poultry (20)	
	4											
	5	NUMBER OF SAMPLE FARMS BY TYPE OF FARM										
	6	Livestock Excl. Dairy and Poultry (21)	General Farms (22)	General Crop (23)	General Livestock (24)	General Crop and Livestock (25)	Miscellaneous (26)	(27)	(28)	(29)	(30)	
	7											
	8	NUMBER OF SPECIFIED FARMS BY CLASS OF FARM										
	9	TOTAL NUMBER OF SPECIFIED FARMS (31)	Commercial Farms (32)	I (33)	II (34)	III (35)	IV (36)	V (37)	VI (38)	Other Farms (39)	Part-Time (40)	
	10											
	11	NO. OF SPECIFIED FARMS BY CLASS OF FARM										
	12	Residential (41)	Abnormal (42)	Field Crop Farms Other Than Vegetable and Fruit-Nut (43)	Cash Grain (44)	Cotton (45)	Other Field Crops (46)	Vegetable (47)	Fruit and Nut (48)	Dairy (49)	Poultry (50)	
	13											
	14	NUMBER OF SPECIFIED FARMS BY TYPE OF FARM										
	15	Livestock Excl. Dairy and Poultry (51)	General Farms (52)	General Crop (53)	General Livestock (54)	General Crop and Livestock (55)	Miscellaneous (56)	(57)	(58)	TOTAL NUMBER OF SAMPLE FARMS (59)	TOTAL FARMS SAMPLE AND SPECIFIED (60)	

1954 Census of Agriculture
COUNTY TABULATION NO. 168-11
L CARD
FARMS REPORTING FACILITIES, EQUIPMENT, WORK ANIMALS, AND DATE OF ENUMERATION

State _____ Sample
 County _____ Specified.

GROUP INDICATION	LINE No.	TOTAL NUMBER OF FARMS (1)	TELEPHONE Yes (2)	ELECTRICITY Yes (3)	TELEVISION Yes (4)	RUNNING WATER Yes (5)	FREEZER Yes (6)	Pilo BROODER Yes (7)	FEED GRINDER Yes (8)	MILKING MACHINE Yes (9)	GRAIN COMBINE Yes (10)	
	2	TRACTORS										
	3	CORN PICKERS (11)	PICK-UP BALERS (12)	FORAGE HARVESTERS (13)	PONDS, TANKS, ETC (14)	MOTOR TRUCKS (15)	Any, Other Than Carded (16)	Wheel (17)	Garded (18)	Crawler (19)	AUTOMOBILES (20)	
	4											
	5	WORK POWER										
	6	None (21)	1 animal only (22)	2 or more animals only (23)	Animals and tractor wheel or crawler (24)	Tractor (Ool), Wheel or Crawler (25)	Any Work Power (26)	TELEPHONE No (27)	ELECTRICITY No (28)	TELEVISION No (29)	RUNNING WATER No (30)	
	7											
	8	MORTGAGE DEBT (ACRES OWNED)										
	9	FARMS No (31)	Pilo BROODER No (32)	FEED GRINDER No (33)	MILKING MACHINE No (34)	Yes (35)	No (36)	No Report (37)	(38)	(39)	MASTERS (40)	
	10											
	11	DATE OF ENUMERATION										
	12	ACRES OWNED (41)	ACRES RENTED FROM (42)	ACRES MANAGED (43)	ACRES RENTED TO OTHERS (44)	CASH RENT PAID (45)	October					
	13											
	14	DATE OF ENUMERATION										
	15	NOVEMBER										
		(51) 1-6	(52) 7-13	(53) 14-20	(54) 21-27	(55) 28-30	DECEMBER					
		(56) 1-4	(57) 5-11	(58) 12-18	(59) 19-25	(60) 26-31						

1954 Census of Agriculture
COUNTY TABULATION No. 178-11
M CARD
FARMS REPORTING OPERATOR, FAMILY AND HIRED WORKERS, FARM EXPENDITURES, OFF FARM WORK BY OPERATOR FAMILY AND OTHER INCOME

State _____ Sample
 County _____ Specified

GROUP INDICATION	LINE No.	TOTAL NUMBER OF FARMS (1)	INCOME EXCEEDS SALES Yes (2)	OPERATOR			ANY LABOR FAMILY AND/OR HIRED (5)	ANY FAMILY LABOR OPERATOR AND/OR UNPAID FAMILY (6)	OPERATOR WORKING			UNPAID FAMILY (10)
				WOKEK OFF FARM (3)	100 + DAYS OFF FARM (4)	ANY (11)			1 Or More Hours (7)	1-14 Hours (8)	15 + Hours (9)	
	1											
	2	EXPENDITURES FOR HIRED LABOR										
	3	HIRED WORKERS (11)	REGULAR WORKERS TO WORE 150+ DAYS (12)	SEASONAL WORKERS TO WORE LESS THAN 150 DAYS (13)	Any (14)	FARM REPORTING LABOR AND/OR MACHINE HIRED (15)	EXPENDITURES Machine Hire (16)	Labor (17)	1-99 (18)	100-199 (19)	200-499 (20)	
	4											
	5	EXPENDITURES FOR HIRED LABOR										
	6	500-999 (21)	1000-2499 (22)	2500+ (23)	Feed (24)	Fuel and Oil, etc (25)	Income Exceeds Sales No (26)	(27)	(28)	(29)	MASTERS (30)	
	7											
	8	HIRED WORKERS BY BASIS OF PAY										
	9	Monthly (31)	Weekly (32)	Daily (33)	Hourly (34)	Piecework (35)	None (36)	1-49 Days (37)	50-99 Days (38)	100-199 Days (39)	200 + Days (40)	
	10											
	11	FAMILY AND/OR OPERATOR LABOR ONLY										
	12	FAMILY AND/OR OPERATOR LABOR ONLY (51)	HIRED WORKERS AND UNPAID FAMILY (52)	HIRED LABOR AND OPERATOR ONLY (53)	No LABOR (54)	(55)	(56)	(57)	(58)	(59)	(60)	
	13											
	14	FAMILY OFF-FARM WORK										
	15	Yes (61)	No (62)	Yes (63)	No (64)	Yes (65)	No (66)	EXPENDITURES FOR HIRED LABOR WITH NO REPORT FOR HIRED WORKERS OR (67)	HIRED WORKERS ONLY—NO FAMILY (68)	OPERATOR ONLY OR HIRED WORKERS (69)	UNPAID FAMILY ONLY—NO OPERATOR OR HIRED WORKERS (70)	

FIGURE 55.—Facsimile of county tabulation sheets—Continued.

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 172 - 11

M CARD

FARM LABOR AND SPECIFIED FARM EXPENDITURES
WITHIN SAMPLE AND SPECIFIED FARMS

MACHINE TABULATION

BEHUN	BOARD NO.	DATE	NAME
TAB MACH			
SUMM MACH			CHECKED

STATE	COUNTY	SOFT INDICATION	TOTAL NO. OF FARMS		OPERATOR WORKING		UNPAID FAMILY WORKERS	HIRED WORKERS - NUMBER			FARM EXPENDITURES - AMOUNT				FARMS REPORTING ANY LABOR	HIRED PERSONS WORKING ON															
			1	2	3	4		5	6	7	8	9	10	11		12	13	14	15	16	17	18	19	20	21	22					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TOTAL																															

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 182 - 11
COMMERCIAL FERTILIZER PURCHASED, AND USED, TONS, TOTAL COST AND ACRES ON WHICH USED WITHIN SAMPLE OR SPECIFIED FARMS

N CARD

MACHINE TABULATION

BEHUN	BOARD NO.	DATE	NAME
TAB MACH			
SUMM MACH			CHECKED

STATE	COUNTY	SOFT INDICATION	COMMERCIAL FERTILIZER PURCHASED				COMMERCIAL FERTILIZER USED																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
TOTAL																								

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 182 - 12
PURCHASE AND USE OF URE AND FARMS REPORTING COMMERCIAL FERTILIZER USED WITHIN SAMPLE OR SPECIFIED FARMS

N CARD

MACHINE TABULATION

BEHUN	BOARD NO.	DATE	NAME
TAB MACH			
SUMM MACH			CHECKED

STATE	COUNTY	SOFT INDICATION	FERTILIZER PURCHASED			FERTILIZER USED																		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
TOTAL																								

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 121-11
FARMS REPORTING AND NUMBER OF CATTLE, DAIRY PRODUCTS AND NUMBER OF HEIFERS, BULLS AND STEERS; BY E. D.

H CARD PART I

MACHINE TABULATION

BEHUN	BOARD NO.	DATE	NAME
TAB MACH			
SUMM MACH			CHECKED

STATE	COUNTY	SOFT INDICATION	FARMS REPORTING															FARMS REPORTING COWS ON HAND														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TOTAL																																

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
CENSUS OF AGRICULTURE 1954

COUNTY TABULATION NO. 121-11
FARMS REPORTING AND NUMBER OF CATTLE, DAIRY PRODUCTS AND NUMBER OF HEIFERS, BULLS AND STEERS; BY E. D.

H CARD PART II

MACHINE TABULATION

BEHUN	BOARD NO.	DATE	NAME
TAB MACH			
SUMM MACH			CHECKED

STATE	COUNTY	SOFT INDICATION	FARMS REPORTING TOTAL CATTLE ON HAND										FARMS REPORTING MILK COWS ON HAND									
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TOTAL																						

FIGURE 55.—Facsimile of county tabulation sheets—Continued.

MAN-HOURS AND COSTS FOR OTHER THAN PERSONAL SERVICES PER 100,000 FARMS BY MAJOR FUNCTIONS: 1954 CENSUS OF AGRICULTURE

Item	Man-hours per 100,000 farms	Costs for other than personal services per 100,000 farms	Item	Man-hours per 100,000 farms	Costs for other than personal services per 100,000 farms
Total.....	206, 123	113, 418	Central office processing—Continued		
Preparation of questionnaires and instructions.....	174		County tabulations:		
Printing of questionnaires and instructions.....		5, 617	Supervisory work.....	1, 010	
Preparing enumerator and crew leader maps.....	1, 406		Technical work.....	1, 010	
Packing and distribution of materials for enumeration.....	440	564	Clerical work.....	9, 021	
Preparing special lists such as of large farms, farms in urban areas, etc.....	557		Rental of equipment.....		2, 235
Planning and central office supervision of enumeration.....	1, 127	507	Other.....		3, 135
Recruiting supervisors, etc. for Agriculture Field Offices.....	287	334	Economic Area tabulations:		
General administration and control of crew leaders and enumerators—Agriculture Field Offices:			Supervisory work.....	696	
Supervisory work.....	2, 942		Technical work.....	648	
Clerical work.....	2, 367		Clerical work.....	5, 461	
Travel.....		2, 907	Rental of equipment.....		1, 858
Rental of space.....		973	Other.....		1, 710
Communications and other expenses.....		2, 191	Preparation and printing of—		
Training of crew leaders.....	2, 258	1, 571	Preliminary releases:		
Training of enumerators.....	8, 908	2, 048	Supervisory work.....	226	
Supervision of enumerators.....	16, 187	427	Technical work.....	74	
Travel.....	(135, 632 miles)	9, 494	Clerical work.....	1, 797	
Enumeration.....	82, 669	230	Printing.....		1, 381
Travel.....	(379, 239 miles)	26, 547	Volume I (Statistics by Counties, and State Economic Areas):		
General field direction and control—Regional Field Offices:			Supervisory work.....	809	
Supervisory work.....	844		Technical work.....	100	
Technical work.....	113		Clerical work.....	8, 142	
Checking enumerators' work and preparing payrolls.....	2, 885		Printing.....		4, 280
Other clerical work.....	640		Volume II (Statistics by Subject for Divisions and States):		
Travel.....	(9, 935 miles)	695	Supervisory work.....	152	
Communications.....		1, 191	Technical work.....	109	
Other (space, etc.).....		1, 051	Clerical work.....	1, 584	
Central office processing:			Printing.....		897
Receiving, arranging by Minor Civil Division and miscellaneous checking.....	2, 594		Special reports:		
Editing and coding:			Supervisory work.....	914	
Supervisory work.....	1, 158		Technical work.....	1, 684	
Technical work.....	792	1, 038	Clerical work.....	7, 780	
Clerical work.....	9, 434		Printing.....		2, 626
Punching and verifying tabulating cards:			Other.....		1, 904
Supervisory work.....	592		Evaluation program.....	1, 849	217
Other clerical work.....	7, 859		General administration and miscellaneous services:		
Rental of equipment.....		2, 136	Overall direction.....	244	189
Tabulating cards.....		918	Procurement of supplies and services.....	1, 388	
Other.....		14	Personnel.....	857	2, 685
Selection of cards with probable errors, checking and correcting cards prior to tabulation:			Transportation.....		2, 791
Supervisory work.....	526		Budgeting.....	118	689
Technical work.....	396		Accounting and payrolling.....	1, 793	
Clerical work.....	4, 621		Purchase and repair of general use equipment.....		3, 277
Rental of equipment.....		479	Telephone and communications for central offices.....		5, 582
Other.....		275	Rental of space for central office processing.....		3, 055
			Informational activities.....	200	39
			Maintenance of general central office files.....	727	
			General administration of central office processing except tabulation.....	2, 224	1, 193
			General administration for tabulation.....	1, 232	1, 152
			Miscellaneous administrative services.....	579	5, 588
			Social security and other taxes.....		3, 321
			Other.....	1, 919	2, 407

FIGURE 56.—Table of Costs.





