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# THE CLEVELAND SCHOOL SURVEY

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**THE EDUCATION SURVEY**

**Leonard P. Ayres, Director**

CLEVELAND EDUCATION SURVEY

**THE CLEVELAND  
SCHOOL SURVEY**

(SUMMARY VOLUME)

BY  
LEONARD P. AYRES



THE SURVEY COMMITTEE OF THE  
CLEVELAND FOUNDATION  
CLEVELAND · OHIO

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## FOREWORD

This report on "The Cleveland School Survey" is the last of the 25 sections of the report of the Education Survey of Cleveland conducted by the Survey Committee of the Cleveland Foundation in 1915. Twenty-three of these sections have been published as separate monograph reports. In addition there is a volume entitled "Wage Earning and Education" which gives a summary of the sections relating to industrial education. The present summary volume tells of the conduct of the entire work and the findings and recommendations of the 15 volumes relating to the regular work of the public schools. Copies of all these publications may be obtained from the Cleveland Foundation. They may also be obtained from the Division of Education of the Russell Sage Foundation, New York City. A complete list will be found in the back of this volume, together with prices.

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# THE CLEVELAND SCHOOL SURVEY

## CHAPTER I

### THE SURVEY AND THE CITY

The education survey of Cleveland began in April, 1915, and continued through June, 1916. It was conducted under the auspices of the Survey Committee of the Cleveland Foundation, which supplied the necessary funds. The reports of its work have been published in a series of 25 bound monographs dealing with different phases of the educational conditions and problems of the city.

Fifteen of these monographs consider different aspects of the work of the present elementary, high, and evening schools, while eight are educational studies of occupations employing large numbers of wage earners in Cleveland. One monograph is a summary of these eight studies of vocational education, and the present volume, which is the last of the entire series, is primarily the summary of the 15 public school reports. In addition it gives some account of the inception, conduct, and conclusions of the entire survey. The first four chapters present a general summing up of methods and conclusions, while the 15 following chapters are brief summaries

of the 15 separate monograph reports on different phases of the work of the public schools. In order that these findings may be seen in proper perspective, it is worth while to review in this first chapter some of the more salient social characteristics of the city.

### THE PEOPLE WHO LIVE IN CLEVELAND

Cleveland is not only one of the largest cities in the country; it is also one of the most foreign. This is clearly indicated by Diagram 1, which shows the proportion of native and foreign persons in Cleveland and 10 other large cities at the time of the last census. The cities shown in this comparison are those reported by the census bureau as having populations between 400,000 and 750,000 in 1915. In each case the horizontal bar represents all the people of the city. The first section in outline shows the number in each 100 who are native whites of native parents. The second part of the bar in cross-hatching shows the per cent who are native whites of foreign or mixed parentage. The third portion of the bar in black shows the number of foreign born whites, and the last part with horizontal lines shows the number of colored persons. In the Pacific Coast cities of Los Angeles and San Francisco this last group contains many Asiatics as well as some negroes.

The important condition revealed by the diagram is that Cleveland is one of the most foreign of large American cities. Three-fourths of all its inhabitants are either foreign born or of foreign parentage. It



is true, moreover, that Cleveland has a larger proportion of foreign inhabitants who are unable to

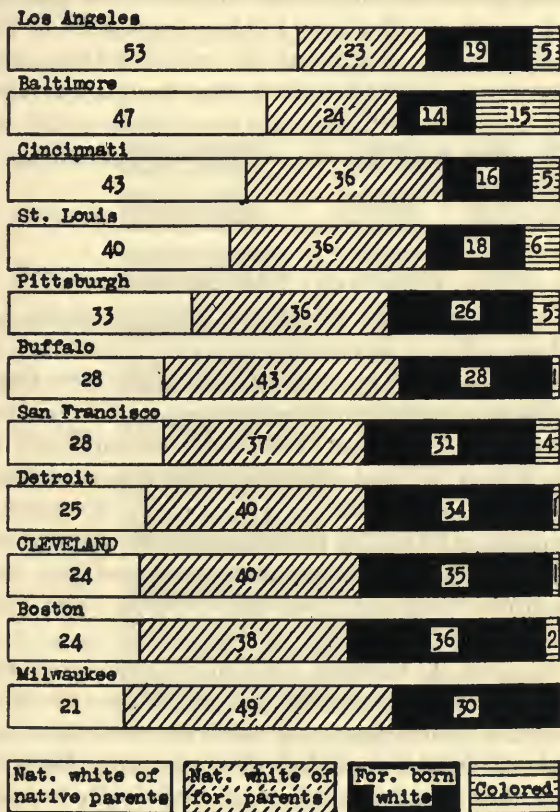


Diagram 1.—Number of persons in each 100 in 11 large cities who are native white of native parents, native white of foreign parents, foreign born white, and colored

speak English than has any other large city and that nearly one-third of all the men of voting age are aliens possessing no political rights in this country and owing no allegiance to the government of the United States. Nearly half the school children come from homes in which some foreign language is regularly spoken. All these facts are fundamentally important in their bearing on the larger problems of public education.

### THE WORK THAT CLEVELANDERS DO

It is probably true that most people mentally attribute different characteristics to the inhabitants of different cities. Thus it is natural and easy to think of the people of Detroit as being engaged in making automobiles, those of Pittsburgh as employed in metal working, and so on. Certain it is that those who take part in survey work become thoroughly accustomed to having the people of the city in which they are working assure them that problems and conditions there are quite different from those anywhere else.

The fact is, however, that in all large cities the proportions of people engaged in different kinds of work are almost fixed and relatively constant. The explanation of this is that there are many kinds of work that must be done in every city simply because it is a city and these sorts of work are necessary to its life. The great city requires an almost fixed proportion of professional workers and a nearly constant

number of people doing clerical work. The number engaged in transportation cannot be greatly increased or diminished and the city must have its

	Manufacturing	Trade	Personal service	Transportation	Clerical	Professional	ALL OTHER
Los Angeles	31	21	15	10	9	9	5
S. Francisco	32	17	17	12	10	6	5
Boston	36	17	17	10	11	6	3
Baltimore	41	16	17	10	8	5	3
St. Louis	42	17	14	9	11	5	2
Cincinnati	44	15	15	9	9	5	3
Buffalo	45	14	11	12	10	5	3
Pittsburgh	45	14	14	9	10	5	3
CLEVELAND	51	13	11	9	9	5	2
Milwaukee	52	14	10	8	9	5	2
Detroit	53	13	10	8	10	5	2

Diagram 2.—Number of employed persons in each 100 in 11 large cities who are engaged in each of six principal kinds of work

proper share of people engaged in trade. Even those working in manufacturing and mechanical occupations constitute a more nearly fixed proportion of the

whole population than would at first thought be expected.

These principles are graphically illustrated in Diagram 2, which shows the number of persons in each 100 workers engaged in each principal sort of occupation in Cleveland and 10 other cities of similar size. The important lesson of this diagram is that while Cleveland is a manufacturing center, its young people need preparation for other lines of future work in proportions not very different from those maintaining in the other great cities.

#### HOW MUCH CLEVELAND HAS AND WHAT IT SPENDS

Some cities have considerably more taxable property per inhabitant than others and there is wide variation in the amounts that the communities take each year in taxes for the support of municipal government. These two sorts of variations do not correspond with each other either directly or inversely. There is no general rule such as that rich cities have high tax rates and poor cities low ones, or vice versa.

In Diagram 3 the wealth and the tax rates of the 11 cities are compared. The black bars on the left of the diagram are proportionate in length to the real value of the taxable wealth per inhabitant in 1915 as computed by the census. It will be noted that Cleveland is fourth from the bottom in this comparison and so does not rank among the relatively wealthy cities.

The tax rates are shown in the cross-hatched bars

at the right of the same diagram. Here it is interesting to note that the richest city has the lowest tax rate and that the two poorest cities have the two highest tax rates. The Cleveland rate is the fifth from the lowest. Taking together the two sets of figures for wealth and for taxes, the diagram indi-

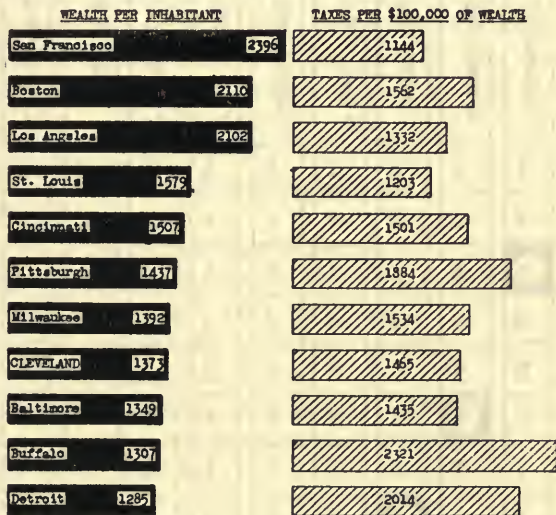


Diagram 3.—Wealth per inhabitant and tax rates in 11 large cities

cates that Cleveland is not one of the wealthy cities and that its municipal affairs are so inexpensively administered that its tax rate is very low indeed in proportion to its resources. All the figures entering into this comparison are taken from the census reports of municipal finances for 1915.

## WHAT CLEVELAND PEOPLE BUY WITH THEIR TAX MONEY

Cities, like persons, spend their incomes for the things they must have and those other things that they value highly enough to pay for. By finding out how

Libraries	Sanitation	Education	Gen. Govt.	Recreation	Police Dt.	Fire Dept.	Highways	Charities
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
<b>3</b>	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	<b>6</b>	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	<b>8</b>	8	8	8	8	8	8
9	9	9	<b>9</b>	9	9	9	9	9
10	10	10	10	<b>10</b>	<b>10</b>	10	10	10
11	11	11	11	11	11	<b>11</b>	<b>11</b>	<b>11</b>

Diagram 4.—Rank of Cleveland among 11 large cities in per capita expenditures for each principal kind of municipal activity. Numbers in black circles show Cleveland's rank

they expend their incomes we discover something of their characteristics and aspirations. Diagram 4 shows where Cleveland ranks among the 11 cities in its per capita expenditures for each of nine sorts of municipal activities. The numbers in the black circles show in each case Cleveland's rank. The first column shows that two cities spend more per inhabitant for the support of public libraries and that Cleveland occupies third place in this respect among the 11 cities. In expenditures for health and sanitation five of the cities rank above Cleveland and five below. For all of the seven other classes of city work Cleveland's expenditures are much lower than the average.

There are two impressive lessons to be drawn from this diagram. The first is that Cleveland's municipal activities are very inexpensively conducted. The second is that Cleveland places a relatively higher valuation on libraries, sanitation, and education than it does on other sorts of city work. These facts, like those of the preceding diagram, are from the 1915 census report on municipal finances.

#### PEOPLE WHO PREFER PRIVATE SCHOOLS

In present-day consideration, criticism, and commendation of American education the assumption is almost invariably made that if our young people are poorly educated or well trained, the blame or the credit belongs to the public school. The business man who complains that the boys and girls whom he

hires cannot spell correctly or compute accurately seldom stops to ask whether they were trained in public schools or in private ones.

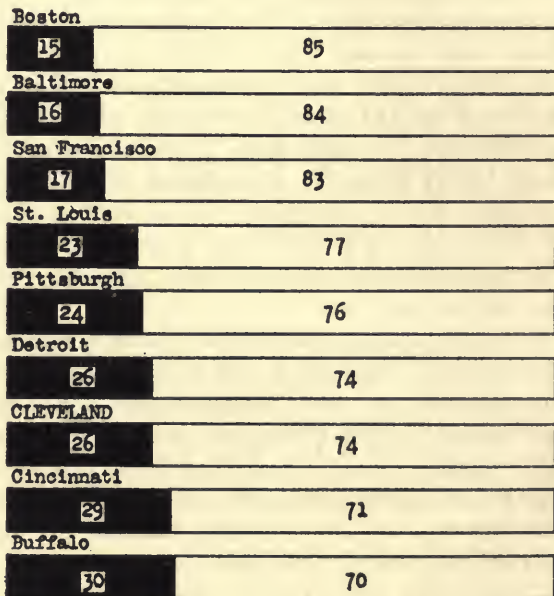


Diagram 5.—Portions in black indicate number of school children in each 100 attending private and parochial schools in each of nine large cities, and portions in outline indicate those attending public schools

The fact is that in all our large cities many thousands of children are educated in private and parochial schools, and in not a few American communities a majority of all the children are trained in



these schools. Figures are available in the report of the United States Commissioner of Education for 1914 showing the enrollment in public schools and in private and parochial schools in nine of our 11 cities. The facts are presented in Diagram 5, in which the black portion of each horizontal bar shows the number of school children in each 100 who are enrolled in private and parochial schools and the white portion shows the percentage in the public schools.

The lesson of the diagram is that in most of these large cities about one-fourth of the children are in private and parochial schools and three-fourths in public schools and that Cleveland has more than an average share in private and parochial schools.

#### SUMMARY

1. Cleveland is one of the most foreign of American cities.

2. It is predominantly a manufacturing city but occupational distributions are so nearly uniform in large cities that the proportions of Cleveland's workers engaged in trade, transportation, service, clerical occupations, and professional work are not greatly different from those found in other large communities.

3. Cleveland is not a wealthy city and it has a comparatively low tax rate. This means that its municipal income is proportionately lower than that of most other large cities and so its public activities are inexpensively conducted.

4. In most forms of municipal work Cleveland spends less per inhabitant than other cities of similar size, but the expenditures for libraries, sanitation, and education are more generous than those for other municipal activities.

5. More than one-fourth of Cleveland's school children are being educated in private and parochial schools. This proportion is somewhat larger than that found in most of the other cities of similar size.

## CHAPTER II

### HOW THE SURVEY WAS CONDUCTED

The Cleveland Foundation is a community trust established in 1914 by Mr. Frederick H. Goff through the agency of the Cleveland Trust Company and for the purpose of forwarding social progress and human welfare in that city. Its funds are not the gift of any one person, for this is a new sort of foundation controlled by representatives of the community, responsible to the people for its acts, and deriving its income from funds contributed by those who see in this new form of benefaction an effective instrumentality for bettering the city in which they have lived and worked. Already the sums that have been pledged to the Cleveland Foundation mount far into the millions. Only small portions of these funds are as yet available for foundation purposes, but it is already clear that in the years to come the Cleveland Foundation will face the duty of expending wisely for that city sums of money altogether greater than any that have ever been spent from private sources for the benefit of a single community.

Immediately after the establishment of the Foundation it became evident that the future responsibilities of its trustees would be heavy and varied in the ex-

treme. In view of this future certainty those directing the policies of the Foundation decided to enter upon a systematic policy of investigation of the conditions, problems, and needs of the municipal community. They adopted as a guiding principle the proposition that accurate and ample information and wise interpretation are the first steps toward success in any undertaking.

The education survey was the first large, comprehensive study undertaken in accordance with this principle of action. The work was begun and carried through with the coöperation of the Board of Education and the cordial support of nearly all the educational officials and the teaching force. Field work began in April, 1915, and continued through June, 1916.

#### PERMANENT STAFF AND SPECIALISTS

As has already been explained there were 23 main sections of the work, of which eight were studies of educational problems connected with training workers for the industries employing the largest numbers of wage earners. These studies were carried through by investigators who were permanently attached to the Survey Staff and who conducted a series of long and expensive studies.

The rest of the permanent staff of the survey consisted of the director, his secretary, and 10 other assistants. These people, together with those engaged in conducting the industrial studies, consti-

tuted the force at work during a large part of the duration of the survey. Fifteen sections of the survey were studies of problems and conditions affecting the work of the regular public schools of the city and most of these were conducted by educational specialists employed for brief periods of time.

### FORM OF REPORT

The most important differences between the methods employed in the Cleveland survey and those that have been used in similar work elsewhere are related to the form of publication that was adopted for the reports. There have been many reports of surveys in other cities consisting of single paper-covered pamphlets; others have been fairly thick books; one consisted of three volumes, and in that case the different sections were also printed separately. The reports of the Cleveland survey are published in 25 bound monographs. Here the entire survey work has been divided into relatively small sections and a complete and independent treatise has been prepared on each section.

### CONFERENCES WITH THE LOCAL SCHOOL PEOPLE

There are many advantages resulting from this form of publication and most of them relate to securing improved results in educating the public; in bridging the gap between knowing and doing. The typical procedure in the preparation of a report was as

follows: The specialist employed to study one feature of the work conducted his investigation and submitted his written report. It might have to do with the course of study, or provisions for exceptional children, or school buildings, or the teaching force, or any other phase of the educational work of the city. The report was written in such form that it might be printed in a separate volume and still be entirely comprehensible to any one who did not read any other volume of the series.

After the report was submitted, the director of the survey and other members of the staff worked over it with the author to make sure that its findings were accurate and that its recommendations were in harmony with those of the other sections. The report was then put into what the office force came to term "tentative final form" and some 20 copies of it were made by the mimeograph process. The copies were then submitted to the members of the Survey Committee, the members of the Board of Education, the superintendent of schools, and such interested school officials as the board or the superintendent might designate. For example, a manuscript dealing with health work was submitted to the chief medical inspector, while one having to do with buildings was submitted to the architect and the business director.

After allowing about a week for examining the report a meeting was held of all those persons to whom the manuscript had been submitted. At the meeting criticisms, corrections, and suggestions were discussed at great length and in great detail. In addition to the

verbal discussions, all the members were invited to submit written memoranda.

These conferences resulted in clearing up before publication questions of fact and questions of form. They did not clear away all the differences of opinion with respect to interpretation and recommendation. In these matters the final decision was left to the director of the survey. This process of conference resulted in mature deliberation concerning each fact presented and each recommendation offered. Some of the reports were rewritten as many as five times before being finally sent to the printer. The representations of the members of the Board of Education and the school officials resulted in some changes in every volume and in scores of changes in some of them. In the aggregate some hundreds of alterations were made as a result of the representations and arguments of the local school people.

After the report had gone through this searching process of revision, it was printed in the form of a small bound monograph of anywhere from 60 to 300 pages in length and usually with many diagrams, tables, and illustrations.

### CARRYING THE COMMUNITY

Each monograph, as it came from the printer, was given to the public and to the newspapers at a public luncheon in one of the leading hotels. The lunch cost 60 cents and began at 12 o'clock. At about half-past twelve the director of the survey or the

author of the monograph gave a talk of a little more than a half hour's duration presenting the gist of the report published that week. Moreover, the reports were placed on sale at the time of the meeting. A uniform charge of 25 cents was made for most of the volumes, although it cost more than that to publish them.

Invitations were sent out to attend the luncheon, although any one might attend who wished to. The dining room where the luncheons were held accommodated about 300 people and the luncheons were held weekly with few exceptions for more than a year. During the first few months of the work the methods and problems of the survey were discussed at these luncheons and during the latter weeks the findings were discussed in the manner just described.

Although this work was carried on for more than a year the weekly audiences always filled the hall comfortably and at times they were so large that the hotel accommodations were entirely inadequate to care for them. One interesting fact was that the audiences varied greatly in membership from week to week. A discussion of school finance filled the hall with business men; one on medical inspection attracted a large number of doctors; while one on schoolroom methods brought out the teachers and principals.

As the weekly luncheons increased in popularity, the newspapers of the city gave increasing amounts of space to the consideration of educational problems and the discussion of the weekly reports. Cleveland



was probably the only city in the country at that time where the daily newspapers regularly relegated war news to the inside pages in order to put school news on the front page.

This laborious process constituted a new development in educational practice and in the technique of the school survey. It might be called bridging the gap between knowing and doing, or it might be termed a process of carrying the community. It was a method of educating the public concerning its educational problems. Its object was to make the entire school system pass in complete review before the public eye. It made the schools and the public pay attention to each other. It presented the past, the present, and the possible. Its aim was to place before the citizens a picture of the schools, a picture so accurate that it could not mislead, so simple that it could not be misunderstood, and so significant that it could not be disregarded. The Cleveland experience demonstrated that it was entirely possible to arouse the public to this sort of interest in their school problems and then to sustain that interest.

The best judges of news values are the public newspapers, and when they devoted a large part of their front pages to the discussion of educational problems week after week for nearly a year, they did it because they knew that the readers were more interested in those problems than they were in any other part of the current news. Moreover, it must be remembered that this condition maintained despite the fact that in the main the discussions and

reports did not relate to alleged inefficiency. They made no charges of dishonesty. They revealed no bad conditions in school buildings. They brought to light little that was sensational. The lesson of all this is that citizens and the newspapers are interested in the public schools and they will give sustained attention to them and their problems if only these matters are presented to them simply and convincingly.

As a result of these new methods of bringing the school people and the public into the work, the findings of the Cleveland survey differ in some important respects from those of most other similar pieces of work. Since each section of the report is a separate volume, it had to carry its own setting and be sufficiently complete to stand alone. In order to meet this requirement the different specialists were compelled to delve deeply into the fundamental factors conditioning their problems. This was rendered possible by the unusually favorable circumstances under which the Cleveland work was conducted. The workers had ample time and there was generous financial support. The work enjoyed the coöperation of the municipal and school authorities and the reports profited by the searching criticism to which they were subjected. As a result of these conditions the findings of the survey deal largely with fundamental problems rather than details, with the essential rather than with the contingent, and with what to do rather than how to do it.

## COST OF THE SURVEY

The Cleveland survey was a very expensive enterprise. It cost approximately \$48,000. The amounts expended on each of the main portions of the work are shown in the following condensed cost accounting. In compiling this accounting the cost of selling reports has not been charged against the survey, nor has income from such sales been credited. The cost of printing second and third editions of the reports has been omitted since these expenses pertain to the conduct of the business of the Cleveland Foundation rather than to the expense of conducting the education survey. Again, no part of the salary of the director and permanent employees of the Cleveland Foundation has been charged against the survey although they greatly assisted in the work. The items for the two summaries include only the cost of printing, since the expense entailed in writing the volumes was borne by the Russell Sage Foundation as a part of its contribution to the survey.

### DISTRIBUTION OF TOTAL SURVEY COSTS AMONG THE PRINCIPAL DIVISIONS OF THE WORK

Studies and tests of the quality of instruction	\$6,597
Studies of metal trades and industrial education for them	3,444
Studies of building trades and industrial education for them	2,981
Studies of garment trades and industrial education for them	2,371
Studies of printing trades and industrial education for them	2,219
Problems of education for commercial and clerical work	2,210
Studies of household arts teaching and school lunch administration	1,737
Carried forward	<u>\$21,559</u>

	Brought forward	\$21,559
Industrial education for street and steam railroad employees		1,672
Problems of education for department store employees		1,602
Educational problems of the immigrant		1,454
Studies of quality, condition, and cost of school buildings		1,309
Educational provisions for mentally and physically exceptional children		1,283
Training, tenure, and qualifications of the teaching staff		1,272
Sources and administration of school funds		1,218
Provision of adequate library facilities for school children		1,165
Study of local adaptability of platoon plan of school administration		1,153
Industrial education for workers in dressmaking and millinery		1,146
Problems and conditions of organization and administration		1,144
Wider use of the school plant and educational extension		1,120
Educational possibilities through play, recreation, and athletics		1,056
Medical inspection and the work of the school nurse		975
Problems of census, retardation, elimination, attendance, and work papers		932
The curriculum and the course of study		922
Summary of the educational inquiries		750
Summary of the industrial inquiries		490
Public discussions of educational problems and survey findings		3,143
Private conferences on survey recommendations		3,048
Total		<u>\$48,413</u>

PRINCIPAL PURPOSES FOR WHICH SURVEY FUNDS  
WERE SPENT

Salaries, subsistence, and traveling expenses of specialists and staff	\$31,343
Printing of 25 volumes of monograph reports	10,078
Wages of clerical assistants	3,682
Printing of blanks and forms, office supplies, and stationery	1,535
Miscellaneous office expenses, postage, express, and public dinner	988
Line cuts, half-tones, photographs, etc.	683
Ten per cent of cost of permanent equipment used by survey	104
Total	<u>\$48,413</u>

## SURVEY STAFF

The identity of the different specialists employed by the survey, together with a brief statement as to their experience and qualifications, is shown in the following summary:

Leonard P. Ayres, Ph.B., A.M., Ph.D. *Director of Survey.* Teaching experience in first four grades; country superintendent; city superintendent; general superintendent of schools for Porto Rico; author of books and articles on educational, statistical, and scientific subjects. Now director of Division of Education and director of Division of Statistics of Russell Sage Foundation.

May Ayres, S. B. (Ph.D. pending). *School Buildings and Equipment and Health Work in the Public Schools.* Teaching experience in grades and university; chief of Social Service Department, Psychological Clinic, University of Pennsylvania; research worker, Boston Psychopathic Hospital; special agent, Russell Sage Foundation; author of *Fire Protection in Public Schools*; co-author of *Protecting School Houses from Fire*; author of *A Century of Schoolhouse Construction*; co-author of *Text Book on School Hygiene*. Took part in school surveys of Greenwich, Connecticut, and Brookline, Massachusetts. Now graduate student at Columbia University.

Franklin Bobbitt, A.B., Ph.D. *What the Schools Teach and Might Teach.* Teaching experience in all grades of rural and graded schools; superintendent of schools; principal of normal school; director of school surveys of South

Bend, San Antonio, and Denver; specialist in Illinois State Survey and Grand Rapids Survey. Now professor of educational administration in University of Chicago.

Alice C. Boughton, B.Sc., A.M. (Ph.D. pending). *Household Arts and School Lunches*. High school and university teaching experience; superintendent elementary school lunches of Philadelphia, 1907-15; one year in Europe to study school lunches; president Philadelphia Home Economics Association, 1913-15; chairman School Lunch Committee, American Home Economics Association; author of numerous reports and articles. Now graduate student at Columbia University.

Edna Bryner, A.B. *The Garment Trades, Dress-making and Millinery*. Teaching experience in grades, high school, normal college. Eugenics research worker, New Jersey State Hospital; statistical expert in U. S. Bureau of Labor investigation of women and child labor; statistical agent U. S. Post Office Department. Now special agent, Russell Sage Foundation.

Earle Clark, LL.B. *Financing the Public Schools*. Teaching experience in grades; principal of industrial school; municipal judge; statistical assistant Insular Government Porto Rico; special agent U. S. Immigration Commission; examiner, U. S. Tariff Board; lecturer on statistics New York University; author of statistical reports on immigration, insanity, wages and labor conditions, index prices, insurance, and educational costs. Now statistician, Russell Sage Foundation.

Ralph D. Fleming, A.B., M.A., Ph.D. *Railroad and Street Transportation*. Special agent and investigator for U. S. Immigration Commission, the Federal Census of Manufactures, the U. S. Tariff Board, the Minimum Wage Commission of Massachusetts, the National Civic Federation, the U. S. Commission on Industrial Relations; author of numerous reports. Now with the Alexander Hamilton Institute.

Shattuck O. Hartwell, A.B., M.Ped., LL.D. *Overcrowded Schools and the Platoon Plan*. Teaching experience in grades and Polytechnic Institute; high school principal; city superintendent of schools; president Michigan State Teachers' Association; president Michigan Association of City Superintendents. Now superintendent of schools, Muskegon, Michigan.

Walter A. Jessup, A.B., A.M., Ph.D. *The Teaching Staff*. Teacher in elementary school; principal of high school; superintendent of township school; superintendent of city schools; professor of pedagogy in college and university; state high school inspector of Indiana; dean of the School of Education of University of Indiana; dean of the School of Education of University of Iowa; author of books on supervision and arithmetic. Now president of the University of Iowa.

George E. Johnson, A.B., A.M. *Education through Recreation*. Teacher in grades; high school principal; city superintendent of schools; college professor; superintendent of recreation for Pittsburgh; author of books and articles on play and education. Now assistant professor of education, Harvard University.

Charles H. Judd, A.B., A.M., Ph.D., LL.D. *Measuring the Work of the Public Schools*. Instructor in philosophy Wesleyan University; professor of psychology New York University; professor of psychology and pedagogy University of Cincinnati; professor of psychology and director of the Psychological Laboratory Yale University; professor of education, University of Chicago; author of books and articles on psychology and education. Now director School of Education, University of Chicago.

R. R. Lutz, *Director of studies in industrial education. The Metal Trades; Wage Earning and Education*. Normal school graduate; teaching experience in rural and graded schools; superintendent of schools; secretary of Department of Education of Porto Rico; magazine editor; took part in school surveys of Greenwich, Connecticut, Bridgeport, Connecticut, Springfield, Illinois, Richmond, Virginia. Now special agent Division of Education, Russell Sage Foundation.

Adele E. McKinnie, A.B. *Public Library and the Public School*. Eugenic record office training for field work in eugenics; special investigator in eugenics for the State Board of Health of Michigan; investigator in the survey of the Michigan Eugenics Commission and collaborator in preparation of report; special agent in eugenics work for the Michigan Home for Feebleminded. Now graduate student Columbia University.

Herbert A. Miller, A.B., A.M., Ph.D. *The School and the Immigrant*. Instructor at Fisk University and in Olivet College. Extensive



sociological studies in Europe; author of treatises on nationalism, immigration, and race problems. Now professor of sociology in Oberlin College.

David Mitchell, B.A., A.M., Ph.D. *Provisions for Exceptional Children*. Lecturer and clinical psychologist, Graduate School and Psychological Clinic, University of Pennsylvania. Director of laboratory experiments in mental tests and measurements. Psychologist, Extension Clinics for Exceptional Children in Pennsylvania. In charge investigation into mental qualifications of typists and stenographers, Curtis Publishing Company. Consultant Psychologist, The Municipal Court of Philadelphia. Now assistant professor of psychology, University of Pennsylvania.

Iris P. O'Leary, *Department Store Occupations*. Head of manual training department, First Pennsylvania Normal School; head of vocational work for girls and women, New Bedford Industrial School; head of girls' department, Boardman Apprentice Shops, New Haven, Connecticut; student at Drexel Institute and Columbia University; special investigator of department stores for New York State Factory Investigating Commission; three years' trade experience as employer and employee; author of books on household arts and department stores. Now special assistant for vocational education, State Department of Public Instruction, New Jersey.

Clarence Arthur Perry, B.S. *Educational Extension*. Teaching experience in grades; grammar school principal; industrial school principal; high school principal; assistant superinten-

dent of schools; special agent U. S. Immigration Commission; took part in recreational survey of Springfield, Illinois; author of books and articles on the wider use of the school plant. Now associate director, Department of Recreation, Russell Sage Foundation.

Frank L. Shaw, A.B., LL.B. *The Building Trades; The Printing Trades*. Teaching experience in grades and high school; principal of high school; assistant superintendent of schools; superintendent of schools; special agent U. S. Immigration Commission; special agent U. S. Census; industrial secretary North American Civic League for Immigrants; special agent Salem Fire Relief Committee; author of reports on immigration legislation. Now educational statistician, General Education Board.

Bertha M. Stevens, A.B. *Boys and Girls in Commercial Work*. Teaching experience in elementary and secondary schools; agent of Associated Charities; secretary of Consumers' League of Ohio; director of Girls' Bureau of Cleveland; author of "Women's Work in Cleveland"; co-author of "Commercial Work and Training for Girls." Now director, United Employment Bureau of New York City.

The nineteen persons whose names appear in the preceding list are authors or co-authors of the different volumes of the survey report. In addition to the studies conducted by them a very important part of the survey work was done by Messrs. George S. Counts, Joseph F. Gonnely, and William S. Gray

who were members of the permanent staff of the survey. Most of their time was given to the tests and measurements of classroom work. Dr. Counts was especially connected with the spelling tests and the preparation of the arithmetic tests. Mr. Gonnely compiled the material showing the relationship between elementary schools and high schools. Dr. Gray prepared the material on reading. They did a large part of the classroom visiting. All three of them have had extensive teaching and supervisory experience. Dr. Counts is now Professor of Education in the State College of Delaware; Dr. Gray is Dean of the School of Education of the University of Chicago; Mr. Gonnely is Instructor in Education in the University of Chicago.

In addition to these special workers the following assistants were employed for different lengths of time:

Violet Glover, secretary to the director  
Robert Goldsmith, editorial assistant  
Edith M. Crump, draftsman  
Gertrude Gouvy, stenographer  
Elizabeth Greenslade, stenographer  
Esther Swartz, stenographer  
Lorena Knox, clerk  
Marian Rannells, clerk

#### SUMMARY

1. The Cleveland education survey was conducted by the Cleveland Foundation as one of a series of investigations of the conditions, problems, and needs of the city.

2. The survey work began in April, 1915, and continued through June, 1916. It was conducted by a permanent survey staff and by special assistants temporarily employed. The entire force consisted of 30 persons of whom 22 were specialists and eight were office assistants.

3. The report consists of a series of 25 bound monographs each of which is a complete and independent section of the whole.

4. Before publication each section of the report was put into tentative final form, revised by the author and the director, and submitted to careful study and discussion by a conference of local school people and the members of the survey committee.

5. The reports were given to the public and the newspapers at a series of public luncheons at which the different educational studies involved were discussed.

6. The total cost of the survey was approximately \$48,000.

## CHAPTER III

### GENERAL CONCLUSIONS

There are 10 principal factors, or sets of factors, in addition to the characteristics of the children themselves, that determine the quality of results and efficiency of work of a school system. These 10 principal factors are the following:

1. Legal basis of the system
2. Control by board
3. Professional leadership and methods of supervision
4. Financial support
5. Business management
6. Organization of system
7. Teaching staff
8. Educational aims, courses of study, and agencies
9. Plant and equipment
10. Community standards and aspirations

As a result of their studies of the Cleveland school system, the Survey Staff believe that in this city the most effective assets of the school system are to be found in those factors that are numbered 5, 7, 9, and 10 in the list above. The business management is honest and efficient. The teaching staff is of inherently good quality. The school plant is of ex-

ceptionally high grade. The community genuinely desires good schools.

With respect to the other six factors, the findings of the survey have recommended readjustments that would, in the opinion of the staff, greatly strengthen the school system of the city and largely increase its effectiveness for community service. As a brief summary of the more important points in these different sorts of conclusions, it is worth while to review the major conclusions under each of the 10 factors that have been mentioned.

### 1. LEGAL BASIS OF THE SYSTEM

The survey has recommended four important amendments in the laws which constitute the legal basis of Cleveland's school system. The purposes of these changes would be: first, to enable the Board of Education to simplify and systematize the conduct of its business; second, to separate school elections from municipal elections; third, to secure increased financial support; and fourth, to extend the compulsory attendance period to the age of 16 for both boys and girls.

The first three of these recommended changes are discussed in the sections of this chapter dealing with board control and financial support. The reason for recommending that the compulsory attendance period be extended to the age of 16 is that the survey's vocational studies have shown that the jobs that industry and business offer children under that

age are so few and so undesirable that they fall far short of equaling in future value an added year of school life.

## 2. CONTROL BY BOARD

There is ample evidence that many of Cleveland's educational troubles have their origin in past and prevailing methods of board control. In too great measure the board has attempted to run the schools instead of getting them run. It has tried to do things instead of getting them done. It has overlooked the fundamental principle that in a public service corporation policies should be determined by the board but put into execution by the professional administrative officers employed by the board. The board spends so much of its time dealing with small matters of specific application that it has little time left to devote to large problems of general policy.

Because of these conditions there prevails throughout the school system the practice of putting off decisions wherever possible until the questions involved can be referred to the board. The board really manages the schools and is exceedingly busy dealing with the details involved. From these conditions there has grown up a general lack of unity of educational thought and action that has become a tradition and habit of mind in the city. Authority and responsibility are widely scattered and vaguely assigned. Specialized interests are permitted to dominate and subordinate concern for the general welfare of the schools as a whole.

Part of the reasons for the conditions described are to be found in the traditions and customs of the system which can be altered by board action. Part of the reasons are to be found in the provisions of the state law which allot to the Board of Education a multiplicity of duties that consume the time and energy of the board members and seriously restrict the usefulness of the board's executives. In order to remedy this situation the board should lend its support to every wisely considered bill introduced in the state legislature that has as its object the simplification and systematizing of the conduct of board business. Without waiting for legal changes, it should make a careful study of its own activities with the definite purpose of condensing, abridging, and delegating detail. It should simplify and largely abandon its present method of conducting business through committees. The city should seek a change in the state law so as to provide for holding school elections on some date other than that of the municipal elections.

The findings of the survey concerning board control, its descriptions of existing conditions, and recommendations as to legislative and internal changes are set forth in the survey report entitled "School Organization and Administration."

### 3. PROFESSIONAL LEADERSHIP AND METHODS OF SUPERVISION

The quality of education of the city schools is largely determined by the leadership that directs it. It is



as true in a school system as it is in every other form of human organization that the character of the whole is largely determined by the people at the head. Professional leadership is mainly exercised by the superintendent, the assistant superintendents, the supervisors, the high school principals, and the elementary principals. They are the skilled defenders of the interests of the children. The survey holds that the improvements which can be most rapidly brought about and which will prove most beneficial can be effected through improving the quality of educational leadership exercised by all these different people.

Through the reorganizations already advocated in the preceding section on board control there should be brought about such a redistribution of the work of the board and the superintendent that each can exercise an effective and appropriate kind of leadership. The city rightly and naturally looks to the board as representing the public, the taxpayers, and the parents, and to the superintendent as being the expert guardian of the interests of the children. This does not mean that the deliberative work of the board should be limited to telling the superintendent what the public wants, and the work of the superintendent limited to putting these orders into execution. In addition to his work as executive, the main business of the superintendent is to think, to plan, and to propose, and the business of the board is to make decisions about these proposals. The superintendent should receive an annual salary of at least \$10,000

so that Cleveland may compete with other cities of corresponding and smaller size.

Not less important than the leadership of the superintendent is the leadership of the supervisors, the high school principals, and the elementary principals. It is the judgment of the Survey Staff that supervision falls far short of being one of the strong phases of the school system of the city. There are principals in both the elementary and the high schools who are without sufficient training for their duties, without adequate information as to what is going on about them, and without comprehensive grasp of educational problems. Many of the elementary principals have had little contact with the current educational movements. Many of them have been in the system for a long, long time and are conducting the schools today on the basis of opinions about school organization which originated before the stirring developments in education that have brought about new and better equipped buildings, an enriched course of study, and scientific methods of supervision. Some of the high school principals spend too much time and energy in the discussion of problems arising out of competition between the different high schools. The type of educational leadership that expresses itself in good supervision would unify the high school system so that it would become a coöperating system of institutions.

The whole situation as to educational leadership can be improved by replacing some of the least able members of the force and by stimulating, training,

and guiding others. As a major step toward this end there must be built up in the system a type of supervision based on ascertained fact that will reveal conditions and aid in solving problems in the work of instruction throughout the city. The reason why this is necessary is that Cleveland has grown too large to make it possible for its schools to be administered by the same sort of educational machinery that was adequate when it was a small community. There was a time when small school systems and relatively simple courses of study could be governed and supervised by central school officials who could keep all the activities of the teachers under direct personal observation. Opinion was the basis of action. That time has passed. In a system of more than 100 elementary school and 10 high schools methods of supervision must be worked out and put in operation which are impersonal. There is a special technique of administrative inquiry, a type of continuous self-survey which should be cultivated in the school system as it is being cultivated in all great business concerns. Money spent in central administration is well spent if it produces a system of scientific general supervision.

The conclusions and recommendations dealing with the relation of the superintendent to the board are discussed in the report on "School Organization and Administration." Those dealing with the work of the other educational officials and with the need for scientific supervision are to be found in the volume on "Measuring the Work of the Public Schools."

#### 4. FINANCIAL SUPPORT

The one outstanding fact in connection with the financial support of the Cleveland school system is that it is inadequate. For several years past the expenditures of the Board of Education have been growing more rapidly than its revenues. As a result there are at present deficits in the different educational funds; the board is forced to borrow money to meet its current obligations, and the school system has to resort to bond issues to raise money for the construction of new buildings. The survey finds the administration of the finances honest and efficient. It has been able to suggest only a few minor ways by which economies can be effected or revenues increased. The only immediate means for relieving this situation are to be found through increases in the valuation of city property or the repeal of the present state law which limits tax rates. The board should work for both of these ends but with a realization that an adequate solution can be secured only through legislation. The financial problems of the system are extensively treated in the survey volume entitled "Financing the Public Schools."

#### 5. BUSINESS MANAGEMENT

The business department of the Cleveland school system is honestly and efficiently conducted. Its work has been criticised by the survey on two counts. The first of these is that it has referred to the Board of Education so many separate matters of detail

that it has been seriously expensive of the time of the board. This has been partly due to the provisions of the school law and partly to methods which may easily be modified for the better.

The second count on which the survey has criticised the business department is that it is independent of the educational work and is rapidly becoming the dominant part of the school system. While these two criticisms are well founded, the fact remains that the business management of the system is so markedly efficient that it constitutes one of the real and important assets of the educational situation. A reorganization could be readily effected by which this efficiency could be retained and the grounds for criticism eliminated. The facts concerning the business management of the system are set forth in the volumes entitled "Financing the Public Schools," and "School Organization and Administration."

## 6. ORGANIZATION OF SYSTEM

No form of organization insures efficiency, but there are some forms which make efficiency possible and some which practically preclude it. There are also forms of organization of every intermediate degree of effectiveness. The organization of the Cleveland system falls in one of these intermediate classifications. It is far better than the poorest and probably better than the average found in large cities. It is not, however, so effective as it might be. Several of

its shortcomings have been referred to in the preceding sections.

There are three outstanding weaknesses. The first is that the activities of the system are now so organized and administered as to refer to the board a great mass of details that should be attended to by the executive officers. The second is that the work is organized on the theory that the board's work is of two separate and distinct sorts—the one pertaining to business affairs and the other dealing with educational affairs. The third weakness is one for which the second is largely responsible. It is that throughout the system authority and responsibility are widely scattered and vaguely assigned. Chapter III of the report entitled "School Organization and Administration" deals with these problems and brings together evidence from the reports presented by the different specialists concerning conditions found in their several fields of study, and illustrating the prevailing indefiniteness of authority and responsibility.

## 7. THE TEACHING STAFF

Among the most valuable assets of the Cleveland system must be included the teaching staff. For many years the city has maintained its own training school and during most of the time it has been an unusually efficient institution. It has trained a large proportion of the teachers in the elementary schools and some of those in the high schools. A

considerable number of the teachers have come from the more intelligent families of good social standing in the community. There are evidences that in recent years there has been some stagnation of professional interest and it is unquestionably true that the force would be strengthened by bringing in well-trained teachers from other localities. There has been too much "inbreeding" of the teaching staff. Nevertheless, the teachers of Cleveland compare very well with those of other large cities in so far as their professional preparation and inherent personal qualifications are concerned. Probably the greatest and most valuable single asset that the city has is the mutually self-respecting attitude found throughout the schools between the teachers and the pupils. These problems and conditions are treated in the survey report entitled "The Teaching Staff."

#### 8. EDUCATIONAL AIMS, COURSES OF STUDY, AND AGENCIES

As one of the 10 factors affecting the quality and determining the efficiency of the work of the school system it is clear that this eighth factor has an inadequate designation. Its title should be sufficiently inclusive to embrace the educational philosophy behind all that the system does and the means by which that philosophy finds its expression in such educational activities as the high, elementary, and evening schools, medical inspection, school lunches, community centers, public lectures, playgrounds, and

all the rest. It should include the curriculum and the course of study.

Regarding this factor in this all-inclusive way there is one major criticism which the survey has to make and several minor ones. The major criticism is that the professional spirit of the Cleveland schools is formalistic and conservative rather than liberalistic and progressive. The fundamentally social point of view of the survey is that effective education is preparation for adult life through participation in the activities of life. Since the work of the schools is to fit people for social conditions that are continually changing the work of the schools must correspondingly change. Social growth is never complete; it is especially rapid in our generation. Public education must grow and change as fast as social conditions make such changes necessary. It can never be complete, crystallized, perfected.

In attempting to compare what Cleveland does with what Cleveland needs the intention of the survey has been to present the disinterested, detached view of the outsider. Although it cannot know as much as those within the system about the details of the work, it has perhaps been able to get the perspective of these changing social conditions rather better than the local worker just because its mind has not been filled with the details of the local daily work.

Looking at the educational work of Cleveland from this point of view, the survey has found what it regards as too much drill, too much formalism, and a



too close adherence to tradition. This is the outstanding criticism and a somewhat general one. It is best expressed in the survey report entitled "What the Schools Teach and Might Teach," which considers in detail the course of study.

The specific and detailed criticisms of aims, courses of study, and agencies are to be found in several of the survey reports. A most important one is in the study of "The School and the Immigrant," which recommends an entire reorganization of the night school work. Several detailed criticisms as to teaching and some general ones are included in the report on "Measuring the Work of the Public Schools." A plea for a more progressive program in one much neglected field is put forward in the report on "Education through Recreation." Hearty commendation is expressed in the volume on "Health Work in the Public Schools," while some praise and more questions are to be found in the volumes on "Educational Extension" and "Household Arts and School Lunches." Specific criticisms are to be found in the eight reports on vocational education.

## 9. THE SCHOOL PLANT AND EQUIPMENT

In its school plant Cleveland possesses another of its valuable assets. Its buildings are evidences of a wise and progressive policy growing in accordance with growing educational ideals. All its buildings are exceptionally well kept up and its older buildings have been modernized, painted, cleaned, and kept in good repair.

Precautions against panic and fire are unusually good. There is probably no other city in the country so large and so old as Cleveland where the danger of fire is so slight. A comparison of the costs of the newer buildings with those in other cities leads to the conclusion that Cleveland is erecting modern socialized school buildings at a moderate cost and is receiving large values in return for its investments. These findings are set forth in the survey report entitled "School Buildings and Equipment."

#### 10. COMMUNITY STANDARDS AND ASPIRATIONS

The members of the Survey Staff are unanimous in their conviction that Cleveland genuinely desires good schools and is determined to have them. This has not always been apparent in the past educational history of the city. Nevertheless no other conclusion can be reached by any one who studies conditions carefully enough to get under the surface of things and reach those subtler truths which concern the whole community and which constitute the materials for straight thinking about the situation.

Convincing evidence as to community sentiment and aspirations with respect to the school system is afforded by the hearty coöperation given the survey and the unusual and sustained interest in its findings. The spirit of self-examination is the product of civic intelligence and community progress. Surveys attract slight and brief attention in cities where interest in education is dormant. Where so-

cial progress is most active the movement for self-examination is most virile. It is certain that there exists in Cleveland at the present time an enlightened public opinion about public education.

### SUMMARY

1. The survey recommends four important changes in state legislation.

2. It recommends that the board divest itself of routine details of work and devote its efforts to deciding what it wants done, selecting people to do those things, studying results to see how well they are being done, and to telling the public about problems faced and progress made.

3. The survey believes that the greatest single need of the school system is improved professional leadership.

4. Financial support is inadequate and must be increased.

5. The business management is honest and efficient.

6. Authority and responsibility should be more definitely located and assigned throughout the system.

7. The teaching staff is of inherently good quality. It needs professional stimulus.

8. The spirit of the system is formalistic and conservative.

9. The school plant is excellent.

10. The community genuinely wants good schools and is determined to have them.

## CHAPTER IV

### NEW CONTRIBUTIONS TO EDUCATION

The work of the survey has not merely consisted in applying to conditions in Cleveland the standards, tests, and measurements worked out elsewhere. One result of bringing together so large a force of workers as composed the survey staff has been that in several cases new methods of testing were devised, new educational theories formulated, or new principles discovered. These original contributions to education that came as a part of the survey work are some 14 in number. They are of widely differing importance and they relate to different sorts of educational problems. Since new contributions are of special importance to the still growing and rapidly maturing science of education it is worth while to review in this chapter the more important ones that the Cleveland survey developed. They are not considered in the order of their importance.

#### 1. THE EDUCATION OF EXCEPTIONAL CHILDREN

The study of educational provisions for exceptional children emphasizes the fundamental condition that these children consist of two great groups who may

be designated as the socially competent and the socially incompetent. The socially competent consist of all those who are of normal mentality and who will spend their lives in association with normal people. They are the backward, the blind, the deaf, the crippled, the foreign, and the children of the open-air classes. Since these children are socially competent and are to spend their lives in competition with the rest of us they should be educated in special classes in regular schools and have at least part of their work in the regular classes with the normal children. In Cleveland the classes for the blind have for some years been so conducted to the great advantage of these handicapped children.

The socially incompetent children consist of the feebleminded and the epileptic who may be cared for during their younger years by the public schools, but who are so deficient that they must eventually be placed in institutions. The duty of the school system is to prepare these children for self-support in institutional life, and the most reasonable way of doing this in large cities is to segregate them in special classes.

Now in point of fact American school systems have generally followed just the reverse plan. They have educated these socially incompetent in special classes in regular schools and have segregated such socially incompetent children as the blind, the deaf, and the crippled in special schools. The findings of the survey advocate the establishment of special schools for the feebleminded and classes in the regular schools

for the mentally normal. These conclusions are presented in the report entitled "Schools and Classes for Exceptional Children."

## 2. THE EDUCATION OF IMMIGRANT CHILDREN

In Cleveland about one-half of the school children come from non-English-speaking homes. In a majority of the schools the children from non-English-speaking homes outnumber those from English-speaking homes. It would thus seem on first consideration that it would be a comparatively simple matter and a very desirable procedure to modify the instruction given in each school so as to meet most adequately the needs of the pupils of the different foreign nationalities. Both in Cleveland and elsewhere it has been strongly urged that a separate scheme of instruction be developed to meet the needs of the children of each important national group.

A careful analysis of the facts as to the distribution of the children of the different nationalities through the grades, the rooms, and the schools of the Cleveland system conclusively demonstrated that such plans are administratively impractical. The reason for this is that the group of children from non-English-speaking homes is exceedingly complex. Taken altogether they outnumber those from English-speaking homes, but there is no educational basis on which they can be taken together. These children from non-English-speaking homes belong to more than 50 different nationalities and they speak

a great variety of languages and dialects. In many of the classrooms of Cleveland there are pupils of a dozen different nationalities. In a great majority of the classrooms of the city the largest single group is made up of children from English-speaking homes. In only a few cases are there classes in which practically all of the children are of the same nationality

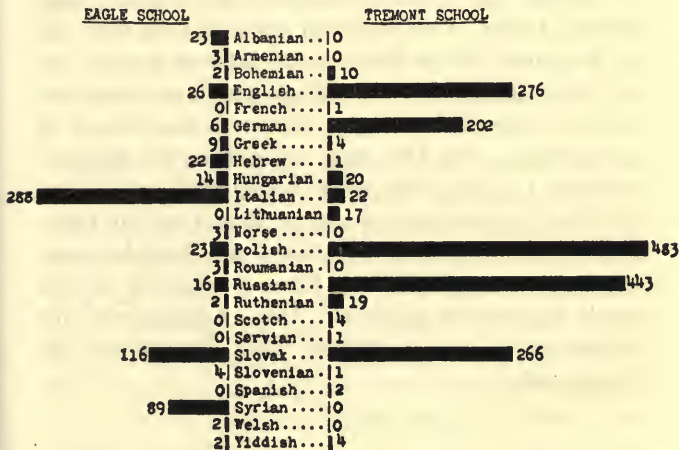


Diagram 6.—Distribution of pupils by nationalities in two elementary schools

and these classes seldom hold together for more than a single term. In most cases it was found that the teachers and principals themselves were unaware of the extremely cosmopolitan character of their classes. In many cases they knew that their pupils were largely Italian, or Polish, or Hungarian, but did not realize that they represented perhaps a dozen

different languages. Something of the complexity of the problem is indicated by Diagram 6, which shows the distribution of pupils by nationalities in two of the larger elementary schools.

This same method of analysis may well be applied in a large range of educational situations in which it is advocated that the instruction be modified to meet the special needs of individuals and groups. Under present forms of educational organization this can be done only where those individuals or groups can be brought together in sufficiently large numbers to form fair-sized classes that are homogeneous in composition. In the case in point the analysis brought to light the most unexpected conclusion that the largest single group in almost all the classrooms was made up of children from English-speaking homes, although they form a minority of the whole number of children. These findings are discussed in the report entitled "The School and the Immigrant."

### 3. BOYS AND GIRLS IN COMMERCIAL WORK

In the study of education for wage earning in commercial and clerical work an analysis of some thousands of office positions held by men and women, boys and girls demonstrated with great clearness that modern commercial work of men is an entirely different thing from the commercial work of women. With perfect definiteness the records show that the requirements of work, the lines of promotion, and the



necessary preparation are of one sort for the boys and men and of another and essentially different sort for the girls and women. These are facts which our school systems have overlooked in planning their high school courses in commercial work. The evidence in support of these conclusions is presented in the report entitled "Boys and Girls in Commercial Work."

#### 4. AN ACTUARIAL BASIS FOR INDUSTRIAL EDUCATION

During recent years educational leaders, school teachers, and the general public have come to think of the carpenter shop, the machine shop, the forge room, and the cooking room as necessary and desirable adjuncts of the modern school and to their minds these shops have typified industrial education. Very generally it has been felt that the problems of industrial education were to be solved through the wider extension of these shop facilities in our public schools.

When the survey submitted these familiar generalizations to careful analysis their whole structure began to totter. In Cleveland about 3,700 boys leave school each year and go to work. They represent various stages of advancement from the fourth grade of the elementary school to the fourth grade of the high school. They are scattered through more than 100 school buildings. The problem of industrial education is to prepare these boys with their

differing ages, their widely varied school preparation and their scattered geographical distribution to take their places in the work-a-day world. They represent every grade of intelligence and every stratum of social and economic life. They are scattered in little groups through more than 1,000 classrooms.

Now almost all these boys are of American birth and it is certain that in a few years they will be engaged in doing just about the same sorts of work as are now done in Cleveland by adults of American birth. Census data show us that among every 100 American-born men in Cleveland there are eight who are clerks, seven who are machinists, four who are salesmen, three who are carpenters, and so on through the list of hundreds of occupations. Even these simple facts at once call into question all the standard assumptions about the extension of industrial education depending on increasing the number of carpenter shops and machine shops in the public schools. Among each 100 American men only seven are machinists and three are carpenters. Clearly then we should not be justified in training all the boys in our public schools to enter the machine trade or the carpenter trade when nine out of each 10 will in all probability engage in entirely different sorts of future work.

Again a study of other similar figures shows that the 10 leading occupations include only 41 out of each 100 American-born men. Moreover, more than half of these 41 are engaged in mental work rather than in manual work. The more such figures

are studied the clearer it appears that our conventional ideas about industrial education need critical scrutiny and careful challenge. A beginning in both directions has been made in the Cleveland survey. The results are presented in a summary report entitled "Wage Earning and Education."

## 5. EXPENDITURES FOR EDUCATIONAL AND FOR BUSINESS PURPOSES

The study of Cleveland's school finances introduced a novel feature in classifying the expenditures in two distinct groups. One included the items having a direct bearing upon the instruction of pupils, such as expenditure for teachers' salaries, supervision, stationery, and other classroom supplies. In the other group were included expenses for creating and keeping in operation the school plant and conducting the administration offices. When these two groupings were worked out for Cleveland and 17 other cities of comparable size the fact came to light that different cities follow the most diverse policies with respect to dividing their incomes between business purposes and educational purposes. Three cities are especially noteworthy. St. Louis, Pittsburgh, and Cleveland are evidently following the policy of devoting to their business activities much higher proportions of their incomes than do the other cities. These facts are clearly brought to light in Diagram 7 in which the lengths of the black bars are proportionate to the number of cents that each city devotes to

business purposes for each dollar that it spends for educational purposes. These conditions are presented in the report entitled "Financing the Public Schools."

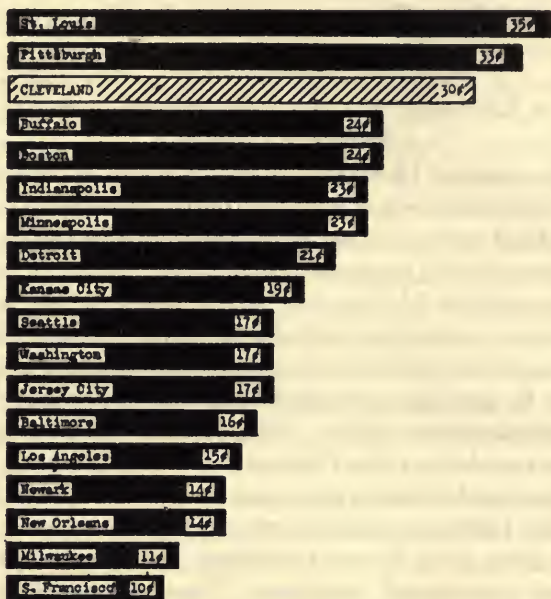


Diagram 7.—Number of cents that each of 18 city school systems devotes to business purposes for each dollar that it spends for educational purposes

## 6. THE PLATOON PLAN

One of the most interesting reports of the survey is the volume on the platoon plan, which is the name

applied to the Gary idea as modified for use in established school systems and as now being applied experimentally in several of the Cleveland buildings. In this report the author has rendered a service by formulating for the first time a clearly stated analysis of what the Gary plan for using school space really is. It shows that it is not a single plan, but rather a combination of five varying factors which may be stated as follows:

1. Shops, gymnasiums, and an auditorium are added to the school building; playgrounds and school gardens are provided outside.
2. Through administrative readjustments all special rooms as well as all classrooms are used throughout the school day.
3. Several classes are accommodated simultaneously in auditoriums and gymnasiums.
4. Different groups of children come to school at different hours.
5. Libraries, churches, the Y. M. C. A., etc., are allied with the schools to the extent of caring for part of the children part of the time.

With this analysis as a basis the author goes on to show the degree to which each factor may be utilized in effecting economies and the practical possibilities and limitations of combining them. These findings are presented in the report entitled "Overcrowded Schools and the Platoon Plan."

## 7. COMPARATIVE COSTS OF SCHOOL BUILDINGS

The report on the school plant makes available for the first time comparative figures on the cost of school

buildings in different cities reduced to the same basis so as to render the figures for one locality comparable with those for other localities. Such comparisons are rendered especially difficult because buildings are erected from different plans and composed of different sorts of materials. Moreover, there is no single satisfactory unit of cost comparison. The survey met this difficulty in some measure by securing details concerning the construction and costs of 46 recently erected schools in five different cities, reducing the figures as nearly as possible to a comparable basis, and then making six different sets of cost comparisons and finally combining them all. It is believed that these methods are not only superior to those that have been heretofore available, but that, by developing and perfecting them, still more valuable units can be secured that will be of value for other localities. The findings are reported in the volume entitled "School Buildings and Equipment."

#### 8. THE PURCHASE OF TEXTBOOKS

In Cleveland, as in many other cities, it is the general conviction of people who have accurate knowledge of local conditions that the interests of textbook publishing firms have been a powerful force in controlling school elections and influencing appointments. Some of the charges made are substantiated by reliable evidence. In other cases it is clear that the power of such influences has been greatly exaggerated. In general the whole situation is left largely in

the dark because charges and countercharges are freely made and no definite facts brought forward to support the claims of either side.

In reporting on the administration of the Cleveland system the survey presented in detail all the more important facts concerning textbook purchases from the leading publishers during the past 14 years. The study showed in an impressive way that fluctuations in the amount of business done with the different firms have been coincident with changes in the educational administration of the system. These comparisons are presented in the volume entitled "School Organization and Administration," and the principal table and diagram are reproduced in the summary of that report which is Chapter XIX of the present volume.

## 9. THE PENSION FUND AND TEACHERS WHO ENTER LATE

The report on the teaching staff introduced an innovation in making a study of the probable effect on the city pension fund of bringing into the system outside teachers who are no longer young. By means of studies based on actuarial tables it showed that the probabilities are that the city will pay in present salaries and future pensions about \$200 more for each year of teaching service rendered by each of the teachers it is now bringing in from the outside than it would pay for corresponding service rendered by younger people, such as the comparatively recent

graduates of its own or other normal schools. The principles involved have large importance for every city that has a pension fund and follows the policy of recruiting its teaching force in some measure from outside sources. These findings are reported in the volume entitled "The Teaching Staff."

#### 10. SPEED AND QUALITY IN HANDWRITING AND READING

The survey developed a method by which to measure and record for each school the progress made from grade to grade in both speed and quality in subjects where both elements enter as factors in achievement. The new method was applied to results in handwriting and reading. Formerly the records of speed and quality have been made separately and not simultaneously. By this new device the teachers and principals of any school can readily see whether or not their classes are making the sort of satisfactory progress that does not sacrifice speed to quality or quality to speed, but rather goes forward in both of them.

Moreover, the survey discovered and mapped out the neutral ground between speed and quality in handwriting. In general children who write rapidly write poorly and those who write well write slowly. Nevertheless there is a point to which quality may be developed without reducing speed and a point to which speed may be increased without hurting quality. The survey discovered these points for Cleve-



land for each grade. All these findings are presented in the volume entitled "Measuring the Work of the Public Schools," and diagrams illustrating combined speed and progress records are reproduced in the summary of that report contained in Chapter VIII of the present volume.

### 11. STANDARDIZED TESTS IN READING

In conducting its series of careful and extensive studies of reading the survey developed a series of standardized tests that constitute a measure for oral reading. For the most part the tests themselves had been used previously and developed elsewhere, but they had not been standardized and compiled into a reliable measuring instrument. In the course of the Cleveland work it was possible to do this because of the advantages offered by the unusual extent and comprehensive nature of the work that was made possible in this large city. The use made of these reading tests is described in the volume entitled "Measuring the Work of the Public Schools," and the details as to their development are explained in the Appendix of the same volume. The survey emphasized the central importance of reading in the curriculum.

### 12. A SPIRAL TEST IN ARITHMETIC

For the purposes of the Cleveland survey a new series of tests was devised for measuring arithmetical

accomplishments and progress from grade to grade. The chief advantage of this new test is that it is a better instrument for educational diagnosis than former tests have been. It analyzes progress in the arithmetical processes. It tests each child in the very simplest forms of each fundamental arithmetical operation. It then retests him in a slightly more complex form of the same fundamental operation. A third time and fourth time it takes the child through exercises involving the same operations, and each time it adds the new complexities that are demanded by more advanced work. Because of this spiral nature of the test the records indicate just where any individual child begins to get into difficulty in performing each fundamental sort of arithmetical operation. This test and its applications are explained in the volume entitled "Measuring the Work of the Public Schools."

### 13. ANALYSIS OF FAILURES IN SCHOOL SUBJECTS

For the first time in survey work non-promotions have been made the subject of critical study. They have been analyzed by grades, by particular subjects of instruction, and by individual schools. The results indicate that failures increase with school training, that certain subjects cause so many failures that it is perfectly certain that these subjects ought to be taught in a different way, and that different schools in the system are discordant in their practices and need more nearly adequate supervision. These methods and findings are reported in the first

chapter of the volume entitled "Measuring the Work of the Public Schools."

#### 14. RELATION OF HIGH SCHOOLS TO REST OF SYSTEM

The survey introduced an innovation in devoting some 60 pages of one report to a study of the relations existing between the high schools of the city and the rest of the school system. One principal feature of this study consisted in the use of a statistical device for studying the relationship between the elementary schools and the high schools. The device itself was not developed in the course of the Cleveland work, but it was there utilized on an extensive scale for the first time. The importance of the study of high school conditions and relationships was demonstrated by the nature of the results which emphasized the great need of a more intimate cementing of elementary schools and high schools and of more consistent achievements by the different high schools and closer coöperation between them. These findings are presented in the last two chapters of "Measuring the Work of the Public Schools."

#### SUMMARY

1. During the conduct of the survey some 14 new contributions to educational knowledge were developed that are considered of sufficient importance to deserve special mention.

2. Four of these relate to the organization of the curriculum and concern the education of exceptional children, the education of immigrant children, the education in commercial subjects, and the organization of industrial education.

3. Five new methods and sets of facts have been developed in the field of educational administration. These relate to comparisons of expenditures for business and educational purposes, to the working of duplicate school plans, to units of cost for school buildings, to factors affecting the purchase of school textbooks, and to the effect on the pension fund of the employment of outside teachers.

4. Five new steps were taken in the measurement of school work. These relate to improved methods for recording accomplishment in handwriting and reading, the development of a new measure for oral reading, the devising of a new series of tests for measuring and analyzing accomplishment in arithmetic, methods for analyzing the records of non-promotion, and methods and devices for studying the relationships existing between the high schools and the rest of the school system.

## CHAPTER V

# CHILD ACCOUNTING IN THE PUBLIC SCHOOLS

(Leonard P. Ayres)

Every year, in the month of May, Cleveland counts its children of school age (six to 21) and finds out which ones are attending public school, parochial school, private school, or no school. According to law, all children between the ages of eight and 15 should be in school, but nobody knows whether they are or not, because the returns of the yearly census are not tabulated so as to tell the essential facts about the children of any given age. For 1915, the returns tell us that there are about 171,000 children of school age in the district, that nearly 88,000 of them are in public schools, 34,000 in parochial and private schools, and more than 49,000 are not in any school. This last group is largely made up of those who are not of compulsory attendance age.

Each year after the census has been taken the city reports to the state the number of children of school age who were enumerated, and receives about \$2.00 from state funds for each one so reported. This is almost the only use made of the census returns. Each year much valuable information is

gathered at large expense but the figures are not so tabulated as to yield the important information that they contain.

The census returns should be tabulated so as to show how many boys and girls of each age are in each kind of school or in no school. This would make it possible to check up the effectiveness with which the compulsory education laws are being enforced, for it would show how many boys and girls of each compulsory attendance age were not attending school. At present the returns are not so tabulated.

#### ACCURACY OF SCHOOL CENSUS

According to the evidence of the United States Census, the Cleveland school census has seriously fallen short of enumerating all the children of school age. These shortages appear to aggregate about 79,000 in the past six years. Since the city receives about \$2.00 from state funds for each child enumerated, these shortages are equivalent to serious financial losses, amounting to more than \$150,000 in the past six years. Recent improvements in methods of taking the school census are rapidly bettering these conditions.

#### NUMBER OF CHILDREN IN PUBLIC SCHOOLS

In the spring of 1915 the school system enumerated nearly 6,000 more pupils as being in the public schools than the schools reported as being enrolled

at that time. This is a serious discrepancy which is probably to be accounted for in three ways. In the first place a few of these extra pupils were probably six-year-old children enrolled in the public kindergartens. In the second place it is probable that there are serious inaccuracies in the census due to a failure to verify the returns by comparing them with the school records. The third and most important reason for the discrepancy is probably to be found in the Cleveland practice of dropping a child from the roll as soon as he has been absent for three consecutive days. This removes him from the school record, but does not prevent his parent from reporting to the census officer that he is still attending public school. Whatever the causes of this discrepancy may be, it is clear that the census figures should be regularly checked with the school records so as to discover and eliminate such errors in the future.

#### A MORE ACCURATE AND USEFUL CENSUS

There should be established in the offices of the Board of Education a permanent Division of School Census in charge of a thoroughly competent census clerk. This office should be charged with the duty of taking a truly complete and accurate census annually. The work of this office should be closely coördinated with that of the truant officer. The office should prepare maps showing the increase or decrease of child population in the different districts of the city. This

information should be used as an aid in shaping the building policy of the school system.

Since the city receives from the state about \$2.00 for each child enumerated, complete accuracy and efficiency in the work will result in increasing this income by an amount much in excess of the salary costs involved.

#### AGES AT WHICH PUPILS LEAVE SCHOOL

The number of boys and girls of each age enrolled in the public schools in June, 1915, is shown in Table 1 and Diagram 8. In the diagram the upright columns are proportionate to the number of pupils at each age. The portion in outline in each case represents the boys and that in black the girls.

From the age of seven to the age of 10 there is a steady falling-off of pupils at each age. This is due to the fact that there are fewer children in the schools as well as fewer in the city at each upper age than at each lower one. The number of pupils in school at the ages of 11, 12, and 13 is almost exactly constant. At the age of 14 there is a distinct falling-off, indicating that not a few children anticipate the conclusion of the compulsory attendance period and drop out of school without waiting. At the age of 15 there is a notable falling-off in numbers, and the impressive feature of this falling-off is that it is as great for the girls as it is for the boys. This reveals an important situation, for the compulsory attendance law requires all girls to remain in school up to



**TABLE 1.—PUPILS ENROLLED IN PUBLIC ELEMENTARY, HIGH AND NORMAL SCHOOLS IN JUNE, 1915**

Age	Boys	Girls	Total
6	4,255	4,180	8,435
7	5,012	4,815	9,827
8	4,496	4,407	8,903
9	4,268	4,103	8,371
10	4,093	3,951	8,044
11	3,747	3,593	7,340
12	3,700	3,646	7,346
13	3,676	3,631	7,307
14	3,445	3,271	6,716
15	2,358	2,291	4,649
16	1,190	1,163	2,353
17	672	680	1,352
18	403	358	761
19	135	156	291
20	41	52	93
Over 20	..	22	22
<b>Total</b>	<b>41,491</b>	<b>40,319</b>	<b>81,810</b>

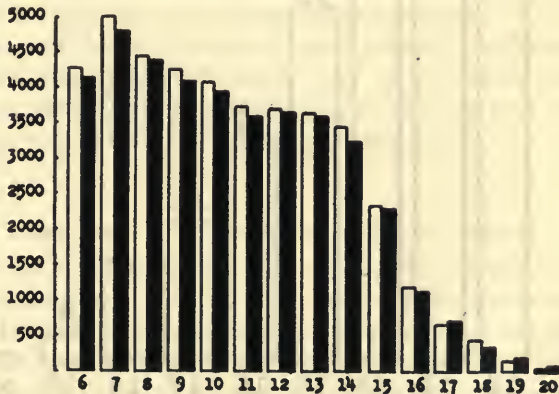


Diagram 8.—The columns represent the pupils enrolled in the public elementary and high schools in June, 1915. The columns in outline represent the boys and those in black represent the girls at each age from six to 20

the age of 16, whereas it permits boys to leave at the age of 15. The figures present convincing evidence that this feature of the law is almost entirely inoperative, and indicate that if the provision requiring



Diagram 9.—Columns represent number of pupils among each hundred beginners who remain in school at each age from 12 to 20

an added year of attendance for girls had not been enacted, the results would be much the same as they are now.

Careful computations have been made to find out at what ages the pupils drop out of school in this city. An approximately correct answer is presented in Diagram 9, in which the upright columns represent the number of pupils among each hundred beginners who remain in school at each age. In general terms, the figures show that practically all remain to the age of 12. By 14 one in six has left; by 15 nearly half of them have gone; by 16 two-thirds have dropped out; and by 17, only one in five remains.

There is good evidence that these figures are substantially accurate, and if they are, they indicate serious failure on the part of the attendance officers to enforce the compulsory attendance law. If the data of the school census were accurately gathered and adequately tabulated, they would reveal the real facts with respect to the enforcement of the legal provisions for compulsory education.

#### GRADES AT WHICH PUPILS LEAVE SCHOOL

Careful computations indicate that the numbers of pupils remaining to each grade and high school class in Cleveland are substantially as shown in Diagram 10. In this diagram the upright columns are proportionate to the number of pupils among each hundred beginners who survive to each one of the upper grades. The figures indicate that almost all

the pupils complete the fifth grade. By the time the seventh grade is reached, one in five has left. Nearly two-thirds of them reach the eighth grade. More than four in every 10 enter the high school and nearly one-half of these finish the course.

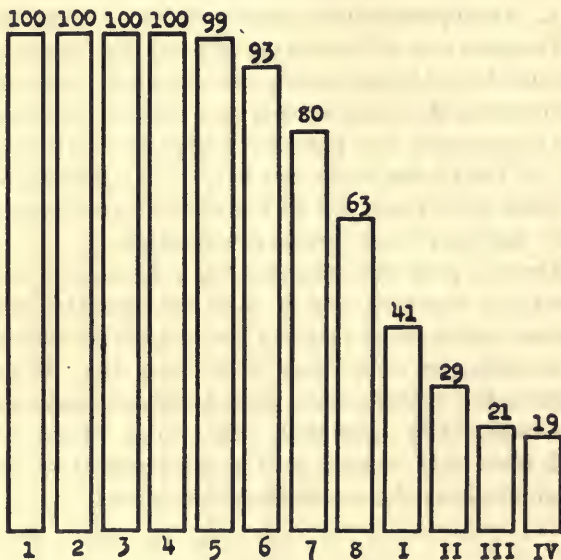


Diagram 19.—Columns represent number of pupils among each hundred beginners who remain in school at each grade from the first elementary to the fourth high

This showing is a creditable one. Few of the larger cities do better and many of them make much poorer records. Moreover, there is clear evidence that these conditions have been rapidly improving in Cleveland during the past 10 years.

## REGULARITY OF ATTENDANCE

The school records indicate that pupils attend school with unusual regularity in Cleveland. These records are unreliable because in this city the children are considered as having perfect attendance during six weeks of every year regardless of whether or not they are absent. This method of counting attendance should be modified so as to show the real facts, and steps are being taken toward this end.

## CHILDREN WHO ARE MISFITS

The survey has made a careful study to determine how many of the Cleveland children are over-age for their grades and how many are making slow progress through the grades. In order to make these comparisons, it has adopted certain standards. The standards for classifying children according to age are as follows:

A child who is seven years old and is in the first grade is considered as being of normal age for that grade. If he is eight or more years old, he is classified as over-age. In the same way children who are nine or over in the second grade and 10 or over in the third grade are classified as being over-age for their grades. The same rule applies to the children of the other higher grades, one year being added for each successive advancing grade.

The criteria for classifying the children according to progress are the following:

A child who has been in school four years and is in

the fourth grade is classified as having made normal progress. If he has been in school only three years, he is considered to have made rapid progress, while if he has taken five or more years, he has made slow progress. Following similar rules for all the other grades, we may classify the children into three groups according as they have made rapid progress, normal progress, or slow progress through the grades.

TABLE 2.—AGE AND PROGRESS CLASSIFICATION OF CHILDREN IN ELEMENTARY SCHOOLS AT CLOSE OF YEAR 1914-15

		Age for Grade		
		Young	Normal	Old
P R O G R E S S	Rapid	4,574	1,034	871
	Normal	21,262	16,637	4,136
	Slow	480	6,451	15,344

If we classify all of the children according to age so as to divide them into children who are below normal age, of normal age, and above normal age for their grades, and if we again classify them according to progress into groups that have made rapid progress, normal progress, and slow progress, we shall have a three-times-three classification of all the children into nine age and progress groups. Such a classification of the children in the elementary schools of Cleveland in June, 1915, gave the results shown in Table 2. The same facts are shown in

graphic form in Diagram 11 in which the figures have been reduced to a percentage basis and the circles are proportionate in size to the percentage of children in each of the age groups.




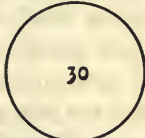





 6	 2	 1
Under age and rapid progress	Normal age and rapid progress	Over age and rapid progress
 30	 23	 6
Under age and normal progress	Normal age and normal progress	Over age and normal progress
 1	 9	 22
Under age and slow progress	Normal age and slow progress	Over age and slow progress

Diagram 11.—Per cent of children in each age and progress in elementary schools at close of year 1914-15

Of all the children considered in this tabulation, those who constitute the greatest problem for themselves, for society, and for the school system, are the 22 per cent who are both over-age for their grades and are making slow progress. These are the pupils who ap-

pear in the lower right-hand corner of the tabulation. Unless special provision is made for them, these are the children who clog the lower grades of the school system, largely constitute the great mass of repeaters, and finally fall out without completing the course. Frequently they leave school permanently without ever having had those studies which have been put into the curriculum for the express purpose of fitting the young people for citizenship.

The most important and effective provision which can be made to care for these children consists of an adequate system of child accounting that shall continually tell the school officials how many such children there are in each room and each building, who these children are, and why they have not gone forward with their fellows. This is a matter which can be solved in the mass only by taking care of the individuals who make up the mass.

All the schools of the city contribute some children to make up the 15,000 who are both over-age and slow, but they differ greatly in the size of their contributions. The records of the 96 elementary schools in this respect are shown in Table 3, which gives the percentage that these children are of the entire enrollment in each of the schools. At one extreme are the Kennard, Miles, and Pearl schools, with only about 10 per cent of their children in the slow and over-age group, while at the other extreme are the Fullerton and Longwood schools, with more than 40 per cent of their children in this class. In this connection it should be noted that the member-



TABLE 3.—PER CENT OF CHILDREN IN EACH ELEMENTARY SCHOOL WHO ARE BOTH OVER-AGE FOR THEIR GRADES AND MAKING SLOW PROGRESS

1. Kennard	9.5	51. Tod	21.2
2. Miles	10.4	52. Harmon	21.7
3. Pearl	10.5	53. Mt. Pleasant	21.8
4. Parkwood	11.2	54. Fruitland	22.1
5. Wade Park	11.2	55. Buhner	22.4
6. Addison	11.6	56. Clark	22.7
7. Mill	12.3	57. Fairmount	22.7
8. Central	12.6	58. Sackett	22.8
9. Case Woodland	12.6	59. Walton	22.9
10. Doan	12.9	60. Miles Park	23.0
11. Dike	13.2	61. Orchard	23.8
12. Bolton	13.7	62. Sterling	24.2
13. Fowler	13.8	63. Tremont	24.4
14. Columbia	14.2	64. Murray Hill	24.6
15. Giddings	14.4	65. Watterson	24.9
16. South Case	14.7	66. Alabama	25.1
17. Kentucky	14.8	67. East Boulevard	25.2
18. Gilbert	14.8	68. Observation	25.2
19. Hough	15.3	69. South	25.5
20. Chesterfield	15.8	70. Lawn	25.6
21. North Doan	15.8	71. Stanard	25.7
22. Rosedale	16.1	72. Barkwill	25.9
23. Memphis	16.2	73. Memorial	25.9
24. Boulevard	16.5	74. Warner	26.6
25. Willard	16.5	75. Broadway	27.2
26. Outhwaite	17.0	76. Brownell	27.5
27. Huck	17.3	77. Waring	27.5
28. Quincy	17.5	78. Kinsman	27.6
29. East Denison	17.5	79. Scranton	27.7
30. Sibley	17.8	80. Nottingham	27.9
31. Hodge	17.9	81. Case	28.7
32. Woodridge	17.9	82. East Clark	29.2
33. Woodland Hills	17.9	83. Union	29.5
34. Waring	18.0	84. Eagle	29.6
35. Washington Pk.	18.0	85. Woodland	30.0
36. Sowinski	18.1	86. Detroit	31.1
37. Landon	18.2	87. Rockwell	31.3
38. Mayflower	18.4	88. St. Clair	32.1
39. Denison	18.6	89. Rice	33.2
40. Waverly	18.9	90. Euclid Park	33.3
41. Hazeldell	19.0	91. Hicks	34.5
42. Dunham	19.7	92. Mound	34.5
43. East Madison	19.7	93. Lincoln	35.9
44. Milford	19.7	94. Harvard	37.1
45. Gordon	19.9	95. Fullerton	43.1
46. Halle	20.1	96. Longwood	47.4
47. Dawning	20.2		
48. Marion	20.4		
49. Willson	21.0		
50. Moulton	21.1		

ship of the Longwood School is partly made up of children enrolled in special classes for the retarded and backward.

#### SIZE OF CLASSES

The number of children in Cleveland classrooms ranges from 16 to 60. The average number in actual attendance in each classroom is 38. Among 1,791 classrooms in use in March, 144 had less than 30 children in attendance, while 631, or more than one-third of them, had more than 40 children in attendance. Every endeavor should be made to reduce these latter figures.

#### COMPULSORY ATTENDANCE

The Ohio compulsory attendance law requires boys to attend school until they are 15 years old and girls until they are 16. There is much opposition to this law, and many people claim that children should be allowed to go to work at 14, especially if they have completed the eighth grade.

This report is opposed to amending the law so as to shorten the compulsory attendance period. The findings of the survey show that industry and business have almost no desirable openings for boys or girls under the age of 16.

The Truancy Division of the Cleveland school system should increase the efficiency and thoroughness of its work by systematically checking up the work of its officers and by developing better meth-

ods for locating children who are not enrolled in any school.

The provisions of the law requiring health certificates for children who receive their working papers are at present disregarded. They should be complied with.

### CONCLUSIONS AND RECOMMENDATIONS

1. School census methods should be reformed so that the returns will show how many boys and girls of each compulsory attendance age are attending public schools, parochial schools, private schools, or no schools.

2. Shortages in census returns have probably cost the city more than \$150,000 of state funds in the past six years. Future losses should be avoided through more accurate returns.

3. Census figures should be regularly checked against school records to avoid the serious inaccuracies that have existed in the past.

4. There should be established a permanent school census bureau in charge of a thoroughly competent census clerk.

5. The compulsory attendance law is not well enforced with respect to children in the upper compulsory attendance ages. This is particularly true with respect to the attendance of the older girls. The law should be enforced.

6. Conditions with respect to the falling out of children before the completion of the course are better than in many other cities.

7. Methods of recording attendance should be modified so as to yield more accurate data.

8. In Cleveland there are fewer children over-age for their grades and fewer making slow progress than in the average large city.

9. Some of the schools have several times as many slow and over-age children as other schools. Energetic steps should be taken to make available for all normal children the educational advantages that are successfully employed in the schools making the best records.

10. The survey is opposed to any legal amendment shortening the compulsory attendance period. It finds that industry and business offer few opportunities for boys or girls under the age of 16.

11. The legal provisions requiring health certificates for children receiving working papers have been disregarded. They should be complied with.

## CHAPTER VI

### THE TEACHING STAFF

(Walter A. Jessup)

For purposes of salary adjustment there are five classes of teachers in the elementary schools of Cleveland and five classes in the normal and high schools. The board regulations concerning the salaries of principals are based on the number of classrooms in their buildings. Special provisions are made for the employment of substitute teachers in elementary and high schools.

There is opportunity for a regular elementary teacher appointed to the probationary class at an initial salary of \$550, to advance from one salary class to another during a minimum period of 10 years to a salary of \$1,000 per year. The salaries paid to substitute teachers vary with conditions of service.

High school teachers begin in the first probationary class at an annual salary of \$800 and may advance to a salary of \$2,000 after 17 years of service.

#### SALARY SCHEDULE OF ELEMENTARY PRINCIPALS

The board regulation concerning salaries paid to elementary principals is based on the number of regular standard classrooms in the building or build-

ings over which they have charge, according to a regularly graded schedule. For example, the principal of a four-room building is eligible to a salary of \$1,000. The principal of a 36-room building is eligible to a salary of \$2,000. Assistant principals receive an extra stipend of \$50 each year in addition to the amount fixed by their regular classification on the payroll.

TABLE 4.—SALARIES OF CLEVELAND TEACHERS, PAYROLL AT CLOSE OF 1914-15

High school teachers	Elementary principals	Elementary teachers
2 at \$2,640	4 at \$2,000	1 at \$1,650
1 " 2,530	1 " 1,980	2 " 1,540
1 " 2,500	1 " 1,960	4 " 1,500
5 " 2,400	1 " 1,880	1 " 1,430
2 " 2,300	3 " 1,840	1 " 1,400
4 " 2,280	4 " 1,800	5 " 1,300
4 " 2,200	6 " 1,740	1 " 1,210
2 " 2,160	1 " 1,710	7 " 1,200
7 " 2,100	2 " 1,700	1 " 1,155
3 " 2,040	4 " 1,680	71 " 1,100
22 " 2,000	3 " 1,650	83 " 1,050
7 " 1,920	3 " 1,620	3 " 1,045
20 " 1,900	1 " 1,600	762 " 1,000
37 " 1,800	8 " 1,590	108 " 950
4 " 1,700	13 " 1,560	196 " 900
14 " 1,680	7 " 1,520	112 " 850
24 " 1,600	2 " 1,500	2 " 825
24 " 1,560	10 " 1,480	130 " 800
19 " 1,500	3 " 1,440	1 " 770
27 " 1,440	5 " 1,400	133 " 750
23 " 1,400	1 " 1,325	4 " 715
12 " 1,320	5 " 1,320	164 " 700
17 " 1,300	1 " 1,300	145 " 650
66 " 1,200	2 " 1,200	136 " 600
10 " 1,100	4 " 1,160	20 " 550
12 " 1,000	1 " 1,120	110 " 500
17 " 800	1 " 1,080	1 " 400
1 " 650		

Two high school principals at \$3,500 and eight at \$3,000.

## THE SALARIES ACTUALLY PAID TO CLEVELAND TEACHERS

Table 4, based on the payroll at the close of the year 1914-15, shows the different salaries paid to the different types of teachers. This table should be read as follows: There were two high school teachers who received \$2,640, four elementary principals who received \$2,000, and one elementary teacher who received \$1,650.

TABLE 5.—SALARIES OF SUPERVISORY OFFICERS IN 1915

Officer	Men	Women	Salary
Superintendent	1	..	\$6,000
Assistant superintendent	4	..	3,750
Supervisor of requisitions and reports	1	..	3,000
Assistant superintendent (physical education —part time)	1	..	1,500
General supervisor	..	2	2,400
General supervisor	..	1	2,300
General supervisor	..	1	2,000
Supervisor of German	1	..	2,000
Supervisor of drawing and applied arts	..	1	2,100
Assistant supervisor of drawing and applied arts	..	3	1,050
Assistant supervisor of drawing and applied arts	..	1	1,000
Supervisor of music	1	..	2,400
Assistant supervisor of music	..	1	1,200
Assistant supervisor of music	..	1	1,050
Assistant supervisor of music	..	2	1,000
Supervisor of writing	1	..	2,300
Assistant supervisor of writing	..	1	1,200
Assistant supervisor of writing	..	1	1,050
Assistant supervisor of writing	..	1	1,000
Supervisor of manual training	1	..	2,500
Assistant supervisor of manual training	..	1	1,000
Supervisor of domestic science	..	1	2,000
Supervisor of physical education	1	..	2,400
Supervisor of indoor recreation	..	1	1,200
Supervisor of work for the blind	1	..	1,500
<b>Total</b>	<b>12</b>	<b>19</b>	<b>\$65,650</b>

NUMBER AND SALARIES OF SUPERVISORY OFFICERS  
 Table 5, based on the payroll at the close of 1914-15, shows the salaries paid to the various supervisory officers of the Cleveland schools.

TABLE 6.—MEDIAN SALARIES OF ELEMENTARY TEACHERS, HIGH SCHOOL TEACHERS, AND ELEMENTARY PRINCIPALS IN CLEVELAND AND IN 13 OTHER CITIES OF MORE THAN 250,000 INHABITANTS. THE CLEVELAND DATA ARE FOR 1915 AND THOSE OF OTHER CITIES ARE FOR 1913

City	Elementary teachers	High school teachers	Elementary principals
San Francisco	\$1,200	\$1,680	\$1,800
Boston	1,176	1,620	3,300
Chicago	1,175	1,600	2,800
St. Louis	1,032	1,520	2,500
Cincinnati	1,000	1,300	2,200
Minneapolis	1,000	1,400	1,600
Newark	1,000	1,900	2,600
<b>Cleveland</b>	<b>900</b>	<b>1,500</b>	<b>1,650</b>
Philadelphia	900	1,400	1,600
Milwaukee	876	1,260	1,980
Indianapolis	875	1,100	1,300
Washington	750	1,800	1,510
Baltimore	700	1,200	2,000
New Orleans	700	1,100	1,250

### SALARIES IN CLEVELAND COMPARED WITH SALARIES ELSEWHERE

Table 6 presents a comparison between the salaries paid teachers in Cleveland and those paid in the 13 other large cities. These data are from the payroll of the Cleveland schools at the close of the school year in 1915 and from "Tangible Rewards of Teaching," published by the United States Bureau of Education in 1914 and giving data for the school year 1912-13. This comparison is unduly favorable to



Cleveland for it takes into account the salary increases made here from 1913 to 1915, but does not take into account those that have been made in the other cities.

The data of the table show that in comparison with salaries paid in other cities of similar size the remuneration of elementary teachers is somewhat low; that of the high school teachers is somewhat high; and that of the elementary principals is distinctly low.

### SALARY INCREASES

During the past 10 years salary increases in other cities have been decidedly more substantial than in Cleveland. This is true in the case of both the elementary teachers and the high school teachers.

### INCREASE IN THE COST OF LIVING

There is convincing evidence that during the past few years the cost of living has been advancing far more rapidly than salaries. The purchasing power of a dollar in Cleveland is not very different at the present time from its prevailing value in Boston or Chicago. Nevertheless the salaries in those cities are decidedly larger than they are in Cleveland.

### SALARIES OF TEACHERS AS COMPARED WITH THOSE OF OTHER WORKERS

The report presents interesting data showing the annual wages of artisans, such as plumbers, brick-

layers, plasterers, carpenters, etc., compared with the salaries of teachers in different cities. These show that in Cleveland the teachers are less highly paid than the artisans. Further comparisons show that such municipal employees as policemen and firemen are better paid than are the teachers.

### SCHOOL FUNDS AND TEACHERS' SALARIES

The salaries of the public school teachers are a matter of vital concern to the Cleveland public from the standpoint of service. In the general competition for teachers Cleveland cannot hope to hold her own unless adequate salaries are paid. The Board of Education now finds itself in a difficult situation. Teaching is a necessity, not a luxury. If it is to be adequate in quality, it must be paid for at rates which are in the long run fixed by the salaries paid in other cities and in other forms of employment. The funds available in Cleveland are not adequate to pay such salaries as are now being received by teachers elsewhere. The first step in remedying the situation is to economize in other expenditures. This process has probably been already carried about as far as is wise. The next step is for the Board of Education to present these needs to the public in so convincing a manner that they will insist on their representatives in the state legislature changing the laws so that the Board can secure funds adequate to purchase the teaching services that are imperative necessities in a modern educational system.

## EXPERIENCE OF TEACHERS

One-half of the elementary teachers in the Cleveland schools have had between five and 18 years of experience. One-half of the high school teachers have had between six years and 19 years of experience. The experience of elementary teachers in Cleveland is not strikingly different from that found in other large cities. It is the same, for example, as that of the teachers of New York City. Three-fourths of the teachers in the high schools in cities of 50,000 or over on the accredited list of the North Central Association of Colleges and Secondary Schools have had five years' experience or less. This would seem to indicate that the teachers in Cleveland high schools are somewhat more experienced than the teachers of the high schools in other cities.

## EXPERIENCE OF PRINCIPALS

The median experience of principals is 32 years, which means that half of the principals of the elementary schools of Cleveland have had 32 years or more of experience. One-fourth of the principals have had 37 years of experience or more, and one-fourth have had 27 years of experience or less. Expressed in another way, half of the principals have had between 27 and 37 years of experience.

The fact that the median experience of the elementary teachers is 10 years, and the median experience of elementary principals is 32 years, and that no principal has had less experience than 13

years, leads to the generalization that the expectancy of becoming a principal of elementary schools in Cleveland is limited to those who have stayed in the system for a long time. It has become a traditional practice in Cleveland to appoint teachers to principalships on the basis of seniority rather than on the basis of preparation and professional qualification. In view of this it may be safe to hazard the opinion that the elementary school principals in Cleveland are likely to be somewhat conservative in regard to the administration of education.

#### AGES OF PRINCIPALS

Of the 94 principals listed, half are 52 years of age or older; one-fourth are 57 years or older; one-fourth are 47 years or younger. The middle 50 per cent of these principals are between the ages of 47 and 57 years.

In many instances there is a striking contrast between the professional attitude of the principals who are 50 years of age or younger and that of the principals who are 50 years of age or older. In other words, there is a deep educational significance in the fact that one-fourth of the elementary principals are 57 years old or older.

#### EDUCATION OF ELEMENTARY AND HIGH SCHOOL TEACHERS AND ELEMENTARY PRINCIPALS

It has become the universal practice of America to set up certain arbitrary educational qualifications

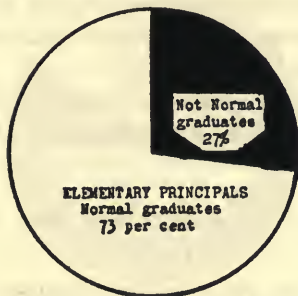
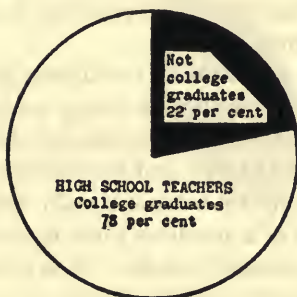
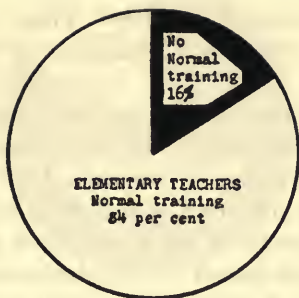


Diagram 12.—Professional training of elementary teachers, high school teachers, and elementary principals in Cleveland

for the position of teachers. These qualifications are checked either by examination or by reports on teaching.

Some significant conditions as to the professional training of the teaching force of Cleveland are reflected in the figures of Diagram 12. These figures indicate that one-sixth of the elementary teachers, nearly one-fourth of the high school teachers, and more than one-fourth of the elementary principals have a less adequate professional preparation for their work than should be required in a truly high-grade city school system.

One of the unfortunate conditions existing in the Cleveland school system is that a great majority of the force of the elementary schools of the city have been educated at home and have done all their work here. It is now almost universally recognized that "inbreeding" of a teaching force is accompanied by seriously detrimental results. It is a most valuable part of a teacher's training to secure at least a portion of her professional preparation in some other city and thus to get in contact with other schools and other teaching methods.

The facts as to home training among Cleveland teachers are graphically presented in Diagram 13.

#### THE PENSION FUND AND TEACHERS WHO ENTER LATE

During recent years many teachers have been brought into the school system from outside locali-

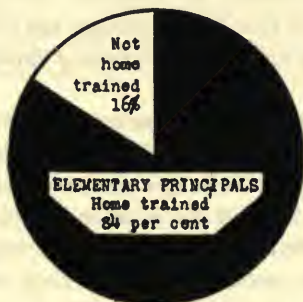
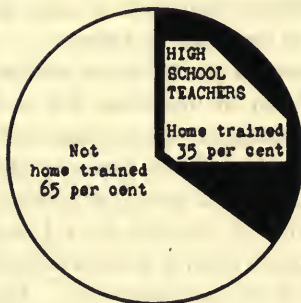
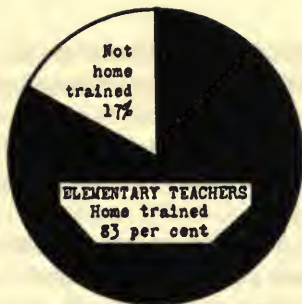


Diagram 13.—Per cent of elementary teachers, high school teachers, and elementary principals in Cleveland who are home trained and not home trained

ties. In a seriously large number of cases these teachers have had most meager educational qualifications and have entered the city's service at relatively advanced ages. There are two important reasons why the practice of employing such teachers should be discontinued.

The first of these is, of course, that only well-qualified teachers should be employed. The second reason is that the employment of outside teachers who are no longer young has a most serious effect on the future of the pension fund.

A pension system providing a maximum of \$450 per year has been in operation for a decade. An average of 10 teachers retire on this each year. With respect to the future of the pension fund, there is a great difference between the employment of a teacher who is over 40 and bringing in a teacher who has recently graduated from a normal school and had a year or two of teaching experience. Figures for 10 recent appointments of teachers from outside of Cleveland show that their average age is 43 and that they have had an average teaching experience of 16 years.

The salaries paid to teachers are really of two sorts—present salary paid from month to month while the teacher is in active service, and deferred salary, which is paid as pension benefits. In the case of the teachers brought in from outside at the age of 43, the probabilities are that the deferred salary will be so large in aggregate amount that each year of teaching service rendered will cost the city



\$200 more than it would if the teachers were about 20 years younger. The Board would surely deem it a great hardship if it were now forced to pay these outside teachers with their meager qualifications \$200 per annum more than the standard salaries paid to graduates of the local Normal School. Nevertheless this is what it is actually doing and receiving no adequate benefit for its heavy investment. For this reason, as well as from considerations of the welfare of the children, every endeavor should be made to insist on high qualifications and relative youth as requisites for admitting new members to the teaching force.

#### MARRIED TEACHERS

Marriage is equivalent to a resignation, but such teachers are re-employed as substitutes. There are at least 250 such substitutes on the payroll. The present arrangement in regard to married teachers is not, in the opinion of the writer, conducive to professional growth. A better plan would be to employ them outright, giving them the same incentive to superior service and improvement as that given other teachers.

#### TRAINING IN SERVICE

Although there is a general statement by the Board encouraging growth in professional knowledge, there has been little definite provision for stimulating teachers in service to improve themselves.

In view of the fact that the teachers in Cleveland have been so largely trained at home, have had so

much of their experience at home, and are relatively mature, it would seem highly advisable that the Board of Education follow up their suggestion of professional study by a definite organization adequately financed, whereby teachers might be stimulated to a continuation of professional growth by means of extension courses. The presence of a large number of well-trained men and women instructors in the normal school, colleges, and near-by state normal school and the strong colleges and universities within the city makes it easily possible for the rapid development of strong extension courses.

The St. Louis plan of extension courses for improving teachers in service is commended and the suggestion is made that Cleveland might profitably institute similar work. Again it would seem worth while for the city of Cleveland to coöperate with other educational agencies nearby with the view of developing a strong and attractive summer course for teachers. While it is true that the teachers who have had all their experience and schooling in Cleveland might be profited more by going to a summer school outside of Cleveland, yet there are many teachers who would find a summer session in Cleveland a valuable means of increasing professional equipment.

#### TEACHERS' MEETINGS

Section 10 of the 1915 rules governing the Board of Education reads: "General meetings: teachers' meetings and grade meetings may be called by the

superintendent or assistant superintendents from time to time as conditions of the school and work may necessitate."

Here we have a general formulation of the policy so far as teachers' meetings are concerned. However, it is a fact that the teachers of Cleveland have had relatively few meetings. Indeed, neither general, district, nor special meetings have been common during recent years. Only one general meeting has been held during the present administration. District teachers' meetings, bringing together all the teachers, are rare. There are few if any meetings calculated to bring together all the teachers of a given subject,—say of Latin or English,—as is the case in Cincinnati. Building meetings are common in the larger buildings, although some of the smaller buildings have no such meetings. Grade and department meetings in each district are held from time to time.

Teachers are not permitted to dismiss early in order that they may have an opportunity to attend these meetings. The general feeling among the teachers and principals seems to be that these meetings are a benefit, but that they are also a burden, so much so, indeed, that there is a noticeable degree of hesitation about calling such meetings.

Surely there is a decided value in having the teachers of Cleveland brought together from time to time for purposes of organization, to say nothing of the value of having frequent meetings for instruction and organization in smaller instructional groups.

## PROMOTIONS FOR MERIT AND SERVICE

Reference to the Board rules in respect to the classification of teachers on the basis of salary reveals the fact that a teacher may be advanced from one class to another with a fixed number of years of experience and the approval of the Board of Education after the recommendation of the school superintendent. Thus, in effect the school superintendent is responsible for the promotion of teachers from one salary classification to another. As a basis of judgment the superintendent requires the principal and the supervisor to report on the qualifications of the teachers. This report involves an estimate of teaching ability, executive power, personal influence, professional sincerity, general culture, and evidence of professional growth.

Although teachers are not promoted on the salary list as soon as and just because they have served the time in each class on the salary schedule, yet it is a fact that relatively few teachers fail of promotion at the expiration of the time limit. In 1914, only 20 failed of promotion. In 1915, 31 failed of promotion.

In the long run it should be said that Cleveland cannot hope to have the best possible teaching force until adequate salaries are paid and an adequate system of promotion based on evidence of growth in professional ability is established. The present system is not calculated to enable the school officials sharply to draw the line between ordinary and extraordinary ability.

## THE NORMAL TRAINING SCHOOL

The Normal Training School was established in 1874. At the outset provision was made for about 200 students. For many years there have been 10 teachers and a principal on the regular staff of the school. At present it may be said that the Normal Training School is one of the best equipped city training schools in the country. An Observation School employing 11 regular teachers is maintained in connection with the Normal Training School. In addition to the Observation School there are additional facilities for practice and observation in two other elementary schools in the city. The combined teaching staff of these schools is about 50. For the past few years they have been furnishing about 100 new teachers each year. In view of the fact that there are now more than 200 vacancies annually, it is possible that the facilities of the Normal Training School should be extended so as to accommodate a larger number of students. However, it is by no means certain that over 200 new teachers will be required each year in Cleveland for any length of time; neither is it desirable that all the new teachers be trained in Cleveland. An expansion of the training school facilities should be made only after a most careful analysis of conditions.

## HEALTH OF TEACHERS

The average number of absences in the teaching force on account of illness in Cleveland now amounts

to about 80 absent for one session each day. Since a majority are absent for both sessions of the day, this means that more than 40 individuals are out on account of sickness every school day, on the average. These figures apply only to those who receive pay although absent and the real figures are largely in excess of those given, for many are absent without pay and many exceed the 10 days of absence allowed and paid for. Since the Board of Education pays not only the salary of the absent teacher but also that of the substitute as well, the cost of these absences is large, amounting to over \$200 a day and to about \$40,000 per year for services which the school system pays for but does not receive.

#### TEACHERS' CERTIFICATION

The City Board of School Examiners may grant provisional certificates for one year and three years. The system of certification is so administered as to serve only as a minor barrier to entrance to the teaching profession of Cleveland. A more rigid system of selection of teachers is recommended.

#### TENURE

It should be borne in mind that, despite the fact that appointments are for one year only, relatively few teachers in Cleveland are dropped. In other words, the Cleveland elementary teacher, notwithstanding the fact that she is subject to annual appointment

with the possibility of a new assignment of duties, generally finds a steady task teaching the same grade in the same building. Indeed, there are instances on record of teachers being in the same building for more than 40 years.

### SUBSTITUTES

Cleveland has an unusual number of teachers who are called substitutes. There are three types of teachers in this class: first, the beginners; second, married teachers, known as "permanent substitutes"; third, substitutes who work from day to day and shift from place to place.

On January 1, 1916, there were 967 teachers on the substitute list, of whom 96 were high school teachers, 774 elementary teachers, 65 kindergarten teachers, and 32 special teachers. There were more than 600 substitute teachers who were neither on the list of new appointments nor on the list to be called out for ordinary substitute service. This remarkable situation is of concern to the city chiefly in connection with the question as to whether or not this large proportion of substitute teachers on the list of total appointments serves as a help or hindrance toward building up a professional consciousness among the teachers. Cleveland should face this question frankly with a view of either justifying the situation or changing it. It should not go on unchallenged.

## APPOINTMENT OF TEACHERS

The board rule for the qualifications of teachers sets a high standard, but provides a loop-hole which makes it possible for teachers of widely varying qualifications to be appointed. The superintendent is given the responsibility for the appointment of teachers, but he has neither been adequately safeguarded by requirements for teachers nor has he until recently been given sufficient means to go outside the city to search for the best teachers available.

### CONCLUSIONS AND RECOMMENDATIONS

1. In Cleveland regular elementary teachers begin at a salary of \$550 and may advance during a minimum period of 10 years to a salary of \$1,000 per year.

2. High school teachers begin at an annual salary of \$800 and may advance to \$2,000 after 17 years of service.

3. Salaries of elementary principals vary from \$1,000 to \$2,000 and are based on the number of rooms in the building.

4. In comparison with salaries paid in other cities of similar size, the remuneration of elementary teachers is somewhat low, that of high school teachers somewhat high, and that of elementary principals distinctly low.

5. The funds available in Cleveland are not adequate to pay such salaries as are being received by teachers elsewhere. The survey urges the board to work for legislative amendments that will result in



increased school funds and make possible larger salaries.

6. Principalships largely go to the survivors in the system. Half of the elementary principals have had 32 years or more experience. One-fourth of them are 57 years old or older.

7. Seriously large proportions of the teachers have had less adequate professional preparation than should be required in a truly high grade city school system.

8. About five-sixths of the elementary teachers and principals received all their regular training in Cleveland.

9. The future of the pension fund is jeopardized by the present practice of bringing in outside teachers of relatively advanced age.

10. The survey recommends the adoption of more vigorous measures for the improvement of teachers in service.

11. A more rigid system of selection of teachers is recommended.

12. The survey recommends changes in the present practice of employing substitute teachers and arrangements for dealing with married teachers.

## CHAPTER VII

# WHAT THE SCHOOLS TEACH AND MIGHT TEACH

(Franklin Bobbitt)

The fundamental social point of view of this discussion of the courses of study of the Cleveland schools is that effective teaching is preparation for adult life through participation in the activities of life.

### THE POINT OF VIEW

In very early days, when community life was simple, practically all one's education was obtained through participating in community activities, and without systematic teaching. From that day to this, however, the social world has been growing more complex. Adults have developed kinds of activities so complicated that youth cannot adequately enter into them and learn them without systematic teaching.

One of the earliest of these too-complicated activities was written language—reading, writing, spelling. These matters became necessities to the adult world, but youth under ordinary circumstances could not participate in them as performed

by adults sufficiently to master them. They had to be taught; and the school thereby came into existence. A second thing developed about the same time was the complicated number system used by adults. It was too difficult for youth to master through participation only. It too had to be taught, and it offered a second task for the schools.

As community vision widened and men's affairs came to extend far beyond the horizon, a need arose for knowledge of the outlying world.

This knowledge could rarely be obtained sufficiently through travel and observation. There arose the new need for the systematic teaching of geography. What had hitherto not been a human necessity and therefore not an educational essential became both because of changed social conditions.

Looking at education from this social point of view it is easy to see that there was a time then no particular need existed for history, drawing, science, vocational studies, civics, etc., beyond what one could acquire by mingling with one's associates in the community. These were therefore not then essentials for education. It is just as easy to see that changed social conditions of the present make necessary for every one a fuller and more systematic range of ideas in each of these fields than one can pick up incidentally. These things have thereby become educational essentials. Whether a thing today is an educational "essential" or not seems to depend upon two things: whether it is a human necessity today; and whether it is so complex or

inaccessible as to require systematic teaching. The number of "essentials" changes from generation to generation.

The normal method of education in things not yet put into the schools is participation in those things. One gets his ideas from watching others and then learns to do by doing. There is no reason to believe that as the school lends its help to some of the more difficult things, this normal plan of learning can be set aside and another substituted. Of course the schools must take in hand the difficult portions of the process. Where complicated knowledge is needed, the schools must teach that knowledge. Where drill is required, they must give the drill. But the knowledge and the drill should be given in their relation to the human activities in which they are used. As the school helps young people to take on the nature of adulthood, it will still do so by helping them to enter adequately into the activities of adulthood. Youth will learn to think, to judge, and to do, by thinking, judging, and doing. They will acquire a sense of responsibility by bearing responsibility. They will take on serious forms of thought by doing the serious things which require serious thought.

The social point of view herein expressed is sometimes characterized as being utilitarian. It may be so; but not in any narrow or undesirable sense. It demands that training be as wide as life itself. It looks to human activities of every type; religious activities; civic activities; the duties of one's calling; one's family duties; one's recreations; one's

reading and meditation; and the rest of the things that are done by the complete man or woman.

### READING AND LITERATURE

The schools of Cleveland devote far more time to reading than do those of the average city. During the course of his school life, each pupil who finishes the elementary grades in Cleveland receives 1,710 hours of recitation and directed study in reading as against an average of 1,280 hours in progressive cities in general. This is an excess of 430 hours, or 34 per cent. The annual cost of teaching reading being about \$600,000, this represents an excess annual investment in this subject of some \$150,000. Whether or not this excess investment in reading is justified depends upon the way the time is used.

In too large measure this investment of time and money is devoted to mastering the mechanics of reading and to the analytical study of the manner in which the words are combined in sentences and the sentences in paragraphs. The main object of the reading should be the mastery of the thought rather than the study of the construction. Through it the children should gain life-long habits of exploring, through reading, the great fields of history, industry, applied science, life in other lands, travel, invention, biography, and wholesome fiction. To this end the work should be made more extensive and less intensive.

One final suggestion finds here its logical place.

Before the reading work of elementary or high schools can be modernized, the city must purchase the books used in the work. Leaving the supplying of books to private purchase is the largest single obstacle in the way of progress. Men in the business world will have no difficulty in seeing the logic of this. When shoes, for example, were made by hand, each workman could easily supply his own tools; but now that elaborate machinery has been devised for their manufacture, it has become so expensive that a machine factory must supply the tools. It is so in almost every field of labor where efficiency has been introduced. Now the books to be read are the tools in the teaching of reading. In a former day when a mastery of the mechanics of reading was all that seemed to be needed, the privately purchased textbook could suffice. In our day when other ends are set up beyond and above those of former days, a far more elaborate and expensive equipment is required. The city must now supply the educational tools. It is well to face this issue candidly and to state the facts plainly. Relative failure can be the only possible lot of reluctant communities. They can count on it with the same assurance as that of a manufacturer of shoes who attempts to employ the methods of former days in competition with modern methods.

#### SPELLING

In most respects the work agrees with the usual practice in progressive cities; the teaching of a few

words in each lesson; the frequent and continuous review of words already taught; taking the words to be taught from the language experience of the pupils; following up words actually misspelled; studying the words from many angles, etc. The teaching of spelling should aim to give the pupils complete mastery over those words which they need to use in writing and it should instil in them the permanent habit of watching their spelling as they write. Drill on lists of isolated words should give way to practice in spelling correctly every word in everything written. The dictionary habit should be cultivated, and every written lesson should be a spelling lesson.

#### LANGUAGE, COMPOSITION, GRAMMAR

The schools devote about the usual amount of time to training for the correct use of the mother tongue. Most of the time in intermediate and grammar grades is devoted to English grammar. Composition receives only minor attention.

In the teaching of grammar too much stress is placed on forms and relations. Of course it is expected that this knowledge will be of service to the pupils in their everyday expression. But such practical application of the knowledge is not the thing toward which the work actually looks. The need really achieved is rather the ability to recite well on textbook grammar, and to pass good examinations in the subject.

As a matter of fact, facility in oral and written

expression is, like everything else, mainly developed through much practice. The form and style of expression are perfected mainly through the conscious and unconscious imitation of good models. Technical grammar plays, or should play, the relatively minor role of assisting students to eliminate and to avoid certain types of error. Since grammar has this perfectly practical function to perform, probably only those things needed should be taught; but more important still, everything taught should be constantly put to use by the pupils in their oversight of their own speech and writing. Only as knowledge is put to work is it really learned or assimilated.

The work in technical grammar should be continued for the purpose of giving the pupils a foundation acquaintance with forms, terms, relations, and grammatical perspective, but this training need not be so extensive and intensive as at present. The time saved should be given to oral and written expression in connection with the reading of history, geography, industrial studies, civics, sanitation, and the like.

## MATHEMATICS

Cleveland gives more time to mathematics than does the average city. The content of courses in mathematics is to be determined by human needs. A fundamental need of our scientific age is more accurate quantitative thinking about our vocations, civic problems, taxation, income, insurance, expenditures, public improvements, and the multitude of



other public and private problems involving quantities. We need to think accurately and easily in quantities, proportions, forms, and relationships. Arithmetic teaching, like the teaching of penmanship, is for the purpose of providing tools to be used in matters that lie beyond. The present course of study is of superior character, providing for efficient elementary training and dispensing with most of the things of little practical use. The greatest improvement in the work is to be found in its further carrying over into the other fields of school work and in applying it in other classes as well as in the arithmetic class. In the advanced classes mathematics should be differentiated according to the needs of different pupils. Algebra should be more closely related to practical matters and developed in connection with geometry and trigonometry.

### HISTORY

The curriculum makers for elementary education do not seem to have placed a high valuation upon history. Apparently it has not been considered an essential study of high worth, like reading, writing, spelling, grammar, and arithmetic. To history are allotted but 290 hours in Cleveland, as against 496 hours in the average of 50 progressive American cities. This discrepancy should give the city pause and concern. If a mistake is being made, it is more likely to be on the part of an individual city than upon that of 50 cities. The probability is that Cleveland is giving too little time to this subject.

History receives much less attention in this city than in the average city. The character of the work is really indicated by the last sentence of the eighth grade history assignment: "The text of our book should be thoroughly mastered." The work is too brief, abstract, and barren to help the pupils toward an understanding of the social, political, economic, and industrial problems with which we are confronted. It should be amply supplemented by a wide range of reading on social welfare topics. This reading should be biographical, anecdotal, thrilling dramas of human achievement, rich with human interest. It should be at every stage on the level with the understanding and degree of maturity of the pupils so that much reading can be covered rapidly.

The textbooks of the present type can be employed as a part of this preliminary training. Read in their entirety and read rapidly, they give one that perspective which comes from a comprehensive view of the entire field. But they are too short and too exclusively devoted to the presentation of bare facts to afford valuable concrete historical experience. They are excellent reference books for gaining and keeping historical perspective.

Reading of the character that we have here called preliminary should not cease as the other historical studies are taken up. The general studies should certainly continue for some portion of the time through the grammar grades and high school, but it probably should be mainly supervised reading of interesting

materials rather than recitation and examination work.

We would recommend that the high schools give careful attention to the recommendation of the National Education Association Committee on the Reorganization of the Secondary Course of Study in History.

### CIVICS

Civic training scarcely finds a place upon the elementary school program. The manual suggests that one-quarter of the history time—10 to 20 minutes per week—in the fifth and sixth grades should be given to a discussion of such civic topics as the department of public service, street cleaning, garbage disposal, health and sanitation, the city water supply, the mayor and the council, the treasurer, and the auditor. The topics are important, but the time allowed is inadequate and the pupils of these grades are so immature that no final treatment of such complicated matters is possible. For seventh and eighth grades, the manual makes no reference to civics. This is the more surprising because Cleveland is a city in which there has been no end of civic discussion and progressive human-welfare effort. The extraordinary value of civic education in the elementary school, as a means of furthering civic welfare, should have received more decided recognition.

The elementary teachers and principals of Cleveland might profitably make such a civic survey as that made in Cincinnati as the method of discover-

ing the topics that should enter a grammar grade course. The heavy emphasis upon this subject should be reserved for the later grades of the elementary school.

### GEOGRAPHY

Geography in Cleveland is given the customary amount of time, though it is distributed over the grades in a somewhat unusual way. It is exceptionally heavy in the intermediate grades and correspondingly light in the grammar grades. As geography, like all other subjects, is more and more humanized and socialized in its reference, much more time will be called for in the last two grammar grades.

A new course of study in geography is now being put into use. The work as laid out in the old manual and as seen in the classrooms has been forbiddingly formal. It has mainly consisted of the teacher assigning to the pupils a certain number of paragraphs or pages in the textbook as the next lesson, and then questioning them next day to ascertain how much of this printed material they have remembered and how well. The new course of study recognizes, on the contrary, that the proper end of geographical teaching is rather to stimulate and guide the children toward an inquiring interest as to how the world is made, and the skies above, and the waters round about, and the conditions of nature that limit and determine in a measure the development of mankind. To attain this ideal will require in every school

10 times as adequate provision of geographical reading and geographical material as is now found in the best equipped school.

### DRAWING AND APPLIED ART

The elementary schools are giving the usual proportion of time to drawing and applied art. The time is distributed, however, in a somewhat unusual, but probably justifiable, manner. Whereas the subject usually receives more time in the primary grades than in the grammar grades, in Cleveland, in quite the reverse way, the subject receives its greatest emphasis in the higher grades.

Drawing and applied art have been taught in Cleveland since 1849. The object of the teaching is to develop an understanding and appreciation of the principles of graphic art and ability to use these principles in practical applications. Where this work is done best, it shows, in both the elementary and high schools, balanced understanding and complete modernness. What is needed is extension of this best type of work to all parts of the city through specially trained departmental teachers.

### MANUAL TRAINING AND HOUSEHOLD ARTS

In the grammar grades manual and household training receives an average proportion of the time. In the grades before the seventh, the subject receives considerably less than the usual amount of time.

It is easy to see the social and educational justification of courses in sewing, cooking, household sanitation, household decoration, etc., for the girls. They assist in the training for complicated vocational activities performed in some degree at least by most women. Where women are so situated that they do not actually perform them, they need, for properly supervising others and for making intelligible and appreciative use of the labors of others, a considerable understanding of these various matters. Where this work for girls is at its best in Cleveland, it appears to be of a superior character and should be extended along lines now being followed.

When we turn to the manual training of the boys, we are confronted with problems of much greater difficulty. Women's household occupations, so far as retained in the home, are unspecialized. Each well-trained household worker does or supervises much the same range of things as every other. To give the entire range of household occupations to all girls is a simple and logical arrangement.

But man's labor is greatly specialized throughout. There is no large remnant of unspecialized labor common to all, as in the case of women. In the case of men the unspecialized field has disappeared. There is nothing of labor to give to boys except that which has become specialized.

A fundamental problem arises. Shall we give boys access to a variety of specialized occupations so that they may become acquainted, through responsible performance, with the wide and diversified field of

man's labor? Or shall we give them some less specialized sample out of that diversified field so that they may obtain, through contact and experience, some knowledge of the things that make up the world of productive labor?

Cleveland's reply, to judge from actual practices, is that a single sample will be sufficient for all except those who attend technical and special schools. The city has therefore chosen joinery and cabinet-making as this sample. Much of this work is of a rather formal character, apparently looking toward that manual discipline formerly called "training of eye and hand," instead of consciously answering to the demands of social purposes. The regular teachers look upon the fifth and sixth grade sloyd which they teach with no great enthusiasm. Seventh and eighth grade teachers do not greatly value the work.

The report recommends that manual training be continued, extended, and diversified with the double object of helping solve the problems of vocational guidance and of acquainting boys with the nature of work and work responsibility through experience.

#### ELEMENTARY SCIENCE

This subject finds no place upon the program. No elaborate argument should be required to convince the authorities in charge of the school system of a modern city like Cleveland that in this ultra-scientific age the children who do not go beyond the elementary school—and they constitute a majority—

need to possess a working knowledge of the rudiments of science if they are to make their lives effective.

Elementary science finds no place in the course of study of Cleveland. The future citizens of Cleveland will need an understanding of electricity, heat, expansion, and contraction of gases and solids, the mechanics of machines, distillations, common chemical reactions, and the multitude of other matters of science met with daily in their activities. The schools should help supply this need.

#### PHYSIOLOGY AND HYGIENE

Teaching in matters pertaining to health is assigned little time in the elementary schools, and the time that is assigned to it is frequently given to something else. The subject gets pushed off the program by one of the so-called "essentials." The survey recommends that four steps be taken to help remedy the situation:

1. A course in hygiene and sanitation, based upon an abundance of reading, should be drawn up and taught by the regular teachers in the grammar school grades.

2. The schools should arrange for practical applications of the preparatory knowledge in as many ways as possible. Children in relays can look after the ventilation, temperature, humidity, dust, light, and other sanitary conditions of schoolrooms and grounds.

3. The corps of school nurses should be gradually



enlarged, and after a time they can be given any needed training for teaching that will enable them, as the work is departmentalized in the grammar grades, to become departmental teachers in this subject for a portion of their time.

4. The things recommended for the elementary schools need to be carried out in the high schools also.

### PHYSICAL TRAINING

Physical training is given about as much time as in the average city, but without adequate facilities for outdoor and indoor plays and games. At present the work is too largely of the formal gymnastic type. Desirable improvements in the course are being advocated by the directors and supervisors of the work. They are recommending and introducing, where conditions will permit, the use of games, athletics, folk dances, and the like. The movement should be promoted in every possible way.

### MUSIC

In the elementary schools Cleveland gives more than the average amount of time to music, but in the high schools the subject is developed only incidentally and is given no credit. It is a question whether this arrangement is the right one, and in considering possible extensions it should be remembered that there are other subjects of far more pressing immediate necessity.

## FOREIGN LANGUAGES

It is impossible in the brief survey report to discuss adequately so complicated a matter as that of the teaching of foreign languages in the high schools, but some of the most important of the questions at issue have been indicated as matters which the school authorities should continue to study until satisfactory solutions are reached.

## DIFFERENTIATION OF COURSES

In a city with a population so diversified as is that of Cleveland, progress should be made steadily and consciously away from city-wide uniformity in courses of study and methods of teaching. There should be progressive differentiation of courses to meet the widely varying needs of the different sorts of children in different sections of the city.

## CONCLUSIONS AND RECOMMENDATIONS

1. A fundamental principle of the curriculum should be that effective teaching is preparation for adult life through participation in the activities of life.

2. The work in reading should be made more extensive and less intensive, and as a means toward this end the city should adopt the free textbook policy.

3. Work in spelling needs further modernization through concentration on the words most frequently used in adult life and through the development of a

habit of watchfulness over spelling during the process of writing.

4. Less time should be devoted to formal grammar and more to oral and written expression in connection with the reading of history, geography, industrial studies, civics, sanitation, and the like.

5. The present course of study in arithmetic is of superior character, providing for efficient elementary training and dispensing with most of the things of little practical use.

6. The work in history should be made less brief, abstract, and barren by providing an abundance of reading on important and interesting social topics.

7. The teaching of civics receives too little attention.

8. The development of a new course in geography is commended, and attention is called to the need for greatly increased provision of geographical reading and material.

9. The teaching of household arts is commended and the recommendation is made that manual training for boys should be extended and broadened with a view to giving the pupils real contact with more types of industry than those represented by the present woodwork.

10. Courses in elementary science should be established.

11. Teaching in matters pertaining to health should be given more time and a course in hygiene should be drawn up.

12. More of the time devoted to physical training

should be devoted to plays and games and less to formal gymnasium work.

13. More attention should be given to the progressive differentiation of courses to meet the widely varied needs of the different sorts of children in the different sections of the city.

14. Where school work in Cleveland is backward, it is because it has not yet taken on the social point of view. Where it is progressive, it is being developed on the basis of human needs. There is much of both kinds of work in Cleveland.

## CHAPTER VIII

# MEASURING THE WORK OF THE PUBLIC SCHOOLS

(Charles Hubbard Judd)

The studies included in this report are in an important sense of the term the central studies of the educational survey. Seven members of the Survey Staff devoted a large part of their time to the collection and interpretation of the data presented.

In the latest report of the superintendent of schools, it was stated that in June, 1914, 10,000 pupils in the elementary schools failed to be promoted. This is a record of 10,000 educational and social problems. Furthermore, the same report states that nearly 1,400 of these 10,000 pupils were repeating the work of their grades and were, therefore, failing for a second time in the same courses. This means that in 1,400 cases repetition of the work was unsuccessful in overcoming the trouble.

These figures present in a striking way one of the questions which all who are interested in the schools must face. The teachers and principals find, when they try to administer the present course of study to children of the type who attend the Cleveland schools that 10,000 children, or on the average every seventh

child, fails for some reason to meet the normal expectation that a half year's work can be done during each semester. The result of non-promotion is that the schools become congested in the lower grades; children become discouraged and give up trying to do their work; and the whole machinery is clogged by these failures.

#### AGGREGATE FAILURES IN ALL GRADES

Diagram 14 shows the percentage of failures in each grade for the whole system and for three successive June promotions. It will be seen that in June, 1913, there was a failure of 17 per cent of all the pupils in the first grade. In the same year there failed in the second grade only 12.6 per cent.

The high percentage of failures in the first grade is partly explained by the fact that children have some difficulty during the first year in adjusting themselves to school conditions. It is true almost everywhere in the country that there are many failures in the first grade. The decrease in percentage of failures in the second grade is also in keeping with the experience of other school systems and indicates that school work is going forward better after the adjustments made in the first grade.

The favorable promise of the second grade is, however, not fulfilled by the subsequent grades. Steadily the third, fourth, and fifth grades show an impressive increase in non-promotions. This means that problems are multiplying and are not being

solved. The sixth grade seems to be better, though it will be noted that the situation is no better than it was in the first grade. Furthermore, the apparent

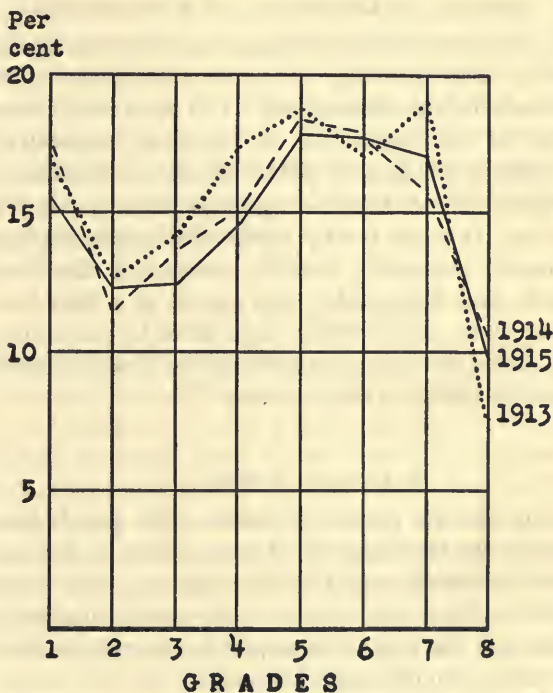


Diagram 14.—Per cent of failures in each grade for three successive June promotions

improvement in the sixth grade is partly deceptive, because by this grade some children have been eliminated. In the seventh grade conditions grow

no better. In the eighth grade the situation is better than elsewhere.

#### MENTAL INCAPACITY AS AN EXPLANATION

The superintendent's published reports contain each year a table showing the reasons assigned by the teachers for non-promotions. The most conspicuous cause of non-promotion is "mental incapacity." A study of the figures of the reports shows that incapacity follows the same general lines as non-promotion. One can hardly escape the conclusion that if mental incapacity steadily increases in the third, fourth, and fifth grades, and stands at a high level in the sixth and seventh, there must be some question about the appropriateness of the demands made upon the pupils in these grades.

#### FAILURES IN SUBJECTS

Non-promotion means, of course, that pupils have not met the requirements of their grades in the particular subjects taught in these grades. Our study of the problem can, therefore, be carried further by examining the records of pupils in some of the leading subjects in the course of study.

#### FAILURES IN READING

In reading there is a very large percentage of failures in the first grade. The percentage drops in the second and third grades, and from this point on the number



of failures is relatively small and steadily decreasing. This represents what would naturally be expected in any subject which is carried throughout the grades, and is successful in its training of the children. The results in reading thus stand in sharp contrast with the general results presented in Diagram 14. There is no evidence in the records of reading that mental incapacity increases in the intermediate grades. Evidently we may infer from the reports in reading that the schools look upon their work in this subject as in the main successful.

#### FAILURES IN ARITHMETIC

The reports on arithmetic are altogether different from those on reading, and bring us back to the striking problems raised by a study of Diagram 14. It should be noted that a new course in arithmetic went into operation with the opening of the present school year. The records relate to the old course. In the first grade only a little arithmetic appeared in the course of study. After this grade arithmetic becomes an important subject, and the number of failures increased enormously through the third, fourth, and fifth grades. In the sixth, seventh, and eighth grades there was a decline, although the percentage of failures remained relatively high.

The striking resemblance between many of the characteristics of these arithmetic results and those of the general curve of non-promotion can hardly escape the most casual observer. It is obvious that

one of the major reasons for the increase in non-promotions from the third to the fifth grades was the difficulty which children encountered in arithmetic.

As indicated above, the course in arithmetic has been modified, and it is to be hoped that in the future no such record of failures will be possible. The significance of such studies as those which are set forth here is thus illustrated. If such comparisons are made up from year to year and adopted as a basis of supervision, those subjects which are giving the children serious difficulty will immediately be recognized. The change in arithmetic is to be commended.

#### RECORDS OF INDIVIDUAL GRADES AND SCHOOLS

In the complete report the comparisons that have been mentioned are fully illustrated by diagrams and tables. Moreover, they are supplemented by a presentation of the records of failures in other subjects.

All of this is rendered still more illuminating by carrying the study down to the individual schools. The results of these comparisons show that: (1) The per cent of failures varies from none in some schools to more than 30 in others. (2) In some schools practically all the children have regularly been sent forward at each promotion period over a series of years. (3) In other schools a large proportion of all children have failed of promotion at each period for several years. (4) Some schools have had almost no

failures at certain promotion periods and a great many at other periods. (5) In some schools there are numerous failures in the lower grades. In others they occur in the intermediate grades and in still others in the higher grades.

### THE NEED FOR SCIENTIFIC SUPERVISION

It is perfectly clear that the facts of non-promotion show a lack of complete organization and unity within the school system. An analysis like that presented in the report represents a type of supervision, based on fact, which must come in every school system. There was a time when small school systems and relatively simple courses of study could be governed and supervised by central school officials who could keep under direct personal observation all the activities of the teachers. Opinion was the basis of action. That time has passed. In a system of one hundred elementary schools, methods of supervision must be worked out and put in operation which are impersonal. Cleveland should at once set up the administrative machinery for making constant, exhaustive studies of non-promotions and of other problems of a similar nature. There is a special technique of administrative inquiry which should be cultivated in school systems, as it is being cultivated in all great business concerns. Money spent in central administration is well spent if it produces a system of scientific general supervision.

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## OBSERVATIONS IN THE SCHOOLS

As a preliminary to more exact studies of the results of classwork, members of the Survey Staff visited

**TABLE 7.—RECITATIONS ON WHICH WRITTEN REPORTS WERE MADE BY MEMBERS OF THE SURVEY STAFF**

Elementary schools		High schools	
Reading	453	English	34
Arithmetic	146	Domestic science	18
Language	83	Drawing	18
Domestic science	57	German	16
Geography	52	Shop work	16
Spelling	44	Civics	15
History	42	History	13
Manual training	30	Latin	13
Writing	27	Physics	11
Physical training	25	Geometry	10
Music	19	Algebra	9
Sewing	11	Bookkeeping	9
Sense training	10	Manual training	9
Drawing	9	Physical training	8
Nature study	8	Physiology	8
Supervised study	8	Arithmetic	7
German	7	Geography	6
Physiology	7	Chemistry	5
Unclassified	5	Supervised study	5
		Typewriting	5
<b>Total</b>	<b>1,043</b>	Botany	4
		Oratory	4
<b>Evening schools</b>		Printing	3
Shop work	21	Writing	3
English	12	Banking	2
Drawing	8	Salesmanship	2
Dressmaking	8	<b>Total</b>	<b>253</b>
Arithmetic	7		
Reading	7	<b>Special classes</b>	
History	4	Backward	34
Millinery	4	Defective	33
Grammar	3	Deaf	20
Agriculture	2	Industrial	15
Chemistry	2	Cripple	14
Geography	2	Blind	13
Spelling	1	Training centers	13
<b>Total</b>	<b>81</b>	Boys' school	12
		Steamer	11
		Open air	10
		Epileptic	1
		<b>Total</b>	<b>176</b>

all the schools of the city. Table 7 shows the number and distribution of these visits, 1,553 in number. Every building in the city was visited at least once and many of them were visited repeatedly. The largest number of visits to any single building was 31. The total number of building visits was 632 and that of school room visits 1,553.

#### METHODS OF RECORDING VISITS

Each visit was recorded on a card. The upper part of the card, after locating the visit by school and date, described the visitor's first impression about the physical conditions of the building. Then came a description of the pupils and their reactions. Third, the teacher and the methods employed in instruction were reported. Finally, there were remarks on the course of study, the character of supervision in that school, and matters in general. These cards were filed in the office of the survey. Whenever a specialist studying some other phase of the work came to join the staff, these cards gave him an opportunity to learn something of the instructional side of the work. Whenever something of special interest about a school turned up, the cards were consulted for further light or for confirmation. In some cases repeated visits were made.

#### GENERAL CONCLUSIONS FROM VISITS

Among the general conclusions repeatedly noted by those who observed the work in the classrooms there are several that stand out as being particularly im-

portant. The first of these is that the Cleveland schools face a grave problem in the number of children from homes where the influence of European life is still very strong. The problems which grow out of a lack of English training at home are numerous and urgent. Especially in the lower grades it is evident that the reading matter supplied to foreign children is often ill adapted to their needs.

Attention to the needs of foreign children ought to bring into the schools more studies of a social type which will acquaint all the children with the organization of the city and the duty of the individual to the community. Many such studies could profitably be prepared by the pupils themselves.

#### EMPHASIS ON TRADITIONAL SUBJECTS

Even the casual visitor in the Cleveland schools notices the great emphasis which is laid on the traditional subjects. The course of study has been very little expanded. This is sometimes expressed in the statement that "Cleveland has not gone after fads." So conservative has the system been that many new and productive lines of work have not been taken up. In the light of present-day experience, the present course of study appears to be narrower than Cleveland ought to have and the emphasis on formal training is excessive.

#### BEHAVIOR IN CLASSES EXCELLENT

One fact noted on all sides is that the order in most schools is excellent. The children seem to be docile

and willing to do what is asked. To be sure, there is at times a lack of spontaneity and enthusiasm; but quiet, orderly conduct was everywhere the rule.

### FLUCTUATIONS IN QUALITY OF TEACHING AND SUPERVISION

An impression which was reported by every observer is that the quality of the instruction exhibited throughout the system is very uneven. Here and there some teacher stands out as full of energy and as thoroughly in command of his or her sphere of action. On the other hand, some cases of teaching were observed which are so bad that it is surprising to find them in the system.

### OBSERVATIONS ON SUPERVISION

It is the judgment of the Survey Staff that supervision is one of the weakest phases of the school system of Cleveland. There are principals in both the elementary and the high schools who are without sufficient training for their duties, without adequate information as to what is going on about them, and without comprehensive grasp of educational problems. Many of the elementary principals have had little contact with the current educational movements. Many of them have been in the system for a long, long time and are conducting the schools today on the basis of opinions about school organization which originated before the stirring developments in

education which have brought new and better equipped buildings, a richer course of study, and scientific methods of supervision. The high school principals spend too much time and energy in the discussion of matters that smack of competition between different high schools. In the meantime it is obvious that the high schools of Cleveland are very much in need of supervision. Good supervision would eliminate some of the very bad teaching that was seen and would unify the high school system so that it would become a coöperating system of institutions.

#### DEARTH OF MEN IN ELEMENTARY SCHOOLS

Another impressive characteristic of Cleveland is the dearth of men in the elementary schools. The boys of Cleveland suffer by not having men to consult, especially in the upper grades. In other sections of the report the salaries paid to principals are discussed. Men would cost more than Cleveland is now paying for elementary principals. The investment would undoubtedly pay.

#### CENTRAL SUPERVISION

One other matter which falls under the head of comment rather than under the head of observation in the schools may be formulated in the statement that the central administrative officers who are in charge of the schools have in their hands a great body of information which lies undigested year after year. The statistical department is burdened with re-



quisitions for supplies and there is no surplus energy to do more than collect and tabulate reports. Cleveland has a body of statistical material now on hand which is not paralleled for richness and value anywhere in the country. This material ought to be used for administrative purposes and not merely published from year to year without comment.

\* \* \* \* \*

## TESTS AND STATISTICAL STUDIES

As soon as the visiting of classes was well under way, the Survey Staff asked the superintendent and the teachers to coöperate in bringing together a body of material which should exhibit in detail what was going on in some of the simpler phases of school work. This request met with a most cordial response and papers were collected showing the ability of pupils to write, spell, and work out simple arithmetical combinations. Tests were also carried on by the teachers and others in reading. The principals prepared certain reports, especially full reports of the standings of all pupils in the eighth grades and high school. This coöperation brought to hand abundant evidence on which to base a wholly impersonal view of the classwork of the schools.

### TESTS SHOW WIDE VARIATIONS IN GRADES

The impressive fact which always stands out in examining the results of a series of tests is the need in schools of more definite standards of work.

Teachers are working in ignorance of what they ought to accomplish and of what others are accomplishing. The fifth grade in one school spells a certain list of words with the high average of 88 per cent, while three fifth grades in other schools spell the same list with the low average of 58 per cent. In measurements of handwriting it was found that one fifth grade writes more than twice as fast as another and one shows twice the excellence in quality shown by another. In arithmetic and reading there are wide differences.

#### TESTS REVEAL LACK OF DEFINITE AIMS AT MANY POINTS

Second, every test shows that progress from grade to grade can be clearly defined. When the results are put together, they show that there is a law of progress. Once the law is exhibited, it is possible to judge how far individual schools conform. That this method of checking school work has not been used by teachers and supervisors appears from the erratic and often retrograde scores made by successive grades in the same school. Thus the fourth grades in Cleveland schools average less well than the third grades in ability to interpret what they read. Certain schools overemphasize speed in writing, while others overemphasize perfection of form. In arithmetic, some sixth grades fall below the fifth grades in the same school and even below the fourth grades in mastery of the fundamental operations.

## TESTS AS A BASIS OF ADMINISTRATION

No school system can free itself entirely from the difficulties which are so clearly revealed by these tests and comparisons. The children in different schools differ one from another; teachers of different degrees of efficiency are sure to be found in all parts of the system. But every school system should make comparative studies the basis of supervision. In a certain sense this has been done in the past by the supervisor who has visited from room to room to impress on teachers the standards which in his judgment are proper for each school. Comparisons of this type must be superseded in a great school system by more general comparisons and by comparisons more nearly exact in method. The motive of the survey is to exhibit the need of such exact general comparisons so vividly that the community will be prepared to support a continual survey of all the work done in the schools.

\* \* \* \* \*

## TESTS OF HANDWRITING

It is relatively simple to gather samples of handwriting from all the schools. This was accordingly undertaken as the first test of the series.

## UNIFORM CONDITIONS

Even in the case of handwriting, it is necessary, if the results are to be compared, to secure material

that is produced under conditions as nearly uniform as possible. The teachers who were to administer the test were therefore asked to prepare for the text in advance by requiring the children to memorize a familiar passage so that they might write the words without the distraction which would come from attempting to write from dictation or from copy. The first three sentences of Lincoln's Gettysburg speech were used for this purpose. When the day for the test arrived, all the children in the fifth to the eighth grades were asked to write as much as possible in exactly two minutes.

#### SCOPE OF THE CLEVELAND TEST

Specimens were collected from 25,387 children in the fifth to eighth grades. For purposes of this report a part of the results were worked up in full. About 10,000 of these results were used. They were taken entirely at random, and since they were drawn from 36 schools, they may safely be regarded as representative of the whole system.

#### INDIVIDUAL RATES OF SPEED

A tabulation was made of the writing speeds of all the children supplying specimens. The results showed that some pupils wrote at a rate of less than nine letters per minute while others wrote almost 130 letters per minute. The fastest writers wrote more than 25 times as fast as the slowest ones.

## SPEED IN VARIOUS GRADES

The average results for entire grades were scarcely less surprising than those showing the great variation between individuals. The slowest fifth grade proved to be only one-half as fast in its writing as the fastest fifth grade. A corresponding condition was found in the case of the sixth, seventh, and eighth grades. Moreover, the figures show so great an overlapping in speed of writing among the different grades that if the upper half of the fifth grades should change places with the poorer half of the eighth grades the general record of the latter grades would actually be improved.

## METHOD OF RATING QUALITY

Up to this point only speed has been considered. More important than speed is quality. It is, however, a more difficult task to determine the quality of a specimen of handwriting. The device in common use for such rating is to compare a given specimen with a series of specimens which have been arranged in order of legibility. It would be possible to get a scoring for quality by comparing the Cleveland specimens with one another and grading each with such marks as "excellent," "good," etc., but the use of a standardized series has been found to give greater precision to the ranking, because judgment is supported by constant references back to the standard series of specimens. It also makes possible comparison with writing in other school systems. Furthermore, the standard series of samples has

been so arranged that the successive steps upward in quality may be regarded as equal. The satisfactory rating of specimens depends on some practice even when the standard series is used. As a matter of practical procedure the Survey Staff spent some time and effort training a group of Cleveland teachers in the rating of specimens of handwriting. For the purposes of this report, however, 10,528 specimens were graded by a member of the Survey Staff especially trained in the work.

### VARIATIONS IN QUALITY

The results of the rating for quality show that here, as in speed, the most striking variation exists between grades which are officially recognized as parallel. Furthermore, there is the same overlapping of grades, several of the fifth grades ranking higher than the average eighth grade.

### RELATION OF SPEED AND QUALITY

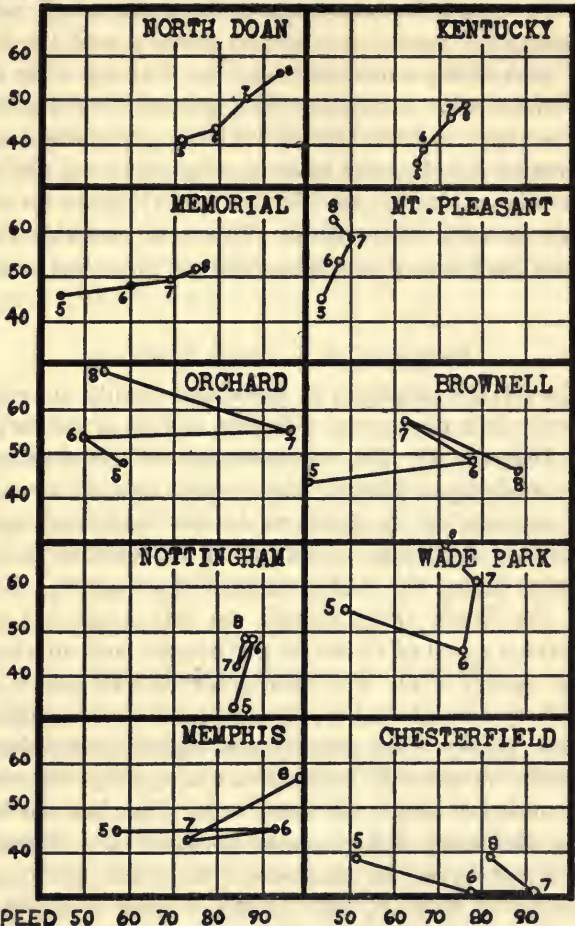
After determining the speed and quality of each specimen, it becomes possible to work out with great exactness the relation between these two characteristics. It is evident from ordinary experience that quality commonly deteriorates when speed is emphasized, and that speed is slow when one tries to write especially well. The school is constantly in the position of seeking some reasonable balance between speed and quality.

By combining the records for both speed and quality the survey was able to define a model series of both where improvement in one does not seem to interfere with the other. This general area lies between quality 60 and 80 and between speed 60 and 80. Greater speed seems to be purchased at an undue sacrifice of quality and higher quality seems to result in much lower speed. This area probably defines the limits of profitable effort to improve pupils.

### EMPHASIS IN VARIOUS SCHOOLS

The relative emphasis on speed and quality actually found in a number of different schools is set forth in Diagram 15. The separate parts of this diagram are made up as follows: The average speed of a grade is represented by distances in the horizontal and average quality by distances in the vertical scale. Thus, taking the first section of the diagram, that of the North Doan School, the fifth grade has an average speed of 71 letters per minute, and an average quality of 41. The sixth grade shows progress in both speed and quality, though speed increases more than quality. The seventh and eighth grades show further progress in both speed and quality, the two changing at about the same rate. The diagram for the Kentucky School shows progress of a slightly different type. In this school the sixth grade, as compared with the fifth, shows progress in quality, but very little in speed. Progress from the sixth grade on is about equal in quality and speed. Me-

QUALITY



SPEED 50 60 70 80 90 50 60 70 80 90  
 Diagram 15.—Average quality and average speed of handwriting of pupils of four upper grades in 10 schools. Quality on vertical scale, speed on horizontal scale



morial School emphasizes speed almost exclusively up to the eighth grade, while Mt. Pleasant emphasizes quality.

The various schools which have been reported in the four upper sections of the diagram are all regular in the sense that each school shows steady progress from grade to grade in both speed and quality. Without attempting to comment in detail on the special cases, attention is called to the series of results presented in the lower part of the diagram. These exhibit the most extraordinary fluctuations in emphasis. They tell their own story with perfect clearness. Also they illustrate the necessity of an exact study of standards.

#### COMPARISON OF CLEVELAND WITH OTHER CITIES

The question will doubtless arise in the minds of Cleveland teachers, "How do the schools here compare with those in other cities?" A comparison with available standards from 12 other cities shows that in both speed and quality the Cleveland schools are superior to those elsewhere in the fifth and sixth grades and inferior in the seventh and eighth.

#### RECOMMENDATIONS

The best form of supervision is that which can be secured through repetition of the tests. Any school which finds its sixth grade far ahead in speed but far behind in quality has its problem for that grade

more clearly defined than it can be by any purely personal judgment of a supervisor.

\* \* \* \* \*

## TESTS OF SPELLING

Tests of spelling are definite in their results because the words can be given and can be scored with few of the complications which are involved in tests in the other subjects. Furthermore, it is easy to compare Cleveland with other cities because a recent study has made available a very large body of results from 84 cities. Two complete spelling tests were accordingly made in all the regular elementary schools in all grades from the second to the eighth.

## WORDS FOR THE TESTS

The words for these tests were selected from the 1,000 words most commonly used in written and printed matter, such as letters, newspapers, and books. These 1,000 words have been divided through elaborate studies into groups of approximately equal difficulty. Accepting the results of the earlier studies, two sets of 20 words were made up for each grade.

## NUMBER OF RETURNS

In the first test 1,068,080 spellings were secured from 53,404 pupils; in the second, 1,033,360 spellings from 51,668 pupils.

## VARIATION IN SCHOOLS AND GRADES

As in the case of handwriting, it appears from the spelling tests that there is great difference in attainment in the various schools. These differences are impressive when it is borne in mind, as pointed out in the last chapter, that these are not differences between individual pupils, but between whole grades. For example, all the second grades of one school spell correctly only 44 per cent of the words while those of another school succeed in spelling 98 per cent of them. The fourth grades of one building spell correctly 52 per cent of the words, while those of another building spell 87 per cent of them.

It was found that in some schools the lower grades made good records and the upper ones poor records while in others it was the upper grades that did well and the lower grades that did poorly. In still others the intermediate grades excelled. In other cases all of the grades made good showings or all of them made poor ones.

### CLEVELAND HAS AN AVERAGE RECORD

A comparison with other cities shows that Cleveland is exactly at the average. When the large foreign population is considered, this is a good showing. When, on the other hand, the possibilities of improvement are considered as clearly set forth in the comparative tables, it becomes evident that Cleveland ought to aim at a position above the average. The schools which are low ought to be raised to the standard of those which are above the average.

## RECOMMENDATIONS

Supervision should aim here, as in handwriting, to secure greater uniformity throughout the city. If schools continue under supervision to show wide differences, a study should be made of the methods employed in the more successful schools. The words used in the spelling exercises should be selected with a view to training pupils in the mastery of common words which they will use frequently. To this end the vocabulary of ordinary school life should be closely watched and recorded.

\* \* \* \* \*

## STUDIES OF ARITHMETIC

The tests in arithmetic were made before the new course of study went into operation. This report has the great advantage of being a definite record of conditions at the time when the course was changed. From the third grade to the eighth there is here a very comprehensive record of the knowledge which the pupils now possess in the fundamentals of arithmetic. It will be quite possible a few months hence to determine with precision the success of the change so far as fundamental operations are concerned.

## SPIRAL CHARACTER OF THE TEST

The test which was given to all the A grades in the system included a number of different forms of each of the fundamental operations. Thus, in addition

the first and simplest exercise of the test consisted in adding pairs of figures. Later in the series, addition appeared again, but in a more elaborate form. It was here required that a short column of figures be added. The third case of addition consisted in the adding of fractions of like denominators. The fourth case consisted in the addition of a longer column of figures. This differs from short-column addition in the fact that a greater effort of attention is required in order to complete the addition. Addition of four-place figures, which requires carrying forward from one column to the next, and addition of fractions of unlike denominators, constituted the final and most elaborate stages of the addition process. The purpose of introducing these various types of addition was to test the ability of the different grades to perform increasingly elaborate operations. Similar spiral tests in subtraction, multiplication, and division were interwoven with the exercises in addition.

#### TEST OF SPEED

In the second place, the test was so presented that the rate of the work in the different grades could be determined. For example, taking the simplest of the processes of addition, the opportunity was provided on the test sheet for the pupil to perform a large number of operations. The time during which he was allowed to work on this part of the test was limited to 30 seconds. The result was that no child exhausted the possibilities that were offered on the

test sheet. The test shows, therefore, both the complexity of the processes which a given grade can master and also the number of examples of a given type that can be performed in the specified time.

A detailed description of the test can be coupled with a presentation of the results for the city as a whole. We turn, therefore, directly to the general results. These are presented in Diagram 16. Each horizontal line in the diagram is proportionate in length to the median number of examples solved in a given grade.

In the short sections which follow the tests are briefly described and some indication given of the interpretation of the results. It is, however, impossible to give in this summary any full interpretation and the student who wishes to understand fully the outcome of the tests and the conclusions derived must study the fuller explanation presented in Professor Judd's volume.

### TEST A

Test A dealt with the addition of simple one-place numbers. These numbers were printed one above the other in pairs and the pupil was required to write the results as fast as possible for a period of 30 seconds.

The results show that ability to add simple figures had reached a relatively high stage in the third grade. From this point on the improvement exhibited grows relatively less as we approach the end of the elementary course.

3	██████████	13.4	Test A 30 sec.
4	██████████	17.8	
5	██████████	22.2	
6	██████████	24.8	
7	██████████	26.7	
8	██████████	27.5	

3	██████████	Test H 30 sec.
4	██████████	
5	██████████	
6	██████████	
7	██████████	
8	██████████	8.5

3	██████████	9.3	Test B 30 sec.
4	██████████	13.4	
5	██████████	17.2	
6	██████████	19.8	
7	██████████	21.5	
8	██████████	26.0	

3	0.6	Test I 60 sec.
4	1.1	
5	2.0	
6	3.1	
7	4.0	
8	4.7	

3	██████████	6.5	Test C 30 sec.
4	██████████	12.0	
5	██████████	15.5	
6	██████████	16.6	
7	██████████	17.7	
8	██████████	19.0	

3	1.9	Test J 120 sec.
4	3.2	
5	4.0	
6	4.4	
7	4.9	
8	5.7	

3	██████████	6.3	Test D 30 sec.
4	██████████	12.4	
5	██████████	15.7	
6	██████████	18.5	
7	██████████	20.8	
8	██████████	22.5	

3	██████████	Test K 120 sec.
4	██████████	
5	██████████	
6	██████████	
7	██████████	
8	██████████	12.5

3	██████████	4.3	Test E 30 sec.
4	██████████	5.3	
5	██████████	6.3	
6	██████████	6.8	
7	██████████	7.5	
8	██████████	7.8	

3	██████████	Test L 180 sec.
4	██████████	
5	██████████	
6	██████████	
7	██████████	
8	██████████	3.9

3	██████████	2.0	Test F 60 sec.
4	██████████	4.9	
5	██████████	6.7	
6	██████████	7.5	
7	██████████	8.6	
8	██████████	10.1	

3	██████████	1.4	Test M 180 sec.
4	██████████	2.5	
5	██████████	3.2	
6	██████████	3.8	
7	██████████	4.4	
8	██████████	5.1	

3	██████████	2.0	Test G 60 sec.	3	██████████	Test N 180 sec.
4	██████████	3.9		4	0.8	
5	██████████	5.2		5	1.3	
6	██████████	5.5		6	1.7	
7	██████████	5.9		7	2.0	
8	██████████	6.6	8	2.6		

3	██████████	Test O 180 sec.
4	██████████	
5	██████████	
6	██████████	
7	██████████	
8	██████████	5.5

Diagram 16.—Median records for all schools in 15 arithmetic tests. Figures at the left end of each line indicate grades; figures at the right end show the median score of the grade

## TEST B

Test B required the pupils to subtract one-place numbers from one-place and two-place numbers. It is interesting to note to what extent subtraction is a more difficult process than addition as shown by the lower median scores in subtraction. Furthermore, it should be noted that in the upper grades the record in subtraction begins to overtake the record in addition.

## TEST C

Test C deals with multiplication. One-place numbers are multiplied by one-place numbers. The resemblance between the general rates of improvement in multiplication and addition will be obvious from an inspection of the diagrams.

## TEST D

Test D deals with simple division of one-place and two-place numbers by one-place numbers. Division evidently is more difficult throughout the schools than addition and subtraction.

## TEST E

Test E deals with the addition of short single columns of figures. There were in the columns of this section of the test five figures to be added. Since there are five numbers in each column to be added, we may multiply each of the records in Test E by four and



compare the results with those for Test A. All the grades will then show a slightly higher record in Test E than in Test A.

#### TEST F

Test F consists of a more elaborate process of subtraction. We note here again the fact that the eighth grade shows a sharp increase over the seventh grade in its ability to perform subtraction operations. A coincidence such as we find in comparing the diagram for Test B with the diagram for Test F, and the marked difference in form between these diagrams and all the others examined up to this point, give us confidence that an analysis based on results of a city-wide test will bring out essential facts with regard to the nature of arithmetical operations. It does not seem possible that a characteristic difference which recurs in two tests dealing with the same kind of operation can be a mere accident.

#### TEST G

Test G requires the multiplication of four-place numbers by one-place numbers. The conspicuous fact here is the slight progress recorded in the sixth and seventh grades.

#### TEST H

Test H deals with the addition and subtraction of simple fractions which are of like denomination.

### TEST I

Test I involved the dividing of five-place numbers by one-place numbers. It is interesting, in view of the fact which came out in comparing simple division with simple multiplication, to note that the record for this more elaborate type of division never passes the record for the corresponding type of multiplication.

### TEST J

Test J was a test in the addition of long columns of figures. The form of the diagram showing the progress is of interest, revealing, as it does, marked progress in the highest grades. The intellectual maturity which comes in the upper grades evidently redounds more to the advantage of long-column addition than it does to the advantage of short-column addition, as we see if we compare the record of Test J with the record of Test E.

### TEST K

Test K is a test in long division. Three-place and four-place numbers were divided by two-place numbers. One hundred and twenty seconds were allowed for this work. The high record made in this kind of division makes it appear that when it is ultimately mastered it is the simplest of all the highly complex operations. A partial explanation of this latter fact is doubtless to be found in the relief which comes in long division from the breaking up of the operation into a succession of short steps.

## TESTS L, M, N, AND O

Tests L to O may be commented on together. All of them deal with the more complex forms of the fundamental processes. In Test L four-place numbers are to be multiplied by two-place numbers. In Test M five four-place numbers are to be added. Test O is a test in the application of the four fundamental operations to fractions where the fractions to be subtracted or added must first be reduced to a common denominator.

### COMPLEXITY OF EDUCATIONAL PROCESSES

A spiral test such as that which has been described in the foregoing paragraphs exhibits, more clearly than any formal argument possibly could, something of the complexity of arithmetical processes. Each grade is confronted even in the fundamental operations with complexities that can be overcome only gradually. The teacher who assumes that addition is always the same process, whether it is encountered in the simple tables or in the addition of long columns of figures, has no adequate comprehension of the difficulties which children are really encountering as they go through the grades.

The analyses suggested by the arithmetic test also indicate the only intelligent method of organizing the course of study in this subject. If arithmetic is complex, the child must not be left to make his own way through this complex maze. He must be guided step by step by a teacher who understands the com-

plexities of the subject. While our analyses explain failures in arithmetic, they do not justify these failures. Rather they point out the way of avoiding them.

It is urged that the results of the new course be closely studied and that those modifications which the results show to be needed be introduced without delay. The course of study should be subject to frequent revisions in minor details. Such constant revision should depend on the precise knowledge of results which can come only from systematic tests.

\* \* \* \* \*

## STUDIES OF READING

It is hardly necessary to discuss at length the importance of reading. It is unquestionably the most important subject taught in the public elementary school. It occupies the first place in the program, consuming more time than any other subject. It furnishes the pupils with the instrument which they must use throughout the school course.

### CONDUCT OF READING TESTS

With the aid of the members of the senior class of the Cleveland Normal School careful tests of oral and silent reading were given to the children of the different grades in 44 schools. In preparation for this task the normal school students were trained by demonstrations, discussions, and trial. They went to various schools and were allowed to try the tests

in suitable rooms where they could work with individual children without distraction. The passages used were the products of extended studies previously made in other cities.

### TESTS OF ORAL READING

The exact tests were divided into tests in oral reading and tests in silent reading. In oral reading the rate was considered and also the following types of error:

a. Gross mispronunciations, which include such errors in pronunciation as indicate clearly that the word is too difficult for the pupil.

b. Minor mispronunciations which involve the mispronunciation of a portion of a word, wrong accent, wrong syllabication, omission of a syllable, etc.

c. Omission of words.

d. Insertion of words.

e. Repetition of words or groups of words.

f. Substitution of one word or group of words for another.

A composite score based on all these items was made up, thus reducing the record of each child and each grade to a series of convenient numerical expressions.

### VARIATIONS IN SCHOOLS

It was found that in reading as in other subjects the results from different schools varied greatly. As compared with the standard derived from the records

of all the schools tested it was found that there were some which excelled in lower grades; others which were better than average in the upper grades; still others which did notably good work in the lower

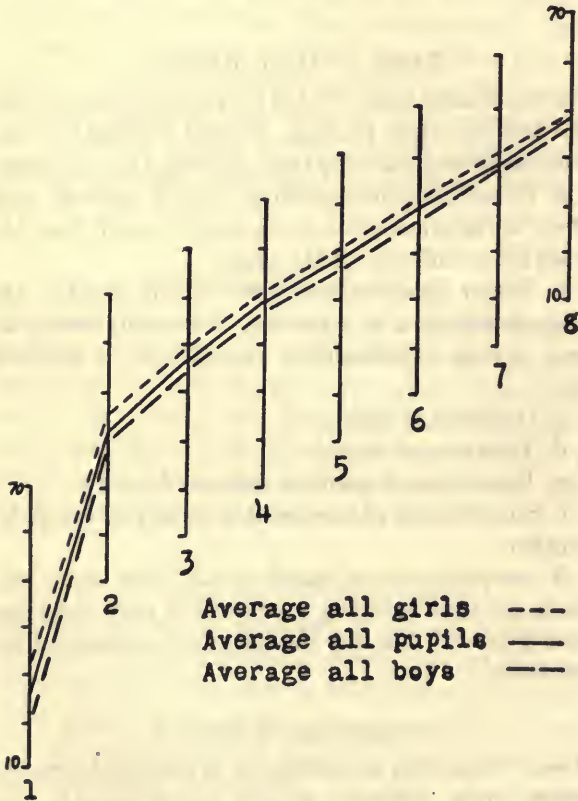


Diagram 17.—Average scores in oral reading for girls and boys in each of the eight grades

grades and poor work in the upper grades, and so on through all the possible combinations.

#### ANALYSIS TO SHOW INFLUENCE OF SEX, BOOKS, AND NATIONALITY

Analysis of the results brings out several important facts. First, in all grades girls do better than boys in oral reading. The facts are exhibited in Diagram 17.

Systems of readers do not exhibit any striking differences when all results are taken into account. The two systems which have been in use for the last two years and a half, namely, Ward and Aldine systems, are compared in Diagram 18.

The influence of nationality on achievement in oral reading is shown in a general way by Diagram 19. The results shown can be accepted only in a very general way for two reasons. The first is that the number of schools involved in some cases is limited. The second is that it is not certain in all cases that all the pupils tested from a school in which a given nationality dominated were of that type. The results are, however, accurate enough to serve in suggesting explanations of some of the earlier results reported for individual schools.

#### ACHIEVEMENT IN CLEVELAND AS COMPARED WITH OTHER CITIES

In Diagram 20 the average achievement of the grades in Cleveland is compared with the scores of 23 typi-

cal Illinois schools. Comparative data are at hand only for the grades from the second through the seventh. The figure shows that the second, third,

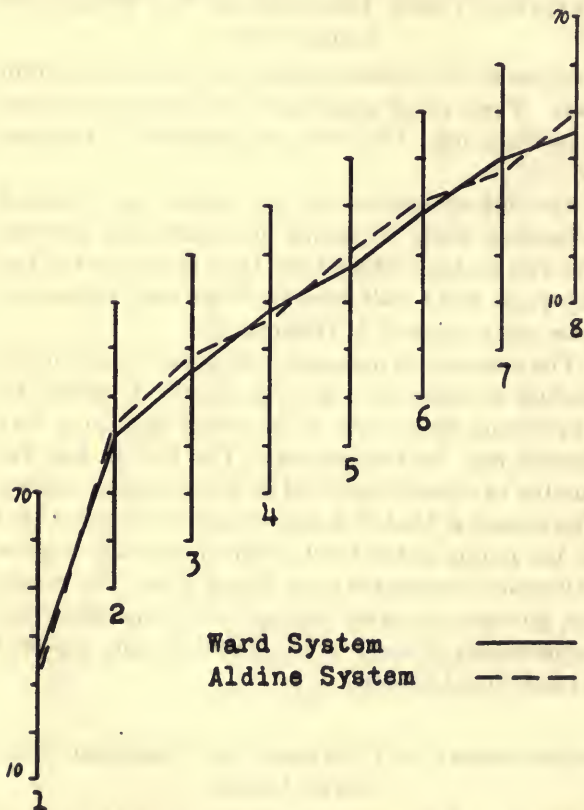


Diagram 18.—Average scores in oral reading in each grade of pupils using the Ward system and of those using the Aldine system



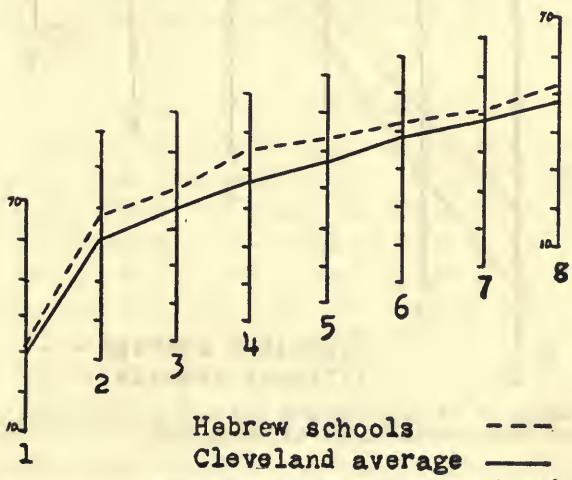
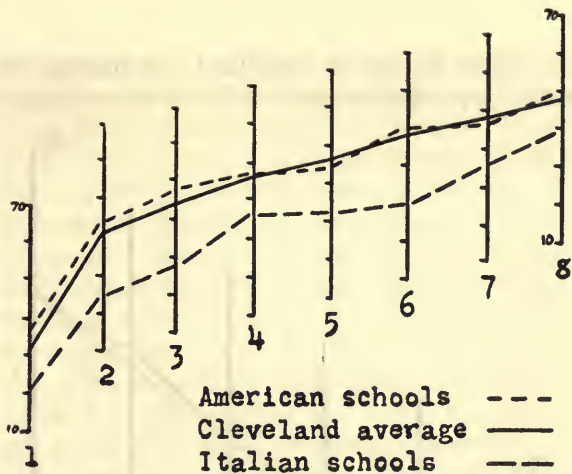


Diagram 19.—Average scores in oral reading in each grade in Cleveland schools in general and in eight American schools, two Italian schools, and three Hebrew schools

and fourth grades in Cleveland are making distinctly more rapid progress than the same grades in

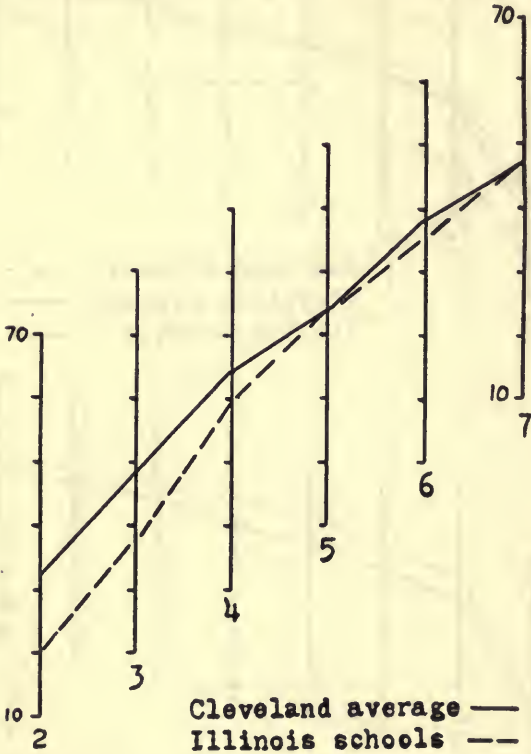


Diagram 20.—Average scores in oral reading in six grades in the Cleveland schools and in 23 Illinois schools

Illinois, while the upper grades in each case represent approximately the same level of achievement.

Third grade pupils in Illinois are more than one-half year behind third grade pupils in Cleveland. When it is considered that the school population of Cleveland is largely foreign, while that of Illinois is largely American, the fact that Cleveland has developed a high degree of efficiency in teaching the mechanics of reading in the lower grades becomes doubly impressive.

Gratifying as these results seem, there is a danger which must be pointed out. It is sometimes found that a pupil who has reached the third grade in a school which emphasizes oral reading has acquired an ability to pronounce words which is much in excess of his ability to secure meaning from what he reads. Tests in comprehension show that Cleveland pupils are behind pupils of other cities in ability to interpret what they read.

#### TESTS IN SILENT READING

At the same time that the pupils were tested in oral reading, they were also tested in silent reading. The silent test was omitted in the case of the pupils of the first grade. All others were given a new set of passages and the rate of reading and ability to understand what was read were carefully scored. Since three passages were used in order to suit the subject matter to the maturity of the different grades, a readjustment is necessary in the figures. The points of this readjustment are between the third and fourth grades and between the sixth and seventh grades. In Diagrams 21 and 22 dotted lines are drawn dividing the curves of progress at these points.

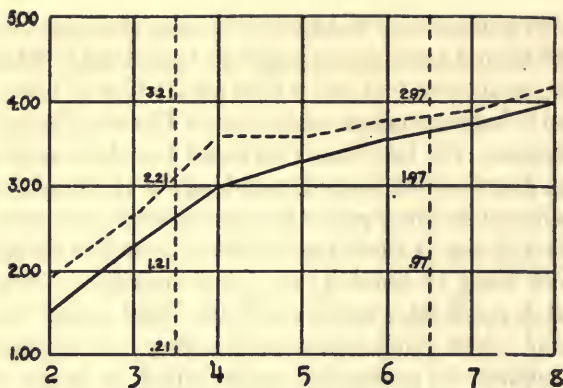


Diagram 21.—Average scores in the rate of silent reading of 1,831 Cleveland pupils and of 2,654 pupils in 13 other cities. Data are for grades from second through eighth. Dotted line shows Cleveland scores and solid line those of other cities

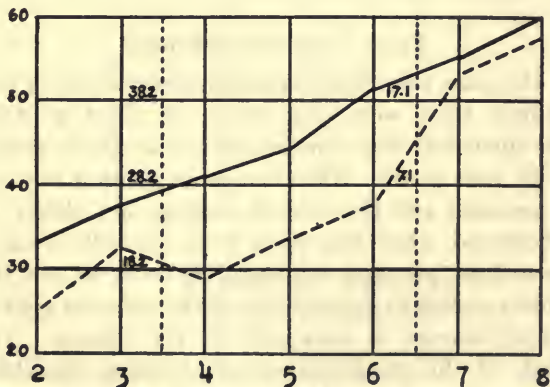


Diagram 22.—Average scores in the quality of silent reading of 1,831 Cleveland pupils and of 2,654 pupils in 13 other cities. Data are for grades from second through eighth. Dotted line shows Cleveland scores and solid line those of other cities

## COMPARISON OF CLEVELAND PUPILS WITH OTHERS

The first matter which may be taken up in reporting on the tests of silent reading is that which was discussed in the last paragraphs dealing with oral reading, namely, the meaning of the superiority of the Cleveland pupils when contrasted with the pupils in other cities.

The comparison in silent reading is exhibited in Diagrams 21 and 22. Diagram 21 shows, as did the score in oral reading reported in Diagram 20, a marked superiority in the rate of reading on the part of Cleveland pupils in all grades.

In quality, on the other hand, the results are not in favor of the Cleveland pupils. In fact, the results here are decidedly low for Cleveland schools.

These comparative facts raise a most important question. Does quality of reading always fall when the rate rises?

### GENERAL RELATION BETWEEN RATE AND QUALITY OF SILENT READING

For the purposes of this study of the relation between rate and quality, all the individual records of Cleveland pupils were divided into classes. First the speed records were arranged in order from the most rapid to the slowest. The most rapid of these records were designated by the single term "rapid." In this class of "rapid" records were included the most rapid 25 per cent of all the records. In like fashion the slowest 25 per cent of all the records were

set aside and designated as "slow." This left half the records, or the middle 50 per cent, which were designated as of "medium speed." In like manner the 25 per cent of all records which were qualitatively the best were designated "good"; the 25 per










 10 Rapid speed and good quality	 11 Medium speed and good quality	 4 Slow speed and good quality
 12 Rapid speed and medium quality	 26 Medium speed and medium quality	 12 Slow speed and medium quality
 4 Rapid speed and poor quality	 12 Medium speed and poor quality	 9 Slow speed and poor quality

Diagram 23.—Per cent of 1,831 Cleveland pupils found in each of nine speed and quality groups in silent reading

cent which were qualitatively worst were designated "poor," and the term "medium" was applied to the middle 50 per cent.

It becomes a very simple matter to assign all records in each grade to the appropriate class and

determine the percentage of the grade which falls into this class. Diagram 23 gives the results, the percentages being in each case the nearest whole number to the calculated figures, and the size of the circle being proportionate to the size of the class indicated.

For the purpose of this survey the general fact that high rate and good quality are commonly related, and that low rate and poor quality are commonly related, is of great importance. This general principle, which stands out as impressively evident in spite of exceptions, leaves us with the complex problem of explaining how Cleveland pupils who are rapid are less able to give back what they read than are the pupils in other schools tested with the same passages.

#### EXPLANATION OF THE CLEVELAND RECORD

The problem which is here encountered is solved by a consideration of the relative emphasis on speed and quality in the different grades. Rate and quality may be represented in a single diagram. Thus in Diagram 24 the rate of reading is represented by horizontal distances and quality by vertical distances. The facts in regard to Cleveland and the other cities are presented in the upper part of the diagram. Here we see that the rate of the second grade in Cleveland is nearly two words per second, while the speed of the corresponding grade in other cities is about one and a half per second. The quality of Cleveland's second grades, on the other

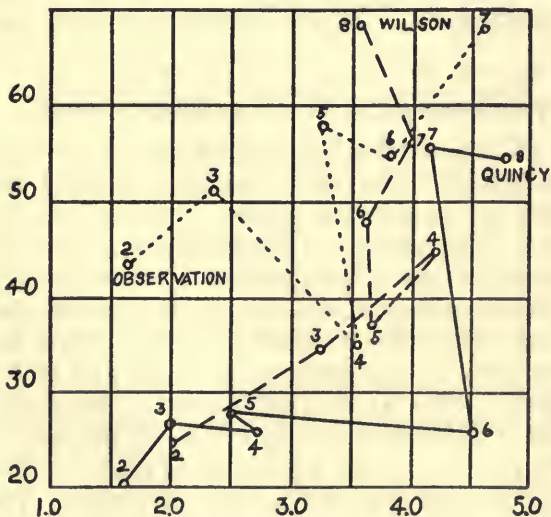
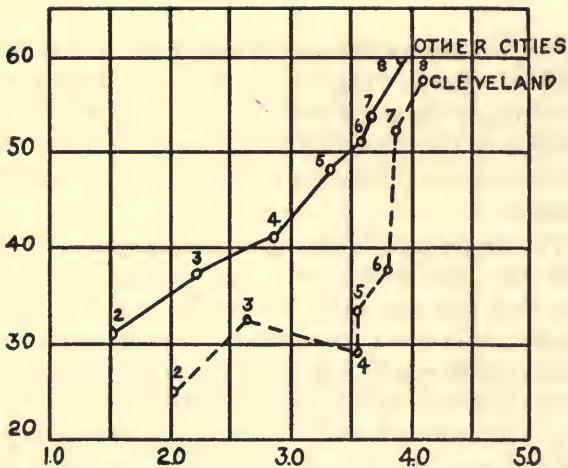


Diagram 24.—Average scores in speed and quality of silent reading in each grade in Cleveland and in 13 other cities and in three selected Cleveland schools



hand, is 25, while that of the grades in other cities is over 30.

Following the progress of the Cleveland curve, it is noticed that there is a rapid gain in speed up to the fourth grade, shown by the fact that the curve turns sharply toward the right but is irregular in the vertical. Quality is thus shown to be irregular. There is a relapse to a lower level in passing from the third to the fourth grade. Indeed, even after improvement in quality begins in the fifth and sixth grades, it is relatively slow and irregular.

The curve for the other cities has a wholly different character. During the early years rate improves relatively more than does quality, but there is steady progress in both. In the middle of the elementary course there is a definite change in relation, the upper grades showing greater improvement in quality. This would seem to mean that the mechanical phases of reading have to be mastered first and their mastery is shown by the attainment of satisfactory speed; thereafter the greater emphasis should fall on quality.

The solution of our problem regarding the high speed and deficient quality of Cleveland is now clear. There is not sufficient attention to interpretation in the grades up to the fourth. There is, indeed, a high degree of success in perfecting the mechanical operations, but the ultimate achievement of the schools is below what it should be in quality because the quality is not adequately stressed in the lower grades.

## RECORDS OF VARIOUS SCHOOLS

The lower part of Diagram 24 shows the results obtained in three individual schools. These records of individual schools are made up on the basis of the results of only a few representatives of each grade and might be modified if the whole school were tested. The diagrams are, however, suggestive of a kind of study which would be productive in every school.

\* \* \* \* \*

## KINDERGARTENS AND PRIMARY GRADES

In order to get information about the kindergartens and the first grades and especially the coöperation existing between the two, the survey secured written discussions of conditions and problems from all the teachers of these classes. In the full report these comments are summarized and discussed. It is pointed out

(1) That the kindergartners are unsupervised and dominated by a training school which is outside the school system;

(2) That the equipment of the kindergartens is superior to that of the primary grades;

(3) That the effects of kindergarten training are by no means clearly defined and that they are often regarded by primary teachers as of doubtful value;

(4) That the teachers are not in close touch with one another and not, in general, in sympathy with the mode of sending children from the kindergarten to the first grade.

## RECOMMENDATIONS

It is recommended that the training of kindergarten teachers be more intimately related to the work of the City Training School for Teachers. It would be well if the training of kindergartners could be made a part of the work of that institution.

It is recommended that the first grade and the kindergarten be organized in such a way that there shall be a more equitable distribution of teaching staff and material equipment.

It is recommended that promotion from the kindergarten to the first grade be based on maturity of pupils and not merely on age.

It is recommended that the work of the kindergarten and of the first grade be reorganized so that each shall have much natural play and each shall have systematic training in the fundamental social arts.

Since these changes require vigorous, unified central supervision, it is recommended that a single supervisor be put in charge of the kindergartens and primary grades.

\* \* \* \* \*

## RELATION BETWEEN ELEMENTARY SCHOOLS AND HIGH SCHOOLS

The first step in such a study is to determine in terms of the elementary records what kinds of pupils go to high school. The expectation of success in high school work is, of course, very different in the case of a child who has done excellent work in

the lower school from the expectation of success in the case of a child who has made a low elementary record. The elementary records of all pupils entering the high school in 1914 were accordingly collected. This was done by securing individual record cards for each pupil. Full returns were secured from 84 elementary schools. Since it is difficult to compare the grading systems in use in different schools, the simple device was adopted of dividing each eighth grade into three subdivisions, each made numerically equal to the others. The first third included the best pupils, the second third the mediocre pupils, and the last third the lowest pupils in the eighth grade. When the returns from all the schools were combined, it was found that many more pupils from the highest third of the elementary grades go on to high school than from the lowest. The comparison is given in Diagram 25.

#### DIFFERENCES BETWEEN INDIVIDUAL SCHOOLS

The records from various schools were next taken up, and it appeared here, as in all the studies reported in preceding chapters, that there is the greatest difference between schools. Some send only their best pupils on to high school; others send their poor, their medium, and their good pupils in substantially equal proportions; still others send forward surprisingly large proportions of their poorest pupils.

In the full report the results of this comparison are presented in complete tabular form for all the ele-

mentary schools. The results show that the pupils from some schools fall far short of maintaining in the high schools the relative standings that they had in the elementary ones. On this basis some schools show little more than 70 per cent of efficiency. At

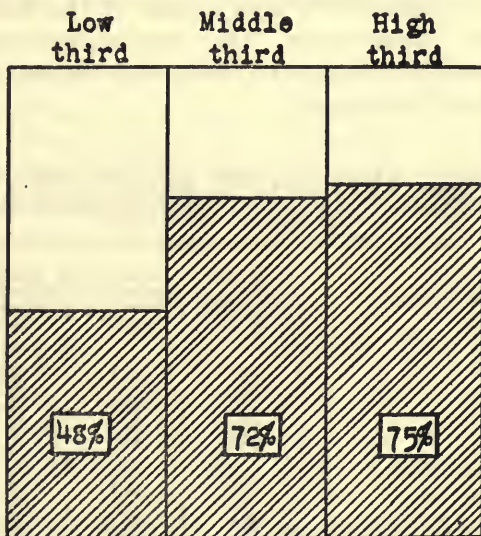


Diagram 25.—Per cent of eighth grade pupils entering high school from the low third, the middle third, and the high third of their classes

the other extreme there are schools which send forward pupils who are so well prepared that their relative standing in high school is much improved over what it was in the grades. Some of these schools show a per cent of efficiency as high as 130.

\* \* \* \* \*

## HIGH SCHOOLS

It is a much more complex problem to determine the efficiency of a high school than to form an estimate regarding the character of the work done in an elementary school. The best basis on which to attempt an estimate of high schools is the routine record of ordinary work. The examination of such a record yields many facts which go far toward justifying final judgments.

TABLE 8.—PER CENT OF PUPILS ENTERING EACH HIGH SCHOOL IN 1914 WHO WERE IN THE HIGHEST, MIDDLE, AND LOWEST THIRDS OF THEIR EIGHTH GRADE CLASSES IN THE ELEMENTARY SCHOOLS

High school	Per cent marked 1 by elementary school	Per cent marked 2 by elementary school	Per cent marked 3 by elementary school
West	51.5	34.1	14.4
Lincoln	50.9	35.1	14.0
Glennville	47.5	30.9	21.6
East	44.9	34.1	21.0
Central	44.6	34.9	20.5
West Commerce	44.2	39.5	16.3
South	36.8	42.1	21.1
Collinwood	34.8	39.1	26.1
East Commerce	29.7	43.7	26.6
West Technical	28.7	37.3	34.0
East Technical	27.9	39.2	32.9

### RANKS OF ENTERING STUDENTS

The investigation which was described in the last section yielded facts showing that the students who enter the different high schools are of different types. It will be recalled that the elementary school records were secured for all pupils entering the high schools

in 1914. These were distributed so as to show the ranks of pupils entering each of the high schools. The results are presented in Table 8. In this table rank 1 means that the student is in the highest third of the elementary class, rank 2 that he is in the middle third, and rank 3 that he is in the lowest third.

#### AGES OF STUDENTS IN VARIOUS SCHOOLS

A significant body of facts is printed from year to year in the report of the superintendent. Table V in the seventy-eighth report gives the ages of all students in high school. This table throws light on our problem, because it shows how many students entering each type of high school have been either fast or slow in completing their elementary education and continuing their high school work.

Two facts stand out clearly. First, the academic schools have the largest number of students who have made rapid or normal progress, while the technical schools have the largest number of students who have been delayed. The commercial schools stand between the extremes. Second, the girls are always younger than the boys in all the schools.

The facts here reported confirm the conclusion based on Table 8. The academic schools get more of the pupils who have made rapid progress.

#### WITHDRAWALS AND NON-PROMOTIONS

A further set of facts important for this discussion may be extracted from Table V of the superinten-

dent's report. Withdrawals and non-promotions in the different types of high schools are significant, because they show what students cannot carry on the work of the high school or are not interested enough to do this work. This table presents clear evidence that the students of the commercial and technical high schools cannot satisfy the requirements of these schools as readily as the students who go to the academic schools succeed in satisfying the requirements of those schools. Students fail in the technical schools in very large numbers, and the rate of withdrawal in these schools is somewhat higher than in the others.

#### HIGH SCHOOL GRADES IN THE FIRST YEAR

Some further light is thrown on the practices of the different high schools by a study of the way in which they grade members of the first-year classes. The results of this comparison indicate the greatest diversity among the different schools. In some schools a grade of 85 means that the pupil is in the highest third of the class while in others the same grade means that he is in the lowest third. The importance of this diversity is well illustrated by the fact that students who receive the grade of 85 or more are admitted to the City Normal School without examination. Under this rule a student would have to be well up in the highest third of the class in West Commercial and East Technical in order to qualify. At Central the student could qualify from the foot



of the highest third, while at Lincoln students from the foot of the middle third would be accepted under the rule.

#### NUMBER OF REPEATERS, STUDENTS DROPPED, AND FAILURES

These details show that the grading systems of the various schools are sufficiently different to require further investigation. In order to make this investigation, reports were secured from the Department of Statistics showing for each high school the following facts: (a) the total number of students registered in each subject, such as first-year English, first-year mathematics, etc.; (b) the number of students registered in each subject as repeaters, that is, taking the course a second time; (c) the number of students who dropped the course for any cause whatsoever during the semester; and (d) the number of failures.

These comparisons contribute further evidence that there is widest divergence in standards among the different high schools. Some schools fail an insignificant percentage of pupils while others fail them in surprisingly large numbers. In some the number of repeaters is very large while in others there are almost none. These differences are important. It is certainly significant for the city school system, for example, that West Commercial fails in a required class 37 per cent of the students and over in the corresponding class in Lincoln only two per cent

failed. It is hardly conceivable that under these conditions both schools are conducting the same type of work and serving the community equally well.

#### COMPARISONS BETWEEN SUCCESSIVE YEARS

Similar conclusions are inevitable when comparisons are drawn between the records of successive years of work with the same students in the same subject. In some schools a large percentage of the pupils fail in the beginning classes and a small percentage in the advanced work; in other schools the opposite policy is followed. Whatever explanations and excuses are offered for these conditions, it is certainly contrary to good public policy that there should be the wastage represented by some of the records.

#### RECOMMENDATIONS

Central supervision of the high schools should be reinforced in some radical way. Some plan of equalizing and raising standards of instruction should be devised. Conferences between departments would be a first step. Inspection of departments would be a second, and reorganization of departments a third step which could be taken if necessary.

Commercial courses and technical courses should be made available in the academic high schools.

Detailed reports on the new English course should be required of every school. These reports should set forth the quality of students registering, the

standing of such students, especially in courses where they mix with other students, and the length of the school attendance of such students.

It is recommended that the project of building a new commercial high school be given careful and thorough reconsideration.

\* \* \* \* \*

## APPENDIX

An appendix of some 55 pages is added to the report for the purpose of presenting in full an account of the scales and tests used in the measuring of work. The different letters of instruction issued to the teachers are reprinted and the word lists, arithmetic tests, and reading scales are reproduced in full.

### CONCLUSIONS AND RECOMMENDATIONS

1. The studies of non-promotions in the grades show that they increase rather than decrease with the progress of school work. There is an astonishing increase of so-called mental incapacity through the intermediate grades showing that this diagnosis of the difficulty as offered by the school officials is not right.

2. In the matter of non-promotion different schools have widely varying records and some show an impressive lack of accord with their own past practices.

3. In handwriting some schools show regular progress in both speed and quality while others are without consistent policies of development. There is wide variation between different schools.

4. The progress of children in spelling in successive grades of different schools presents striking contrasts and marked deviations from the average for the whole system.

5. Tests of arithmetic reveal divergencies between different grades and different schools similar to those noted in the study of penmanship and spelling though in less degree.

6. In reading marked variations and divergencies appear between different schools and grades as they do in the cases of the other subjects.

7. In general the Cleveland pupils are ahead of those of other cities in speed of reading, but behind them in the ability to interpret what is read.

8. A study of the relation between elementary schools and high schools brings to light many striking divergencies tending to decrease the intimacy between the two kinds of schools.

9. Studies of high school conditions show that the work of these schools is marked by wide differences in their ability to hold pupils, in marking systems, in policies in failing pupils, and in their standards of satisfactory work in the different subjects.

10. Without exception the different tests of school work indicate that there exist in Cleveland wide divergencies between grades of the same denomination, marked differences in the standards and practices of different schools, and fundamental variations in the policies of different principals in both elementary schools and in high schools. This shows the necessity for a new type of scientific supervision and

administration which shall constantly bring to the consciousness of school officers and the community the chief problems of school organization through comparative studies and tables of definite fact. A vigorous policy of comparative study should be adopted as a regular part of the routine administration of the system.

## CHAPTER IX

### HEALTH WORK IN THE PUBLIC SCHOOLS

(Leonard P. Ayres and May Ayres)

Cleveland employs 16 physicians, one oculist, and 27 nurses to take charge of the health of her school children. The city spends \$36,000 a year on salaries and supplies for these people. There are 86 school dispensaries and clinics. Cleveland is making this heavy investment because she finds it pays.

#### THE ARGUMENT FOR MEDICAL INSPECTION

Through medical inspection the educator and the physician join hands to insure for each child such conditions of health and vitality as will best enable him to take full advantage of the free education offered by the state. It recognizes the intimate relationship between the physical and mental conditions of children. It realizes that education is dependent upon health. It betters health conditions among school children, safeguards them from disease, and renders them healthier, happier, and more vigorous.

#### HOW THE WORK STARTED

The first work of this kind in Cleveland started in 1900 when tests were made of defective vision. In 1906 the Health Department provided inspectors for

contagious diseases in the schools. In the same year inspection for physical defects was undertaken; the first dispensary in the United States was established at the Murray Hill School, and school nurses were appointed. In 1909 the Division of Health Supervision and Inspection became part of the regular school system. The Committee on Sanitation of the Chamber of Commerce was influential in forwarding the whole movement.

### THE PRESENT SYSTEM

As it is at present organized, the Division handles inspection for contagious disease, inspection for physical and mental defects, follow-up work for the remedying of defects, health instruction, recommendation of children to schools for the physically and mentally handicapped, school lunches, gardens, and playgrounds.

Either the nurse or physician reports at each school every day of the year. Once during the year each child is given a careful physical examination, and further examinations are made when they are needed. All serious defects are reported to parents, and in cases where treatment is important, parents are urged to consult with the school doctor concerning the nature of the difficulty and the best means of curing it. To supplement these interviews, the school nurse spends a large part of her time in visiting homes, talking with parents, noting conditions under which children live, and making suggestions as to home care.

## THE SCHOOL NURSE

The value of the school nurse is one feature of the medical inspection of schools about which there is no division of opinion. Her services have abundantly demonstrated their utility, and her employment has quite passed the experimental stage. The introduction of the trained nurse into the service of education has been rapid, and few school innovations have met with such widespread support and enthusiastic approval.

## CLEVELAND'S DISPENSARIES

Cleveland has 86 dispensaries. In every case lighting, ventilation, and equipment are good. It is probably true that these dispensaries are of better grade than those of any other large city in the United States.

## DENTAL CLINICS

Dental clinics are now conducted in four public schools by the Cleveland Auxiliary of the National Mouth Hygiene Association. This work has now reached a point where it should be taken over and administered as a part of the public school system. The function of a private organization is to experiment and demonstrate. It cannot eventuate on a large scale, and it should not if it could. The function of a public organization is to eventuate on a large scale. It can seldom experiment, and it lacks freedom and flexibility in demonstration. The Mouth Hygiene Association has experimented and demon-



strated successfully. Its work should now be assumed, continued, and extended by the Division of Medical Inspection.

### EYE CLINICS

The eye clinic conducted by the Division at the Brownell School is doing excellent work. As the system grows, this clinic should be supplied with more workers. There are no other clinics. Mental examinations are made by a special teacher appointed for that purpose. All surgical cases are referred to family physicians or local hospitals for treatment.

### THE MEDICAL INSPECTION STAFF

Medical inspectors are mature men, graduates of well-known medical schools, with a fairly wide private practice. The school nurses are all registered nurses. Medical inspectors receive \$100 a month during the school year. They are required to give three and one-half hours a day, five days a week, to work in the schools, inclusive of traveling time between buildings. Nurses are paid on the schedule of the Visiting Nurses Association and salaries range from \$60 to \$80, depending upon length of service. The upper limit will probably be raised to \$85 in the near future. Nurses are on duty from 8:30 to 4:30 every weekday except Saturday, when work ends at noon. Nurses are regularly employed only during the school year, but two are retained longer for service in summer schools.

The number of school nurses should be increased as rapidly as possible until one nurse is provided on full time for every 2,000 children enrolled in school. This would mean the employment of 11 additional nurses, increasing the staff from 27 to 38. As the population increases, more nurses should be added.

Office consultations between parents and physicians are among the most important activities of the Division and should be systematically encouraged. To this end arrangements should be made whereby definite hours for parent consultations are assigned to each school.

#### THE PLAN OF CONCENTRATING INTERESTS

The Division of Medical Inspection has so organized its work that the attention of the staff is concentrated upon a different set of problems each year. This method is unquestionably effective in promoting growth and maintaining the interest of the staff. Care should be taken, however, to provide that within each four-year period special emphasis be laid upon the discovery and cure of each of the more important defects. Some plan should be adopted by the staff whereby effort may be concentrated on discovering and remedying defects at those ages where such expenditure of time and energy will secure the largest returns.

#### SPEECH DEFECTS

Speech defects are very common among children. At first they yield readily to treatment, but if allowed

to continue through the adolescent period the habit becomes fixed so that trying to cure it is a difficult and often fruitless task. Judging from the experience of other cities, about 800 boys and 200 girls in the Cleveland public school system are suffering from some form of speech defect. There are few fields in which the medical inspection department has such an opportunity for effective work and in which so little has been done. Effort should be made to locate these children, and form them into groups for daily training, under the direction of a teacher specially prepared to handle speech cases.

#### VACCINATION

There are probably more than 50,000 unvaccinated children now in the Cleveland schools. Immediate steps should be taken to see to it that every child now in school is vaccinated, and that no child is admitted to school hereafter without similar protection. Principals, teachers, and parents should be held responsible for violation of the vaccination ordinance.

#### FUTURE DEVELOPMENT

The Division of Medical Inspection should plan steadily to enlarge its field of activity in order to provide in constantly increasing measure better working conditions in the schools and to train the children into habits of health that shall be life-long. It is probable that the health work in the Cleveland public

schools is unsurpassed by that of any other city in the country. The city now has an opportunity to lead the way into vastly important forward extensions looking toward the provision of health insurance for future generations.

### HEALTH AND EDUCATION AND BUSINESS

There is one condition in the Cleveland school system which rises like a mighty barrier against the possibility of completely fulfilling any ideal program of health education. This is the fundamental fact that the Cleveland school authorities have not yet conceived of health work as being an integral part of education.

Under the present organization, the official in charge of health work is responsible to the director of schools in part of his activities and to the superintendent in the rest of them. He should be responsible to the city superintendent alone, for health work in the public schools is education and not business.

Sooner or later serious difficulties are bound to arise from an administratively unsound arrangement in which a school official in charge of a most important division of work is responsible to two entirely independent chiefs. The opportunities for honest but irreconcilable conflict of views are so numerous that they will surely arise in time. One chief may favor vaccination and the other be opposed to it on principle. One may deem it the duty of the schools to have the doctors and nurses give instruction in sex

hygiene while the other may be utterly against anything of the sort. One may hold that the only useful physical exercise is that gained through games and athletics, while the other may favor formal gymnastics. One may believe in school gardens, and the other deem them a waste of time and money. One may believe that courses in infant hygiene should be provided for the girls in the upper grammar grades, while the other may hold that such instruction should be reserved for continuation classes for young women.

All these are matters on which educational authorities are sharply divided in opinion and there are many more of the same nature. The present director of schools, the present superintendent of schools, and the present chief medical inspector have so far worked successfully under the present arrangement of divided duties and responsibilities, but a reorganization along sounder administrative lines should be made before, instead of after, serious trouble arises. Eventually, if not now, Cleveland must realize that health work in education must be placed under the direction of the city's highest educational official who is the city superintendent of schools.

#### CONCLUSIONS AND RECOMMENDATIONS

1. Cleveland has a comprehensive and efficient system of medical inspection, employing 16 school physicians, one oculist, and 27 nurses, and entailing an annual expenditure of some \$36,000.

2. The work includes inspection for contagious

diseases, inspection for physical and mental defects, follow-up work for the remedying of defects, health instruction, examination of physically and mentally exceptional children, school lunches, school gardens, and playgrounds.

3. Cleveland probably has more well-equipped school dispensaries than any other large city in the country.

4. The work of the dental clinics has been conducted by a private association, but has reached a point where it should be taken over and administered as a part of the public school system.

5. The number of school nurses should be increased until there is one full-time nurse for every 2,000 children enrolled.

6. Work should be undertaken for the remedying of speech defects among the children.

7. Immediate steps should be taken to bring about the vaccination of the 50,000 unvaccinated children now attending school.

8. The health work should be reorganized so as to bring it under the direct supervision and authority of the superintendent of schools. At present it is partly under the superintendent and mostly under the director.

9. It is probable that the health work in the Cleveland public schools is unsurpassed by that of any other city in the country. The city now has an opportunity to lead the way into vastly important forward extensions looking toward the provision of health insurance for future generations.

## CHAPTER X

# SCHOOLS AND CLASSES FOR EXCEPTIONAL CHILDREN

(David Mitchell)

Cleveland has been a pioneer in providing advantages for children who do not fit into the regular grades. In more than one instance this city had the first class of a type in the country. Table 9 shows the enrollment in each sort of school and class in the spring of 1915.

SPECIAL SCHOOLS AND CLASSES IN 1915

	Number of children	Number of teachers
Boys	273	14
Deaf	107	14
Backward classes	330	15
Backward School	472	17
Steamer	404	18
Defective	240	18
Epileptic	11	1
Crippled	90	7
Elementary Industrial	232	11
Industrial training centers	134	11
Blind	48	6
Open air	218	8
<b>Total</b>	<b>2,559</b>	<b>140</b>

### WHY WE HAVE SPECIAL CLASSES

With universal compulsory education the special class became a necessity. As compulsory attendance

laws were more strictly enforced, children of all types were brought into school. Not only the dull and the bright, but also the weak and strong were forced into a scheme of things which had not been planned to include all. The schools were arranged for the so-called average child, but here were brought together many who for various reasons could not possibly be included in a group of normal children. Since the state has decreed that every child shall be educated, it has laid upon itself the obligation of providing suitable instruction for all the different types of children found in a community.

#### DIVISION OF EXCEPTIONAL CHILDREN IN TWO GROUPS

The so-called exceptional children may be divided into two groups. On the one hand we have those who in many ways are defective and different from the majority, but who will become independent, self-supporting units of society. These children are socially competent. On the other hand, we have those whose defect is such that the individual must always be dependent on others and more or less supported by them. These children are socially incompetent.

Those exceptional children of normal mentality who are suffering from physical defect belong to the socially competent group. They must take their places in a world of normal people. These children are the blind, the deaf, the crippled, the tuberculous, etc. In the same group of socially competent we



place certain of those who for some reason other than physical defect do not fit into the scheme of things. This group is only temporarily debarred from the activities which the normal child enjoys. The reason for the separation may be found in environmental conditions. A child who does not come to this country until after the usual time for commencing school does not know how to communicate with his schoolmates or with his teacher. For a time he is a social misfit.

In the same way a child who has not had the training which would make him an acceptable member of society may require temporary segregation. This class of children we recognize as incorrigible and delinquent. In all these cases the common characteristic is that eventually they will become self-supporting members of the community. For this reason we designate them as socially competent.

The other exceptional children are the socially incompetent. These are the ones who, no matter what the opportunity given them, are incapable of self-support. They will always be more or less dependent on others for their welfare. They lack ability to control their own affairs with "an ordinary degree of prudence." This group contains the insane, the epileptic, and the feeble-minded, those known as morons, imbeciles, idio-imbeciles, and idiots.

The criterion by which we distinguish the two groups of exceptional children is that of social fitness. Can a child be educated for self-support and an independent existence in the community? If so, he is socially competent. If not, he is socially incompetent.

A child of normal mentality may be so badly deformed that he will require certain assistance, but this does not make him socially incompetent. The fact is that a child of normal mentality must live in a world of normal people and should be educated for normal associations. The child who can not become an independent member of the community should be trained for his life of dependence.

The difference in treatment accorded to the two groups must be based on this fundamental difference between social competence and social incompetence. The socially competent will spend the greater part of their lives in close association with other self-supporting units of society—the normal people. They will not be segregated in institutions. Because of this fact their education should aim to make them capable of normal associations. For this purpose their education should take place in the regular school buildings and as much as possible with normal children. Much of the instruction will necessarily be given to groups of similarly handicapped children, but wherever it is possible they should be taught in the regular classrooms.

The policy for the training of the socially incompetent is in sharp contrast to that for the education of the socially competent. Their distinguishing characteristic is that they are unable to exist as independent units of society. Some of these are insane, some are epileptic, and some are feebleminded. In the case of the insane we have fully recognized the dependence and have eliminated them from the schools. The

necessity for a segregation of the epileptic and the feeble-minded has not yet been universally recognized. Nevertheless modern science shows that when these people reach the age of maturity they should become permanent residents of institutions. For this reason their training should be directed toward their own maintenance in a place where most of their actions are directed by others. Since the aim is segregation of all those who will find it impossible to maintain an independent existence, it is not desirable to attempt to train them for association with normal people. No benefit is derived by the normal nor by the socially incompetent child from an enforced association in the regular school or classroom. On the contrary, such an association is harmful rather than beneficial. The training of the socially incompetent should take place in separate classrooms, and, if possible, in separate buildings.

### CLASSES FOR THE BLIND

There are two kinds of classes for the blind. One is for children totally blind and the other for children frequently called semi-blind. There are three classes of each type. A class is in session for six hours a day in a regular school building. The instruction follows closely that of the regular grades, each blind child being supposed to cover the same work as the normal child.

This arrangement of having the blind taught in the classes with seeing children has been called the

"Cleveland plan." It is one of the several instances in which this city is a pioneer. In adult life the blind and the semi-blind will not be segregated in institutions but will spend their lives in association with normal people. They are prepared for participation in normal social intercourse by education, as far as possible, in classes with seeing children. Precisely this principle leads us to recommend similar treatment for all other socially competent but exceptional children.

The classes are supervised by one who is listed in the superintendent's annual report as the "Special Teacher of the Blind." He is recognized by the teachers assigned to the classes as the supervisor of the work. The arrangement is not conducive to the best development. With the duties of an office to perform, it is always more satisfactory for the responsible person to have a position which is clearly distinguished from that of his assistants. A division for the instruction of the blind should be created, and the office of "Supervisor" of this department should replace that of the "Special Teacher of the Blind."

There are two ways in which the work for the blind and semi-blind could be greatly helped and at a relatively slight cost. In the first place, more generous provision should be made for printing school texts in very large type so as to supply adequate reading material for semi-blind children. A good beginning has been made in this work, but the supply of these books is not as yet nearly adequate.

A second important step would be the appoint-

ment of a visiting teacher who could effectively coordinate the work of the school and the home in behalf of these handicapped children. The work with the children would give far greater results if it could be wisely followed up through systematic visiting in the homes of the children.

### CLASSES FOR THE DEAF

For the deaf liberal provision has been made in the construction of a modern, well-equipped building. Unfortunately it was not realized that the deaf as well as the blind would be better fitted for association with normal people if their education were given in close relation with those who would later be their regular companions. Every deaf child needs all the contact possible with normal children. For this reason deaf children should receive their education in special classes in the regular schools rather than in a special school.

By the present arrangement the deaf child is separated from the normal during the entire period of the school sessions. He is educated in an abnormal environment, an environment in which all his companions have a similar affliction. This is the wrong sort of education. He should be as much as possible in the same conditions in which he will have to live. This means that a considerable number of classes should be established in the regular school building. When this is done, a certain part of the instruction will be given to a group of deaf children in a group

by themselves. As in the case of the blind, as much of the instruction as possible should be given in classes with normal children. In the early part of school life the time that the deaf are in the same room with hearing children may well be limited to physical exercises, simple manual work, and similar activities. As the children develop and become skilful in lip-reading, more and more of the time may profitably be spent in classes with normal children.

Classes for the deaf should be established in a considerable number of regular schools. Sufficient compensation should be offered to attract adequately trained teachers. Probably more than 700 children should have the advantages of the special instruction now given to one-seventh of this number.

#### CLASSES FOR CRIPPLED CHILDREN

The school for crippled children is located in a temporary frame structure in close proximity to a regular school. The work of the children in this school is similar to that of children in other schools. The principal has the same duties as a regular elementary school principal.

At the present time plans are being considered for the erection of a building which will include all modern facilities for the instruction of the crippled. Before this plan is put into effect it would be wise to consider whether or not the city is getting into the same difficulty with the crippled children as it has with the deaf. All children admitted to these classes

should have sufficient ability to learn trades or professions by which they may make their own living. If a selection is made which will bring about this result, every child will eventually take his place in the world in close association with normal people.

For this reason his education should be given in circumstances most likely to develop normal reactions. Ideally this will be in the same surroundings as provided for the well-formed and strong child. Classes for the crippled children should be conducted in regular school buildings, each class being organized where it is most convenient for a sufficient number of children.

The greater value of the special class should lead to its adoption in spite of the fact that the actual expenditure will be greater. Probably several hundred children should be sent to these special classes for cripples.

### OPEN AIR CLASSES

By providing open air rooms in the regular schools Cleveland had adopted the wise method of educating together those who must live and work together. The success of the children is sufficient to warrant the extension of the opportunity to all who might profit by it.

### "STEAMER" CLASSES

Children who do not speak English come to every large center of population. For a time these children are misfits in the regular grades. They should be

given the opportunity to learn the language before they are placed in a class with 30 or 40 other children who are not similarly handicapped. In 1901 the principal of Harmon School recognized this necessity and organized the first "steamer" class.

The purpose of the steamer classes is the rapid acquirement of the English language. The progress of the children amply justifies the expense of all advantages given to them. The advantages should be given to every child who does not speak English. The work of the classes should not be handicapped by the presence of feebleminded children.

#### SPEECH DEFECTS

No provision has yet been made for the children with defective speech. Probably more than 1,000 Cleveland children require special speech training. Speech classes should be organized in many schools. The teacher should be a qualified articulation teacher, with special training in pedagogy and psychology. A beginning in the work should be made immediately with the best teachers obtainable. State funds may pay for the instruction of a considerable number. No feebleminded children should be admitted to the classes.

#### RESTORATION CLASSES

Irregularity of attendance frequently causes retardation. A diagnosis of mental grade in children whose ability is doubtful may usually be made after a period



of intensive training. Restoration classes should provide opportunity for the retarded to advance, and for the doubtful ones to prove their ability. The teachers of these classes must be among the very best in the school system and because of this should receive extra compensation.

### CLASSES FOR INCORRIGIBLES

Cleveland was the first city in the United States to organize a class for incorrigibles. The present school is doing excellent work, but the treatment of these children requires a more social point of view. Special classes where the children would not be altogether separated from other types of children should be tried. A diagnosis of mental status should precede transfer to a class for incorrigibles.

### THE SOCIALLY INCOMPETENT

For socially incompetent children Cleveland has organized different types of classes. In some of these classes the proportion of feebleminded is high, in others very low. It is probable that a considerable number of feebleminded are still in the regular grades. In most cases liberal provision has been made for the classes. For many of the children the expenditure is out of all proportion to the results obtained.

The socially incompetent are the insane, the epileptic, and the feebleminded. Socially the epileptic do not differ from the feebleminded. Lack of ability

for self-maintenance distinguishes the feebleminded from the normal. In Cleveland, 2,077 children, approximately three per cent of the school population, have been in the schools three or more years longer than the grade in which they are would indicate. All these children may be considered suspects.

#### THE SELECTION OF FEEBLEMINDED CHILDREN

The Division of Medical Inspection is now responsible for the selection of all children assigned to classes for defectives. The mental status of the children is determined by means of the Binet-Simon tests of intelligence. These tests, though desirable as additional evidence in many cases, should not be used as the only available ultimate criteria for determining whether a child is an idiot, feebleminded, a moron, or normal. Such a decision is too consequential to be entrusted to the verdict of a single and restricted type of mental test.

In many respects there is a fair analogy between the sputum test in the case of suspected tuberculosis and the Binet-Simon test in the case of suspected mental subnormality. In both cases the test involves a technique which may be mastered without prolonged preparation. In every large city sputum examinations are regularly conducted by laboratory workers who are not physicians and who are not competent to conduct any of the other tests for tuberculosis. In a corresponding way the Binet-Simon tests may be and are being conducted in Cleveland

and elsewhere by examiners who have thoroughly mastered this special technique, but who are not trained psychologists and who are not able to administer the other available tests in the same field. Just as it would be foolish to entrust the final verdict in the case of the tuberculosis suspect to the microscopic examination and not be able to employ the other tests in case of doubt, so it is unwise in the case of suspected mental subnormality to have only the Binet-Simon tests as the final resource in reaching a decision.

The mental tests should be conducted by a thoroughly trained psychologist well versed in the use of many different sorts of tests and possessed of professional equipment sufficient to enable him to keep fully abreast of the rapid developments in this field of science. The psychologist will need assistants well trained in the investigation of home and environmental conditions. After the most urgent cases have been cared for, the school system should undertake a systematic testing of all children who are making seriously slow progress or encountering unusual difficulties in their school.

#### WHAT SHOULD BE DONE FOR THE FEEBLEMINDED

This report recommends the establishment of special schools for the feeble-minded. At the present time Cleveland cares for these children in special classes located in regular schools. It also has a school for the backward in which some of the lower grade rooms

are filled with normal children. There should be a reorganization through which the seriously defective children would be segregated. In order to bring about such a reorganization, there should be a careful reclassification of the children. Those of approximately the same ability and of about the same ages should be grouped in classes.

The abilities of the pupils should determine the type of teachers who would be selected for the different classes. There seems to be no reason why the teachers of the feebleminded should be given greater compensation than teachers of the regular grades. The organization of all classes should be under the direction of a supervisor.

#### THE SPECIAL SCHOOL FOR FEEBLEMINDED

The cost of instruction for children in special classes in the regular schools is considerably greater than the cost if the children are properly grouped in special schools. The size of the classes in the special schools would be greater than that of the present special classes, but in each class there would be only that number which might be successfully handled.

Little if any benefit is derived by the feebleminded from the associations of the regular schools. The special school will recognize only a segregation already put into effect by other children. The cost for special schools for these children should be less than the expenditure for rooms in the regular schools.

## AN INSTITUTION FOR THE FEEBLEMINDED

For the welfare of society all the feeble-minded should be permanently segregated when they reach maturity. Cleveland is in a favorable position for the beginning of an institution. The outlay for an institution is considerable, but in view of the present expenditure of the schools and the future cost of the feeble-minded to the community, the expenditure should be undertaken by the state, or by the city, or by both in cooperation.

To meet the cost of maintenance, the state might be persuaded to contribute, as it has in the case of the deaf, the blind, and the crippled. The establishment of an institution need not be postponed until there is legal provision for the commitment of the feeble-minded. Many parents would be glad to be relieved of responsibility for the care of these unfortunates.

## CONCLUSIONS AND RECOMMENDATIONS

1. Cleveland was a pioneer in establishing special classes, and their development has been rapid but irregular. There are now 12 kinds of special schools and classes enrolling more than 2,500 children and cared for by 140 teachers.

2. Children of feeble mentality are socially incompetent and should be sent to special schools to be trained for permanent segregation.

3. Children who are of normal mentality are socially competent even though physically handi-

capped. They should be placed in special classes in the regular schools to be trained for association with normal people.

4. All children who do not speak English should be given the advantages of training in special classes, and this work should not be handicapped by the presence of feebleminded children.

5. Provision should be made for the training of children with defective speech.

6. A diagnosis of mental status should in every case precede the transfer of a child to a class for incorrigibles.

7. Tests for the mental diagnosis of children should be conducted by a thoroughly trained psychologist possessed of sufficient professional equipment to enable him to keep fully abreast of the rapid developments in this field of science.

8. Cleveland should seriously consider the feasibility of establishing a municipal institution for the feebleminded.

## CHAPTER XI

### HOUSEHOLD ARTS AND SCHOOL LUNCHES

(Alice C. Boughton)

The monograph report bearing the above title is in reality a collection of five separate reports dealing respectively with household arts in elementary schools and in high schools, with the administration of the lunch service in elementary schools and in high schools, and with the instruction given in the subject of infant hygiene. This summary gives the findings of these five sections separately and in the order just indicated.

#### HOUSEHOLD ARTS IN ELEMENTARY SCHOOLS

Field work for the report was begun in May, 1915, when visits were made to all cooking centers then in operation, and to special or regular classrooms while sewing lessons were in progress. When possible, each visit included a short conference with teachers and principals, and occasionally the visitor made an opportunity to talk with the children. In conference with the supervisor of household arts, a study was made of what material was on record in the superin-

tendent's office. Other persons in this office and that of the director of schools furnished or checked information received elsewhere.

This is the first separate report on household arts made by any school survey. Its purpose is to serve educational needs by studying present conditions and forecasting future developments.

### HOUSEHOLD ARTS TRAINING

The first household arts and science classes were established in the United States in eastern cities in the early eighties. The movement spread rapidly; normal schools and colleges established special classes; and in 1909 the American Home Economics Association was formed. Household science courses in Cleveland date from 1884. In 1893 the first grade centers for cooking were established in the regular public schools.

### PRESENT CONDITIONS IN CLEVELAND

There are at present 20 regular and seven special cooking centers in the public schools. Cooking is taught to all girls in the seventh and eighth years. Each center cares for approximately 300 children a week. The estimated cost of initial equipment is \$1,200, with \$22 a year for upkeep. The household science centers are cheerful and well kept.

In older centers the hollow square arrangement of tables with single gas burners is used. In newer



schools the small group of six children with one family-size gas range is more frequently found. Cleveland for the most part has these kitchen laboratory centers but has placed model apartments in a few of the newer schools. Several schools have special rooms for household arts, with sewing machines, lockers, display cases, and other equipment.

### SUPERVISION

The supervisor of household arts is an educational officer responsible to the superintendent of schools and appointed on his recommendation. She prepares the course of study; supervises the work of the special teachers of those subjects and the elementary teachers in sewing; and selects equipment and plans arrangement of new centers. Clerical assistance is inadequate to handle the necessary routine clerical work of her office. As a consequence the supervisor is forced to neglect her supervisory duties for clerical work.

### THE TEACHING CORPS

The household arts corps consists of a supervisor, 27 cooking teachers, and four sewing teachers. They are well liked by principals and children, are interested, conscientious, painstaking, and well trained.

In the opinion of the writer, teachers of household science in Cleveland fail to appreciate the wider aspects of their work. They are interested in methods but pay little attention to selection of subject matter, reasons, or results.

## TEACHERS' SALARIES

Cleveland schools have secured well-trained teachers at bargain prices. They have had on the average longer preparation for their work than have the manual training teachers, but their salaries begin at \$500 per year with a maximum after 10 years of \$1,000, while the manual training teachers begin at \$900, with a maximum of \$1,500. Twenty out of the 31 household arts teachers receive \$750 a year or less. This salary is seriously inadequate.

### ATTITUDE OF PRINCIPALS, PARENTS, AND PUPILS TOWARD HOUSEHOLD ARTS

The elementary school principals are uniformly in favor of household arts teaching in the grades. In most cases they have paid little attention to the educational values aimed at, or the results actually achieved.

In general parents, club women, and social agencies are interested and favorable in their attitude toward household arts teaching. Many parents are immensely "practical" about it. They say that it teaches girls to be more useful at home. In foreign districts the parents will sometimes let girls stay in school longer if they are getting something useful.

Cooking is generally popular with girls. Sewing they do not like so well, for it offers less variety and delayed returns. In cooking at least one or two new dishes are prepared each lesson, but it takes many lessons to make an apron or an undergarment. Then, too, the sewing is generally taught in the regular

classrooms, and for cooking the children leave the room and frequently the building. So the cooking lesson is something to look forward to. The rooms are different and attractive, the lesson, by its very nature, is much less formal than the routine work, and it is part of the game to eat the product of one's own hands

### COURSE OF STUDY

The course of study for both household science and arts was being reshaped when the survey was in progress, and with the opening of school in September, 1915, a new course went into effect. The old course in household science has already been abandoned, so it would be a waste of time to criticise it. The new one is only tentative and will be all year in the making. A new course of study is now being used which will certainly be a decided improvement over that formerly used. Since it has not yet been tried in detail, it cannot be discussed at length.

### PRACTICAL SUGGESTIONS REGARDING THE WORK

One-piece cooking aprons and caps which cover the hair would be more hygienic and could be made fully as attractive as those now in use.

Printed lesson leaves distributed at each lesson and kept in loose-leaf notebooks are preferable to the hand-written recipes and notes now in use. The present method is inaccurate and time consuming.

## MODEL HOUSEKEEPING APARTMENTS

There are two types of housekeeping apartments in Cleveland schools. One represents conditions commonly found in the neighborhood; the other has the equipment found in the best modern apartments. The apparent antagonism between these two methods is one of appearance only. The model apartment should train girls to make the best of what they have and at the same time show them how much more can be accomplished in less time with less effort when suitable tools are used. The model apartment should arouse girls to strive for better conditions, and is a valuable adjunct to the teaching of domestic science and arts in the schools.

## RELATION OF HOUSEHOLD ARTS TO ELEMENTARY EDUCATION

The argument most commonly advanced in favor of household arts teaching in the elementary schools is that it trains girls to be good homemakers and housekeepers. The two are thought of as overlapping, intermingling, as being almost synonymous. Courses dealing with the subject matter of household arts are announced in different cities under names such as homemaking, home economics, household economy, household science, housewifery, household arts, and similar captions. In reality homemaking and housekeeping are different and distinct.

## HOMEMAKING VERSUS HOUSEKEEPING

Housekeeping and homemaking are not synonymous. They are separate in life and distinct in education. Housekeeping is a business and a vocation, and is subject to rules and standards just as objective as those of any other business. Homemaking is an art, an avocation, and a marginal activity. It is not a matter of rules, but of human preferences in combinations unlimited. Housekeeping is woman's economic contribution to the family income. Home depends upon such factors as social organization and use of marginal time.

## BOTH BOYS AND GIRLS NEED EDUCATION FOR HOMEMAKING

The invention of machinery has made two great contributions to mankind—more goods and free time. This free time to be enjoyed must be organized for fruitful use. If free time is not to become an evil, fruitful activity must be devised to replace work which once kept all men busy. To function effectively in one's leisure time one must be educated for leisure. Provision of such education is one of the most important tasks of the public school.

Homemaking must be an active process for every person therein concerned. The school can in large measure equip boys and girls to be homemakers; but this highly socialized education should not be confused with strictly technical vocational courses now offered by departments of household arts.

## FUNCTION OF HOUSEHOLD ARTS AND ITS TWO ASPECTS

First it can give skill in doing household work. Such training is vocational in character. It is not the best kind of education for elementary school children.

The second division of household arts enables people to form correct judgments regarding the use of food, clothing, and shelter as they relate to their daily life. This is the more important aspect of household arts for the elementary school.

### SELECTION OF SUBJECT MATTER

The previous discussion would confine the main line of attack for household arts in the elementary school to problems directly involved in giving children standards for right living. This necessitates searching study. Problems must be isolated and separately analyzed in a conscious effort to find out those which must be handled, wholly or in part, by the school because children do not get the needed control over them elsewhere, and those which may be omitted because children have sufficiently close contact with them outside of school.

### A HOUSEKEEPING COURSE IN THE JUNIOR HIGH SCHOOL

As one phase of the social insurance that each generation takes out in behalf of the nation, it seems the part of wisdom for the public schools to organize a

one-year housekeeping course for all girls designed especially to meet the needs of the majority who drop out of school in the seventh, eighth, and ninth grades. Such a course might well be a part of the work of the second year of the junior high school, which corresponds to the present eighth grade. It should be practical and intensive in nature and endeavor to give the girls training in meeting the universal everyday problems of housekeeping. It should especially stress labor-saving methods and devices.

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## HOUSEHOLD ARTS IN HIGH SCHOOLS

Field work for the report on household arts in secondary schools was done while the survey was in progress. The writer visited both academic and technical high schools. Principals and teachers put at her disposal all printed material, such as school announcements or courses of study they had, and supplemented it by valuable comments and suggestions relating to problems involved in the education of girls.

### SPACE, PHYSICAL EQUIPMENT, AND COSTS

Generous space is allotted to household arts. Classes vary from 15 to 30 girls and average about 24. Equipment is excellent and kept in good repair. Costs of equipment and maintenance cannot be given as they are included in funds set aside for individual buildings.

## COURSE OF STUDY IN TECHNICAL SCHOOLS

General topics considered at academic and technical schools are alike, but the latter schools go into greater detail and make a conscious effort to correlate each year's work with academic subjects. The two technical high schools house 22 per cent of all high school girls.

Teaching in the technical high schools follows the so-called laboratory method. Girls are required to keep notebooks in which they record work as they might a laboratory experiment in chemistry. The Cleveland technical high schools have as their immediate end "to prepare youths of both sexes for a definite vocation and for efficient industrial citizenship." This study seems to indicate that these schools do not give girls the kind of education that fits them for jobs open to them when they leave school.

### WEST TECHNICAL LUNCHROOM USED FOR VOCATIONAL WORK

At West Technical High School about 15 senior students take major courses in lunchroom management. They do a large share of the work of the lunchroom, but they do not acquire a sense of responsibility for the conduct of the work as a whole. This course teaches well the scientific basis, but neglects the business and art of lunchroom management. A study of high school lunchrooms where students are intimately connected with the conduct of their lunch



service, as in Los Angeles or Gary, should furnish valuable practical suggestions for developing and strengthening the course.

#### TRADE WORK IN FOODS AND SANITATION

At East Technical High School senior girls who specialize in foods and sanitation take trade order work in that subject. The class is popular. There are always more applicants than can be accommodated, and girls who enter do good work and progress, but available positions are not considered socially desirable by parents and teachers, or else they call, in addition to specific technique, for maturity which 18-year-old girls do not possess.

Although the course does not serve the purpose intended, it has a very real cultural value. The writer would advocate this type of teaching throughout the four years, and certainly its extension to include all regular fourth year students, for in her judgment, trade work in foods and sanitation represents the city's best teaching in household arts.

#### COURSES OF STUDY IN ACADEMIC HIGH SCHOOLS

In September, 1915, a two years' course in household arts was organized for third and fourth year girls in the six academic schools. About one-sixth of the girl's school time for two years is allotted to this subject. Money was appropriated to defray necessary expenses, but apparently no policy was outlined regarding the nature and scope of this work.

Junior high schools were opened a little later, in

the fall of 1915, and those girls also are obliged to study household arts. This course is planned after that given in the elementary schools, but will probably expand in the future.

### TEACHING FORCE

The high school force in household arts numbers 26. In preparation for their work teachers vary widely among themselves. They are as well paid as teachers of the academic subjects. In Cleveland their salary scale progresses in 18 years from \$1,000 to \$2,000. Teachers are distinguished by their faith in household arts and their eagerness to make sacrifices for it. Emphasis should be laid upon the necessity for broader cultural background and more active staff discussion of the wider problems concerning the education of girls.

### SUPERVISION

At present there is no satisfactory form of supervision for household arts teaching in Cleveland's secondary schools. This city has yet to delegate to some one person or group of persons, as their most important responsibility, the task of grappling with the highly complex problems involved in the general and vocational education of girls.

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### ELEMENTARY SCHOOL LUNCH SERVICE

This report is based on visits made to each of the various types of schools where lunch is served; on

interviews at the schools with principals, class teachers, and cooks; on careful study of minutes of the Board of Education which relate to elementary lunch service since its beginning in 1909; on study of all available material issued by the Federated Clubs; and on conferences with the chairman of the Philanthropy Committee, the superintendent of lunches, the director of medical inspection, the school architect, supervisor of requisitions and supplies, and the director of schools.

#### ELEMENTARY SCHOOL LUNCHES FROM TWO POINTS OF VIEW

There are two viewpoints regarding school feeding: the one, Cleveland's, that it is a duty imposed upon the school by the particular needs of a particular group; the other, that school lunches meet a natural need of all children, normal and exceptional, and afford at the same time an opportunity to teach them to choose wisely the food they buy.

#### SCHOOL MEALS AS SUPPLEMENTS OR SUBSTITUTES FOR HOME MEALS

School lunches are of two kinds: those which supplement the home dietary, and those which take the place of meals at home. Recess lunches generally fall into the former class, noon lunches into the latter. Recess lunches present the simpler feeding problem and are cheaper to provide. Noon lunches are much

more complex. Cleveland is far in advance of most cities in providing lunches, served under sanitary conditions, for all members of classes for blind, crippled, and open air children.

#### KINDS OF LUNCHES AND BY WHOM PROVIDED

The Board of Education pays for meals which the Philanthropy Committee of the Federation of Women's Clubs and the Society for Promoting the Interests of the Blind provide. Responsibility for details of work is divided among the two organizations, the principals, and the supervisor of high school lunches. Food is wholesome and plentiful, but not uniform in quality. It is prepared by women engaged by the two organizations. They use their judgment regarding recipes, methods of preparation, and results to be obtained.

Cleveland's lunch service is costly because:

1. Lunch is served to exceptional children only, in small and widely scattered groups.
2. Authority and responsibility for the service are divided, making impossible any definite and centralized contracts or planning.

#### FOOD NATURAL NEED OF ALL CHILDREN

The school exists for all children and must care for all. Food is a natural need of all children. Morning recess provides a good opportunity for all children to get food when they want it at a time when it is

good for them. Through food clinics it can care for under-nourished children, who are a menace, not only to themselves, but to all other children. Food is the treatment for malnutrition.

#### SCHOOL LUNCH OR STREET LUNCH

Children spend money for food. Given the opportunity, they will spend it at school for wholesome food, otherwise on the street. The street lunch is of cheap material priced high. Every time they buy it, children get wrong impressions about what constitutes food and how much good food a penny or a nickel will buy.

#### LUNCH SERVICE A BIG BUSINESS

The annual food expenditure of children is very great. In June, 1915, Cleveland had 77,833 children in her public elementary schools. Judging from other cities, each one of these children spends about \$1.50 for food each school year, or a total of approximately \$116,750 per school year.

#### CONSOLIDATED LUNCH SERVICE RECOMMENDED

The Philanthropy Committee of the Cleveland Federation of Women's Clubs has rendered a public service. It began its work in 1909 with the avowed purpose of pointing out the need for a lunch service for exceptional children, and of showing how such a service could be administered.

The Committee has successfully accomplished its purpose. It should now be relieved from further responsibility for the lunch service. The function of a private organization is to experiment and demonstrate. It cannot eventuate on a large scale, and it should not if it could. The function of a public organization is to eventuate on a large scale. It can seldom experiment and it lacks freedom and flexibility in demonstration. The time has come for Cleveland to eventuate on a large scale.

To organize lunches throughout the elementary schools would require no great outlay beyond initial equipment, since with proper management the business will be big enough to pay its own way, particularly if it is combined with the high school lunch service. The latter is organized on a large scale; the elementary service is partially organized; the two should be centralized and consolidated.

\* \* \* \* \*

## HIGH SCHOOL LUNCH SERVICE

This report is based on at least one visit made to every school during the lunch period, on interviews with concessionaires and principals at all schools; on careful study of minutes of Board of Education since 1909 and of lunch records on file in the division of medical inspection; and on conferences with the supervisor of lunches, the director of medical inspection, the school architect, the supervisor of requisitions and supplies, and the director of schools.

The most progressive cities have consciously formulated a method of meeting the school lunch problem. This group includes Boston, Philadelphia, Columbus, Pittsburgh, Toledo, and Cleveland.

## TWO DISTINCT POLICIES WITH REGARD TO SCHOOL LUNCH SERVICE

In the United States high school lunchrooms are of two sorts—those run by concessionnaires who try to make them yield the largest possible personal profit, and those run by educational employees with the aim of putting extra profit back into increased food and better service. Cleveland's lunchrooms are of the first sort.

Cleveland has an exceptional opportunity to do good work in this field. Six years ago the school board adopted a progressive policy regarding high school lunch service. It supplied all necessary equipment free of charge and three years ago appointed a supervisor paid by school funds. Lunch is served by concessionnaires who apply for the privilege; they give their time and receive in return all profit from the lunch. Last year this service was provided for 83 per cent of Cleveland's high school students.

## PLACE OF LUNCH SERVICE IN THE SCHOOL SYSTEM

The high school lunch service is a midday service and takes the place of home meals. It has a double

task: to serve a light lunch for children whose main meal comes at night, and a substantial dinner to children who miss the family dinner by being at school. Cleveland performs this task in certain of her high schools, but in the majority the menu is not well enough standardized to offer daily an acceptable noon dinner. The remedy for this condition lies in centralization and close supervision of each individual school.

The physical condition of lunchrooms is good and the relations between concessionaires and custodians are coöperative and harmonious. Principals and teachers are interested and are ready to coöperate in any plan to extend and improve the service. Lunchroom patronage varies greatly from school to school. Where children are thoroughly satisfied with the service lunch wagons do a comparatively small business.

### HIGH SCHOOL LUNCHESES A BIG BUSINESS

The school lunch division should reach all children; it should provide wholesome and nutritious food for them at cost, train them in sane habits of eating, and teach them to choose wisely what food they buy. In Cleveland last year 6,715 students spent \$36,777 at school, or \$5.44 apiece. In Philadelphia the same number spent \$56,070, or \$8.35 apiece. Cleveland can equal this record and increase the usefulness of her plant by consolidating her system, and including in it service in the elementary schools.



## CONSOLIDATED SYSTEM RECOMMENDED

Administration of a consolidated system requires the service of a highly trained and experienced dietitian who will be able to centralize all buying and accounting, organize and standardize equipment, service, labor, wages, and food, and combine old methods and originate new ones for the conduct of the service.

Increased expenditure involved in reorganizing high school lunches will be met by increased profits from lunchrooms due to bigger business and better management.

Cleveland's opportunity to do significant and constructive work through her school lunchrooms is exceptional. She has all the necessary equipment, but at present lacks the proper organization and necessary enthusiasm. One competent person with authority equal to the responsibility of the position and a vital interest in the work could make Cleveland a leader in this field.

\* \* \* \* \*

## INFANT HYGIENE

This report is based on classroom observations; on discussions with teachers and nurses; on like conferences with the supervisor of household arts, the director of medical inspection, and the head school nurse, as well as with other persons in Cleveland and elsewhere, whose interests and work lie in the field of public health education.

## ORIGIN OF INFANT HYGIENE INSTRUCTION

Infant hygiene is one of the important phases of the conservation movement. It has its roots in the early part of the 19th century, but was brought into prominence in 1912, by the creation at Washington of a Federal Children's Bureau.

The 1913 Cleveland Child Welfare Exhibit focussed attention on baby saving. This resulted in a campaign by the Babies' Dispensary, the Visiting Nurses' Association, and like organizations. One year later infant hygiene was introduced into the public schools. In April, 1915, there were 2,500 eighth grade girls receiving a regular eight lesson course in infant hygiene.

## ARGUMENTS FOR TEACHING INFANT HYGIENE IN ELEMENTARY SCHOOLS

The arguments which put infant hygiene in the schools are briefly:

1. Thousands of babies die every year because mothers do not take proper care of them.
2. Girls at school can be taught how to care for babies.
3. It costs little to give such a course.
4. Teaching can be given by household arts teachers and school nurses who are already on the payroll.

## INFANT HYGIENE AND THE WORK IT DISPLACES

The survey asks the questions: Does elementary school teaching further this work to the extent that its advocates believe? Does it duplicate work which

may better be carried by existing organizations, such as milk stations and babies' dispensaries? Does it offer either in an immediate value to the girl, or in a future value to her child, returns equal to or greater than those of the work which it displaces?

The costs of infant hygiene are two-fold: the money cost of teaching time, and the loss of other work in foods and sanitation and medical inspection displaced by infant hygiene.

#### ADULT RESPONSIBILITY AND THE ADOLESCENT GIRL

The care required by young children is of a highly technical kind. It is too difficult for girls to master, and the penalty for non-mastery has grave consequences. Grammar school girls should no more be expected to carry full adult responsibility than they are to do full adult work. Therefore infant hygiene should be taught only to those girls who must actually be responsible for the care of little babies.

#### HYGIENE FOR BOYS AND GIRLS ALIKE

In advocating that the teaching of infant hygiene be limited to those girls who will make immediate use of such training the writer wishes to urge the further extension of hygiene education, which should be taught to boys and girls alike.

Such a course involves thoughtful planning and skilful teaching. If nurses are to help teach it they should be trained in effective methods of classroom

instruction. Household arts teachers, on the other hand, need not only skill in teaching method, but a broad and suggestive background in public health matters. Hygiene, whether taught to all children or only a few, should be as well taught as any other subject in the curriculum.

#### TEACHING OF INFANT HYGIENE AN EMERGENCY MEASURE

From time to time society is forced to make unfair demands upon individuals or classes in behalf of the group as a whole. Infant hygiene teaching in the elementary school is based on one of those demands. It is a kind of class education given to girls who are obliged to carry responsibility beyond their age, because mothers are too ignorant, too stupid, or too heavily burdened to care for their babies, or because mothers are dead and society shortsightedly sacrifices one child in the interests of another. Such a program is justifiable only as an emergency measure, but it cannot be justified as a universal program of education.

#### CONCLUSIONS AND RECOMMENDATIONS

1. Household arts teaching is carried on in 20 regular and seven special cooking centers in the regular elementary schools. Each center cares for approximately 300 children per week. Cooking is taught to all girls in the seventh and eighth years. In general the centers are well equipped.

2. The work is in charge of a competent and skillful supervisor. She should be furnished with additional clerical assistance which would enable her to spend more time on supervisory duties and less on clerical work.

3. The teachers of household arts are well trained and underpaid.

4. The survey extensively analyzes the spirit and purpose of the work and challenges the Cleveland assumption that housekeeping and homemaking are synonymous.

5. The teaching of household arts is carried on in both the academic and the technical high schools.

6. Generous space is allotted for the work and equipment is excellent and kept in good repair.

7. The high school force in household arts numbers 26. In general the teachers are well equipped and are paid much more adequately than those in the elementary schools.

8. At present there is no satisfactory form of supervision for household arts teaching in the high schools. This lack should be supplied.

9. The survey analyzes the purpose and status of household arts in the high school course and concludes that the work ought in greater measure to contribute to the promotion of economic independence, the understanding of social institutions, and the development of individual personality.

10. Cleveland is far in advance of most cities in providing lunches served under sanitary conditions

for all members of classes for blind, crippled, and open air children.

11. The survey recommends that the school system take over the organization and management of the elementary lunches and make their service available for all children, both normal and exceptional.

12 Lunches in the high schools are run by concessionaires. The efficiency of the work varies widely in the different buildings.

13. The survey recommends that the system take over and consolidate the administration of a general lunch system under the direction of a well-trained dietitian.

14. Courses in infant hygiene are given to some 2,500 eighth grade girls in the elementary schools. The work displaces eight weeks of teaching about food and sanitation.

15. The survey questions the pedagogical efficiency and the social and educational value of this work as now conducted.

## CHAPTER XII

### EDUCATION THROUGH RECREATION

(George E. Johnson)

No principle in home life or school life has received more universal recognition among English-speaking people than that expressed in the old saying, "All work and no play makes Jack a dull boy." Following the example of the earliest school systems of America, Cleveland long ago made provision for the play of the pupils.

Thus physical equipment and supervision for recreation have been more definitely and systematically included in the plans of school administration in Cleveland than is usual elsewhere. What is more, the city has invested large sums of money in providing recreational facilities for the pupils. The school yards surpass in size, equipment, and adaptability for play those of most of our large cities. Forty-six of the school buildings have two playrooms apiece, 18 others one playroom; 44 have gymnasiums; seven have space prepared for swimming pools, two of which are installed; 94 have regular auditoriums, or else use the lower hall for auditorium purposes, the total combined seating capacity being 43,797; and

25 of the school yards are provided with playground equipment. The total playground area is 4,716,997 square feet, or more than 108 acres. For a more detailed statement of equipment, see Table 10.

TABLE 10.—RECREATIONAL FACILITIES OF THE CLEVELAND SCHOOLS

School	Auditorium	Area of playground	Pieces of playground apparatus	Play-rooms	Gymnasium	Swimming pool
Addison	yes	21,250	..	..	yes	..
Alabama	..	11,325	..	..	..	..
Almira	yes	59,904	..	2	..	yes *
Barkwill	yes	27,431	..	1	yes	..
Bolton	yes	56,520	..	1	..	..
Boulevard	yes	20,000	..	2	yes	..
Boys'	yes	8,207	..	..	yes	..
Broadway	yes °	59,077	12	..	..	..
Brownell	yes	31,713	21	1	yes	yes
Buhrer	yes	13,635	12 <sup>b</sup>	..	..	..
Case	yes °	34,262	..	..	..	..
Case Woodland	yes	46,211	..	2	..	..
Central	yes	30,300	..	2	yes	yes *
Charter Oak	..	14,869	..	..	..	..
Chesterfield	yes	59,000	..	2	yes	..
Clark	yes	29,715	..	2	..	..
Columbia	yes	46,907	..	1	yes	..
Corlett	..	59,000	..	2	..	..
Dawning	yes	65,400	..	2	yes	..
Deaf	yes	24,000	..	2	..	..
Denison	yes	39,770	..	..	..	..
Detroit	yes	34,065	..	2	..	..
Dike	yes	21,174	..	..	yes	..
Doan	yes °	41,721	..	2	..	..
Dunham	..	25,564	10	..	..	..
Eagle	yes	19,600	21	2	yes	..
East Boulevard	yes	36,300	..	..	yes	..
East Denison	yes	40,700	..	2	yes	..
East Madison	yes	79,834	17	1	..	..
Empire	yes	35,000	..	..	yes	yes *

\* Swimming pool left unfinished.

<sup>b</sup> Playground apparatus not installed in summer of 1915.

° Lower hall used as auditorium.



TABLE 10.—(Continued)

School	Auditorium	Area of play-ground	Pieces of play-ground apparatus	Play-rooms	Gymnasium	Swimming pool
Fairmount	yes °	29,840	..	..	..	..
Fowler	yes	46,978	..	..	..	..
Fruitland	..	70,648	..	1	..	..
Fullerton	yes °	48,825	..	..	..	..
Giddings	yes °	38,768	..	1	..	..
Gilbert	yes	39,200	12 <sup>b</sup>	..	yes	..
Gordon	yes °	32,786	12	2	..	..
Halle	yes	56,451	..	1	yes	..
Harmon	yes	26,186	..	..	..	..
Harvard	yes	51,560	..	2	..	..
Hazeldell	yes	23,800	..	2	..	..
Hicks	yes °	26,341	20	2	..	..
Hodge	yes	46,000	16	..	..	..
Hough	..	57,342	..	..	..	..
Huck	..	32,311	..	2	..	..
Kennard	yes	44,000	14	..	yes	yes
Kentucky	..	17,836	..	..	..	..
Kinsman	yes	47,035	..	2	..	..
Landon	yes °	44,065	..	..	..	..
Lawn	yes	45,585	..	1	..	..
Lincoln	yes	32,209	..	..	..	..
Longwood	yes	40,000	17 <sup>b</sup>	2	yes	..
Marion	yes	26,815	..	2	yes	..
Mayflower	yes	30,000	31 <sup>b</sup>	2	yes	..
Memorial	yes	80,000	18 <sup>b</sup>	..	..	..
Memphis	yes	35,000	..	2	yes	..
Meyer	..	16,492	..	..	..	..
Miles	yes	50,000	..	2	yes	..
Miles Park	yes °	81,437	12	1	..	..
Milford	yes	66,674	20	4	yes	..
Mill	yes	34,970	..	2	..	..
Moulton	..	29,856	..	..	..	..
Mound	yes	42,463	..	2	..	..
Mt. Pleasant	yes	74,000	..	2	yes	..
Murray Hill	yes	26,600	..	2	yes	yes <sup>a</sup>
North Doan	yes	43,915	..	..	..	..
Nottingham	yes	35,000	..	2	..	..
Oakland	..	37,864	..	..	..	..
Orchard	yes	35,805	..	2	..	..
Outhwaite	yes	49,653	..	2	yes	..

<sup>a</sup> Swimming pool left unfinished.

<sup>b</sup> Playground apparatus not installed in summer of 1915.

° Lower hall used as auditorium.

TABLE 10.—(Continued)

School	Auditorium	Area of play-ground	Pieces of play-ground apparatus	Play-rooms	Gymnasium	Swimming pool
Parkwood	yes	22,200	..	2	..	..
Pearl	..	25,000	..	1	..	..
Prescott	..	16,966	..	..	..	..
Quincy	yes <sup>c</sup>	29,721	12	2	..	..
Rawlings	yes	36,600	..	2	..	yes <sup>a</sup>
Rice	yes	39,422	..	1	yes	..
Rockwell	..	19,945	..	..	..	..
Rosedale	yes	64,901	..	2	..	..
Sackett	yes	72,813	12	2	..	..
St. Clair	..	43,602	20 <sup>b</sup>	..	..	..
Scranton	yes <sup>c</sup>	27,213	..	..	..	..
Sibley	yes	36,816	..	2	..	..
South Case	yes <sup>c</sup>	34,408	..	2	..	..
Sowinski	yes	34,134	..	1	..	..
Stanard	..	31,628	16 <sup>b</sup>	..	..	..
Sterling	..	37,534	20 <sup>b</sup>	..	..	..
Tod	yes	38,057	17	2	yes	..
Tremont	yes	72,000	..	..	yes	..
Union	yes <sup>c</sup>	25,468	12 <sup>b</sup>	2	..	..
Wade	..	5,021	..	..	..	..
Wade Park	yes	62,958	..	1	..	..
Walton	yes <sup>c</sup>	30,953	..	1	..	..
Warner	yes	50,600	..	2	yes	..
Warren	yes	50,111	17	..	yes	..
Waring	yes	34,612	..	2	..	..
Washington Park	..	60,000	..	1	yes	..
Watterson	yes	10,542	..	2	..	..
Waverly	..	32,865	..	1	..	..
Willard	yes	17,000	..	2	yes	..
Willson	yes <sup>c</sup>	55,200	16 <sup>b</sup>	2	..	..
Woodland	yes <sup>c</sup>	42,241	..	..	..	..
Woodland Hills	..	21,700	..	..	..	..
Wooldridge	yes <sup>c</sup>	39,580	..	1	..	..
HIGH SCHOOLS						
Central	yes	75,858	..	..	yes	..
Collinwood	yes	60,000	..	..	yes	..
Commercial	yes	31,500	..	..	yes	..
East	yes	69,846	..	..	yes	..
East Technical	yes	..	..	..	yes	..

<sup>a</sup> Swimming pool left unfinished.

<sup>b</sup> Playground apparatus not installed in summer of 1915.

<sup>c</sup> Lower hall used as auditorium.

TABLE 10.—(Continued)

School	Auditorium	Area of play-ground	Pieces of play-ground apparatus	Play-rooms	Gymnasium	Swimming pool
Glenville	yes	54,886	..	..	yes	..
Lincoln	yes	41,240	..	..	yes	..
Normal	yes	40,000	..	..	yes	..
South	yes	61,285	..	..	yes	..
West	yes	47,807	..	..	yes	..
West Technical	yes	225,000 <sup>d</sup>	12	..	yes	..

<sup>d</sup> Includes West Side Athletic Field.

### ORGANIZATION OF RECESSES

The most natural and historically the first use of the recreational facilities in the schools was at recess. Nominally, 15 minutes during each morning session is allowed for recess through all the grades. As a matter of fact, the morning recess is often omitted, or regularly done away with, at the discretion of the principal. The afternoon recess of former generations has entirely disappeared from the upper four grades of the elementary schools.

The recesses should not be omitted, and they should be organized. This does not imply formality at recess. It does imply study and organization so that the recess may count for the most possible, physically and socially. More "steam" is blown off in a skilfully organized than in an unorganized recess, and the social value is certainly far greater.

Better still, groups might take their recesses in rotation; outdoors in pleasant weather, in the gym-

nasium or playroom in unpleasant weather. This would increase the value of the recess and might be made the means of relieving congestion. To some extent this has already been done.

### SCHOOLROOM AND INDOOR RECREATION

In the first four grades, periods of "rest and recreation" are given several times daily. These play periods do not come at regular intervals, but at the discretion of the grade teacher. They are from two to five minutes in length. The activities of these periods are exclusively formal games as distinguished from plays, such as climbing, swinging, tetering, playing in the sand, doll play, and the like. Primarily the purpose of these periods is for rest and recreation, but the games are chosen with some regard for their correlation with school subjects and for mental development.

Valuable and desirable as the indoor play periods may be, they are not a complete substitute for outdoor play during the school session. When the recreational activities of children are transferred from outdoors to indoors their value is lessened through:

1. Loss of fresh air
2. Lack of sunshine
3. Restriction of space and full freedom of activity
4. Diminished pleasure
5. Narrowed range of activities
6. Extreme brevity of the period
7. Dust raised by the running and jumping

Schoolroom and indoor recreation should, so far as possible, become outdoor recreation. The play periods should be longer. The plays and games should reflect the deep, instinctive interests of children of the ages concerned. They should perpetuate the play traditions of the nation. The plays and games employed should not be devised at the desk—manufactured out of whole cloth; they should be the growth of generations.

#### KINDERGARTENS AND LOWER GRADES

There should be a relatively larger element of free play in the kindergarten and lower grades. The waste places, between wings of buildings and elsewhere, small and at present for the most part useless, should be thoughtfully equipped for the little tots of the school. With a slight expenditure these desert places can be made to blossom as the rose educationally and socially, to the relief of congestion, to the aid of teachers, and to the immeasurable benefit of the children.

#### PLAYGROUNDS IDLE MOST OF THE YEAR

“Pupils will not be allowed to . . . remain on or revisit the premises after dismissal of the school, except by special permission of the principal of the building.” So read the rules of the Board of Education. Whether under the circumstances this is a wise rule or not, it suggests disuse of the school play-

grounds, and generally, though happily not universally, the suggestion is taken and children are accustomed to leaving the school premises out of their minds in their hours of leisure, and to substituting the street, the vacant lot, the back yard, and the moving-picture show instead.

Another great "unwelcome" is the playground apparatus entirely denuded during the school year, all except the bare frames being put away in storage. As if to add to the gloom of the bare appearance of the playground, one sees the worn and empty sandbins, from which the children, as one principal reported, had "carried away the remaining sand in tin cans and pails that they might play with it at home." Unthinkable as "stripped apparatus" is in the vacation school period, it is really more pathetic and inconsistent in term time, when the freedom of activity is curtailed and there is even greater need than in vacation time to invite children from sedentary to active occupation.

The apparatus should be taken from storage and the school playgrounds made inviting to pupils out of school hours. This will necessitate additional supervision, which should be provided.

#### MANY GYMNASIUMS UNEQUIPPED

Twenty-five out of 31 gymnasiums in the elementary schools lack equipment. An unequipped gymnasium is essentially an additional playroom. It fails in the quality which is supposed to distinguish it. It is somewhat like a house without furniture, or a shop

without machinery. Data are lacking as to exact use made of the gymnasiums, but so far as available they indicate that many of the gymnasiums are comparatively little used. It was not until several members of the Survey Staff had made over a thousand classroom visits, covering all the schools of the city, that they found one gymnasium being used for gymnastic purposes.

#### SWIMMING POOLS UNFINISHED OR UNUSED

Swimming is perhaps the best of all exercises for bringing the fundamental muscle groups into exhilarating and vigorous activity. By some authorities it is claimed to be the most quickly recuperative of all sports.

Cleveland has wonderful natural facilities for swimming. But natural facilities alone are not sufficient for the universal acquirement of swimming, except among primitive peoples. The Board of Education started to move in the right direction and then halted. The physical structure of seven or more schools provides space for swimming pools, but in only two instances have the pools been completed and put in actual operation.

The swimming pools that have been begun should be completed and both swimming pools and gymnasiums should be justified by the use made of them.

#### HARDY GAMES IN THE ELEMENTARY GRADES

Far more attention should be paid in the elementary grades to hardy, organized games. There both num-

bers and needs (even the adolescent needs) predominate, as compared to the high school. In Cleveland, schools can do larger service with plays and games in the grades than in the high schools. It would be better to turn the whole corps of physical training teachers into the elementary grades and neglect the high schools than to practise economy so unequally at the expense of the grades as at present. The whole system of play and recreation for the grades should be revised with reference to educational and social aspects.

#### THE CONDUCT OF SCHOOL RECREATION

Supervising officers, teachers, and employees concerned in the administration of recreation in the schools include practically the whole public school corps, from the superintendent to the custodians. The organization of this corps for the conduct of recreation is, naturally enough, rather loose and indefinite, since play and recreation are conducted more or less independently by several different departments. While the duties of the various members of the corps are definite, their inter-relations and responsibilities to one another are not.

The diagram on page 253 shows some conflicting lines of the relationship and some duplications of responsibilities.

Some reorganization of the educational corps should take place with a view to efficient administration of play and recreation from a broad educational





and social standpoint. This would lead to a far greater influence of the school upon the out-of-school life of the community. Through lack of greater influence of the school during out-of-school hours, there is a great social leakage for which the city must pay.

#### RECREATIONAL INFLUENCE OF SCHOOLS OUT OF SCHOOL HOURS

The school is the natural and logical agency for the safeguarding of the great fundamental interests of children and youth. Each year discloses more and more clearly that the school is the one institution we have yet received that is best fitted adequately to conserve these interests and utilize them for educational and social progress. Opportunities that came as a matter of course to children a generation ago do not come to many children now unless they are specifically planned for by some agency other than the home. Met wisely by the community, this seeming handicap may, in the end, result in a great and new-found social strength.

#### PLAY AND RECREATION DISTINGUISHED

Play is more than recreation. If its educational significance is real in the kindergarten period, it is real in every subsequent stage of growth and development. Rightly conceived, play is a most efficient method of education for life, for work, for social

service. The fact that we do not know how to make full use of play in education need not and should not prevent the utilization of play, to the full extent to which we are prepared, for the tremendous social service it can render.

## ORGANIZATION FOR EDUCATION THROUGH RECREATION

In the Cleveland school system, as in that of every large progressive city, there should be:

1. An officer whose entire time should be devoted to giving a social interpretation to educational work and an educational interpretation to social work. He should know the general fields of sociology and education, and should know intimately the fields of play and recreation. He should be to the social functions of the school what the director is to the business management and what the superintendent of instruction is to the academic work. He should organize and utilize the physical properties of the school and, so far as practicable, the existing educational corps for the directing of the play and recreational interests of the pupils and the community towards constructive education and social progress.

2. An officer whose function it is to organize and direct especially the active plays, games, sports, pastimes, and athletics of the system. He should have a general knowledge of the social and educational aspects of play and recreation and a technical knowledge of physical training. Cleveland has at present

a supervisor of physical training having but limited authority in the elementary schools, and almost none in the high schools.

3. An officer whose function it is to supervise the play of young children to eight or nine years of age. She should have a thorough training in the fundamental principles of the kindergarten plus the general social and educational background of a thorough knowledge of play and recreation. She should be a part of the Division of Physical Education and not independent of it, as she now is in Cleveland.

4. Besides the officers mentioned above, there should be one who is trained to organize and direct the almost universal, but greatly wasted or misused, dramatic interests; one who can utilize similarly the musical interests for educational and social progress; one the nature and nurturing interests; one the constructive; one the æsthetic.

These great lines of human interest and endeavor are replete with recreational as well as educational opportunity; they have their place as avocations quite as truly as vocations. The various official functions mentioned might, of course, be delegated to existing officers, and sometimes several might be combined in one person. But educational and recreational problems must be seen from each of these angles by some one who feels the burden of responsibility. Education needs play, and play needs education. The problem of adult recreation is but a phase of the problem of the play of children and youth.

## CONCLUSIONS AND RECOMMENDATIONS

1. Cleveland is extraordinarily well equipped in plant and teaching force for the conduct and administration of recreation in the public schools. Many of these advantages, however, are neglected.

2. The recesses should not be omitted. They should be organized.

3. School room and indoor recreation should, so far as possible, become outdoor recreation. The play periods should be longer.

4. There should be a relatively larger element of free play in the kindergartens and lower grades.

5. The apparatus should be taken from storage and the school playgrounds made inviting to pupils out of school hours.

6. The swimming pools that have been begun should be completed and the existence of both swimming pools and gymnasiums should be justified by the use made of them.

7. Far more attention should be paid in the elementary grades to hardy organized games.

8. A reorganization of the educational corps should be made with a view to securing efficient administration of play and recreation from an educational and social viewpoint.

## CHAPTER XIII

### EDUCATIONAL EXTENSION

(Clarence A. Perry)

The after-class and evening utilization of the Cleveland school edifices has taken, during recent years, two main forms—(1) regular night-school sessions under the direction of the educational department, and (2) lettings to various clubs and organizations for miscellaneous gatherings, entertainments, and indoor games under the general supervision of the business department. In addition to these there are a small number of affairs—entertainments, dances, or bazaars—gotten up either by or for the pupils of the respective schools. Many of these are for the purpose of raising funds for some kind of school furnishings or equipment. The board rules at present permit a school to hold only two admission-fee entertainments a year.

In 1915 there were in the public schools of the city 94 auditoriums and halls with a total combined seating capacity of 43,797. These accommodations are used for school entertainments and for the meetings of outside educational, civic, and recreational organizations. The meetings of both sorts held in the assembly halls during 1914-15 were 719 in number.

They were conducted under the auspices of 292 different organizations and the aggregate attendance was more than 173,000. About 40 per cent of the meetings were held in the afternoon and the remaining 60 per cent in the evening. There was only one building in which the evening meetings occurred as frequently as once a week. The average probably was only five per building for the entire year.

If one were to hazard three times a week as the frequency with which citizens might well be expected to resort to their schoolhouses after supper for intellectual entertainment and the discussion of their common problems, that rate of use carried on for 38 weeks in the 94 auditoriums would amount to 11,716 occasions. Whether this number, or one-third of it, be taken as the measure of the evening utilization which should be made of Cleveland's school halls it is evident that the 1914-15 record of 432 occasions leaves ample margin for a considerable extension of use. In this connection it is to be noted that the auditoriums represent large financial outlays amounting in the case of the newer schools to as much as \$20,000 apiece.

Thirty-three elementary schools and 10 high schools have gymnasiums but it does not appear from the records that 12 of them had any after-school use during 1914-15. The reports show that the other 31 gymnasiums were used after class hours 1,975 times and that these occasions were conducted under the auspices of 197 different organizations. The total attendance was nearly 97,000. More than half of

these after-school uses were confined to the gymnasiums of the 10 high schools. Of the 1,975 occasions recorded, 322, or about 16 per cent, occurred in the afternoon before six o'clock and 1,653 took place after that hour. The time of the use varies greatly with different schools. All the gymnasium occasions recorded for the Eagle School happened during the after-supper period, but 102 of the 107 credited to the Warren School took place before the evening meal hour and a majority of those at the Memphis School also happened during the afternoon period.

Suppose that four nights a week be taken as a fair standard of use for a public school gymnasium. That frequency of use in 33 gymnasiums during 38 weeks would give 5,168 occasions, nearly three times Cleveland's recorded utilization for 1914-15. If there is also taken into consideration how inadequately most of the schools are meeting the need of indoor play opportunities in the hours just before supper, it will be seen that there is plenty of room for a further development of the recreational resources of the Cleveland school plants.

#### BY WHOM SCHOOLS WERE USED

According to the custodians' reports the total after-class lettings of school accommodations during 1914-15 numbered 3,469. Of these, 462 were for mothers' club meetings, class dances, pupil society meetings, pay entertainments, bazaars, or some other kind of purely school function and 3,007 were lettings



to outside organizations. A large part of the latter consisted of clubs or Sunday-school classes connected with some 27 different churches which, along with two dozen or more specifically named athletic societies, sought the use of school gymnasiums and showers for basket-ball and similar indoor games. The varied character of the bodies which hired the auditoriums, club and classrooms can best be discovered from a perusal of the following partial, but representative, list.

#### GROUPS USING SCHOOL ACCOMMODATIONS

Twentieth Ward Improvement Association

East End Chamber of Commerce

East End Neighborhood Club

Women's Suffrage Political League

Spanish War Veterans

Ladies' Relief Corps

Knights of Pythias Lodge

Public School Association

D. A. R. Clubs

G. S. R. Post

Garment Workers' Union

Warner Civic Association

Normal Alumni

Alumni Club

Sanitation Club

Social Center Club

Teachers' and Mothers' Club

Civic League

Western Reserve Dental Club

Thespian Dramatic Club

South End Choral Society

Mendelssohn Choir

Boys' Glee Club  
 Boy Scouts  
 Boy Cadets  
 Camp Fire Girls  
 Y. W. C. A.  
 Mothers' Club  
 Anti-Fly Campaign  
 Boys' Chef Club  
 Patrons' Club  
 Social Club  
 German Club  
 Latin Club  
 Syrian Club

In the majority of cases these groups were obliged to pay custodians' fees ranging from \$.30 to \$5.00 an evening, depending on the size of the quarters used. That fact attests the genuineness of this demand and its vigor is further evidenced by the rapid growth in volume which, as shown in Table 11, has practically doubled during the past two years.

TABLE 11.—GROWTH OF AFTER-SCHOOL USE OF SCHOOL FACILITIES BY NEIGHBORHOOD ORGANIZATIONS

	1913-14	1914-15	Per cent increase
Organizations using buildings	298	596	100
Total lettings	1,932	3,007	56
Fees paid to custodians by organizations	\$1,729.91	\$2,813.55	62
Aggregate attendance	120,511	276,253	129

CLEVELAND'S MOST INTENSIVELY USED SCHOOL  
 An impressive object lesson as to the great educational value of an intelligently socialized and in-

tensively utilized educational plan is furnished by the Eagle School. The physical facilities of the building are remarkable. There is a model flat, a lunchroom, superior shop and kitchen facilities, shower room, gymnasium, open air classrooms and a spacious auditorium.

These splendid accommodations have been utilized by the Eagle School people in the organization of different forms of educational extension that have permeated and affected the entire neighborhood. Beginnings came about naturally in connection with the medical inspection work, when the school nurse visited parents to explain why their boy needed his adenoids removed, why their daughter required glasses, or how a discharging ear should be treated. The contact further broadened by occasions which brought mothers and fathers to the school. Domestic science classes were opened for housewives and the manual training shop was thrown open to the men.

Mothers were invited to bring their daughters to a dancing class and to sit and crochet in the library while waiting for them. The gymnasium and game-room were thrown open to the children of parents who could attend the mothers' club or the citizenship class only if there was some place where their youngsters could be left in the meanwhile.

Among the school's organizations is one known as the Sanitation Club. Any boy of the neighborhood who has reached 15 is eligible for membership and its purpose is "to keep this community clean and

sanitary and promote the physical, mental, and moral advancement of its residents." The club meets weekly at 7 p. m. in the school building and there perfects plans for carrying on its work. Through its endeavors a vacant lot was filled in and made into a playground, stables have been cleaned up, and insanitary shacks have been razed.

An athletic committee arranges basketball games and another group gets up social affairs. Chewing-gum, tobacco, and profane language are banned by the by-laws and infractions are penalized by the abrogation of gymnasium and other desirable privileges.

Among other features of the evening program at the Eagle School which help to protect the after-supper period—the time which is perhaps most filled with pitfalls for the unguided—may be mentioned a boys' brass band, a boys' chef club, a girls' club, a dancing class, a cooking class, and several other organizations for young people.

#### PLANT WELL EQUIPPED FOR EXTENSION WORK

Few cities in the country have school buildings which are more generally and more completely adapted to recreational, cultural, and civic uses than those of Cleveland. Of the 114 public schools, over four-fifths have auditoriums, nearly one-third possess gymnasiums, while about one-half have one or more inside playrooms. If placed side by side, these special rooms would cover 10 acres of ground and

they have cost the taxpayers more than a million dollars. The auditoriums and interior halls of the elementary schools, all fitted with electric lights, have seating capacities for an aggregate of about 35,000 people. About four out of five of the Cleveland schools possess large, well-lighted kindergarten rooms. Some 30 of the schools are manual training centers and have equipments for shop work or cooking and sewing, and in most cases for both.

#### PAST ADMINISTRATION OF EXTENSION WORK

The rules of the Board place upon the director of schools the control of all uses of buildings for other than "the regular school work." Besides permitting teachers and pupils to hold after-class occasions pertaining to school interests the director is empowered to grant the use of school quarters to mothers' clubs, improvement leagues, gymnasium classes, patriotic clubs or similar groups for gatherings which "are helpful to the intellectual, physical, and moral welfare of the pupils and patrons of the various districts," provided such use does not interfere with the regular school activities. For working out matters of policy and a kind of general supervision of after-school occasions the director has had the assistance of the head of the Division of Medical Inspection and Physical Education. The routine handling of the vast number of applications for the meeting-place and play privileges, the verification of the residence qualifications and general responsibility of

the five citizens who join in the petition, the scrutiny of the purposes of the meeting, the prevention of conflicts between the uses of the outside organizations and the local school staffs, and all the telephoning and office interviews which are incidental to the letting procedure—this work has fallen upon the director's secretary and other members of his regular office staff. Despite the notable efficiency of the director's organization, this extra work has produced a burden it was not designed to bear.

During the last two years a compromise policy has been followed. The public has been allowed to come into school buildings, but no organization has been provided to care for them after they got in. Administrative strain and friction have been attendant upon this practice and the annoyances generally resulting from the maintenance of a passive attitude toward a strong popular demand have been experienced. Therefore, on November 15, 1915, the Cleveland board created the Division of School Extension, whose function it is to administer the evening use of school buildings for all purposes other than night schools.

#### THE NEW DIVISION OF SCHOOL EXTENSION

The resolution creating the Division of School Extension authorizes the director of schools to appoint a supervisor of community centers, a clerk, and a number of supervisors and assistant supervisors of individual and special activities.

The board assumes responsibility for the heat,

light, janitor service, and supervision at these 16 centers, but in lieu of the custodian's fees, which were formerly exacted from the clubs to which facilities were let, individual fees to the amount of 25 cents a month will be collected from all persons who regularly avail themselves of the privileges of the center. These provisions apply to the use of gymnasiums, manual training shops, domestic science and club rooms, and swimming pools in the selected schools. The auditoriums in these centers are made available for neighborhood meetings on the nights when the building is open without cost to the users. The assembly room of any other school building may also be let for a community gathering upon the request of five citizens who are willing to pay the custodian's fee of \$2.50 and assume responsibility for the supervision of the meeting and any damage which may happen to school property.

The fundamental significance of the new division, however, lies in the fact that it marks the adoption, on the part of the board, of an active and constructive policy in an important field of education and establishes the nucleus of what is destined to be a development of greater and greater magnitude. The two needs, more centers and more workers without a proportionate increase of expenditure, are going to lead the Division of School Extension to adopt as a part of its plan, if the experience of New York and other cities is a trustworthy guide, the formation of a local neighborhood association at each center.

If the experience of other systems holds true in

Cleveland there will be, as time goes on, an increasing effort to introduce different varieties of cultural opportunities along with the athletics and games. As the local directors search for means of putting changes of this character into effect it is inevitable that they will develop the club or group method which simply means the endeavor to bring groups together in the center on the same basis as any normal social life, that is, in some form of congeniality.

There is every reason for believing that the Division of School Extension will also be able to utilize the vast resources of leadership that exist among Cleveland's public-spirited citizens. As the list of the organizations making use of school facilities has shown, the city is full of groups of young people already organized on a club basis.

In connection with the letting of school auditoriums for community gatherings there are likely to occur now and then discussions which will provoke public criticism. Some people will feel that another class of people is promoting abhorrent doctrines through the use of commonly owned and supported public buildings. The right way of satisfying public interest in controversial questions is to make them the subjects of fair, able, and dignified discussions at the community center, and to supply information upon them by means of lectures and illustrated talks.

Experience will eventually show the wisdom of transferring the Division of School Extension from the business department to the educational department. While the former is well organized and



unusually efficient, its standpoint is necessarily that of the custodian and preserver of school property. By its nature it is not designed to promote an organization whose main purpose must be not merely the utilization of school facilities but their utilization for educational and social ends. While the business Department will undoubtedly maintain an active and expert organization the Division will not be in a position to attain its full normal development until it is regarded as an educational enterprise and placed under its natural control. It will be found advisable also to extend the work of the Division of School Extension to cover that of the evening school. These two activities are now handled by the same bureau in a number of cities and the results seem to favor the combination.

#### INTERNAL REASONS FOR THIS NEW DEVELOPMENT

Educational extension is in keeping with the principle of efficiency already well exemplified in the medical inspection surveys of Cleveland, the open air classes and the school lunches which reflect society's demand that an increasing percentage of the school's product in the form of future citizens shall arrive at its destination in good condition.

This principle translated into practice calls for three new lines of educational endeavor: (1) measures designed to overcome so far as possible those influences of the home and street upon the pupil's character; (2) steps of a nature to extend, beyond the limits of the high and evening schools, the city's

care over its future citizens through the adolescent years to the period of adulthood; (3) the means of a greater closeness of contact between themselves and the public, so that their purposes might be more widely and sympathetically understood, with the hope that thereby the money for new service would be forthcoming.

If during any of the turns of adolescence the boy escapes from the influence of the school or comes under other influences which neutralize or contaminate, the main purpose of the school's activities will have been defeated. A youth does not vote or fill office. He has no civic status except that of a ward of the state. It is important that he be orderly in his public behavior, and the processes of elementary education do undoubtedly contribute to that end, but their great fruitage cannot, in the nature of the case, appear until he arrives at the years of citizenship. The school may have given a lad an excellent theoretical training in civics and in the habits of industry, but if he reach his majority—twenty-one—a drunkard and a gambler, its labor will have been in vain. It is to obviate such social wastage that Cleveland is extending its educational oversight to the end that contact with its youth shall not be broken too early.

#### CONCLUSIONS AND RECOMMENDATIONS

1. The Cleveland school plant is well equipped for a wider use.
2. The actual after-class use of Cleveland school

facilities leaves a considerable margin for further utilization.

3. The variety and number of the clubs and organizations to which school facilities were let last year are evidence of a strong public demand for such privileges.

4. The miscellaneous evening occasions have imposed an undue strain upon the school organization.

5. The new Division of School Extension will grow through the natural effort to overcome administrative difficulties and to satisfy increasing public demands.

6. Local neighborhood associations should in due course be organized to help in the support and direction of community centers.

7. The organization and development of clubs in community center work should be initiated and encouraged.

8. Organizing public meetings in the schoolhouse is the best way of overcoming the friction sometimes generated by discussions held under the auspices of outside groups.

9. The administrative control of the Division of School Extension ought to be transferred from the business department to the educational department.

10. The school forum offers the educational authorities a needed point of contact with parents and citizens.

11. Offering young people activities that reveal and develop ability while at the same time satisfying the instinct for play is an effective method whereby public education is now extending its oversight through the teen-age.

## CHAPTER XVI

### THE SCHOOL AND THE IMMIGRANT

(Herbert Adolphus Miller)

Cleveland is one of the most foreign cities in the United States. Of the 50 cities having a population of over 100,000 inhabitants at the time of the last census, only seven contained a larger proportion of foreign inhabitants. Cleveland's foreign population would constitute by itself a city larger than any other in the state of Ohio except Cincinnati, and equalled or surpassed in size by only 28 other cities in the entire country.

#### A LARGE PROPORTION CANNOT SPEAK ENGLISH

Without going into a detailed study of the social and educational characteristics of the old and the new immigration, we may take up briefly two points of peculiar significance from the standpoint of public education. The first relates to the ability to speak English. The successful assimilation of the immigrant, his adaptation to American customs and ways of thought, and to a marked degree his economic and social status, depend on his ability to read and speak the English language. Nearly every disadvantage

under which he labors during his first years in this country can be traced in the last analysis to ignorance of English.

Cleveland's foreign population is becoming increasingly foreign from the standpoint of ability to read, write, speak, and understand the English language. In 1900 less than one-fifth of the foreigners in the city 10 years old and over were unable to speak English; in 1910 the proportion of non-English-speaking foreigners had risen to nearly one-third of the total.

#### FEWER BECOME AMERICAN CITIZENS

There are at the present time between 60,000 and 65,000 men in Cleveland who are not citizens of the United States. Of every 100 men of voting age in 1910, approximately 30 possessed no political rights or interests in this country and owed no allegiance to the government of the United States. In recent years there has been a marked change for the worse in this respect throughout the entire country, but in few of the larger cities has the downward trend been more pronounced than in Cleveland.

The present standing of the city in this particular is less disquieting than the marked retrogressive trend the data reveal. The fact that the social and political assimilation of the great mass of aliens in the city is proceeding at a steadily decreasing pace is of the gravest import in its relation to the future welfare of the city.

## SCHOOL CHILDREN FROM NON-ENGLISH-SPEAKING HOMES

In the course of the survey an investigation was made to determine the number of children enrolled in the public school who were from homes in which English is not regularly spoken. Each child in the schools above the kindergarten age was asked to fill out a blank containing two questions: first, "What is the language of your home?" and second, "What language besides English can you read?"

The data were collected from all schools on a single day, and the totals represent the attendance for that day, not the entire number enrolled in the schools. In all, replies were obtained from 75,046 children in the elementary schools, and from 9,088 attending the high schools. Almost exactly one-half of the children in the elementary schools came from homes in which English is not regularly spoken. The distribution is shown in detail in Table 12.

## FOREIGN LANGUAGE TEACHING IN PAROCHIAL SCHOOLS

Data relating to private schools were secured only from those supported by the Lutherans and the Roman Catholics. The Lutherans have 15 schools, of which one is Slovak and the rest German. The Slovak school, enrolling 359 pupils, comprises but three grades, although it is proposed to open additional grades as soon as capable teachers for them can be secured. Eleven of the 14 German schools re-

TABLE 12.—LANGUAGES SPOKEN IN HOMES OF PUPILS IN THE PUBLIC SCHOOLS, CLEVELAND, 1915

Language	Elementary	High	Total
English	37,454	6,325	43,779
German	8,118	1,093	9,211
Yiddish	6,219	576	6,795
Bohemian	5,325	374	5,699
Italian	4,493	108	4,601
Hungarian	3,686	102	3,788
Polish	3,523	113	3,636
Slovak	1,558	40	1,598
Slovenian	1,217	22	1,239
Russian	913	44	957
Hebrew	656	120	776
Swedish	328	40	368
Croatian	218	..	218
Dutch	173	9	182
Roumanian	151	8	159
Lithuanian	147	1	148
Syrian	140	2	142
Finnish	103	6	109
Welsh	80	26	106
French	79	12	91
Norse	59	8	67
Greek	56	1	57
Danish	55	9	64
Ruthenian	43	..	43
Albanian	40	2	42
Serbian	30	1	31
Armenian	27	..	27
Bulgarian	17	..	17
Chinese	15	2	17
Spanish	12	5	17
Other foreign languages	111	23	134
Total	75,046	9,088	84,134

ported an attendance of 2,074 in all. The three from which data were not secured are small schools, but it is doubtless well within the actual figures to put the total, in round numbers, at 2,500.

It was somewhat more difficult to secure information from the Catholic schools, but the figures here

presented are approximately correct, although in many cases they are probably too low. Of the 52 parochial schools from which data were obtained, 30 may be classed as foreign language schools. Table 13 shows the number of children enrolled in the foreign language Catholic schools. The total enrollment in the Catholic schools is slightly over 28,000, so that the proportion of foreign-language-speaking children is nearly 60 per cent. This, including the 2,859 children in the German and Slovak Lutheran schools, gives a total of at least 20,000 foreign-language-speaking children in the parochial schools. Adding this number to the enrollment in the public schools gives a grand total of approximately 57,325 children from foreign-language-speaking homes. Those from English-speaking-homes enrolled in both public and parochial schools number approximately 50,000.

TABLE 13.—NUMBER OF PUPILS STUDYING THE DIFFERENT FOREIGN LANGUAGES IN THE CATHOLIC SCHOOLS, CLEVELAND, 1915

Language	Number of schools	Pupils enrolled
Polish	6	4,170
German	7	3,977
Bohemian	5	2,850
Slovak	5	2,377
Slovenian	3	1,846
Hungarian	2	1,300
Croatian	1	352
Lithuanian	1	260
<b>Total</b>	<b>30</b>	<b>17,172</b>



## WIDE VARIATION IN DIFFERENT SCHOOLS

Children from foreign-speaking-language homes are found in every public school in Cleveland. Doan School, with four German children, three Swedes and one Russian among 795 pupils enrolled, is the least foreign, and Murray Hill, with 1,171 Italians, five Albanians (who also speak Italian), and one German in an enrollment of 1,348, is the most homogeneously foreign of the elementary schools. Both the percentage of foreign pupils and their distribution by nationality and language vary widely among the different schools, so that the relation of racial and linguistic characteristics to teaching methods and school management becomes a separate problem for each school.

## EFFORTS OF NATIONAL GROUPS TO PRESERVE THEIR LANGUAGES

Each national group expresses its group consciousness in varying degrees of effort to preserve its language by providing more or less adequate instruction for the children in the mother tongue. Generally there are very strong traditional and historical reasons for devotion to the language. Often the immigrant comes from countries where attempts have been made to substitute the language of foreign rulers for the mother tongue with the result that the preservation of the language has become a matter of patriotism.

It has been shown that a very large proportion of

the inhabitants of Cleveland possess a reading and speaking knowledge of some language other than English and that more than one-half of the children in the public schools speak, and more than one-third read, some other foreign language. The economic and social value of this knowledge cannot be denied, and in every case, excepting that of German, it has been obtained absolutely without cost to the school system. The possibility of conserving this economic and cultural asset should not be lost to sight, even though we recognize that the main duty of the school is to give the child a thorough English education.

#### TEACHER SHOULD KNOW CHARACTERISTICS OF NATIONAL GROUPS

A teacher should know something of the social life to be found within the various immigrant groups, both in order that she may understand her pupils better and that she may be able to use these social forces to the advantage of the school and the community. In addition she ought to know something of the history of the region from which her pupils or their parents have come. If she knows even a few words of their language, it might prove of inestimable value in establishing a sympathetic relationship between the teachers and the children, but more especially between the parents and the school. A knowledge of the geography of the child's native land would be an asset to teacher and principal.

## THE PROBLEM OF EDUCATION FOR THE FOREIGN CHILDREN

The problem of educating children of recent foreign origin divides itself into two major phases and almost innumerable minor ones. The two main divisions of the problem have to do respectively with education for the recently arrived non-English-speaking children, and with the far greater number of children scattered throughout the school system who come from homes where English is not spoken but who have themselves acquired some familiarity with American customs and standards.

### STEAMER CLASSES

Fifteen years ago, in 1901, the Cleveland school system first recognized the necessity of making special provision for teaching English to recently arrived immigrant children. In that year the principal of Harmon School organized the first class for non-English-speaking children and termed it a "Steamer Class" because it was made up of pupils who had come to Cleveland directly from the steamer which brought them to this country.

Under the present arrangements steamer classes are organized in the schools that regularly receive large numbers of new immigrants. Here they meet an important need, but they do not help the pupil whose parents have found a place to live a little removed from other recent arrivals and so have sent their children to a school where there are not

enough foreign children in attendance to warrant the establishment of special classes. This is one of the problems which the school system has never satisfactorily solved.

In general the steamer classes are valuable and fairly effective. Provisions should be made for transferring non-English-speaking children to them when such children enroll in schools where steamer classes have not been organized. The work could be rendered much more effective by adopting methods of English teaching such as have been developed in New York and Boston, or the superior methods in use in Porto Rico and the Philippine Islands.

#### ENGLISH-SPEAKING CHILDREN FROM NON-ENGLISH-SPEAKING HOMES

It has already been shown that more than half of the children in the schools of Cleveland come from non-English-speaking homes. A study of the figures showing how these children are distributed through the different grades and among the various schools leads to the conclusion that the only uniform condition permeating the entire situation is the universal heterogeneity of the school population. There are very few schools indeed having anything approaching a homogeneous student body. In every school there are children from non-English-speaking families, and in most of them these children are divided among a large number of nationalities. Moreover, some schools have large numbers of foreign children in the

upper grades, while in others they are mainly in the lower ones. In some schools one nationality predominates among the older children and another among the younger ones. The school population is a synthesis of the most varied elements. Table 14 is introduced to show the numbers of children of the more important nationality groups in the different schools from which data were gathered by the survey. A study of Table 14 reveals conditions that are not only interesting, but constitute a very puzzling educational problem. The data were gathered from 98 elementary schools. In a majority of cases the children from non-English-speaking homes outnumber those from English-speaking homes. It would thus seem on first consideration that it would be a comparatively simple matter to modify the instruction given in each school so as to meet most adequately the needs of the pupils. In point of fact, this is rendered exceedingly difficult by the complex character of the group from non-English-speaking homes.

In the city as a whole the only homogeneous element in the different school populations is the group of children from English-speaking homes. They do not constitute a majority of all the children, but, except in a few cases, they constitute a larger group than any other single group. In the entire city there are 26 schools in which there is a group of one nationality outnumbering the children from English-speaking homes, but in most cases these children do not constitute a majority of the children enrolled in the school.

TABLE 14.—CHILDREN IN LEADING NATIONALITY GROUPS IN EACH ELEMENTARY SCHOOL ON BASIS OF THE LANGUAGE OF THE HOME

School	English	German	Yiddish	Bohemian	Italian	Hungarian	Polish	Slovak	Other foreign	Total
Addison	508	24	..	1	..	7	..	..	7	547
Alabama	42	65	6	1	2	3	94	2	91	306
Barkwill	139	15	..	359	..	..	10	..	..	523
Bolton	910	82	8	45	2	3	..	1	60	1,111
Boulevard	361	84	..	39	..	27	3	14	9	537
Broadway	436	33	..	15	2	3	258	..	68	815
Brownell	248	11	8	1	650	1	1	6	38	964
Buhrer	491	110	..	3	10	5	3	7	9	638
Case	220	252	..	..	3	20	44	46	165	750
Case-Woodland	100	39	448	132	15	47	10	24	22	837
Centra	363	27	440	..	5	16	3	..	29	883
Chesterfield	438	9	..	2	12	..	..	..	1	462
Clark	342	162	..	198	..	22	..	20	6	750
Columbia	1,043	28	10	..	5	2	..	..	6	1,094
Corlett	93	9	..	191	5	14	12	6	..	330
Dawning	318	368	..	81	7	37	7	18	24	860
Denison	895	85	..	11	6	2	2	3	84	1,088
Detroit	508	85	1	3	12	28	1	1	82	721
Dike	277	58	659	3	..	15	2	..	49	1,063
Doan	787	4	..	..	..	..	..	..	4	795
Dunham	672	59	7	..	2	6	1	..	18	765
Eagle	26	6	2	2	88	13	23	116	380	656
East Boulevard	349	76	1	126	122	44	..	5	19	742
East Clark	306	23	..	1	13	5	..	..	59	407
East Denison	389	80	..	18	..	24	100	1	9	621
East Madison	487	164	1	6	3	8	15	39	260	983
Empire	567	93	1	1	1	3	9	1	25	701
Fairmount	400	6	1	..	192	1	..	..	3	603
Fowler	282	56	..	248	2	10	24	12	3	637
Fruitland	266	26	..	..	..	2	2	..	14	310
Fullerton	10	17	..	67	..	..	684	..	2	780
Giddings	402	84	158	74	4	24	16	..	85	847
Gilbert	405	294	..	260	3	84	5	26	11	1,088
Gordon	414	128	..	7	3	15	..	2	19	588
Halle	558	152	4	4	5	6	..	4	13	746
Harmon	34	4	31	1	542	..	2	4	59	677
Harvard	218	33	..	38	2	..	415	3	5	714
Hazeldell	936	101	4	..	4	1	..	..	22	1,068
Hicks	294	102	4	2	5	472	36	114	42	1,071
Hodge	508	205	4	4	4	10	24	7	75	841
Hough	782	37	4	1	3	5	1	1	7	841
Huck	169	114	..	166	2	..	18	..	2	471
Kennard	162	33	847	1	63	..	17	2	71	1,196
Kentucky	367	51	1	1	5	90	6	2	66	589
Kinsman	543	200	11	12	6	247	15	49	95	1,178
Landon	692	87	..	4	..	2	2	7	16	810
Lawn	374	61	..	1	5	11	..	..	10	462
Lincoln	299	66	12	133	3	321	..	8	22	864
Longwood	131	7	427	8	47	19	3	3	6	651
Marion	149	7	132	..	271	7	14	80	63	723

TABLE 14.—(Continued)

School	English	German	Yiddish	Bohemian	Italian	Hungarian	Polish	Slovak	Other foreign	Total
Mayflower	127	34	494	34	184	28	42	98	136	1,177
Memorial	300	130	..	2	15	33	75	6	336	897
Memphis	415	67	..	12	1	16	1	2	9	523
Miles	380	32	..	122	2	2	22	1	12	573
Miles Park	488	49	..	49	37	1	28	35	13	700
Milford	389	391	..	304	5	51	2	47	4	1,193
Mill	342	151	8	3	3	5	4	..	5	521
Moulton	189	53	..	4	16	5	20	..	14	301
Mound	91	34	..	183	..	1	256	..	1	566
Mt. Pleasant	334	39	6	126	18	2	2	5	11	543
Murray Hill	171	1	..	..	1,171	..	..	..	5	1,348
North Doan	612	40	9	2	2	3	..	..	20	688
Nottingham	342	99	2	3	25	28	3	..	70	572
Observation	166	15	1	10	98	..	..	..	9	299
Orchard	539	205	4	5	2	171	2	13	39	980
Outhwaite	245	58	1,033	1	8	50	9	3	33	1,440
Parkwood	582	6	..	..	4	1	..	..	..	593
Pearl	170	49	..	17	2	..	38	..	5	281
Quincy	418	84	10	138	6	23	7	7	24	717
Rawlings	62	61	2	4	..	537	21	16	21	724
Rice	227	68	5	347	27	294	5	66	21	1,060
Rockwell	92	5	2	..	..	2	2	..	23	126
Rosedale	750	33	..	..	25	..	..	..	9	817
Sackett	692	195	..	225	26	17	5	7	6	1,173
St. Clair	359	163	3	5	10	16	109	7	90	762
Scranton	446	167	1	7	2	22	11	43	25	724
Sibley	624	41	147	6	20	7	..	1	57	903
South	478	43	1	4	218	4	..	..	158	906
South Case	247	15	638	..	50	8	..	..	2	960
Sowinski	502	127	10	..	3	..	185	..	65	892
Stanard	235	133	6	1	2	8	5	5	280	675
Sterling	481	21	60	..	114	1	..	3	42	722
Todd	265	83	1	46	3	13	45	5	6	467
Tremont	276	202	4	10	22	20	483	266	495	1,778
Union	275	55	1	440	..	1	103	28	31	934
Wade Park	653	40	..	..	2	..	1	..	23	719
Walton	382	219	1	56	66	22	1	20	8	775
Warner	335	50	..	37	40	1	..	..	8	471
Waring	357	165	1	..	3	15	21	..	50	612
Warren	250	110	1	438	..	8	87	55	12	961
Washington Pk.	110	11	..	131	..	..	20	..	4	276
Watterson	356	44	..	..	101	4	..	..	19	524
Waverly	381	48	3	1	2	7	..	1	48	491
Willard	839	235	3	16	8	19	3	4	27	1,154
Willson	682	75	1	2	3	9	1	..	21	794
Woodland	218	63	2	59	5	504	5	97	66	1,019
Woodland Hills	393	96	..	185	2	8	9	80	27	800
Wooldridge	477	91	527	19	4	37	8	3	45	1,211
	37,454	8,118	6,219	5,325	4,493	3,686	3,523	1,558	4,670	75,046

Such facts as these, together with the data of Table 14, indicate the great difficulties involved in attempting to modify instruction to meet the special needs of special national groups. In a single classroom there may be pupils of a dozen different nationalities. In most of the classrooms of the city the largest single group is made up of children from English-speaking homes. In only a few cases are there classes in which practically all the children are of the same nationality.

Nevertheless the very complexity of the problem points the way with some definiteness to certain wise courses of educational procedure. It is apparent that the most important subject in the schools of Cleveland is English. This would probably remain true if there were no foreign children enrolled, but under the present conditions it is doubly true. The one educational certainty is that the ability to read, write, and speak the English language easily and correctly is the ability which will conduce most effectively to the moral welfare, the cultural development, the vocational prosperity, and the individual happiness of this great mass of children now in the public schools of this city.

#### THE ADULT IMMIGRANT AND THE SCHOOL

The most important instrumentalities for the instruction of the adult immigrant are the public night schools. They have increased in scope and importance until they have become a large educational



enterprise, enrolling in the school year of 1914-15 more than 11,000 students.

These schools open in October and continue in session for 20 or 22 weeks, being open four nights each week. At the close of the regular term in March most of them suspend work, but a few are continued for a further period of several weeks. The experiment has even been tried of continuing a few of the night schools through the summer months. The classes are held in regular elementary school buildings and about one-fourth of the teachers are also employed as teachers in the day schools, while the remaining three-fourths are people working at other occupations during the day.

### CITIZENSHIP CLASSES

In addition to their regular work, the evening schools established, two years ago, classes in citizenship for the benefit of aliens desiring to secure naturalization papers. During that winter these classes enrolled more than 1,400 men. Last year the total enrollment was about 1,300. During the winter of 1915-16 the number was less than 600.

The motives which prompted the establishment of the citizenship classes are deserving of the heartiest approbation and support. Socially and educationally this innovation is wisely planned and worthy of continuation and extension. Nevertheless the fact is that these classes are making a most meager con-

tribution toward helping aliens to become American citizens. Their enrollment is progressively decreasing and their attendance is but a small fraction of their enrollment.

In the opinion of the members of the Survey Staff the causes of these unsatisfactory conditions are to be found in the character of the instruction given in these classes. The trouble is that the teaching does not follow any well matured plan and is not skilfully done. It suffers from the same sorts of weaknesses that restrict the value of the instruction given in the regular evening schools. The nature of these shortcomings is considered in detail in the following section.

#### QUALITY OF INSTRUCTION IN EVENING SCHOOLS

The typical characteristics of the work of the regular evening classes are well illustrated by that observed in five successive classrooms in one school visited in March, 1916. The pupils were almost entirely young foreign men of from 25 to 30 years of age. Many of them were employed in one of Cleveland's great steel manufacturing establishments. They were not illiterate, but they had almost no knowledge of English. They were all weary from their day's work and they kept awake only by the exercise of apparent effort.

In the first of the five classes a writing lesson was being conducted, and these husky laboring men were busily engaged in copying, "I am a yellow bird. I can sing. I can fly. I can sing to you."

In the second class the teacher was barely able to talk English and the work was almost entirely conducted by the translation method. The teacher made several fruitless attempts to get the pupils to speak English. He did this by telling them repeatedly, "Think the sentence in your own language and then try to translate it into English." After this had failed to produce satisfactory results, the teacher gave it up and had them read a selection about making pickles from cucumbers.

The third class was taught by a bright young foreigner who had apparently received a classical education. The work was continued just as are many classes in Latin. The teacher spoke English almost perfectly, and although his pupils could neither speak nor understand it, he carefully explained to them about inflections, voices, moods, tenses, numbers, and persons. He then told them that they were to conjugate "to have" and "to be." After this was explained to them in their own language, the pupils all went to the board and began to write "I have, thou hast, he has," and "I am, thou art, he is," etc. The teacher explained that "art" was the second person singular, indicative mood, present tense, of the substantive verb "be." After this the class had a reading lesson from the third reader about a robin that said, "God loves the flowers and birds too much to send the cold to freeze them."

In the fourth room the pupils had a reading lesson about "Little drops of water, Little grains of sand." They then had a spelling lesson of the words in

the reading selection. The teacher was interested, vivacious, and expended a great amount of nervous energy in talking very rapidly and almost incessantly. She took up most of the time with her own activity and most of the pupils could not understand what she was talking about.

In the fifth and last class the teacher was also most voluble and talked more than all the students combined. It was a reading lesson and the 14 men present were engaged in reading a selection beginning

"Oh, baby, dear baby,  
Whatever you do,  
You are king of the home  
And we all bend to you."

Similar examples might be multiplied from the written records of the work observed in the evening classes, and classes of the sort described may be seen by any one who will take the time to visit the evening schools of the city. Perhaps the most impressive characteristic of it all is that every teacher appears to be entirely free to teach whatever he pleases by any methods that he wishes to use. The lessons assigned and the methods employed in the different rooms are astonishingly varied. There seems to be no effective supervision, no plan for improving the teachers in service, and no effort to find out which of the many methods used produces the best results.

#### REORGANIZATION ESSENTIAL

In the opinion of the Survey Staff it is essential that the evening school work of Cleveland be reorganized.

Some of the results of the work as at present conducted are revealed by the attendance records. The records of attendance show that only a small proportion of those who enroll remain more than a few weeks.

The tragic part of the situation is that every year thousands of earnest and hopeful foreigners flock to the night schools in keen anticipation of learning English, and after a few weeks become discouraged and drop out because the teachers do not meet their needs. Since they cannot understand what is going on, their interest flags. As the weeks pass by, physical weariness overcomes them more and more each night. Finally they sink into despondency and discouragement as they see their cherished dream of mastering the new language depart. This is no matter of casual import for these men and women. They are not children and most of them are not students. Concentrating their minds on the lesson implies painful effort. If this intense application does not bring them within a few weeks some results that the immigrant can appreciate, he begins to realize that his constructive ideal, his dream of becoming an American, are not to be attained through the public school.

There are 70,000 people in Cleveland who cannot speak English, and there are few social, civic, or educational problems more important than to make it possible for this tenth of the city's population to understand and communicate with the other nine-tenths. The number of unnaturalized adult foreign

men is nearly as large as that of the non-English-speaking inhabitants. Moreover, these conditions are becoming worse rapidly and steadily. Again Cleveland makes a poorer showing in these respects than any other large city.

For these reasons the survey deems it essential that the elementary evening schools of this city should be reorganized so as to do efficient work in teaching English to foreigners. What is most needed is leadership. One thoroughly competent supervisor, charged with responsibility for making the work efficient, and given greatly increased power in the selection, training, and direction of his assistants, could work a rapid reform in the whole situation. While increased appropriations are needed for supplies and for teachers, they are not nearly so important as skilled and enterprising leadership. The city cannot afford to be indifferent, or inefficient, or contented in its attitude toward helping its aliens to help themselves.

#### CONCLUSIONS AND RECOMMENDATIONS

1. Cleveland is one of the most foreign cities in the United States.
2. The foreign population is becoming increasingly foreign from the standpoint of the ability to speak and read English. No other large city makes so poor a record in this respect.
3. In 1910 nearly one-third of all the men of voting age in Cleveland were aliens. In this respect Cleve-

land makes a poorer showing than most of the other large cities of the country.

4. Approximately one-half of the children in the elementary schools and one-third in the high schools come from homes in which some foreign language is the "language of the home." About 20,000 children are receiving instruction in some foreign language in the parochial schools of the city.

5. In order that the schools may do the most effective work it is essential that the teachers should know something of the history and characteristics of the different national groups represented by the pupils. The survey report furnishes the most necessary elements of this information in conveniently condensed form.

6. The foreign children are distributed among so large a number of national groups and scattered through the schools all over the city in so complex a manner as to make it almost impossible to modify instruction so as to meet the special needs of separate national groups.

7. The one educational certainty in the situation is that the most important educational asset that the schools can give all children is a mastery of speaking, reading, and writing the English language.

8. The survey recommends that the work for non-English speaking children be made more effective by adopting methods of English teaching such as have been developed in New York and Boston or the superior methods in use in Porto Rico and the Philippine Islands.

9. Cleveland maintains evening classes in which almost all the students are foreigners whose main object in attending is to learn English.

10. The survey finds that the work in evening elementary schools has not been well and efficiently conducted. It recommends a thorough reorganization. The most important factor in reorganization is efficient leadership.



## CHAPTER XV

# THE PUBLIC LIBRARY AND THE PUBLIC SCHOOLS

(Leonard P. Ayres and Adele McKinnie)

Two significant conditions characterize the place of the public library in the community life of Cleveland. The first is that the public library has always been closely connected with the public schools. The second is that the people of Cleveland support their public library more generously and use its facilities more extensively than do the citizens of other cities.

### LIBRARY BRANCHES IN PUBLIC SCHOOLS

The present city librarian has held office for more than 30 years, and during that entire period work has been continuously under way looking toward the establishment of increasingly intimate relationships between the activities of the two great educational forces in the community. Beginning in 1887, the public library put small collections of books into some schools. Less than 10 years later a special branch library was established in the Central High School.

Since its inception the work has steadily proceeded, with the object of carrying to all the school children

the opportunities afforded by the library. At the present time the public library maintains branches in eight high school buildings and in the Normal School. It also has branch libraries in seven elementary schools and classroom libraries in 68 schools. Moreover, the public library endeavors to reach school children through the public branch libraries situated in different parts of the city and through its library clubs maintained in these branches.

The city has schools and libraries, children and books. The purpose of the present report is to consider how the city can most effectively get the city's children into the habit of reading the city's books.

#### SEVEN ELEMENTARY SCHOOL LIBRARIES

There are seven libraries in elementary schools. The educational authorities furnish the rooms, light, heat, and janitor service, while the public library furnishes the books and the services of trained librarians. School libraries of this type have been in existence for 18 years. During this time 20 have been established and 13 of them given up after varying terms of existence.

#### WORK OF SCHOOL LIBRARIES WITH CHILDREN

Most of the work of the school libraries is with the children, although some of it is for adults. Many books are drawn by the parents and relatives of the children and some by the teachers and by the pupils

in the evening schools. The school librarian not only issues and receives books, but secures reference material for the teachers, conducts story-telling classes, and gives lessons to the older pupils in the use and care of the volumes. With two exceptions, the school libraries are not open every school day, and most of them are not open in the evening. In four out of seven of the school libraries pupils are permitted to get or return books only before or after school. Because of this regulation most of the children reach the library together and this results in issuing and receiving the books so rapidly that little individual attention is possible.

### BOOK SUPPLY

The number of books in the different school libraries ranges from a little over 1,000 to nearly 5,000. Where the shelf room is adequate, the juvenile book supply in relation to the volume of work done is above the average for the entire library system. Only 17 per cent of the books are for adults. In the libraries in the foreign districts there is a generous supply of books in the languages which are spoken in the neighborhood.

### CONDITIONS OF BORROWING

As soon as a child can write his name and gets the endorsement of his parent and his teacher's signature, as a matter of verification of address, he may have a library card. Even smaller children come to

the library to look at picture books, waiting anxiously for the time when they may get a card and take the books home.

### ADMINISTRATION OF LIBRARY WORK

The work of the school libraries is almost entirely directed and supervised from the main library. All the librarians in charge of school libraries have had special training or wide experience in children's library work. They have part time assistants, the number varying in the different libraries with the volume of the work.

In general the principals and teachers are in favor of the library work and maintain a friendly and appreciative attitude toward the librarians. Nevertheless library and librarian are incidental and not integral parts of the school and its work. This is not the fault of any person or set of persons. The school authorities and the library authorities have always maintained friendly and cordial relations toward each other. They have coöperated in the work they are both doing. Nevertheless that part of their work which takes form in the elementary school library is not contributing as much as it could and should to the welfare, happiness, and education of the children. Some of the respects in which the work falls short of its possibilities have been set forth. Part of the remedy is to be found in modifying the organization and administration of the school library work so that it shall become an essential feature of the work of

the school. The rest of the remedy will be found some time in the future in an educational leadership fundamentally convinced that an invincible love for reading is the most important single contribution that the school can give the child.

### BRANCH LIBRARIES

About seven-tenths of all the children reached by the whole library system are cared for by the 26 branch libraries. These branches not only issue books to children, but equip reading-rooms for them, compile book lists, organize clubs, have story-telling hours, and supplement their work by home visiting. The most valuable work for children is now done through these branches. The activities are constructive and vital. There has been some duplication of equipment in the way of auditoriums and special rooms. In the future the two boards should consider building the branch libraries and schools together or close to each other, so that the library can carry on its valuable extension work without duplicating equipment.

### CLASSROOM AND HOME LIBRARIES

The classroom and home libraries are small collections of books sent into the schoolrooms and homes of the children, where there is no branch library within easy reach. They are considered supplementary to all other ways of getting books to children, and, broadly speaking, are probably transitory. During the past school year there were 381 classroom libraries and 38 home library clubs.

An indirect way that children's reading is influenced is by a constant effort on the part of the library to help the teachers and to coöperate with them.

### HIGH SCHOOL LIBRARIES

Cleveland was one of the first cities to install a library room in a high school. All the high schools in Cleveland have them at present except the two commercial high schools. The schools supply the rooms, a large part of the books and magazines, and the library gives the services of the staff and a part of the books. The high school librarians in the main have had college training besides library training and experience.

The work of the high school library is to supplement the school work in every way possible. This is done by supplying reference material for school courses and debate work. Instruction is given to freshmen and sophomores in the use of the library and books. In general the high school libraries have largely limited their work to supplying reference material and pupils are encouraged to go to branch libraries for recreational and even some reference reading. Although this contact is made for some pupils, it seems advisable for the high school library to supply all library needs for as many pupils as possible.

### THE NORMAL SCHOOL LIBRARY

A library is maintained in the Normal School under the joint auspices of the Library Board and the Board

of Education. It is used by faculty and students of the training courses as well as by teachers and pupils of the Observation School. The librarian is responsible to the Library Board and the Board of Education and receives part of her salary from each source. She is a member of the English Department of the school and instructs the students in library work with children. The work is done efficiently and well and its results indicate that the pupils in the rest of the school system would profit from a similar close relation of library work to school work.

#### FUTURE DEVELOPMENTS

The survey's study of the library and the schools led to one major conclusion and several minor ones. The major conclusion, which embodies the principal recommendation of this report, is that in their relations to each other both schools and libraries should subordinate every other consideration to the single aim of implanting in every child an invincible love for reading.

The survey holds that despite the good work done by both school and library in the matter of guiding pupil's reading, the most worthy and important objects of both organizations can be secured only through combining efforts with the single purpose of teaching children to read widely, enthusiastically, intelligently, and discriminatingly. There is only one way in which this can be accomplished and this is by introducing the children at an early age to a great variety of well chosen books and encouraging them

in every possible way to read them. In order to do this most effectively, the library and the schools together will have to adopt the same policy that the library has for years been following in its work with other classes of the community. The basis of this policy has been to take the books to the people who ought to read them. As a part of this policy libraries have been established in branches, in private dwelling houses, in fire and police stations, and even on boats. The survey believes that the policy is valid and that it should shape and control the work with the public schools.

#### READING AND EDUCATION

Reading is the most important thing the child can learn in school. It is the key that opens most of the doors through which the adult will wish to pass.

In order that children may really learn to read, they need large numbers of books. Their progress in reading will be almost entirely dependent on the number of interesting books at their command. They must learn to read as they learn to talk—through unremitting exercise. They must read and read and continue to read. For these reasons the schools and the library must combine in united and concerted effort to bring to every boy and girl compelling stimulus to varied and voluminous reading.

#### SCHOOL LIBRARIES AND THE PLATOON PLAN

The Board of Education is now experimenting with the platoon plan in several of its elementary schools.



Under this plan one room is especially equipped and set aside for music, another for art, another for literature, others for shops, and so on. The survey recommends that the library board and the Board of Education consider the establishment of a school library in each school building reorganized on the platoon plan or any similar plan. Such a school library would differ from the present ones in that the library room would be a session room accommodating several different classes of pupils during the day.

#### LIBRARIES IN JUNIOR HIGH SCHOOLS

The school system is now establishing junior high schools for the seventh, eighth, and ninth grades. Even if the system should cease to grow it would require about 15 junior high schools for the whole city. The survey strongly recommends that a library be established and a librarian appointed for each of these new schools.

#### INADEQUATE SALARIES OF SCHOOL LIBRARIANS

As a class the librarians in both the elementary and high schools are well equipped and underpaid. Most of them have graduated from high school, gone through college, taken a two-year course in a training school for librarians, have worked for several more years as librarians, and some of them have had several years of teaching experience. Those in the elementary schools are as a class as well educated and better paid than those in the high schools.

The salaries of both elementary and high school librarians are seriously lower than those of the teachers in the same classes of schools. In the case of the high school librarians the contrast is particularly serious. In general terms it may be truly said that the high school librarians have better professional preparation than the high school teachers and are paid less than half as well. Every argument for the adequate payment of teachers applies with equal force to the school librarians.

#### CONCLUSIONS AND RECOMMENDATIONS

1. The survey recommends that the Library Board advise with the Board of Education as to the possibility of erecting new branch libraries in connection with public school buildings. It recommends that the two boards consider the establishment of a school library in each new school building reorganized on the platoon plan or any similar plan.

2. The survey recommends that the two boards immediately undertake the establishment of well-equipped libraries and the appointment of trained librarians for all junior high schools. It recommends that the book collections of the senior high schools be expanded so as to include works of inspiration and recreation as well as reference books.

3. The survey recommends that the salaries of school librarians be increased so as to be on a level with those paid teachers doing correspondingly responsible work.

4. The survey recommends that there be established a corps of teacher librarians, certified by the Library Board as librarians, by the Board of Education as teachers, paid by both boards, and appointed to their positions by the Board of Education. It recommends that a supervisor of school libraries be appointed in charge of all library work with the public schools. This official should be nominated by the Library Board, appointed by the Board of Education, and paid by both boards.

## CHAPTER XVI

### SCHOOL BUILDINGS AND EQUIPMENT

(Leonard P. Ayres and May Ayres)

The school buildings of Cleveland are evidence of a wise and progressive policy, having its inception before the organization of the city, and growing in accordance with growing educational ideals. The amount of money expended on school plants has increased from \$12,000 in the decade from 1840 through 1850, to nearly 800 times as much in the 10 years just ended. This enormous increase in investment is partly due to enlarging population, but in a far greater degree to a determination that the fullest possible educational opportunity shall be open to Cleveland's children.

#### BUILDING FOR EDUCATION

The building policy has been shaped by five watchwords of progress. The first is "education." The earliest and most fundamental developments in schoolhouse construction came through changing methods of teaching and learning. Children were sent to school for the purpose of acquiring skill and knowledge. Any change in building or equipment which would lead to efficiency in the learning process

was held to be therefore desirable. Cleveland schools show a steadily progressive growth in providing adequate educational facilities for teachers and children.

#### BUILDING FOR ECONOMY

The second watchword by which building policy has been shaped is "economy." From the first, Cleveland seems to have pursued a fairly economical policy of schoolhouse construction. Plans have been elaborated as needs grew. Architects and engineers have been employed as regular members of the staff, and uniform standards of building construction are gradually being adopted to secure beauty, durability, and usefulness at the lowest ultimate cost.

#### BUILDING FOR SAFETY

The third work which has been of influence in formulating the building policy is "safety." This is a matter of recent growth—the direct result of the disastrous school fire at Collinwood. Ten years ago there was comparatively little concern about the safety of school buildings. Today there is active and constructive interest. Cleveland is one of the few cities in the United States where the Collinwood disaster could never be repeated. Cleveland parents may send their children to the public schools and have no uneasiness as to their safety.

#### BUILDING FOR HEALTH

The fourth slogan is "health." One of the influences most potent in changing types of school architecture

in recent years is the realization that the health of the children is a public trust, and as such provision for its care is properly a function of the public school. Cleveland was one of the pioneers in this field, and in the matter of indoor planning and equipment still holds place as one of the leading cities in the country.

### BUILDING FOR HAPPINESS

Education, economy, safety, health, and happiness—these are the five watchwords of educational progress. The element of happiness is perhaps the newest conception, and it is in this field that some of the most striking innovations of the future will surely come. The school of today is beginning to recognize that play is a necessary activity of growth, and is placing increasing emphasis upon space, equipment, and instruction within school properties for recreational purposes.

### DEVELOPMENTS IN SEVEN DECADES

Cleveland is now using school buildings erected in each of the past seven decades. During this entire period the cost of accommodating each child in a schoolhouse has steadily and rapidly advanced. A study of the types of buildings erected in each decade shows that this increasing cost has been caused by such successive changes as building rooms to accommodate fewer children, supplying running water, indoor toilets, and coat rooms; making build-

ings more beautiful; fireproofing; and providing special equipment such as auditoriums, gymnasiums, playrooms, swimming pools, shower baths, teachers' rest and lunch rooms, dispensaries, libraries; and rooms for the kindergarten, blind, backward, manual training, domestic science, and open air classes.

Cleveland has 109 elementary, one normal, and 11 high school plants. Of 192 elementary buildings and annexes now in use, 65 were built within the past 10 years, 48 are 25 years old or more, and eight were erected before the beginning of the Civil War.

#### LOCATION OF BUILDINGS

Many school buildings are located on corners facing one or more street car lines. If the school is so located that children are compelled to cross car tracks in coming and going, it is probably safer to have those tracks in streets immediately adjacent rather than one block away. Where most of the children are not compelled to cross the track, it is undoubtedly better to place the school upon a quiet side street. The greatest endeavor should be made to have the neighborhood of every school a zone of quiet. Asphalt should take the place of brick and stone. Car tracks should be kept in good repair, and rails frequently greased at corners to prevent loud screeching of wheels.

#### LIGHTING

Except in a few houses used temporarily to relieve crowded conditions, there is no case of front lighting

or three-sided lighting in any regular classroom. Some special rooms, such as those used for kindergartens, domestic science, etc., have light on three sides. In the newer buildings windows are on one side only. They are of good size and reach well up towards the ceiling, but they are sometimes too far front so that light strikes into the eyes of some of the pupils. Windows should be arranged along the left wall beginning near the back, but not running all the way up to the front of the room.

In many schools, new as well as old, there are rooms which receive light from the north side only. Such lighting is pedagogically desirable but hygienically doubtful. North light is restful but lacks the health-giving qualities of direct sunshine. Contagious disease spreads among children by minute drops of mucus sprayed into the air in coughing or sneezing. The best way to render these drops sterile is to flood every corner of the schoolroom with sunshine. School buildings should, when possible, be placed so that every room may receive sunshine during some part of the day.

### BLACKBOARDS

Every regular classroom in Cleveland (except those in temporary quarters) is equipped with natural slate blackboards. This is an unusually fine record, and an evidence of wise investment. In some schools, first and second grade children are occupying rooms intended for upper grade children, and the black-



boards are consequently too high for them comfortably to write upon. A study should be made to locate these rooms. Where possible, boards should be lowered. In other rooms narrow platforms might be constructed so that little children would be able to write upon the blackboard without undue reaching and straining.

### FURNITURE

Nearly three-fourths of the schoolrooms are equipped with adjustable seats and desks, and more of the same type have been ordered. This is an excellent record. Care should be taken, however, not only to purchase furniture of good type, but—first, to see that desks and chairs are placed with the edge of the chair extending one and a half inches under the desk, so that children can sit comfortably well back on the chair; and—second, after every promotion period, to see to it that chairs and desks are raised or lowered to fit the needs of the children who have just been assigned to them. Teachers should be trained to notice incorrect seating and report it to their principals, and in addition regular inspection should be made by members of the medical inspection staff. These matters have not as yet received sufficient attention in the Cleveland system.

### SPECIAL ROOMS

The schools of Cleveland are unusually well supplied with auditoriums, gymnasiums, playrooms, swim-

ming pools, showers, teachers' rest and lunch rooms, dispensaries, and rooms for the kindergarten, blind, backward, manual training, domestic science, and open air classes. These rooms are well planned and usually well equipped. The dispensaries are especially interesting because in old buildings many of them represent an ingenious adaptation of waste corners to the needs of nurse and doctor. Newer buildings are planned so that the auditorium, gymnasium, playroom, pools, showers, toilets, and library can be opened to the public without opening the rest of the school. This makes such buildings particularly convenient for community center uses.

Libraries are frequently housed in basement rooms, portable buildings, and hallways. In the near future arrangements should be made whereby branches of the public library may be located on school property, but directly accessible to the public so that they may be open in the evening as well as during school hours.

### TOILET FACILITIES

Toilet facilities in the elementary schools are not extremely bad, but neither are they good. Rooms are frequently dark, crowded, poorly arranged, and ill smelling. They are well cared for by the custodians, but it is difficult to keep them clean or hygienic. A study of the toilet rooms in elementary schools leads to the following suggestions:

1. Wherever possible, seats should be placed around the walls of the room and urinals down the

center, because this arrangement avoids cutting off light from the windows. In the few schools where this has been done, improvement is marked.

2. Most of the newer buildings provide drinking fountains outside the toilet rooms. This practice is preferable to placing them inside, because it separates the children into groups, and lessens the tendency toward loitering and confusion.

3. Floors should not be of cement. A few of the newer schools have asphalt floors in the toilet rooms. This is wise because uric acid sets up a chemical action in cement which cannot be corrected, and for this reason cement should not be used near seats or urinals.

4. The members of the Survey Staff believe that in all new buildings toilets should be provided with doors, such as are now installed in the girls' toilet of the new Empire School. These should be arranged to swing in when not in use. Urinals should be separated by partitions. At present in most of the schools there are no doors or screens of any kind. The citizens of Cleveland would not tolerate such exposure in their own homes, and there seems to be no good reason why they should demand it of their children.

5. In planning toilet rooms in new buildings, a careful study should be made of individual flushing systems, in an effort to find something more satisfactory than the present system of latrines. Probably a more effective method would be the individual flush, where water is released by the removal of weight from the seat. The porcelain open-front seat

now being introduced into a few schools is a marked improvement over the old style wood.

6. Care should be taken to provide seats of different heights from the floor for different sizes of children. At present there is no such provision.

7. Metal urinals are now being replaced with porcelain and glass. This policy is strongly to be commended, and should be carried to a completion as rapidly as possible.

8. In some of the buildings toilet facilities are strikingly inadequate. Whenever extra classes are established in ground floor rooms, auditoriums, portables, etc., the provision of toilets should be correspondingly increased.

9. In planning new buildings, the board should consider locating toilets on upper floors as well as in basements. This makes the lighting problem much simpler.

## FIRE PROTECTION

There is probably no city in the country so large and so old as Cleveland where the danger of fire is so slight. All new buildings are fireproof. In old buildings basements have been completely shut off by metal or concrete ceilings, walls, and doors. Wooden stairs have frequently been replaced by fireproof stairs. Handrails have been supplied on each side. Square corners and alcoves at landings and exits have been cut off by wooden bars. Every room has been provided with an outside exit to the ground or fire escape. Fire escapes are commodious and of good

	BAD	POOR	FAIR	GOOD	VERY GOOD
SQUARE FEET OF FLOOR SPACE FOR EACH CHILD	12	14	16	18	
CUBIC FEET OF AIR SPACE FOR EACH CHILD	170	190	210	230	
PER CENT WINDOW AREA IS OF FLOOR AREA	10	15	20	25	
SQUARE FEET OF PLAYGROUND AREA FOR EACH CHILD	20	35	50	65	
NUMBER OF BOYS PER URINAL	55	45	35	25	
NUMBER OF BOYS PER TOILET SEAT	50	40	30	20	
NUMBER OF GIRLS PER TOILET SEAT	30	24	18	12	
CHILDREN PER DRINKING FOUNTAIN	130	100	70	40	

Diagram 27.—Some standards used in judging buildings

design. Many principals provide that children shall regularly use the fire escapes on clear days instead of going down stairs. (It would be well if this were made compulsory in all non-fireproof schools.) Attics are clean and kept locked. Fire alarms are plainly labeled. Every precaution is taken against panic. In guarding against the fire hazard, Cleveland has done a remarkable piece of work.

### HEATING AND VENTILATING

Heating and ventilating in Cleveland are probably as well handled as in any other large city. Engineers are doing the best they can, but here, as elsewhere, satisfactory results have not as yet been secured. The New York State Commission on Ventilation is now studying the problem, and it seems the part of wisdom for other authorities to suspend judgment on what constitutes the best school heating and ventilating system until the Commission publishes its final report. The engineers charged with this matter in Cleveland are holding their own plans tentative in nature, until the results of this study are made available.

### COSTS

The survey made a comparison of the costs of the Cleveland buildings with the costs of similar schools in Boston, Detroit, Newark, and St. Louis and reached the conclusion that this city is erecting modern socialized school buildings at a moderate

cost and is receiving large values in return for its investments. The details of this comparison are presented in full in the separate report on "School Buildings and Equipment." A summary of the results is given in Table 15.

TABLE 15.—COST DATA FOR 46 FIREPROOF ELEMENTARY SCHOOL BUILDINGS IN FIVE CITIES

City	Number of buildings	Average cost per classroom	Average cost per cubic foot	Average cost per pupil	Special rooms for 20 classrooms	Average cost per room special and class	Per cent for plans, specifications and inspection
Detroit	10	\$4,972	\$.156	\$125	7.4	\$3,629	4.76
Newark	9	6,641	.196	156	4.7	5,232	4.76
Cleveland	11	7,765	.171	175	13.5	4,678	3.42
St. Louis	7	9,054	.193	209	7.0	6,584	3.96
Boston	9	7,878	.256	210	6.2	6,012	9.10

### BUILDING PROBLEMS OF THE FUTURE

If the present rate of growth continues, in order to care adequately for its children under the present plan, the school board will have to erect one new schoolroom for every school day in the year. A modern schoolroom costs \$10,000. This means for new buildings alone an annual expenditure of over one and a half millions. In deciding how the building funds of the system shall be spent, there are four especially difficult problems to be met:

1. Schools must be located near the homes of the children. When the city grows or population shifts, new quarters must be provided to meet new needs.

2. Schools must be placed so that children will not have to pass dangerous grade crossings. Railways enter from 13 different directions, and cut through the city. Many of the crossings are protected only by watchmen and wooden gates. Schools must be so located that in going to them children will not run the danger of accidents while crossing railway tracks.

3. Cleveland is divided by several deep runs or gullies across which there are few bridges. Buildings must be placed so that children on one side will not be obliged to make a wide detour in order to go to school on the other.

4. Schoolhouses rapidly go out of style. Parents feel that they have the right to demand the best that is known for their children, and no matter how sound structurally a building may be, if it fails to provide gymnasiums, libraries, lunchrooms, and other modern features, they look upon it with disfavor. The board is faced by the necessity not only of providing new buildings to house increasing numbers of children, but of discarding old buildings and replacing them by others which will more nearly accord with modern ideas of correct educational housing.

#### FORECASTING FUTURE NEEDS

In order to provide adequate schoolroom facilities, the Board of Education must be able to estimate how many additional children may be expected in a given



year, and to what parts of the city they will go. One way to aid in judging such changes and trends in population is to use the school census which the law provides must be taken under the direction of the clerk of the board. By comparing results from year to year future growth can be predicted and new buildings planned accordingly, while smaller unexpected shifts can be handled through emergency methods during the summer vacation immediately following the census returns. The school census should be one basis for shaping the building policy of the board.

#### THE TESTING OF BUILDING POLICIES

There are two principles upon which building policy should rest. First, rooms should be built for use. No matter how loudly demanded they may be, rooms which are not going to be used should not be built. The school architect in making each new plan should ask himself, "Is this a good way to utilize this space? What definite purpose will it serve? Is there any better use to which it can be put?"

The second principle is that children should not be expected to fit the plan of the building, but buildings should be planned to fit the needs of the children. Just as teaching, supervision, administration, business policy, and other parts of the school system, so also the school plant must be plastic in character, changing and developing for one single purpose—to provide the best possible environment for

the children whom it serves. For, through all the complexity of modern education, the fact remains that schools and school systems exist for the sake of the children, and whatever educators do, must be for the ultimate purpose of meeting more fully the children's needs.

### CONCLUSIONS AND RECOMMENDATIONS

1. The school buildings of Cleveland are evidence of a wise and progressive policy that has grown in accordance with growing educational ideals.

2. The building policy has been guided by five watchwords of progress: education, economy, safety, health, and happiness.

3. Efficient work has been done in modernizing old buildings and the newer ones are unexcelled in design and quality.

4. There is probably no city in the country so large and so old as Cleveland where the danger from fire is so slight.

5. All new buildings are fire proof. Careful precautions have been taken in old ones.

6. The survey has gathered comparative data indicating that the city is erecting modern socialized school buildings at a truly moderate cost.

## CHAPTER XVII

# OVERCROWDED SCHOOLS AND THE PLATOON PLAN

(Shattuck O. Hartwell)

The problem of maintaining suitable housing conditions in a growing school system is persistent and always urgent. In Cleveland the problem is now acute both on the side of financial pressure and because of the fact that temporary accommodations are now in use for about 7,500 pupils.

### PART TIME PLANS

Within recent years efforts to secure better adjustment between buildings and curriculum have brought many experiments in the intensive use of the school plant. The best known of these newer plans for grade work is that in operation at Gary, Indiana. In order to increase building capacity, Superintendent Wirt has used the following methods in varying proportions:

1. Shops, gymnasiums, and an auditorium are added to the school building; playgrounds and school gardens are provided outside.

2. Through administrative readjustments all special rooms as well as all classrooms are used throughout the school day.
3. Several classes are accommodated simultaneously in auditoriums and gymnasiums.
4. Different groups of children come to school at different hours.
5. Libraries, churches, the Y. M. C. A., etc., are allied with the schools to the extent of caring for part of the children part of the time.

Gary is a new city. It was built with unusual rapidity in a new locality, and these innovations could be tried out without conflict with educational custom or traditions.

The true tests of these innovations are educational: numerical results must be regarded as secondary. The change most generally applicable in other localities and most likely to improve educational procedure and housing conditions is the development of the use of special rooms and equipment throughout the school day.

### THE PLATOON PLAN

This development has been worked out in the platoon plan. Under this plan the subjects in the curriculum are divided into two groups which may be termed the fundamental or regular group and the auxiliary or special group. Each regular teacher takes charge of two groups of pupils, having each for one-half of the school day. The regular teacher is relieved of responsibility for the special subjects.

These are taught by special teachers who take charge of successive groups from different grades. In this way, both regular and special rooms are used steadily throughout the day.

The platoon plan aims to secure:

1. Better instruction and improved results in special branches without sacrificing the fundamental subjects of the curriculum.
2. The filling of important gaps in the present curriculum without the increase of cost that often prohibits such additions.
3. A more constant use of the whole school plant, and especially of facilities usually considered "extras," such as gymnasiums, auditoriums, and manual training rooms.
4. A larger enrollment within the same building.

The methods used by the platoon plan include:

1. Rearrangements of the teaching force.
2. A slight change of emphasis on teaching values.
3. The increase of work in physical training and the arrangement for other lines of auxiliary work, such as music and drawing, in charge of special teachers.
4. A new division of the daily time-schedule which may or may not involve lengthening of the school day.
5. Devices and equipment to facilitate more intensive use of individual rooms.

The plan may be made operative in all grades from the first to the eighth, or in upper grades only, according to local situation and needs. Where the methods of first grade work have been modified by

kindergarten influence, that grade may wisely be left under individual teachers.

A grade room is required for each double group of classes. Each class occupies this room during half of the school day. Enough special rooms and occupations must be provided to accommodate one-half of the classes throughout the day.

These accommodations will include gymnasiums, playrooms, auditoriums, and special rooms for music, art, literature, manual training, domestic science, library work, or such other subjects as the local authorities wish to emphasize. From the nature of some of these occupations, and because classes are in these rooms for short periods, rooms hitherto unavailable for regular use—such as ground-floor rooms—may be utilized, while special rooms previously saved for occasional classes may be used through the entire session.

The platoon plan concentrates preparation, effort, and attention for both pupil and teacher.

#### LENGTH AND ARRANGEMENT OF DAY

The platoon plan does not change to any considerable extent the conditions of dividing pupils into recitation divisions for the regular rooms, nor does it necessarily involve a longer school day. Each of these factors is to be settled, not as a necessary part of this plan, but on the basis of the educational advantages to be secured by one procedure rather than another.

Rearrangement of the time-schedule involves only

slight variation in the amount of time given to regular subjects. Three factors help to secure this result:

1. Transfer of a part of the regular subjects from the regular rooms to the special rooms.
2. Absorption of recesses into the time allotted for physical training.
3. Alternation of certain subjects, such as music and drawing. On a two-weeks' schedule these subjects can be given a fair allotment of time and a period long enough to secure definite results in each recitation.

The readjustment of time divisions gives pupils a day of more variety and interest. Practical experience does not show the scattering of effort that is sometimes feared. Supervision is concentrated and reduced with good effect.

#### EQUIPMENT OF SPECIAL ROOMS

Two consecutive half-grades will usually occupy a grade room. Hence practically no change in seating arrangement is needed in regular rooms. Equipment, such as lockers or boxes, must be added to insure a separate storing place for the books of each pupil. In the special rooms desks or chairs of two or three sizes must be provided. For the literature and music rooms movable furniture is preferable.

#### COSTS

Five factors must be considered in comparing the cost of running a school in the conventional way with

the cost of operating the same school after it has been reorganized on the platoon plan. These five factors are expense of equipment, supplies, teaching, supervision, and building space.

The expense of altering the equipment of a modern building preparatory to installing the platoon plan may often be held down to \$1,000. The cost of supplies under the platoon plan is somewhat less than under the ordinary plan.

Teaching costs under the platoon plan will be the same as under the old plan if the size of classes remains unchanged. If playground groups are doubled, the teaching cost will be reduced.

Economies in the cost of supervision under the platoon plan are both of the direct sort, resulting through decreased expenditures, and of the indirect sort, resulting from increased efficiency.

The actual amount of room saved and the consequent saving of investment cost in buildings of from 10 to 24 rooms will vary from 15 per cent to 35 per cent, according to the construction of the building and the application of standards of distribution of pupils in classes. The smaller saving may sometimes reflect truer economy from the educational point of view.

#### EQUIPMENT OF BUILDINGS

The saving in investment justifies liberal provision for the equipment needed to meet changed conditions. Four sorts of equipment are essential. These are equipment for comfortable seating, care of wraps,



storage of books, and for an adequate signal system. Failure to prepare for these needs will jeopardize any experiment with the platoon plan, since small centers of friction may easily defeat the application of good methods.

#### PROBLEMS OF ADMINISTRATION

The responsibility for keeping attendance and class records of double groups should be apportioned between regular and special teachers.

The most difficult problem is to determine the number of pupils to be assigned to double groups. From 70 to 75 as an average will result in some saving of room and will assure good results in teaching. Higher numbers will produce greater immediate economies at the cost of poorer results.

#### BUILDING PROBLEMS IN CLEVELAND

Cleveland's buildings are above the average in accommodations and up-keep and many of them have good facilities for special lines of instruction. In the 105 buildings listed in the 1915 directory of the Board of Education, there are 30 manual training centers, 91 auditoriums, and 43 gymnasiums. Playgrounds are larger than those usually found in cities. Thus the city has a large investment which the platoon plan would cause to yield increased returns.

The use of special facilities for their intended purposes is now infrequent and desultory. Playground use is only partly developed. At every playground visited by the writer the special equipment was found

dismantled and the movable parts stored in the school buildings.

The Ohio tax legislation, a low valuation of local property, and the rapid growth of the city, combine to make the present funds for building purposes entirely inadequate. The chance to demonstrate a saving by using the platoon plan is clearly available. Indeed, it will require careful administration to avoid the tendency to secure a greater financial saving than the best educational standards will warrant.

### TEACHERS FOR THE PLATOON PLAN

The regrouping of the teaching corps into regular and special teachers, as those terms are used in this report, will be a matter of little difficulty and will involve slight hardship to teachers if the change is undertaken gradually. Experienced teachers with special equipment for teaching music, drawing, and even physical training, can be found in considerable numbers in the present force. Through special courses in the training school and care in filling vacancies further needs may be met.

### PRELIMINARY EXPERIMENTATION ESSENTIAL

Experiments with the platoon plan should first be made in a few schools. This will develop a body of teachers who can help in the practical adjustments needed as the plan is extended.

During the progress of the school survey, Cleveland undertook an experiment with the platoon plan in one of its largest schools. Ample provision was

made for equipment and personnel and the work went forward under most favorable auspices. At the time of publishing the present report, the results of this experiment are most hopeful and the Board of Education has taken steps to reorganize several other schools on the platoon plan.

#### CONCLUSIONS AND RECOMMENDATIONS

1. The so-called Gary plan for utilizing school buildings is not a single plan, but rather a combination of five varying factors.

2. The true tests of the innovations introduced into the typical school plant are educational. Numerical results must be regarded as secondary.

3. The most valuable savings are to be secured through using special rooms and equipment throughout the school day.

4. This development has been worked out in the platoon plan.

5. Rearrangement of the time schedule involves only slight changes from current practice in the amount of time given to the regular subjects.

6. The platoon plan brings about small economies in expenditures for teaching.

7. It results in considerable economies in the cost of supervision.

8. Savings in room vary from 15 to 35 per cent.

9. The cost for equipment is increased for each building, but the per capita expenditure is reduced.

10. Experiments with the platoon plan should first be made in a few schools and never until careful and thorough preliminary preparations have been made.

## CHAPTER XVIII

### FINANCING THE PUBLIC SCHOOLS

(Earle Clark)

In the past twelve years the expenditures of the Cleveland Board of Education have mounted rapidly. The Board spent \$2,360,000 in 1902-03, while the figure for 1913-14 was \$4,770,000. In this period school revenues advanced from \$2,110,000 to \$4,510,000. Diagram 28 shows the course of revenue receipts, of expenditure for operation and maintenance, and of outlay for permanent improvements.

The revenues of the Board of Education have grown less rapidly than its expenditures. As a result, there are at present deficits in the tuition and contingent funds which together amount to over \$700,000. In recent years the board has been forced to borrow money on short term notes in order to meet its current obligations.

An inquiry as to the causes of this unsatisfactory condition and as to the remedies which should be applied, leads to consideration of the following subjects: (1) The amounts spent for all school purposes; (2) The distribution of expenditures for the operation and maintenance of schools; (3) Economies in administration; (4) Means of increasing school revenues.

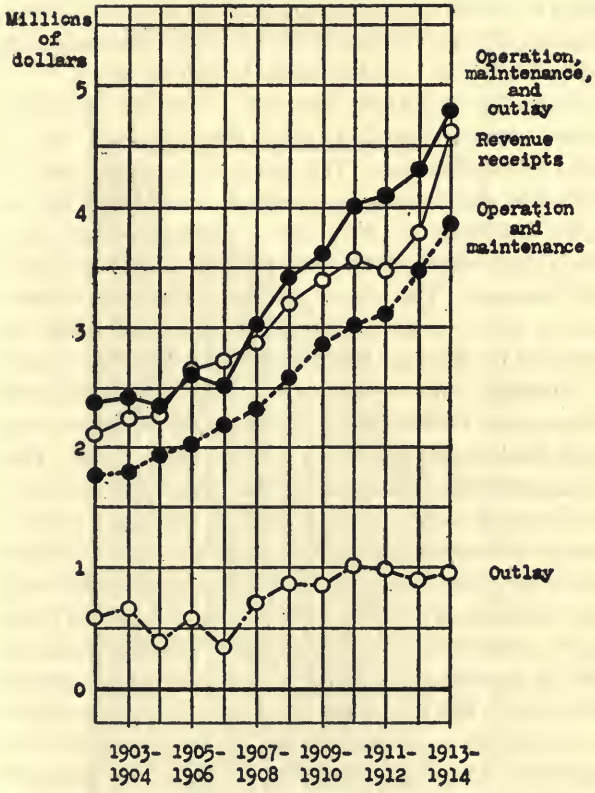


Diagram 28.—Expenditures and revenue receipts of the Cleveland Board of Education. 1902-14

EXPENDITURES FOR ALL SCHOOL PURPOSES

The expenditures of the Board of Education for all school purposes and for the different classified pur-

poses of school operation and maintenance have been measured by comparing them with the corresponding expenditures of 17 other large American cities.

In many important respects Cleveland's educational expenditures fall below the standard set by cities of similar size. The amount spent for operation and maintenance of schools per inhabitant is about the same in Cleveland as in the average city, while the amount spent per \$1,000 of wealth is above the average. The most significant basis for comparing school expenditures in the different cities is supplied by figures showing amounts spent per child in average daily attendance. Ratios of this sort indicate the relationship between expenditure and the work that is actually being done in the schools. For permanent improvements of the school plant Cleveland spends rather less per child in average daily attendance than the average city. Moreover, Cleveland spends less than the average city for the operation and maintenance of schools. In 1913-14 Cleveland's per capita expenditure for operation and maintenance was \$46.38, as compared with an average for the group of cities of \$49.04. This relatively low expenditure is partly due to the fact that free textbooks are not supplied. The expenditures of the different cities for operation and maintenance are shown in Diagram 29.

#### DISTRIBUTION OF EXPENDITURES FOR THE OPERATION AND MAINTENANCE OF SCHOOLS

Analysis of figures for operation and maintenance per child in average daily attendance shows that

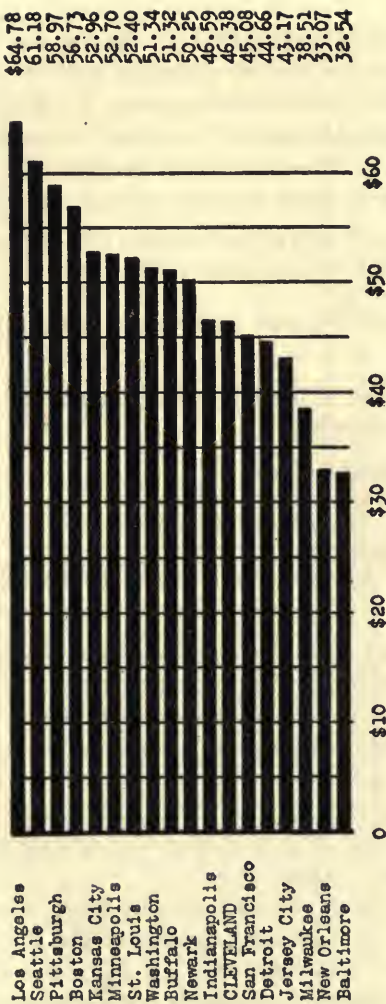


Diagram 29.—Expenditure per child in average daily attendance for operation and maintenance of public schools, for Cleveland and for 17 other cities

Cleveland stands relatively high among the cities in expenditure for certain purposes and relatively low in expenditure for other purposes. A comparison of classified expenditures in Cleveland with averages for the group of cities is made in Diagram 30.

Cleveland spends more than the average city for:

- Office of board and other business offices
- Wages of janitors and other employees
- Fuel
- Maintenance—repairs, replacement of equipment, etc.

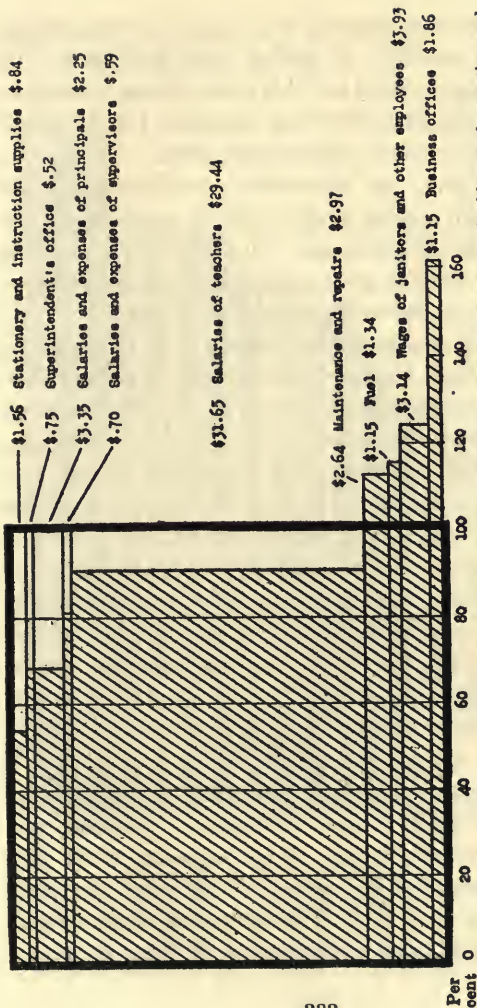
The items for which Cleveland spends less than the average city are:

- Superintendent's office
- Salaries and expenses of supervisors
- Salaries and expenses of principals
- Salaries of teachers
- Stationery, supplies, and other instruction expenses

This list shows that Cleveland ranks much higher in the group of cities with respect to expenditure for business purposes than with respect to expenditure for such educational purposes as salaries of teachers and salaries and expenses of principals. For every important business purpose Cleveland spends more than the average city; for every important educational purpose it spends less.

The employment of a director of schools, who has charge of all the business activities of the Board of Education and of the construction and maintenance of the school plant and is entirely independent of the





The area of the square represents the per capita expenditure of the average city for all principal items of operation and maintenance. Expenditures for each of the nine items are indicated by the areas of the horizontal rectangles into which the square is divided, while Cleveland's expenditures for these same items are represented by the areas of the shaded rectangles. For any given item, the ratio of Cleveland's expenditure to the expenditure of the average city is shown by the ratio of the shaded portion of the rectangle to the width of the square. The sum of the shaded areas represents Cleveland's total per capita expenditure for the nine items. Of the figures accompanying the titles, the first indicates the expenditure of the average city, and the second Cleveland's expenditure.

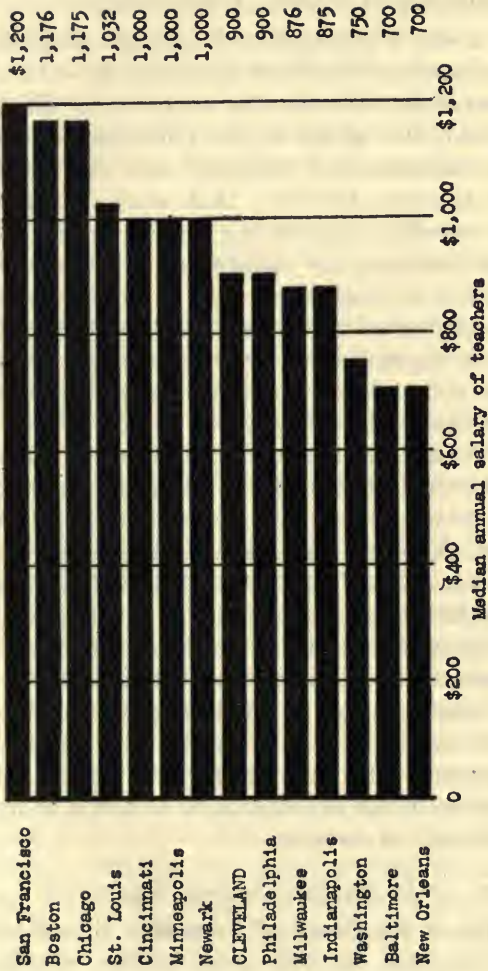
Diagram 20.—Cleveland's expenditure per child in average daily attendance for nine principal items of operation and maintenance, compared with average expenditures for a group of 18 cities

superintendent of schools, is a distinctive feature of Cleveland's system of school administration. It seems not impossible that this plan, through emphasizing business activities, has obscured the financial needs of distinctively educational work.

In Cleveland, as elsewhere, teachers' salaries constitute the largest single item of expenditure for operation and maintenance. In expenditure for this purpose per child in average daily attendance Cleveland stands twelfth in a group of 17 cities.

Analysis of available data shows that Cleveland's low expenditure for teachers' salaries is mainly due to over-large classes in elementary schools. In Cleveland the salaries of teachers in elementary schools, despite recent increase, are somewhat lower per teacher employed than in the average city, while the average salary paid secondary school teachers is slightly above the prevailing standard. Diagram 31 shows the salaries of teachers in elementary schools. The salaries of principals of elementary schools are distinctly lower in Cleveland than in the average city.

It seems clear that the unsatisfactory condition of the finances of the Cleveland school system is not due to excessive expenditures. The Board's relatively large expenditures for business purposes are warranted by the needs of the schools, while the amounts spent for important educational purposes are distinctly too low. The situation demands an increase rather than a diminution in total disbursements.



Half the teachers employed in each city receive the salary specified or less

Diagram 31.—Median annual salaries of teachers in elementary schools, for Cleveland and for 13 other cities

## ECONOMIES IN SCHOOL ADMINISTRATION

Whether a city's expenditure for school purposes is large or small, a Board of Education should endeavor to obtain full value for every dollar spent. In the main, the affairs of the Cleveland school system are administered efficiently and with economy. It appears, however, that small amounts might be saved by eliminating duplication in the keeping of accounts, by utilizing superfluous cash balances, and by obtaining larger interest returns on money deposited in banks. A substantial gain in efficiency might also be made through the adoption of the platoon system of school administration.

Most of the bonds issued by the Board of Education have been issued for uniform terms of 20 years, and the payment of principal and interest has been provided for by the creation of a sinking fund. It seems that the board would do well further to consider the advisability of issuing serial bonds, thus doing away with the necessity of maintaining a sinking fund after the dates of maturity of bonds already issued.

But the most favorable results that could be obtained through changes in administrative methods would not materially relieve the board's financial embarrassment. The only satisfactory remedy for the difficulties of the situation is to be found in increasing the school revenues.

## MEANS OF INCREASING SCHOOL REVENUES

The income of the Board of Education should be sufficient to meet the real needs of the schools.

Stated in general terms, these needs consist in (1) adequate expenditure for operation and maintenance, (2) adequate expenditure for permanent improvements, (3) provision for paying for the greater part of necessary improvements from current revenues rather than from the proceeds of bond sales.

The sources of the board's revenue are: income from the Western Reserve Fund, income from state taxation, income from local taxes, and earnings. Of these sources, the first and the last are of relatively small importance. Local taxes yield over 90 per cent of the board's total income.

Funds raised by state taxation for school purposes are apportioned among the communities of the state on the basis of school census returns. Cleveland has not always received its maximum income from this source because of the incompleteness of the school censuses, but there has lately been a gain in accuracy. By taking further steps to obtain a complete enumeration of all children of school age within the school district, the board will be able materially to increase its revenue.

The board's income from local taxation is limited by provisions of the state law. The law provides that boards of education, except as authorized by vote of the people or to meet interest and sinking fund charges, shall not levy taxes at rates in excess of five mills on the dollar. Moreover, the total tax for all ordinary expenses of government, including interest and sinking fund payments and expenditures

specially authorized by the electors, imposed by all governmental bodies within each taxation district—the county, the municipality, and the board of education,—is limited to a rate not in excess of 15 mills on the dollar. In practice it is the second of these legal limitations that has restricted the income of the Board of Education.

Boards of budget commissioners, consisting of county officers, have some discretionary authority in adjusting the budgets of the several governmental bodies. The decisions of these boards affect, within definite limits and under certain circumstances, the incomes of boards of education. The rulings of the local budget commissioners have been, on the whole, distinctly more favorable to the Board of Education than to the other governmental bodies within the taxation district. Diagram 32 shows the relation of school expenditures to total municipal expenditures in Cleveland and in 18 other cities.

The most recent assessment of Cleveland property was made in 1910. In the past few years, property has been assessed by deputies of the State Tax Commission; but a new law provides that the assessments are to be made in the future by locally elected officials, working under the direction of the county auditor.

For a considerable part of its income the Board of Education is dependent upon special taxes, which, under the law, must be authorized at intervals by the voters of the district. The revenue of the schools may be reduced as the result of some future election.

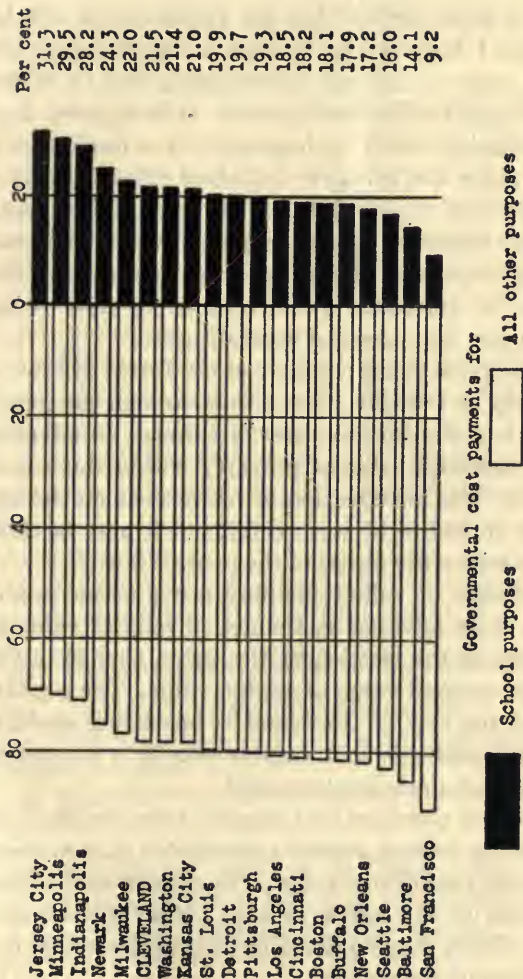


Diagram 32.—Proportion of total governmental cost payments devoted to school purposes in Cleveland and in 18 other cities

As it is never certain that the authorization will be continued beyond the current term of years, the board finds it difficult to formulate and to follow a far-sighted educational policy. It is believed that the situation would be improved by a modification of the state law, giving to boards of education wider powers and responsibilities in determining what taxation is needed for the support of the schools and freeing them from the necessity of appealing to the voters for periodical authorizations to raise funds for routine and essential expenditures.

An increase in the revenues of the Board of Education may be brought about either through the repeal of the law limiting tax rates or through an advance in the assessed value of property within the school district. The modification of restrictions on the tax rate is an end to be worked for, but it may be difficult to secure the repeal of the present law.

A change in valuations may occur either as the result of an advance in the actual market value of property in the district, or through a change in the ratio of assessed value to market value. The population of the city of Cleveland is increasing rapidly. It seems probable that taxable wealth is increasing also, and at a rate not less rapid.

Ohio law provides that taxable property shall be assessed at its true market value rather than at some fractional part of this value. The enforcement of this provision of the law rests with public officers, and these officers may be aided in their duties by the cooperation of the public.



## CONCLUSIONS AND RECOMMENDATIONS

1. The finances of the Cleveland Board of Education are in an unsatisfactory condition.

2. In the past 12 years expenditures have mounted rapidly. The revenues of the Board of Education have grown less rapidly than its expenditures.

3. There are at present deficits in the tuition and contingent funds which together amount to over \$700,000. In recent years the Board has been forced to borrow money on short term notes in order to meet its current obligations.

4. The expenditures of the Board of Education are not excessive; they are lower than the average expenditures of large American cities.

5. In the distribution of expenditures for school operation and maintenance, business functions have, apparently, been favored at the expense of educational functions.

6. It should be possible to effect economies, or to increase efficiency of administration, by:

a. Eliminating duplication in the keeping of accounts

b. Utilizing superfluous cash balances

c. Obtaining larger interest returns on money deposited in banks

d. Adopting the platoon system of school administration

7. In creating bond issues to obtain money for the construction of school buildings serial issues should be used in preference to issues for uniform terms of years.

8. The most favorable results that could be obtained through changes in methods would not solve the financial problems of the Board of Education.

9. A substantial increase in school revenues is urgently needed.

10. Local taxes constitute the principal source of the income of the Board of Education.

11. The Board's income from local taxation is limited by provisions of the state law.

12. Increased revenues can be secured through modification of the law limiting taxation for school purposes or as a result of an advance in the assessed value of taxable wealth.

## CHAPTER XIX

# SCHOOL ORGANIZATION AND ADMINISTRATION

(Leonard P. Ayres)

For many years educational conditions in Cleveland have been unsatisfactory. There has been a series of administrations with differing policies and a succession of superintendents having widely diverse methods and aims. There has been much criticism of school procedure in the public press and in popular discussion.

This report on organization and administration has only one purpose, and that is to answer the double question, "What is the matter with the Cleveland schools and what should be done to remedy the situation?" The difficulties pointed out and the remedies suggested are many and diverse, but in final analysis all the difficulties have their origin in the methods of board control and all the suggested remedies are directed toward changing those methods. Some of the suggested remedies are immediately available and may be enacted by the board itself, while others are dependent on changes in state law and must be postponed to the future.

## METHODS OF BOARD DETERMINE CHARACTER OF SCHOOL SYSTEM

Attention is called to the fundamental fact that the quality of the public education that Cleveland receives is largely determined by the leadership that directs it. Here, as in every other human organization, the character of the whole is conditioned, shaped, and largely determined by the person or the board at the head. In this city it is now the Board of Education rather than the director or superintendent that occupies this position of leadership and is responsible for the results.

At the present time and for some years past the Board of Education has been mainly engaged in dealing with little problems of specific application instead of considering and deciding large problems of general policy. Because of this the executive officers of the board are mainly occupied in referring such minor matters to the board, being authorized to act upon them, acting on them, and being confirmed by the board for having so acted. Concerning most of these minor matters of business and educational detail the board members can have no intimate knowledge although they are called upon to render decisions concerning them. In addition to the many hundreds of matters so referred to the board, there are other much more numerous and still smaller decisions continually reached by the executive officers in the conduct of their daily work. Nevertheless, except where the law or a board rule decides the matter, there is no way by which any one can be sure which matters are

to be referred to the board and which are to be decided without being so referred. For this reason there is always doubt as to where the authority for many necessary acts and decisions is really located.

Because of this condition there exists at headquarters a chronic vagueness as to just who is responsible for reaching a decision concerning any question that is a little out of the ordinary. As a result of this vagueness concerning new problems, and because all concerned feel a sense of greater security concerning old ones, we find most of the board members and board employees devoting themselves to specialized interests and avoiding contact with new problems.

Since this condition characterizes the leadership of public education in Cleveland, its results permeate the community and the school system. As the matters considered by the board are mostly those of specific detail, the newspaper reports of board meetings deal with just these considerations and the public discusses them under the impression that they constitute the real problems of public education. Since the employed executives at the head are not quite sure as to just what they have power to do and are responsible for doing, they cannot definitely delegate authority and responsibility to their assistants and subordinates. This same condition extends all the way down the line. The general result of it all is a community interest and an educational system characterized by over-emphasis on differences concerning minor matters. Combined with this is the habit on the part of almost all concerned of thinking that

some one else should be responsible for facing the real and larger problems.

This is a drastic charge to make in such sweeping terms, and it does not fairly represent the attitude of every individual in the school system, for there are marked exceptions to the general condition described. It does, however, seem to indicate the nature of Cleveland's great educational problem and many instances and illustrations in corroboration of this are given in the report of which this is but a brief summary.

### WHAT THE BOARD SHOULD DO

If the present educational troubles of the city are due to the methods of the Board of Education, then the first step in remedying them is for the board to decide what its activities ought to be. Reduced to simplest terms these may be stated as follows: The board should decide what it wants to have done, select people to do these things, study results to see how well they are being done, and keep telling the public about the problems faced and progress made.

To put this simple formula into effect involves ultimately almost every reform that has been suggested. They are not all immediately available, but the more essential steps may be taken at once if the board decides to do so. It is worth while to consider in some detail the different steps involved in such a program of reform and to note which ones are at once possible of accomplishment and which must be postponed until changes in state law have been secured.

## HOW THE BOARD SHOULD BE SELECTED

Under the present law board members are chosen at popular elections held at the same time as the elections for city officers. It is clear that this is not the wisest method of selecting a board of education. In the excitement of the general election the welfare of the schools becomes temporarily a matter of minor consideration and school interests become obscured by political interests.

A much better way is to hold the school elections at a separate time from the other elections. This change has been put into effect in a number of cities and has been found a great improvement over the old way. If the school elections are held quietly each spring in public school houses and with a simplified form of ballot, it is found that the expense is slight in comparison with the beneficial results that are brought about.

Another device for securing the same results is to have the board members appointed by the mayor or elected by the city commissioners instead of having them elected by the people. Under a commission form of government, election by the commissioners gives exceedingly satisfactory results, but under the ordinary form of city government popular election on a special election day is probably the best plan.

Under any plan of election or appointment it is of the utmost importance to secure board members of first-class ability. This involves the selection of a rather unusual type of citizen. The efficient board of education does its work by deciding on problems

of policy, expansion, and expenditure and it employs skilled experts to administer the details. The valuable school board member is the one capable of doing these difficult things. In general such efficient board members are men who are successful in handling large and difficult undertakings. They are often merchants, manufacturers, bankers, contractors, and professional men of large practice. Such men can generally think independently, explain the reasons for their actions, take the advice of experts, and spend money intelligently.

Many students of municipal government believe that it would be better to do away with boards of education entirely and trust the direction of the schools to a superintendent who would have something of the same relationship to the work as exists between the chief of police or the chief of the fire department and their assistants and subordinates. If the proper work of the board of education were to deal with a mass of routine business detail, this view would be sound and the board of education might well be dispensed with. In the opinion of the Survey Staff a board of education is needed in this city simply because its proper work is so very different from the conduct of routine business details. To an exceptional degree the educational system of the city demands continuously intelligent policy-making activity. The city is growing with unremitting rapidity. Its economic life is exceptionally varied and mobile. New and large alien communities spring up almost periodically and in unexpected places. All



these conditions combine to make it necessary that its educational government shall be flexible and adaptable. It is more likely to have these qualities if it has the advantages of lay counsel than if its policies are exclusively decided by its professional officials. A requisite for unbroken progress in public government is to go forward rapidly enough to enlist the confidence and support of the people, but not so rapidly as to arouse their suspicion and distrust. In the conduct of public education the function of the layman is to moderate the transports of the experts. It is to keep the professional schoolman from exceeding the educational speed limit.

All this is far from meaning that the deliberative work of the board should be limited to telling the superintendent what the public wants, and the work of the superintendent limited to putting these orders into execution. In addition to his work as executive, the main business of the superintendent is to think, to plan, and to propose, and the business of the board is to make decisions about these proposals. This is the way that educational progress is made, but if the superintendent and the board successfully unite in this kind of team-work they will constantly be taking forward steps that will appear as questionable innovations to the public at large. Because of this fact one of the most important tasks of the board consists in a continuous policy of public education for the purpose of carrying the community. One of the essentials in this process is full discussion in board meetings of educational policies and contemplated important changes.

The remedy for this part of the problem is a double one. In the first place Cleveland ought to give the greatest care and attention to the selection of board members. In the second place the city should endeavor to secure from the state legislature permission to provide for the election or appointment of board members by some method other than through elections held in conjunction with municipal elections. The board on its part should bear constantly in mind the importance of carrying the community.

### BOARD SHOULD DELEGATE DETAILS

A large part of the first three chapters of the full report is devoted to an analysis of the business and procedure of the board. The results show that the board transacts a great deal of business mostly related to the business management of the system. Most of the time and energy of the board is spent in the faithful, monotonous, unanimous transaction of routine details. Little time is left for considering matters of educational policy. Moreover, the amount of such business transacted is growing so rapidly from year to year that some reform of board procedure will be essential before long. This growth is illustrated in Diagram 33.

Part of the reason for this situation is to be found in the state laws which require the board to deal with many matters of routine which would be much better delegated to its employed officials. Nevertheless it is clear that the bulk of such business could be greatly reduced through a careful and vigorous attempt by

the board to limit, combine, and condense the items of routine detail. Wherever possible resolutions should be printed and read by title and brief instead

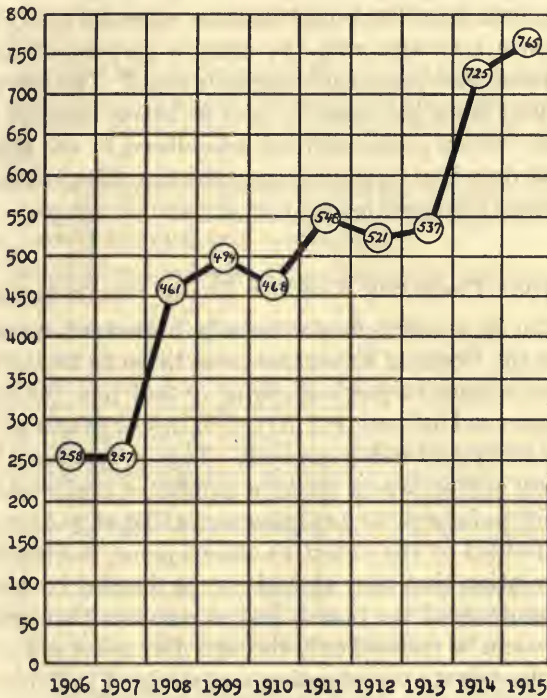


Diagram 33.—Number of roll call votes each year for 10 years

of being read aloud in full. The executive officers of the board should not be permitted to introduce needlessly numerous or complex communications or to

take up the time of the board by referring to it matters that they should properly decide themselves.

The problem that the board faces in attempting to divest itself of detailed routine calls for two remedies. The first is for the board to make a careful study of its own activities with the definite purpose of condensing, abridging, and delegating detail. The second remedy is for the board to lend its hearty support to every wisely considered bill introduced in the state legislature that has as its object the simplification and systematizing of the conduct of board business.

#### SCHOOL PROBLEMS REQUIRE BOARD DELIBERATION

There is another fundamentally important reason why the Board of Education must by some means or other change its methods so as to find time for discussion and deliberation in regular meetings and with the full membership present. This is because the school system is now facing a number of problems of policy so far-reaching in importance that they cannot be decided by the executive officers alone, so difficult of solution that they should not be decided by subcommittees of the board, and so complex that solutions can be reached only through discussion and not by the private investigation and study of individual members. Among such problems the following are typical:

The city has academic, technical, and commercial high schools and soon more high school accommodations must be provided. Is the best policy to build

another school of one of these three types, and if so of which type? Or would it be better to build a high school of music, or a high school of art, or a high school of agriculture? Or would it be better to change the present high schools into cosmopolitan high schools?

The city has experimented with junior high schools for one year. What are the results of the experiment and should the system be extended throughout the city?

The city has experimented with the platoon plan for one year. What are the results of the experiment and should the system be extended?

Should Cleveland adopt the Gary plan in whole or in part?

Should school libraries be located in each junior high school? In each elementary school? Should branches of the public library be located in school buildings or in separate buildings?

Should mentally sub-normal children be segregated in special buildings and physically exceptional children of normal mentality taught in classes in regular school buildings, thus reversing the present policy of the system?

Should a new commercial high school be erected or commercial courses be established in all high schools, and in either case should boys and girls receive the same training?

By what methods may the city best solve the problems of teaching English to non-English-speaking immigrants?

The city now needs annually many more new teachers than there are graduates from the local normal school. Shall the city enlarge the normal school or secure part of its teachers from outside?

If it follows the latter course, how may it locate and select the best teachers?

Changes in the salary schedules of teachers have been planned to go into effect next fall. By what methods may salary increases be made to stimulate professional improvement and reward teaching skill?

How can the city make sure that the elementary principals keep abreast of modern educational progress?

How can the system secure sufficient revenues to place its finances on a "pay as you go" basis?

Should new school buildings include shops, auditoriums, swimming pools, gymnasiums, and the like, and does the use of such special facilities justify their great expense?

Should the compulsory attendance law be so interpreted as to compel boys and girls to remain in school until they are 15 or 16, even if they graduate from the eighth grade before reaching these ages?

Such questions as these require for their solution the careful consideration and mature deliberation of the whole board. In order to be free to discuss and decide them, the board needs to reform its procedure so as to spend less of its time in disposing of the great mass of matters that do not need discussion or deliberation.

#### DIRECT ACTION AS A SUBSTITUTE FOR COMMITTEE ACTION

In Chapter III of the full report a considerable section is devoted to considering committee organization and the way in which the board transacts its

business through its committees. As a conclusion of this consideration the statement is made that the present procedure through committees is one of the factors mainly responsible for loading up the board with a mass of routine and detailed work. There is ample evidence that the board's business would be far more simply and readily conducted if most of it were transacted directly by the board as a whole without being referred to the committees. The recommendation is there made and is here repeated that the Board of Education consider this problem in connection with the recommended study of its own procedure. By this means an important improvement could be brought about without waiting for new legislation.

#### UNIT INSTEAD OF DUAL ORGANIZATION

A considerable part of the third chapter of the report is devoted to a consideration of the inseparability of business and educational matters. This is important in Cleveland because at the present time the Board of Education is so organized that there are two major independent departments under two independent executives of equal rank. One of these is the business department under the Director of Schools and the other is the educational department under the Superintendent of Schools. This form of organization is in considerable measure responsible for the general vagueness as to responsibility and authority that characterizes the system. The business department

is steadily growing in relative importance and threatens to dominate the school system. Already Cleveland spends decidedly more than other similar cities for the business activities that directly concern the work of the Director of Schools and decidedly less than other similar cities for the educational purposes immediately related to the work of the superintendent. The conduct of educational affairs would be bettered by substituting a unit system of control under the leadership of one man for the present dual system under the leadership of two men. If this fundamental change is not made, the board should at least effect such a reorganization as will do away with such overlapping of authority and uncertainty as to responsibility as is referred to in the closing sections of Chapter III of the full report.

The suggested reform is one that can be brought about under the existing law. It is not so essential as the reform of board procedure, and many of the present undesirable tendencies could be checked by administrative readjustments and without abolishing the office and department of the director.

In this connection attention must be called to the fact that the salary of the superintendent in this city is inadequate. The average salary of superintendents of schools in cities of 250,000 or over is approximately \$8,000. In Cleveland it is only \$6,000. With such cities as New York, Chicago, Philadelphia, Boston, Pittsburgh, Detroit, and Cincinnati paying their superintendents salaries of \$9,000, \$10,000, and \$12,000, this city cannot expect to secure and retain



the services of equally able leaders without paying a corresponding salary. There are cities of scarcely more than 20,000 inhabitants that pay their superintendents the same salary as is paid by this city of three-quarters of a million.

#### AUTHORITY AND RESPONSIBILITY SHOULD BE DEFINITELY LOCATED

There should be worked out a systematic plan for the definite placing of authority and responsibility throughout the school system. The purpose of such a plan would be to bring about a condition under which each person in the system would know just what he or she was responsible for doing. The object would be to make the impersonal rule of duties and responsibilities take the place of the personal rule of superiors over subordinates. This reform is one which would largely come as a consequence of adopting the several reforms that have been advocated.

#### FREE TEXTBOOK SYSTEM SHOULD BE ADOPTED

In Cleveland textbooks are adopted for five-year periods, purchased by the Board of Education, and sold to the pupils. Since the expense is borne individually by the parents, it has assumed extraordinary importance and changes in textbooks are secured only with difficulty. This results in a stability of the textbook lists that in turn makes it most important for the textbook publisher to have his books placed on

the accepted list when the five year adoptions are being made.

These conditions combine to produce on the part of the textbook publisher a periodic intense interest in the results of school selections. As a result publishing firms have in the past wielded large influence in the election of school board members and executive officers.

For the purpose of the present study it is fair to say that during the period from 1902-06 the work of the schools was directed by Superintendent Moulton; during that from 1907-12 it was in charge of Superintendent Elson; and during the period from 1913-15 it was headed by Superintendent Frederick.

The principal facts with respect to textbook purchases during this period are shown in Table 16 and Diagram 34. Attention is called to some general facts concerning textbook purchases during this period. The average expenditure was about \$60,000 a year. The per capita cost was about 88 cents per child enrolled in the day schools. The total annual purchases varied from a little over \$23,000 to nearly \$114,000, and the per capita expense varied from 40 cents per child in 1904 to \$1.78 in 1907.

During this period books were purchased from 38 different companies, but so many of the orders were given to a few firms that the seven publishing concerns mentioned in Table 16 secured nearly 80 per cent of the business. The sharp fluctuations in the amount of business done by the different companies in different years are shown by both table and dia-

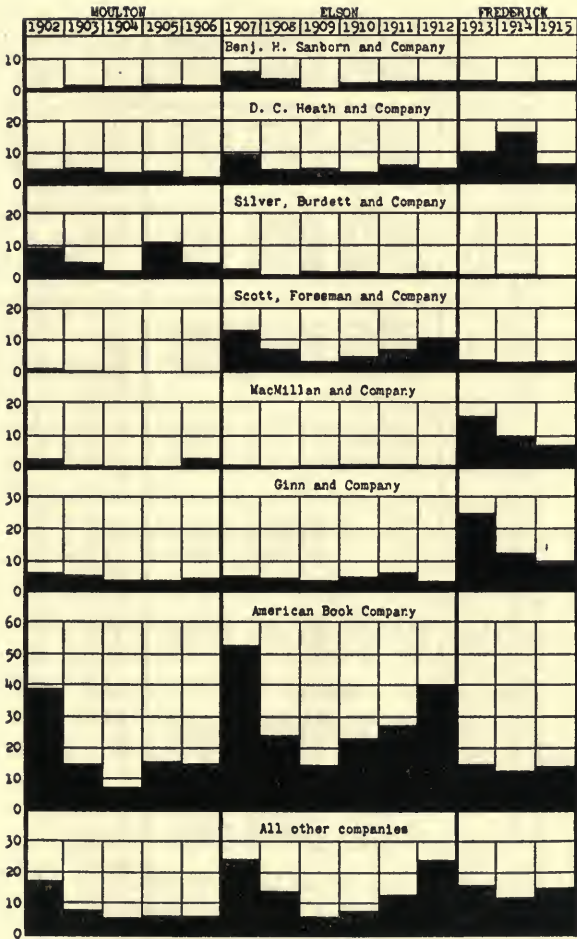


Diagram 34.—Amounts of textbook purchases (in thousands of dollars) from various publishers over a series of years

TABLE 10.—PURCHASES OF BOOKS FROM DIFFERENT COMPANIES OVER A SERIES OF YEARS

Year	Sanborn	Heath	Silver, Burdett	Scott, Foresman	Mac- millan	Ginn	American Book	All Others	Total
1902	\$626	\$4,634	\$9,354	\$932	\$2,807	\$5,872	\$38,632	\$16,753	\$79,610
1903	1,358	4,866	4,868	26	1,071	5,011	14,574	8,240	40,014
1904	1,133	3,704	2,230	..	553	3,475	7,078	5,722	23,895
1905	1,688	4,275	11,169	..	688	3,634	16,540	5,912	43,906
1906	1,350	2,032	4,525	..	2,849	4,047	14,762	5,806	35,371
1907	5,690	9,646	2,489	12,955	1,100	4,971	52,444	24,565	113,866
1908	3,518	4,452	925	7,382	613	3,926	24,292	13,976	59,084
1909	390	4,806	1,956	2,905	663	2,866	14,493	6,047	34,126
1910	2,033	3,767	1,967	4,528	1,159	4,466	22,937	8,174	49,031
1911	2,629	5,641	1,274	6,811	1,216	6,014	27,568	13,053	64,206
1912	2,764	4,817	1,612	10,520	889	3,327	40,248	23,973	88,150
1913	2,848	10,062	779	3,515	15,651	24,492	15,118	16,049	88,514
1914	2,492	6,279	686	2,730	9,518	12,387	12,557	11,611	58,260
1915	2,689	6,269	622	3,173	7,031	9,721	13,776	14,910	58,191
Total	\$31,214	\$75,250	\$44,456	\$55,477	\$45,808	\$94,209	\$315,019	\$174,791	\$836,224
Per cent	3.7	9.0	5.3	6.6	5.5	11.3	37.7	20.9	100.0

gram. The diagram is particularly worthy of study. It shows in an impressive way that fluctuations in the amount of business done with different firms have been coincident with changes in the educational administration.

In order to remedy this situation as well as in consideration of the educational welfare of the children, it is recommended that a free textbook policy be adopted. Cleveland already has the rudiments of such a policy, for at present the city supplies without expense supplementary reading books for all pupils, textbooks for all evening school pupils, and textbooks for pupils whose parents state that they are unable personally to supply them. These purchases of free books involve expenditures constituting from one-fifth to one-half of the entire expense for books.

It is recommended that the city extend its present rudimentary free textbook policy until it becomes a universal one applying to all the children. There is abundant evidence that such a policy promotes educational efficiency, facilitates uniformity, tends to prolong the school life of the child, makes the adoption of new texts easier, reduces the influences of textbook politics, and lessens expense to the community.

#### CONCLUSIONS AND RECOMMENDATIONS

1. Cleveland's educational troubles have their origin in present methods of board control.
2. The board should divest itself of routine detail and delegate such work to its employed executives.

3. The board should decide what it wants to have done, select people to do these things, study results to see how well they are being done, and keep telling the public about the problems faced and the progress made.

4. The board should concern itself with getting things done and stop attempting to do so many of them itself.

5. The board should make a careful study of its own activities with the definite purpose of condensing, abridging, and delegating detail.

6. The board should simplify and largely abandon its present method of conducting business through committees.

7. School elections should not be held simultaneously with municipal elections, and the city should seek a change in the law so as to provide for school elections on some other date or providing a substitute for popular election.

8. A single-headed form of organization under the leadership of the superintendent of schools would be better than the present double-headed organization under the independent leadership of the director and the superintendent.

9. The annual salary of the superintendent should be increased to \$10,000, so that Cleveland may successfully compete with other cities of corresponding and smaller size.

10. Authority and responsibility should be definitely located throughout the school system, so that

each person concerned would know just what he or she was responsible for doing.

11. The recent establishment of a Division of Research and Efficiency is commended and the hope is expressed that the new division may receive the hearty and sustained support of the board to the end that accurate and ample information may provide a safe and sound basis for the board's legislative and deliberative actions.

12. Cleveland should adopt the free textbook system.

## CLEVELAND EDUCATION SURVEY REPORTS

These reports can be secured from the Survey Committee of the Cleveland Foundation, Cleveland, Ohio. They will be sent postpaid for 25 cents per volume with the exception of "Measuring the Work of the Public Schools" by Judd, "The Cleveland School Survey" by Ayres, and "Wage Earning and Education" by Lutz. These three volumes will be sent for 50 cents each. All of these reports may be secured at the same rates from the Division of Education of the Russell Sage Foundation, New York City.

- Child Accounting in the Public Schools—Ayres.
- Educational Extension—Perry.
- Education through Recreation—Johnson.
- Financing the Public Schools—Clark.
- Health Work in the Public Schools—Ayres.
- Household Arts and School Lunches—Boughton.
- Measuring the Work of the Public Schools—Judd.
- Overcrowded Schools and the Platoon Plan—Hartwell.
- School Buildings and Equipment—Ayres.
- Schools and Classes for Exceptional Children—Mitchell.
- School Organization and Administration—Ayres.
- The Public Library and the Public Schools—Ayres and McKinnie.
- The School and the Immigrant.
- The Teaching Staff—Jessup.
- What the Schools Teach and Might Teach—Bobbitt.
- The Cleveland School Survey (Summary)—Ayres.

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- Boys and Girls in Commercial Work—Stevens.
  - Department Store Occupations—O'Leary.
  - Dressmaking and Millinery—Bryner.
  - Railroad and Street Transportation—Fleming.
  - The Building Trades—Shaw.
  - The Garment Trades—Bryner.
  - The Metal Trades—Lutz.
  - The Printing Trades—Shaw.
  - Wage Earning and Education (Summary)—Lutz.





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