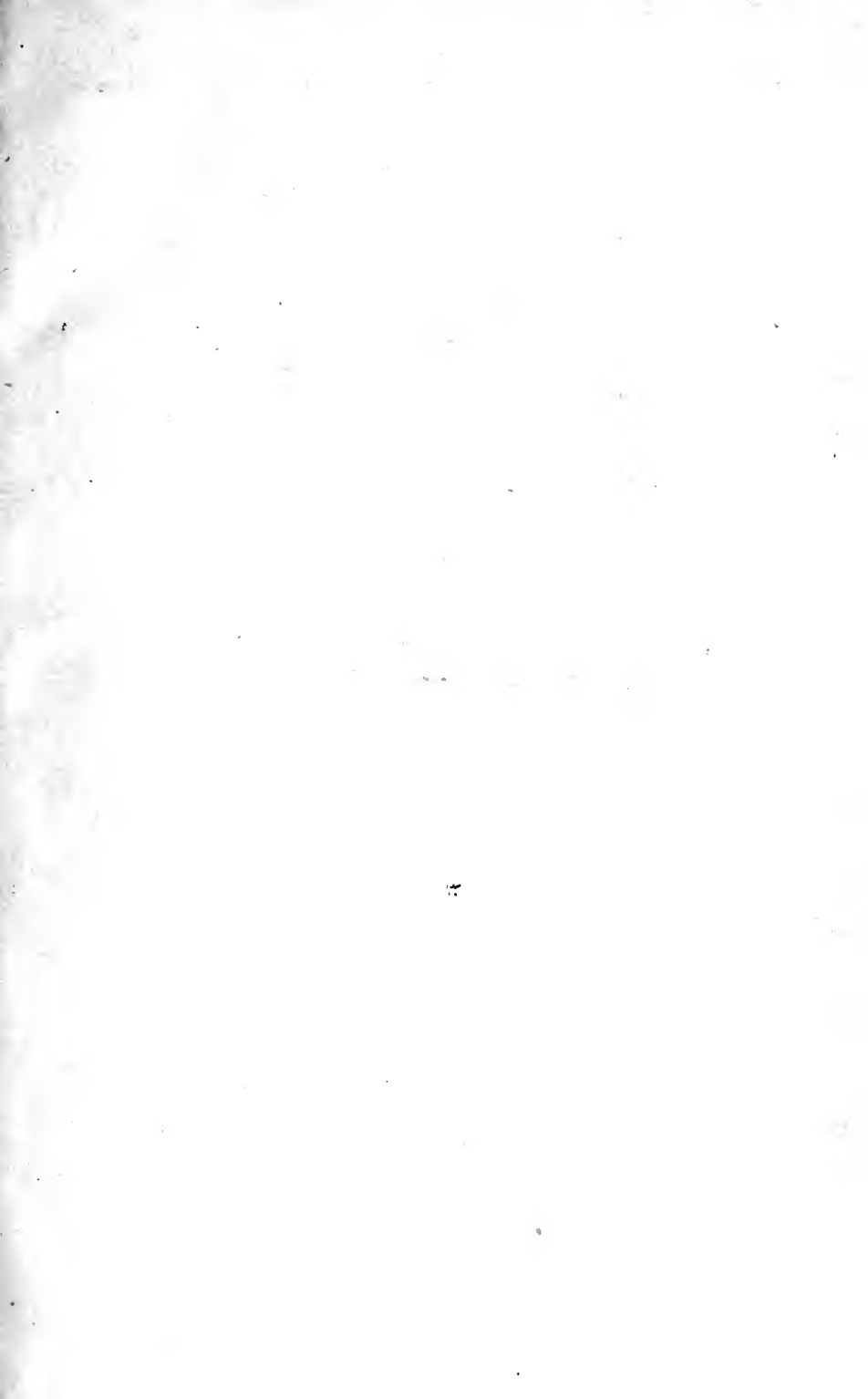


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# PLANS FOR ORGANIZING SCHOOL SURVEYS

H. L. SMITH

Superintendent of Schools, Bloomington, Indiana

## INTRODUCTION

In preparing the following paper, I have secured many suggestions from the publications of the National Bureau of Education, from the many excellent annual school reports and school surveys that have been published during the past three or four years, and from several individuals who were kind enough to share a part of their time with me in personal interviews on the subject under discussion. Of the school reports, I wish to mention especially the recent ones from the following cities: Cleveland, Ohio; Elmira, New York; Louisville, Kentucky; Newton, Massachusetts; New York, New York.

The following recently published school surveys are typical of those that have been suggestive in the making of the outlines of things that can profitably be done in school surveys: Baltimore, Maryland; Boise, Idaho; Hamilton, Ohio; Newburgh, New York; New York City—particularly the Interim Report by F. C. Howe and F. J. Goodnow; Portland, Oregon.

For personal suggestions I am indebted to Professors S. C. Parker, J. F. Bobbitt, M. E. Haggerty, and G. D. Strayer. To Professors Strayer and Parker I am especially indebted for valuable criticisms touching the points to be included, their final organization, and the phraseology of certain portions of the paper.

## GENERAL PRINCIPLES

Underlying the preparation of this paper there are three controlling purposes: first, that of reviewing briefly some of the present pressures urging careful study of local school situations; secondly, that of indicating the forces that can most safely and profitably be intrusted with making local surveys of school conditions, and finally, that of suggesting a possible method of approach to the problem of making an educational survey in cities of from five to fifty thousand inhabitants.

Education is no longer the simple process that it once was. From haphazard imitation a progressive step was made long ago toward conscious effort to teach in a systematic way. Ultimately this tendency crystallized among the favored classes into the practice of having a single individual teach a single child one subject at a time. From the demand that a single child be taught a single subject by a single individual we have progressed to the point where children in large groups must be taught, not simply a single subject, but the three R's, and not simply the three R's, but many additional subjects also. Modern education, too, is no longer limited to the intellectual field, but extends into the physical and the moral as well. Besides all this, the present-day school system is called upon to educate, not simply the children of from six to fourteen years of age, as formerly, but kindergarten children, youths, and adults, also. Moreover, these kindergarten children, youths, and adults are to be trained, not simply that they may make a better living for themselves and that they may also serve in the maintenance of the best that has been experienced thus far by the race, but, further, that they may make actual contributions to the knowledge that the race already possesses. With this increase in the scope of the things to be taught, in the variety of individuals to be taught, and in the purposes behind the teaching, the element of complexity has developed to such an extent that thorough organization has become essential. Devices are needed to aid the mind in grasping the situation, and in focusing the attention of educators on individual parts of the school system while they at the same time carry in mind the idea of the whole.

So rapidly has this complexity been forced upon us that we sometimes feel lost in the maze of it and realize the inadequacy of the organization that has been thus far developed to meet it. The need of a careful examination of our product to see whether it meets expectations or not continually forces itself upon our attention. A further problem is at present formulating itself, and that is the desirability of an examination to determine whether we are teaching the things actually needed by pupils in the public schools.

In order to aid in the intelligent solution of these two problems the survey has recently been called into service—the educational survey to reveal just what we are doing with the children we are working upon and just what the conditions are under which we are working, and a more general survey including social, mercantile, and industrial surveys, to



determine whether we are giving an education that the local situations justify.

In order to determine with reasonable accuracy just the things that are essential in the education of the people of any community, a social survey is necessary. The more complete such a survey is, the better it furnishes a setting or a background upon which to make the educational survey.

Without such a survey unintelligent conclusions might readily be drawn from the educational survey of actual conditions in the schools of the community. For this reason it is desirable, if possible, to make a preliminary but comprehensive social survey comparable to those made in Pittsburgh, Pennsylvania, Springfield, Illinois, and Syracuse and Newburgh, New York, including a study of health conservation and sanitation, housing conditions, betterment agencies of the city, foreign population, juvenile and adult delinquency, civic improvement, labor conditions, municipal accounting, public finance, local taxation, vital statistics, playground equipment and needs, occupations for youths and adults. Ultimately such a detailed survey will be necessary in order to provide adequately for the various interests of the total social group. Our democratic ideals drive us finally to such a survey. But where such an elaborate collection of data cannot be adequately made and interpreted it is well to begin with a less extensive plan. A survey much less pretentious could profitably be made which would aid greatly in interpreting the adequacy of educational facilities.

The following extract from Carol Aronovinci's *Knowing One's Own Community* is suggestive in connection with the scope and the starting of a general survey.

#### STARTING A SURVEY

A survey, like any other civic activity involving a conscious effort on the part of a group of citizens, must be started by some particular civic or philanthropic agency, some body of men or women interested in the welfare of the people whose intentions cannot be questioned and whose integrity, good judgment, moral and political standing are beyond reproach. Most small cities and towns have a Charity Organization Society, a Young Men's Christian Association, a Board of Trade, a Business Men's Association, a Grange, a large Women's Club, a University Club, or some other similar organization or agency which is backed by prominent men or women or both. The person or persons interested in making a survey should select the most prominent, the most

respected, and if possible the best financed organization in the community to back the work. The main conditions to be observed in selecting the organization should be as far as possible a complete absence of sectarian affiliations, political color, or special industrial or public-service interests.

When the organization has been decided upon, a carefully selected special committee of persons from various walks of life should be appointed with instructions to plan and organize the survey under the auspices of that organization. This committee should not be so large as to be unwieldy, nor so small as to be in danger of being one-sided or not representative of the best elements in the organization. A committee of ten persons in localities under ten thousand population and of fifteen to twenty in localities over ten thousand with special subcommittees would probably prove most efficient.

#### SCOPE OF SURVEY

A survey should cover as far as possible every phase of community life, advantageous and disadvantageous, that time and available energy can secure, but if selection of specific problems is made either for the purpose of beginning the work or because of limitations of time and working force, the lines of investigation selected should be practical, should have in view improvements affecting as many people as possible, should be easily understood by the masses, and should be measurable in commonly accepted quantities. If the supply of milk is bad an investigation into the sources of milk and the passage of proper regulations for the control of the milk supply will soon show results that can be measured in terms of a material reduction in the infant mortality and morbidity. If the schools are spending large amounts of money with meager results, an investigation into the accounting system of the school department, a study of the physical conditions of the children, and visits to the homes of backward and truant pupils will soon reveal the cause of the inefficiency in terms which can be easily understood and almost as easily remedied.

Stated in brief, a survey must follow lines which are of a practical character and must have in view tangible improvements which are easily understood and most generally desired.

#### OUTLINES FOR SOCIAL SURVEY

A fairly adequate social survey is illustrated by that being made at present by the high-school and departmental grade teachers of Bloomington, Indiana. The following outlines for gathering the data desired have just been agreed upon by the committee appointed by the high-school teachers for drawing up a plan.

MERCANTILE SURVEY OF BLOOMINGTON

STATUS OF FIRM

1. Firm name.....
2. Location.....
3. Mercantile pursuit.....
4. Commodities:
  - a) Main line.....
  - b) Side line.....
5. Character of firm (*partnership, corporation, co-operative, profit-sharing*).....
6. Amount of capital.....
7. Number of stockholders.....
8. Are stockholders resident or non-resident?.....

STATUS OF EMPLOYEES

1. Welfare activities in behalf of employees.....
2. To what extent are employees stockholders?..... Profit-sharers?.....
3. Special privileges extended to employees.....
4. Are vacations granted on the firm's time?.....
5. Promotions:
  - a) What factors determine?.....
  - b) How frequent?.....
  - c) Grades—e.g., are managers and departmental heads chosen from lower grades?.....
6. Desirable age for beginners.....

FIRM'S ATTITUDE TOWARD SCHOOL TRAINING OF EMPLOYEES

1. How may the public schools prepare employees more efficiently?.....

2. How have the schools hitherto successfully or unsuccessfully contributed to such preparation? .....
- .....
- .....
- .....
3. What changes in courses or methods would you suggest for more practical training? .....
- .....
- .....
- .....
4. Will the business permit employees to attend part-time day-schools? .....
- .....
5. Will evening schools be feasible for mature employees? .....
- .....

EMPLOYMENT

1. Kinds:
  - a) Skilled

	No.	Hours per Day	Weekly Wage	No. Months per Year	Extent of Vacation
1. Managerial .....	.....	.....	.....	.....	.....
2. Clerical .....	.....	.....	.....	.....	.....
3. Selling .....	.....	.....	.....	.....	.....
4. Special .....	.....	.....	.....	.....	.....
b) Unskilled					
Manual, etc. ....	.....	.....	.....	.....	.....

2. Sources of supply of employees .....
3. Proportion of men and women .....

Information supplied by .....

Official position .....

Interview conducted by .....

Date .....

SOCIAL SURVEY OF CITY OF BLOOMINGTON

FAMILY:

Last name .....

Given name .....

Street and No. ....

Name of father, if living .....

Name of mother, if living .....

Nationality of father .....

Nationality of mother .....

Color .....

Birthplace of father .....

Birthplace of mother . . . . .  
 Male children, ages . . . . .  
 Female children, ages . . . . .  
 Number of cases of illness during past year . . . . . Parents . . . . . Children . . . . .  
 Character of illness . . . . . Length of illness . . . . .  
 Length of residence of family in Bloomington . . . . .  
 Number of different school corporations family has lived in . . . . .  
 Grade in which father left school . . . . .  
 Grade in which mother left school . . . . .  
 Male children who have left school, left in what grades? . . . . .  
     Reason for leaving . . . . .  
 Female children who have left school, left in what grades? . . . . .  
     Reason for leaving . . . . .

## HOUSING:

\**Kind of house* . . . . .  
     *Condition, inside* . . . . . *Outside* . . . . .  
 Number of families in building . . . . .  
 Number of rooms . . . . . Size . . . . .  
 Number of sleeping-rooms . . . . .  
*Window provision ample?* . . . . .  
 Number of dark rooms . . . . .  
 Cellar . . . . . Sewer connections . . . . . Cesspool . . . . . Plumbing . . . . .  
 Water supply, well . . . . . Cistern . . . . . City service . . . . .  
 Toilet, inside . . . . . Outside . . . . .  
 Lighting . . . . . Method of garbage disposal . . . . .  
*Front yard* . . . . . *Back yard* . . . . .  
 Cooking done at home . . . . .  
 Heating: Stove . . . . . Furnace . . . . . Hot water . . . . . Steam . . . . .  
*Furniture, quality of* . . . . . *Ample* . . . . .  
 House owned . . . . . How purchased? . . . . .  
 Mortgage . . . . . Lodgers or boarders . . . . .  
 Bathing facilities . . . . .  
*General cleanliness and order* . . . . .  
*General condition of streets and alleys adjoining property* . . . . .

## INCOME:

Earnings of father, weekly . . . . . monthly . . . . . yearly . . . . .  
 Earnings of mother, weekly . . . . . monthly . . . . . yearly . . . . .  
 Earnings of children separately . . . . .  
 Income from other sources . . . . . Total income . . . . .

## SAVINGS:

Bank deposits . . . . . Trust company deposits . . . . .  
 Building and Loan Associations . . . . . Postal . . . . .  
 Life insurance . . . . .  
 Property insurance . . . . . Chattel loans . . . . . Rate . . . . .  
 Purchase on instalment . . . . .

\* The italicized questions are not to be asked, but are to be filled out by surveyor.

## EXPENSES:

Rent . . . . . Clothing . . . . . Food . . . . . Fuel . . . . . Lighting . . . . .  
 Recreation and amusement . . . . . Travel . . . . . Taxes . . . . .  
 Dues and contributions . . . . . Other items . . . . .  
 City water . . . . .

## INDUSTRIAL STATUS:

Occupation of father, hours . . . . . Day or night labor . . . . .  
 Occupation of mother, hours . . . . . Day or night labor . . . . .  
 Occupation of children that work, hours . . . . . Day or night labor . . . . .  
 Occupation of relatives living with family, hours . . . . . Day or night labor . . . . .

## SOCIAL CHARACTERISTICS:

Church membership, father . . . . . Mother . . . . .  
 Church attendance, father . . . . . Mother . . . . .  
 Sabbath-school attendance, father . . . . . Mother . . . . . Children . . . . .  
 Number of children in public schools . . . . .  
 Club membership, father . . . . . Mother . . . . .  
 Fraternal orders, father . . . . . Mother . . . . .  
 Labor organizations, father . . . . .  
 Means of recreation, father . . . . . Mother . . . . . Children . . . . .  
 Charity received . . . . .  
 Character of reading . . . . .  
 Interest in music . . . . .  
*General moral status* . . . . .  
*Does father drink?* . . . . . *Gamble?* . . . . .  
 Date . . . . . Surveyor

## INDUSTRIAL SURVEY OF BLOOMINGTON

1. Firm name . . . . .
  2. Distribution of laborers as regards kind of employment.
    - a) Laborers . . . . .
    - b) Skilled workmen . . . . .
  3. Source of labor supply . . . . .
  4. How may the public schools prepare employees more efficiently? . . . . .
  5. How have the schools hitherto successfully or unsuccessfully contributed to such preparation? . . . . .
  6. What changes in courses or methods would you suggest for more practical training? . . . . .
  7. Will the employment permit employees to attend part-time day-school? . . . . .
  8. Will evening schools be feasible for mature employees? . . . . .
  9. What special aptitudes and qualities (physical strength, dexterity, mental alertness, etc.) are considered most valuable in each line of employment? . . . . .
- Information supplied by . . . . .  
 Interview conducted by . . . . . Date . . . . .

	Type of Skilled Labor	Number	Hours	Salary Maximum	Salary Minimum	Length of Time It Takes to Become Proficient in	Overtime Requirements	No. Days Work per Week	Work of a Seasonal Character	Causes for Seasonal Employment	Occupational Risks
1.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The gathering of the above data is done by the teachers themselves. The tabulation of the data will be done largely by clerical help. The final interpretation of the data will be made by the teachers, principals, and superintendent.

The educational survey proper should be made along lines in which standards of measurement have already been fairly well worked out, standards applicable to the construction, equipment, and maintenance of the school plant, to the qualifications, selection, and tenure of office of superintendents, principals, teachers, janitors, and other employees, to the course of study, to enrolling and holding individual pupils, and finally to measuring the quality of the performance of pupils in their school subjects.

In connection with some of these points, such as the construction and equipment of buildings, standards have been fairly well worked out for some time. These are adequately set forth in *American School*

*Houses* by Professor Fletcher B. Dresslar. Dr. Franklin Bobbitt, of the University of Chicago, is gathering some data that will ultimately be helpful along this line. The mimeographed blanks that he is using in gathering these data he will gladly furnish free of charge to superintendents within the North Central territory. Subjective standards have been used for a long time in measuring the quality of teaching done, but only recently have serious attempts been made to measure the quality of teaching by an objective measurement of the knowledge possessed by the subjects of the teaching. Among the most efficient and recent of the objective measures are:

1. Scales for measuring the quality of handwriting: one by Dr. Edward L. Thorndike and one by Dr. Leonard P. Ayres.
2. A scale for the measurement of quality in English composition by Dr. Milo B. Hillegas.
3. Spelling ability—its measurement and distribution—by Dr. B. R. Buckingham.
4. Arithmetical abilities, by Dr. C. W. Stone.
5. A series of tests by Dr. S. A. Courtis on arithmetic, reading, composition, punctuation, spelling, syntax, memory, and handwriting.
6. The measurement of achievement in drawing, by Dr. Edward L. Thorndike.

In the *Twelfth Yearbook* of the National Society for the Study of Education, Part I, "The Supervision of City Schools," Dr. Franklin Bobbitt presents a good discussion of the use of such tests for exact measurement purposes.

The Thorndike scale for measuring the quality of handwriting can be obtained from the Bureau of Publications, Teachers College, 120th Street and Broadway, New York City. The separate scales cost five cents each.

The Ayres scale for measuring the quality of handwriting can be obtained from the Division of Education, Russell Sage Foundation, 130 East Twenty-second Street, New York City. Price of scales, five cents each.

The Hillegas, Buckingham, and Stone tests are all published by the Bureau of Publications, Teachers College, New York City. The price of the Hillegas scales is two cents a copy; the Buckingham scale costs \$1.25 in cloth and \$0.95 in paper; the Stone tests are \$1.00.



The Courtis tests may be secured by writing Courtis Standard Tests, 82 Eliot Street, Detroit, Michigan.

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Series C, English, per thousand . . . . .	20.00
Test 7, Series A, Loose sheets including necessary instructions and record sheets, per thousand . . . . .	10.00
Folders of instructions, each . . . . .	.05

With all of these helps supplemented as they will be very shortly by standards in many additional fields worked out under the supervision of Dr. Thorndike, it will be possible to measure the efficiency of any system of schools with a measure more tangible and less variable than that of personal opinion.

The following extracts from the report of the Committee on Standards and Tests for Judging the Efficiency of Schools and Systems of Schools, presented by Dr. George Drayton Strayer, is suggestive of the range of school conditions that lend themselves fairly adequately to objective measurement:

What methods are to be employed in an efficient school survey? A school survey will naturally aim to deal with those phases of school organization which are capable of exact objective review. Thus the financial management of the schools should be taken up. The physical equipment of the schools should be examined. The attendance at schools, including the question of enforcement of the compulsory attendance law, can be definitely determined. The rate of promotion within the grade can be definitely known. The number of children in a given classroom should be ascertained; the provisions that are made for exceptional children, including defectives; the method of training teachers, their qualifications, the method of their appointment, and the method of eliminating inefficient teachers should be considered. The salaries of teachers and the rules governing their tenure of office; the provisions that are made for the improvement of teachers during the period of their services; the organization and functions of the supervisory staff and the efficiency with which they carry out their work, especially with reference to their conduct with the classroom exercises; the efficiency of instruction, including an examination of the courses of studies; the methods of class instruction, including the variations in these methods of class instruction, the variations of these methods which are to be observed in the different parts of the system, and the measurement of the achievements of pupils in the subjects commonly taught:

all will be subject to careful review. There should also be made an examination of the provisions which exist within the system for recording such data as are necessary for the proper study of educational problems, together with recommendations concerning the use to be made of these facts.

Any school inquiry should, so far as is practicable, observe, measure, and report the conditions of the community's political, industrial, social, and educational life which favor or interfere with the work of the schools. Investigators should dwell upon the achievements of the school system, especially noting the direction in which it is moving. The measure of the efficiency of any school or system of schools must always be made in terms of the changes, developments, improvements, or growths in efficiency which have taken place under a given administration or during a given period of years.

After determining that an educational survey is essential to progress the question arises, "How can and should the survey be made and by whom should it be made?" There are school officials who feel that they themselves can take adequate care of their own school affairs and who consequently fail to welcome what they term interference from the outside in an attempt to point them to the light. There are those, too, on the outside who feel that practical school men are not among the elect as far as knowledge of what they should do and are doing is concerned, and can therefore be trusted with the job of overhauling themselves only at great risk and danger. There is, on the one hand, the attitude of self-satisfaction that begets a lazy, unintelligent conservatism that needs to be jostled out of its routine ruts, and such an attitude naturally brooks no foreign interference. On the other hand, there is the attitude of the outsider who sometimes feels that his genius alone is sufficient to delve to the bottom of existing difficulties and not even the aid of a native in holding a candle while he works is tolerated.

There is some foundation for the feeling that reform from within is initiated with difficulty. Those within a system are naturally controlled by traditions, and consequently travel the blazed trail without seeking new paths. Even philosophers tell us that schools of philosophy develop and tend to build a crust around their theories, so that new ideas can with difficulty penetrate current thought. Concentration on the old ways of doing things tends to enhance ignorance and to blind individuals to their own faults.

Aside from ignorance and the hampers of tradition, there is another reason, plausible on the surface, why a school system should be reformed

from without, namely, the tendency of human nature to defend past action and thus to furnish protection against adverse criticism. This argument is based on the assumption, however, that people are ultimately dishonest, a supposition that can scarcely be maintained, I think. Even if the supposition were correct, it would argue, in the long run, in favor of local authorities having a part in the survey in order to make it easier for them to discover, acknowledge, and correct the faults in the system.

Any school system needs expert direction and suggestions in connection with its surveys in order to avoid the pitfalls suggested above, but this concession does not carry with it the conclusion that the survey should be made wholly independently of the aid that the system itself can give.

The conventional habit of teachers of looking to superintendents and supervisors for all reforms has limited the possibility of teachers doing constructive work themselves; and the assumption of a similar attitude by school officials to the effect that they must have outsiders do all constructive work for them will tend to conceal from them and from society their own possibilities in the line of constructive work. In principle, then, the attitude of experts in feeling that school administrators cannot examine adequately their own work, even under direction, is vicious in character and harbors a tendency that the spirit of democracy has been vigorously attempting to shake off for centuries past. Just as any set of experts would rightly resent the assumption that an outside interest could properly diagnose their work without their help, so the school officials in any community, however benighted through ignorance and shackled by tradition, can justly assume that their suggestions and help would be valuable to outsiders in discovering points of strength and weakness. It is not the contention that every community is able of itself to initiate or even to carry out a reform movement, but rather that each community possesses the latent ability to be of invaluable service in such a reform under proper, unprejudiced guidance from without. It would doubtless be necessary to impart some leaven from the outside to stir up latent possibilities, but once these possibilities should be stirred up, set in motion, and directed, they should be able of their own momentum in a vast majority of cases to continue to pour out valuable results. If a locality is blind to its faults, that blindness cannot be cured by someone's saying: Behold! and then pointing out what there is to be seen. A more fundamental cure is necessary, and that cure is to lead the

benighted to the light of experience. The light of experience can come only with actual participation in the work.

To the argument for actual participation in the work by local school officials and the teaching corps itself there seems to be only one valid objection and that is the objection that such a survey stretches over too long a period of time. It is true that such a survey is a slower process than a survey made by outside experts, because the outside experts can devote all of their time to the one thing. Wherever it is essential that the survey be completed in a limited period of time the work should not be crowded on to the local teaching corps. Generally, however, the demand is not so insistent as to necessitate depriving local forces of the privilege of doing a large part of the actual survey work.

Assuming then that an adequate survey can be made by the school system itself under expert advice and guidance—and this assumption is certainly as sound as the opposite assumption until it is proved by trial to fail—we should examine in what way the results would be more desirable from such a survey than from one made wholly by those on the outside.

In the first place, defects are bound to be discovered by any adequate survey in even the best system of schools, and if these defects are to be remedied there must be a readjustment of the school officials to the new light unless the officials be simply ousted and new people be put in their places. Experience shows that the damage from the latter procedure is sometimes as bad as the original condition with its blindness to faults. Experience shows further that it is easier to adjust one's self to self-criticism than to criticism imposed from without. And the ease of making the new adjustment is an essential consideration in any procedure that is not merely destructive but constructive as well.

In the second place, the educative effect upon local authorities who make a survey themselves is of significant importance. Knowledge to the saturation point can come only by actual participation in the work. The mere review of results and conclusions slides off in a way that is readily understood by the teacher as opposed to the teller. With the full comprehension of the meaning of the survey—a comprehension that can come only through actual participation—comes not only a new consecration of service to the general problems of the profession and a more genuine willingness and inspiration to follow results revealed by the particular survey, but a more genuine knowledge of how to grapple with the perplexities that must continually confront school officials.

Not only are people more willing to correct and more capable of correcting errors that they themselves have had a hand in locating, but by so doing they disarm any tendency of local enemies to cast irreparable reflection upon the system or to make political capital out of the findings. The very fact that those within the system have discovered their own weaknesses is an argument that somehow or other they themselves will be able to eradicate these weaknesses. Hence the danger of an unwarranted clamor for a change in administration is reduced to a minimum.

Everyday observations and practices support the contention that errors should be discovered and cured largely from the inside. Forced reform and forcing attention to the need of reform are two very different things. The reform must take place within the individual, and the individual must himself feel the need for it through self-discovery, though the start toward that discovery be stimulated from the outside. An outside influence can only direct internal effort to a change. It cannot work the reform. And I take it that we do not want to lodge in our activity in school surveys on the level where we so long tarried in medical inspection—the plane of pointing out conditions without concern as to their ultimate remedy. Our democratic theory of freedom should operate at least to the extent of giving school systems an opportunity under capable guidance to diagnose their own cases and to work the consequent cure before demanding meek submission to the invasion of the foreigner and the putting on of the foreigner's habit in the solution of the difficulty.

A final though a minor argument for surveys by the local authorities is that of decreased cost. In the case of a local survey the workers and the machinery are both on the field, so the cost of transportation is eliminated. Salaries too are largely already supplied in the case of local investigation, whereas these are an added burden when surveyors from abroad are imported.

The self-survey under competent outside expert direction gradually forces itself upon one as opposed to the survey by outside experts because of the smaller financial cost, because of the avoidance of internal community eruptions stimulated by radical conclusions deduced from statistics unsympathetically gathered and interpreted, because, further, of the wholesome educational and stimulating effect of such a self-examination upon the whole teaching and supervisory corps of a school

system, and because, finally, such a work is the logical job of those already employed to determine and carry out the policies of the school system.

The following extract from the report of Professor G. D. Strayer, chairman of the Committee on Standards and Tests for Judging the Efficiency of Schools and Systems of Schools, presents briefly the opinion of this committee on this subject:

A survey can be most advantageously undertaken by the school officers. If the citizens wish to have a survey made they ought to be able to secure it through their regular representatives on the board. Groups of citizens who cannot secure such action through the board should be provided with means of carrying out a survey, and should feel justified in adding temporarily to the supervisory staff a group of specialists competent to undertake a thorough-going inquiry. Furthermore, the superintendent ought to be in position at any time to call in impartial professional advisors in case he finds school interests seriously jeopardized. Whether the survey originates with the superintendent, or with the board, or with an interested group of citizens, its purpose should be to protect and advance the interests of the children and youth of the community by employing specialists, either within or without the system, competent to study scientifically the school system, and able, by virtue of their experience as educators, to propose adequate and workable reforms.

The following extracts from letters written in reply to an inquiry for statements of attitude toward the co-operative plan of conducting school surveys makes clear the advisability of enlisting the services both of university experts and of local school people in school surveys:

W. C. BAGLEY, Director, School of Education, University of Illinois, Urbana, Ill.: I may say that we are very desirous in our department of co-operating in every helpful way with those who are conducting school surveys in our state. The Illinois State Teachers' Association, at its meeting in December, adopted a resolution favoring a state school survey to be made by the State Department of Public Instruction in co-operation with the School of Education at the University, the normal schools, and other educational institutions of the state. Pursuant to the spirit of the resolution a survey has been planned and the preliminary steps are now well under way. Professor Coffman is director of the survey and Professor Johnson, Professor Bobbitt of the University of Chicago, and myself are co-operating in the investigation of certain specific topics.

There are, of course, certain dangers that are involved in placing the leadership of these surveys in the hands of the educational departments of the

universities. I should say, however, that these dangers are quite overbalanced by the advantages which this policy involves.

PROFESSOR J. F. BOBBITT, School of Education, University of Chicago: The superintendent of a neighboring city recently proposed a survey for his school system, to be conducted by men from the University. While the response of teachers and principals was on the whole favorable, yet there were a few who asked, "Why should not you, the superintendent, make all necessary analyses of school conditions, point out merits and shortcomings, and make all the desirable recommendations? Why call in men from the University?"

Undoubtedly, as the questions imply, it is the superintendent's chief function to do just these very things, currently and continuously, for his school system. And yet there is, at the same time, full justification for an occasional analysis of school conditions by someone who is not a permanent member of the system, however good may be the work of the schools. While the members of the school organization have a far more intimate acquaintance with the details of the school work than any co-operating or temporarily employed outsider can possibly have, yet this very familiarity with the details of the work, filling as it does so large a portion of the field of vision, tends naturally and inevitably to shut out a sufficient view of the more general relations. A thing is to be seen in wide perspective only by one who can stand some distance away from it and view it as a whole, disinterestedly and objectively. One's vision must not be distorted by personal interests, personal acquaintances, and the forms of bias and prejudice that spring from these. However superior, therefore, may be the teaching and supervising staff of a city-school system, it seems desirable for a city to have periodically some disinterested outsider examine into the factors composing the educational situation.

It is in fact a necessary division of labor. The teachers and supervisors of the city are specialists in the details of that particular situation. The co-operating university workers are specialists in the more general relationships of educational movements. It is the business of the university men to see these movements as they exist throughout the country; it is the business of superintendent and teachers in a given city to see these movements in their concrete details as they exist in their particular city. Efficiency in both kinds of work is not easily possible under present conditions.

This specializing of functions and co-operating of the specialists is especially desirable during our present transitional age when our school systems are being thoroughly overhauled and reconstructed. The changes demanded require thought, study, and arduous, long-extended labors on the part of teachers and supervisors. Completely engrossed in the task of making the particular adjustments needed at the time, it is difficult to keep in mind the total movement of which the immediate tasks are but parts. They cannot well be sure as to the

next steps to be taken in any given case. They have distinct need of the specialist in the wider relations.

LOTUS D. COFFMAN, University of Illinois, Urbana, Illinois: In a number of states the movement to survey the public schools was initiated by people not officially connected with the schools. But in Illinois the survey now being organized was begun by the school people themselves. That this state might not prove a laggard in educational advancement, a number of men and women, representing every type of public education in the state, met in Springfield in response to a resolution passed by the last State Teachers' Association, calling for a state-wide educational survey, and appointed an executive committee consisting of President David Felmley of Normal, chairman; Superintendent Hugh S. Magill, Jr., Springfield; County Superintendent Charles McIntosh, Monticello; and Principal Morgan C. Hoggs, Chicago. Dr. Lotus D. Coffman of the University of Illinois was made an *ex-officio* member of the Executive Committee and director of the survey.

Faith in the possibilities of this survey is founded upon the number of agencies that have expressed a willingness to co-operate in carrying it forward. State Superintendent Francis G. Blair has authorized the committees to collect as much of the information as possible through his office and has offered the assistance of his statistical experts in collating the material. Assistance will be received from the State Teachers' Association and its large sectional organizations, the Principals' Club, the University of Chicago, Northwestern University, the normal schools of the state, and the University of Illinois.

HON. P. P. CLAXTON, United States Commissioner of Education, Washington, D.C.: I think your suggestion that universities should co-operate with school officials in making school surveys is a good one. Neither the university man nor the school man alone is capable of making the best survey. Both working together ought to make the survey much more valuable. It would be still more valuable if the university man and the public-school man and the business man could co-operate. The points of view of these are needed in making any adequate survey of a school system.

ELLWOOD P. CUBBERLEY, Leland Stanford Junior University, Stanford University, California: If school surveys are made in an appreciative spirit they can be made a very great help to city-school systems. Such surveys can best be made by those who have carefully studied the educational problem and who can approach the work of a survey with the idea of finding out the excellences of the system as well as its defects. I think we are not likely to have too many good surveys; but of investigations, as contrasted with surveys, we need very few. A good survey is in the nature of a taking of stock with a view to further purchase and development, and a school survey ought to offer a good constructive program for the community surveyed.

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EDWARD C. ELLIOTT, University of Wisconsin, Madison, Wisconsin: I believe most heartily in the form of co-operation referred to in your letter of April 2 relative to school surveys. I believe the survey affords the most practical instrumentality for the accomplishment of what has always seemed to me to be the fundamental purpose of all such supervision. This purpose may be very simply summed up thus:

*To discover the truth about our institutions of education in such form and in such manner as will make our profession of citizenship more intelligent as to the motive, methods, and machinery of the whole school plan and to cause our profession of education to be more directly purposeful and more consciously constructive.*

If I were to analyze the above general purpose I would call attention to the following special items which seem to me to warrant attention on the part both of university students of education and of those engaged in actual practice in schools: (1) There is too wide a gap between our theories of education and our practices in schools. (2) There is too much pretense of teaching and school supervision, and, consequently, too little economical performance of fundamental educational worth. (3) We have had too few facts on which to ground whole truths about the productivity and economy of the public-school system. (4) We lack that kind of publicity necessary for the intelligent confidence of our people in their schools. (5) Our school systems move forward by drifting through the channels of least resistance, or, of greatest attractiveness, rather than by an intentional direction through the intricate passages that lead to the greatest ultimate utility.

W. A. JESSUP, University of Iowa, Iowa City, Iowa: Educational interests are to be congratulated on account of the present tendency to conduct school surveys by means of the co-operation between university experts and local school officials. Each institution has much to gain from this type of co-ordination. The school survey needs the expert ability, the scientific attitude, and the vision of the professor of school administration. The university, on the other hand, needs to come into contact with the real problems to be found in the development of an educational system.

G. D. STRAYER, Teachers College, Columbia University, New York: It is my belief that the specialist should be called in by the local administration for the purpose of giving advice when a school survey is to be made, for exactly the same reasons that specialists in other lines of study and investigation are used in their fields of inquiry. We are all familiar with the rôle played by the specialists in taxation, or in engineering, or in preventive medicine, and the like, in practical affairs. I am inclined to think that the combination of the practical administrative officer and of the student and investigator will always mean a higher degree of efficiency in the survey of a school system than can be expected if either works alone.

HARLAN UPDEGRAFF, University of Pennsylvania, Philadelphia, Pennsylvania: In my judgment, boards of education or superintendents, or both in unison, are warranted in calling upon educational experts in universities to express their opinions regarding the advisability of possible courses of action or the continuance of a policy that has been on trial. Such an expression may also serve a useful function in making known to a school board and citizens the status of their school system as compared with systems elsewhere, such knowledge to be used as a basis for determining further policies.

Professors of education in universities have peculiar advantages for such service in that they are well informed as to the latest developments in their respective fields and also in that they have opportunity to examine impartially the success of various plans in the schools that are visited by them. Particular care should be taken by such persons called upon to render this service that they gain a full and correct knowledge of the peculiarities of the local situation in which the inquiry is made. This is not always possible in the brief time that is sometimes allowed for these inquiries and herein lies a limitation to the usefulness of their service.

Two outlines follow, one a brief outline intended to be suggestive of some of the more important things that might be considered in a limited study of local educational conditions; the other a more elaborate outline given in the spirit of suggesting a range of subjects that might profitably be investigated in an educational survey of a small city system of schools. In no one system would it be desirable to attempt in any survey an investigation of all or of even a large part of the points suggested in the longer outline.

## A BRIEF OUTLINE FOR AN EDUCATIONAL SURVEY

### SCHOOL PLANT AND EQUIPMENT

#### I. General Facts about Each Building.

1. Description of location.
2. Floor plans.
3. Dimensions, original cost, date of erection, and present condition.
4. Material used in construction.
5. Protection from fire.
6. Heating and ventilating systems, description of.
7. Number, purpose, and size of various rooms in building.
8. Number of teachers and pupils accommodated.
9. Adequacy of steps and stairways for age and number of pupils accommodated.
10. Drinking and washing facilities.
11. Toilet accommodations.

## II. Specific Facts about Each Room.

1. Use made of room.
2. Number and grade of pupils accommodated.
3. Seating.
4. Dimensions and size showing:
  - a) Cubic feet of air space per child.
  - b) Square feet floor space per child.
5. Blackboards.
  - a) Amount of available space.
  - b) Condition of.
6. Lighting.
  - a) Light space area compared with floor space area.
  - b) Height of top of windows compared with width of room.
  - c) Freedom from shadows cast on children's work.

## III. Equipment of Building as a Whole.

1. Number, kind, and value of library books.
2. Same for musical instruments and equipment.
3. Same for other equipment like stereopticon, lantern slides, etc.
4. Same for sets of supplementary readers.
5. Same for equipment, such as wall maps and globes.

### ORGANIZATION, ADMINISTRATION, AND SUPERVISION

#### I. General Organization.

1. School Board.
  - a) Number, term, and method of selection of members.
  - b) Qualifications required for membership.
  - c) Qualifications of present board and of boards for a period of years past.
  - d) Meetings.
    - (1) Time and place.
    - (2) Regularity of attendance.
    - (3) Contents, preparation, and preservation of minutes.
    - (4) Powers and duties.
      - (a) Exercised by board.
      - (b) Delegated by board.
2. Superintendent.
  - a) Qualifications required and term of office.
  - b) Qualifications actually possessed by superintendents for a period of years back.
  - c) Powers and duties.
  - d) List of things actually done in a period of time of from one to four weeks showing range of duties and relative amount of time devoted to each.

- e) Assistance given superintendent—  
 (1) By clerks.  
 (2) By assistant superintendent, or  
 (3) By principals being given time off from actual teaching.
3. Principals.  
 a) Qualifications required.  
 b) Qualifications possessed by present corps.  
 c) Duties required of principals.  
 d) List of such duties performed in a definite period of from one to four weeks in length.  
 e) Time free from recitation duties.  
 f) Assistance given by clerk.
4. Co-ordination of authority vested in school board, superintendent, principals.
- II. Business Administration.
1. Methods of bookkeeping.  
 2. Filing system.  
 3. Methods of purchasing, distributing, and keeping track of supplies.  
 4. Samples of important reports and records regarding attendance and progress of pupils.
- III. Educational Administration.
1. Teaching corps.  
 a) Qualifications required.  
 b) Qualifications actually possessed by present corps.  
 c) Permanency of.  
 d) System of improving qualifications of teachers already in the service.
2. Supervision of actual schoolroom teaching.  
 a) Statement of various things done within a limited period of time in an attempt to improve the classroom work of some specific teacher.  
 (1) Things done by superintendent.  
 (2) Things done by principals.  
 (3) Things done by special supervisor.
3. Supervision of course of study.  
 a) In making course of study, to what extent are services enlisted of—  
 (1) School board?  
 (2) Superintendent?  
 (3) Principals?  
 (4) Teachers?  
 b) Illustrate by use of a specific subject the method by which co-operation is secured.

## COURSE OF STUDY

- I. Different Subjects Included in the Course.
  1. Very brief outline of the course in each subject.
  2. Amount of time allowed to each subject per week in each grade.
    - a) For preparation on part of pupil.
    - b) For recitation.
  3. Time required for average child to complete each portion of the course.
    - a) In primary grades by years only.
    - b) In department and high school by years and subjects.
  4. Percentage of total failures that each year and each subject takes as its share of the failure toll.
  5. Number of pupils and percentage of total enrolment in the grade taking each subject where an option is given.
  6. Organization of course to meet varying individual and classroom abilities.
  7. Titles and cost to pupils of public schools of textbooks in use. p. 44

## THE CHILD

- I. School Census.
  1. Frequency and method of taking.
  2. Census statistics.
    - a) Enumeration for a series of years past by years, age, sex, nationality—showing percentage of increase or decrease in each.
- II. Enrolment Statistics for Purpose of Showing Efficiency of System in Getting Pupils into School.
  1. Enrolment for series of years past by age, grade, nationality, sex, time of year, occupation of parents.
  2. Average age of beginning pupils—ages taken September 1 and February 1.
  3. Number, age, and percentage by grades of pupils entering the system each year from outside systems of schools.
  4. Number, age, and percentage by grades of pupils who have had all of their education in the local system.
  5. Ratio of number of children in school over compulsory age to number within compulsory age. Degree to which this ratio is increasing or decreasing.
  6. Machinery for getting children into school.
    - a) State law provisions.
    - b) Local initiative.
    - c) Promptness of reporting and disposing of cases.
    - d) Percentage of cases that have to be dealt with once, twice, three times, etc.

### III. Holding Power of School.

1. Power of school to keep pupils on membership roll.
  - a) Age-grade tables by sex, buildings, and by combination of buildings.
  - b) Tables showing years in school and progress made by sex and buildings.
  - c) Percentage of old, young, or normal age for grade by sex and buildings.
  - d) Number and percentage of pupils, by time of year and grades, above compulsory school age leaving school.
  - e) Kind of pupils eliminated—dull, fair, bright.
  - f) Percentage that enter any one grade that persist to the next grade.
2. Maintenance of regular attendance of pupils on membership roll.
  - a) Percentage of attendance by sex, grades, buildings, rooms, months.
  - b) Tardiness—same as under *a*.
  - c) Attendance table by number of days attended during year.

### IV. Degree to Which Pupils Make Regular Promotions.

1. Failures.
  - a) Percentage of failures by age, grade, subject, sex, building, rooms.
  - b) Effect of failure on succeeding term's work.
    - (1) In subjects failed in.
    - (2) In subjects passed during first term.
2. Repeaters.
  - a) Tables by age, grade, subject, sex, buildings, rooms.
  - b) Percentage of increase or decrease for a period of years.
  - c) Cost to system to reteach repeaters.
3. Retardation and acceleration statistics.
4. Distribution of withdrawals as to age, grade, building, etc.

### V. Quality of Passing Work Done by Pupils.

1. Distribution by sex, grades, subjects, buildings, of grades made, showing number and percentage of grades made falling in the various groups as failing, fair, good, excellent, etc.

### VI. Measures to Preserve Health and to Protect Life.

1. Protection from fire.
2. Sanitary precautions in care of buildings.
3. Physical training facilities.
4. Hygiene of instruction.
  - a) Specimen schoolroom programs showing various combinations of grades.
  - b) Amount of home study required, by grades.

5. Medical inspection.
  - a) Kinds and frequency of examinations of buildings, children, and employees.
  - b) Relation of defects discovered to defects remedied.

## VII. Tests to Discover Actual Efficiency of Pupils.

1. General efficiency.
  - a) Binet-Simon tests to be given to backward children.
2. Efficiency in school subjects.
  - a) Courtis tests.
  - b) Writing tests—either Thorndike or Ayres.
  - c) Hillegas—test in composition.
  - d) Buckingham—tests in spelling.

### TEACHER

- I. Number of teachers employed by sex, grade taught, years of experience.

## II. Qualifications.

1. Actually possessed by present corps.
  - a) Academic training.
  - b) Teaching experience.
    - (1) Experience in local system.
    - (2) Experience in present position.
    - (3) Total teaching experience.

## III. Permanency of Teaching Corps.

## IV. The Work of the Teacher.

1. Number of pupils per teacher.
2. Number of classes per teacher.
3. Number of preparations per teacher.
4. Total amount of time per week teacher is required to spend on school work.
  - a) During school hours.
  - b) Outside of school hours.
5. Degree to which teachers are consulted concerning—
  - a) General school policies.
  - b) Making of course of study.
  - c) Selection of supplementary material.
  - d) Change of textbooks.

## V. Teachers' Meetings.

1. Kind, frequency, purpose.
2. Sample programs for various types of meetings.

## VI. Salaries.

1. Actual salaries paid in each class of position.
2. Comparison of salary with that paid in towns of approximately same size in state.

## FINANCES

I. Comparison of local school system with other systems in regard to assessed valuation and relative amount of taxes devoted to education and taxes devoted to all other purposes.

## II. Receipts.

1. Sources and amounts.
2. Rate of increase in proportion to number of children to be educated.

## III. Expenditures.

1. Classified according to a system similar to one recommended by National Bureau of Education.
2. Per capita cost of various subjects and of various items of general expense based upon average number belonging or average daily attendance.

## IV. Summarize Expenses according to Plans Suggested by—

1. Spaulding in the Newton, Massachusetts, reports.
2. Goodnow and Howe, in New York City survey.

## V. Estimate Receipts and Expenditures for Next Two or Three Years.

## MISCELLANEOUS ITEMS

## I. School Sessions.

1. Length of school year, week, day, recitation period.

## II. Educational Problems Now Being Investigated by Local Corps.

## III. Present Needs of System as Arrived at from Educational Survey.

## IV. Constructive Suggestions as to How These Needs Can Be Efficiently Met without Undue Burden from Taxation.

## A MORE ELABORATE OUTLINE FOR MAKING AN EDUCATIONAL SURVEY

## FACTS ABOUT STRUCTURE AND EQUIPMENT OF SCHOOL PLANT

## I. General Facts about Each Building.

## 1. Location.

- a) Map showing various school districts and location of each building.
- b) Photograph of each building.

## 2. General plan of building.

- a) Floor plans.
- b) Arrangements for traditional school subjects and activities.



- c) Arrangement for new and special school subjects and activities.
- d) Uses other than school uses.
  - (1) Planned for in original construction of building.
  - (2) Provided for by modifications of building.
- e) Size and present condition of the buildings.
  - (1) Total cubic feet of building space.
  - (2) Ground area of building in square feet.
  - (3) Number of stories.
  - (4) Construction cost per cubic foot of space.
  - (5) Present value.
  - (6) Date of erection.
- f) Material.
  - (1) Outside walls.
  - (2) Roof.
  - (3) Floors.
    - (a) Basement.
    - (b) Halls and corridors.
    - (c) Stairways.
    - (d) Recitation rooms.
    - (e) Toilet-rooms.
    - (f) Gymnasium.
- g) Protection from fire.
  - (1) Fireproof, not fireproof, slow-burning.
  - (2) Fire escapes, number and size.
  - (3) Exits and stairways, width and number.
  - (4) Number of pupils to the linear foot of entrance and exit space.
  - (5) Doors swinging in or out.
  - (6) Fire extinguishers within the building.
  - (7) Other fire-fighting apparatus.
  - (8) Automatic latches on doors as safeguard in case of fire or panic.
  - (9) Boiler-room inside or outside of building.
- h) Heating and ventilation.
  - (1) Kind of heating plant.
    - (a) Stoves with or without jackets or screens.
    - (b) Hot-air furnace.
    - (c) Hot water.
    - (d) Steam.
    - (e) Combination.
  - (2) Method of ventilation.
    - (a) Doors and windows only.
    - (b) Gravity system.
    - (c) Fan or force system.

- (3) Air humidifier.
- (4) Automatic heat regulation.
- i) Rooms and hallways, number and size.
  - (1) Recitation rooms.
  - (2) Laboratories.
  - (3) Rooms for special work.
  - (4) Assembly room.
  - (5) Other miscellaneous rooms.
  - (6) Halls and corridors.
    - (a) Floor space.
    - (b) Floor space per child in average daily attendance.
  - (7) Number of rooms unoccupied.
  - (8) Number of rooms occupied.
  - (9) Number of sittings.
  - (10) Building space area and volume used for boiler-room, and storage.
  - (11) Cloak-rooms separate or in connection with recitation rooms.
- j) Teachers and pupils in each building.
  - (1) Number of pupils enrolled.
  - (2) Number of teachers assigned to each building.
- k) Steps and stairways.
  - (1) Number of steps to reach first floor.
  - (2) Stairways.
    - (a) Number of.
    - (b) Number of steps to each.
    - (c) Height of risers.
    - (d) Width of steps.
    - (e) Width of stairways.
    - (f) Landing between floors.
    - (g) Double or single stairways.
    - (h) Fireproof or not.
    - (i) Lighting.
    - (j) Length of stairways between landings.
    - (k) Hand rails.
- l) Drinking facilities.
  - (1) Source and purity of water supply.
  - (2) Pail and common drinking-cup.
  - (3) Pail and individual drinking-cup.
  - (4) Faucet and common drinking-cup.
  - (5) Faucet and individual drinking-cup.
  - (6) Pump and common drinking-cup.
  - (7) Pump and individual drinking-cup.

- (8) Drinking-fountains.
  - (a) Number and kind.
  - (b) On single floor or on all floors.
  - (c) Average number of pupils to each drinking-fountain.
- m) Washing facilities.
  - (1) Ordinary wash-basin.
  - (2) Flowing water.
  - (3) Number of wash-stands.
  - (4) Number of pupils to each wash-basin.
  - (5) Soap.
    - (a) Is soap furnished?
    - (b) Liquid or solid.
  - (6) Towels.
    - (a) Are towels furnished?
    - (b) Common or individual cloth towels.
    - (c) Paper towels.
- n) Toilet accommodations.
  - (1) Outside of building.
    - (a) Screens.
    - (b) Distance from buildings.
    - (c) Distance of boys from girls.
  - (2) Inside.
    - (a) Smead or flush system.
    - (b) Location.
      - i. In basement or where.
      - ii. In path of sun's rays or not.
      - iii. Individual flush pull.
      - iv. Automatic flush.
  - (3) Accommodations for boys.
    - (a) Toilet seats.
      - i. Kind.
      - ii. Number.
      - iii. Number of boys per seat.
    - (b) Urinals.
      - i. Number.
      - ii. Number of boys to one urinal.
  - (4) Accommodations for girls.
    - (a) Number of toilet seats.
    - (b) Number of girls to a seat.
  - (5) Toilets and urinals, how ventilated.

## II. Specific Facts about Each Room.

1. Name of building.
2. Number of room.
3. Use made of room.
4. Number and grade of pupils accommodated.
5. Seating.
  - a) Chairs or desks.
  - b) Desks.
    - (1) Number and size of single non-adjustable.
    - (2) Number and size of single adjustable.
    - (3) Number and size of double non-adjustable.
    - (4) Number and size of double adjustable.
    - (5) Per cent of sittings in the room adjustable.
6. Size and dimensions.
  - a) Height.
  - b) Width.
  - c) Length.
  - d) Total number cubic feet.
  - e) Number cubic feet per child in average daily attendance.
  - f) Total square feet of floor space.
  - g) Number square feet of floor space per child in average daily attendance.
  - h) Width of aisles.
  - i) Width of space in front and in back of room and on sides.
  - j) Blackboards.
    - (1) Material.
    - (2) Length.
    - (3) Width.
    - (4) Height from floor.
    - (5) Total number square feet.
    - (6) Number square feet per pupil in average daily attendance.
  - k) Doors swing in or out.
  - l) Closets.
    - (1) Number.
    - (2) Dimensions.
    - (3) Cubic area.
    - (4) Shelf area.
  - m) Lighting.
    - (1) Number of windows.
    - (2) Dimensions of each window inside window frame.
    - (3) Total light area.

- (4) Ratio of window to floor space.
  - (5) Height of window from floor.
  - (6) Nearness of top of window to ceiling.
  - (7) Relation of height of top of window to distance across room.
  - (8) Arched or square tops.
  - (9) Area of wall space separating windows.
  - (10) Light from one side only.
  - (11) Light from two adjacent sides.
  - (12) Light from two opposite sides.
  - (13) Light from three sides.
  - (14) Light from four sides.
  - (15) Kinds of window blinds.
- n) Decorations.
- (1) Color of walls and ceilings.
  - (2) Frequency of decorating walls and ceiling.
  - (3) Number, size, and value of pictures.
  - (4) Number, size, and value of pieces of statuary.
  - (5) Value of all usable equipment.
  - (6) Value of all usable equipment per child in average daily attendance.
  - (7) Value of all decorative equipment per child in average daily attendance.

### III. Equipment of Building as a Whole (following in many respects Dr. Bobbitt's outline).

#### 1. Library.

- a) Number of books of fiction.
  - b) Number of books of history.
  - c) Number of books of biography.
  - d) Number of books of poetry.
  - e) Number of books of science.
  - f) Number of books of reference.
  - g) Number of current event magazines.
  - h) Number of miscellaneous magazines.
  - i) Number of each of above per child enrolled.
  - j) Method of providing funds for library.
2. Number and value of pianos.
    - a) Value per child enrolled or in average daily attendance.
  3. Number and value of organs.
    - a) Value per child enrolled or in average daily attendance.
  4. Number and value of victrolas.
    - a) Value per child enrolled or in average daily attendance.

5. Number and value of piano-players.
    - a) Value per child enrolled or in average daily attendance.
  6. Number and value of records for victrolas and piano-players.
    - a) Value per child enrolled or in average daily attendance.
  7. Number and value of other musical instruments.
    - a) Value per child enrolled or in average daily attendance.
  8. Supplementary readers.
    - a) Fields of work in which they are furnished.
    - b) Number of sets.
    - c) Number of individual books not in sets.
    - d) Total number of all such books.
    - e) Value per pupil in average daily attendance.
  9. Wall maps.
    - a) Number.
    - b) Value.
    - c) Value per pupil in average daily attendance.
  10. Globes.
    - a) Number.
    - b) Value.
    - c) Value per pupil in average daily attendance.
  11. Other equipment like stereopticon, lantern slides, etc.
    - a) Value of all such.
    - b) Value per pupil in average daily attendance.
- IV. Extension of Plant during Current Year.
1. Treat according to previous outline.
  2. Give procedure in erection of new buildings or improvement of old buildings.
- V. Extension of Equipment during Current Year.
1. Give for each building separately.
  2. Equipment added by efforts of—
    - a) School board.
    - b) Principals and teachers.
    - c) Children.
    - d) Patrons.

ORGANIZATION, ADMINISTRATION, AND SUPERVISION OF SCHOOLS

- I. General Organization (largely following suggestions by Goodnow and Howe).
1. Legal organization of schools by state provision. ✓
    - a) Brief history of legal provisions.
    - b) Present status.

- (1) Relation to state department of public instruction. ✓
- (2) Relation to state board of education. ✓
- 2. Administrative organization: co-ordination of authority as vested in—
  - a) School board.
    - (1) Brief historical evolution of school board in the state. ✕
    - (2) Present legal relations of board to—
      - (a) State authorities.
      - (b) County authorities.
      - (c) City authorities. ✓
    - (3) Number and method of selection and term of office of members of the board. ✓
    - (4) Personnel of school board for period of years past. ✓
    - (5) Qualifications. ✓
    - (6) Organization.
      - (a) Officers. ✓
      - (b) Committees. ✓
    - (7) Salaries. ✓
    - (8) Meetings.
      - (a) Place and time of meeting. ✓
      - (b) Those present—board, superintendent, clerk, public. ✓
      - (c) Regularity of attendance of members. ✓
      - (d) Length of meetings. ✓
        - i. Illustrate by series of consecutive meetings. ✕
      - (e) Minutes.
        - i. Prepared by whom. ✓
        - ii. How recorded: give samples. ✓
        - iii. Contents of minutes. ✓
      - (f) Preparation of business for board. ✓
    - (9) Efficiency of board. ✓
      - (a) Give concrete examples showing efficiency of board in getting things done in a satisfactory manner and without loss of time.
    - (10) Give account of procedure in connection with getting new school buildings. ✓
      - (a) Selection of architect. ✓
      - (b) Advertising for bond sale. ✓
      - (c) Sale of bonds, if bonds are sold.
      - (d) Receiving bids on building.
      - (e) Awarding contracts.

- (11) Powers and duties of the board.
- (a) Legislative powers exercised by board, such as—
    - i. Determining the kinds of schools and nature of instruction.
    - ii. Controlling conduct of schools by legislation.
    - iii. Determining under legal limitations, who shall be admitted to school.
    - iv. Determining salaries and qualifications of teachers and providing for their appointment.
    - v. Same as (iv) for other employees.
    - vi. Regulating finances.
  - (b) Legislative powers delegated to—
    - i. Superintendent, such as—
      - [a] Changes in course of study.
      - [b] Selection of textbooks, apparatus, and other scholastic supplies.
      - [c] Nomination of teachers and other employees.
    - ii. Principals.
  - (c) Administrative powers exercised by board, such as—
    - i. Construction of buildings.
    - ii. Granting permission for outside use of school buildings.
    - iii. Final power in selection of and dismissal of employees on recommendation of superintendent.
    - iv. Levying taxes.
    - v. Issuing bonds.
    - vi. Selection of superintendent.
    - vii. Expansion of educational system.
    - viii. Authorizing changes proposed by superintendent.
  - (d) Administrative powers delegated to the superintendent, such as—
    - i. Approval of building plans.
    - ii. Improvements to grounds and buildings.
    - iii. Purchase of emergency materials, etc.
- b) Superintendent.
- (1) Historical evolution of the office of superintendent in city and state.
  - (2) Qualifications and term of office.
  - (3) Powers and duties, such as—
    - (a) Providing and keeping all records and reports.
    - (b) Compilation of statistics.
    - (c) Custody of books and documents of the school board.
    - (d) Keeping of school board minutes.



- (e) Making minor rules relating to conduct of schools.
  - (f) General supervision of instruction.
  - (g) General supervision of course of study.
  - (h) Nominating and assigning teachers.
  - (i) Appointing teachers in time of emergency, and action ratified at next meeting of board.
  - (j) Recommending salaries to be paid.
  - (k) Power of dismissal with or without any special authority from board.
  - (l) Expending money without any special authority.
  - (m) Attending all board meetings and overseeing the writing-up of minutes.
  - (n) Give list of routine things done by the superintendent during one week.
- (4) Clerical assistance allowed.
    - (a) List of duties of clerk.
  - (5) Expenses to teachers' meeting allowed or not.
  - (6) Office hours.
  - (7) List of things actually done by superintendent in a period of from one to four consecutive weeks.
- c) Principals.
- (1) Qualifications of present principals.
    - (a) Special interest in problems of school administration.
  - (2) Administrative and supervisory duties.
    - (a) List of things they do.
  - (3) Assistance given them.
    - (a) Clerk.
      - i. List of things clerks do.
  - (4) Amount of teaching done by principals.

## II. Business Administration.

### 1. Methods of bookkeeping.

- a) Give sample pages from various books used or of cards if card system is used.
- b) Enumerate the various accounts kept separately, such as those suggested by the National Bureau of Education.
- c) Give explanation of methods of recording so as to be easily accessible, payments of bonds, interest, and insurance.
- d) Methods of filing correspondence, reports, supplementary information in—
  - (1) School board office.
  - (2) Superintendent's office.

- (3) Principals' offices.
  - (4) By special supervisors.
  - (5) By heads of departments.
  - (6) In recitation rooms for convenience of teachers.
  - e) Samples of important reports and records, individual and summary, regarding attendance and progress of pupils.
    - (1) Reports for general office. ✓
    - (2) Reports for benefit of teachers and principals in efficient management of an individual building. ✓
  - f) System of ordering, distributing, and keeping track of supplies. ✓
    - (1) To be consumed in ordinary work of the school, such as—
      - (a) Chalk.
      - (b) Paper.
      - (c) Pencils, etc.
    - (2) Non-destructible, such as—
      - (a) Erasers.
  - g) System of keeping adequate track of minor purchases for repairs ✓ of buildings, etc.
  - h) System of keeping adequate track of supplementary readers and ✓ other helps when passed from room to room within the building or between the buildings.
2. Operation of physical school plant.
- a) Organization for keeping plant open and in operation.
  - b) Care of building.
  - c) Protection of building by insurance.
    - (1) Show proportion of real value of each building insured ✓ against—
      - (a) Fire.
      - (b) Storm.
      - (c) Earthquake.
  - d) System for furnishing and checking up consumption in janitors' ✓ supplies.

### III. Educational Administration.

- 1. Teaching corps.
  - a) Provision of. ✓
  - b) Methods of increasing permanence of. ✓
  - c) System of improving qualifications of teachers already in service. ✓
- 2. Supervision of actual schoolroom teaching. ✓
  - a) List of important points determining teacher's success. ✓
  - b) Concrete statement of method of keeping track of improvement in work. ✓

- c) Statement of various things done within a limited period of time in an attempt to improve the classroom work of some specific teacher.
  - (1) Things done by superintendent.
  - (2) Things done by principal.
  - (3) Things done by special supervisor.
- 3. Supervision of course of study.
  - a) In whom is authority vested for making?
  - b) In making course are services enlisted of—
    - (1) Superintendent?
    - (2) Supervisors?
    - (3) Principals?
    - (4) Teachers?
  - c) Explain the method by which co-operation is secured.
    - (1) Illustrate in detail by the use of a specific subject in the curriculum.
  - d) What organized method is used to insure continued growth and change in the course of study?
  - e) Upon what bases is the need of changes determined and met?

#### COURSE OF STUDY

- I. Different Subjects Included in the Course of Study.
  - 1. Names of subjects.
  - 2. Date of introduction of each subject.
  - 3. Pressure back of introduction of each subject.
  - 4. Brief outline of course in each subject.
  - 5. Place in course where each subject begins and ends.
  - 6. Amount of time allowed to each subject each week.
    - a) For preparation on part of pupil.
    - b) For recitation.
  - 7. School exhibits regularly or occasionally made in connection with various subjects of the curriculum.
  - 8. Time required for average child to complete each year of the course.
    - a) In primary grades by years only.
    - b) In department and high school by both years and subjects.
  - 9. Co-ordination or correlation of different subjects.
  - 10. Summary of unique variations from traditional courses or methods of presenting them.
- II. Number of Pupils and Percentage of Total School Enrolment, taking Each Subject in Each Grade.

### III. Subjects or Parts of Subjects That Are Optional.

1. With teacher.
2. With pupil.

### IV. Objective Measurements, if Possible, of Degree to Which Teachers Follow Course of Study.

### V. Ways in Which Course of Study is Made Suggestive to Teachers.

### VI. Organization of Course to Meet Varying Individual and Class-Group Abilities.

### VII. Textbooks in Use.

1. List of.
2. State uniformity or local discretion.
3. Method of adoption in each case.
4. Are books furnished free to all children?
5. How are poor children supplied with books?
6. How often are books changed?
7. Are they all changed at one time or gradually?
8. Cost per pupil for each grade—
  - a) If new books are bought by pupils each term.
  - b) If books are held from term to term and used in succeeding grades where possible.
  - c) If books are furnished by school.
9. List of sets of supplementary books by grades.
  - a) Method of selection of supplementary books.

### THE CHILD

### I. School Census.

1. Taking of census.
  - a) Time of year taken and how taken.
  - b) Legal provisions.
  - c) Method of taking.
    - (1) Exhibit blanks.
  - d) Pay for taking.
  - e) Who takes census?
  - f) What constitutes school age for census purposes?
2. Census statistics.
  - a) Enumeration for five years back by years, sex, and nationality.
  - b) Homes represented in the last enumeration.
    - (1) Number.
    - (2) Number having one, two, three, four children of school age.
    - (3) Number having more than four children of school age.
    - (4) Times family moved during school history of children.

- c) Enumeration by wards and years, showing number and percentage of yearly increase or decrease.

## II. Enrolment Statistics for Purpose of Showing Efficiency of System in Getting Pupils into School.

1. Enrolment for several years past by race, nationality, and sex.
2. Enrolment by grades—percentage of total enrolment in each grade.
3. Distribution of pupils by grades and occupation and education of parents.
4. Nativity census of enrolment.
  - a) Number born in city.
  - b) Number born in county outside of city.
  - c) Number born in state outside of county.
  - d) Number born in each of the states.
  - e) Number born in foreign countries.
  - f) Number birthplace unknown.
5. Distribution of enrolment at various dates during term.
 

a) First day.	}	Percentage each is of first day's enrolment.
b) First week.		
c) First month.		
d) Each succeeding month.		
6. Enrolment by age and sex of pupils new to the system.
7. Enrolment in high school by subjects and years.
8. Enrolment by departments—high school, grammar, primary.
9. Show visually relative number of pupils in each grade.
10. Graphic presentation of increase of census over enrolment.
11. Beginners by age and sex. Show age at which pupils first enter school.
12. Number and percentage of pupils living outside the corporation but attending school in the city.
13. Number and percentage of pupils entering system for first time, showing how many school systems have contributed to the present educational status of the pupils.
14. Number and percentage of children in school that have had all of their education in local system.
15. Ratio of number of children in school over compulsory age to the number within the compulsory age. Degree to which this ratio is increasing or decreasing.
16. Tuition of pupils by grades.
17. Grades pupils enter when entering from other systems.
18. State law and its efficiency in getting pupils in.

19. Machinery for enforcing the law in this regard.
  - a) Truant officers.
    - (1) Method of election.
    - (2) Pay.
    - (3) Term of office.
    - (4) Duties and powers.
  - b) Blanks for reports.
  - c) Time given to work.
    - (1) Number of pupils enrolled for each hour of service per week.
    - (2) Cost per pupil per hour of service.
  - d) Absences.
    - (1) Legal.
    - (2) Illegal.
    - (3) Reports by buildings.
    - (4) By months.
  - e) Promptness of reporting cases to truant officer, also promptness of disposing of cases.
  - f) Disposition of cases.
  - g) Preventive measures.
  - h) How efficient is work? How many have to be dealt with two times? Three times, etc.?
  - i) Number of visits made by truant officer.
  - j) Number of cases reported and disposed of.
  - k) Probation plan.

### III. Holding Power of School.

1. Age-grade tables by sex.
2. Years-in-school and progress-made tables by sex.
3. Percentage of old, young, normal age for grade.
4. Number and percentage of pupils over five, six, seven, nineteen, twenty, etc.
5. Age distribution in various grades.
6. Percentage of children fourteen years of age or over who have reached grades 5, 6, 7, etc.
7. Number and percentage of children of fourteen years of age or over who returned to school after summer vacation.
8. Number and percentage of graduates, common- and high-school, who go ahead with school work.
9. Membership of each grade on basis of 100 beginners.
10. Median ages of pupils in each grade.
11. Withdrawals by age, sex, months, grades.
12. Causes of withdrawals.

13. Ratio by years of number of children in school over compulsory age to number within compulsory age.
14. Ratio of number over compulsory age in school to number over age according to school census.
15. Extent to which elimination takes place in the grades.
16. Pupils failing to return at the beginning of school in the fall.
  - a) Age.
  - b) Grade.
  - c) School record.
  - d) Reasons for leaving.
  - e) Attitude of parents.
  - f) Character of work secured, pay, how position was obtained, how new work was learned.
  - g) Was position secured the kind wanted?
  - h) Attitude of child toward evening school or part-time classes.
17. Number leaving high school last year without graduating.
18. Number of pupils by sex between fourteen and sixteen leaving school each year.
19. Grades in which pupils drop out.
20. Withdrawals by months.
21. Percentage entering school that graduate.
22. Percentage of total enrolment leaving in each grade.
23. Number and percentage of over-legal-age pupils returning after a failure.
24. Percentage of total enrolment found in each grade.
25. Percentage of fourteen-, fifteen-, sixteen-, etc., year-olds withdrawing before close of year.
26. Distribution of withdrawals by ages, and causes.
27. Number and percentage of those entering each grade that persist to next grade.
28. Number and percentage by grades and ages of those that drop out before reaching next grade.
29. Number and percentage by grades and ages of those entering any one year that persist to the next year.
30. Number and percentage by grades and ages of those entering one year that do not persist to the next year.
31. Kind of pupils eliminated.
  - a) Dull.
  - b) Average.
  - c) Bright.

32. Average length of school life by grades and ages of pupils over school age who return to school after a failure.
  33. Conditions influencing pupils to leave school.
    - a) Statements as given by parents.
    - b) Statements as given by pupils.
    - c) School training of parents.
    - d) Attitude of parents toward further education for their children.
    - e) Occupation of parents.
    - f) Social status of parents.
    - g) Retardation of pupils.
- IV. Maintenance of Regular Attendance after Pupils Are in School.
1. Percentage of attendance by sex, grades, months, rooms, buildings, and by previous years.
  2. Tardiness same as 1. Also number of cases and number of separate pupils.
  3. Causes of poor attendance and tardiness.
  4. Attendance table by number of days.
  5. Days in week and part of day that attendance is best.
  6. Effect of specific subjects upon attendance and tardiness.
  7. Table showing percentage of average daily attendance on average register as compared with previous years.
- V. Degree to Which Pupils Make Regular Promotion.
1. Failures.
    - a) Figure percentage of failures by age, grade, and subject for each term for several terms.
    - b) Degree to which examinations are responsible for failure—
      - (1) In several grades below the high school.
      - (2) In high school.
    - c) Percentage of those entering system for first time that fail.
    - d) Effect of failure on succeeding term's work—
      - (1) In subjects failed in.
      - (2) In subjects passed in during first term.
    - e) Distribution of pupils by subjects and failures, by age and failures, by grades and failures.
  2. Repeaters.
    - a) By age, grade, sex, building, teacher, for several terms.
    - b) Percentage of increase and decrease.
    - c) Cost to reteach repeaters.
  3. Retardation.
    - a) Relation of absences to retardation.
    - b) Relation of various other factors to retardation.



- c) Retardation for each grade for those that have had 1, 2, 3, 4, 5 years in local system of schools compared with pupils from outside.
  - d) Average retardation of those entering system.
  - e) Retardation—
    - (1) In the system.
    - (2) By the system.
    - (3) By other systems.
  - f) Percentage of waste—ratio of number of points failed to number of points earned.
  - g) Of number enrolled give number and percentage making no credits, one credit, two credits, etc.
  - h) Comparative performance of failing pupils with various teachers in various grades.
4. Acceleration.
- a) Same as for retardation.
  - b) Plans for promoting acceleration and avoiding retardation.
    - (1) Semiannual promotions.
    - (2) Promotions by subjects.
    - (3) High-school subjects offered in grades.
    - (4) Special groups—strong and weak.
      - (a) Number of pupils ahead of grade by grades.
      - (b) Number of pupils behind grade by grades.
    - (5) Special teachers.
    - (6) Separation of sexes.
    - (7) Adjusting courses of study to pupils.
    - (8) Supervised study.
    - (9) Summer school.
    - (10) Notifying parents of delinquencies.
    - (11) Table showing by grades number of pupils receiving one or more promotions during the year.
    - (12) Precautions against pushing brilliant pupils too rapidly.

#### VI. Quality of Passing Work Done by Pupils.

- 1. Distribution of grades made showing number and percentage of the grades made falling within the various groups as follows: failing, fair, good, excellent, etc.; or 95-100; 90-95; 85-90; 80-85; 75-80; below 75, if 75 is passing mark.
  - a) Distribute for whole school in all subjects.
  - b) Distribute for each year and by groups of years in all subjects.
  - c) Distribute by subjects for all years combined.
  - d) Distribute by subjects and years.
  - e) Distribute also by age and sex.

2. In all of above find middle 50 per cent and show graphically as well as by tables.
  3. Comparative performance of pupils trained—
    - a) In local school and in schools in other corporations.
      - (1) Compare as to—
        - (a) Entrance age in any particular grade.
        - (b) Attendance.
        - (c) Quality of work previously done.
      - (2) Comparison as to work done—
        - (a) By subjects—
          - i. As to scholarship, showing median grades and distribution as to rank.
    - b) Same for pupils trained in certain grades in different buildings of local system and coming together later on for departmental or high-school work.
    - c) Same for pupils trained in same building by different teachers and later grouped together under one teacher. Such analysis helps materially in locating teachers whose work persists as pupils advance.
  4. Degree to which pupils maintain their standing when they enter other systems of schools through moving.
  5. Performance of high-school graduates when they enter higher institutions of learning compared with graduates from other systems of schools.
  6. Age of pupils in each grade of school work making each quality of grade. Are "excellents," for instance, made by under-age, normal, or average pupils?
  7. Measure retention of rank as far as grades are concerned as pupil advances in work.
    - a) Retention of rank from year to year by years and subjects.
    - b) Retention of rank throughout the succeeding part of the course with any one year taken as a basis.
    - c) Measure effect on future work of double promotions.
- VII. Correlations That Could Profitably Be Worked Out.
1. Correlation of grades in the various subjects in any one term or series of terms.
  2. Correlation of retention of rank by terms and by subjects—
    - a) From term to term.
    - b) Throughout the course with any one year taken as a basis.
  3. Correlation between visual acuity and scholastic standing of pupils in various common- and high-school branches.

4. Correlation of auditory acuity and scholastic standing of pupils in various common- and high-school subjects.
5. Correlation of any physical defect with scholastic standing of pupils in various common- and high-school subjects.
6. Distribution of vision groups among intelligence groups in various common- and high-school subjects.
7. Distribution of auditory groups among intelligence groups in various common- and high-school subjects.
8. Attendance of pupils and occupation of parents.
9. Attendance of pupils and progress made in school work.
10. Occupation of parents and school progress made by pupils.
11. Department of pupil and school progress of pupil.

#### VIII. Graduates.

1. Number and percentage of pupils reaching any particular grade continued to—
  - a) Graduation from common schools.
  - b) Graduation from high schools.
2. Number and percentage of those who finish either common schools or high schools who finish in the normal number of years of work.
3. Number and percentage of those who finish either common or high schools who finish at the normal age.
4. Number and percentage of high-school graduates that—
  - a) Enter college.
  - b) Finish one, two, three years.
  - c) Graduate.

#### IX. Measures to Preserve Health and to Protect Life.

1. Protection from fire.
  - a) Fire drills.
    - (1) Directions for giving.
    - (2) Time necessary to empty building.
    - (3) Frequency of drills.
  - b) Exits and stairways, width and number.
  - c) Doors opening outward.
  - d) Automatic latches.
  - e) Degree of fireproofing in the building.
  - f) Fire extinguishers.
  - g) Wiring insulated.
  - h) Firebox of boilers sufficiently removed from inflammable material.
  - i) Rubbish in basement.

2. Sanitation.
  - a) How often are furniture, woodwork, and floors washed?
  - b) How often are rooms disinfected?
  - c) Rooms cleaned by—
    - (1) Broom.
    - (2) Oil.
    - (3) Brush.
    - (4) Vacuum cleaning.
    - (5) Dry sweeping.
    - (6) How dusted?
  - d) Wall cleaned or brushed down. Frequency.
  - e) Erasers and chalk ledges and blackboards cleaned how often by—
    - (1) Janitors?
    - (2) Teachers?
    - (3) Pupils?
  - f) Windows washed how often?
  - g) How often are all marks, carvings, etc., removed and furniture revarnished?
  - h) Toilets.
    - (1) How often and how cleaned?
    - (2) Lighting.
    - (3) Ventilation.
    - (4) Sunshine.
    - (5) Toilet paper furnished?
  - i) How often is air changed in room?
  - j) Is air washed and humidified?
  - k) Temperature of recitation rooms.
  - l) Drinking-fountains.
    - (1) Same as before described.
3. Physical training provisions.
  - a) Provisions for indoor and outdoor play and games.
  - b) Classroom gymnastics.
  - c) Gymnasium or hall gymnastics.
  - d) Correctional exercises.
  - e) Athletic teams and leagues.
  - f) Swimming.
  - g) Bathing.
  - h) Boy Scout organization.
  - i) Camp Fire Girls organization.
  - j) Folk dancing.
  - k) Formation of personal hygiene habits.
  - l) Instruction in feeding, clothing, and sleep of pupils.

- m*) Instruction in use of tooth brush.
  - n*) Instruction in detrimental effects of use of coffee, tobacco, narcotics.
4. Hygiene of instruction.
- a*) Specimen of schoolroom programs showing various combinations of grades.
  - b*) Does the type of print pupils are called upon to read suit the eyes?
  - c*) Methods used to prevent overstrain and other detrimental by-products resulting from strenuous effort on part of teacher or school system to maintain a high degree of efficiency.
  - d*) Are lighting and seating up to standard?
  - e*) Degree of home study required in the various grades.
5. Medical inspection.
- a*) History of, in local system.
  - b*) Number of officers.
  - c*) Salaries.
  - d*) Time given to work.
  - e*) Cost per hour of examiner's service.
  - f*) Cost per week per pupil enrolled.
  - g*) Purposes of inspection.
  - h*) Scope of work.
    - (1) Frequency of examination of children.
    - (2) Frequency and thoroughness of inspection of sanitary conditions of buildings.
    - (3) Exclusion of children suffering from contagious diseases.
    - (4) Special examination of mental defectives.
    - (5) Examination of all children absent on account of sickness before giving entrance certificates.
    - (6) Periodical examination of all children in case of epidemic.
    - (7) Examination of teachers or other employees at initiation of inspector or at direction of board.
  - i*) Relation of defects discovered to defects remedied? Is this ratio increasing or decreasing?
  - j*) Forms used.
  - k*) Emergency help.
    - (1) When inspector cannot do all the work are others called in to help?
  - l*) Causes of exclusions by years, time of year, and sex.
6. Health talks by physicians.
7. Teaching of hygiene.
- a*) How low in the grades is it taught?
  - b*) Essential topics emphasized.

**X. Tests to Discover Actual Efficiency of Pupils.**

1. General efficiency.
  - a) Binet-Simon.
2. Efficiency in school subjects.
  - a) Teachers' estimates in term reports.
  - b) Final examinations.
    - (1) History of how they are made.
    - (2) Samples of them.
    - (3) Forms for reports on these tests.
    - (4) Amount they count.
3. Other tests.
  - a) Stone tests in arithmetic.
  - b) Curtis tests in arithmetic, reading, language, and handwriting.
  - c) Writing—Thorndike or Ayres.
  - d) Composition—Hillegas tests in composition.
  - e) Thompson's minimum essentials.
  - f) Buckingham tests in spelling.

**XI. Employment of Children.**

1. How pupils were employed last summer by age, grade, sex.
2. Same for other holiday periods: Saturdays, Christmas.
3. Number of pupils partially supporting themselves during school and what they do; also recompense.
4. Relation between kind of jobs pupils have during summer who did not return to school and those who gave up their positions and returned to school.
5. Table of workers by age, sex, and those returning and those not returning.
6. Average age of workers by grades.

**XII. Pupil Activities.**

1. Athletics.
2. Plays.
3. Papers and other publications.
4. Clubs.
  - a) Fraternities.
  - b) Subject clubs.
  - c) Literary.
  - d) Debating and other organizations.

**XIII. Summary Tables in Regard to Above Points.**

## TEACHERS

- I. Number of Teachers Employed.
  1. By sex.
  2. By years, grades, and subjects.
  3. Show yearly increase or decrease in above.
  4. By sections of country from which teachers are drawn.
  5. By years of experience.
- II. Qualifications.
  1. Required—board ruling.
  2. Of present corps.
    - a) Academic training.
    - b) Experience in teaching.
      - (1) Total years' experience.
      - (2) Experience in local system.
      - (3) Experience in present position.
    - c) Kind of license held.
    - d) Sample of blank required to be filled by all applicants for positions.
- III. Terms of Appointment.
- IV. Nominations Made by Whom?
- V. Permanency of Teaching Corps.
  1. Table to show the percentage of teachers for the various periods of service.
  2. List of all teachers who have resigned and reasons for resigning.
  3. Increase of salaries in new positions.
  4. Percentage of those changing each year in grades and high school.
- VI. The Work of the Teacher.
  1. Number of pupils per teacher.
    - a) Enrolment.
    - b) Average belonging.
    - c) Average daily attendance.
  2. Number of classes to the teacher.
  3. Number of recitations to the teacher.
  4. Total class time of teacher.
  5. Additional required time at school—minutes per week.
  6. Time spent in school work away from school.
  7. Total time given to school work—minutes per week.
  8. Total time at school—minutes per week.
  9. Time at teachers' meetings—minutes per month.
  10. Number of educational books read during a limited period of time.

11. Number of educational journals read regularly.
12. For each teacher in high school and for each period of the day—
  - a) Grade taught.
  - b) Subject taught.
  - c) Number pupils.
  - d) Minutes recitations per week.
  - e) Minutes laboratory or shop work per week.
  - f) Minutes study work per week.
  - g) Minutes consultation per week.
13. Table showing increase or decrease in size of classes and percentage of increase or decrease.
14. Degree to which teachers are consulted concerning—
  - a) General school policies.
  - b) Making course of study.
  - c) Selection of supplementary material.
  - d) Change of textbooks.
15. Give samples of assignment made in various subjects by teachers.

#### VII. Improvement of Teachers through—

1. Observation of teaching within the system.
2. Visits to neighboring towns.
3. University extension work or summer-school work.
4. Leave of absence.
5. Travels.
6. Reading.
7. Lectures to teachers.

#### VIII. Teachers' Meetings.

1. General, district, state, or national attended.
2. Meetings with supervisors.
  - a) Drawing.
  - b) Music.
    - (1) Required.
    - (2) Voluntary.
  - c) Writing.
  - d) Physical education.
  - e) Give samples of work done in above meetings.
3. Meetings with new teachers and superintendent at beginning of school.
4. General meeting at beginning of school—
  - a) Of principals and superintendent.
    - (1) Give list of subjects discussed.



- b) Of all teachers and superintendent.
- c) Meeting of teachers with principals preceding opening of school.
- 5. Meetings during year—
  - a) With principals.
    - (1) For building problems.
    - (2) For professional work.
  - b) With superintendent and principals.
    - (1) Grade meetings.
    - (2) Course-of-study meetings.
    - (3) Visiting-day meetings.
    - (4) Special-subject meetings.
    - (5) Examination-questions meetings.
    - (6) Meetings with truant officer.
    - (7) Meetings for presentation and explanation of plans and methods of instruction applicable to all grades.
    - (8) Give examples of work done in each type of above meetings.

#### IX. Income.

- 1. Salaries.
  - a) Table showing number of teachers at various salaries in elementary and high schools.
  - b) Percentage of increase in past years.
  - c) Compare second with increase in cost of living.
  - d) Basis for determining salary.
    - (1) Quality of license.
    - (2) Experience.
    - (3) Grade taught.
    - (4) Success as a teacher.
- 2. Other income.
  - a) Vacation work.
  - b) Other sources.
- 3. Number and percentage of teachers having to support others than themselves.
- 4. Pension system.

#### X. Freedom of Teachers to Experiment.

##### FINANCES

- I. Comparison of Local School System with Other Systems in Regard to Assessed Valuation and Relative Amount of Taxes Devoted to Education and Taxes Devoted to All Other Purposes.

## II. Receipts.

## 1. Directly by board.

## a) From state.

(1) Basis of distribution of this fund by state.

## b) Local.

(1) From taxation.

(a) Designate the various funds.

(2) From tuition.

(a) Cash by pupils.

(b) From township trustees for transfers.

(3) From other sources.

(a) Interest on deposits.

(b) Sale of bonds.

(c) Sale of property.

(d) Refunds from errors.

(e) Sale of textbooks.

(f) Sale of manual-training and domestic-science products.

(g) Any other sources.

c) Taxation, total and for school purposes for several years past.

2. Received by principals of the several buildings for various purposes.

3. Limitations on use of funds.

4. Resources from various funds for several years past.

## III. Expenditures.

## 1. Basis of paying out money.

## a) Original order.

b) Bills approved by comparison with original order and goods received.

c) Recommended for payment by superintendent.

d) Ordered paid by board.

e) Mailed by whom?

2. Per capita cost based on population twenty-one years of age or over, total population, school enrolment, number belonging, average daily attendance, or students per hour of instruction in—

a) Manual training.

b) Sewing.

c) Drawing supervision.

d) Music supervision.

e) Elementary schools.

f) High schools.

g) Separate subjects in high schools.

h) Various items of expenditure.

- i) Various types of expense.
  - (1) Instruction.
  - (2) Administration.
- j) Various buildings.
- k) Various buildings by types of expenditures.
- 3. Compare local system with other cities in regard to above items of expense.
- 4. Summaries of expense.
  - a) For past five or ten years.
  - b) For past two years in detail according to plan of—
    - (1) Spaulding.
    - (2) Goodnow and Howe.
  - c) Estimated receipts and disbursements for future years.

## MISCELLANEOUS ITEMS

- I. Educational Problems Being Investigated at Present by—
  - 1. Superintendent.
  - 2. Individual principals.
  - 3. Individual teachers.
  - 4. Individual buildings.
  - 5. Other co-operative studies.
- II. School Sessions.
  - 1. Length of year.
  - 2. Length of week.
  - 3. Length of day.
  - 4. Length of recitation period.
  - 5. Time building is open for admission of pupils.
  - 6. Time teachers are required to be present.
  - 7. Length of recess and noon intermission.
- III. Improvements in Various Lines during Limited Number of Years.
- IV. Present Needs of System as Arrived at from Educational Survey.
- V. Constructive Suggestions as to How These Needs Can Be Efficiently Met without Undue Burden from Taxation.

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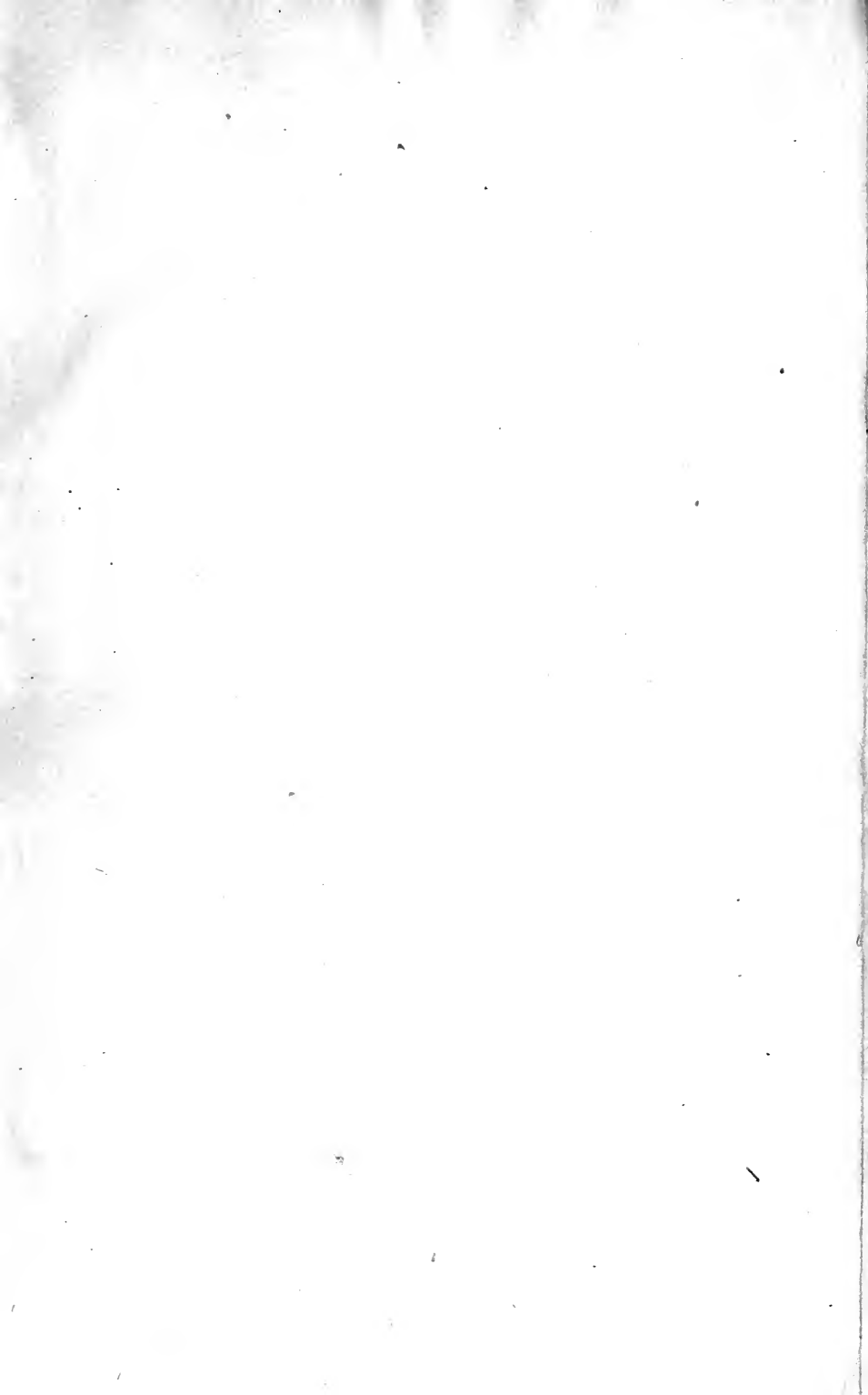
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