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EDUCATIONAL SURVEYS

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[Advance sheets from the Biennial Survey of Education in
the United States, 1916-1918]



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EDUCATIONAL SURVEYS.¹

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CONTENTS.—State surveys—County surveys—"Town" surveys—City surveys—Vocational education surveys—Higher educational institutions—Negro education—Foreign surveys—Miscellaneous—Unpublished surveys.

The educational survey has ceased to be a mere event or an occasional happening. It has been critically transformed into a permanent means of progress. Changes in the educational conditions of a given system are now to be expected not merely from the initiative and push within, but are actively sought for as the outcome of an objective and unbiased study of the situation. The establishment of standards based on current practices and the more exact definition of the relations which should obtain in the dynamics of educational support and organization, of teaching and learning, have made possible the increasing number of scientific approaches to the task of formulating qualitative and quantitative judgments concerning communities and their schools. The system of schools set up and maintained by a State, county, or city is a most important form of human behavior, and therefore worthy of the intensive study essentially characteristic of a survey. The synthetic judgment in which the study culminates, prophetic of vital readjustments to be made, is possible only to the survey whose scientific acumen is guided by a fertile imagination drawing from the now rich stores of ranks, standards, and measurements possessing both accuracy and applicability.

¹ This chapter is the fourth report in the special series presenting a record of the educational-survey movement. In the report of the Commissioner of Education for the year ended June 30, 1914 (Ch. XXIV, vol. 1, pp. 513-562), and also June 30, 1915 (Ch. XVIII, vol. 1, pp. 433-492), appeared the first two reports of school surveys in the United States. The educational inquiries and surveys, the reports of which, with two exceptions, had been published up to the close of each of the two years, respectively, were analyzed with reference to the place and time, the authorization, the details of the staff, the situation leading to the inquiry, the method and scope, and the fundamental problems investigated, with a summary of the more important findings and the recommendations.

The third report, appearing in the report of the Commissioner of Education for the year ended June 30, 1916 (Ch. XXI, vol. 1, pp. 353-371), included those surveys of which the reports had been published during the year under review or were in process of publication, and listed those surveys the reports of which remained unpublished. This fourth report presents an account of the surveys which have been published during the biennium 1916-1918 or are in process of publication, listing those which may not be published.

The permanency of the survey as an American means of educational progress is clearly shown by the greatly increased number made during the biennium of 1916-1918, which this report reviews. Of the 157 surveys (including 7, the reports of which are unpublished) made during the past seven years, 73, or 47 per cent, were made during the last two years. The 147 published reports present the results of extensive, or special, studies of districts, in whole or in part, thus distributed: United States, 1; States, 18; counties and "towns," 40 (reporting on conditions obtaining in 67, 3 counties in one instance being "typical" of a State); cities, 59; higher institutions, 10 (covering 24 institutions); vocational, 13; and special, 6. The average number of surveys per year made during the entire period is 22. During the biennium the annual average is over 36. The 69 survey reports published (or in press) during these two years show in their distribution a steady widening of the field of application: State, 8; county and "town," 24 (reporting conditions prevailing in 49); city, 22; higher institutions, 5; vocational, 6; and special, 4.

The survey continues to extend its services in general, ranging from an almost complete reorganization of a system to the easing of a local "situation"; and in particular, such as showing the limitations of the school plant and furnishing a building program for several years to come, specifying costs of operation and instruction and revealing untouched financial resources, discovering the attainments of pupils in classes, buildings, and districts, and thus pointing out new functions in the field of supervision, extending more exact inquiry to include additional subjects as music, drawing, and school gardening, and formulating the teaching norms characteristic of a city, county, or State. The survey has more than "paid for itself" by showing that we can not cheapen education. It has become an effective means for the explanation and the preparation of a supporting community for the rapidly and inevitably increasing costs of public education (e. g., the bond issues of St. Louis, St. Paul, and Harrisburg). A most striking feature of the survey changes in the biennium is to be found in the adoption of some of its distinctive methods by superintendents, particularly of city schools, in their annual reports or special publications. This form of "auto" surveying at once disseminates in the community more accurate and intelligent information concerning schools, and places a new interpretation upon the meaning of educational administration in practice. Important increments to our scientific knowledge of educational processes and results are being made through the greater attention given to the measurement of the achievements of pupils by the inclusion of standard scales and tests. What can we tell about a school system having

exact information about this, that, or another trait, is a question the survey has enabled us to answer with increasing certainty. The duty of comprehending the educational survey is thus laid alike upon the public, both parent and taxpayer, the practitioner, and the student of education, for it has ceased to be a mere event or an occasional happening.

In connection with these general features and before taking up the details of survey activities during the biennium, it should be noted that a view of the special significance of the educational survey as a means of progress and of the activity of the Bureau of Education in forwarding this movement by extensive participation therein is set forth in the report of the Commissioner of Education for the year ended June 30, 1917 (Vol. I, Chap. II, pp. 19-44). It is important to observe how legitimately the educational survey has fitted in with the conditions of national progress as provisioned in the congressional legislation half a century ago. The Commissioner of Education thus calls attention to this situation, as a preface to the extended summaries of several important surveys conducted by the bureau which are included in this account of its varied activities during 1916-17:

In its educational survey work the Bureau of Education is carrying out in the most direct manner possible the task contemplated in the original act [1867] creating the bureau. . . . It is precisely this function that the educational survey fulfills. . . . It is becoming more and more evident that the educational survey constitutes a type of service most appropriately rendered by the Federal Bureau of Education.

STATE SURVEYS.

*Illinois.*¹—This survey presents most of the results of a State-wide survey growing out of a resolution passed by the Illinois State Teachers' Association in 1913. After a period of conferences and committee organization, it was decided to investigate "the children; the teachers; the program of studies; the school plant; finances; organization, administration, and supervision; the school and the community; conditions affecting vocational education; and the rural schools," with a special investigator in charge of each division. "It was not possible to present complete and detailed reports upon all of these topics, partly because the investigators were not free to secure the information at first hand and partly because of limited resources." "The committee was handicapped not only by a lack of funds, but by the failure of certain agencies to cooperate with the movement and by the unfriendly attitude of certain members of the

¹Illinois School Survey. A Cooperative Investigation of School Conditions and School Efficiency, Initiated and Conducted by the Teachers of Illinois in the Interest of All the Children of All the People. By E. D. Coffman, director. 377 pp. Published by order of The Illinois State Teachers' Association, 1917.

teaching force." The method of securing information employed the questionnaire extensively, with the visitation of a total of 173 rural schools by three investigators.

The report of the Illinois school survey, accordingly, includes 11 reports on the following specific topics:

- The economic status of teachers in Illinois, by L. D. Coffman.
- Program of studies in town and city graded elementary schools, by W. C. Bagley.
- The technique of superintendence, by L. D. Coffman.
- School finances, by David Felmley.
- Student population and related problems in high schools, by J. A. Clement.
- Spelling scores for 54 Illinois cities, by J. F. Bobbitt.
- Arithmetic scores in seven Illinois cities, by J. F. Bobbitt.
- Some exceptional high-school pupils in Illinois, by E. E. Jones.
- The rural schools: Reports by Caroline Grote, Edgar Packard, and Joseph H. Hill.

Alabama.—The 1915 session of the Legislature of Alabama authorized the submission to the qualified electors of the State, to be held in November, 1916, of an amendment to the constitution permitting the several counties in the several districts of any county to levy and collect a special tax not exceeding 30 cents on each \$100 worth of taxable property for school purposes. The department of education of the State, accordingly, undertook a special study of educational conditions which would enable the voters to act in the light of knowledge when voting upon the proposed amendment. It issued in July, 1916, "A Comparative Study of the Public School Systems in Alabama and Other Typical States and an Exhibition of Educational Conditions in the 67 Counties of Alabama." (Bulletin No. 55, 32 pp.) The States chosen for comparative purposes included Florida, Georgia, Massachusetts, Mississippi, Ohio, Tennessee, and Washington, the data being derived from the report of the Commissioner of Education for 1914. The study of conditions in the several counties in the State related only to whites, including both rural and city districts. The special topics presented include: Children in school and out; length of school year and average attendance; average annual expenditure per pupil enrolled; teachers and teachers' salaries; average number of pupils per teacher; grades of certificates; investment in school plant; and illiteracy in Alabama. The entire material of the bulletin is organized after the pattern of "A Comparative Study of Public School Systems in the 48 States," issued by the Russell Sage Foundation in 1912.

Colorado.—The "Report of an Inquiry into the Administration and Support of the Colorado School System made under the Direction of the United States Commissioner of Education" was issued as Bulletin, 1917, No. 5 (93 pp., 48 tables). The scope of this study,

which was made upon the request of the Colorado State Survey Committee, "was confined to an investigation of the administration and support of public elementary and secondary schools and their immediate effects upon conditions determining the character of work done in these schools." The inquiry was made by A. C. Monahan and Katherine M. Cook, both of the Bureau of Education, who were in the State during a considerable time in the months of September, October, and November, 1916. The detailed topics taken into consideration include the State of Colorado and its educational system, general administration, revenue and support, and the administration of school instruction. Chapter II presents a summary of the 25 recommendations made to meet "Colorado's greatest need in public education" which was found to be "a type of centralized organization, now wholly lacking, which would furnish the leadership and guidance necessary to insure State-wide progress."

Arizona.—Because of its recent admission to statehood and the formative stage through which its educational development is passing, especial interest attaches to the study of "Educational Conditions in Arizona: Report of a Survey by the United States Bureau of Education," and issued as Bulletin, 1917, No. 44 (196 pp., 86 tables, and 15 plates). The inauguration of the movement leading to the survey was made by the Arizona School Officials' Association early in 1915. Toward the close of this year, the State superintendent of public instruction requested the Bureau of Education to conduct the survey, which was begun in the autumn of 1916. The members of the bureau assigned to the study included A. C. Monahan, J. C. Muerman, Katherine M. Cook, W. S. Deffenbaugh, F. B. Dresslar, H. W. Foght, and Samuel P. Capen. The study made of the State university was assisted by Livingston Farrand. In addition, assistance was rendered by State and educational officers, and questionnaire returns from 81 per cent of the teachers and several-hundred other citizens in the State.

The topics presented in the report include the State of Arizona and its educational system, the status of elementary and secondary education, the State normal school and the department of education in the State university. Chapter II, which deals with secondary and elementary education, comprises about two-thirds of the report and presents considerations of State administration, county and district administration, revenue and support, urban school districts, high schools, elementary school attendance, and instruction. The problems involved in the supply of teachers were the chief feature of the study made of the State normal school and the department of education in the State university.

The 10 groups of recommendations for the improvement of educational conditions in the State are:

1. Centralization of the State school system, placing the responsibility of the administration of the public-school system definitely upon the State board of education and the State department of education working in cooperation with the county boards of education and school-district trustees.
2. Reorganization of the State board of education, conferring upon it enlarged powers.
3. Provision for a nonpolitical State superintendent who shall be the head of an enlarged and more effective State department of education.
4. Provision for county control of county school funds through county boards of education and nonpolitical county superintendents.
5. Reorganization of the method of apportioning State funds on a basis which recognizes county and local effort.
6. Requirement of a higher standard of general and professional education for teachers, a revision of the method of certification, establishment of a certification division in the State department of education, which shall be also a teachers' employment bureau.
7. Means to encourage the erection of suitable school buildings and to prevent the erection of undesirable ones.
8. Rearranged course of study especially to meet the conditions in the one-teacher schools.
9. Provision for expert supervision of rural schools.
10. Reorganization of the method of handling State textbooks to prevent unnecessary losses.

South Dakota.—A complete scheme for the reorganization of the system of public education in South Dakota, in order to bring its administration into conformity with the best current practice, to secure a more effective unification of the schools and higher institutions, and to eliminate various disturbing political factors, is presented in the recommendations of the report made by the State educational survey commission announced in June, 1918. The commission was appointed by the governor in accordance with the act of the legislature in 1917, appropriation having been made to meet the expenses of the study. The inquiry was conducted under the direction of the Commissioner of Education, the field work and preparation of the report being in charge of Harold W. Foght.

The report, which will be published as a bulletin by the Bureau of Education, includes these topics: The topography of South Dakota; economic conditions; the kind of schools best adapted to an agricultural people; the present system of education; rural elementary and high schools; town and city elementary and high schools; State, county, and rural school organization and administration; supervision of city, town, and county schools; the preparation and certification of teachers, and teacher training in the several public and denominational institutions; the State university; the State college of agriculture; the State school of mines.

Chapter XXI presents a summary of the most important legislative and administrative recommendations offered, among which are the following: (1) Constitutional amendments enlarging the powers and duties of the present State board of regents so as to unify the system and to secure the election by this board of the State superintendent of public instruction; (2) reorganization of rural schools so as to reduce to a minimum the number of one-teacher schools and to increase the number of consolidated and rural high schools, to secure enlarged school plants, homes for teachers, and a more permanent staff of teachers receiving more adequate salaries, and, to readjust the school year in conformity with the growing season and the occupational interests of communities; (3) reorganization of school districts outside of present independent town and city districts into the county-unit system, with county boards of education having specified powers and duties, including levying a uniform county school tax and equalizing educational advantages among all school children in the county; (4) the provision, new for South Dakota, for a State school tax amounting to about one-third of the total school maintenance, and also a permanent millage tax for the support of the higher institutions in lieu of present legislative appropriations; (5) the improvement of teachers' qualifications and teaching conditions.

Iowa.—The novel attempt to discover and formulate State norms in the attainments in certain subjects by children under instruction in public schools is exemplified by the two following monographs: "Handwriting of Iowa School Children," by Ernest J. Ashbaugh, University of Iowa, Extension Division Bulletin No. 15, March 1, 1916 (24 pp., 10 tables, 6 figs., 4 graphs); and "The Arithmetical Skill of Iowa School Children," by Ernest J. Ashbaugh, University of Iowa, Extension Division Bulletin No. 24, November 1, 1916 (63 pp., 17 tables, 31 figs.).

The first study attempts to answer these questions:

1. How well do Iowa school children write?
2. Do children improve their quality of writing regularly as they progress through the grades?
3. Do children attending school in towns and cities write better than those attending the rural schools?
4. Do the children in the larger cities write better than those in towns or small cities?
5. How do children in this State compare with children in other States?
6. Is the quality of writing of the average eighth-grade child sufficient to satisfy the ordinary demands of everyday life outside of school?

The data on basis of which the answers could be formulated were secured during the school year 1914-15, being a total of 28,000 papers received from 110 cities and towns and from rural schools in 14 coun-

ties. The scoring of the papers was based on Ayres's measuring scale for handwriting. In general, it was found that, "on the average, Iowa children are writing as well as children of like grade elsewhere in the United States and at a greater speed, with the exception of the eighth grade, which is only a little slower."

The second study attempts to secure answers to these questions:

1. How skillful are Iowa school children in performing the four fundamental operations in arithmetic?
2. How does the skill of Iowa school children compare with that of children of like grade in other States?
3. How does the skill of children in small towns compare with that of children in larger towns and cities?
4. What use can be made of standard tests?

The data were secured by the extension division of the university, through whom arrangements were made for the giving of the Courtis Series B tests during the last two weeks of the school year 1915-16. Papers were secured from about 13,000 pupils in 52 cities and towns, the teachers checking the papers and recording the number of "attempts" and "rights." Class-record sheets, which were accepted as accurate, were then handled by the extension division in order to secure the information sought by the four questions. It was found that the speed is greater in the lower grades than in the upper, and the accuracy may be improved in most grades, especially in addition and multiplication. In comparison with the children of Indiana, Kansas, and Minnesota and the Courtis general scores, Iowa children excel in most grades and operations. The study seems to throw "some light on the justice of the criticism" which specifies the inaccuracy in arithmetical ability on the part of children who complete the common-school course.

In "Vocational Guidance in Music," by Carl E. Seashore (University of Iowa Monographs, First Series No. 2, September, 1916, 11 pp.), announcement is made of the provision in the psychology of music studio for the conduct of music surveys in the public schools. This development of grade tests in music for vocational guidance represents additional equipment for school survey purposes.

Wisconsin.—A contribution toward the improvement of teaching in public schools, as well as the formulation of a measure of the success of the instruction given and representative of the practices characteristic of the State, is presented in "A Report on the Use of Some Standard Tests for 1916-17," by W. W. Theisen, and issued by C. P. Cary (Studies in Educational Measurements in Wisconsin, Bulletin No. 1, 1918, Madison, pp. 120, 45 tables and 9 figures).

These "tentative Wisconsin standards of achievements" in spelling, arithmetic, handwriting, composition, and reading were derived from an extended plan of cooperative research, aided by members

of the State department of education, city and county superintendents and teachers, under the direction of the State supervisor of educational measurements. In addition to the pupils' work, the study sought by questionnaires certain facts as to the course of study and organization of instruction in the subjects tested in order to find possible correlative explanations of the results obtained in some of the tests.

The spelling of 36,564 pupils in rural, "State graded," and high and city schools was tested by the Ayres scale, and found "to be from one-half year to a full year behind" its standards, city pupils falling below the others. The attainments in the four fundamental operations in arithmetic of varying numbers of the third to eighth grade pupils in a total of 21 cities were measured by the Woody test series A, and proved to be up to standard in the three lower grades, but below in the three upper grades. The handwriting of 7,231 children in rural, graded, and city schools, second to eighth grades, was scored in quality by the Thorndike scale, and compared, also, through conversion by Kelly's method, with Freeman's and the Iowa standards, and shown to fall below them, excepting that the best Wisconsin handwriting both in quality and speed appears to be in the rural schools. The Hillegas scale and the Nassau County supplement to the Hillegas scale were used in the effort to secure a representative State measurement of the results in English composition of 5,848 children of the third to eleventh grades in 15 cities, and revealed that "the children as a whole in these Wisconsin cities do not make a commendable showing." Results in the reading of 7,549 children, tested by the Kansas silent reading test, as reported by 18 cities, two cities including scores made by high-school pupils, show Wisconsin children to be below the standard performances in the third and fourth grades, and above in the fifth to eighth grades.

COUNTY SURVEYS.

Georgia.—What may be designated as the Georgia method of county school survey, illustrated in the material of former reports, continues to be applied during the biennium by M. L. Duggan, rural school agent, acting under the direction of the State department of education. The present list includes:

No. 11. Tattnall County, 1916. No. 12. Screven County, 1916. No. 15. Brooks County, 1917. No. 16. Hart County, 1917. No. 18. Spalding County, 1917. No. 19. Towns County, 1917. No. 20. Jones County, 1918. No. 22. Candler County, 1918. No. 23. Tift County, 1918. No. 24. Ben Hill County, 1918.

By noticing the different existing features placed under the several rubrics used in describing existing conditions, one can see the several lines of change and improvement which are appearing in rural sec-

tions in this State from year to year. For example, No. 11 specifies that "moonlight" schools or "no moonlight" classes are organized. No. 15 notes as a new feature "clubs" or "no clubs," such as canning, corn, pig, and poultry, organized. Nos. 16 and 18 emphasize the contrast in outlays for schools as compared with courthouses and jails, and urges a wider extension of a county tax levy and a district tax levy. No. 19 lists the rubrics by means of which one may score a school as standard. No. 22 shows the importance of compulsory attendance, and No. 23, the advent of "the school pig."

A most interesting application of the "survey" type of handling official statistical data in the training given to prospective teachers may be found in "A Brief Social and Economic Survey of Muscogee County," by Ella Jones, and published by the Georgia Club as a bulletin of the State normal school, Athens, Ga., June, 1917 (14 pp.), and "A Brief Social and Economic Survey of Floyd County," by Estelle Hughes, September, 1917 (15 pp.). Similar studies have been made of Clarke, Putnam, and Webster Counties by students at the normal school under the direction of Prof. F. A. Merrill.

Indiana.—That survey reports may serve two forms of educational service is illustrated in the "Educational Survey of Greene County, Ind.," by Supt. Daniel C. McIntosh, published in June, 1916, (110 pp.). "To present the facts, just as they were at the time of the investigation (1913-1916), so they may be understood by everyone, and then to make some practical suggestions to better conditions," were the main objects of this study. The report was also submitted in partial fulfillment of the requirements for the degree of master of arts in the school of education, Indiana University. The material was collected by the county superintendent, with the aid of teachers and principals in the performance of their respective duties, and is arranged in 10 chapters, 29 tables, and 26 figures. The details include: The location and history of the county; the topography, resources, and transportation; the economic, social, and religious conditions; the history, organization, and administration of schools; the physical plant; the teachers; the pupils; programs and curriculum; financial; summary and recommendations. The appendix includes the blanks which were employed in collecting the data and a brief outline of the survey of a rural county.

Texas.—"A Study of Rural Schools in Travis County, Tex.," by E. E. Davis, of the University of Texas; department of extension, division of school interests. (Bulletin of the University of Texas, 1916, No. 67, 53 pp.), is also a study that served a double purpose, namely, "to make an accurate and scientific estimate of public education" in a part of Travis County, and to be a chapter of a thesis offered in connection with the requirements for the degree of master of arts

in the University of Texas. The scope of the material includes: Economic and social conditions; finances; grounds, buildings, and equipment; course of study; teachers; pupils; conclusions and recommendations. In dealing with the course of study use was made of a number of tests for measuring the achievements of pupils, such as Ayres's scale in handwriting, Thorndike's reading scale, Curtis's series B, for speed and accuracy in arithmetic, and Starch's reasoning tests, scale A, in arithmetic. An attempt was made to use Ballou's scale for measuring English composition, but, owing to certain difficulties, the plan was not executed.

In February, 1917, a "Survey of the Public Schools of Walker County, Tex.," was made by the United States Bureau of Education. It made special study of the academic education and professional training of the teachers, their certificates and tenure of position; salaries; grades taught; school grounds; buildings and equipment; water, toilets, lighting; length of term. A summary of the main findings appeared in the "Texas School Journal," March, 1918, (pp. 13-15).

Missouri.—"A Sanitary Survey of the Rural Schools of Northeast Missouri," by Prof. Willis J. Bray, was published in "The Rural School Messenger," November, 1917 (pp. 47-80). The data in this report were obtained by the tabulation of the answers to more than 100,000 questions.

These answers were from representative rural schools in each of the 20 counties in this section of Missouri. These questions called for a simple statement of fact and not, with one single exception, for an expression of opinion. The answers obtained can be relied upon as an exact statement of facts in almost every case.

The scope of inquiry included school grounds, school buildings, and schoolrooms, health conditions of children, dental inspection, adenoids, eye defects, hearing, malnutrition, speech defects, water supply, heating of schoolrooms, disposal of dust and dirt, infectious diseases, and disposal of sewage. "The data when received were tabulated by counties, and the totals under each item obtained by adding corresponding items from all the counties."

New York.—The "Report of the Survey of Public Education in Nassau County, N. Y.," conducted in 1916, has been published as a University of the State of New York bulletin, No. 652, December 1, 1917 (287 pp., 112 tables, and 16 figures). It comprises two parts, the first of which is the report of the survey conducted by L. S. Hawkins, of the New York State department of education, and George D. Strayer, of Teachers' College, with the assistance of M. R. Trabue, who had charge of the direction of the field work and the compilation and report of the findings. The second part includes the report of the survey conducted by A. C. Monahan, J. C.

Muerman, Katherine M. Cook, and Belvia E. Cuzzort, representing the United States Bureau of Education. The first part devotes its attention largely but not exclusively to the five towns or superintendent districts; the second part to "practically all the farming territory in the county and all the small villages." The survey reveals extraordinary conditions, which are to be understood in light of the fact that the plan of school administration was "inaugurated over a hundred years ago" and has been essentially outgrown. Accordingly the survey suggests the basic need of a single county organization. In the attempt to measure school conditions and achievements of pupils use is made of more recently established forms of measurement. The school plant is estimated by means of Strayer's score card for city school buildings. About one-fourth of the report (pp. 146-217 and pp. 279-287) is given to the measurement of the achievements of pupils, including English composition (Hillegas), reading scale alpha (Thorndike), completion test, language scales C and L (Trabue), arithmetic (Woody, Curtis, series B, Stone's reasoning), penmanship (Thorndike), and spelling (Ayres). In accounting for the low achievements in fundamental subjects the survey believes that the causes "are not probably to be found in any lack of mental ability or willingness to work on the part of teachers or supervisors. The blame must be put, not on individuals, but on an old worn-out system of school administration and supervision." The inquiry into the achievements of pupils led to the development of the "Nassau County Supplement to the Hillegas Scale for Measuring the Quality of English Compositions" (pp. 160-162).

By means of this scale, which is somewhat more easily used by teachers than the Hillegas scale, teachers may check up with one another two or three times each year and know how their pupils compare with pupils of the same grade and age in neighboring schools. The county supervisors recommended by this report will be able, by means of this scale, to make comparisons between schools in the county and between the Nassau County school system and other school systems wherever it seems necessary. The median results obtained by using this supplement are exactly comparable to the median results obtained by using the Hillegas scale itself.

"TOWN" SURVEYS.

Connecticut.—In order to improve local school conditions and to better the administration of public education, the State board of education of Connecticut instituted in 1916 an "educational inquiry" in the several "towns" of the State which were under State supervision and received State grants. The surveys of the schools were

made by agents of the board of education, by personal inspections, aided, where possible, by the cooperation of school committees, superintendents, and citizens. The published reports of these inquiries include the following: "Glastonbury, 1916," by N. Searle Light (pp. 37, Connecticut Bulletin 29); "Seymour, 1916," by N. S. Light and E. W. Ireland (pp. 26, Bulletin 30); "North Stonington, May, 1916," by G. C. Swift (pp. 29, Bulletin 32); "East Windsor, May, 1916," by N. S. Light (pp. 34, Bulletin 45); "New Hartford, 1916," by E. Ward Ireland (pp. 33, Bulletin 30, Series 1917-18); "Kent, 1916-17," by E. Ward Ireland (pp. 33, Bulletin 56, Series 1917-18).

The scope of these inquiries usually included: The early history of the town and the beginnings of school activity; location, topography, and resources; the town's finances and school revenues and expenditures; population analysis; the school population, attendance, classification, and progress of pupils; school buildings, equipment, and grounds; teachers; instruction, observed or tested; administration and supervision. The conditions varying in these towns, a uniform scheme of inspection and testing could not be applied. Conditions were reported as found. "A system of control which makes possible a janitor's striking and cursing the superintendent of schools in the presence of pupils is abominable. And this incident on a day of visitation by the writer has not been the only occurrence of a similar nature" (Glastonbury). The indifference of the school committee to school conditions, and a failure during four months to secure a public meeting or conference led to the adoption of the novel plan of sending within one month a series of seven postals to the voters of the town setting forth the main findings in the form of questions. "The people were entitled to the facts" (East Windsor). Tests of the results of instruction were devised in arithmetic, language, spelling, geography (location), and history (dates) and given in Seymour, New Hartford, and Kent, the results being exhibited in the appendices.

CITY SURVEYS.

Boston, Mass.—The greatly increased cost of public education in Boston has led to two surveys of the city's school system. The main features of the first survey, 1911, were stated in the report of the Commissioner of Education (Chap. XXIV, Vol. I, 1914, pp. 521-523). In 1915 the finance commission was requested by the mayor of the city to investigate the great increase in school expenses. "With the appropriation of \$5,000 in hand, the finance commission decided to supplement the report of 1911 with an investigation by an educational expert." This inquiry extended from October 1, 1915, to January 22, 1916, the results appearing in the "Report of a Study of Certain Phases of the Public School System of Boston, Mass., made

under the auspices of the Boston Finance Commission," City of Boston, Document 87, 1916 (219 pp., 9 chapters, 16 tables, 12 diagrams). A second document, "Report on the Boston School Department with Especial Emphasis on the need for a Reorganization of its Central Administrative System" (66 pp.), contains a review of the report of the survey committee (pp. 6-49), and a review of the assistant superintendents' "reply" (pp. 50-61).

The personnel of the survey committee, with their special topics of study, included James H. Van Sickle, director of the study and chairman of the committee; George D. Strayer, administrative offices and supervision districts; Lewis H. Carris and Egbert E. MacNary, prevocational and vocational features of the schools; Edwin Hebden, vocational needs of Boston children; Leonard P. Ayres, the construction of school buildings; Earle Clark, general study of costs; Don C. Bliss, the organization of supervision and the work of special classes; Henry S. West, the high school situation. "Though the director holds himself individually responsible for each and every part of what is here presented the report represents the combined judgment of all who participated in the study."

The report does not present itself as "a complete survey" of the schools of the city, inasmuch as the scope of the study was restricted to those phases of the system "having to do chiefly with organization and costs," specified as follows: Cost of administration of the school system, with the various duties of the administrative officers; the organization of high and grammar school districts and the arrangement of duties of principals; the proper number of pupils to a teacher; the lengthening of the school year; the elimination of extra pay to teachers for service in vacation schools; the shortening of the common school course from eight to seven years; the value of the new schools and studies established since 1911; method of paying salaries to teachers; whether or not the system of furnishing additional school accommodations is being carefully and economically planned. The director observes that a complete survey would include many additional topics, among which are:

1. The relation of the courses of study to individual differences existing among children and to modern social demands.
2. The quality of teaching.
3. The achievements of pupils.
4. The adequacy of present provision for physical welfare of children, prevocational and vocational training, special classes, playgrounds.
5. The possibility of improving the present system of recording and reporting school facts, including the consideration of the question of clerks in elementary and in high schools.
6. An industrial-commercial survey.
7. The classification of children in the school system, including a study of retardation, elimination, and progress of children, together with a consideration of promotion rates, failures by studies, and the like.

8. A study of the distribution of expenditures among the several units of the school system for the sake of discovering any further possibility of saving without a decrease in the efficiency of the school system.

9. An investigation of the adequacy of the present school plant, with special reference to the effect of such accommodations or equipment upon the health and achievement of school children.

10. An inquiry concerning teachers, including the recruiting of the corps, their salaries, tenure, improvement in service, and the like.

11. A study of the present efficiency of general and special supervision, with particular reference to the contribution made by the supervisory corps to the growth and development of teachers.

12. The care of school buildings, including the qualifications, compensation, and control of janitors.

13. Apparatus and materials for the purposes of training and instruction (textbooks, laboratories, workshops, libraries, schoolroom decorations, etc.).

14. The legal basis of the school system. The relation of the school department to other departments of the city government and to the State legislature.

The discussions and findings of the study are presented in nine chapters dealing with the reorganization of the administration of schools; reorganization of district supervision; the high-school situation; special departments, including practice and training, promotion and research, physical welfare, industrial arts and household arts, evening and voluntary continuation schools, community centers, music, and kindergartens; vocational education; vocational needs of Boston children; expenditures for school purposes in Boston compared with expenditures in (22) other large American cities; the construction of school buildings; subsidiary matters. Among the recommendations which, in the summary, fill nine pages (pp. 6-14), the following may be mentioned: Reorganizing the administration so as to secure a responsible executive head, who should be superintendent of schools; a more adequate plan of supervision by redistricting the areas and taking account of the relationship between the number of pupils in average daily attendance and the number of masters employed; the general organization of junior high schools so as to extend their advantages to all parts of the city and at the same time reduce school costs; the 15 special departments should be re-grouped into 10; the prevocational departments should be reorganized as a part of the junior high schools; while Boston ranks second among the 21 cities in expenditure per inhabitant for operation and maintenance of schools, the expenditure per unit of wealth is relatively low; the city's plan of erecting school buildings through the agency of an independent schoolhouse commission has not been successful from the standpoint of cost.

San Francisco, Cal.—The detailed character of the study of the school system of San Francisco is unmistakably indicated by the 28 pages (pp. 621-644) required to present the brief digest of the important recommendations which are made in connection with the in-

discussion of the several topics taken into consideration. The presuppositions which serve as a preamble to this summary could well serve as the foreword to the survey of every public-school system in order to bring together school officials, citizens, and surveyors upon a common platform from which to view with like-mindedness all findings and recommendations.

On January 3, 1916, the Commissioner of Education undertook the organization of the survey which had been proposed as early as December, 1914, by representatives of the San Francisco Chamber of Commerce, and with which the San Francisco board of education cooperated. The Bureau of Education furnished the services of five specialists and the board of education seven members of the commission, who were nominated by the Bureau of Education from a list approved by the board of education. The commission, as finally made up, and the topics to which each member was assigned, are as follows: William T. Bawden, director of field work for the survey commission, manual training, vocational education; Henrietta W. Calvin, home economics; Fletcher B. Dresslar, school architecture, sanitation, buildings, and equipment; Arthur W. Dunn, civic education; John L. Randall, school and home gardening; Frederick E. Farrington, education for immigrants; William M. Davidson, organization, administration, financial and fiscal problems; Charles A. McMurry, elementary schools, courses of study, methods of teaching; John W. Withers, elementary schools, courses of study, methods of teaching; J. Stanley Brown, secondary education; Henry Turner Bailey, fine arts; Will Earhart, music.

The amount of time spent in the field included the month of February by eight members and the month of August, after the opening of the new school year, by four members, aggregating a total of 347 days in San Francisco. Every elementary school, every high school, and 16 evening schools were visited. One hundred and thirty-nine conferences were held with groups of teachers and principals. The expense of the survey was estimated at \$8,500. The report is contained in "The Public School System of San Francisco, Cal. A Report to the San Francisco Board of Education of a Survey made under the Direction of the United States Commissioner of Education," Bulletin, 1917, No. 46 (644 pp., 221 tables, 76 figures).

The scope of the survey is readily seen from the following topics, to each of which a separate chapter is devoted: The city of San Francisco; a statistical study of the school system; organization and administration; the finances of the school; school buildings and grounds; the elementary schools; tests of the achievements of pupils; the high schools; civic education; music in the public schools; instruction in art; home economics education; manual training; vocational education; education of the immigrant; educational and eco-

monic value of school-directed gardening. A striking feature of this survey is the new and special subjects which are included, indicative of conditions which are peculiar to the western section of the United States, particularly on the Pacific Coast. The ninth, tenth, fifteenth, and sixteenth topics touch upon these specific conditions.

The tests of the achievements of pupils were made in the subjects of penmanship, spelling, reading, and arithmetic, the preparation of the report on the results in each, respectively, being made under the direction of Frank N. Freeman, L. D. Coffman, N. L. Garrison, and Carter Alexander. So far as form is concerned, the writing of the children was found to be good; in spelling the city as a whole ranks considerably above the standard average for a large number of cities; in arithmetic, the children made an unusually good showing in speed, but not in accuracy, and did not evidence the usual increase in this quality with progress through the grades. Instruction in reading stands in need of standardization so as to insure grade to grade progress and greater uniformity in school situations, and thus to facilitate transfer and promotion of students. The intensive study of the 13 and 14 year old pupils in 11 elementary schools, selected at random and prepared under the direction of F. J. Kelly, in the interests of the development of a program for vocational education, indicates a new mode of attack upon the problems in this field.

Grand Rapids, Mich.—One of the most searching studies of a school system, that has yet been made, is to be found in the report of the "School Survey of Grand Rapids, Mich., 1916" (506 pp., 17 chapters, 112 tables, 94 diagrams). The survey was originally planned by the board of education to study the efficiency of instruction. As the results of the study of the instructional problems were obtained, it became apparent that this system was securing a distinctive type of results which doubtless involved high cost, and, accordingly, the scope was extended to include a comparative study of the costs.

The following, including Charles H. Judd, comprised the survey staff and the topics to which they were assigned:

Charles S. Berry, special classes; John F. Bobbitt, elementary school curriculum and school buildings; George S. Counts, arithmetic; John B. Cragun, music; Calvin O. Davis, high schools; John H. Francis, junior high schools; Frank N. Freeman, writing; William S. Gray, reading; Benjamin F. Pittenger, statistical material (in part) on teachers and promotions; Harold O. Rugg, school finances; and Matthew H. Willing, English composition.

Dr. Judd organized the staff, edited the results, and contributed the portions of the report not otherwise indicated above.

The report comprises the following topics in chapter order: The teachers; nonpromotions and failures in the elementary schools; introduction to tests; reading; composition; arithmetic; penmanship; music; instruction in the elementary schools; introduction to high-school report; secondary schools; special classes of the public schools of Grand Rapids; buildings and equipment; the cost of public education in Grand Rapids; the business management of the public schools; administrative organization. The final chapter presents a summary of the entire report (pp. 484-506).

In addition to the results secured in the application of the standard tests which were used to discover the ability of children in each of the school subjects studied, the survey is conspicuous by reason of its specification of the functions of supervision in the development of instruction. Detailed analyses of grade progress in the several subjects are so presented as to indicate both to principals of buildings and to supervisors how the checking up of the results of teaching can be carried forward diagnostically both in particular buildings and in particular grades.

The report in general shows that there is a very satisfactory condition of progress in the Grand Rapids school system. Instruction is of a high order, and the results are relatively superior. The detailed recommendations, which have been outlined in this summary, and are presented in full in the report, would make for an improvement of a school system already well organized and carrying on its work in a very adequate fashion.

Special mention may be made of the use of a new composition scale which is derived from material gathered in a similar test in Denver, Colo. It is interesting to note that, as in the San Francisco survey, music is made a subject of study in the Grand Rapids survey. A new type of foreign language courses is suggested for the junior high school. Emphasis is placed upon the recommendation that advanced courses in the senior high school should be given a "practical or functioning trend." The extended analysis of the data relating to high-school teachers sets a new degree of attainment in survey methods. The discussion of the study of the problem of the cost is clarified by the preliminary definition of the 10 different terms used in this report. Grand Rapids is compared with 18 cities in the items of expense.

St. Louis, Mo.—One of the largest and most carefully planned public-school surveys which has been conducted during the biennium is that of the public schools of St. Louis. This survey "was organized by the board of education for the purpose of securing a definite body of facts on which to base its financial policy and with which to persuade the citizens of St. Louis of the wisdom of this policy," and was conducted "primarily to aid in the passage of a bond issue of

\$3,000,000." The survey was authorized by the board of education on May 11, 1916. The survey of instruction was, accordingly, undertaken and completed during the closing weeks of the school year 1915-16. The final reports of the different sections of the survey were filed with the board in August and September, 1916. The cost of the survey was \$9,780.06, exclusive of the printing of the reports. The survey was published December, 1917.

The organization of the work of the survey included: (1) General organization of school system; (2) records, observations, and tests of schools, elementary schools, including nonpromotions and promotions, observations of instruction, the course of study, reading, arithmetic, and handwriting, special schools, and high schools; (3) administration: supervisory organization, including music, drawing, and physical education; divisions of administration, including attendance department, department of hygiene, and appointment of teachers and teacher training; (4) building: construction, hygiene, use of buildings for classes; (5) finance.

The respective assignments of the members of the staff to the above topics are indicated in the following list of the reports, which, for purposes of publication, were grouped in seven volumes.

Vol. I.	Part 1. General statement.....	Charles H. Judd.
	Part 2. Administration and organization.....	H. C. Morrison.
	Part 3. Appointment of teachers and teacher training.....	Charles H. Judd.
Vol. II.	Part 1. Nonpromotions and two-quarter promotions in the elementary schools.....	Charles H. Judd.
	Part 2. Observations of elementary school instruction.....	George A. Mirick.
	Part 3. The curriculum situation.....	J. F. Bobbitt.
	Part 4. Reading.....	William S. Gray.
	Part 5. Arithmetic.....	Charles H. Judd.
	Part 6. Handwriting.....	Frank N. Freeman.
	Part 7. Special schools.....	Walter F. Dearborn.
Vol. III.	High schools.....	A. B. Meredith.
Vol. IV.	Finances.....	H. O. Rugg.
	Part 1. Public school costs in St. Louis.....	
	Part 2. The business management of the public schools.....	
Vol. V.	Part 1. Construction of school buildings.....	W. R. McCormack.
	Part 2. Hygiene of school buildings.....	F. B. Dresslar.
	Part 3. The use of elementary and high-school classrooms.....	S. O. Hartwell.
Vol. VI.	Part 1. Music.....	J. Beach Cragun.
	Part 2. Drawing.....	F. H. Daniels.
	Part 3. Physical education.....	George W. Ehler.
	(Volume VI is not published, and it is expected will not be.)	
Vol. VII.	Part 1. Child accounting and attendance.....	H. C. Morrison.
	Part 2. Medical inspection.....	E. A. Peterson.

The splendid record which the St. Louis schools had been making through a long period of years gives reason for special interest and satisfaction in the results of this survey. One of our leading school systems thus has its enviable record confirmed when brought to the test of present scientific standards of measurement. The scope of the inquiry is readily gathered from the extended general statement of the findings and recommendations in Volume I (pp. 5-46).

Perhaps the most distinctive and valuable point emphasized in the St. Louis survey is the close connection between the erection of school buildings and the educational policy of a system stated in terms of the course of study and teaching activity. This identification of interests appears again and again in the course of the report and is summarized in the following statement of the director:

The fact is that a school building is in a very important sense of the word a concrete embodiment of the whole school policy. When one thinks of a school building, therefore, he must think of it in terms of the plans which the school administration has for the use of this building. For example, if a school building contains a gymnasium and a swimming pool, it is perfectly evident that the administrative officers who put the gymnasium and the swimming pool into the building contemplate using it as a part of the regular educational equipment. They will by their policy of construction be called upon immediately to provide the time and instruction necessary to use this material equipment. The moment they begin to try to provide time for the use of the swimming pool, they will raise a number of questions with regard to the relative importance of swimming as contrasted with arithmetic and reading. The swimming pool, therefore, comes to be a part of every consideration of the course of study. What has been said with regard to the swimming pool could be said with regard to all of the other characteristics of the building.

The school system becomes aware of lack of proper building equipments long before the citizens in general become aware of the fact that the course of study and the general policy of the school system are being invaded. It is inevitable, of course, if there is a lack of funds, that the school organization will ultimately be cramped because of this inability to enlarge the work of the schools. But the ordinary citizen is not likely to realize that the lack of funds means a reduction in the richness of the course of study and a deterioration of instruction.

Gary, Ind.—The advancement of educational science and the promotion of administrative practices in controlling the school experiences of children, as reflected in opinion, on one hand, and, as known by deliberate comparative judgments and exact measurements, on the other, have shared in a rare good fortune during the biennium. No experiment in public education in the United States has more quickly or widely influenced the formulation of opinions, and likewise carried conviction within an increasing group of official minds elsewhere than the undertakings and apparent novelties at Gary, Ind. The impression made upon many a visitor by its demonstrations of what can be done for children, if not what children can do for themselves, under the study-play-work program led to efforts

to reproduce its obvious features more or less formally in other systems. Indeed, so plainly had some of its leading issues involved been controverted that it was impossible to poll citizens by the question: Are you in favor of "garyizing" our schools?

In view of what "Gary" had become in American public education the most important survey of the biennium is that of its schools. The value of the survey as an instrument for the measurement and the interpretation of educational progress has had no more fortunate opportunity for revelation than in this study. The comparative merits of the traditional methods as over against the surveying methods of estimating the basic worth of contributions to both administrative and instructional experiments may now be exhibited by the critical student more accurately than ever before. Our educational enlightenment has been exceptionally advanced by the report of the study of the Gary schools which was undertaken in 1917 by the General Education Board at the request of the board of education and the city superintendent of Gary. The report, "The Gary Public Schools," New York, 1918 (over 1300 pages), comprises seven parts "dealing with the more characteristic or important aspects of school work at Gary," preceded by a general volume, "The Gary School: A General Account," which summarizes the separate reports and presents "a comprehensive view of the entire situation."

Part 1. A General Account. Abraham Flexner and Frank P. Bachman.

Part 2. Organization and Administration. George D. Strayer and Frank P. Bachman.

Part 3. Costs, school year, 1915-1916. Frank P. Bachman and Ralph Bowman.

Part 4. Industrial work. Charles R. Richards.

Part 5. Household arts. Eva W. White.

Part 6. Physical training and play. Lee F. Hanmer.

Part 7. Science teaching. Otis W. Caldwell.

Part 8. Measurement of classroom products. Stuart A. Courtis.¹

The scope of the survey is more clearly indicated by the special topics considered. In addition to the summarizing by chapters of the several separate parts the general volume presents data and interpretations on: Gary, its industries and its people; course of study; teaching staff; classroom instruction (judged by observations extending over four months and based on a total of 228 recitations in the eight grades and the high school); auditorium and religious instruction; enrollment, attendance, and pupil progress; and conclusion. The special topics of the other parts are:

Part 2. Present-day problems; program; plant; organization; use of plant; supervision and administration; comparative cost.

¹ The publication of the report did not begin until December, 1918. The successive parts cost, respectively, 25 cents, 15 cents, 25 cents, 25 cents, 10 cents, 10 cents, 10 cents, and 20 cents, and will be sent on receipt of the amount specified, by the General Education Board, 61 Broadway, New York City.

Part 3. Accounting methods; current cost of entire system; current cost of regular day schools; current cost of larger day schools; current cost of the school shops; capital outlay for grounds, buildings, and equipment; fixed charges; financing the system.

Part 4. Shop work in Gary schools; shops and tests (machine, forge, foundry, printing) in Emerson School; shops and tests (printing, woodworking, sheet metal, plumbing, painting, shoe) in Froebel School; shop work in Jefferson School; drawing and handwork; forms and records; summary and conclusions.

Part 5. Aim of household arts work; cooking, time schedule and enrollment; the cafeteria; staff and instruction; tests; merits and defects; sewing, time schedule and enrollment; equipment, staff and instruction; tests; merits and defects.

Part 6. Place of physical training and play; facilities; teaching staff; instruction; tests and results; merits and defects.

Part 7. Science teaching as a part of a modern curriculum; science teaching in the Gary schools (general plan, time allotment); daily teaching schedules and composition of classes; nature study and garden work in primary grades; staff and instruction in nature study; botany and gardening; zoology; physics; chemistry; tests; pupil helpers in science work; conclusion.

Part 8. Introduction; tests and testing conditions; handwriting; spelling; arithmetic; composition; reading (the presentation of the general results of each of the five subjects tested is followed by a critical discussion); factors affecting performance; conclusions.

The several authors received special assistance in various phases of their work from Frank L. Shaw, Edith Holman, Anna C. Thornblum, Trevor Arnett, Frederick Cleveland, Frank E. Spaulding, Anna M. Cooley, Shattuck O. Hartwell, Frank W. Ballou, Paul H. Hanus, Leonard P. Ayres, Edward L. Thorndike, Charles H. Judd, William S. Gray, and groups of assistants, some of whom were especially trained to do specific tasks with unquestioned accuracy. Each part of the report is amplified with numerous tables, charts, illustrations, and special appendices, some of which are richly supplied with samples of the evidences supporting the conclusions. Taken as a whole, the Gary study is probably the most analytic educational survey yet accomplished. By reason of the ample resources available for, and the freedom enjoyed in, the undertaking, it was possible to increase the number of aids and devices used, to vary the approaches to the study of particular phases, and to cross section at different angles the processes and the results characteristic at Gary.

In marked contrast with the usual survey, which addresses itself to the task of finding the secret of "a local situation," the results of the Gary survey, in a peculiar sense, necessarily become vital for all educational interests, especially in the United States. The evaluations discovered are direct contributions, derived from the ascertainable results of an experiment on a large scale. "While Gary would hardly have been selected deliberately as the fittest place for a considerable experiment in public education; nevertheless, from one point of view, perhaps no place could have been chosen where there

were fewer obstacles and where conditions were more favorable to innovation." That the schools are feeling the impetus of experimentation is indicated by the "complication" of various detailed features which tends to baffle analysis and evaluation in light of long-established practices, and also by this observation: "There has been a distinct process of development, at times such rapid and unstable development, that our account will in some respects be obsolete before it is printed."

Gary is credited with having "adopted the progressive, modern conception of school function, formulated its conception in clear terms, and with all possible expedition provided facilities adequate to the conception." Its experimentation in utilizing its plant by all the children has resulted in its distinctive contribution to school organization. "Gary has attempted to practice democratic theory in school conduct and discipline." Over against these achievements it is found that the execution of the plan is "defective" both in respect to administration and supervision, that in the fundamental necessities of education, the "old line" branches, the achievement falls short of usual performances, and, in respect to the expansion of the curriculum by the addition of scientific materials, community work, and physical education, etc., "that mere practical occupation is not alone broadly educative." While it is found to be difficult to measure accurately by cost computations, because "the town buys different opportunities under different conditions," it is concluded that the advantages offered "probably cost less than the same advantages on a more conventional plan of school organization."

The most distinctive feature of the survey is its persistent effort to establish its conclusions on the basis of objective evidence. Wherever possible standard and provisional tests were made, including fundamental subjects, science teaching, industrial work, household arts, and physical education. Indeed, in view of the exceptional monographic treatment of the measurements of classroom products, the survey may be regarded as a testing of the tests. The more marked developments at Gary and of the survey use of tests are almost coeval, and there is accordingly a fitting timeliness in this effort to make "a critical study of the results secured," and thus arrive at their true value in the interpretation of specific educational processes.

Standard tests in five of the common subjects were given in the four larger schools and included elementary and high-school grades. The subjects are handwriting, spelling, arithmetic, English composition, and reading. Handwriting was tested by three methods: The Cleveland free choice, Curtis dictation, and specimens obtained from the composition tests. The Ayres scale was used in finding the quality. Spelling was measured by the Ayres scale, the material

being collected in three ways: The Cleveland survey lists of disconnected words, sentence dictation at a definite rate, and the spellings in the composition papers. In arithmetic, use was made of the Courtis Series B test in fundamentals and of the multiplication and fraction tests of the Cleveland survey. Narration was the only form of English composition measured, the test given followed the plan in the Denver survey, the quality being rated by the Hillegas scale and the papers scored for different sorts of errors. Oral reading was tested by Gray's scale, and silent reading by a reading-and-reproduction test, by the Kansas Silent Reading test, and by the Trabue language scales B, C, D, and E. The total number of tests, including repetition, was 55. The total number of papers scored and tabulated was 69,282. Unusual care was exercised in securing control of the conditions under which the tests were given. Duplicating the scoring of papers and checking by the examiners were precautions taken to secure accurate data, in addition to the special training given, as in English composition and reading, to the scorers for the task of scoring the papers. The general conclusion derived from the measurements is—

That the product of classroom teaching of the fundamentals listed above is poor in quality and inadequate in amount; it approximates in character the product of the poorer conventional schools, and reveals in no particular the slightest indication that it has been affected either favorably or unfavorably by the enriched curriculum, or other special features of the Gary schools.

The results do not mean at all that the movement for the socialization of school work is wrong, that the new type of organization is injurious, and that a modernized program is a failure.

When the investigation was undertaken, it was expected that decisive results would be secured, it must now be emphasized again and again that the effects of the newer ideals of education have not been measured, because at Gary these ideals are operating under such conditions that they play little or no part in determining the product of classroom teaching.

The Gary survey, accordingly, brings us to the point where one must question, whether or not, vital experimentation outruns the range of "standardized" tests? Must these be revised, or even entirely reconstructed in order to keep up with the modern socialized school? Must measurement forsake "the fundamentals" and pursue "the newer ideals of education" in order to preserve the integrity of the science of education?

Harrisburg, Pa.—"The Plain Truth About the High School Situation in Harrisburg" (24 pp.) is another instance which shows how completely the building project of a school system involves the education which it undertakes to give to its children. This document contains (pp. 10-24) the report of James H. Van Sickle who was invited by the special high-school committee to examine the problems presented by the high-school situation. His conclusions

and recommendations were based upon a week's observation in the city and transmitted to the chairman of the committee, August 1, 1916. In presenting the three alternate plans which the city could adopt, the report gives a special review of the arguments for the junior high school as a part of a city plan of organization. At the general election on November 7, 1916, the sum of \$1,250,000 was voted for the use of the school district in making proper high-school provisions.

Framingham, Mass.—The impossibility of the local authorities and citizens reaching a satisfactory solution of the problem which involved a needed school building in 1914 led the school committee of the town of Framingham to invite James H. Van Sickle, George D. Strayer, and Ernest C. Moore, as a special committee, to study the situation and to report on the building needs of the town. This report is published in the 1916 "Report of the Board of School Committee and of the Superintendent of Schools" as Appendix A (pp. 42-73). Several methods of analysis were used for determining the building situation, such as the growth of the schools, and the indicated future needs of the town, including the Strayer score card for city school buildings, increase in population in school attendance, the retardation and elimination of pupils, the inadequacy of the present plant, the availability of land, the industries into which children may be expected to go, and transportation facilities. On this basis a building program is recommended.

Brookline, Mass.—On April 23, 1917, the report of an "Educational Survey of the Public Schools of Brookline, Mass." (436 pp., with numerous tables and charts), was presented to the school committee of Brookline, which authorized the inquiry on June 5, 1916. The survey staff included James H. Van Sickle, director of the survey; Henry S. West, Harlan Updegraff, George D. Strayer, Egbert E. MacNary, May Ayres, Bertha M. McConkey, James H. McCurdy, Wilbur F. Gordy, and Edwin A. Shaw. The method of the survey, which included observations on the ground, distributed over a period of six months, during which different members of the staff were present at different times, enabled the director "to gain the necessary insight into the complex problems involved which would enable him to present a unified report" for which he assumes full responsibility. The scope of the survey is clearly indicated from the topics to which the chapters are devoted: The Brookline community; the school system; school finances; school buildings and equipment, elementary schools, high school, practical arts and manual training buildings, public gymnasium, summary of existing conditions and plans for the future; the school population; provisions for safeguarding health; the kindergartens; the common branches,

with tests in arithmetic, spelling, penmanship, reading, and composition; the special branches; grades eight and nine; the high school; the school of practical arts; a demonstration school for Brookline. A summary of conclusions is presented on pages 5-26.

The most interesting suggestion growing out of this detailed study of this wealthy suburb, which "has been a pioneer in nearly all phases of education which are agitating the public mind to-day," is the recommendation that the school committee establish and maintain a demonstration school for Brookline:

As a result of an educational survey, something of a practical nature should follow not only in the matter of buildings, organization, and general directions as to educational policy, but in addition something that would afford a continuous opportunity to test and demonstrate the best things capable of being done in the town of Brookline itself.

Other cities, Detroit and Boston, for instance, and a number of smaller cities have established departments of reference and research which deal extensively with the particular school system as a whole. A demonstration school would deal intensively with a problem under controlled conditions. The results in Boston and Detroit are published, and to a certain extent Brookline can share the benefit of their findings. But this is not enough. There are certain problems that Detroit's efficiency office and Boston's efficiency office can not solve for Brookline. These problems must be solved by Brookline and in Brookline. There are other problems which no school system has yet undertaken to solve. Here lies Brookline's opportunity, not only to benefit her own schools, but, through publication of results to make a unique contribution to the cause of public education. Her wealth and her standing among progressive American communities lead one to expect from her some noteworthy contribution to the general welfare.

Richmond, Ind.—Attention has been given to the place of the kindergarten in a number of surveys of city schools, but the first kindergarten survey, as such, is reported in the "Survey of the Kindergartens of Richmond, Ind.," by Alice Temple, issued as Supplementary Educational Monographs (Vol. I, No. 6, September, 1917; the University of Chicago Press, 54 pp.). The material for the study of the eight kindergartens of this city was gathered during visits made on nine days in January and February (1917?), which included also all the first-primary grades. Written material by the kindergarten and first-primary teachers, special conferences with teachers, information from the office, and the course of study planned in 1912 supplied additional data for developing the treatment and reaching the conclusions in the five chapters: The kindergartens; room equipment; the teachers; the relation between the kindergarten and the first grade; curriculum and methods of the kindergarten, including subject matter and methods; manual activities, language and literature, physical activities, and music.

St. Paul, Minn.—The elaborate study of the St. Paul "situation," authorized by an ordinance of the city council on May 23, 1916,

amended February 16, 1917, and conducted during the months of January and February, 1917, will afford an opportunity to compare, in part, the fortunes of public education under the recently devised "commission" form of city government with its progress under the form thus displaced.

The four major issues upon which a report was desired included: (1) The situation with respect to the school plant, together with a program for the development of adequate school accommodations; (2) a study of the needs of St. Paul for vocational education and a program for the establishment of this type; (3) a study of the work done in the classroom with particular reference to the development of more efficient teaching and a more satisfactory curriculum; and (4) a consideration of the administration of public education.

The survey commission included George D. Strayer, chairman, Lotus D. Coffman, and Charles A. Prosser, each of whom directed one of the three sections of the study as organized. The "Report of a Survey of the School System of St. Paul, Minn." (pp. 962, 141 tables, 9 figures, 2 charts) comprises: Part I, The Administrative Problem (pp. 5-210, 55 tables); Part II, The Instructional Problem (pp. 211-660, 52 tables, 6 figures); Part III, The Vocational Problem (pp. 661-832, 2 charts); and appendix (pp. 833-962, 34 tables, 3 figures). The editing of the report and the delay in publication suffered from a variety of circumstances, including war services of some of the surveyors. Part I, containing the general administration and school building survey, was prepared by George D. Strayer and N. L. Engelhardt, and treats of the administration of the schools, school attendance and census, conservation of health, the cooperation of the public library with the schools, buildings and equipment, and cost of school maintenance. The adequacy of the city's school plant was measured by the Strayer score card for school buildings. "Three or more competent judges recorded their ratings on each building," "visited by one man at a time so as to permit of an unbiased, unhampered recording of the conditions actually found to exist in the building." The report of Part I was submitted on April 15, 1917, and contained a recommendation of a building program for five years to come, involving a bond issue of \$3,000,000 which was voted by the taxpayers in June, 1917. A measure of the city's financial abilities was secured by comparing educational costs with 24 other northern and western cities with populations ranging from 125,000 to 400,000.

The political control of a city school system under the commission form of government is noted by the survey committee, which places itself on record as favoring the control of public education by a board of from five to seven members elected at large, one each year for either five or seven year terms of office at a special school election. This board, within certain limitations, to be determined by the charter, should have the power to levy taxes and be responsible for the expenditure of all moneys raised for educational

purposes. The board should, subject to the limitations commonly imposed with respect to the limitation of debt and, upon the vote of the people, have the power to issue bonds for the erection of school buildings. The board should be responsible for the erection of such buildings.

Part II, which deals with instruction and the course of study, and the appendix, presenting data concerning the classification and progress of school pupils, constitute over five-ninths of the entire report. This part was prepared under the direction of Lotus D. Coffman, assisted by the specialists indicated in the list of its topics: Instruction and the course of study; instruction in the first four grades, by Flora J. Cook; instruction in the upper four grades, by Lida L. Tall, Ernest Horn, and L. D. Coffman; measurement of children's achievements, by M. E. Haggerty and M. R. Trabue, assisted by C. L. Harlan, H. N. Fitch, E. Laury, and J. Boraas; the course of study, by Ernest J. Horn, Lida L. Tall, and L. D. Coffman; the secondary school system, by A. B. Meredith. The appendix chapter on classification and progress of school pupils was prepared by Marion Rex Trabue.

The instructional problem was studied by means of data collected in course of the application of six, in part, novel methods of securing information: By direct observation of recitations; by the children's own work, secured through a paper written (or drawn, with colored crayon, by nonwriting first-graders) on the topic "How I Have Fun"; by teachers describing in writing the most satisfactory lesson or lessons, and the points therein considered good, they had given during the first half-year; by the written criticisms and discussions of teachers after observing a model lesson by one of their number (e. g., a lesson in reading by a fourth-grade teacher) in response to five specific questions; by the examination of data furnished by supervisors, principals, and teachers; and, by standardized tests given the pupils. The study of the four upper grades did not include the children's essays and the teachers' written description of lessons. A distinctive contribution is made, among the group of suggestions offered for the improvement of instruction, in the form of plans for making a course of study for the schools and for the reconstruction of the syllabus of the course of study. It is believed that such work will definitely improve the classroom teaching, which should be the aim of all who cooperate in this labor. "The problem of the course of study is to determine what specific items of subject matter are to be taught. The syllabus attempts to assure that such subject matter will be taught and with the greatest efficiency."

Over one-fourth—or 27.8 per cent, to be exact—of the report is given to the results of the extended measurement of the achievement of children in reading, spelling, handwriting, arithmetic, grammar, composition, and language. Twelve tests were distributed between

January 26 and February 21, so as to measure all grades from the first to the fourth year high school and "practically every child in the city" by one or more of the standard tests and scales. In order to make the measurements representative of city conditions, a unique plan of securing six rankings of all the schools on six different points was adopted, and four different groups, "from the poorest to the best," were arranged, from each of which two or more buildings were selected in all tests. As a check on the accuracy of the measurements, test data were secured in each instance, excepting reading in the elementary and the high schools and in grammar, from two groups of schools—those in which the tests were given by the members of the survey staff and those in which the tests were given by the teachers of the classes they were teaching under specific directions. Tabulations were made for the two groups separately and later the results compared and combined.

The following measures were used: Spelling, Ayres; arithmetic, Woody (addition, subtraction, multiplication, division); handwriting, Ayres (three-slant scale, 1912); primary reading, Haggerty (sight and phonetic scales); reading in intermediate and grammar grades, Thorndike's scale, alpha 2, and Haggerty, visual vocabulary; grammar, Buckingham (to eighth grades); language, Trabue (language scales B, C, D, and E in elementary schools and L and M in high schools); composition, Nassau County supplement of the Hillegas scale (elementary and high schools). Computations were made so as to render these midyear tests comparable with the test norms determined at various times in the school year. In order to test the reading abilities of high-school pupils a new scale was devised, involving "an understanding-of-sentence test." It consisted of nine paragraphs selected from seven different writers, of varying degrees of difficulty, each paragraph calling for written answers to five specific questions. While this test proved to be suggestive; it "was found somewhat too difficult." The overlapping of the grades and the variations among schools are shown in detail. The recommendations include a specification of the supervisory values of test results, a suggestion of the device of reclassifying pupils according to specific grade abilities for brief, intensive drill in various subjects until they are brought up to grade, and the establishment of a bureau of educational research.

Part III, *The Vocational Problem*, was prepared by C. A. Prosser with the assistance of W. H. Henderson, Mrs. Lucinda Prince, Josephine T. Berry, Mr. Gsell, an advisory committee on vocational education, consisting of 20 citizens, and several organizations. The study extended from February 6 to April 15, 1917, and was made at the total expense of \$2,000. The topics discussed include: Why

vocational education for St. Paul; for what vocations should St. Paul give training; how far do the vocations train their own workers, and how far do the St. Paul schools meet the need for vocational training; recommendations as to training needed; recommendations as to types of school; and, vocational and prevocational training for girls and young women. The appendix details short-unit vocational courses for men and for women. The limits of the published report excluded four special studies which were filed for public examination in the office of the city commissioner of education.

Portland, Oreg.—One or two attempts have been made to estimate the accomplishments in school systems directly traceable to earlier surveys. It has occasionally happened that the publication of the report of a given survey has been delayed so long as to permit the announcement of the adoption of a few of the recommendations growing out of the study. The "Report of Supplementary Survey of Portland Public Schools," by P. W. Horn, April, 1917 (64 pp.), is especially interesting as an estimate of the results of a previous survey. This investigation was made "in behalf of the chamber of commerce and the city school board jointly" in the month of April, the investigator spending two and one-half weeks in visiting schools, inspecting the work during school hours, examining written work prepared by pupils, and interviewing "a large number of people who had views to express in regard to the schools." These inquiries were to make a rapid survey of the Portland public schools with special reference to their advance or retrogression since the survey of 1913, which was conducted by Dr. Cubberley and a considerable staff of assistants. This resurvey finds that progress has been made by the Portland schools in 48 different particulars. In two respects a backward step has been taken. Twelve of the original recommendations which have not yet been put into effect should be acted upon favorably. Only three of the original recommendations it probably would not be wise to carry out. Eighteen recommendations are reaffirmed or added in line with the original recommendations. It is found that "the greatest obstacles in the way of the Portland Schools to-day are distrust, the impossibility of building up a better teaching corps under present legislation, and the probability of limiting the school tax levy to 6 mills on the dollar, when at present 6.8 mills is needed."

Bloomington, Ind.—The literature of educational surveys has been permanently enriched by the publication of "A Survey of a Public School System," by Henry Lester Smith. (Teachers' College, Columbia University Contributions to Education, No. 82, 1917, 304 pp., 158 tables, 16 figures.) This survey was undertaken "with the two-fold view of determining and remedying conditions" by using so far as possible the local resources within a school system and of the State

university in its midst, to which were added a small amount of outside supervision and direction. It accordingly stands as essentially a cooperative survey. The entire period covered by the study is six years, with most of the work having been done in the years 1912-13 and 1913-14, during the last of which assistance was given by George D. Strayer. At different times various tests were given, respectively, by Clifford W. Stone, E. E. Jones, S. A. Curtis, and H. G. Childs. Theses for the degree of master of arts in Indiana University were prepared by eight graduate students who worked on practical school problems in the city, and portions of five of these studies are incorporated in this publication. As to the practical educational value of an "autosurvey," the author's experience warrants him "in predicting a survey undertaken by the teaching corps as a whole will soon reveal to the superintendent that some of the accomplishments of principals, buildings as a whole, or individual teachers will surpass even his own dream of what could be accomplished."

The scope of the study is readily seen from the list of topics which are treated: The community and the plan of its public school survey; normal progress, retardation, and acceleration; census, enrollment, promotions, failures, withdrawals, repetitions; finances; the course of study; achievement of pupils; teachers; supervision of instruction; school buildings; general conclusions and recommendations; criticisms of Bloomington school survey; and value of a survey similar to that made of Bloomington. In view of the dynamic character of an educational system and the length of time during which this study was in progress, a large amount of the material represents the accumulation of readjustments which the school authorities and teaching staff were enabled to put into practice in the succeeding years. This enrichment of school life was made possible through the more intelligent direction and supervision resulting from the progress of the protracted studies.

Over one-third of the volume is given to the study of the achievement of pupils as measured by standard tests, withdrawals and failures, and correlation of rank in various subjects. The tests given in arithmetic include the Indianapolis, Stone, Curtis, Haggerty and Smith. The handwriting was measured by the Thorndike and Ayres scales. Spelling was tested by the Buckingham, Rice, and Curtis lists. Composition and reading were measured by the Curtis tests in English composition and rates of reading. Drawing was tested by the Thorndike drawing scale. Bloomington will share in the benefits of the State-wide application of the Thorndike visual vocabulary test and understanding of sentences test which were given in a large number of Indiana towns.

In attempting to evaluate the results of self-examinations by a small school system, the author concludes thus:

Above everything else, a survey of the Bloomington type results in riveting ultimately the surveyor's attention on individual pupils and their performances and away from the mass performance. The result is that individual needs become more quickly evident and consequently more quickly ministered to.

Akron, Ohio.—When the educational committee of the Chamber of Commerce of Akron, Ohio, was organized in December, 1916, it attempted to foster the widespread interest in public-school affairs by making—

so complete a study of the school system as to make possible a community program of education. . . . We had in mind what is best for the young people of Akron at the present time, and what the line of growth of the educational system should be, in order that each succeeding group of children be properly educated to fit into its life in this city.

Horace L. Brittain, director of the bureau of municipal research, Toronto, Canada, was invited to conduct the survey. He was assisted by Thomas L. Hinckley, of his bureau, and received the cordial cooperation of the local authorities and school staff. On July 10, 1917, he presented his "Report on the Schools of Akron, Made for the Educational Committee of the Akron Chamber of Commerce." (234 pp., 37 tables, numerous graphs and photographs.)

The three main topics included in the study are the raising and administration of school funds, the physical plant and equipment, and what the school revenue buys for the boys and girls of Akron. The consideration of the first topic presents general financial facts, financial methods, and business administration. The observation of the physical plant and equipment includes sites and buildings, ventilation and heating, lighting, cloakrooms, seating, cleaning of rooms, and a school building policy for Akron. The answer to the third topic led to an inquiry as to what is taught in the public schools; how the subjects of the course of study are taught in the elementary schools; instruction in the high schools; educational administration and supervision of instruction; educational records and reports; promotion of school children; retardation and overage; elimination of children; the exceptional child; medical inspection and open-window rooms in the schools; the academic and professional training of teachers, their working day, their pay, and length of service; and the mutual relations of the school and the community. The group of 47 findings and recommendations is presented in brief (pp. 21-35). The educational committee resummaries the results of the study on pages 5 to 12 for the benefit of the citizens, to the end that the benefits accrue to the school system as early as possible.

Elyria, Ohio.—The radical character of the changes effecting the economic interests and the composition of the population recently

appearing in some of our smaller cities, and the consequent bearing upon educational problems are well illustrated in the report of the "Educational Survey of Elyria, Ohio," made under the direction of the United States Commissioner of Education (Bulletin, 1918, No. 15, pp. 300, numerous tables and figures). The survey was financed by the chamber of commerce and received the cooperative support of the school officers and teachers. The field work was under the direction of W. S. Deffenbaugh, with whom was associated seven other members of the Bureau of Education and five persons from outside. Each phase of the school system and its activities studied was assigned to a specialist. A total of 94 distinctive recommendations grew out of the conclusions reached in the study of the following special topics: Administration and supervision; school buildings, high school; instruction in primary grades; instruction in intermediate and grammar grades; civic education; home economics; and vocational education.

Measurements of the results of teaching were made by use of Haggerty's test for reading vocabulary, the Cleveland survey, word lists selected from Ayres's spelling scale, Thorndike's scale for quality of penmanship, Woody's (Series B) and Stone's scales in arithmetic. A novel feature in the study of instruction in the primary grades is the analysis of "the out-of-school activities" of children in these four grades. The tabulation (pp. 138-139) of these experiences under home work, home games, vacation activities, and books read, furnishes useful guidance for correlation with the usual school room activities. The occupational analysis of the high school population and the vocational study of the 13 to 15 year old pupils in the elementary grades show a suggestive extension of methods appropriate to the study of vocational problems.

Janesville, Wis.—Upon the invitation of the board of education of Janesville, a city of about 14,000 population, a survey was undertaken by the Wisconsin State department of education. This study offered an opportunity "to present in organized form for the schools of Wisconsin the views of the State department on city school administration." The survey was organized under the general direction of C. P. Cary, the active direction of the field work and the preparation of the report being in charge of W. W. Theisen, who was assisted by H. L. Terry, B. R. Buckingham, H. N. Goddard, Amy Bronsky, Maybell G. Bush, Annie Reynolds, J. M. Dorrans, Janet E. Rankin, O. S. Rice, A. B. Cook, P. W. Dykema, Lucy D. Hale, Cecile W. Flemming, Benjamin P. James, Edgar F. Riley, Frank J. Lowth, and students in several normal schools who assisted in giving and scoring the tests in various school subjects. The report, "An Educational Survey of Janesville, Wis.," issued by

C. P. Cary, Madison, Wis., 1918 (329 pp), does not include all the material presented to the board of education in connection with the findings and recommendations. The published report is organized so as to present, first, the problems of administration, including the problem of high-school organization, the building problem, teachers and salaries, financing the school system, the board of education, census, enrollment, and attendance; and, second, the problems of instruction, including the problem of industrial education, classroom instruction in elementary schools, high-school instruction, special courses and instruction in special subjects, library work, time allotments and course of study, measuring results in school subjects, supervision of instruction, progress and classification of pupils, provisions for special classes, home cooperation, health and recreation. The measurement of results in school subjects include: The Woody, Curtis, and Stone reasoning tests in arithmetic; the Kansas silent-reading test in reading; the Ayres and Buckingham tests in spelling; the Thorndike and Ayres scales in handwriting; the Hillegas, Thorndike, and Trabue scales in grading the composition papers, and the Trabue language completion tests B and C.

Columbia, S. C.—An interesting geographical extension of the survey-movement was made when the board of school commissioners of Columbia, S. C., requested the United States Commissioner of Education to undertake the direction of a study of its public schools. This is the southeasternmost city of the Union to seek the benefits of a comparison of its educational activity with that of other cities. The report, "The Public Schools of Columbia, S. C.," Bulletin, 1918, No. 28 (192 pp., with numerous tables and figures), is a notable example of the sympathetic and constructive type of educational surveys. In presenting the 23 general recommendations growing out of its labors, the committee assigned to the task "has not undertaken in arbitrary fashion to tell Columbia what her school system should be nor how near the ideal in accomplishment she is nor how far away from it. This committee is not competent to define the ideal school system nor the ideal school practice. It can, however, bring to Columbia's attention those practices which are held by other communities, for the present, at least, to be the best." There is offered, accordingly, "a constructive program, the inauguration of which should properly extend over a period of years." "In justice to the superintendent of schools, the fact should be mentioned that from time to time in his annual reports to the board of school commissioners he has suggested many of the things which this committee recommends."

The characteristic qualities of the survey appear even in the headings of the six chapters of the report, most of which are phrased in

the form of suggestive problems and arguments. The city of Columbia and the rise of the public-school systems; are the schools of Columbia adequately supported? insufficient maintenance means meager salaries for school employees; insufficient maintenance limits the activities attempted; insufficient maintenance has rendered the supervision inadequate; the holding power of the system compares favorably with that of other systems. Some aspects of instruction and supervision were studied by means of standard tests in spelling (Ayres) and in arithmetic (Courtis, fundamentals, and Stone, reasonings). The data record interesting and important contrasts between the white and the colored pupils. The survey was made in 1917 by the committee designated by the Commissioner of Education, including four specialists of the bureau, F. F. Bunker, director; Henrietta W. Calvin, J. L. Randall, and H. H. Baish, and Supt. C. B. Gibson, of Savannah, Ga.

Winston-Salem, N. C.—"A Study of the Winston-Salem Schools," by L. A. Williams and J. H. Johnston, 1918 (93 pp.), is a larger outgrowth of the work of the home-county study clubs at the University of North Carolina which led the authorities of Winston-Salem and Forsyth County to desire an extended survey of their schools. The educational study of the schools of Winston-Salem, contained in this volume, is a part of the study of the larger system of the social and economic conditions of Forsyth County and of the industrial situation of the city. The visitation of the schools was made in February, 1917, the superintendent, principals, and teachers cooperating in every way possible. The topics of the report include: Historical; organization; the school plant; the pupils; the teaching staff and supervisory officers; and finances. The summary of the study concludes by saying:

The superintendent knows that all these difficulties exist. He has repeatedly called attention to them. He needs more money and a larger force, with which to handle the problem. That many of these conditions now obtain is the fault not of the school officials but of a too small banking account for the schools.

It is planned to have this study continued by making an examination of the teaching results of the schools.

Alton, Ill.—"A survey's finding is not worth much that could be carried out at once; it furnishes rather a goal toward which we can strive, an ideal that we can pursue." With this expression of its belief in the constructive character of a school survey, the special committee presented on April 29, 1918, to the board of education, city of Alton, Ill., the 29 "necessary and feasible recommendations as obtained from the survey" which had been made during the school year, 1917-18, under the direction of Supt. John W. Withers

("Findings and Recommendations of the Survey of the Alton Public Schools," pp. 88, numerous tables and figures). The cordial reception of the report is indicated by the accompanying record of favorable action upon 10 of these recommendations within less than a month thereafter.

The survey staff comprised eight assistant superintendents and other school officers of the St. Louis schools, each of whom prepared the reports on the following topics, respectively: Organization, administration, and supervision; teachers; spirit; methods of teaching; relations of teachers and other school officers, relations of teachers and children; course of study and school supplies; testing of the results of teaching in the elementary schools; the high school; the progress of children through the grades; and finances. One-third of the report is occupied with the results of the tests employed in six subjects: Arithmetic (Courtis, series B, and No. 8, series A), reading (Starch), spelling (Ayres), written English (specially devised to trace the "growth of sentence sense"), handwriting (Thorndike), and geography (devised by Reavis and Bragon, as a completion test for the measurement of minimum geographic knowledge of elementary-school children).

Mount Holly, N. J.—The study of this small school system comprising a staff of 40 teachers and 1,110 pupils, conducted under the direction of the State commissioner of education, is marked by a particular interest in the problems of supervision and teaching. "The lack of a body of significant school records, of a comparative sort and covering a period of years, dealing" with a variety of problems such as "would be asked by a board of education and used by a supervising officer in a continuous self-survey of a system of schools, would seem to indicate a failure on the part of the school officials to fully appreciate the importance of such knowledge as an aid to increased efficiency, and for the information of the public." The observational part of the survey, made in February and in May, 1918, was conducted by A. B. Meredith and Z. E. Scott, of the State department of education. The application of standard tests was made by Profs. C. H. Elliott and C. S. Crow, of the department of education of the State University of New Jersey, the account of which constitutes three-fourths of the report, "Survey of the School System of Mount Holly, N. J., Northampton Township" (80 pp., with numerous tables and figures). The tests used were: English composition, in the grades and the high school (Nassau County scale); handwriting (Thorndike); spelling (Ayres and Buckingham); reading (Thorndike, Alpha 2); arithmetic (Courtis, series B, and Stone, reasoning); algebra, in first year high school (Holtz); and Latin, four years of high school (Henmon). The report closes with 29

recommendations, and a list of the equipment of a biological laboratory for a high school class of 12 pupils.

Des Moines, Iowa.—The applicability of survey methods to specific problems of a particular part of a school system is interestingly illustrated in the "Survey of the High Schools of Des Moines," by Ervin E. Lewis (University of Iowa Extension Bulletin, 1918, No. 37, pp. 64, with tables, figures, and map). The problems considered in this survey are stated as follows:

1. Are new high schools or additions to present buildings needed? If so, how many? Where? When?
2. Are different kinds of high schools needed? Should Des Moines continue its present policy of cosmopolitan high schools, or should special kinds of schools, such as commercial, technical, or trade be established?
3. Are junior or six-year high schools needed?
4. What should be Des Moines' policy with reference to vocational secondary education during the next decade?

The recommendations offered in answer to these questions are based on the results of a careful analysis of the historical development of high schools in the city and a comparison of Des Moines with 25 other cities of its size. A clearer perspective is gained by the concentration of those factors involved in the specific problems. The survey was authorized by the board of directors, sanctioned by the chamber of commerce, and directed by E. E. Lewis, with whom was associated a committee of the extension division and the college of education of the State university, as well as assistants.

Muscatine, Iowa.—The extent to which the problem of a building program, featured in several recent surveys, can be carried further into a stock taking of all the school plant of a small city is illustrated in the "Survey of the School Buildings of Muscatine," by E. J. Ashbaugh (University of Iowa Extension Bulletin, 1918, No. 41, pp. 38, 14 figs.). By means of Strayer's score card for school buildings, the seven large grade buildings, as well as the high-school building, were scored in January, 1918, by two members of the survey staff. It was found that the conditions of buildings and grounds were 22 per cent "good," 21 per cent "fair," and 57 per cent "bad." The findings are graphically detailed for the benefit of community interest and culminate in a group of recommendations "which will take years to complete."

Paterson, N. J.—An illustration of the progress made in the co-operation of the departments of education in higher institutions is found in the survey of the public schools of Paterson, N. J., which was made in the spring of 1918 by the staff and students of the department of educational administration of teachers college. The direction and guidance of the survey were by George D. Strayer,

N. L. Engelhardt, F. W. Hart, and E. S. Evenden. The details were marked out in the practicum in educational administration at the college. Four major studies were undertaken: The ability of Paterson to pay for educational advantages; the school building plant; the achievement of pupils in the elementary schools; the teaching staff and quality of instruction. The material on the last topic is not included in the report which appears in the "Annual Report of the Board of Education of Paterson, N. J., for the year ending June 30, 1918," (pp. 99-290).

The data for the measurement of the achievement of the pupils were gathered between March 14 and April 10, and are accepted as being comparable with the results of other surveys. The subjects measured and the tests given were composition (Nassau County supplement), handwriting (Thorndike), spelling (Ayres), arithmetic (Woody, Stone reasoning, Curtis fundamentals), language (Trabue), and reading (Thorndike, alpha 2). The tests were so arranged that every grade and every child in the regular elementary schools was represented in one or more of the subjects.

City school reports.—The biennium under review has witnessed an interesting addition to the literature of educational surveys in the form of the reports of boards of education and superintendents of schools. The following are a group of reports which illustrate the spread of the survey method and its utilization in creating a more intelligent public who support and patronize the schools:

"A Review of the Rockford (Ill.) Public Schools, 1915-16," by Supt. R. G. Jones (126 pp., 58 tables, 53 charts), contains information which was—

collected and organized by the staff in the schools and submitted to the board of education by the superintendent of schools. Its purpose is to carry to the homes of this city information concerning the physical property, the curriculum, the teaching staff, the attendance, some measurable results in teaching, and other matters which may interest.

This detailed and forceful presentation of the schools was put forth with the hope of making "every citizen of this city better acquainted with an institution in which he is a stockholder." Tests of the achievements of pupils were made in penmanship, arithmetic, spelling, composition, and reading.

The "Report of the Superintendent of Schools, 1916-17" of Huron, S. Dak., by Supt. F. L. Whitney (86 pp., 35 tables, 39 charts), "attempts to give those more directly concerned a somewhat detailed idea of the present conditions obtaining in their public schools and to let them know what the schools are attempting to do." The material is arranged under these topics: Organization and administration; physical environment; teaching force; pupil accounting; quality of instruction; pupil achievement; and school costs. Tests

of pupil achievement were made in first grade vocabulary, spelling, arithmetic, handwriting, reading, composition, and algebra.

The first printed "Report of the Board of Education, 1912-1918," of Rochester, Minn., by Supt. H. A. Johnson (208 pp.), shows how the survey movement has found lodgment in this rapidly growing community.

In these days schools are surveyed, tested, and measured; but so many times this is done hurriedly and by outsiders. In many cases the results can not help but lack in thoroughness. For the past five years our schools have been constantly surveyed by the superintendent, working in a spirit of cooperation with his teachers.

The effort to secure a definite measurement of the efficiency of their schools led the superintendent to act upon the suggestions contained in the circular of the Bureau of Education, City-School Circular, 1915-16, No. 21, offering "some suggestive points for superintendents in the smaller cities who are surveying their own schools." The material accumulated (pp. 31-141) includes tests in reading, errors in English, grammar, and punctuation, arithmetic, spelling, age-grade, retardation, and acceleration, promotion, etc. Mr. W. F. Miller, of the University of Minnesota, cooperated in giving the tests from which were derived the "cause and effect and analogies tests."

This report we hope will be studied by every school patron into whose hands it may fall. It answers many questions which have been asked again and again. The tabulations will be thrown on a screen at teachers' and parents' meetings, so that every parent may learn their significance.

Supt. H. O. Dietrich, of Kane, Pa., is utilizing a novel monographic method of reporting the results of self-surveys in the schools of this city. The board of education of Kane has issued the following series of documents: (1) Estimates or positivism. Which? April, 1917 (15 pp.), reporting tests in spelling, handwriting, and arithmetic; (2) Child Accounting for the Schools of Kane, Pa., June, 1917 (8 pp., 7 tables); (3) The Child. Where is He? October, 1917 (8 pp.); (4) Education in Dollars and Cents, March, 1918 (16 pp.); (5) Does it Pay? April, 1918 (15 pp.), containing 15 exhibits from publications of the Bureau of Education; (6) Suggestions for Teachers, June, 1918 (24 pp.), dealing with the course of study. In 1918 he published "An Evidence, the Curwensville Schools" (23 pp.), which was a report modeled on these lines.

Supt. Ernest C. Witham, in the "School Report of the Town of Southington, Conn.," in 1916, summarized the progress of the four previous years, offered a program for the future, and informed his constituency on such matters as retardation and results of tests in English composition, writing, arithmetic, spelling, and improvement of teachers while in service. In his report for 1917, with an increase in graphic and tabular presentations, he again exhibits the quality

of instruction in the schools in arithmetic, English composition, spelling, handwriting, algebra, and shows the holding power of the high school.

"The Mirror; As We See Ourselves" (28 pp.), was issued by Supt. Frederick S. Camp as a partial "autosurvey" for the period, September, 1916, to February, 1918, as a report on the work of the supervisor of tests and standards of the public schools of Stamford, Conn. It includes an eighth grade study, grade progress table, time allotment, distribution of marks in eighth grade and high schools, graphic exhibit of school buildings and premises, results of tests in handwriting and eighth grade composition, and a report of the first year's work of the supervisor of tests and standards.

VOCATIONAL EDUCATION SURVEYS.

Vocational education, as a specific problem as well as an element in school situations, has received attention during the biennium in both special and general surveys. The passage of the Smith-Hughes Act by Congress in February, 1917, brought to a Nation-wide conclusion the first definite formative developments of the vocational type of education, and fixed the program for its extension.

The original edition of the report of the Minneapolis Survey for Vocational Education, published on January 1, 1916,¹ being soon exhausted, has been thoroughly revised and issued as "the finished result of the survey" under the title of "Vocational Education Survey of Minneapolis, Minn.," made by the National Society for the Promotion of Industrial Education, by the United States Bureau of Labor Statistics, 1917, Bulletin, Whole No. 199, Vocational Education Series, No. 1 (pp. 582, 25 chapters, 4 appendices, 20 tables, 3 charts).

Indiana.—Four of the surveys for vocational education growing out of the vocational education law passed in February, 1913, by the Indiana Legislature, have appeared within the biennium. This series of surveys is unique in that it attempts, under State authority joined with local cooperation, to provide a State-wide program built up out of the results of surveys of well-selected communities. The State board of education, in accordance with the provision of the act, organized a vocational division, placed in charge of W. F. Book, deputy superintendent, with whom later were associated A. M. Smith, special agent in charge of agricultural education, Adelaide S. Baylor, special agent to supervise domestic science, and Charles H. Winslow, special agent for vocational research. The underlying purpose of all these surveys was—

to ascertain from a study of the industries of a particular community the facts that would be needed to outline an efficient and economic program of

¹ See Report of the Commissioner of Education for the year ended June 30, 1916, Vol. I, pp. 168-167.

vocational training for that community, and to ascertain from a study of the public, private, and parochial schools of the community how far the vocational needs of that community were already being met by existing agencies. The ultimate purpose was to suggest a definite program for organizing and developing vocational education in the particular city or district covered by the survey—

and thus "some definite help might also be obtained for solving the problem of providing an efficient scheme of vocational training for the State as a whole."

The "Report of the Richmond, Ind., Survey for Vocational Education," December 1, 1916 (586 pp., 41 tables, 51 illustrations), was conducted cooperatively by the State board of education, the board of education of Richmond, and Indiana University, assisted by an extensive local survey committee of 51 members under the direction of Robert J. Leonard, of the university. The field work extended from February 1 to May 15, 1916. Occupational information concerning the forms of industrial, commercial, and household employment, juvenile employment, and home and school gardening is collected in detail, and the present provisions of the schools to meet these needs are set forth. Part IV presents the methods of the survey and the forms and schedules used in making type studies.

The "Report of the Evansville, Ind., Survey for Vocational Education," January 1, 1917, by Charles H. Winslow (510 pp., 65 tables, 4 charts), with the assistance of a local survey committee of 12 members and the cooperation of 23 organizations, was prepared in response to the invitation of the Evansville board of education to the State board of education "to make a survey of the city of Evansville, looking toward the establishment of a day vocational school," \$2,800 being appropriated for the work. The occupational analyses present the situation in furniture and woodworking industries, building trades, cigar factories, dressmaking, flour mills, garment making, gas engine manufacturing, hospitals and nurses, laundries, machinist trade, plow manufacturing, potteries, printing, railroad shop, retail stores, stove manufacturing, vehicle manufacturing, gardening, and general agriculture. The resources of the schools and libraries for vocational purposes are included. Special attention is called in Part VIII to the vocational needs of colored people.

The "Report of the Jefferson County Survey for Vocational Education," January 1, 1917 (86 pp.), was made by a survey committee of 18 members, including State and local representatives, under the direction of W. F. Book, and contains the material of the survey conducted during the months of June to December, 1916. This study followed four main interests, which are represented in the organization of the report, as follows:

(1) The economic situation, setting forth important facts pertaining to the location, history, and industries of the county, the character and extent of

land and other property with which the farmer has to work; (2) the status of husbandry in the county; (3) financial resources of the county and agencies for rural betterment; (4) the status and work of the public schools of the county.

The "Report of the Indianapolis, Ind., Survey for Vocational Education," January 1, 1917 (Vol. I, 400 pp., 31 tables, 4 charts), was prepared by Charles H. Winslow, who was aided by a State survey committee of 28 members and 23 cooperative agencies in the city. One-half of the fund of \$7,000 for the expense of the survey was contributed by the State board of education and one-half by the Indiana board of school commissioners. The field work was begun on July 5, 1916. The Indianapolis survey, where possible, is differentiated from the other surveys chiefly in emphasis—

by the effort to present process analyses by industries, to summarize the results of the survey in analysis charts of occupations, to consummate trade agreements, and to regard the conditions of employment and the vocational needs of boys and girls 14 to 16 years of age, and of those who have passed the age of compulsory school attendance.

The following tables of agreement were entered into: A two-year part-time agreement for instruction in salesmanship, by four firms; a continuation school agreement for instruction in salesmanship, by four firms; agreement for a two-year day course in woodworking, by 16 employers; a three-year compulsory evening continuation school agreement for plumber's apprentices, by 60 employers; agreement for a two-year day course in sheet-metal work; and for a one-year part-time course for girls who wish to become telephone operators is pending.

Wilmington, Del.—"Industrial Education in Wilmington, Delaware" (Bulletin, 1918, No. 25, pp. 102, 57 tables) is the report of a survey made by Fred C. Whitcomb under the direction of the Commissioner of Education. It forms "a part of a comprehensive constructive educational survey of the State of Delaware," undertaken by the Bureau of Education in cooperation with the Delaware Educational Cooperation Association. The purpose of the effort was to correlate the results of a study of the schools, of the industries, and of the provisions for industrial education in both schools and industries, into a constructive program. The field work was accomplished during the period from November, 1915, to January, 1916, use being made of the six forms, reproduced in the appendix. The study is characterized by the special attention given to the 13 or 14 year old pupils, in accordance with the approach made to the problem of vocational education found in recent surveys.

After stating the local features of education and employment legislation affecting minors, the report presents its material under the following topics: A study of certain groups of public school pupils;

a study of the industries; young people in the industries; educational needs of workers, and present educational opportunities; suggestions for a program of industrial education.

Fort Dodge, Iowa.—In "The Boy and the School, a Partial Survey of the Public Schools of Fort Dodge, Iowa," August 15, 1917 (19 pp., Bulletin 32, engineering extension department, Iowa State College of Agriculture), Edward T. Snively undertakes to discover in this typical town, located in an agricultural community—

the chief reasons why so many boys leave the schools of our city before completing the course; in what grades the greatest number of boys drop out; what they do after leaving school; what their earning capacity is; and what readjustments should be made in our present courses of study to make them meet, even more fully than they are now doing, the needs of our boys and of the community.

The data studied include enrollment of boys in the sixth and seventh grades, in the autumn of 1909 in order to see what had happened to them educationally and vocationally by the time of the study, which was made in February, 1916.

Commercial education surveys.—That a survey should "present a program for development" is illustrated in the studies made of commercial education in Missouri (1916) and in New Mexico (1917). "They had their origin in the rush of the commercial teachers of each State to inaugurate a constructive and comprehensive program of State-wide standardization of commercial education" and were authorized by the commercial departments of the State teachers' associations. A summary of the methods, scope, and findings of the studies is contained in the "Signified Results of Missouri and New Mexico Commercial Education Surveys," by Paul S. Lomax, School Review, February, 1918 (pp. 73-84), who served as the chairman of the committee for each State. Questionnaire data were collected and summarized under these topics: Qualifications of commercial teachers; equipment of commercial departments; business curriculum; courses of study; educational measurements.

HIGHER EDUCATIONAL INSTITUTIONS.

North Dakota.—On August 4, 1915, the newly created North Dakota board of regents invited the Commissioner of Education to assist the board in making a survey of the State educational institutions as required by a recently enacted law. The survey commission, selected jointly by the commissioner and the board, included William T. Bawden, Edwin B. Craighead, and Lotus D. Coffman. The field work was begun November 1, 1915. Approximately 100 days were spent in the field studying the State institutions, including the university, the agricultural college, and the State normal school at Valley City. The final preparation of the report in June, 1916, undertook to handle the

findings and recommendations so as to realize the desire of the board for "a comprehensive, constructive report, looking toward the future development of a sound, progressive State policy for higher education rather than a mere critical analysis of any defects that might be found to exist."

"State Higher Educational Institutions of North Dakota, a Report to the North Dakota State Board of Regents of a Survey made under the Direction of the United States Commissioner of Education," Bulletin, 1916, No. 27 (202 pp., 56 tables, 26 figures), presents the report under the following topics: The State of North Dakota; brief outline of educational needs, as indicated by character and resources of the State; the University of North Dakota; the North Dakota Agricultural College; function of the university and agricultural college; department of education at the university and the agricultural college; the State normal schools; the State school of forestry and the State school of science; the State library commission; statistical comparisons; comparison of courses and classes at the university and the agricultural college, and summary of recommendations. This survey is an addition to those which have more recently been emphasizing the need of proper correlation along functional lines. In considering the arrangements for instruction, attention is called to the contrary effects of the "vertical" and the "horizontal" spread in classes and courses. North Dakota being essentially a rural and agricultural State, the determination of its educational needs are most effectively stated (p. 26). The interpretation of these needs is made clearer by the 12 presuppositions which precede (p. 170) the 40 recommendations which are made to the State board of regents.

University of Nevada.—On February 17, 1917, the Commissioner of Education presented the report of the survey of the University of Nevada conducted under his direction, as provided by the action of the Educational Survey Commission created by the legislature of 1915 of that State. The work of the survey was done by Samuel P. Capen and Edwin B. Stevens. The labors of this committee extended during the last five months of 1916. In studying the institution and preparing the material which was published as the "Report of a Survey of the University of Nevada," Bulletin, 1917, No. 19 (184 pp., 80 tables, 13 figures, 25 maps, with numerous tables in the appendix), the survey was attentive to the four basal criticisms indicating unrest in the public mind as to the operations of the institution. The institution's relation to partisan politics seemed to be "the root of all the evil." The detailed topical studies, which follow in many respects the surveys of the University of Iowa and the University of Washington, offer contributions to the field of university administration. The specific topics considered include: The University of Nevada and public sentiment; government and control of the University of

Nevada; higher education in Nevada and the factors which condition it; the University of Nevada and the public service; standards and the distribution of the student body at the University of Nevada; educational administration of the university; training and experience of the faculty; work and remuneration of the teaching staff; costs; organization and needs of separate divisions of the university. The committee finally conceives of an ideal for a university in such a State which is thus described:

In view of a small population and insistent local needs, the institution would devote itself solely to the education and service of the citizens of its own State. It would consist of but few colleges and departments. Exclusive of a college of arts and sciences designed to give facilities for liberal culture and pure scholarship to those who can take advantage of them (and the number should increase as fast as possible), it would offer technical and professional courses only in lines contributory to the major vocations of the State. It would recognize a special obligation to provide enough trained teachers to insure to the State an evenly served and effective public school system. With respect to the number of students in residence, it would be a small institution. It would, indeed, regard its small size as a peculiar privilege, enabling it to give to those who frequent it a more intimate oversight, a more intensive training than are commonly afforded in very large institutions. It would seek a national reputation for the highest excellence in those few departments which the special needs of its constituency have called into being. It would press for means to secure men and equipment to win such a reputation. It would convince the State of the essential soundness of this program, of the bigness of the opportunity thus presented. It would reinforce its appeal by making itself the State's center of inquiry and distribution for all forms of knowledge bearing on the health, the material interests, the intellectual and social welfare of the citizens.

University of Kentucky.—In January, 1917, the governor of Kentucky, acting in accordance with the resolution of the board of trustees of the University of Kentucky adopted in the preceding month, appointed an investigating committee of the board to report in the following June upon the propriety of consolidating the two colleges of engineering and the conditions involving the "discontent among the alumni and student body toward the existing administration." This committee, called to its aid a survey commission comprising Thomas F. Kane and Charles M. McConn, with Kendrick C. Babcock as consulting member, two of whom spent 20 days at the university and the third visiting it at four different times. The "Report of the Survey Commission," *Bulletin of the University of Kentucky*, July, 1917 (pp. 7-76, with a later report for prolonged consideration of future policy, pp. 77-92), includes also the report of the investigating committee. The work of the survey commission undertook to formulate principles by which practices found current in the institution could be judged accordingly. This study is necessarily local and descriptive, using so far as possible many contributions of the surveys of the University of Iowa and the University of Washington

for comparative standards. Because of the peculiar situation involved this study is, for surveys, unusually frank and personal. Of the 69 recommendations reported to the board of trustees, all but one were unanimously adopted.

Iowa State Teachers' College.—The "Report of an Inside Survey" (Bulletin of the Iowa State Teachers' College, April, 1917, 113 pp., 12 tables, 5 maps, and views, and Supplement of the Report, by President H. H. Seerley) is the result of the "protective measure" adopted by the faculty of the Iowa State Teachers' College after the institution had "been surveyed and surveyed by legislative committees, State boards, by the National Bureau of Education, by representatives of foundations and by self-appointed individuals notably curious, honest investigation and otherwise." The "inside survey" was made by a committee of seven members of the faculty, between March 1 and June 1, 1917, with the understanding "that it must be conducted from a different standpoint and with a different purpose" than the previous attempts. A committee of three laymen was designated "to read the report in manuscript" and to satisfy themselves that the facts therein stated were true. An effort was made to follow the survey outlines projected by the committee on normal school standards and surveys of the National Council of State Normal School Presidents and Principals in 1917;¹ but, it was soon found that a report limited to the points therein designated would not adequately represent "the motives, purposes, undertakings, evaluations, expenditures, requirements, capabilities and accomplishments" of the college.

The introductory sections (pp. 5-39) were prepared by H. H. Seerley. The report presents the findings of the several subcommittees on the following eleven topics: The organization of the Iowa State Teachers' College; the curriculums offered; length of time of the several curriculums; entrance requirements; graduation requirements and numbers; special subjects; the training school; qualifications of members of the faculty; salaries; teaching hours; student hours; cost per student hour; accounting and costs; normal school costs.

Illinois colleges.—In order to "discover such facts as would enlighten the church boards of education upon the relation of the church to the colleges and inform the colleges of their relation to each other," the Council of Church Boards of Education, comprising the boards of education of 18 denominations, authorized "A statistical survey of Illinois colleges," by Warren Brown, survey secretary, March 16, 1917, Chicago, Ill. (78 pp.). The data used in the survey

¹ See Addresses and Proceedings of the National Education Association, Portland, Oreg., 1917, pp. 383-387.

were collected between September, 1916, and February, 1917, through the Chicago office of the council. Statistical and graphic representation is given of the density of population of Illinois, geographic source of students, educational source of students, religious source of students, source of students socially; the overlapping of college territories; religious instruction; attendance and retention of students; professional distribution of graduates.

Something of the complexity of the situation involving higher education in Illinois is seen from the fact that in this State there are "37 institutions in addition to the junior colleges connected with high schools competing for patronage from the graduates of the four-year high schools." The questionnaire returns from 2,543 freshmen, about two-fifths of all the liberal arts freshmen in the State, show the following interesting results as to the reasons why they select particular institutions:

	Per cent.
Educational standards of the institution.....	27.0
Location of college near home.....	23.0
Influence of other students.....	11.0
Opportunities for self-support during course.....	7.3
Influence of college alumni.....	6.8
Church connection (same denomination).....	6.6
Family or relatives connected with college.....	5.5
Religious life of institution.....	5.5
Social and athletic life of the college.....	5.1
Influence of field worker for college.....	2.5

University of Pittsburgh.—In order to secure a clearer vision of the institutional functions which the university could serve in its local community, the board of trustees of the University of Pittsburgh instituted a survey in 1915 which extended over a period of nearly two years. The wide ramifications to which this study led and the increasing complexity in which a university and its community stand mutually related led to the publication of "A New Basis for Social Progress," by William C. White and Louis J. Heath, December, 1917 (221 pp., Houghton Mifflin Co., New York). This volume is an interesting attempt to formulate principles for educational reorganization which shall bring about a more efficient coordination of the vocational needs of a modern community and the educational agencies within the community endeavoring to satisfy those needs. Present-day failures in education and in other human interests are traced chiefly to a lack of accurate knowledge which can come about only through continued analysis of conditions. Each community is living out a special characteristic life that needs to be studied in such a way as to show how a complete reconstruction of the entire educational system will be possible by abolishing the arbitrary lines drawn between the present branches of knowledge,

which are articulated into courses of study, and to allow for a "departmentalization" of knowledges with reference both to students' capacity and community needs. To this end, the authors propose "a municipal foundation for the study and advancement of community education," with a bureau of analysis, a bureau of statistics, and a bureau of supply. This foundation would carry on a continuous survey of community needs and community schooling, correlating the latter on a unit plan for the community. Among the general recommendations, it is proposed that such a foundation for the Pittsburgh community be placed in residence at the University of Pittsburgh.

NEGRO EDUCATION.

A monumental effort to encompass a survey involving the educational interests of about one-tenth of our population is permanently recorded in "Negro Education: A Study of the Private and Higher Schools for Colored People in the United States," prepared in co-operation with the Phelps-Stokes fund under the direction of Thomas Jesse Jones, specialist in the education of racial groups, Bureau of Education, in two volumes, 1917 (Vol. I, Bulletin, 1916, No. 38, pp. 411, 8 tables, 3 maps, 40 plates of illustrations; Vol. II, Bulletin, 1916, No. 39, 704 pp., 31 maps, 1 diagram). This important study grew from a suggestion made in November, 1912, by the trustees of the Phelps-Stokes fund, which provided most of its expense, and was conducted under the immediate direction of the Commissioner of Education. The regular staff of surveyors associated with the director included Thomas J. Woofter, Walter B. Hill, and Ocea Taylor. Special assignments were completed by William Hill, Mrs. T. J. Jones, G. S. Dickerman, Mr. and Mrs. A. H. Albertson, Ogden Purves, John H. Jinks, and Messrs. Bebbington and Higson, chartered accountants of New York. Cooperation was extended by the State superintendents of public instruction of the 15 Southern States involved, by the officers of the schools surveyed, and by the various supporting boards and agencies.

The purpose of the survey was formulated in terms of a long-felt and widespread need for accurate information that would enable one to decide "as to the merits and demerits of the many appeals for money and sympathy in behalf of all sorts and conditions of institutions for the improvement of the Negro." In realizing its original aim of recording an "evaluation of the private schools" for the education of colored people, the study makes a most important contribution towards stabilizing and protecting this necessary educational philanthropy.

The scope of the survey, accordingly, included: (1) All private schools for colored people, whether elementary or higher; (2) all

schools above the elementary grades, whether public or private. Reports are made on 790 individual schools and institutions, of which 625 are private schools, 28 State institutions, 64 public high schools, 3 city normal schools, 27 county training schools, and 43 special institutions (arranged geographically in Volume II). A "background" for the private and higher institutions was found in the public school system for Negroes. The information presented concerning each school includes: Characterization of the school; ownership and control; attendance; teachers and workers; organization; financial; plant; and recommendations. Three years were required to complete the undertaking; two, the school years of 1913-14 and 1914-15, being spent in the field work obtaining facts through personal visits to the institutions described; and one, 1915-16, to revisits and other verification of the data and the preparation of the report. A striking feature of the study is the attempt to support the qualitative evaluation by measurement. "For the purpose of this study it was found that the best available measure of public-school facilities was the relation between teachers' salaries, as given by the State superintendents, and the population 6 to 14 years of age, as reported by the United States census. Salaries * * * are the most accurately reported of all the school facts." This ratio as the per capita expenditure for white and colored children was determined for each county in the States of Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

The general discussion of the vast material collected on Negro education is presented in Volume I under these topics: General survey; public school facilities; secondary education; college and professional education; preparation of teachers; industrial education; rural education; ownership and control; educational funds and associations; financial accounts and student records; buildings and grounds by Mr. and Mrs. A. H. Albertson; history of Negro education, by George S. Dickerman; and freedmen's aid societies, 1861-1871, by Julius H. Parmelee. The appendix contains eight extensive tables of statistics of Negro schools.

Having performed its difficult task of discrimination, expressed in the constructive policy of recommendations regarding individual institutions, the study offers a large program of educational values in reorganization, in its proposal of a committee representing the various religious denominations to act wisely in the development of properly distributed and graded higher institutions, which should include two universities, three colleges, and junior colleges in 12 States for the Negro race.

FOREIGN SURVEYS.

Saskatchewan, Canada.—"A Survey of Education in the Province of Saskatchewan, Canada: A Report to the Government of the Province of Saskatchewan," by Harold W. Foght, specialist in rural school practice. Bureau of Education, Washington, D. C., Regina, 1918 (183 pp., 8 maps, 31 figs., 32 tables, and additional tables and appendix), is a unique contribution to survey literature. Preliminary discussion as to the need for a scientific study of the educational situation in Saskatchewan to serve as a basis for needed reorganization led to an order in council on June 7, 1917, for an educational survey. "This is probably the first instance on record of a Government extending an invitation to a citizen in the employ of another country to direct the study of its school system." The active field work was extended during three months from August to November, 1917. The director of the survey was assisted on special topics by W. Carson Ryan, jr., of the United States Bureau of Education. Cordial cooperation was extended by various provincial officials, officers, and teachers, and the public education league.

The topics presented include: Saskatchewan, the land and people; fundamental educational needs as indicated by the character and resources of the Province; the present educational system; school organization and administration; school inspection and professional supervision; school population, enrollment and attendance; organization and adaptability of the rural schools; consolidation of rural schools; rural high schools and continuation schools for adults; city, town, and village schools; high schools and collegiate institutes; the teaching staff; the normal schools; vocational education; separate schools; schools in non-English communities; the examination system; school hygiene and health inspection; school support, what the Province pays for education. The methods of inquiry included personal visits and the use of official data and records and questionnaire material. The study is doubly interesting to the student of the survey movement and educational progress because in making comparisons it utilizes the facts of education in the United States. Fifty-eight specific recommendations are made.

"Studies in Higher Education in Ireland and Wales with Suggestions for Universities and Colleges in the United States," Bulletin, 1917, No. 15 (115 pp.), and "Studies in Higher Education in England and Scotland with Suggestions for Universities and Colleges in the United States," Bulletin, 1917, No. 16 (276 pp., 14 tables), by George E. MacLean, are the reports of a special commission to the author by the Commissioner of Education in 1913. These studies are of special interest, made as they were during the years 1913-1915, and recording the changing situation in higher edu-

cation in England, Scotland, Ireland, and Wales. The aim of the author is "to point out facts and tendencies in higher education in England, Scotland, Ireland, and Wales, by which American universities and colleges can profit." The reports are based on visits to 76 institutions, including universities, university colleges, colleges, and technical and agricultural colleges and schools.

The topics presented in Bulletin No. 15 are: The Dublin University; Trinity College; the Catholic University; the predecessors of the National University; the National University; the three constituent colleges; the Queen's University of Belfast; the department of agriculture and technical instruction; movements preparatory for the University of Wales; the University of Wales; the royal commission and educational problems confronting it; summary of studies and suggestions.

The topics of Bulletin No. 16 are: First group of universities—Oxford, Cambridge, Durham; Scotch universities; University of London; the new or provincial university; independent university colleges—Exeter, Nottingham, Reading, Southampton; technical colleges and schools; agricultural colleges and schools; women's colleges; organization and administration of universities; university officers; provisions for the faculty; state aid and visitation; coordination of institutions; applied science and professional education; advanced study and research without graduate schools; examinations; curricula; student life; and university extension teaching.

MISCELLANEOUS.

"The Third Annual Conference on Educational Measurements," held at Indiana University, April 14, 15, 1916, Bulletin of the Extension Division, February, 1917, offers a constructive program which contributes to setting up standards for survey purposes as indicated by some of its special topics; Standard tests in the work of school administration and measurements applied to school financing, by E. P. Cubberley; survey of Gary schools and prevocational schools in New York City, by B. R. Buckingham; cost of instruction in Indiana high schools; and per cent of failures in high school, by H. G. Childs.

The "Fourth Annual Conference on Educational Measurements," held at Indiana University, April 20, 21, 1917, Bulletin of the Extension Division, April, 1917, gave further indication of the interpretation of, and benefits from, educational surveys in the addresses by G. D. Strayer: Significance and present status of the survey movement, and practical improvement in general school administration resulting from the school survey.

"Suggestive Studies of School Conditions, an Outline Study in School Problems for Women's Clubs, Parent-Teacher Associations, and Community organizations" (101 pp.); prepared by Janet R. Rankin and issued by C. P. Cary, Madison, Wis., 1916, shows some very interesting phases of school surveys at work. In its suggestions for the study of schools, it indicates by outline, bibliography, tables, and graphs, the approach by which the organizations named might consider the following topics: The school and the community; the school children; pupil health and hygiene; physical conditions; school beautification; the school library; the school-teacher; kindergarten; the lower grades, one to four; upper grades, four to eight; discipline and moral instruction; industrial work; recreation; the high school; higher educational organizations; school finances; the school exhibit. The suggestions close with an appendix on method of equipment and procedure.

The more elaborate organization of handbooks for conducting educational surveys is demonstrated in the educational survey series, Volume II, "Self-Surveys by Teacher-Training Schools," by W. H. Allen and C. G. Pearse, World Book Co., 1917 (202 pp.), and Volume III, "Self-Surveys by Colleges and Universities (with a Referendum to College and University Presidents)," by William H. Allen, World Book Co., 1917 (384 pp.). The former volume is an outgrowth of the survey of Wisconsin's eight normal schools made in 1914. "While this book speaks of normal schools, it is addressed to the whole family of teacher-trainers, including so-called normal schools, so-called county training schools, so-called high-school training classes, so-called college courses for teachers, so-called colleges of education, so-called graduate courses in education, so-called summer normal courses, so-called teachers' institutes, and in addition State departments of public instruction, State central boards of education, National Bureau of Education, and volunteer associations of educators, including foundations which deal with questions affecting normal-school ideals and methods." The topics discussed are: Reasons for self-surveys; pathfinding by Wisconsin's normal schools; steps in making a self-survey; making self-surveys build as they go; administration problems; course of study problems; supervision problems; classroom instruction, academic department; training department's training; extra-curricular activities of students; technique of reporting surveys; general needs of teacher-training schools; and exhibits.

The latter work also grew out of surveys, and while organized as "a handbook" it presents a searching discussion of survey methods that are capable of self-application by the different groups constituting a college or university. The analyses of all educational relationships are refined to the utmost and call for a yes-no type of

response. The nine main topics, the survey movement in higher education, procedure for a cooperative college survey, relation of trustees to president and faculty, executive and business efficiency, faculty government, extracurricular activities of students, course of study, instructional efficiency, and relation with college communities are analytically treated in the 122 sections. The faculty and alumni questionnaires in the University of Wisconsin survey are included in two exhibits of the appendix.

The diversification of the literature on educational survey is still further indicated in "Methods and Standards for Local School Surveys," by Supt. Don C. Bliss, D. C. Heath & Co., 1918 (pp. 264, 19 illustration charts, 153 tables, and bibliography). This manual designed for the use of a superintendent in studying his local school conditions, is the outgrowth of "constant use * * * of the reports of surveys conducted by groups of experts in different cities." and of separate investigations of educational problems. It serves the purpose of bringing into handy form "a definite chart for the would-be local surveyor." The functions of surveying in school administration are presented in the introduction by G. D. Strayer and the introductory chapter by the author. The guidance derived from the day-to-day experience of the superintendent in meeting school problems is apparent in the arrangement and treatment of the several topics: General conditions; organization and administration, the supervisory and teaching staff, salaries, pupils, efficiency of instruction; course of study and time schedule; the school as a social and community center; school buildings; school hygiene; school finance; planning for future needs. Two chapters offer assistance in the statistical interpretation and the graphical representation of data. The entire treatment culminates in a "survey outline," following the order of the topics treated. A special feature of the work is to be found in the inclusion of many of the standards and forms which have been determined for city systems which have been studied, thus facilitating the comparative use of data locally derived.

"Teacher Benefits for School Surveys," Educational Review of Reviews, No. 48 (24 pp.), was issued by the Institute of Public Service, New York City, to present the answers derived from a digest, prepared by Helen E. Purcell and Hiram H. Bice, of 30 survey reports to the following question: "What are classroom teachers getting from school surveys?"

The thirty-first annual meeting of the Association of Preparatory Schools and Colleges of the Middle States and Maryland, 1917, included the subject of educational surveys in its program, the discussions being presented by Clyde Furst and Samuel P. Capen (Proceedings, pp. 42-59).

"The Fruits of School Surveys," by Leonard B. Koos, School and Society, January 13, 1917, summarizes the responses of 18 out of the 25 city superintendents as to the results of the surveys conducted in their systems. Incomplete as these indications are, they "point to an emphatic justification of the survey movement and furnish encouragement for its extension."

"A Statistical Method for the Treatment of School-survey Data," by L. L. Thurstone, The School Review, May, 1917, offers technical suggestions for the graphic treatment of measurable material collected in an "auto" survey by a city school superintendent.

"College and University Surveys," by Francis A. Thomson, School and Society, June 23, 1917, discusses the surveys of single institutions and of State systems of higher education. J. A. Manahan has prepared a select list, with comment, of State, city, and county surveys, as a bibliography appearing in the University of Virginia Record, Extension Series, November, 1916 (pp. 54-62).

"A Plea for the Educational Survey," by Lawrence A. Averill, School and Society, February 16, 1918, is based on its four "more obvious values," and the claim "that the principle behind the educational survey is a sound one."

The bulletin of the University of South Carolina, No. 66, March, 1918, contains a discussion of school surveys by S. H. Edmunds.

The analytic account of the "Standard Tests used in School Surveys," by Ernest P. Branson, School and Society, December 14, 1918, covering 24 "typical surveys of a general character," shows that the tests were used in 16, the average number of tests used increasing annually at this rate: 1913, 1; 1914, 2; 1915, 4; 1916, 5; 1917, 8. The choices of tests used favored four in reading, two in handwriting, two in spelling, three in arithmetic, and three in composition.

UNPUBLISHED SURVEYS.

The following is a list of unpublished surveys:

Falls County, Tex., conducted by the Bureau of Education, the report being made to the local officers.

Bradley Polytechnic Institute, Peoria, Ill., conducted by the Bureau of Education.

Mobile, Ala., School Survey, 1916, conducted by the Bureau of Municipal Research of New York City.

South River, N. Y., conducted in the department of educational administration, Teachers' College, Columbia University.

Everett, Wash., conducted by Fred C. Ayer, with the aid of 20 teachers and principals, and designed as a survey of "a typical north-west city of 19,000 population," and conceived "from the social rather than the individual point of view."