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VOCATIONAL GUIDANCE AND THE PUBLIC SCHOOLS

BY

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, October 31, 1918.

SIR: The fundamental significance of the principles involved in what has been known as the vocational guidance movement has come to be appreciated with special force under the exigencies of war, and will be still more completely understood in the period of reconstruction that is to follow.

The part the schools can play in the movement for better utilization of human resources is an important one. By making known to all the children of all the people what the world's work is and what the opportunities and obligations for service are, the schools can do something no other agency could do so well.

If the schools are to lead in this movement, the teachers will need to be specially skilled in knowledge of the world of occupations; they must have a sympathetic understanding of labor problems, and they must be capable of guiding public opinion intelligently.

The accompanying study, made by W. Carson Ryan, jr., of the Bureau of Education, brings together in accessible form for the use of teachers the contribution of the public schools to the vocational guidance movement in the past ten years. I recommend that it be published as a bulletin of the Bureau of Education.

Sincerely yours,

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

VOCATIONAL GUIDANCE AND THE PUBLIC SCHOOLS.

INTRODUCTION.

The problem of organizing human labor resources has suddenly emerged, like so many other social and economic problems, from the realm of the academic into that of the immediate and practical, largely under the stimulus of war necessity. Through the selective draft act, the Federal employment plan, and specialized training under the War Department, no less than through the vocational rehabilitation and vocational education laws, the United States has undertaken, as never before, to control the distribution of human service.

In a sense this task that the Nation has been engaged in, that of training, enlisting, and selecting workers for the Army, for the essential industries, and for agriculture, is a gigantic experiment in vocational guidance. In authorizing the selective service regulations President Wilson said:

> The time has come for a more perfect organization of our man power. The selective principle must be carried to its logical conclusion. We must make a complete inventory of the qualifications of all registrants in order to determine, as to each man not already selected for duty with the colors, the place in the military, industrial, or agricultural ranks of the Nation in which his experience and training can best be made to serve the common good. This project involves an inquiry into the domestic, industrial, and educational qualifications of nearly ten million men.

For a decade or more the vocational guidance movement has sought to make a contribution to this task with which the Nation was suddenly confronted. It has sought to approach the problem through democracy's chief agent—the public school. Those concerned in the vocational guidance movement have been studying the early school-leaving that has driven so many boys and girls too soon into industrial life; they have tried to find ways of protecting the Nation against the sacrifice of its youth to economic demands; they have sought to bridge the gap between education and industry. Basing their efforts upon voluntary cooperation, they have appealed to boys and girls to continue their education and to make a careful choice of a vocation; they have aimed to counsel, rather than to get jobs or assign tasks; they have tried to present the whole world of human

occupations, to the end that youth might choose for itself the path of useful service.

The present is a significant period in the vocational guidance movement. On the one hand it must utilize the present national interest in the mobilizing of occupations to drive home the importance of proper guidance from the earliest days of childhood; on the other it must see that selecting of the young for national service now is more than mere job getting; that the lure of temporary work at high pay does not divert a boy or a girl from the higher duty of adequate training he owes to himself and to his country. On the basis of what is done now will depend the strength and value of the movement after the war. It is the purpose of this study, therefore, to give an account of the vocational guidance movement as it has developed in the past 10 years, particularly in relation to the public school; to bring together in summary form the investigations that have demonstrated the need for vocational guidance; to show the wealth of material on the occupations that has recently been accumulated for the use of the teacher who would be a counselor; and to report on vocational guidance work as it is actually carried on in many American schools and school systems.[1]

[1] A number of unpublished documents containing valuable information have been placed at the disposal of the writer in the preparation of this report. For this and many other courtesies, particularly in critical reading of the bibliography, special thanks are due to Mr. Meyer Bloomfield, Mr. Jesse B. Davis, Mr. W. A. Wheatley, Mr. Charles L. Jacobs, Dr. John M. Brewer, Prof. Frank M. Leavitt, Mr. B. C. Gruenberg, and Mrs. J. A. Reed.

I. THE FIELD OF VOCATIONAL GUIDANCE.[1]

DEFINITIONS OF VOCATIONAL GUIDANCE.

It is inevitable that there should be conflict of opinion as to what constitutes vocational guidance and just how and where it shall be carried out. A critical examination of the literature is reassuring, however, in the evidence it furnishes of a developing agreement in aims and methods.

There are numerous definitions of vocational guidance. It is significant that most of those who have achieved something in the work confine themselves to a statement of what vocational guidance does or aims to do rather than what it is.

The purpose of the first vocation bureau, that in Boston, was declared by its founder, Frank Parsons, to be—

> To aid young people in choosing an occupation, preparing themselves for it, finding an opening in it, and building up a career of efficiency and success; and to help any, young or old, who seek counsel as to opportunities and resources for the betterment of their condition and the means of increasing their economic efficiency.

Meyer Bloomfield, who carried on Parson's work, and whose name is perhaps better known in the movement than that of any other worker, says:[2]

> Vocational guidance aims to make both school and occupation help boys and girls to discover and develop their powers for service, through school programs in charge of specially trained vocational counselors in schools and employment programs in charge of specially trained employment supervisors in the occupation.

Brewer, another investigator in the field, insists that "vocational guidance is bound up first of all with educational problems, and second with economic and social questions."[3] He stresses educational guidance and lays down a program that would include: (1) Laying a broad foundation of useful experiences; (2) studying occupational opportunities; (3) choosing an occupation; (4) preparing for the occupation; (5) entering upon work; (6) securing promotions and making adjustments.

[1] Except for the special material in Section VII (p. 92), this bulletin deals only with the United States. For vocational guidance in other countries, see Educ. Bull., 1914, No. 4. "The School and the Start in Life" (Bloomfield).

[2] Readings in Vocational Guidance, preface.

[3] The Vocational Guidance Movement, p. vii.

Snedden[1] declares, with special reference to the secondary school:

> It is now clearly within the reach of the secondary school to organize a systematic course in vocational guidance of such a character as quite definitely to minister to two distinct ends—one practical, the other cultural. This course should (1) by objective study of the requirements and possibilities of the various callings in which men engage, by systematic examination of the potential powers of individual pupils, and by the deliberate cultivation of vocational ideals, enable the youth eventually to find his way into a vocation most suited to him; and (2) by giving all pupils a survey of occupations and by having them all study their own possibilities in relation thereto, produce the sympathetic, socialized, and broadened vision essential to highest citizenship and to truly democratic personal culture.

Hiatt recognized that temporarily the problem of relation between the school and industry must necessarily deal with those leaving school to go to work, but that "in its fuller development vocational guidance must have a vital influence upon even the earliest years of school training as well as upon the broadest preparation for the learned professions."

Other writers have gone much further in special prescriptions of vocational direction for early schooling. An excellent summing up of the situation from this point of view is found in the following statement from the report of the Somerville, Mass., schools for 1910:

> Vocational guidance in its full meaning involves every measure that tends to inform the public and, more especially, the young, as to the nature, requirements, and temporary conditions of the various occupations; to determine for which occupation each one is fitted by capacity and conditions; and to prepare for effective work in the chosen calling.
>
> To limit vocational guidance to advice, general or personal, the latter on the basis of, at best, hastily gathered data as to the make-up of the applicant and frequently at the very threshold of entrance upon the responsibilities of practical life, is inadequate. It is a makeshift, conceived in a thoroughly worthy spirit, to atone in a fashion for previous neglect. The thought of vocational guidance must live, as it were, in every phase of educational work from its earliest beginnings. More and more clearly, as the work of the school proceeds, there should be invitation and opportunity for choice; and when final choice has been reached, this work should assume forms of increasingly deliberate and specific preparation for efficiency in the chosen life career. For full and adequate vocational guidance, in short, education must touch every need, the trend and capacity of every child and of every condition of life.

Recent writers have emphasized particularly that vocational guidance is not merely an attempt to solve the immediate employment questions of the boy and girl leaving school, but a problem of curricular adjustment throughout the schools; that vocational guidance, in the words of Prof. Leavitt—

> is not a new function of education, but rather an old function which needs liberal extension, and that this extension lies within two well-defined fields,

[1] School Review, 24:180. March, 1916.

the first being curriculum enlargement and adjustment, and the second the educational supervision of those who, for any reason, withdraw from the regular or traditional school.[1]

Supt. F. E. Spaulding[2] outlined for the National Education Association in 1915 a number of the problems which vocational guidance is formulating by way of defining its field. Pointing out that "more completely than any other movement, vocational guidance must take for its function the conservation of human resources," Supt. Spaulding argued that the vocational guidance department of every school system should be responsible for an accurate census of the children and youth of the community, and should exercise control over them; that this department should render assistance in determining types of schools and school curricula, and should become "a great repository of knowledge, always up to date and significant, of the two great factors in every community—the children and the work of the community." In Supt. Spaulding's view, vocational guidance should also formulate for itself the problem of the moral effect of the school on the child: it must see that the individual learns to appreciate his own capacities and possibilities; that he informs himself concerning the opportunities for worthy service that the world offers; that he prepares himself as adequately as time and conditions permit to apply his powers to the rendering of the highest service of which he is, or may become, capable, and that he learns to concentrate his thought, his energy and ambition, to this end of large and worthy service.

Still another problem of vocational guidance in Supt. Spaulding's category is a knowledge of opportunities for service, especially in the immediate community, but also in the world at large. Such knowledge, he asserts, must not be confined to industrial and commercial occupations; any opportunity for worthy service, great or small, is the concern of vocational guidance.

As the culminating problem of vocational guidance, Supt. Spaulding would put—

> the successful transition of children and youth from the favorable conditions of healthful growth, and of practical education, which the schools must provide into different but also favorable conditions for continued growth that occupations must be brought to afford.

To carry out the entire undertaking outlined, as Supt. Spaulding freely admits, is beyond the unaided power of any vocational guidance movement that is likely soon to develop. The problem must be solved by the coordinating of existing welfare agencies. "It is the function and the unparalleled opportunity of vocational guidance to cooperate with all such agencies, to coordinate their efforts

[1] Vocational Guidance Bulletin, May, 1916.
[2] Nat. Educ. Assoc. Proceedings, 1915.

and to concentrate them all to the fullest conservation of human resources." For—

> Vocational guidance seeks the largest realization of the possibilities of every child and youth measured in terms of worthy service; vocational guidance seeks this, not through the school alone, but through the upbuilding influences that work and life beyond the school ought to afford every human being.

The goal set by Supt. Spaulding is reemphasized in the report of the committee on vocational guidance of the National Education Association Commission on the Reorganization of Secondary Education.[1] Under the heading "Meaning and purpose of vocational guidance," the report asserts:

> *Vocational guidance should be a continuous process designed to help the individual to choose, to plan his preparation for, to enter upon, and to make progress in an occupation.* It calls for a progressive improvement of the public-school system and a fuller and more intelligent utilization of its richly diversified offerings. It requires a more accurate adjustment between the school and all worthy vocations. For some children it demands a plan of continuation education and supervision in employment by educational authorities. It should develop an interest in the conditions obtaining in the child-employing industries and bring about improvement of those conditions. It should utilize the cooperation of all social service agencies that can be of assistance. For society at large, it should result in a more democratic school system, a wiser economy on the expenditure of school time, and a more genuine culture.

VOCATIONAL PSYCHOLOGY.

Probably on no single point is vocational-guidance opinion so sharply divided as on the question of possible contributions by psychology or other methods of charting individual aptitudes. Some investigators, Brewer, for example,[2] reject as unworthy practically all books dealing with this aspect of the subject. Brewer says:

> Vocational guidance is not concerned with any "system" of "character analysis," phrenology, physiognomy, or other "short cuts." Neither is it concerned with bombastic talk about "the race for success" and "getting ahead of the other fellow," or other questionable points of view. Neither can it yet find use for tests worked out in the psychological laboratory, nor for hasty generalizations based on such moot terms as "the influence of heredity," "natural aptitudes," "innate qualities," and the like.

On the other hand, Ayres, Leavitt, and many others have continued open-minded, if not friendly. Ayres has apparently not altered his opinion, expressed in 1913, that:

> After all allowances are made the inevitable conclusion remains that in vocational guidance the greatest field of immediate development for psycho-

[1] U. S. Bu. of Educ., Bul. 1918, No. 10.
[2] Harvard Bulletins in Education, No. 4, p. v. Brewer is somewhat less severe in his 1918 book, "The Vocational Guidance Movement."

logical tests lies in choosing persons for positions rather than in selecting positions for persons. The possibilities in the former field of effort are inspiring.[1]

The National Education Association report recognizes three types of experimental work in the field of vocational psychology: (1) The attempt to supply the employer with tests that will enable him to select from a large number of applicants those most likely to success in a given position (vocational selection); (2) the attempt to determine specific vocational abilities—that is, which of several occupations would be the best one for a given individual to follow; (3) the attempt to develop tests for the measurement of general intelligence.

The commission is definitely of the opinion that—

> we should welcome continuous experiments in the field of vocational psychology, but we should put the primary emphasis upon education, training, and supervision. The ideal vocational counselor will be something of a psychologist, but he will also be a sociologist, an economist, and, most of all, an educator in the best modern sense of the word.

Psychologists who are interested in the possibilities of their science in vocational guidance point especially to the work of Seashore in testing musical ability; to the experiments and tests applied in the Bureau of Salesmanship at Pittsburgh by Scott, Bingham, Whipple, and Miner; to the courses for business men by Watson in Baltimore, Adams and Breese in Cincinnati; and to Mrs. Woolley's work in the vocational bureau at Cincinnati.[2] Mrs. Woolley's work remains a bone of contention among vocational guidance workers. No one questions her earnestness and ability, but Brewer, in the bibliography previously cited, is of the opinion that "it is doubtful whether other bureaus should at present attempt similar experiments."[3] One of the sessions of the 1912 vocational guidance conference (New York) was given over to vocational analysis, and the vigor of the discussion at Philadelphia five years later indicates that agreement is still far distant.

So far few attempts have been made, however, to connect this work directly with the public schools. Kitson has studied the doctrine of interest in this particular relation. Believing, as he does, that vocational guidance is a movement of great ultimate significance, "affecting society through and through," he has become con-

[1] Journal of Educational Psychology, September, 1918. Brewer considers this article "too sanguine," and notes that "many subsequent writers have quoted it with no attempt to verify its conclusions." Op. cit., p. 3.

[2] American Psychological Association. Report of the Committee on the Academic Status of Psychology. Differentiations between psychological experiments and mental tests. Swarthmore, Pa., December, 1910.

[3] Harvard Bulletin in Education, No. 4, p. 25.

vinced that vocational guidance in its psychological aspects must be regarded as a *monitory* process. He says:

> When asked for a tenable view of vocational guidance, the scientist can do no better at present than to regard it as a monitory process. This has as its aim to secure an inventory of the individual by scientific measurements, and to warn him of his powers and limitations. Upon this as a basis, then, the individual may set out to develop himself. Thus vocational guidance does not commit a person inalienably to a single vocational possibility. It sets no bounds upon his achievement, but encourages him to develop himself to the highest degree.

The National Education Association report, elsewhere mentioned, indorses this view.

The interest of business efficiency experts in the vocational guidance movement has direct bearing for the public schools. Of the 58 business concerns reporting to the committee on vocational guidance of the National Association of Corporation Schools in 1915, three declared that they used in part tests based upon phrenology, six used tests of "physiognomy," and six made some use of psychological tests.[1] Several concerns reported that they were seriously considering the introduction of psychological tests for the selection of employees.

Dean Schneider, of the University of Cincinnati, worked out a series of "major characteristics" for use in selecting men in his cooperative experiment that has drawn the fire of both groups, those opposed and those favoring analysis of one sort or another. Dean Schneider, after trial, rejected both the examination of physical characteristics and the tests of experimental psychologists. His list of characteristis developed, he asserts, out of the "old-fashioned plan of trying a man on the job without any previous examination of any kind." It is precisely this classification on the basis of types that is anathema to Brewer and others.[2]

Those who are inclined to dismiss without consideration the claims either of observational analysis or psychology need to be reminded that 28 psychologists have reported to the American Psychological Association that they are applying some form of psychological tests to the problem of vocational guidance in business efficiency,[3] that 30 large industrial organizations are now financing a five-year experiment to find out whether or not mental tests and the methods of applied psychology really have any value in helping employment managers to determine in advance the likelihood of success of the applicant for the position;[4] and that the United States Army has

[1] Experience with questionnaires suggests that several of those who reply "yes" to these questions probably did not understand their import.

[2] The "averaged-opinion" plan of Atlanta is of this type. See bibliography, under Halsey, G. D.

[3] Ann. Psych. Assn. Rept. Com. on Acad. Status of Psychology, p. 33.

[4] Monthly Review of U. S. Bureau of Labor Statistics, 4:580, April, 1917.

adopted as part of its war program occupational selection on the basis of psychological tests.[1]

VOCATIONAL GUIDANCE IN RELATION TO GENERAL EDUCATIONAL PROGRESS.

Vocational guidance is necessarily bound up with certain recent movements, such as vocational training, prevocational education, continuation school work, the cooperative plan of half-time work, the Gary plan, and the junior high school. As has been repeatedly pointed out in recent years,[2] the school itself is a guiding institution, and the modifications here listed are all intended to operate to make more efficient or more equable the selective function of the school.

Vocational education.—The vocational education movement is premised on the guidance function of education. It seeks to prepare pupils for efficient service in many occupations, instead of a few. The public school of the nineteenth century directed into the professions those who were able to remain and would profit by its restricted curricula, and, through early elimination, just as definitely directed into industry those who were not financially able to continue or did not take kindly to the traditional studies. Vocational training aims to recruit industrial workers more intelligently, more effectively, and more humanly. The greater the variety of occupational training, the greater the possibility of intelligent choice of vocation.

The rural school in the United States offers the most striking example of the school operating as a selective agency. For years American rural schools have been guiding boys and girls away from the land and toward the city. Modeling its course of study and methods on urban schools, using teachers city-bred and city-minded, speaking the language of the city streets rather than that of the country lanes, the rural school steered boys and girls away from the farms and into city employment just as effectively as if it had stood them up and counted them out. The introduction of vocational agriculture has done something, but still not much, to stem the tide. At the present time some of the rural high schools are just coming to a realization of the problems of employment. Others are still quite unawake to the fact that, even if it is desirable that the rural

[1] Official Bulletin, February, 1918; also in Vocational Guidance Bulletin, February-March, 1918.

[2] Robbins. The school as a social institution (Boston, New York, Allyn and Bacon, 1918): "When we speak of the school as a selective agency, we mean that it acts as a huge sifting machine in such a manner as to choose for higher educational preferment those who are adapted to its character. Under the old aristocratic ideal of education the school sifted out a certain few who were by that process of selection chosen to go forward and carry on the work of leadership in the professions, in the church, and to a certain extent in politics; while those who were eliminated from the school or who were never attracted within its walls were as definitely selected for the workaday tasks of the world."

high school shall direct its pupils to the farms, it can only safely do so through a complete survey of all vocations; so that the farm boy, if he chooses to remain on the farm, will do so because he has looked over the field and knows how important and desirable an occupation agriculture is. "This is a rural community; there is therefore no need for vocational guidance," is the substance of too many of the replies recently received by the Bureau of Education to a questionnaire to high schools; or the point is made that the boys can get all the jobs they want, so there is no need for the school to interfere. Here, of course is where the school is most needed. It can, and should, discriminate most carefully between worthy and unworthy farm employments, and it should supervise the work after it has begun, requiring regular reports from the students.

Prevocational training.—The discovery of the early elimination of pupils from school led to a modified type of education for boys and girls close to the compulsory education period who had tired of the "regular" school work or were unsuccessful in it.[1] So-called "opportunity schools" sprang up, designed to furnish practical education of the type perhaps best exemplified in Hampton Institute. At first the instruction given in these schools was simply general "industrial work," as it was termed. The term "prevocational" came into use when it began to be realized that, while it was neither practicable nor desirable to give specific vocational training to very immature boys and girls, it was quite possible and wholly desirable to give boys and girls, not merely the hand training that should form an integral part of all education, but practical experience in a number of type occupations that might even come to be "trial courses in vocational guidance." Such were the Ettinger schools of New York City, which gave boys and girls the chance to try, each for a limited period, a series of occupations, such as electric wiring, printing, woodworking, millinery, and novelty work. The theory underlying this work is not to train boys to be electricians and printers, or girls to be milliners or dressmakers, but to furnish an insight into all occupations and facilitate intelligent choice of a vocation.

The weakness in the demand for prevocational education lies chiefly in the fact that too often it is suggested as designed for those who have failed in the "regular school work," or, worse still, for those who are destined to do the "menial work" of the world. Modern social opinion rightly regards such an attitude as dangerous to democratic ideals. The kind of training given in prevocational classes is essential for all boys and girls, and not merely for those who are to render service in what some of us still call undemocratically the lower walks of life. Boys and girls who are going on

[1] See Leavitt and Brown. Prevocational Education.

into the professions need prevocational training more, if anything, than those whose schooling terminates early. They need, above all, the knowledge of the basic occupations that prevocational work with the tools and materials of civilization gives, in order that they may properly understand a social organization based on service. Our whole democracy is based on the theory that this is a world of work, where each one does his part, and where it is essential that each one understand the other's part.

In a sense, of course, the use of the term "prevocational" is objectionable, since the fundamental need is not merely for courses of this nature in the upper elementary grades, but for a kind of education that shall, from the lowest grades in the school to the highest, be based on human occupations.[1]

Continuation schools.—The continuation school, in its provision of general education and special training for those already employed, especially boys and girls 14 to 18 years of age, furnishes valuable vocational guidance to a group that needs it most. Recent writers have emphasized that vocational decision is not irrevocable; that there must usually be rechoice of a vocation. This rechoice is often made possible by the continuation schooling now effective in five States.[2] In a report on continuation work in Boston, R. O. Small[3] showed that the continuation school, as a public educational agency, prevented drifting in industry, reduced the number of juvenile misfits by helping minors to make a more intelligent choice of occupation, and advanced young workers from unskilled to skilled trades. He cited 43 cases of boys and girls who have received guidance through the continuation school. The following cases are typical:

Printing.—A boy was an usher in a theater. He was thoroughly disgusted with his work, and at first his attitude in class was far from satisfactory to his teachers. He was placed with a printing company and entered the class in printing. He did good work. Later he was employed by another printing concern, and is now employed in the printing department of a third concern, where he is receiving a wage that is remarkable for a boy of his age.

Woodworking.—A bright boy attending the woodworking department at the continuation school was an errand boy at a public market. He came to the continuation school with no trade knowledge, but with a desire to become a pattern maker. During a follow-up visit, the teacher learned of a chance for an apprentice. The teacher liked this boy's work and recommended him for the position, which he secured. He is making good on his job.

Office work.—A girl was working in a factory when she entered the continuation school on November 7, 1916. She was visited by one of the teachers, who

[1] Using occupations in the broadest sense, i. e., "an occupation is a continuous activity having a purpose." (Dewey, Democracy and Education, p. 361.)

[2] Wisconsin, New York, New Jersey, Ohio, Pennsylvania.

[3] National Society for the Promotion of Industrial Education, Proceedings of the Indianapolis meeting, 1917.

found that her employer would take her into his office if the continuation school teachers would help her in filing, etc. She was transferred to the office practice class, and two weeks ago her employer took her into the office. She has asked for practice on the adding machine, because it would be of help to her in her work.

The cooperative half-time plan.—Try-out in the industry is one of the advantages claimed for the cooperative plan of vocational training whereby students spend alternate periods (usually weekly or fortnightly) in school and shop. In his description of the University of Cincinnati plan, from which the public high-school cooperative systems have in the main been derived, Prof. Park gives "the selection of workers" as one of the two most important elements.[1] Cooperative courses in New York City high schools have been arranged with mail-order houses, department stores, machine shops, railroads, automobile factories, printing offices, electric light and power companies, and several other branches of industry. Recently Richmond, Va., has undertaken a cooperative plan with street-car companies for part-time employment of high-school boys as conductors and motormen. Efforts have also been made to apply the principle to agriculture, particularly through the home-project plan. From the point of view of vocational guidance, the cooperative plan provides a "laboratory of industrial environment" that produces both training and guidance.

Employment in out-of-school hours.—The vocational guidance possibilities of work before and after school, on Saturdays, and during summer vacations are just beginning to be realized. This is a field that has usually gone quite without recognition by the school authorities, though recent investigations have shown that in the aggregate the amount of out-of-school work done by school children, even in the lower grades, is considerable, and its effect, favorable or unfavorable, on future careers must be very important.[2] The school in its vocational guidance function is concerned in this problem from several points of view. The school needs to know at all times what the pupils are doing. Excessive work outside of school is often injurious to the pupil and an embarrassment to his progress in school. A recent English report says:

> These inquiries have established the fact that not only are children largely employed for long hours at wages that are not commensurate with the services rendered, but also that, in the majority of cases, the energy of the children so employed is drained to the point of injuring their chances of making the best use of their lessons at school.

[1] U. S. Bu. of Educ., Bul., 1916, No. 37.

[2] Jarvis found (U. S. Bu. of Educ., Bul., 1917, No. 20), that of 14,391 children investigated, 5,151 were employed during summer vacation and 3,864 during out-of-school hours throughout the school year. Mrs. Ilett's study of Seattle newsboys showed that many high grade boys were handling papers and magazines, and receiving some very specific direction toward salesmanship as a future career.

The boy who drives a milk-wagon route before school or delivers newspapers morning and evening may or may not be doing something from which he will benefit later in life. As often as not he may be getting impressions of some forms of work that will effectively drive him from them.[1] It is the school's business to have a record of this out-of-school activity, to supervise it, at least informally, and to utilize it directly in vocational guidance.

Summer vacation employment is still more direct in its possibilities for vocational guidance. Many school boys have had valuable "try-out" courses by working in stores and offices, or on the farm, during the summer. Surprisingly little effort has as yet been made to utilize this obvious opportunity for guidance.[2] The difficulty has been, on the one hand, that business did not care to bother training young people who were only temporary, and, on the other hand, that the schools have generally not realized their responsibility and opportunity in this summer work. Colleges and universities and certain types of private institutions[3] have long been making a special study of the summer employment of their students, but the public schools have almost uniformly pursued a laissez-faire policy with regard to this as well as other outside activities of their pupils.

The war, with its enormous stimulus of the demand for labor, has changed all this. All these untapped labor resources are now given careful consideration, and the school has a responsibility for supervision and guidance that can not be disregarded. The work of the United States Boys' Working Reserve[4] is a sincere attempt to meet this responsibility, and many schools are coming to see in it an opportunity for guidance of the most practical sort. Through the reserve large numbers of city boys, after receiving necessary preliminary training, are going to the farms. These are boys who would in all likelihood never have otherwise an insight into rural life. Possibly only a small proportion of these boys will be permanently attracted to farming as a life work, but all of them will learn at first hand something of the significance of agriculture as the world's basic industry—a form of vocational enlightenment with regard to the other fellow's occupation that is only less necessary for efficient citizenship than information respecting one's own choice of employment. Similarly, the United States School Garden Army,

[1] Cohen found in his study of vocational ambitions of eighth-grade boys (Current Education, February, 1918) that the boys never saw any connection between this out-of-school employment and their future occupations. Indeed, they usually desired to do something as different as possible from what they had been doing to earn money.

[2] The Cincinnati cooperative plan uses the summer after high-school graduation as a try-out period.

[3] Hampton Institute, for example.

[4] The Boys' Working Reserve has recently extended its interest in a significant way to assist boys planning to go into war essential industry. Under the new plan boys will be urged to continue their education, if not full-time at least part-time, in connection with their employment.

organized as a war measure among the school children of the towns and villages, promises to become a permanent agency for education and vocational direction.

The schools are learning to utilize a host of new forces that have important bearings upon the future careers of boys and girls. Home visiting by teachers; student activities of all kinds; athletics; student self-government; camps; boys' and girls' clubs; scouting; the Junior Red Cross; war savings societies; home gardens; and any other of the war activities that answer fundamental educational needs—all of these will have increasing significance for vocational guidance as the public school comes to recognize their importance for education.

Closely related in its import for vocational guidance is the plan of school credit for outside work. Recognition of private music lessons, for example, may sometimes mean keeping in school a pupil whose interests are preeminently musical. The school can utilize this outside interest in vocational direction, advising necessary academic or professional education in the case of a pupil who may be looking forward to music-teaching and suggesting desirable school subjects that might most profitably work in with the music interest. This is the kind of guidance that can be safely and wisely intrusted to a sympathetic teacher who knows the real world of occupations.

The Gary plan.—Certain features of the work-study-play plan put into effect by Wirt in Gary and tried in many other places are based upon the principle of education through occupations, and involve vocational guidance. The object is to acquaint all children with the fundamental tools, materials, and processes, so that opportunity for choice of an occupation is broadened, and the possibilities of going on with specific vocational training for industry are increased. Prominent among the claims made for Gary by its advocates is that of "economical, efficient, vocational guidance for all." Mr. Wirt asserts that his plan keeps children in school longer, directs more students into technical institutes, and in general operates on the theory that "vocational guidance is the first consideration and vocational training only secondary."[1]

The junior high school.—Differentiation of school courses at the strategic period of early adolescence is one of the aims of the junior high school, which represents the attempt to reorganize the American educational system on the basis of six years of elementary school and six years of high school. It is at this period of differentiation in courses that certain kinds of guidance are most needed and can be most effectively given. It is at this period that the life-career class, for the study of vocations, can be made most significant and helpful. Prevocational courses, by whatever name they may be known, belong in this junior high-school period, but, as noted on

[1] U. S. Bu. of Educ., Bul., 1916, No. 1, p. 64.

page 16, they should be furnished to all pupils and not merely to those who expect to leave school soon after the compulsory age. The junior high school makes it possible to keep more boys and girls in school for an additional year beyond the eighth grade, performing in this one particular an important function in guidance. Reorganization on the basis of six-three-three may therefore be considered an administrative device of positive value for vocational guidance.

PLACEMENT.

One effect of the emphasis upon vocational guidance as a movement affecting all education has been to create a prejudice in the minds of some workers against placement work in connection with vocational guidance. Repeated warnings have been sounded against a conception of vocational guidance which would merely strive to get jobs for children, and it must be said that the accumulated information at hand about the jobs available, as revealed in the studies reviewed later in this report,[1] excuses, if it does not justify, hostility toward anything that looks like the creation of mere employment bureaus for the marketing of children's services.[2] But to wave aside the remarkable work represented in Federal, State, and city labor bureaus, is to detach from the vocational guidance movement one of the most important points of contact it has with industrial life. Placement work will go on, and the only question for the vocational guidance movement to decide is whether or not it will seek to utilize an agency of growing importance and effectiveness. Somebody will do placement work; it is very important, if possible, that it be done by the school or some other agency more interested in the child than in the industry, and that it be done with as many of the elements of intelligent vocational direction as possible.

Particularly significant in this connection is the employment work now going on in New York City. Throughout New York State the law has made possible a chain of public employment offices that represent to a large extent a new departure in labor distribution in the United States.[3] In New York City particularly high ideals have been set; those dealing with juveniles have determined that no person under 18 years of age shall be directed to any place of employment until it has been investigated.[4] A bureau of information has been established to centralize the investigation of all places of employment for agencies, schools, and vocational guidance associations before young

[1] See especially pp. 40 and 49.

[2] The English experience during the war is especially significant in this respect. See Chapter VII.

[3] A critical survey of the situation from the worker's point of view is given in Bureau Publication No. 17 of the Children's Bureau, "Working Certificate in New York State." Washington, Government Printing Office, 1917.

[4] This is also true of Cleveland, Ohio.

people are sent to work.[1] Furthermore, it should be noted that those in charge of this work are for the most part men and women whose training, past experience, and sympathies lie in the field of vocational guidance and other forms of social work.

It seems clear that, while placement is but one phase of the vocational guidance movement, it is a highly important phase, and one which the school and vocational guidance workers can not afford to neglect. Vocational guidance is primarily a coordinating movement, and placement work can and should be embraced in it.

[1] From information furnished by Louise C. Odencrantz, superintendent of the women's department of the New York City office of the State Industrial Commission.

II. THE VOCATIONAL GUIDANCE MOVEMENT.

HISTORICAL DEVELOPMENT.

Writers on vocational guidance are fond of pointing out that, while the term "vocational guidance" is new, the thing for which it stands is as old as society itself.[1] This is merely to say that there has always been some kind of an organization of occupations and some effort to direct persons into employment. In some forms of society the routing of youth into occupations has, of course, been notoriously narrow and restrictive. This is the chief reason for the popular objection to prescription of vocation in a democracy. It is, on the other hand, largely because of the breakdown of the older caste systems and forms of apprenticeship that democracy finds it imperative to seek some desirable means of distributing human service.

While the history of industry and occupations is a long one, therefore, the history of vocational guidance as it is known to-day is a very recent matter. It dates practically from 1908, when Prof. Frank Parsons established the Boston Vocation Bureau. Prof. Parsons's book, "Choosing a Vocation," was published after his death, in 1909. The story of the Boston bureau is told by him in two articles in the Arena for July and September, 1908. In order that the genesis of the movement may be clearly understood, several of the most significant paragraphs are quoted:

> The bureau was founded in January of this year (1908) by Mrs. Quincy A. Shaw, on plans drawn up by the writer. More than a dozen years ago I stated the essence of the matter in a lecture on "The Ideal City." That lecture was repeated in Boston before the Economic Club a few years ago, and soon after Mr. Meyer Bloomfield and Mr. Philip Davis, on behalf of the Civil Service House, invited me to speak to the graduating class of one of the evening high schools on the choice of a vocation. After the talk a number of young men asked for personal interviews, and the results proved to be so helpful that Mr. Bloomfield requested me to draw plans for the permanent organization of the work. Leisure came this fall to do it; the plans were submitted to Mrs. Shaw, who heartily approved the idea and immediately established the new

[1] Bloomfield prefaces his Readings with a facsimile of the title page of an eighteenth century book on vocations. Brewer cites a passage in Pascal (1670) as emphasizing the importance of a wise choice of vocation. Plato's Republic is often referred to as one of the earliest recorded plans for vocational guidance. School responsibility for guidance through apprenticeship is implicit in the Massachusetts education act of 1647.

institution with sufficient resources to enable the work to be begun with facility and success.

Although the work is very young and a good deal of its life has been consumed in the process of organization, more than 120 young men and women from 15 to 72 years of age have come to us for consultation, and, according to their own spontaneous statements, all but 2 have received much light and help, some even declaring that the interview with the counselor was the most important hour of their lives. Among the applicants have been Harvard seniors, students from Dartmouth and other neighboring colleges, a number of college graduates, young men in commercial and business life, and some older ones, including an ex-bank president of splendid ability and a traveling salesman who at one time made sales amounting to $200,000 in a year.

The majority of the applicants, however, have been boys and girls from the high schools or working boys and girls of about the same age.

The applicants are of two classes: First, those having well-developed aptitudes and interests and a practical basis for a reasonable conclusion in respect to the choice of a vocation; second, boys and girls with so little experience or manifestation of special aptitudes or interests that there is no basis yet for a wise decision. They are set to investigating different industries and practical testing of themselves to broaden their knowledge and bring to light and develop any special capacities, aptitudes, interests, and abilities that may lie dormant in them or be readily acquired by them.[1]

That Parsons realized fully the import of his experiment for general education is evident from a passage in the second of the two Arena articles:

In this plastic period of rapid growth, this age of brain and heart, society should guarantee to every child a thorough all-round development of body, mind, and character, and a careful planning of and adequate preparation for some occupation, for which, in the light of scientific testing and experiment, the youth seems best adapted, or as well adapted as to any other calling which is reasonably available. If this vital period is allowed to pass without the broad development and special training that belong to it, no amount of education in after years can ever redeem the loss. Not till society wakes up to its responsibilities and its privileges in this relation shall we be able to harvest more than a fraction of our human resources, or develop and utilize the genius and ability that are latent in each new generation. When that time does come, education will become the leading industry, and a vocation bureau in effect will be a part of the public-school system in every community—a bureau provided with every facility that science can devise for the testing of the senses and capacities, and the whole physical, intellectual, and emotional make-up of the child, and with experts trained as carefully for the work as men are trained to-day for medicine or the law.[2]

SPREAD OF THE MOVEMENT.

The work of the Boston Vocation Bureau soon became widely known. Out of it grew the first National Conference on Vocational Guidance (Boston, 1910), followed by similar conferences at New York (1912), Grand Rapids (1913), and the National Vocational

[1] Parsons, Frank. "The vocation bureau." The Arena, 40:3, 5–6, July, 1908.
[2] Arena, 40:183, September, 1908.

Guidance Association, which held meetings at Richmond, Va. (1914), Oakland, Cal. (1915), Detroit, Mich. (1916), Philadelphia, Pa. (1917), and Atlantic City, N. J. (1918). As a direct result of the work of the Vocation Bureau came the organized development in the Boston public school system and surrounding communities.[1]

At about the same time the Boston work was getting started a group of New York teachers were doing pioneer work with high-school boys and girls. By 1909 it was possible for Mr. E. W. Weaver, chairman of the students' aid committee of the High-School Teachers' Association, to report that—

> There are now in all the day and evening high schools of New York City special committees whose aim it is to aid deserving students to secure employment during vacations and for out-of-school hours in order to earn a part of their support; to advise those who are ready to leave school, and others who are compelled to leave school, in the choice of a vocation; to direct them how best to fit themselves for their chosen vocation and to assist them in securing employment which will lead to success in those vocations.[2]

The same report pointed out that the work in New York City had passed the experimental stage, and it therefore asked that (1) the vocational officers of the large high schools be allowed at least one extra period of unassigned time to attend to this work; (2) that they be provided with facilities for keeping records of students and employment; and (3) that they have opportunities for holding conferences with students and employers.

The problem was attacked from quite another angle by Grand Rapids, Mich., where Jesse B. Davis inaugurated a plan of teaching a knowledge of vocations through the regular courses in English. Little noticed at first, this method has had a remarkable influence, especially in interesting teachers in occupational problems and placing the task of vocational guidance directly upon the public schools.

The 1910 report of the Commissioner of Labor reviewed the progress of the vocational guidance movement in a lengthy chapter.[3] The New York and Boston work is described and the Boston conference, November 15–16, 1910, is referred to as evidence of the force of the movement. Liberal quotations are given from the New York pamphlets on choosing a career; the placement work is described in some detail; and the plan for a central bureau outlined by the New York committee is given in full. In connection with the Boston work the vocation bureau is described, and special attention is given to the investigations of occupations. Three of the bulletins of the

[1] The most complete statement of the Boston development is in Brewer, Vocational Guidance Movements, pp. 22–37.

[2] Report of the work of the students' aid committee of the High-School Teachers' Association of New York City, May 15, 1909, p. 1.

[3] Department of Commerce and Labor, 25th An. Rept., Ch. XV; "Vocational Guidance," pp. 411–497.

bureau, dealing with "The Machinist," "The Baker," and "The Architect," are reproduced in full to illustrate the type of information furnished. The official school beginnings in Boston are described, together with the work of the Boston Home and School Association, the Girls' Trade Education League, and the Women's Municipal League. Several of the vocational pamphlets issued by the Girls' Trade Education League are reproduced,[1] and the charts on opportunities for training prepared by the educational department of the Women's Municipal League are presented. The report names seven cities where vocational guidance has been undertaken, pointing out that, whereas in some cities, as New York, the work developed from attempts to place pupils, in others, notably Boston, "the features of guidance and counsel have from the first been prominent."

YOUTH AND INDUSTRY.

Following these attempts at vocational guidance came a period of investigation of the juvenile entrants into industry. Between 1911 and 1913 a number of such studies are recorded. With the report of the Massachusetts Commission on Industrial and Technical Education as a background, Somerville, Worcester, and Cambridge, Mass., made special studies in 1911 of the problem of school leaving as related to employment. The Hartford (Conn.) vocational guidance committee made a study of conditions in Hartford the same year, and similar investigations were made the following year in Philadelphia, New York, Cincinnati, Chicago, and St. Louis. This particular type of investigation extended to Des Moines, in 1914, Seattle, 1914, and New Orleans, 1914, when it practically stopped, though some of the records, notably those in Cincinnati, Chicago, and Seattle, extend down as far as 1916.[2]

Some kind of a vocational guidance program resulted in every one of the cities that had studies of school leaving, and permanent organization was effected in several instances. By April, 1914, approximately 100 public high schools, representing some 40 cities, were reported to the Bureau of Education as having definitely organized conscious plans of vocational guidance, through vocation bureaus, consultation committees, trial vocational courses, or regular courses in vocations.[3] Influence of the movement was observable in the fact that Philadelphia's new official was director of "vocational education and guidance," and in Minneapolis the division of "attendance and vocational guidance" was created.

[1] Dressmaking, Millinery, Bookbinding.
[2] The Children's Bureau report on Waltham, Mass., though published late in 1917, describes an investigation made originally in 1914.
[3] An. Rept. U. S. Commis. of Ed., 1914, p. 11.

VOCATIONAL GUIDANCE IN THE NATIONAL ASSOCIATIONS.

Besides the National Vocational Guidance Association, the movement enlisted the interest of such organizations as the National Society for the Promotion of Industrial Education,[1] which has always had vocational guidance as one of its chief concerns; the National Education Association, with its committee on vocational education and vocational guidance; the National Association of Corporation Schools, which devoted a large part of its 1915 meeting to the comprehensive report of a committee on vocational guidance; and still more recently the National Employment Managers' Conference, which is a direct outgrowth of the vocational guidance movement, typifying the emphasis on the newly discovered problem of vocational guidance in the industries. The local vocational guidance committees were followed in some instances by the city and State organizations, such as the Vocational Guidance Association of Brooklyn, the Vocational Guidance Association of New York, and the California Vocational Guidance Association, a very active organization in a State that is deeply interested in the problems of vocational direction.

In the sections that follow, brief statements are given covering the activities of the more important national educational organizations that have concerned themselves more or less directly with vocational guidance.

NATIONAL VOCATIONAL GUIDANCE ASSOCIATION.

The Boston conference on vocational guidance (1910)[2] held under the joint auspices of the Vocation Bureau and the Chamber of Commerce of Boston, was largely given over to statements of the need for vocational guidance. Addresses were made by Prof. Paul H. Hanus, Harvard University; Frederick P. Fish; Bernard J. Rothwell; Robert A. Woods, of South End House, Boston; David Snedden, then State commissioner of education for Massachusetts; Charles Zueblin; Prof. Frank M. Leavitt, University of Chicago; Owen Lovejoy, of the National Child Labor Committee; President Richard M. Maclaurin, of the Massachusetts Institute of Technology; Felix Adler, of the Ethical Culture School, New York; Stratton D. Brooks, at that time superintendent of schools in Boston; Meyer Bloomfield; E. W. Weaver, Brooklyn, N. Y.; President Eliot, of Harvard; Samuel McCune Lindsay, New York; Miss Florence M. Marshall, director of the Girls' Trade Education League, Boston,

[1] Now the National Society of Vocational Education.

[2] The proceedings of this conference were never published. Several of the papers were printed in current periodicals, and a number of them are now available in Bloomfield's Readings. The account here given is based on the unpublished stenographic report of the conference, secured through the courtesy of the Boston Vocation Bureau.

and others. Supt. Brooks forecast much of the development that has come since when he expressed the need for "permeating public opinion and permeating the school life with the idea that the school is to prepare for a vocation and that vocation is to be wisely selected, as wisely selected as it is possible to select," and Mr. Bloomfield showed how the "vocational guidance movement seeks to come in as a cooperative, coordinating agency, tying up the various threads, the interests, the points of view, in order to give the child a cooperative help in its choice of a life work," and how "to the wisest employers and to the best teachers we ask that we strive eventually to give an educational motive to work and a vocational motive to education."

The sense of the conference is well summed up in the words of President Maclaurin:

> There can be no question at all of the importance of a right solution of this problem of vocational guidance. Whether we look at the individual or at society as a whole, the conditions are really deplorable. * * * There is much talk to-day, wise and otherwise, of preservation, of conservation, of our natural resources. There is waste on every hand, waste that could be easily avoided if we could only face the problem scientifically, seriously, and with definiteness of purpose. There is no waste, however, that is quite as distressing as the waste of human effort. If we can do anything to save this fearful waste, then I say that it is a national duty to take the matter up with all seriousness and do everything that we can.

The second conference[1] held in New York in 1912, was organized by the officers of the "Central Committee on Vocational Guidance of New York City," with the assistance of a conference committee. Progress in the movement is indicated by the increased attention given to reports of actual vocational guidance work. In the conference on placement Dr. Edward T. Devine pointed out that:

> We perhaps do not need, as we did a few years ago, to preach the idea of vocational guidance as essential. That idea is in the air. It may be that the time has come for us to put into practice the ideas that the pioneers in this field have been thinking out.

Mrs. P. J. O'Connell, superintendent of the Alliance Employment Bureau, described her experience in placing the unskilled girl worker. E. W. Weaver, chairman of the students' aid committee of the New York High School Teachers' Association, described the experience of his committee in attempting to get in touch with employers. Miss Anne Davis, of the Chicago School of Civics and Philanthropy, outlined the work of the "Bureau of Employment Supervision for Boys and Girls," then in existence a year and a half.[2] Miss Bertha M. Stevens, then director of the Cooperative Employment Bureau for Girls, Cleveland, Ohio, discussed the question, "Have we any right to place the average boy or girl in the average job?"

[1] The proceedings were printed by the committee. See bibliography.
[2] See also p. 89 of this report.

In the conference on "Follow-up," presided over by Miss Alice P. Barrows, Dr. Edgar S. Barney told how the Hebrew Technical Institute kept in touch year after year with its graduates; George H. Chatfield, secretary of the Permanent Census Board of New York, pointed out how the records of 132,000 working children in New York City are handled by his organization; Mrs. Helen T. Woolley, of Cincinnati, discussed the work-certificate situation in Ohio and told something of her analysis of the 2,366 children who took out working certificates in 1911–12; and Miss Elsa Ueland, in summarizing, made clear that whether the placement bureau idea, the vocational counsellor idea, or the idea that the schools themselves needed to be guided, was of most importance; all involved some system of follow-up.

In the conference on study of occupations Dr. Edward L. Stevens suggested seven tests to which he would submit every occupation which employed boys and girls: (1) Is it healthful? (2) Is it an enduring occupation in trade? (3) Is it seasonal? (4) Is it moral? (5) Is there opportunity for promotion? (6) Is it educative in itself? (7) Does the employment make for a living wage? Charles R. Richards, director of Cooper Union, grouped the fundamental data necessary in studying the industries under three headings: (1) The economic data, (2) the opportunities presented by an occupation for beginners, (3) the relation of the occupation to school training. John A. Fitch urged constant investigation of the conditions of industry and wide publicity for the results. Mrs. Mary Schenck Woolman, president of the Women's Educational and Industrial Union, Boston, pointed to the experience of the Manhattan Trade School for Girls as evidence of the value of investigations of occupations. In her summary Miss Frances Perkins emphasized the need for study of the human factor in industry.

In the conference on vocational analysis Mrs. Woolley discussed the psychological laboratory as an adjunct to a vocational bureau; Dr. James E. Lough, of New York University, spoke hopefully of the possibilities of applying experimental psychology in vocational guidance; Gustave A. Blumenthal described vocational analysis as carried out in the West Side Young Men's Christian Association; and Miss Henrietta Rodman told of her course in the Wadleigh High School, New York, whereby the girls attempted to analyze their own aptitudes on the basis of Thorndike's classification of types of mind.

Other sessions discussed vocational scholarships, opportunities for vocational training as a phase of vocational guidance, methods of vocational direction, and the relation of vocational guidance to the employer.

The Grand Rapids (Mich.) conference, October 21–24, 1913, was the organization meeting of the association. In his prefatory state-

ment to the report of the meeting[1] Prof. Frank M. Leavitt pointed out that the new association was organized "only when a careful study of the situation had disclosed the fact that no existing organization was in a position to do the work to which the association proposes to address itself." He asserted that the demand for a more rational and humane guidance of the youth of the land toward and in vocational life came from three distinct sources—economic, educational, and social. The constitution adopted by the association provided:

> The objects of this association shall be to promote intercourse between those who are interested in vocational guidance; to give a stronger and more general impulse and more systematic direction to the study and practice of vocational guidance; to establish a center or centers for the distribution of information concerning the study and practice of vocational guidance; and to cooperate with the public schools and other agencies in the furtherance of these objects.

In December, 1914, the association met with the National Society for the Promotion of Industrial Education at Richmond, Va. Among the topics considered were: Practical phases of vocational guidance; the street and the start in life; dexterity and skill in relation to vocational guidance; vocational guidance in the university; vocational guidance in the public school system; vocational guidance and social welfare. Problems of vocational guidance were considered in special relation to the problems of vocational training as brought out in the cooperative vocational survey which had just been completed for the city of Richmond.

The meeting of the association at Oakland (1915), Detroit (1916), and Philadelphia (1917) were devoted largely to interchange of experience and reports of practical attempts to work out the theories of vocational guidance. The meeting at Oakland stimulated an already healthy interest in the subject in California that has persisted and expanded. The Detroit meeting, held in connection with the Department of Superintendence of the National Education Association, reemphasized the school's interest in vocational guidance. The Philadelphia meeting of April, 1917, was a joint meeting with the National Employment Managers' Conference, and indicated something of the rapprochement that is coming between the school and industry. The Atlantic City meeting, February, 1918, took the form of a conference on "war problems in vocational adjustment." Representatives of Government agencies engaged in prosecuting the war presented the plans that had been worked out for classifying personnel in the Army, for enlisting farm labor, and for reeducating and redirecting the disabled returned soldier.

Since April, 1915, the association has published a monthly bulletin, which gives in concise form accounts of new developments, re-

[1] U. S. Bu. of Educ., Bul., 1914, No. 14, p. 5.

ports from different centers, and reviews of the rapid developing literature of vocational guidance.

NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION.

Since its inception (1907) the National Society for the Promotion of Industrial Education has had an interest in the problem of vocational guidance that has been second only to that of vocational training. In 1913 and 1914 the society held joint sessions with the National Vocational Guidance Association, and in general there has been sustained interest on the part of each organization regarding the essential relation between the two movements. The most definite contribution of the national society has been in the vocational surveys of Richmond, Va., Minneapolis, Minn., and the State of Indiana, referred to more in detail elsewhere in this report.[1] It has been pointed out that through these surveys the facts regarding occupations and processes are becoming known, an essential step in any plan of vocational guidance. With the passage of the Smith-Hughes Act granting Federal aid for vocational education, the society broadened its work and became the National Society for Vocational Education. It will have as sections or affiliated organizations many other societies in the vocational field, including the Vocational Guidance Association.

NATIONAL EDUCATION ASSOCIATION.

The National Education Association had in its annual programs already made several contributions to the vocational guidance movement before any of its committees began to investigate the subject. President Eliot's address at the 1910 meeting on "The Life Career Motive" has perhaps stimulated as much real thinking on the significance of vocational aim as any other single document in the history of the movement, and Supt. Spaulding's analysis of the problems set for vocational guidance, at the Cincinnati meeting of the Department of Superintendence (1915), is one of the constructive efforts in this field.[2]

At the Kansas City meeting of the Department of Superintendence (1917) a conference of superintendents in cities of between 10,000 and 25,000 population was held on the general topic "assisting pupils in the upper grammar grades to plan ahead." The conference discussed the methods of making prevocational work in smaller cities furnish something like an adequate basis for choice of vocation.

Apart from these activities the most important contributions so far made by the National Education Association to the vocational guidance movement are to be found in the work of the committee on

[1] See page 70. [2] See page 11.

vocational education and guidance, appointed at the 1913 meeting, and the Commission on the Reorganization of Secondary Education. The committee on vocational education has issued several reports, the latest and most comprehensive having been published as Bulletin No. 21, 1916, of the Bureau of Education.[1] This report contains a brief but well-organized statement of the aims of vocational guidance work in public high schools. The reports of the Commission on the Reorganization of Secondary Education are important in this survey, not only because one of them deals with vocational guidance, but because the idea of the junior high school and the curricula readjustment involved in better vocational guidance lie at the basis of the recommendations of the commission in all subjects.

The final version of the report on "Vocational Guidance in Secondary Education" (Educ. Bul., 1918, No. 19) deals primarily with the needs of youth between 12 and 18 years of age, whether in school or at work. The point is made, however, that the ideals of vocational guidance can not be satisfactorily attained without remodeling the instruction of the first six school years; that elementary education should be so organized as to give some knowledge of occupations and afford opportunity for a wide variety of experience in activities having vocational significance, and that changes should be effected in the elementary school program, and every effort made to lead pupils, parents, and employers to realize the importance of longer schooling.

The report attempts to group pupils by the time of leaving school. For the first group, those leaving school at the termination of the compulsory age limit, 14 years, "employment supervision" is designated. For the second group, those who will remain in school from four to six years beyond the sixth grade, but who will not enter higher institutions, such help as "guidance in choice of curriculum," "vocational information," and "placement" are suggested; and the point is made that "the value of vocational information and placement will be enhanced many times by the presence in the junior high school of prevocational work, and in the senior high school, curriculums with genuine vocational content." For the third group, those on the way to higher educational institutions, the special duty of the secondary school is guidance in the choice of courses, both in the secondary school and in the higher institution. The report considers vocational information as perhaps the most important phase of vocational guidance at present conducted in the four-year high school. The possibilities of work in English and civics are referred to briefly.[2]

[1] Vocational Secondary Education.
[2] See also U. S. Bu. of Educ., Bul., 1917, No. 2; also Bul., 1913, No. 28.

A vocational guidance program.—As a reasonable and comprehensive vocational guidance problem for the secondary period, *i. e.*, 12 to 18 years, the report recommends the following:

1. Survey of the world's work.
2. Studying and testing pupils' possibilities.
3. Guidance in choice and rechoice of vocation.
4. Guidance in reference to preparation for vocation.
5. Guidance in entering upon work, that is, "placement."
6. Guidance in employment, that is, "employment supervision."
7. Progressive modification of school practices.
8. Progressive modification of economic conditions.

NATIONAL ASSOCIATION OF CORPORATION SCHOOLS.

The interest of business men in vocational guidance is illustrated by the National Association of Corporation Schools. On September 1, 1914, the executive committee of this association appointed a committee [1] on vocational guidance and instructed it "(1) to make a scientific study of the subject of vocational guidance, (2) to compile available data, (3) to make a digest of such data, and (4) to submit recommendations in a report to be made at the third annual convention."

The report presented at the Worcester meeting, June 8–11, 1915,[2] comprised 72 pages and covered the following topics:

I. Some scientific aspects of vocational guidance.
II. Survey of available helpful vocational guidance data.
III. Charting practicable opportunities.
IV. Recommendations.
V. Bibliography.

The foreword of the report sets forth the committee's understanding of the business man's interest in the vocational-guidance movement. The committee points out that "the first uncharted sea scientific management has discovered is our general ignorance of the content and potentiality of the human and of truly scientific right relations between those who work and those who hire." The "tremendous human turnover" characteristic of the industrial régime is described, and the assertion is made that:

> This frightful waste in the turnover is due fundamentally to the lack of knowledge regarding the generality and versatility of human talents, to the lack of adequate training before and after entering industry, to the lack of proper employment plans, and scientific work selection, and to the lack of definite knowledge of work conditions.

[1] The committee consisted of Prof. Henry C. Metcalf, Tufts College, Mass., chairman; Dr. Walter Dill Scott, Northwestern University; and Albert C Vinal, of the American Telegraph & Telephone Co.

[2] The National Association of Corporation Schools. Third annual convention. Papers, reports, bibliographies, and discussions. The Trow Press, N. Y., 1915. The material on vocational guidance comprises pp. 330–478.

In the judgment of the committee—

> More comprehensively than any other movement, vocational guidance takes for its supreme function the conservation of human energy, the eradication of the industrial waste; and no elaboration of this waste is necessary for an understanding of its enormity.
>
> Vocational guidance forces us to comprehend the physical, intellectual, and moral worth of each worker; * * * it forces us to consider education and economic opportunity as one and inseparable. Through vocational guidance business and education are united in the great problem of the conservation of human resources.

Under scientific aspects of vocational guidance the report treats of the far-reaching influence of the work environment, the possibility of the employer as "vocational guide," and the generality and versatility of human talents.

An attempt is made to "take stock" of the vocational guidance movement as it affects commercial bodies and to find out what methods developed by it could be utilized by the association in working out its own problems. Work done by chambers of commerce and boards of trade is referred to by typical cases (especially Buffalo and Rochester). A miscellaneous list of surveys—"vocational, industrial, and occupational"—is given, but the field here also was obviously so broad that the only significance of the list is to give some quantitative idea of the survey movement. A partial list of bureaus of vocational guidance is given, with the notation that "for the most part these are maintained between the public schools and the commercial interests."

One of the most significant sections of the report is that dealing with the activities of the members of the National Association of Corporation Schools.[1] Replies were obtained and tabulated from 58 concerns on the basis of an elaborate questionnaire.

The committee recommends to the attention of the association the preparation of a special digest of the material on vocational guidance and a further study of the following topics: Sources of supply of employees; best methods of cooperation between business and vocation bureaus; what commercial organizations are doing in behalf of vocational guidance; how the National Association of Corporation Schools can best assist educational and industrial surveys; the psychological influences of different systems of remuneration.

NATIONAL CONFERENCE OF EMPLOYMENT MANAGERS.

In 1913 the Boston Vocation Bureau brought together 50 of the men who do the hiring of employees in large business and manufacturing concerns of Boston and vicinity, to consider the better selection and guidance of working youth. The organization known as the Employment Managers' Association resulted. By April, 1917, there were 50 such associations in cities throughout the country, and four

[1] See pp. 330-410 of the report.

national conferences had been held.[1] The conference at Philadelphia, April 2–4, 1917, discussed the following topics, among others: The cost of labor turnover; methods of reducing labor turnover; what the employment department should be in industry; the work of the Carnegie Institute of Technology in developing tests; analysis of reasons for leaving; following up after hiring; individuality in industry.[2]

AMERICAN FEDERATION OF LABOR.

For many years the American Federation of Labor has been interested in vocational education and vocational guidance. The federation was one of the first national organizations to issue an official pronouncement on vocational training for workers, and since 1903 it has had committees actively at work in this field. It has consistently stood for industrial training through public, rather than private agencies, and has opposed any attempt at a narrowing type of training that would withhold from the sons and daughters of workers the opportunity for further education and the full and free choice of vocation.

More recently the federation has emphasized the importance of the vocational guidance viewpoint in any plan of education. At the convention held in Minneapolis in June, 1918, the following statements, among others, were adopted as part of a national education program to which the organization placed itself:

1. The development of vocational guidance and industrial education in both urban and rural communities, in proper relation to each other and to the needs of our democracy.

2. The provision of increased facilities in public normal schools for men and women in the trades who desire to prepare themselves for teaching industrial and vocational subjects.

3. The insistence that in all courses of study, and particularly in industrial and vocational courses, the privileges and obligations of intelligent citizenship must be taught vigorously and effectively; and that at least in all vocational and industrial courses, an unemasculated industrial history must be taught, which shall include an accurate account of the organization of the workers and of the results thereof, and shall also include a summary of all legislation, both State and Federal, affecting the industries taught.

OTHER ASSOCIATIONS.

A number of other organizations have done important work for the vocational guidance movement.[3] Conspicuously practical work in

[1] The proceedings of the Minneapolis meeting (January, 1918) were published as Bul. 196 of the Bureau of Labor Statistics, and the proceedings of the Boston meeting (May, 1916) were printed as Bul. 202 of the same bureau. See Monthly Review of the Bureau of Labor Statistics, April, 1917.

[2] The periodical, "Industrial Management" (formerly Engineering Magazine, New York, has published articles dealing with this movement. See especially series beginning in issue of January, 1917.

[3] An attempt is made on p. 388 of the Corporation Schools Report (1915) to list some of the associations immediately concerned.

organizing vocational conferences for college women and in placement work for members of this special group has been done by the Association of Collegiate Alumnae.[1] The American Association on Unemployment has approached the problem with a constructive program of labor adjustment.[2] The Young Men's Christian Association, besides maintaining vocation bureaus in some of the larger centers, has recently mapped out a plan of vocational direction that provides for grade-school boys, high-school boys, and boys already at work.[3] The Young Women's Christian Association has investigated conditions in certain occupations for women.[4]

Nearly every professional organization is interested in vocational guidance problems for its special field. The American Home Economics Association has cooperated in an investigation of the requirements and opportunities for home economics teaching.[5] The League of Nursing Education has sought close affiliation from the start with the vocational guidance movement, because of the special difficulty of the "misfit" in the profession of nursing. The medical associations have been concerned with occupational diseases, an important element in the developing fact-basis for vocational guidance.[6]

RECENT GROWTH.

In April, 1918, the Bureau of Education sent a post card inquiry to the 10,400 four-year high schools in the United States, requesting data on "departments or bureaus designed to assist young persons in securing employment." The object was to secure definite information, for war use, as to the extent of placement work in public high schools. Of the 5,628 schools replying, 932 reported vocation bureaus, employment departments, or similar devices for placing pupils.

A number of the schools added a word or two to indicate that the school was striving to put vocational guidance into effect in some way. A large number of the high schools are getting their first experience in placement and guidance through the Government's farm enlistment plan, 53 schools specifying that their employment work is confined to the Boys' Working Reserve of the Department of Labor. Thirty-three—and no doubt many more should be added to the list—are doing placement work only in the commercial field, as part of the

[1] See "Journal of the Association of Collegiate Alumnae," current issues. (Published by the association, Cooperstown, N. Y.) for "News Notes" from the Bureau of Occupations.

[2] A Practical Program for the Preventing of Unemployment in America. By J. B. Andrews, December, 1914.

[3] See American Youth, January, 1917, pp. 8-9. Also Vocational Guidance Bulletin, January-February, 1917.

[4] See bibliography, under "Occupations."

[5] In cooperation with the Women's Educational and Industrial Union of Boston.

[6] See p. 75.

work of the commercial course. Others report regular courses in vocations.[1]

By way of conclusion it may be said that in the past 10 years vocational guidance has gone through the usual stages of private pathfinding and experimentation and ultimate public adoption. The Boston Vocation Bureau has been succeeded by a fairly complete system of vocational direction for the city, with a director of vocational guidance in charge, a central exchange—the Boston Placement Bureau—and vocational counselors for every school.[2] New York City has, besides the State employment offices, a staff of vocational counselors. San Francisco created the position of director of vocational guidance in 1916. In 1917 Pittsburgh appointed a director of vocational guidance for the public schools. The vocational survey motive has operated in a number of educational investigations, from the studies of school-leaving and employment to the occupational analyses of the Richmond, Minneapolis, and Indiana projects. With this external expansion has gone a development in literature and method that has transferred the problem, at least in part, from the stage of experimentation to that of fairly reliable practice.

[1] A complete list of the high schools reporting vocation bureaus in some form is given in the appendix.

[2] In November, 1917, the work of the Boston Vocation Bureau was transferred to the division of education of Harvard University, Cambridge, Mass.

III. STUDIES OF SCHOOL-LEAVING AND EMPLOYMENT.

Public concern in vocational guidance early centered about the problem of the 14 to 16 year old boy or girl who had left school to go to work. Starting primarily from the point of view of vocational training, this soon developed into a demand for an adequate program of both training and guidance. Waste in human resources was clearly revealed by the studies of school-leaving and employment that began with the Massachusetts investigation of 1906 and continued for several years. These studies showed that the school, carrying out ruthlessly its selective function through the medium of traditional courses of study, was driving children irresistibly into industry, and for the most part into the least desirable kind of industry. Practically all these studies came to the conclusion that not merely vocational training was needed, but guidance—educational guidance that would keep boys and girls in school and help them select useful courses of study, and specific vocational guidance that would aid boys and girls in planning ahead for their future occupations.

The general relation of these studies of school-leaving and employment to the vocational guidance movement has been indicated in the preceding chapter. In the present chapter the attempt is made to bring together the more important of these studies, in order that their findings may be considered and compared. A tabular statement has been prepared (Table 1, following) containing such items as are reasonably comparable, and this is followed by brief descriptions of each study. This material should be considered in relation to the accounts of work in typical centers, as presented in Chapter VI, since in most instances it is on the basis of the studies here described that vocational guidance plans have been instituted.

TABLE 1.—*Summary of principal studies of school-leaving and employment.*

Study.	Year.	Number of children.	Causes of school-leaving.	Types of occupations entered.	Beginning wage.
Massachusetts Commission on Industrial and Technical Education.	1906	5,459	Child's dissatisfaction with school; desire to earn.	Sixty-eight per cent into unskilled industries.	$2-$5.
Federal Report on Conditions Under Which Children Leave School to Go to Work.	1910	620	Earnings necessary, 28 per cent; earnings desired, 28 per cent; dissatisfaction with school, 27 per cent; preference for work, 10 per cent.	"Practically 90 per cent of boys and all girls entered industries where average weekly wage for all employees was under $10."	Boys, $2.10-$3.03; girls, $1.05-$4.75.

TABLE 1.—*Summary of principal studies of school-leaving and employment*—Continued.

Study.	Year.	Number of children.	Causes of school-leaving.	Types of occupations entered.	Beginning wage.
Worcester, Cambridge, and Somerville.	1911	978	Fifty per cent left out of causes other than economic pressure.	Seventy-eight per cent in factories and mills; remainder mercantile establishments.	$3-$5.
Hartford Vocational Guidance Committee.	1911	1,163	"Restless and discontented," 46 per cent; backward, 20 per cent; economic pressure, 26 per cent.	"Mostly unskilled odd jobs in factories and stores."	Average, $3.53.
Philadelphia Public Education Association.	1912	13,740	No data.	In factories, 43 per cent; store and office, 29 per cent; housework, 13 per cent; messengers and street trades, 4 per cent; skilled industries, only 3 per cent.	Range [illegible] unknown or zero (35 per cent of cases) to $6. Median, $3.50 to $4.
New York Vocational Guidance Survey.	1912	302	No data.	Street and wagon trades, 32 per cent; department store and office, 11 per cent; miscellaneous outside work, 10 per cent; manufacturing, 47 per cent.	
Cincinnati.	1912	2,366	Economic pressure, 27 per cent; remainder desire to work, based frequently on dissatisfaction with school.	Shoe factories, 19 per cent; other factories, 15 per cent; errands and messengers, 22 per cent; department store, 15 per cent.	Boys, median, $2-$3.99; girls, $2-$2.99.
Chicago Stockyards District.	1912	500	Alleged economic pressure, 52 per cent; dissatisfaction with school, 33 per cent.	Factories, 42 per cent; errands and messenger, 23 per cent; mercantile establishments, 11 per cent. Only 6 per cent in skilled trades.	Average—boys, $4.25; girls, $3.61.
St. Louis.	1911–1912	4,386		"Helpers," 45 per cent; errand, 10 per cent; messengers, 6 per cent; office work, 8 per cent.	
Des Moines and Sioux City.	1914	900	"Necessity, dissatisfaction with teacher," preference for work.		Average, $5.36.
Seattle.	1913–1914	402	Economic pressure and dissatisfaction.		Girls, $5.10 to $7.08; boys, $6.07 to $7.76.
Waltham, Mass.	1914–1916	200	Dislike of school, backwardness, etc., 50 per cent; economic pressure, 35 per cent; preference for work, 10 per cent; wish of parents, 5 per cent.	Manufacturing, 65 per cent; mercantile, 13.5 per cent; office and messenger service, 11.5 per cent.	Average—boys, $4.45; girls, $4.41; 50 per cent of cases range between $3 and $6.
Chicago.	1911–1913	6,758	Necessity, 32 per cent; earnings desired, 22 per cent; dissatisfaction, 30 per cent; preference for work, 4 per cent.	Boys: Errand and messenger, 46 per cent; office and street, 28 per cent; skilled trades, 10 per cent. Girls: Factory, 33 per cent; higher grade work, 56 per cent; skilled trades, 9 per cent.	Median, boys, $3.50 to $5; girls, $4 to $4.50.

MASSACHUSETTS COMMISSION ON INDUSTRIAL AND TECHNICAL EDUCATION (1906).

The first, and in many ways the most significant, of modern studies of school leaving and employment is contained in a portion of the report of the Massachusetts Commission on Industrial and Technical Education—the report of the subcommittee on the relation of the children to the industries.[1] The report found that there were approximately 25,000 children in Massachusetts between 14 and 16 years of age who had left school and were either idle or at work. Dr. Kingsbury states the problem presented by these boys and girls in the following terms:

> The State releases the child from its educational authority at 14, and the child who is no longer interested in the inactive school life, or who feels the stress of necessity for self-support, is forced to search for an opportunity to fit himself for industrial responsibilities. What awaits him? No schools exist which offer practical training until he is at least 16 or 18, and even then they are few in number and usually at a great distance from the child's home. He must turn to the "practical school of life" and seek employment, only to find that the doors of those industries which would afford him an opportunity "to pick up a trade" are not open to him until he is 16, or usually 18 years of age, while very few of the so-called apprenticeships receive him under 18. Even in the unskilled industries of the better class, proprietors are becoming more and more averse to the employment of the younger child. The result is that he drifts into an unskilled industry, or into one which is undesirable in character.

The committee sought to find whether the two years between 14 and 16 were, as they had been termed, "wasted years." It sought to find: (1) What the children of 14 and 15 are doing throughout the State; (2) what the educational and economic value of these years has been to the child at work; (3) what the educational and economic value of these years might be, and (4) what the economic status of the parents of these children is, and how necessary is the income of the child. The investigation covered 43 cities and towns, 5,459 children, 3,157 homes, and 354 establishments, representing 55 industries.

The 14-year-old child enters unskilled industries, and remains there, the report finds, while the 16-year-old child more often enters the higher-grade work. The desirable industries open to the boy 14 to 16 years of age, it is asserted, are extremely few in number; practically all employers in such industries declare they do not want the boy before he is 16, while the majority place the age at 18, and the numbers actually employed are very few. Printing and publishing, the manufacture of combs, horn, and celluloid, and machinery, are practically all of the skilled industries which take the younger boy. The girl 14 to 16 years of age is admitted to the textile industry, although not of the better grade, to the department stores, and to

[1] The investigation was conducted by Dr. Susan M. Kingsbury.

confectionery and cracker factories. A very few, indeed, are to be found in the stitching, pasting, and soldering occupations, or in the needle trades. The department store takes the girl into a juvenile industry, with all the evil consequences of low pay, of subjection to the rudeness of the world, and of instability of character and purpose.

The investigators concluded that 25,000 children in Massachusetts go to work or are idle at ages 14 and 15; that the class of family seems to have but little to do with the child's dropping out of school, except in grades below the seventh; that children, not parents, make the decision to leave school; that 68 per cent of the children who commence work between 14 and 16 are subjected to the evil influences of the unskilled industries or are in mills, and that the wage value of the years from 14 to 16 is very low—$2 to $5.

FEDERAL REPORT ON CONDITIONS UNDER WHICH CHILDREN LEAVE SCHOOL TO GO TO WORK (1910).

By act of Congress, approved January 29, 1907, the Secretary of Commerce and Labor was directed to—

> investigate and report on the industrial, social, moral, educational, and physical condition of women and child workers in the United States wherever employed, with special reference to their age, hours of labor, terms of employment, health, illiteracy, sanitary, and other conditions surrounding their occupation, and the means employed for the protection of their health, persons, and morals.

Volume VII of the 19-volume report prepared under this act by the Commissioner of Labor was devoted to "Conditions under which children leave school to go to work." The report covered 622 children in seven different localities taken from two Northern and two Southern States. The following questions were studied:

> (1) How many children in the selected industrial communities are leaving school to go to work?
>
> (2) Are their numbers increasing or decreasing?
>
> (3) What sort of children are they, and from what sort of homes do they come?
>
> (4) What sort of schools have they attended, and what has been their school experience?
>
> (5) What are the causes of their leaving school?
>
> (6) What legal regulations are there of the conditions under which they leave school, the conditions under which they enter the world of work, and the conditions under which they continue to work?
>
> (7) What educational, social, and recreational opportunities do they have after leaving day school, and how far do they make use of them?
>
> (8) What has been so far the industrial experience of the selected children?
>
> (9) What, so far as can be learned from the experience of the older members of the families and from the expressed judgments of the children's employers, are their industrial prospects, and how are these prospects likely to be affected by the conditions under which they begin their industrial life?

Of the 620 children under 16 years of age who left school to go to work, as studied in this report, 352 were boys and 268 girls; the great majority (513) were between 13 and 15 years of age; 151 being 13 years old and 281 being 14 years old; 53 were but 12 years of age, and there were 54 children (17 boys and 37 girls) who left school between the ages of 6 and 11 to go to work.

Of special interest for comparative purposes with later studies are questions numbered 3, 5, and 8 in the list given above.

Social conditions.—With regard to question 3 (kinds of families from which the children come), the report presents per capita weekly incomes for 567 families classified by housing conditions. Thirty-nine families had per capita weekly incomes of $1 to $1.49; 53, $1.50 to $1.99; 70, $2 to $2.49; 87, $2.50 to $2.99; 73, $3 to $3.49; 53, $3.50 to $3.99; 58, $4 to $4.49; 36, $4.50 to $4.99; 49, $5 to $5.99; 33, $6 to $7.99. The report takes care to point out that although a considerable majority of the children who leave school come from families in "third and fourth class" neighborhoods, their presence there does not always imply necessity, and that of those living in third-class neighborhoods, 15.6 per cent, and of those living in fourth-class neighborhoods, 16.7 per cent, had per capita weekly incomes of $4.50 and over.

On the whole, the impression produced by the study of the home and neighborhood conditions was that this was a fair average group of working people containing some examples both of easy circumstances and of acute poverty, but not, as a group, representing either extreme.

As to nativity, 83.9 per cent of the children were born in the United States. Half of the children (50.7 per cent) had American-born fathers. Few cases were found of children working because of the father's derelictions.

The largest proportion of working mothers was in the two most distinctively American communities studied. The parents of 242 (39.5 per cent) of the children were able and willing to send their children to school longer; 23, or 3.8 per cent were able but unwilling; 250, or 40.8 per cent, were unable but willing; and 97, or 15.9 per cent, were unable and unwilling to continue sending their children to school. Otherwise expressed, about two-fifths of the children left school of their own volition.

Causes of leaving school.—The report analyzes carefully the reasons for leaving school, weighing the alleged reasons for school leaving and testing these reasons by information gleaned from various sources about each family. Of those for whose families the incomes could be ascertained, the number and per cent leaving for the different causes were found to be as follows:

Causes of children leaving school to go to work.

Causes.	Children.	Per cent
Earnings necessary to family support	177	29.7
Child's help desired, though not necessary	172	28.4
Child's dissatisfaction with school	161	26.6
Child's preference for work	60	9.9
Other causes	35	5.4

The whole question of causes for leaving school is so significant that the detailed summary of causes as found by the report is reproduced herewith. It is especially important for comparison with the results of local studies.

TABLE 2.—*Summary of causes for children leaving school.*

[Federal report on condition of woman and child wage earners, 1910.]

Cause for leaving school.	Children.	Per cent.
Necessity:		
Earnings necessary to family support	169	
Help needed at home	6	
Self-support necessary	11	
Total	186	30.6
Child's help desired, though not necessary:		
In family support	140	
To buy property	12	
In home work	11	
To earn money for education of self or relative	7	
Total	170	27.9
Child's dissatisfaction with school:		
Tired of school	35	
Disliked school (general manner of life there)	54	
Disliked teacher	31	
Disliked study	16	
Could not learn	10	
Not promoted	5	
Too big for class	14	
Total	165	26.3
Child's preference for work:		
Work preferred to school	44	
Spending money wanted	8	
Association desired with friends who worked	9	
Total	61	9.8
Other causes:		
Ill health	16	
To be kept off the streets	1	
To learn a trade or business	6	
To avoid vaccination	2	
Removal of residence	1	
Mother's disapproval of coeducation	3	
"Too much play"	1	
Company pressure	7	
Total	35	5.7
Grand total	620	100.0

[1] Two children never went to school, but studied at home.

Industrial experience of children.—Practically 90 per cent of the boys and all of the girls entered industries whose average weekly

wage for all employees was under $10; 7 per cent of the boys entered industries whose average wage was between $10 and $15; and 3 per cent entered industries whose average wage was $15 or over. For the individual children, wages range all the way from nothing a week to $15; "a larger number fall in the $5 to $5.49 a week group than in any other; a considerably larger number, however, are on the lower side of this weekly wage than on the higher—374 below as against 146 above."

The 363 boys entered 107 different industries, and 265 girls entered 47 industries. The textile trades took 55.6 per cent of the entire group. The average *first* wages (weekly) for the textile trade ranged from $5.08 for boys and $4.38 for girls, down to $2.19 for boys and $1.65 for girls. For the nontextile trades the corresponding figures were; Maximum, boys, $4.55; girls, $4.78; minimum, boys, $2.52, and girls, $1.75. The average *latest* wage for the textile industries was: Boys, maximum, $5.82; minimum, $3.30; girls, maximum, $5.06; minimum, $2.36. For the nontextile trades the corresponding figures were: Boys, maximum, $5.17; minimum, $3.81; girls, maximum, $4.59; minimum, $2.52.

Considerably more than half of the children (62.1 per cent of the boys and 70 per cent of the girls) had never changed employers, a trifle over one-fourth had had two employers, and 9.3 per cent had had more than two. "The average number of positions held by the boys varied from 1.5 in Woonsocket and Plymouth to 2.6 in Georgia and Alabama, while for girls the variation was from 1.4 in Woonsocket and Hazleton to 2 in Georgia and Alabama counties."

WORCESTER, CAMBRIDGE, AND SOMERVILLE, MASS., 1911.[1]

Late in 1911 the Massachusetts State Department of Education undertook a study of three cities—Worcester, Cambridge, and Somerville—preparatory to the establishment of trade schools for girls. The same type of investigation was provided for all three communities. The field-work of this investigation comprised visits to industrial establishments and to the homes of girls 14 to 16 years of age who had left school the previous year to go to work.

The study brought out the following facts, which, as the report notes, "may be accepted as typical of the educational and industrial situation throughout the State, especially as they are distinctly confirmatory of the conclusions reached by the commission on industrial and technical education in 1906":

The large factories or mills are receiving the great majority of 14 to 16 year old girls who are leaving school to go to work in the State.

[1] U. S. Bu. of Educ., Bul., 1913, No. 17, "A Trade School for Girls." Washington, Government Printing Office, 1913.

The number of 14 to 16 year old girls leaving school to go to work is increasing. The records of Worcester and Somerville show a marked increase in the past five years. The percentage of girls going to work is much greater than the percentage of increase in population.

The majority of young girls who leave school to go to work are only 14 years of age. They are dropping out, therefore, as soon as the law allows. Sixty per cent of such girls in Worcester, Cambridge, and Somerville in the school year of 1909–10 were 14 years of age.

There is a large loss of girls in the sixth and seventh grades. A large number have then reached the age of 14 and can secure working papers. One-third of the girls who left the public schools of Cambridge and all the schools of Worcester dropped out in the sixth and seventh grades. A much larger proportion, two-thirds, dropped out in the Somerville schools. Forty-three per cent dropped out of the sixth and seventh grades throughout the State in 1906, according to the State study based on 5,447 children. The length of schooling or the completion of the grammar grades, therefore, is not necessarily the determining factor in the large outgo of girls from the grammar schools.

The report goes carefully into the reasons for school leaving. Questions were asked regarding the occupation of father, mother, and other members of the family, character of these occupations, illness, home conditions, and the opinion of the parent (checked up by that of the investigator) as to the ability to give the girl longer schooling. It was conservatively stated as a result of these questions that fully 50 per cent of the girls 14 to 16 years of age studied in each of the three cities did not leave school because of economic pressure.

As to the character of employment, unskilled industries take the overwhelming proportion of the girls 14 to 16 years of age who leave school to go to work in the three cities. The report says:

> The instability of these young workers is a universal problem in all three cities. The elementary processes which occupy young or inexperienced workers are purely mechanical. The work of the beginner, even in the better trades, does not afford training or working knowledge of the more skilled work. The work in unskilled trades points to nothing higher or better. The work is monotonous, easily learned, and the maximum pay, which is small, is soon reached. The beginner becomes discouraged with the lack of opportunity for advancement and determines to try something else. She drifts from place to place and never becomes proficient in any one thing.

In Somerville[1] investigation showed that "the factor[y]ized industries of Somerville and Cambridge and the mercantile establishments of Boston draw the majority of the young girls of 14 to 16 from the schools." This condition was found to be growing worse, rather than better, 251 girls under 16 having left public school to go to work in 1910, as compared with 187 in 1906, an increase of 34 per cent in the face of a population increase of less than 13 per cent. Of these 251 girls who left school to go to work, 9 per cent had gone beyond the sixth grade; 7 per cent had not yet reached the sixth

[1] Thirty-ninth annual report of the school committee of the city of Somerville, Mass. Somerville Journal Print, 1911. Pp. 127–132.

grade; two-fifths were in the sixth and seventh grades; and seven-tenths had left before reaching the ninth grade. Somerville showed a larger proportion dropping out than even a manufacturing city like Worcester.

Personal visits to 146 homes in Somerville indicated that 50 per cent of the girls might have gone or did go back to school; 63 per cent came from "intelligent" families, while fully 50 per cent came from really comfortable homes—a higher percentage than in Worcester. Thirty-five per cent of those going to work without real necessity were 14 years of age, as compared with 47 per cent in Worcester. Mothers of these girls nearly all showed appreciation of the advantages of schooling, but felt that the present school system did not prepare the girls for the situation they must meet as wage-earning women. Thirty-eight per cent of those who left school without special necessity were American and 23 per cent were Irish. The beginning weekly wage for these girls "clustered about" $3 or $4, the majority ranging between $3 and $5.

The conclusion reached by the investigators was that there was a pressing need for a trade-training school which would "take the 14–15 year old girls who will not go to the regular schools, and who must go to work in a year or two." It was asserted by the report that if such a trade-training school could be established to give girls equipment for a trade which offers some opportunity for development and advancement many would be enabled to enter the better trades who otherwise would have no other prospect than the factory or the store.

HARTFORD VOCATIONAL GUIDANCE COMMITTEE (1911).[1]

In November, 1911, a vocational guidance committee was formed in Hartford, Conn., to make an intensive study of the conditions surrounding the 1,163 workers 14 to 16 years old in Hartford. The committee consisted of representatives of the Board of School Visitors, the Principals' Club, the High-School Committee, the Civic Club, the Juvenile Commission, and the Consumers' League. The study covered:

(1) Investigation of local industries to find what the work was that was done by children—type of work, effect on health, possibilities for the future, etc.

(2) Investigation of local social and educational organizations that offer training to assist working minors.

(3) Investigation of the conditions under which children between 14 and 16 leave school.

It was shown that "the average industrial opportunity in Hartford open to children under 16 has practically no educational value

[1] Hartford (Conn.) Vocational Guidance Committee. Report. Hartford, 1914. (Lillian L. Kane, vocational counsellor.)

beyond the disicipline imposed by any mechanical task." Skilled trades are almost entirely closed to children between 14 and 16. "A few are found in printing and electrical shops, but for the most part they are in unskilled odd jobs in factories and stores."

In the investigation of conditions under which children between 14 and 16 left school, 494 cases were studied. Of 146 examined, 16 per cent were "good" in scholarship, 26 per cent passable, and 58 per cent unsatisfactory. Of a group of 42 in industry, 2 have retained their original positions (1 promoted), 14 children have shifted once, 13 twice, 8 three times, 3 four times, 2 five times, 1 six times, and 1 seven times, while the entire 42 have shifted 99 times. In wages, 4 showed no increase; the average weekly wage of these was $3.66. The wages of 28 had been increased; the average increase was $2.14, and the average final wage was $5.66.

Investigation of causes for leaving school showed that 46 per cent left because they were restless and discontented, 20 per cent because they were backward, and 26 per cent because of economic pressure.

PHILADELPHIA (1912).[1]

The Philadelphia study of school leaving and employment puts at the outset two fundamental questions: (1) Are the occupations in which the boys and girls are employed of such a nature that they will train for a competence in later life? (2) Is the immediate wage received of sufficient importance to counterbalance the tremendous loss of power in those who face mature life unprepared?

The answer to these questions is sought in an analysis of the 13,740 children known to be at work in Philadelphia in the year 1911–12. Boys formed 50.15 per cent of these workers, girls 49.85 per cent. It is not, therefore, the report points out, "alone the problem of the adolescent boy, dissatisfied, restless, wandering, but of the girl who is, or thinks she is, forced to add her earnings to the family income, or, as in the cases of 1,638 who are engaged in housework without pay, merely to stay at home to help, regardless of the future." Nor is this only the problem of the immigrant child, forced to work before his time; for 6,904 of these child workers are of American parentage.

Occupation.—Forty-three per cent of the children are in factories, "where the positions are largely mechanical and require but little time in learning, little responsibility, and great specialization of processes. These positions offer an initial wage which is alluringly high, but hold but little incentive for growth and but slightly advanced wages for the experienced operator." Twenty-nine per cent

[1] The Child, the School, and the Job, by James S. Ulman. Public Education Association, Philadelphia, 1912.

enter the store and office, where a few may advance to higher place, but where a majority must hold low-grade positions which require little preparation or skill. Four per cent, the report shows, become messenger boys or enter the street trades, "which hide insidious dangers even more real than the unguarded machine." Barely 3 per cent enter the skilled industries which promise to lead to a recognized trade.

Wages were studied under four aspects: (1) The wages paid by different industries; (2) the average wage of those in the different industries whose pay is known to be between $2 and $6 per week; (3) that of a smaller number of special cases who receive less than $2 or more than $6 per week; and (4) the surprisingly large number who receive no pay in housework, or whose wage is entirely unknown to the family, as in many other cases. This last group represented 35.3 per cent of the total number studied. Of those receiving a known wage, 22.2 per cent received between $2 and $4, 36.9 per cent received between $4 and $6, and 5.2 per cent received $6 and over. The largest numbers were found in the group receiving $4 to $4.50, while approximately equal numbers were found in the groups receiving $3.50 to $4 and $5 to $6.

The following conclusions are drawn by the report:

1. That the problem of the working child is not an immigrant problem, since over 50 per cent of those reported as at work are of the second generation of American birth.

2. That this is not the problem of the boy alone, since over 49 per cent of the workers are girls.

3. That the vast majority of children who leave school at 14 to enter industry go into those kinds of employment which offer a large initial wage for simple mechanical processes, but which *hold out little or no opportunity for improvement and no competence at maturity.*

4. That wages received are so low as to force a parasitic life.

5. That but slight advancement is offered the 15-year-old over the 14-year-old child worker.

Under "unsolved" problems the report asserts that many phases of the problems—the proper fitting of the child for and into his life work—have not been touched upon. The report states:

1. This study shows in what industries children are at work at a given moment, but it shows nothing of the disastrous jumping from job to job with long intervening periods of idleness.

2. It classifies the workers into eight general groups, but it tells nothing of the details of the operations the children must undertake, nor the effect upon mature life of the monotonous strain of years of early employment.

3. It gives the wages earned in one week, but it tells nothing of the change in those wages when slack times come. We can by no means use the data given to compute the year's earnings of the child.

4. It gives the age of the workers, but it shows nothing of the school progress made before leaving, nor of the real effect of the training gained at so great cost to the city in the years spent in the school.

The report concludes with a prophecy:

When the solution comes it will touch life problems deeper, broader, more fundamental than can be reached by any one investigation. This is more than a mere matter of securing the best possible jobs for those now leaving school to enter industry.

Only by organizing a careful, continued study of conditions, only by finding just why our children leave school and what proportion a more attractive, more practical training would retain to maturer years, only by following the child into his employment and into his home in order to find out the facts and offer inspiration and practical help, can we begin to solve this great problem of the waste of adolescent life.

NEW YORK CITY (1912).[1]

The Vocational Guidance Survey was organized in New York to study the actual situation of children leaving school to go to work, in the hope of determining what vocational guidance should mean to the public schools of the city. The survey sought to secure facts which would answer these questions:

1. Why do children leave school in large numbers as soon as they are 14?
2. What becomes of them?
3. Will vocational guidance aid them?

Of the 302 children studied, 239 had gone to work. They had entered 406 jobs. Of these jobs, 94 were outside errands; 19 were "on wagons;" 16 on news stands; 29 were in department stores; 27 in office work; 44 in miscellaneous inside work; and 177 in manufacturing. In all this complexity only one thing remained constant, according to the report—the lack of training.

It ran through practically all jobs, whatever the type of establishment, and left them all the same dull gray color. In 314 out of the 406 jobs there was absolutely no training; in 41 there was some chance to "pick up" if the rush was not too great; in 30, some boys had a chance to work on one process, but this usually meant, "I did errands and sweeping and sometimes had a chance to work on a machine;" in 21, there was some supervision, but in the majority of these cases the children were either working in a small shop or with relatives.

The report pointed out that "there are no jobs for children under 16 which they ought to take;" that vocational guidance should mean chiefly guidance for training, rather than guidance for jobs; and that a study of the facts of industry is essential to further progress.

[1] Survey of occupations open to the girls of 14 to 16 years. Report of the Vocational Guidance Survey, in Report of the city superintendent of schools, 1912. Also Bulletin No. 9 of the Public Education Association of New York, 1912.

CINCINNATI, 1912.[1]

For some years private enterprise has made possible a systematic study of the problem of school leaving and employment in Cincinnati under highly favorable conditions. It has been possible to compile and study facts like the following about the working children of Cincinnati: Number who have left the schools to go to work each year since records have been kept; classification of the children who have left school during any one year, showing the type and location of the schools from which they come; their age, their sex, and their school grade; a tabulation of the kinds of occupations they engage in; a study of wages; and an investigation of economic necessity as a factor in child labor.[2]

Of the 2,366 working certificates issued during the year, 1,996, or 84.4 per cent, were to children from the schools of Cincinnati, and 370, or 15.6 per cent, were for those from schools outside the city. As in Philadelphia, there is but slight difference in sex, 52.8 per cent being boys and 47.2 per cent girls. Of the total number, 1,721, or 72.7 per cent, were 14 years of age, and 645, or 27.3 per cent, were 15. The ninth and tenth grades had been completed by 39 children; the eighth grade by 216; the seventh by 298; the sixth by 387; and the fifth by 425. In terms of retardation, 67 per cent of the public-school children who were at work were retarded, as compared with 28.7 per cent for the corresponding group still in school, or, in other words, the percentage of retardation among those who leave the public school to go to work is more than twice as great as that among children who are in school.

Occupations entered.—Of the 2,366 children who began work during the year, 19 per cent entered shoe factories; 17.2 per cent became errand boys and girls; 15.5 per cent went into department stores as cash or stock boys and girls, wrappers, or inside messengers; 8.7 per cent entered the tailoring and sewing trades; 6.8 per cent worked at home helping parents; 5.2 per cent became telegraph messengers; 3.9 per cent entered paper-box factories.

Mrs. Woolley points out that while a few of the occupations in this list include skilled work, even in these occupations the first two years of employment for those who begin at 14 are not made periods of training for skilled work, or apprenticeships in which the industry as a whole is learned. "A child in a shoe factory, for instance, is taught but one or two of the 150 or more processes involved in mak-

[1] A continuing study. For reports see Bibliography. A good brief statement of the first results is given by Mrs. Woolley in "The Elementary School Teacher," 14: 59-72; 132-139, October-November, 1913. "Facts about the working children of Cincinnati and their bearing upon educational problems."

[2] These topics are from the article by Mrs. Woolley referred to in the preceding note. The more comprehensive material that has appeared since deals chiefly with mental and physical measurements of working children.

ing a shoe. The children in the sewing trades pull bastings, or baste one kind of a seam." It is shown, as in so many of the other surveys, that many of the best department stores and most of the skilled trades are closed to children under 16. Mrs. Woolley declares:

> It is a conservative statement to say that only a small proportion of these children find themselves any better fitted to earn a living at 16 than they were when they began work at 14. Some of them, particularly those in the messenger service, are of less value in the industrial world as a result of the two years of work.

Wages.—The initial wage of 85 of the boys was less than $3; of 347 it was between $3 and $3.99; of 193 it was between $4 and $4.99; and of 62 it was $5 or over. For girls the initial wage was less than $3 in 317 cases, between $3 and $3.99 in 198 cases, between $4 and $4.99 in 49 cases; and $5 and over in 15 cases. A record was kept of the wages in the different positions held. At the time the statistics were taken half the children had held but one position, 32.3 per cent had held two, 11 per cent had held three, 2.6 per cent had held four, and 4 per cent had held five or more positions. It was found that the rate of pay increases with mere change of position, so that the children apparently have some justification for shifting.[1]

A study of 600 families showed that 73 per cent of the families did not need the child's earnings, while 27 per cent did. "The real force which is sending the majority of these children out into the industrial field," declared Mrs. Woolley, "is their own desire to go to work, and behind this desire to go to work is frequently dissatisfaction with school."

CHICAGO STOCKYARDS DISTRICT, 1912.[2]

Talbert's study of conditions in the Chicago stockyards district undertook to answer the following questions:

> What are the industrial opportunities for children, especially those between 14 and 16 years of age, in the stockyards district? What are the jobs they secure, their wages, and the chances for advancement? Does the public school adjust them to the economic environment? What is the attitude of parent and child to the school and to the job? What is the relation of the income of the family to the early leaving of school? What is done to bridge the gap between school and work, and to guide the youth to the vocation suited to his capacity and to future usefulness? What may be done?

Occupations.—Out of 560 positions held by boys and girls between 14 and 17 years of age, 252 were in factories; 109 errand boys' work; 62 in mercantile establishments; 26 were messengers, and the remaining 146 were distributed among 20 different occupations.

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[1] The Elementary School Teacher, November, 1913, p. 133, Table VII.
[2] Talbert, Ernest L. Opportunities in School and Industry for Children of the Stockyards District. University of Chicago Press, 1912.

Wages.—The average beginning wage of the girls was $3.61 per week. Twenty-five girls received from $3 to $3.50; 14 received from $3.50 to $4; 12 received $4 and $4.50, and the remaining 35 amounts vary from not exceeding $1 to $7.50.

The report points out that: (1) Most of the jobs secured belong to the low-grade industries; (2) a limit is soon reached in wages; (3) finding another job is sometimes the only way to secure more pay; (4) the advance is largely a matter of chance, there being no observable economic advantage in leaving school at an age greater than 14, and a higher grade at school, or in previous experience in other jobs of the character accessible to girls of the neighborhood.

ST. LOUIS, 1911–12.[1]

Between June 1, 1911, and March 1, 1912, 4,386 children 14 to 16 years of age left school in St. Louis, took employment certificates, and went to work. Of this number, 2,703, or about 62 per cent, were boys, and 1,683, or a little more than 38 per cent, were girls.

Not quite 14 per cent of these children were below fifth grade, 38 per cent were below the sixth grade, 56 per cent had not reached the seventh grade, and 78 per cent had not finished the seventh grade.

Occupations.—Nineteen occupations accounted for 95 per cent of the number of working children. These occupations, with the number in each, were:

TABLE 3.—*Distribution of juvenile workers in St. Louis, 1911–12.*

Occupation.	Boys.	Girls.	Total.
Helpers	1,136	739	1,875
Errand boys and girls	424	12	436
Messengers	236		236
Office work	321	64	385
Clerks (shipping, stock, sales, etc.)	90	37	127
Cash boys and girls	14	261	275
Wrappers and packers (bundle)	81	78	159
Wagon and delivery	122	1	123
Sewing	6	100	106
Factory workers, operators, shopwork	49	52	101
Apprentices	13	41	54
Labeling (pasting and cutting labels)	14	40	54
Box makers (paper boxes, nailing)	27	13	40
Millinery	2	86	88
Laundry work (shakers, folders, manglers, sprinklers)	8	17	25
Confectioners (nut pickers) (candy)	3	40	43
Bottling (including bottle washing)	21	1	22
Bell and hall boys	12		12
Counting and sorting	4	10	14
Total	2,583	1,592	4,175

As a result of this study Lewis concluded:

This study demonstrates very clearly what happens to children who leave school and enter vocational careers without direction or counsel. What might

[1] Lewis, E. E. Studies in Vocational Guidance. In School and Home Education, 32:212-214; 247-251. February-March, 1913.

have happened to them had guidance been provided, can only be inferred. But it is safe to venture that the percentage of those entering unskilled and low-grade skilled industries would have been greatly decreased, and also that the fetching and carrying occupations, which are in every respect "blind alleys," would have been avoided in a large degree. Someone with the time might study an equal number of children leaving the schools of a city where guidance is provided, and contrast the two groups. Such a contrast would measure the kind and value of the guidance given. It would then be possible to know, to some degree, at least, how much a State or city could afford to spend instituting such guidance. At present we have a feeling that guidance is valuable, but we are unable to say to what degree.

DES MOINES AND SIOUX CITY, IOWA, 1914.[1]

Treating a somewhat different group of young people from any of the studies heretofore considered, Lewis's study of 800 Iowa boys forms an important addition to the series. A thousand boys—900 in Des Moines and 100 in Sioux City—were interviewed, and 800 returns were considered sufficiently reliable to tabulate. The boys were from 16 to 20 years of age and had not completed a course in high school. The questions asked included the following:

> What was the boy's reason (or reasons) for leaving school? How long after leaving school was he idle before securing work? How many different jobs has he been in since leaving school? For each job he has been in, answer the following questions:
>
> Kind of job.
> Kind of business.
> How he found the job.
> How long he was in it.
> His average weekly wage—
> (a) When he started the job, and
> (b) When he left it.
> The length of time idle between jobs.
> The reason for changing jobs.
> What trade, if any, does the boy now desire to prepare for?

Nearly 20 per cent of the boys were reached on holidays and during the evenings in pool halls and on the street. Returns from about 80 per cent were secured during working hours through the cooperation of employers, more than 200 of whom were interviewed. The report showed that more than 40 per cent of the boys came from schools located outside of the city in which they were living when interviewed. Four hundred and fifty-five (52 per cent) came from 62 different schools located in Des Moines; 150 (17 per cent) came from schools located in 107 cities and towns in Iowa outside of Des Moines and Sioux City; 117 (13 per cent) came from 27 different States

[1] Lewis, E. E. Work, Wages, and Schooling of Eight Hundred Iowa Boys in Relation to the Problems of Vocational Guidance. Bulletin No. 9, State University of Iowa.

other than Iowa; 41 (nearly 5 per cent) came from 8 different foreign countries. The remaining boys came from schools located in or near Sioux City.

A study of all the cases showed that two of the boys had concluded as many as 12 jobs each, and that the average boy passed through three jobs in two years. The average length of time for a job was slightly over a year.[1]

Wages.—The Iowa study gives a distribution table for the beginning wages of the boys. The range is from nothing to $20 a week, with an average of about $5.50 a week. There are as many boys who receive $5.05 or less a week as there are boys who receive more than $5.50 a week. The middle 50 per cent of the boys receive a weekly wage of from $4.50 to $7.

Occupations.—The 33 occupations pursued by these Iowa boys included: Helpers and general workers, 376; drivers (delivery, transfer, teamsters, etc.), 256; clerks (shipping, stock, sales, etc.), 233; errand and messenger boys, 157; farm hands (gardeners, dairymen, etc.), 130; wrappers and packers, 79; apprentices (all occupations), 69; printers (pressman, type, and linotype, etc.), 59; office boys, 57; bill posters and peddlers, 49; porters, pages, hall and bell boys, 48; hosiery mill operatives, 39; railroad hands (brakeman, section, freight, etc.), 25; elevator boys, 22; cement workers (mixers, feeders, carriers, etc.), 22; electrical workers (wiring, lineman, switchboard, etc.) 21; water boys, 21; bookkeepers, stenographers, and time keepers, 21; drafters and engravers, 20; machinists, 20; waiters, 20; agents and collectors, 18; tailors, 18; cutters (glass, shoe, paper, etc.), 15; soda fountain boys, 15; painters and decorators, 14; cigar makers, 14; labelers and letter addressers, 11; pressers (clothes), 11; bootblacks 11; checkers, sorters, and ticket takers, 11; miners, 11; cash boys, 10.

Among the 23 conclusions drawn by the report are the following:

More than 40 per cent of the boys leave schools located in cities other than the one in which they are now living.

Workers in juvenile occupations are recruited largely from the sixth, seventh, and eighth grades of the public schools and at about the time when the children are 14, 15, and 16 years of age.

Boys leave schools for a great variety of reasons. The three most commonly offered are "necessity," "dissatisfaction with school," and "preference for work."

[1] Some of the investigators point out that this shifting is not always a bad thing. It is referred to in these reports chiefly as an indication of the dissatisfying nature of the average job, though sometimes, of course, it represents the attempt of an ambitious worker to better himself, or even actual "sampling" of various types of employment. A certain proportion of young workers unquestionably "find themselves" by this process, but another large proportion simply become examples of "job hobohism." Employment supervision by the school would tend to eliminate the gambling element in shifting.

SEATTLE, 1913–14.

The first report[1] of Mrs. Reed's work in Seattle discussed: (1) Children who left school in 1913–14; (2) school leaving and labor permits; (3) educational and occupational experience of boys and girls.

Wages.—The Seattle report presents a complete wage table for all the elementary school pupils and 138 high-school pupils. The average initial wage of grade-school girls was $5.10 and of high-school girls $7.08; of grade-school boys $6.07 and of high-school boys $7.76.

Reasons for school-leaving.—Particular attention was given to the reasons why children left school. It was found that in the elementary school 173, or approximately 40 per cent of the children studied, left because of economic pressure, and 115, or 28 per cent, because of dissatisfaction of some kind with school. Mrs. Reed points out that—

> as economic pressure is a relative term, and as about 30 per cent of these classified under this heading admitted that they disliked school and were glad to be relieved of attending, we are justified in assuming that "dissatisfaction" is an even more potent factor in school leaving than the statistical tabulation indicated.

Table 4 presents a tabular view of the assigned reasons for leaving school.

TABLE 4.—*Reasons why children left school (Seattle).*

Reasons	Grades.			High schools.			Grand total.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
1. Personal illness	7	8	15	91	42	133	98	50	148
2. Family illness		11	11	19	5	24	19	16	35
3. Economic pressure	91	82	173	132	62	194	223	144	367
4. Moved	14	31	45	63	38	101	77	69	146
5. Custom to leave	7	9	16				7	9	16
6. Indifferent, trouble, dislike	36	30	66	21	46	67	57	76	133
7. To enter other schools		6	6	8	12	20	8	18	26
8. To marry		1	1	3	1	4	3	2	5
9. Did not pass; too large; discouraged; misfit	17	8	25	67	80	147	84	88	172
10. To learn trade	4	7	14	5	3	8	9	10	19
11. Prefer to work	15	9	24	53	17	70	68	26	94
12. Forced by parent	4	5	9				4	5	9
13. Other reasons				24	30	54	24	30	54
Total	195	207	402	486	336	822	681	543	1,224

The following conclusions are among those drawn by the report:

There are two main reasons which have not changed much in five years for school leaving—economic pressure and dissatisfaction.

[1] Seattle Children in School and Industry, by Mrs. Anna Y. Reed, Seattle school board, 1915. A further account of the three years' work in Seattle is given in the same author's Vocational Guidance Report, 1913-1916, and in "Newsboys in the Public Schools." World Book Co., 1917.

Department stores and offices are receiving the largest percentage of our young girls; messenger service and offices, the largest percentage of boys.
Occupational instability is a universal and a serious problem.
The initial wage scale is higher in Seattle than in any other city reporting.

WALTHAM, MASS., 1914–16.[1]

The Waltham inquiry was undertaken by the Children's Bureau for the purpose of obtaining information concerning children in this industrial city of 30,000 who go to work below the age of 16, to ascertain the relation of these children to industry, and also to find out the community needs in regard to vocational training and vocational guidance.

Following an examination of the Massachusetts laws relating to employment of minors, involving a study of the records kept by the school authorities, a field study was made to find out facts as to age, sex, nativity, and living conditions of the working children of Waltham; why they leave school, where they work, what occupations they enter, the conditions under which they work, what wages they earn, how steadily they are employed, and what opportunity they have for advancement.

The data collected covered 200 of the 500 children between the ages of 14 and 16 who took out their first employment certificates during the period from September 1, 1911, to August 31, 1914. Over four-fifths of the children studied were natives and 59 per cent were born in Waltham.

Reasons for leaving school.—The reasons for leaving school to go to work usually indicated "a lack of adjustment between the school and the child." One-half of the children gave such reasons as dislike of school, backwardness in school, trouble with the teacher; more than one-third of the children gave economic necessity as their primary reason. About one-tenth gave preference for work. "Nearly 5 per cent said that their parents wished them to leave."

Types of employment.—Between 55 and 65 per cent of the children studied were employed in manufacturing establishments, but the number and proportion have declined since the laws of 1913 went into effect. The chief child-employing establishment in Waltham is the cotton mill, but this, too, shows a decrease, only 15 per cent of the children with employment certificates going into the cotton mill in 1915, as compared with 42 per cent in 1912.

Wages.—The children who left school as soon as they had reached the age of 14 years received lower initial wages and advanced more slowly than those who remained in school until they were 15 or 16. The wages received by children reporting wages ranged from $1 to $15 a week, the average final wages being $6.06 a week. For 68.8 per

[1] "From School to Work," Children's Bureau Publication, 1917.

cent of these children the final and initial wages were the same; and for 10.6 per cent the final wages were lower than the initial wages.

The report concludes that "children in Waltham who leave school between 14 and 16 years of age are not adapted to industry, and only in the few cases where the workers are 'learning the business' does industry make the necessary adaptation to the child."

The report recommends that a trained vocational adviser be secured, who should give full time to the work of supervising juvenile employment in connection with the public school. Such an officer, the report suggests, would study the industries of the community, secure the cooperation of the employers, and map out a plan for vocational education which would be adapted to the needs of the Waltham children. The vocational adviser would also—

> study the children who are desirous of leaving school to go to work, their home problems, and their ambitions, and suggest more schooling, or a different kind of schooling, or advise in regard to their choice of employment and assist them in finding suitable positions.

CHICAGO BUREAU OF VOCATIONAL GUIDANCE.[1]

The Chicago bureau's study of children who leave schoool to go to work covers the five years ending April 1, 1916. The children who furnished the data came to the vocational bureau for advice and assistance in securing employment upon leaving school. Complete industrial histories were secured for a large number of children, showing "what becomes of boys and girls who leave school early, in what kind of work they engage, and with what success."

Reasons for leaving school are tabulated according to what seemed to be the principal motive. Of the 6,758 cases studied, 2,187 left because of necessity; 1,507 because their earnings were desired, though not needed; 2,025 because of dissatisfaction with school ("didn't like teacher," "tired of school," "made fun of," etc.); 301 because they preferred work to school; 381 because they had "graduated" from the eighth grade and considered they had finished school; 231 because they could not afford books with which to go on to high school; and 126 from other causes.

Of the 4,854 children employed in 1915, according to the factory inspector's report, 623 were in department stores, 566 were errand boys in printing establishments, and 447 were employed by confectioners. Nine industries employed 52 per cent of the children. The six, in addition to the three mentioned, were: Metal trades, 224; soaps and washing powders, 164; telegraph and telephone, 164; boot and shoe manufacturing, 138; paper boxes, 129; and clothing, 118. The report points out that in Chicago practically the only work open

[1] Report of Bureau of Vocational Guidance. From 62d An. Rep., Bd. of Educ., Chicago, 1916, by Anne S. Davis.

to children who leave school at the age of 14 is the most unskilled and poorly paid. The majority of the children go into the candy factories, where they pack and wrap candy; into the box factories, where they "turn in," "cover," "bind," and "tie;" into the tailor shops, where they pull bastings and brush clothes, but rarely do any form of needle work. Some go into the department stores, where they are employed as cash girls, as inspectors, as stock boys, and messengers, while others enter the boot and shoe factories, where they tie and cut threads, polish and clean shoes, tag, lace, and assemble parts of shoes.

Since the Chicago report is based upon an experience of five years, and since Miss Davis, the author of the report, has kept in touch with school-leaving investigations in other cities, the conclusions which the Chicago report offers may reasonably be applied to the entire series of studies. Miss Davis finds:

> There are two main reasons for children leaving school—economic pressure and dissatisfaction with school. The latter plays the most important part.
>
> About 50 per cent of the children leave school before they reach the eighth grade.
>
> Children leaving school seem to have little idea of what they want to do or what they think they can do.
>
> The kind of job secured is often a matter of chance. Drifting from job to job rarely leads to better opportunities, but produces unstable habits.
>
> The occupations open to boys and girls are noneducative. They are easily learned and are monotonous and mechanical. They offer little opportunity for advancement.
>
> Because the children change positions so frequently and because they work so little of the time, their wages are not likely to increase the family income sufficiently to make up for their loss of schooling.[1]

[1] All the studies reported upon in this section, except that of Chicago, were made prior to the outbreak of the great war. In a note to her 1916 report, Miss Davis notes that the price of juvenile labor has advanced materially because of the war. No reliable statistics are yet available for the changed conditions since the United States entered the war, although special figures collected by the Bureau of Education in the fall of 1917 suggest that there has been some falling off in school attendance, particularly in high school. A determined stand has been made, however, by the Federal Government and many of the States, on the child-labor situation, and constructive efforts have been made to direct such juvenile labor as may be used through official channels, with guarantees of employment supervision. The latest developments are, at the time of going to press, (December, 1918) the "Back-to-school" movement of the Department of Labor and other agencies, and the establishment of a "junior section," with specific vocational guidance aims, in the United States Employment Service.

IV. MATERIAL ON THE OCCUPATIONS.

In practice vocational guidance necessarily involves two main considerations—the qualifications of the individual and the characteristics of the occupations. Early efforts at counseling were chiefly concerned with the individual end of the problem. Recent progress, however, has been largely in the direction of studying the occupations, since accurate knowledge of occupational conditions and processes is at present accumulating much more rapidly than knowledge of the human factors.[1]

One of the things that distinguished Prof. Parsons from other types of advisers on vocations was that he made use of official statistics regarding occupations. Previous writers on "choosing a vocation" had contented themselves with glorifying certain selected careers and holding up illustrious examples of successful men and women. Parsons began to analyze the geographical features of industry. He sought to find from the census figures "what States, city, or sections of the country employ most workers in a given industry." This seems elementary, indeed, compared with the present efforts of the Federal Government to apportion labor resources, but it was a new note in the study of vocations, and especially a new note in its significance for vocational guidance in the schools. Parsons studied industrial conditions to find to what extent an industry was localized. He found, for example:

That in 1900 turpentine farming was confined wholly to three Southern States—Alabama, Florida, Georgia, Louisiana, Mississippi, North and South Carolina; and that Georgia, Florida, and Alabama together employed 85.1 per cent of the total number, while Georgia alone employed 43.9 per cent.

That the silk manufacturing industry was localized chiefly in New Jersey and Pennsylvania.

That the States employing the greatest number of quarrymen were Pennsylvania, New York, Ohio, Vermont, Indiana, and Massachusetts.

[1] Although Hollingworth (Vocational Psychology, p. 19) says, "It is more and more coming to be realized that a thorough understanding of the aptitudes which the individual brings to his work is as important as the knowledge of the opportunities which its environment affords," his whole book affords striking evidence of the lack of definite achievement in the former field. Even the "vocational psychograph" (outline of characteristics with regard to vocation) proceeds by "discovering first the necessary abilities and capacities which *a given sort of performance demands*," i. e., it begins at the occupational end.

That the manufacture of boots and shoes centered chiefly in the following North Atlantic States: Massachusetts, New Hampshire, New York, and Maine. Massachusetts alone employed 50.3 per cent of the boot and shoe makers and repairers in the United States.

STATISTICAL STUDIES OF OCCUPATIONS.

Bureau of Labor Statistics.—Statistical material relating to vocations has tended to become more usable in recent years. In connection with the 1910 census, special efforts were made to gather significant occupational data, and Volume IV (Occupations) affords basic material for an understanding of the industrial organizations. In recent years specially equipped Government bureaus have investigated industrial conditions, interpreted the immensely valuable census information that otherwise would remain largely unused, and issued timely summaries of industrial reports.[1] A glance at the list of bulletins of the Bureau of Labor Statistics since 1912 will give some idea of the comprehensiveness of the material now available through this one source for a study of occupations.[2] This bureau has made separate studies of wages and hours of labor in 24 groups of occupations; of women in industry; of industrial accidents and hygiene; and there are important studies covering employment and unemployment, vocational education, night work, welfare work, short-unit courses, and minimum-wage legislation.

Report on women and child wage earners.—Apart from the regular bulletins of the Bureau of Labor Statistics, another seldom used but exceedingly valuable source of statistical information on occupations is the Report of the Commissioner of Labor on the condition of women and child wage earners in the United States.[3] This report was prepared in the first flush of enthusiasm for studies of the human problem in industry and its value is correspondingly high for the teacher seeking to know the occupations. Unfortunately only a small edition of the complete report, which was in 19 volumes, was printed, but an excellent summary is available in Bulletin 175 of the Bureau of Labor Statistics.[4] The following list of titles will indicate the scope of the work, the volumes starred being of special value for vocational guidance:

I. Cotton Textile Industry.
II. Men's Ready-Made Clothing.
III. Glass Industry.
IV. Silk Industry.
*V. Wage-Earning Women in Stores and Factories.

[1] Particularly valuable to teachers and vocational counselors is the Monthly Review of the Bureau of Labor Statistics, established in 1914.
[2] A complete list is given in the bibliography, page 116.
[3] See p. 41.
[4] Washington, Government Printing Office, 1916.

VI. The Beginning of Child-Labor Legislation in Certain States; a Comparative Study.
*VII. Conditions under which Children Leave School to go to Work.
*VIII. Juvenile Delinquency and its Relation to Employment.
*IX. History of Women in Industry and Industry in the United States.
X. History of Women in Trade Unions.
*XI. Employment of Women in Metal Trades.
*XII. Employment of Women in Laundries.
XIII. Infant Mortality and its Relation to the Employment of Mothers.
XIV. Causes of Death among Women and Child Cotton-Mill Operatives.
XV. Relation between Occupation and Criminality of Women.
XVI. Family Budgets of Typical Cotton-Mill Workers.
XVII. Hookworm Disease among Cotton-Mill Operatives.
*XVIII. Employment of Women and Children in Selected Industries.
XIX. Labor Laws and Factory Conditions.

State use of census material.—How census material has been adapted to local or group use is illustrated by the Indiana experience. In 1915 the Indiana University issued "A Study of the People of Indiana and their Occupations for Purposes of Vocational Education." The assigned purposes of this study were:

(1) To establish a fact-basis for the consideration of vocational education and the development of vocational courses in Indiana.
(2) To serve as a reference and compendium of information concerning the people of the State and their occupations.
(3) To isolate specific problems requiring further investigation.

In this study the census material relating to Indiana was analyzed under the following heads:

1. Facts concerning the people of Indiana.
2. The occupations of the people of Indiana.
3. Agricultural pursuits.
4. Manufacturing and mechanical pursuits.
5. Trade pursuits.
6. Domestic and personal service.
7. Transportation.
8. Professional pursuits.
9. Clerical pursuits.
10. Mining.
11. Public service.
12. Relative importance of agricultural and industrial pursuits.
13. Deductions relative to education.

It was pointed out that local surveys, important though they are, can not safely answer the question as to the type of trade or prevocational courses needed, since the population is too mobile and occupational conditions constantly changing. "State surveys will yield more dependable data, and a national survey would be even more satisfactory." In the case of Indiana, since 74 per cent of the people born in Indiana were still living in Indiana in 1910, and since the occupations of Indiana are in the main not very different from those found in the States to which the 26 per cent have migrated, it

seemed safe to conclude that a State survey would constitute a sound basis for vocational and prevocational courses.

The Ayres studies.—Other attempts to interpret and utilize census data are illustrated by a 1913 publication of the division of education of the Russell Sage Foundation, entitled: "Constant and Variable Occupations and their Bearing in Vocational Education."[1] In this study Dr. Ayres sought to ascertain the number of workers in the two types of occupations—"constant occupations" being those which engage the services of considerable and fairly constant proportions of the workers, while "variable occupations" are those which are not of this settled character.[2]

The inquiry consisted of an analysis of the occupational data of the twelfth census for cities of more than 50,000 population. The number of people engaged in each of 140 separate occupations in each of these cities was studied, and it was found that there were 20 occupations which are constant "in the sense that the number of men workers in each is everywhere at least equal to one for each 1,000 people in the population"; and that there were 41 less constant occupations, each of which employed more than one in 10,000 of the population in every city. The 20 constant occupations listed in the descending order of the proportion of workers in the median cities are: (1) Laborers, (2) merchants, (3) clerks, (4) draymen, (5) salesmen, (6) carpenters, (7) steam railroad men, (8) machinists, (9) painters, (10) bookkeepers, (11) waiters, (12) engineers, (13) printers, (14) blacksmiths, (15) masons, (16) barbers, (17) plumbers, (18) street railroad men, (19) shoemakers, (20) bakers.

In his conclusion Dr. Ayres points out that the chief value of such facts as he presents is to throw light on certain characteristics of occupations. "All such information," he asserts, "is useful in helping to secure a better fact-basis for our thinking and acting with respect to the problems of vocational education and vocational guidance."

Occupational data in survey reports.—Use of occupational data from the census and other Federal sources has become fairly general recently, especially in educational surveys, where accurate information on occupations is coming more and more to be presented as the basis of programs of vocational education and vocational guidance. Conspicuous utilization of occupational statistics will be found in the Richmond, Minneapolis, and Indiana surveys by the National Society for the Promotion of Industrial Education, in the volumes of the Cleveland Survey report;[3] and in most of the recent surveys

[1] Sage Foundation Publications, No. E-136.

[2] "House painting must be carried on in the city where the house is, while paint may be manufactured anywhere."

[3] Particularly the nine volumes on wage earning and education (see p. 74 of this report).

by the United States Bureau of Education, especially North Dakota, Negro Education, and San-Francisco.[1]

VOCATIONAL PAMPHLETS.

Parsons' experiment had indicated that one of the immediate needs in guidance work was for brief, reliable statements on the various vocations. Almost nothing was available. Accordingly the first efforts of the agencies that sprang up in Boston, as well as in New York, were directed to preparing leaflets. The Boston Vocation Bureau began by employing two expert investigators to make first-hand studies of occupations, to find—

> what an occupation is, its conditions and openings, what it demands of a boy; what it offers in pay and advancement, what opportunities are open for securing the specific training it requires, and what the general conditions of employment are as regards health and effect upon the life of the individual.

The information for these leaflets was collected chiefly by personal visits to firms, shops, or factories, and by consultation with employers, superintendents, foremen, employees, and labor men. In the first two years of the bureau's existence over 100 occupations were investigated,[2] and printed leaflets were issued covering the following occupations: The machinist, banking, the baker, confectionery manufacture, the architect, the landscape architect, the grocer, bookkeeping and accounting, the department store and its opportunities for young men.

The stated objects of these bulletins were:

> (1) To present vocational facts simply and accurately.
>
> (2) To make accessible a knowledge of all the employments; the professions, as well as the trades, skilled and semiskilled and unskilled; the business, the home-making and governmental callings, and also any new and significant vocational activities of men and women.
>
> (3) So far as possible to supply parents, teachers, and others interested with the material necessary for an intelligent consideration of the occupations, their needs, demands, opportunities, relative desirability, training requirements, and the possibilities they may offer for careers.
>
> (4) To analyze the relation of vocational aptitudes, interests, and habits to modern industrial demands, and thus lay an adequate foundation for a system of training regardful of social as well as economical needs.

The pamphlet on "The Baker" may be used to illustrate the type. It is an eight-page publication, dealing "mainly with the industry as found in the large modern baking establishments, using machinery and employing many people." The conditions of the industry are reviewed, and the disadvantages as well as advantages frankly stated. The positions in the bakery are described, from chore boy

[1] Bulletin, 1916, No. 27, pp. 19–22; Bul., 1916, No. 38, pp. 98–103; and Bul., 1917, No. 46, p. 409.

[2] An. rep., Com. of Labor Statistics, p. 423.

or helper to floorman or head floorman. For the boy, he should be "at least 16 years of age, of good habits, health, and strength." A grammar-school education, or the seventh grade at least, is necessary, and there are opportunities for the boy who knows something of chemistry, bookkeeping, and business methods. "The industry offers a good future for men capable of management, and fairly steady employment for young men who must work for moderate wages." The remainder of the pamphlet is taken up with a report of the Massachusetts Board of Health on sanitary conditions in bakeries, with simple tables from Federal Census reports, showing the place of baking among the industries of the State and the names of trade periodicals.

Later publications of the Vocation Bureau have tended to become more detailed. "Business Employments," "The Law as a Vocation," and "The Shoe Industry,"[1] are one-volume studies of their respective fields. They were prepared with the same careful attention to facts that characterized the earlier short pamphlets, but they present a much more complete picture. They are the sort of books to put in the hands of high-school students whose interests have been aroused. At the same time any worker already engaged in any one of the three fields will learn much he would never otherwise find out about the complete organization of which he is a part.

The spirit of these books is well expressed in the preface to "The Law as a Vocation," where Mr. Allen writes:

> It is the purpose of the following pages to present a clear, accurate, and impartial study of the profession of the law, its nature, present-day conditions, personal and educational entrance requirements, dangers and disadvantages, high demands, varied fields of service, its earnings and emoluments, and all that has distinct and important bearing upon the law as a vocation.
>
> If this book confirms the young man of ability in his choice of the profession and keeps out of its ranks those who have not the natural and acquired fitness necessary to success, the purpose of the book will have been accomplished. It is sent out to young men and their advisers with this end in view.

Two other Boston agencies sought to do for girls what the Vocation Bureau had begun to do for boys. The Vocation Office for Girls of the Trade Education League issued the following pamphlets between 1912 and 1914: Telephone Operating; Bookbinding; Stenography and Typewriting; Nursery Maid; Dressmaking; Millinery; Straw Hat Making; Manicuring and Hairdressing; Nursing; Salesmanship; Clothing Machine Operating; Paper Box Making; Confectionery Manufacture; Knit Goods Manufacture. These are pamphlets averaging a dozen pages, having as their primary purpose "to supply teachers with information and material for counseling with parents and with girls as to the choice of a vocation."

[1] All by F. J. Allen (1915, 1916).

The points are carefully made that these bulletins do not attempt a scientific study of the occupations, though they are based upon information secured in the main by personal visitation; that they are critically reviewed by persons familiar with the industry and by economists; and that the material in them is not intended to take the place of personal consultation.

The form of the material is practically identical with that of the pamphlets of the Vocation Bureau for Boys. Bulletin No. 14, "Knit Goods Manufacture," for example, discusses the nature of the work, processes, positions and pay, opportunities for advancement, conditions of the work, qualifications required, training, statistics, and references. Four blank pages are included "for local studies of the occupation," so that local investigators may fill in, under the same heads as are given in the text, the facts about the establishments nearest at hand.

A service that developed both in the direction of short vocational pamphlets and detailed studies and has continued in increasing effectiveness is that rendered by the Women's Educational and Industrial Union, which aims especially at the better trained, more mature woman. The Appointments Bureau issued the following short vocational pamphlets between 1910 and 1912: Probation Work; Advertising; Home and School Visiting; Publishing-house Work; Poultry Raising; Proofreading; Real Estate; Industrial Chemistry; Bacteriological Work; Interior Decoration; Medical Social Service; Organizing Charity; Social Service for Children; Settlement Work.

On the investigation side the Women's Educational and Industrial Union entered carefully into the field of occupations for trained women. The first publication of the Research Department (Vocations for the Trained Woman, 1910) was the outgrowth of a conviction that women needed to know more about vocations other than teaching. This book was designed to suggest to women about to choose an occupation "some lines of work now open to them and the equipment which they should have to justify a hope of success in any given line." The work was modeled after the Finger Post, an English publication. Different types of service were presented under the following heads, each prepared by a specialist in his field: I. Social and economic service. II. Scientific work. III. Domestic science and arts. IV. Agriculture. V. Business. VI. Clerical and secretarial work. VII. Literary work. VIII. Art. IX. Special forms of teaching.

The series of "studies in the economic relations of women," of which the volume just referred to was the beginning, now constitutes one of the most useful sources of information on vocations for women. Other volumes include investigations of the incomes and expendi-

tures of 450 women in Boston and studies of dressmaking, millinery, and the boot and shoe industry as trades for women.

The New York pamphlets.—One of the first activities of the Students' aid committee of the New York High-School Teachers' Association was the publishing of short leaflets. The introductory pamphlets, Choosing a Career: A Circular of Information for Boys and Choosing a Career: A Circular of Information for Girls, were followed by pamphlets on Openings for Boys in Machine Shops and The Vocational Adjustments of Children in the Public Schools. While there was not much attempt to investigate industrial conditions, the material in these pamphlets was compiled with some care, and available census statistics were utilized.

The Rochester and Buffalo bulletins.—The publication of short bulletins, usually 4 to 16 pages, has continued to be a profitable type of work for communities undertaking vocational guidance. Particularly valuable are vocational pamphlets prepared by such cities as Rochester and Buffalo, where the essential point of connecting up the choice of occupations specifically with the opportunity for training is kept in view. The Rochester bulletins, compiled by Raymond C. Keople, of the Department of Vocational Education, on the basis of a survey made by the Chamber of Commerce, cover the following subjects: Machine Industry; Woodworking Industry; Clothing Industry; Collar Factories; Apprenticeship Plan. They describe the conditions of the trade as it is in Rochester, the requirements and pay; they give lists of trade periodicals and books as well as of places where the trade is taught.

"Profitable Wage-Earning Occupations in Buffalo" is the title of the series issued by the bureau of vocational guidance and industrial education of the Buffalo Chamber of Commerce. The preface to each of these bulletins emphasizes the selective opportunity that the schools afford, and the importance of getting a broad general training before attempting to choose a vocation. The field of each group of occupations is then described. The pamphlet on "The Graphic Arts," for example, shows that under the heading of graphic arts a multitude of opportunities for earning a livelihood are offered. The occupations are concerned with the preparation of charts and diagrams, signs and placards, maps, working drawings, illustrations, designs, engineering and architectural plans, and the teaching of all of these subjects. Each of these specific occupations is taken up and described. Facts about wages are presented, the importance of continuing training while at work is emphasized, and interesting brief statements of "builders of careers" are given, so that the pupil may know the typical experiences of others like himself who have been reasonably successful in the occupation. Page 15 of this pamphlet lists "some helpful books," and page 16 indicates the courses in

industrial art given in Buffalo with the schools where the courses may be taken.

The bulletin on "Printing and Allied Trades" is similar in scope to that on the graphic arts, except that it is illustrated with pictures of a hand-composing room, linotype machine and operator, press-room, and bindery. There is also a chart showing the distribution of workers on the basis of training.

University-extension pamphlets.—University-extension activities, especially in women's colleges or coeducational institutions, have recently been directed to the field of vocational opportunities for women. While the vocational conferences that have been held at the University of Wisconsin, at the University of Washington, at Wheaton College, and elsewhere are apart from the purposes of this report, which deals primarily with the public schools, the vocational pamphlets that have sometimes been evolved are of immediate concern in a review of the literature of occupations. A typical pamphlet is that issued by the extension division of the University of Wisconsin, in November, 1916, under the title: "Nursing as a Vocation for women."[1] In the introduction a physician described the need for trained nurses. The bulletin itself gives a brief history of nursing as a profession; outlines the physical, educational, and character qualifications, the scope of training, and choice of a training school; lists the accredited hospitals in Wisconsin, with courses of study and conditions of work in the hospitals; and describes the opportunities in nursing, both from the point of view of remuneration and of useful service.

The Chicago pamphlet.—A vocational pamphlet that represents the transition stage between the opportunity bulletin and the social survey studies, later to be considered, is Miss Anne Davis's "Occupations and Industries Open to Children Between Fourteen and Sixteen Years of Age."[2] The purpose of the report was "to give information to teachers and others who have the duty and the responsibility of advising the young concerning their future." The pamphlet resembles the studies of school leaving and employment in its point of view and in its characterizations of the kind of employments open to children. It does give, however, specific information as to entrance opportunities in the following industries and occupations: Box factories, candy factories, tailor shops, department stores, engraving, boot and shoe manufacturing, molding and picture-frame manufacturing, knitting, laundry work, office work, bookbinding, press clipping, novelty work, and bakery work. For the more important child-employing trades this Chicago report attempts some-

[1] By Katherine M. Olmsted. Bul. of the Univ. of Wisconsin, Serial No. 814, general series, No. 612.

[2] Chicago Board of Education, 1914.

thing of an analysis of the processes, a kind of vocational survey material, which has since undergone considerable development.[1] The following are typical descriptions from Miss Davis's pamphlet:

Novelty work.—Novelty work includes metal, paper, celluloid, jewelry, leather novelties, and postal cards and calendars. More girls than boys are employed at this work. They do such simple processes as gluing stones in rings, carding jewelry, tying ribbons and strings on invitations and calendars, stringing bags, pasting, mounting; putting leather in watch fobs, assembling, sorting, counting, and coloring postal cards. The beginner generally earns from $3 to $5. There is no opportunity for advancement either in wage or in manual skill, and the work is seasonal. The best-paid workers seldom receive more than $7 or $8 a week.

Press clipping.—Press-clipping bureaus employ girls to clip articles from newspapers, paying them $3.50 and $4 a week. Clipping is mechanical work and requires more speed than intelligence. If a girl is quick and fairly bright, she may be promoted to the position of "reader," who reads and marks articles to be clipped. The best readers never earn more than $9 a week. Not only is there no future in the work, but it prepares a girl for no other line of work.

Errand and messenger work.—The telegraph messenger has the least chance for advancement of all the boys engaged in errand work. He seldom has any prospect with the telegraph company itself. One company in the city offers to send the messenger boys in its employ to the school of telegraphy one hour a day. Out of 337 boys employed, however, only 25 attend the school, since they are not paid for the time spent in training. Except for this one opportunity, there is absolutely no chance for the messenger boy to learn anything. Since much time is spent in loafing between messages, the moral effect upon the boy is not good. Some employers are unwilling to engage boys who have been in the messenger service, because they idle away their time, and many of them have fallen into bad company as the result of being on the streets.

Messenger boys are paid on a commission basis, receiving 1½ cents for each message delivered. The boy who is quick can earn about $5 a week. The majority earn between $4 and $5.

For examples of vocational pamphlets other than those described in this section the reader is referred to the bibliography.[2]

SPECIAL STUDIES OF OCCUPATIONS.

The publications hitherto reviewed in this chapter have dealt mainly with the external facts of occupations. They have been either scientific statistical compilations or brief statements of occupational conditions intended to help in the selection of a vocation. The studies of which typical examples are to be considered in this section, on the contrary, have as their primary concern human welfare in industry. They have come mainly from official investigations or through the researches of private charitable foundations.[3]

[1] See p. 71-75.
[2] Section on Occupations, p. 112.
[3] They followed such well-known English examples as Booth's "Life and Labor of London," and the British royal commission's reports on the employment of women and girls and on labor.

The New York Factory Investigating Commission.—Typical of the former type of study is the work of the factory investigating commission of New York. Organized first in 1911 to study methods of preventing the recurrence of such disasters as the Triangle fire in New York City, in which a number of factory workers lost their lives, it was authorized by the legislature of 1913 to make a study of wages. The State's investigators selected four occupations for intensive study—candy making, paper-box making, the manufacture of men's shirts, and department stores. Hearings were held; and the materials published. The result is a mass of interesting and significant facts and opinions on occupations, representing a variety of points of view.

Sage Foundation studies.—The second type of social study of industry is exemplified by the work of the Russell Sage Foundation. In 1908 the committee on women's work, then a department of the Alliance Employment Bureau of New York, entered upon a study of the artificial-flower trades which was afterwards carried out in cooperation with the State factory investigating commission. The report went minutely into the problem of seasonal employment, home work, wages, home responsibilities, and trade training of women for this field in New York City. Studies that followed covered: Women in the bookbinding trades; saleswomen in mercantile stores—a study of its physical conditions of work, hours, wages, regularity of employment, vocational training, and living conditions of employees of Baltimore stores; and women in the trades—the Pittsburgh survey report on women's work in the needle trades, metal trades, canning, confectionery, etc.

The point of view from which these studies were made is indicated in the introduction to "Women in the Bookbinding Trades," where Miss Van Kleek points out that "there has been in recent years a putting forward of a protective program for women wage earners which would seem to most people unnecessary, or at least premature, if proposed for men." She cites the decision of the United States Supreme Court that—

> Woman's physical structure and the functions she performs in consequence thereof justify special legislation restricting or qualifying the conditions under which she should be permitted to toil.[1]

and suggests that legislative treatment of women's work is likely for some time to be different from that of men.

A list of investigations.—Convinced of the importance for vocational considerations of the various investigations of industries that had been made in New York City, the Russell Sage Foundation pub-

[1] U. S. Rep't, vol. 208, Cases adjudged in the Supreme Court at the October term, 1907, p. 420 (as cited in Van Kleek).

lished a list of the published reports of these investigations in 1916.[1] Sixty-four separate reports of first-hand investigations of shops and workers are listed. The value of a publication like this for vocational guidance is that it furnishes an index of the efforts that have been made to inventory existing information about conditions in the industries. In the Sage Foundation list studies of all the types so far discussed in this chapter appear, but in a majority of the studies, as in the introduction to the list, the human welfare viewpoint prevails. It is from such publications as are represented in this group that teachers can best secure that social vision so urgently needed for the awakening of the schools.

INTENSIVE STUDIES OF OCCUPATIONAL REQUIREMENTS.

A problem insistently met with in the movement for vocational training was the lack of accurate knowledge of the requirements of the trade itself. Vocational books—even the more carefully compiled vocational pamphlets—depended mainly upon the views of those in the trade, either as employers or workers, for information as to the processes involved. Investigations made from various angles showed, however, that this type of information was unreliable. Employers seldom knew what the essential factors were, as a basis for training; they usually described their work in general terms. Vocational guidance workers were inclined in their enthusiasm to consider the individual occupation a less complicated thing than it really is.

The Richmond Survey.—The Richmond Survey, made in 1914 by the National Society for the Promotion of Industrial Education, was the first of a series of industrial surveys having as a special aim the determination of the essential processes in a given trade and the type of training necessary for these processes. In this survey the requirements of three important industries—building trades, printing, and railroading—were analyzed and tabulated.

Minneapolis.—The Richmond Survey was followed by similar surveys for Minneapolis and the State of Indiana. The National Society proceeded on the theory that not every community and every State could undertake exhaustive surveys by specialists, but that all communities would receive some benefit if type surveys were available for different classes of localities. Richmond had served as the type for cities of about 100,000 population, with a large native population and widely diversified industries. Minneapolis presented the problem of the city of half a million, with a different set of industrial

[1] Investigations of Industries in New York City, 1905-1915. Compiled by Henrietta R. Walker.

and social conditions. Indiana was sufficiently like a number of other Middle Western States to make a vocational survey of Indiana applicable in many respects to other States.

The Minneapolis survey analyzes the educational requirements for the following trades: Building trades (contractors, bricklayers and masons, carpenters, electric-wiring men, hoisting engineers, lathers, painters and decorators, plasterers, plumbers and gas fitters, sheet-metal workers, stationary engineers, steam fitters, stonecutters, structural-iron workers); electrical workers (telephone, electric railway, production of electric heat, power, and light, manufacture of electrical apparatus, installation of switchboard apparatus, armature winder, overhead and underground construction); metal trades (machine shop, boiler shop, automobile industry, sheet-metal industry, foundry); wood trades (lumber yard, machine department, cabinet department); printing trades (book and job composing room, newspaper composing room, pressroom of book and job houses, newspaper pressroom); flour mill (flour and grist mill products, wheat storage, loading department, wheat cleaning, grinding and bolting, resting department, maintenance and repair, power); baking (large bakery, small bakery, special cake shops, cracker factory); laundries; garment trades (cutting, buttonhole making, button sewing, examining, pressing, packing, superintendent or manager, foreman or forewoman, shirt making, workingmen's clothing, women's wear, corsets, caps, cravates, bags); dress-making and millinery; knitting-mill (knitting, washing, bleaching, fleecing, cutting, folding, and boxing); department-store salesmanship. The survey report also considered such questions as: What art education is needed in industry? What vocational education is needed for noncommissioned officers of industry? What vocational education is needed for office work, for homeworkers? A sample of the information furnished about each type of worker is given in the Appendix (p. 134).

Indiana.—The Indiana surveys, undertaken by the State board of education with the cooperation of the National Society for the Promotion of Industrial Education, attempted to carry out still further the ideas of the Richmond and Minneapolis surveys, selecting a number of typical communities throughout the State as the basis for a State-wide program. Indiana had already had a survey based on the occupational material of the census, as well as a study of one city.[1] The localities selected for further study were: Richmond, Evansville, Madison, Jefferson County, and Indianapolis. Each community undertaking a survey in cooperation with the State authorities appointed a local survey committee, consisting of representatives of the schools, manufactures, business and labor inter-

[1] See p. 61.

ests, and other groups interested in vocational work. The surveys covered the following questions:

1. What is the economic status of the community and its social attitude toward the industrial work?
2. What is the situation as regards variety and concentration of industries?
3. In what ways do workers obtain training?
   (*a*) Is there any apprenticeship system?
   (*b*) What percentage of all young beginners are apprenticed?
4. Relations of occupation to school training:
   (*a*) Is the industry hampered by any lack of knowledge of training on the part of beginners?
   (*b*) Is general school training beyond the "working-paper" grade needed for success in the job?
   (*c*) What does the job not give in skill and knowledge to equip the workers for a start on the next job?
   (*d*) Has any system of promotion or economic reward for efficiency been established? If so, what is it?
   (*e*) Is a complete high-school education necessary for success in any job in the establishment?
   (*f*) Is systematic instruction in either technical knowledge or manipulative skill desirable after the worker has entered the industry?
   (*g*) Could such instruction be most helpfully and practically given inside of the industrial establishment or in part-time day courses, or in evening classes in special schools?

Practically all the material gathered under these headings and published in the reports has significance for vocational guidance as well as for vocational training, but of special importance are the analysis charts of occupations. The occupational analyses attempt to give a "composite view of the knowledge and ability demanded by the industries and the training desired by the men and women (*a*) who seek promotion or desire to prepare themselves for other jobs; (*b*) who seek greater skill and knowledge for leadership." The analyses were approved by employers, foremen, engineers, and workmen in the industries before publication.

The Indianapolis report is conspicuous among these survey reports:

> (1) By the effort to present process analyses by industries; (2) by the effort to summarize the results of the survey in analysis charts of occupations; (3) by the effort to consummate trade agreements; and (4) by the effort to regard the conditions of employment and vocational needs of boys and girls 14 to 16 years of age and of those who have passed the age of compulsory school attendance.[1]

To illustrate the scope of the charts in this survey, under metal trades, "engine lathes" are first considered. The special machine knowledge required is classified according to (1) operatives, (2) knowledge of machines and attachments, (3) tools used. With this is to be used the chart showing "uniform knowledge" required. The special machine knowledge for engine lathes, in part, is as follows:

[1] Report of the Indianapolis Survey for Vocational Education, p. 1.

Engine lathes—Special machine knowledge.

Operations.	Knowledge of machines and attachments.	Tools used.
A-1. Turning on centers. Turning on mandrels. Care of centers.	Types of lathes. Name, care, and use of the principal parts of an engine-lathe, legs, bed shears or ways, feed rack. Headstock: live center, spindle, driving cone, driving gear, back gear, back gear handle, face plate. Tailstock, dead center, hand wheel, spindle, set over or adjusting screw, clamping device. Carriage, saddle, plain rest, compound rest, tool post, handle for operating cross feed, handle for crank for operating cross slide. Apron, hand travers, handle or crank, automatic feed knob. Screw cutting lever or half nuts, automatic cross feed knob, screw setting gauges. Feed works, stud, or spindle, stud feed cone, feed rod cone, feed rod or spline shaft, stud change gear, lead screw change gear, intermediate gear, lead screw, feed-motion reversing lever, index plate. Quick change gear box and mechanism. Plain cylindrical turning. Locating centers; centering by dividers, surface gauges, hermaphrodites, cup centers, center square. Testing location of centers, changing center marks, use of centering machine. Drilling and reaming for centers. Method of holding work between centers; use of lathe dogs, care in oiling centers, adjusting work to turn freely. Care of lathe centers. Shapes of centers, necessity of true centers. Hard and soft centers, grinding lathe centers, lining up lathe centers. Spring of the work, effect of the force of the cut on spring, when turning slender work or work of heavy cross-section. Action of bent-tailed dog in springing the work. Correct methods of driving the work. Use of straight-tailed dogs, equalizing dogs, proper adjustment of machine to prevent errors. Setting the tool, squaring the ends, calipering, roughing cut, finishing cut. Kinds of fits and their uses including allowance for same. Sliding fit, driving fit, forced fit, shrink fit. Care of mandrels, types of mandrels, expanding mandrels and advantages. General consideration of filing. Files for lathe work, avoiding pinning, speed of the work for filing, methods observed for even filing. Use of emery. Use of polishing stick. Speeds for polishing. Care of centers in filing. Finishing polished surface. Use of hand tools; diamond parting and round nosed grooves.	Name, care and use of tool post and set of tools. Inserted tool blade holders and tools. Care of tools to include tempering, grinding, oiling, etc.

The chart for uniform knowledge lists the machinists' tools that need to be known, and such items as the following:

C–1.

Time card, tool checking, factory procedure; the function and organization involved in manufacturing; explanations of the practices followed in the preparation of manufacturing information, planning operations, time standards, wage systems, etc.

C–2.

General rule for safety and sanitation; safety appliances, and the laws governing same. Hygiene. Knowledge of first aid in case of injury.

C–3.

Belts and pulleys.
Transmission of belts, ropes, and chains.
Velocity ratio of a set of pulleys.

Belts and pulleys—Continued.
Determining pulley diameters.
Determining length of open and crossed belts.
Speed cones and conoids.
Cone pulleys for open and crossed belts.
The effective pull of belts as determined by width and thickness.
Horsepower transmitted by belts.
Care and use of belting, leather, canvas, etc.
Suitable belt dressing.
Tightening or guide pulleys.
Guiding of belts.
Climbing of belts, flat and crowned faced pulley belt fastenings; lacing, splicing, and gluing.
Belt connections for nonparalleled shafts of angular belt drive.

The Cleveland Survey volumes.—Nine of the 25 volumes of the Cleveland Foundation Survey of Education of Cleveland, Ohio (1915–16), belong definitely in the occupational literature of vocational guidance. These volumes are:

Boys and girls in commercial work. Department store occupations. Dressmaking and millinery. Railroad and street transportation. The building trades. The garment trades. The metal trades. The printing trades. Wage earning and education (summary volume).

The method of treatment in these reports may be illustrated from the following summary of two of the volumes:

Department store occupations: Purpose and scope; department stores; 5 and 10 cent stores; working conditions and health; wages and employment; analysis of jobs; vocational training for department store workers; looking for work. Under "analysis of jobs" are discussed: The sales or floor positions of men (messenger or floor boy, bundle or wrapper; stock boy, salesman, floor man or section manager); the delivery department or outside positions of men (boy or specials, wagon boy or jumper, driver or chauffeur); jobs in the marking and stock rooms (checker, wheeler, marker, tube-room girls); the sales force or floor positions of women (bundler, wrapper, or check girl, cashier or inspector, stock girl, junior saleswomen, saleswomen).

Railroad and street transportation.—Railroad transportation—scope of study; requirements for entrance; promotion in railroad service; steadiness of employment; methods of discipline; duties of the service; union organization; accidents; age and nativity; wages; hours of labor; the problem of training; how railroads train workers; the contribution of the public school. Motor and wagon transportation—chauffeurs and repairmen; teamsters. Street railroad transportation—qualifications for employment; former occupations; age requirements; nationality; promotion; discipline; cash deposits; union organizations; wages; hours of labor.

THE HEALTH ASPECTS OF OCCUPATIONS.

In many of the studies reviewed in this chapter, health considerations are more or less prominent. The literature of vocations has always given health an important place, but it is only recently that material on vocational diseases has been made available for general use. An important recent addition to guidance literature is the elaborate work by George M. Kober and William C. Hansen, "The Diseases of Occupation and Vocational Hygiene."[1] Part I deals with specific occupational diseases; fatigue and occupation; occupational affections of the throat, mouth, nose, and ear; occupational affections of the skin. Part II deals with the etiology and prophylaxis of occupational diseases; vocational hygiene; and analyses of occupations with health requirements. Part III deals with the relation of clinical statistics, governmental studies, and hygiene to occupational diseases. The editors of this volume were assisted by 30 contributors in various fields.

Typical of recent health studies under Federal auspices is Public Health Bulletin No. 81 (January, 1917), "Studies in Vocational Diseases."[2] This bulletin comprises a study of the effect of gas-heating appliances upon the air of workshops as studied in the garment industries in New York City. The official summary of this report points out that garment workers are liable to chronic poisoning by carbon monoxide gas, pressers being the class of workers most exposed to the danger, and recommends a system of regular inspection to insure proper hygienic conditions, standards enforced by regulations, and education of workers in the use of safety precautions.

OCCUPATIONAL MATERIAL AND THE NEWER BOOKS ON GUIDANCE.

The accumulating studies of occupations from various points of view are having a noticeable effect on the practice of vocational guidance and particularly on the available literature of guidance. The teacher is no longer dependent upon the mere "How-to-succeed" books of a few years ago. The books on vocations that confined their attention chiefly to the professions and business are slowly being replaced by books that endeavor to vision, however dimly, the whole industrial and social organization, including the countless types of service whereof the educated men and women of yesterday hardly knew the existence.[3]

If they do nothing else, these newer books on occupations should prevent that self-sufficient attitude of the vocational "counselor."

[1] P. Blackiston's Son & Co., Philadelphia, 1916. 918 pp.
[2] Washington, Government Printing Office, 1917. 79 pp.
[3] Gowin and Wheatley's "Occupations" (Ginn & Co., 1916) suggests what the modern textbook on vocations can be.

who does not realize his limitations and does not understand the enormousness of his task. In any case some degree of negative guidance becomes possible for the teacher who masters the literature of occupations. Such a teacher is at least able to say, with the "woman of national reputation" cited by Miss Roelofs in her study of household employment[1]: "After six years of investigation of women in industry I do not know what occupation to advise. I know what occupations I should not advise."

[1] The road to trained service in the household, p. 4.

V. SCHOOL USE OF OCCUPATIONAL MATERIAL.

In the preceding chapter the developing literature of vocations was reviewed. It was noted that through the various types of studies of occupations a considerable fact-basis for vocational guidance has been established. The purpose of the present chapter is to consider how the schools and the teachers may utilize this accumulating knowledge of occupations for the purposes of vocational guidance.

IN ESTABLISHING VOCATIONAL TRAINING.

Many of the studies reviewed in the chapter on occupations were undertaken in order to find a basis for adequate training. The first use to which occupational information is to be put, therefore, whether it was gathered for that purpose or not, is in the creation of systems of vocational education. From the point of view of vocational guidance all types of studies of occupations have value for vocational training. Vocational guidance is concerned in seeing to it that those who are planning vocational courses shall know, not merely the trades and the processes, but also the human-welfare side of industry, and that no attempt shall be made to train workers for occupations which investigations have shown are, humanly-speaking, not worth training for. Vocational guidance is concerned that health and other factors in industry shall be considered before plans for industrial training are adopted.

With vocational training recognized and established, it becomes an important school function to inventory the opportunities for training and make them known. It is of little help to the prospective worker to know what occupations are open to him unless he can at the same time be instructed as to where suitable training may be secured. Pioneer charting of this type was done by the Women's Educational and Industrial Union of Boston as early as 1910. The handbook issued in 1913 [1] forms a useful guide to the opportunities for training offered by public and private agencies in Boston. The effective arrangement of the book, particularly its double listing of schools and vocations, makes it a worthy example for other cities. A very useful charting was done by the Public Education Association of Philadelphia,[2] and still more recently the Cincinnati Chamber of

[1] Opportunities for Vocational Training in Boston. [2] Study No. 48.

Commerce has published a guide to training in Cincinnati. In connection with the Minneapolis survey of 1916 opportunities for vocational training were also inventoried, and the resulting chart of available agencies offers a useful beginning for occupational advice.[1]

IN GIVING VOCATIONAL INFORMATION.

There are four distinct methods of presenting vocational information to pupils: (1) Through vocational talks by representatives of the vocation; (2) through vocational pamphlets; (3) through the study of English, civics, and other school subjects; (4) through regular courses in vocational information.

Long before vocational guidance was recognized as a definite movement in education, the practice prevailed in many schools of having men and women who represented particular callings come in and describe their vocations. The value of the plan depends largely upon the individual speaker and the care with which details are worked out at the school. Some high schools have found that one successful way to handle this type of vocational guidance is to furnish the speaker with an outline, based on what investigation of occupations has shown to be the essential points. The worker in a given field usually knows it too intimately to give a clear description of it to a group of young people, and unless his statement is planned in advance by some one who knows what is wanted, the result is likely to be vague and more or less unreliable, the worker being prejudiced very greatly for or against the occupation by which he earns his livelihood. The outline frequently clarifies the speaker's thinking about his own vocation. Through it, furthermore, the teacher is able to lead his pupils to a comparison of vocations based on the same essential points. He can, also, discuss the talk with his pupils afterward, bringing out the important points. In this way the pupils get the benefit of the personality of the speaker and at the same time check up his information with such knowledge of occupations and industrial conditions as the teacher can contribute.

Vocational pamphlets.—In the preceding chapter some account was given of the vocational pamphlet material that has developed since the early days of the Boston Vocation Bureau. With the material now available and the successful examples already at hand to show what the form should be, almost any good-sized community should be able to issue vocational pamphlets. Books on vocations do not take the place of these convenient leaflets, which often have an influence quite out of proportion to the expense involved in preparing and printing them. Even when local leaflets are not available the teacher can render a service by getting leaflets that are already pre-

[1] Bulletin 199 of the Bureau of Labor Statistics, p. 116.

pared into the hands of the pupils. The popularity of the salesmanship leaflets of the private publishing houses[1] suggests that here is a field of practical guidance, almost untouched by the school, that could be entered with assurance of useful results.

Vocational guidance through English and other subjects.—The Grand Rapids plan of vocational guidance through English composition is described in detail elsewhere in this report.[2] It is essentially a common-sense attempt to introduce as content-material a mind of information that is important wherever introduced. It is recognition of the fact that English composition, like certain other school subjects, is a tool subject, and that children may as well sharpen their tools on useful things as on things that are of no use. In Grand Rapids the plan is systematized, so that one year the student is reading and writing on the lives of men and women who were conspicuous exponents of certain vocations, and another year he is building plans for his own career.

The value of such method of teaching vocational guidance will depend almost entirely upon how much the teacher knows of the world of occupations. The success or failure of such a course hinges on the teacher's knowledge of occupational material.

It should be noted that English is by no means the only subject through which vocational information can be imparted. It is difficult to find any school subject into which occupational information can not be introduced with resultant gain in vitality for the subject itself as well as for vocational guidance. History and social studies, especially, involve recognition of the world of industry and vocational adjustments. The problem, after all, becomes one of making school instruction part and parcel of real life instead of something apart. Arithmetic may just as well concern itself with the problems of modern industry as with those of an age that is gone or an age that never was. In the Buffalo vocational pamphlet on "Printing and the Allied Trades" Mr. Zurbrick suggests to boys in Buffalo schools, under the heading "Some problems in arithmetic," the following:

> In the city of Buffalo in 1899 there were 2,444 wage earners, and in 1909 there were 3,232, in the printing and publishing trade. At that rate of increase you can estimate how many men there would be at the time you read this book. Find out the number of new men it would require to make up this annual increase. For every 1,000 men about 30 drop out of the ranks annually from natural causes. Consider this also and determine how many new apprentices the printers of this city can use every year without interfering with the employment of those already in the trade. In your school library you will find a census report on occupations, and by the aid of this you can make the calculation of the number of new printers needed in any city in the country. About two-thirds of all the wage earners in these trades are compositors and pressmen.

[1] Such as "The Counsellor," for example, published by the Curtis Publishing Co.
[2] See p. 86.

In other words, information about the world's work is the proper content material for school subjects, and the prominent place the life-career motive occupies in the lives of all human beings justifies a much wider use of vocational information than most schools give. The war has intensified enormously the significance of this. The value of such content material will, again, depend upon the extent to which scientific studies of the occupations are used as the basis.

Courses in vocational information.—The formal course in vocations, or "the life-career class," as it has been termed, is used in many high schools where the correlation plan carried out in Grand Rapids is not possible. It can also be used to supplement and round out a plan of vocational guidance through English composition and civics or occupational correlations in all subjects. From this point of view it is a summary course designed to present to pupils a general view of the world of human service. The following outline for the study of a vocation in such a course is suggested by the National Education Commission on the Reorganization of Secondary Education:

OUTLINE FOR THE STUDY OF A VOCATION.

I. General statement concerning the vocation:
   1. Value of the vocation as a social service.
   2. Duties of one engaged in it.
   3. Number engaged in it in local community.
   4. Relative number engaged in it in general, with its probable future development.
   5. Relative capital invested in it.

II. Personal qualities demanded:
   1. Qualities of manner, temperament, character.
   2. Mental ability.
   3. Physical demands.

III. Preparation required:
   1. General education.
   2. Special or vocational education.
   3. Apprenticeship conditions.
   4. Experience required.

IV. Wages earned by workers:
   1. Range of wages made (table showing distribution of all cases).
   2. Average wage per week.
   3. Relation of wage to length of experience and preparation.

V. Length of working season, working week, working day, etc.

VI. Health of the workers:
   1. Healthful or unhealthful conditions.
   2. Dangers, accidents, or risks.

VII. Opportunities for employment:
   1. In local community.
   2. In general.

VIII. Organization of the industry, including the relations of the worker to his fellow workers, his employers, and the community.

IX. Status of the workers:
1. Opportunities for advancement.
2. Time for recreation and enjoyment.
3. Adequate income for recreation and the comforts of life.
4. Any other items of peculiar interest in this connection.

Lessons in community and national life.—One of the most promising attempts to present, either through the regular school subjects or in the life-career class, the underlying principles of social and industrial life has come directly out of the war. Impressed with the necessity for an understanding of the structure of modern society as a basis for intelligent cooperation in war-time activities, the Food Administration and the Bureau of Education arranged for the publication, monthly during 1917–18, of a series of "Lessons in Community and National Life." These lessons dealt with world-organization in relation to the special problem brought forward by the war. The material was issued in three sections, one for the intermediate elementary grades, another for the upper elementary grades and the first year of the high school, and the third for the last three years of high school. The first issue (October, 1917) contained lessons on "Some fundamental aspects of social organization," "The western pioneer," and "The cooperation of specialists in modern society." The self-sufficing frontiersman is compared with the modern man and the complexities of modern society. One lesson describes "The varied occupations of the colonial farm" in contrast with the factory method of to-day. Still another lesson is given on the work involved in feeding a city.

In the later issues vocations come in for special attention. The May (1918) issue contained lessons on the worker and the wage system, women in industry, labor organizations, and employment agencies. The lesson on employment agencies portrays the work of private employment agencies and of State and city public employment offices. It reviews the English experience with labor exchanges, before and after the war, and describes the expanded work of the United States Employment Service of the Department of Labor. The employment management movement is outlined and descriptions are given of employment departments in operation. These lessons have made it much easier than it was for teachers to grasp the important facts of economic and social organization, and therefore to teach vocations intelligently.

A GENERAL GUIDANCE PLAN.

It is possible to make use of several of the methods here suggested at one and the same time. From his experience in Middletown, Conn., Supt. W. A. Wheatley drew up an outline of guidance work that, while intended primarily for smaller centers, is applicable to almost any community. Mr. Wheatley's outline, somewhat briefed, was as follows:

1. In all the grades discuss the salient vocational facts found in each of the grade subjects, especially in literature, geography, and community civics.

(*a*) In geography, what cities or regions are noted for important productions and industries? What is the home city or region noted for? Discuss the more common occupations connected with these productions and industries.

(*b*) In civics make as concrete as possible the occupations of the various public officers and workmen.

(*c*) In all grade subjects it would be well to dramatize a number of the life careers found.

2. In all the grades, but more especially in the sixth, seventh, and eighth grades, base much of the English composition on the vocational interests, experiences, preferences, and expectations of the children.

3. In grades six, seven, and eight send letters to parents on educational and vocational guidance, together with high-school courses of study and explanations of what each course is intended to prepare for. Arrange conferences with teachers and parents of these pupils for mutual enlightenment, encouragement, and cooperation.

4. Besides the vocational enlightenment given sixth, seventh, and eighth grade pupils by their teachers, have the teachers of the vocational information course in the high school and the high-school principal talk with these pupils about their future.

5. Have pupils on entering high school express on their enrollment blanks their choice of a high-school course and, if possible, of a life vocation.

6. Take great pains in helping first-year high-school pupils select the right course of study and the right electives in that course.

7. Provide in the high-school library a large amount of helpful vocational literature for teachers and for pupils.

8. Throughout the high-school course have the English teachers base considerable composition work on the vocational interests, experiences, preferences, and expectations of the pupils.

9. Organize a survey of the city's vocational opportunities and limitations, getting whatever assistance possible from the (men's) local chamber of commerce and (the women's) social-service league or their equivalents.

10. Offer first and second year high-school pupils an elective course in vocations for which credit toward graduation is given. Make this course as vital as possible by means of visits to near-by farms, factories, stores, etc., talks on their vocations before the class by successful men and women, and by investigations of local and near-by vocational opportunities and limitations.

11. Devote an occasional assembly period to a talk on some interesting vocation by an enthusiastic man or woman engaged in this life work.

12. Encourage pupils to work Saturdays and vacations in trying out occupations which they think they might prefer for life vocations. Also, make use of agricultural clubs; have the boys who like woodworking assist the janitor or carpenter in minor alterations about the building; have the girls who are interested in nursing assist the school nurse; and those who are thinking of becoming teachers help the grade teachers in some of their work.

13. Organize a placement and follow-up bureau for pupils who wish to work afternoons, Saturdays, and vacations; for those who must leave before completing the course; and for those whose formal education is completed at graduation.

14. Arrange conferences with members of the third and fourth year pupils to discuss what they expect to do after leaving high school.

VI. ORGANIZATION OF VOCATIONAL GUIDANCE IN TYPICAL CENTERS.

As at present carried on the organization of vocational guidance varies widely from city to city. In Boston the private vocation bureau work has developed into a public system of bureaus and counselors working through teachers in the public schools. In Grand Rapids the plan of vocational information through English courses gradually extended and developed contracts with public and private agencies outside the schools. In New York a system of volunteer high-school committees on the one hand, and a series of labor exchanges on the other, are gradually working out into something that may eventually become a city-wide plan of guidance and placement, in touch alike with the schools and the industries. In Cincinnati a privately endowed vocation bureau has become the guidance, research, and placement office for the entire school system. In a number of smaller cities, especially in the West, the teachers have developed plans for guidance, suited to less complicated situations on the basis of experience in the larger places. Each community has its own special problem, but can usually find help in its solution through the experience of some other community of similar size and location. In order that the plans now in operation may be available in the briefest possible compass, descriptions of vocational guidance organization in typical centers are here given.[1]

BOSTON.[2]

Susan J. Ginn, Director of Vocational Guidance.

The Boston organization consists of a department of vocational guidance in charge of a director with two vocational assistants, one temporary vocational assistant, and two clerks. The Boston Placement Bureau, formerly financed by private funds, was taken over by the school committee in 1917.

The central office, in charge of the director, serves as a coordinating agency to bring together information about successful practices throughout the city,

[1] Much of the work is so new that printed statements are not available. Brewer gives the most recent information. The statements in this chapter are based mainly on correspondence, personal visitation, or recent issues of the Vocational Guidance Bulletin.

[2] For [illegible]ription of the Boston Vocation Bureau see ch. 2. This bureau was transferred in the fall of 1917 to the Vocation Bureau of Harvard University at Cambridge. Accounts of the Boston work are given in the reports of the superintendent of schools for 1915–16–17.

It has been described as a "clearing house for experimentation methods and ways and means." Under the auspices of the central office, conferences are held in which teachers from the high schools and elementary schools take part. The workers in the central office are engaged in three types of work—investigating occupations, giving counsel to pupils and working children who call at the office, and aiding in the placement of high-school students and graduates. Considerable educational guidance is undertaken by the department,[1] the theory being that with high-school attendance assured, the problem of the vocational counselors in the elementary schools becomes largely that of aiding the child in its selection of a high-school course.

Every high school and elementary school in Boston has vocational counselors. These are teachers who have had special training for counseling under the Boston Vocation Bureau, Harvard University, or Boston University. They serve without extra compensation.

In the Boston high schools there is a definite system of placement, coordinating through the central placement bureau. During the closing weeks of the school year, members of the staff interview personally each pupil in the graduating classes. In most of the schools two or three teachers are allowed part time for counseling individuals. Part-time work, especially in department stores and during the summer vacation, is utilized for guidance purposes.

CINCINNATI VOCATION BUREAU.

Mrs. Helen T. Woolley, director.

Three separate offices make up the vocation bureau of the Cincinnati public schools—the employment certificate office, the placement office, and the department of research.

The employment certificate office secures for each child the necessary birth record, health record, school record, and contract of employment required under thee child-labor law. It cooperates with the board of health in securing birth records from the bureau of vital statistics and health records from the district physicians. It cooperates with the department of attendance and the factory inspectors in enforcing the child-labor law.

The placement office is the agency for securing positions. It seeks to have the children come to its officer, the placement secretary, before they take the step of getting first positions for themselves. For each child who applies for help, the secretary secures a report from the school on scholarship, character, and personality. The schools have introduced a record card to be filled out by each teacher of the last four grades, so that the office may have the advantage of several independent judgments with regard to each child. In addition to this information the secretary secures as full a statement of family conditions as possible from each candidate. In cases where a laboratory test promises to be of use, the secretary can obtain it by request. After the child is placed the secretary secures from the employer a report on his progress each month for the first three months and at longer intervals afterward. If the employer has complaints to make the secretary summons the child to the office and confers with him about it. In many instances it is possible in this way to secure the attitude in the child necessary for success. If this does not prove possible the child is transferred to some other position, and the secretary tries to find a more suitable candidate for the employer. In attempting to straighten out difficulties and bring pressure to bear upon the child, the homes of many of the children are visited by a representative of the office.

[1] According to Brewer.

The distinguishing feature of the research department is the psychological laboratory, which serves as a child-study department for the public schools. The laboratory was originally established in the first place to investigate the problem of child labor. In addition, the laboratory has been carrying on the following activities:

(*a*) The laboratory has been designated as the regular channel for defective children. School principals who have children who are apparently defective refer them to the laboratory for mental examination. There are also observation classes that attack the problem of retardation in the first and second grades of school.

(*b*) Some of the children sent as defectives prove to be merely retarded. In many instances they are so badly retarded that they can be diagnosed as children of distinctly inferior mental capacity, who will never be able to profit by very much academic training. Such children always leave school as early as they are allowed. In view of these facts, the office has begun to recommend that mentally retarded children of 13 years or more be placed in industrial classes.

(*c*) An order has been issued that all candidates for the so-called opportunity classes shall be assigned through the office, on the basis of mental tests. The opportunity school is intended for children who have become retarded through causes other than mental inability. Such causes may be (a) illness, (b) lack of educational opportunity, or (c) kind of teaching unsuited to the child's temperament and interests.

(*d*) The schools have now begun to establish rapidly-moving classes for superior children. A mental test is one element in establishing superiority, and the vocation bureau makes the test.

(*e*) The laboratory is making a study of the students who fail in first-year high school.

(*f*) The laboratory has made a complete survey of one [redacted] of retarded children. These children had been selected by the teachers and principals from the fourth and fifth grades as overage, but not defective, children who could profit by particularly skilled teaching. It proved that about one-third of the class were high-grade defectives. These children were transferred to the school for defectives. About one-third were definitely inferior children who were recommended for industrial classes. About one-third were normal children who had been retarded by illness, irregularity of attendance, poor advantages in earlier years, overwork outside of school hours, or exceedingly bad living conditions. For the latter group the skilled teacher is expending most of her effort. The assistance of social agencies, such as the Anti-Tuberculosis League and the Big Brothers Association, has been called into play, and every effort is being made to retrieve the educational retardation of this normal group.

(*g*) In one instance a survey of a small school was made. Not every child in the school could be tested, but a sufficient number to indicate the nature of the problem which the school had to meet. Although situated in a fairly good residence suburb, there was a great deal of educational retardation in the school. It proved that there was comparatively little mental retardation among the children. Since home conditions in the district were fairly good the conclusion suggested was that the fault lay with the school. The teaching in some of the grades had been poor, the standards in many instances unreasonably rigid, and the teaching force unprogressive. The school is being reorganized and modernized.

(*h*) Many children are referred to the laboratory by private agencies with requests for advice as to an educational program. The Jewish Charities made a systematic study of its children. Other agencies for whom children and

adults have been tested are the Juvenile Protective Association, the Juvenile Court, the Anti-Tuberculosis League, the Children's Home, the State-City Labor Exchange, the Bureau of Catholic Charities, and the Associated Charities.

GRAND RAPIDS, MICH.[1]

Jesse B. Davis, principal, Central High School.

Seventh and eighth grades.—The vocational guidance work of the seventh and eighth grades is taught in connection with English and geography; and all of the exercises are for composition, either oral or written. They cover such subjects as occupations, simple biography, and the value of an education.

Some of the subjects under the study of occupations are the following: (1) The study of a home occupation; (2) this occupation compared with the same occupation in foreign countries; (3) the account of a trip through some manufacturing plant, office building, or store.

A few subjects under the study of biography are these: (1) The life of a successful celebrated person (usually read to the class by the teacher). (2) The life of a successful person whom the pupil knows. (3) The life of the pupil himself.

Sample subjects that may follow the pupil's life are as follows. (1) How I earned my first money; (2) how I spend my Saturdays; (3) my first real work.

To show the value of an education the following subjects are used: (1) A talk by some young person who has returned to school after being out for a period, on "Why I left school," or "Why I came back to school;" (2) what people I know say about the value of an education; (3) what I could do if I left school now; (4) what other young people have done who have left school at the end of the eighth grade; (5) wages of eighth-grade graduates compared with the wages of high-school graduates.

Ninth grade.—In the ninth grade the study becomes personal, and enters into more elaborate biography. Typical exercises are as follows:

My ancestors: Where they came from; why they came to this country; whether or not they had to contend with hardships; what they have done here.

My parents: Early life; hardships; occupation, its difficulties and advantages. What have they done for their children?

Myself: My childhood; my school life; any uncommonly good fortune, or bad, that has befallen me; my pleasures; my favorite studies; my ambitions; my health, etc.

Among the biographies most used in this grade are those of Helen Keller, Jacob Riis, Booker T. Washington, Phillips Brooks, Jane Addams, Alice Freeman Palmer, Mary Lyon, and Thomas Edison.

Tenth grade.—In the tenth grade a number of occupations are listed at the suggestion of members of the class; then each pupil presents one orally, or in written composition, helped in his preparation by means of an outline. Sometimes this offers opportunity to do research work. One girl listed 350 occupations for women, and the salaries paid each. Her method was to take the lists of the telephone directory and call up the people whose names she found, and then to ask what she wanted to know. Ingenuity will invent other methods. Others obtained their facts from relatives or friends who knew the occupations.

In the second half of this year some of the pupils will be ready to study some occupation that they expect to enter. An outline is usually given by the

[1] This description is based on the statement in Educ. Bul., 1917, No. 2. Some changes have since been made in the plan.

teacher to aid the pupil in his investigations. The following is an example: My own vocation—(1) Origin or history, (2) modern conditions (as in preceding outline), (3) good points and bad points (degree of independence, permanence, importance, remuneration—money or pleasure in the work itself, or in social returns), (4) how to enter it (preparation, cost, length of time, for study), (5) characteristics necessary to success.

Eleventh grade.—In the eleventh grade preparation for vocations is considered. Schools and colleges are studied—the industrial, professional, and purely literary schools; art schools, manual training schools, schools for physical training, etc. Each pupil is expected to take a special interest in some school and look it up through its catalogues and by interviews with graduates, and compare it with other schools of the same kind. The small college versus the large, coeducation versus separate schools for men and women, eastern colleges versus western, native versus foreign—all of these are used as subjects for discussion and debate. The subjects required for college entrance and other conditions are ascertained and pupils' own programs inspected to see whether their own work is properly mapped out to satisfy the colleges.

In the second half of the year the ethics of the vocations are considered. Girls who are not going to college and have no special choice study problems of domestic life—the relation of mistress and servant, expenditure, treatment of clerks in the stores, proper dress, and buying good articles in providing household supplies. Those who have definite plans consider the moral codes of the professions and business life. Here are debated the ethics of the Consumers' League, Anti-Saloon League, and other leagues for the betterment of social conditions.

Twelfth grade.—When the occupations of the business and professional world have been studied, some effort is made to single out for special study those which are distinguished as supported by and for the people because they are necessary for the public wellbeing and the betterment of society. Public institutions maintained by taxes supply subjects for the first half year, and those maintained by subscription for the second. At the close of the year the student prepares a manuscript based on his reading, visits to institutions, and interviews.

NEW YORK.

Three of the plans of vocational guidance in New York are as follows:

The Vocational Guidance Association of Brooklyn.[1]—The Vocational Guidance Association of Brooklyn was organized for the purpose of encouraging the boys and girls of Brooklyn "to increase their efficiency and earning power." Three standing committees were constituted: A committee on vocational education to encourage the development of facilities for practical instruction; a committee on vocational guidance to collect and disseminate information in regard to opportunities for profitable work and the training which is required for success in the most promising employments; a committee on placement, to determine by experimental work the best methods of developing the machinery for connecting the training schools with the industries.

In January, 1916, the placement committee employed a special agent. The committee decided to select a few typical schools to carry on some experiments to determine the possibility of making the students leaving schools direct connection with employing agencies without any loss of time or waste of energy

[1] "Vocational guidance through the school." Printed for the association by the boys of the Ben Franklin Club of the Boys' High School, Brooklyn, N. Y. (1917).

and to eliminate the deteriorating effects of drifting about from one employment to another and to determine the best methods of providing for supervised employment for young people in their immaturity. The principals of the schools were advised of the intentions of the committee and after they had accepted the proposed plans, application was made to the educational authorities for permission to undertake active operations.

The following is a report of the vocation office for October, 1916:

Prescriptions for new applicants, boys, 63; girls, 42; total	105
Placed in positions, boys, 57; girls, 28; total	85
Replaced to enlarge experience, boys, 6; girls, 14; total	20
New employers interviewed during the month	19
Homes visited to persuade parents to keep children longer in training	4
Meetings and conferences held	3
Special employment reports prepared	2
New members enrolled, associate, 6; active, 52; total	58
Special plans for continued education	22
Vocation bulletins sent to inquirers	84
Total placements to date	782

The trade extension rooms.—What is known as the "trade extension rooms" began in February, 1915, through the establishment of cooperation between the Julia Richman High School and the Manhattan Trade School on the one side and a number of agencies interested in working women on the other. Beginning with the intention of furnishing to unemployed office assistants and trade workers a profitable use of unemployed time, later the undertaking developed into an experiment whereby inexperienced and untrained girls were given special work tests designed to show individual adaptability to various trade processes and further aid of academic tests and physical examinations. The results of these tests were studied for the purpose of guiding the individual in further educational and vocational development.

During the month of April, 1915, a series of vocational and physical tests was instituted, based on investigations made by Thorndike, Ayers, and others. By September, 1915, tests for the commercial department included the following divisions:

(*a*) *Elementary scholastic tests.*—Penmanship, spelling, arithmetic, English.

(*b*) *Technical subjects tests.*—Stenographic dictation, typewriting, bookkeeping.

(*c*) *"Psychological tests."*—Attention, substitution, habit formation, "general intelligence," etc.

In the industrial department the tests consisted almost entirely of graded work processes from the needle, machine operating, and pasting trades. In both departments the results indicate a very definite relation between the general intelligence and special fitness of a girl for the work in question and her performance during the tests.

Since February 1, 1917, groups of pupils in the eighth grade of the elementary schools of six districts have spent full time for a period of two weeks in rotation, doing the graded work prepared for them at the trade extension rooms. During the term approximately 1,000 children will have been submitted to the tests. The work is expected to serve as a practical try-out of the children's capacities for various kinds of office and trade work. As these tests become standardized, so that the pupils' responses to them may be interpreted with facility and with confidence, they should properly be adopted by the schools themselves. In the meantime the experience the pupils obtain is of undoubted value for the purposes of vocational guidance.

Over 30 employment bureaus and settlements are now cooperating with the trade extension rooms, and the list of affiliations is steadily growing.

Public Schools Numbers 12 and 147.—The work with the children in these schools is conducted under the supervision of the House on Henry Street, a short distance away. Both schools are in the heart of the lower east side, the one for girls and the other for boys. The Vocational Guidance Bureau is an outgrowth of the activity of the mayor's committee on unemployment, organized at a time when it became necessary to afford relief to the children of the striking garment workers, in the spring of 1916.

A worker from the House on Henry Street examines the pupils' record cards and selects the names of those who will be 14 years of age or over during the school term. The cards of these children are made the subject of special study, the child is interviewed, home conditions are inspected, and a complete history of each individual is obtained. As often as becomes necessary, a conference of teachers of these children is called for the discussion of traits and aptitudes as well as future educational or vocational plans. Then the parents are consulted and the child is advised in the matter of the choice of a high school or of a vocation, in certain deserving cases scholarships being offered to enable the child to continue in school.

CHICAGO.

The Chicago Vocational Bureau was established in 1911 by the joint committee for vocational supervision, a committee organized by the Chicago Woman's Club, the Woman's City Club, and the Association of Collegiate Alumnae.

In 1913 the executive board of the joint committee was enlarged to include representatives from the vocational committee of the City Club, the Chicago Association of Commerce, the Chicago Woman's Aid, and representatives of industry. The first year, one worker was employed by the committee to make a study of industrial conditions and to advise and place boys and girls leaving school. At a later date another worker was added. From 1913 the staff of the vocational bureau numbered four workers. The salaries of two were paid by the joint committee, the third by the Chicago Woman's Aid, and the fourth by the Chicago Association of Commerce.

In March, 1913, the board of education took over the bureau to the extent of providing an office with clerical assistance and telephone service. In March, 1916, the board of education took over the bureau entirely, and has appointed two vocational advisers.

The definite and immediate purposes of the vocational bureau as thus established are:

First, To study industrial opportunities open to boys and girls with respect to wages and the requirements necessary to enter an occupation; the age at which beginners enter the occupations; the nature of the work; the chances for advancement and development—in short, to gather the greatest possible amount of information regarding industrial conditions, in order to advise boys and girls and to give them a start in their careers as workers.

Second, To advise the children about to leave school and to urge them to remain in school when possible.

Third, When every effort to retain them in school has failed, to place in positions those children who need assistance in securing employment.

Fourth, To follow up and supervise every child who has been placed, advising him to take advantage of every opportunity for further training.

FALL RIVER, MASS.[1]

The work of vocational guidance was started at the Technical High School in 1915–16.

The following outline gives the principal directions in which beginnings have been made:

(*a*) Instruction of teachers.
(*b*) Introduction of the study of community civics and occupations.
(*c*) Placement and follow-up of pupils at work.
(*d*) Educational and vocational advice.
(*e*) A study of reasons for leaving school.
(*f*) A study of graduates who have attended higher institutions.
(*g*) Attempts to adjust the work of the school—
  (1) To meet local industrial needs.
  (2) To provide prevocational training.

Instruction of teachers.—Early in the current school year a member of the Harvard faculty was invited to address the teachers of the school on the subject of the aims of vocational guidance. This meeting was designed to encourage all the teachers to devote more thought to the possibilities of giving the present curriculum such a trend as to bring about a wiser choice of vocations on the part of the pupils. Discussions in faculty meetings followed from the interest aroused at that time and immediate results were secured in several departments. This was particularly true of the English and history departments and of some of the shop, household economics, and science courses. Later in the year another speaker was invited to address the faculty on the same subject, and the matter was kept alive by discussions and by encouraging teachers to visit schools where work of this kind is being carried on.

Introduction of the study of community civics and occupations.—All first-year classes are required to take a course in community civics, in which considerable stress is laid upon study of vocations.

For several years members of commercial geography classes have been asked to prepare a long paper on "The history of my father's vocation."

Various endeavors have been made by the school and by local organizations with a view to assisting students in making a choice of a higher institution or apprentice course. Under the auspices of the Fall River branch of the Association of Collegiate Alumnae, a pamphlet has been prepared which gives information concerning collegiate opportunities within the reach of young women who graduate from the Fall River high schools.

Each member of the graduating class has had one or more conferences with the principal or with a teacher who has been delegated to do this work. Advice has been given as to the choice of a college or of an apprentice course, and in some instances changes have been made in the pupils' program to insure the right kind of preparation for the course elected. Conferences are being held now with all members of the third-year class in order to determine whether they should change to the Classical High School for the last year of preparation, or what course should be pursued if they are to remain in the Technical High School.

Throughout the year frequent conferences have been held with students in every class, and whenever the case appeared to warrant it changes in individual programs or adjustments have been made immediately. The utmost freedom has been exercised in changing pupils from one course to another where it was obvious that the failure was due to lack of talent for the work and not to laziness or inattention.

[1] From a paper by Roy Kelley, formerly principal of the Technical High School, now director of the vocation bureau, Harvard University.

A study of the reasons for leaving school.—When pupils are absent for any length of time, or signify their intention to leave school, every effort is made to discover the real reason for leaving. Parents are urged to come to the school to talk with the principal or with the teachers whenever it appears that there is any likelihood of keeping a student in school.

Pupils entering higher institutions.—The Technical High School aims to discover the pupil to himself. It provides opportunities, both mental and manual, by which the pupil can test for himself his fitness and liking for the various openings in business and industrial life.

POMONA, CAL.

L. W. Bartlett, director of vocational guidance.

Vocational guidance as organized in the schools of Pomona, Cal., is based on the belief that if education is a preparation for life the essentials of vocations in which the pupils will find life should be emphasized throughout the entire period of preparation. To this end an effort has been made to bring industrial information into the lower grades through stories of industries, talks by representatives of vocations, etc.

The personal element is stimulated by means of a record card, which is used throughout the grades. Upon it are entered such items as qualities, aptitudes, environment, use of spare time, health, after-school plans, etc. The information for this large card is obtained from smaller cards which teachers fill out for all pupils every year and from personal interviews with the pupils.

In the high school speakers address the student body or groups of students, and in other ways the life motive is kept before the students.

To assist the pupil through this period a course in life career is given in the ninth year; and because many of the pupil's problems are individual each is given a personal interview.

There is another phase of vocational guidance in the Pomona schools that is meeting with good results. A great effort is being made to prevent the leakage from the schools. The problem is not so much to find jobs for those who drop out as to hold the pupils in school until better prepared for participation in vocational life. To this end each pupil who is thinking of leaving or who does leave is interviewed in an attempt to right the misunderstanding which is often the cause. Many are thus saved.

VII. RECENT ENGLISH EXPERIENCE AND ITS SIGNIFICANCE FOR THE UNITED STATES.

The present study has concerned itself almost wholly with vocational guidance and the public schools in the United States. Except for incidental mention the foreign developments have been disregarded, the system abroad having been carefully described in a previous bulletin of the Bureau of Education.[1] Recent English experience, however, has been so important and so illuminating in its lessons for the United States that a separate discussion will be given to it in this chapter.

On July 25 and 26, 1917, a conference was held at the Board of Education office in London on the Choice of Employment Act.[2] Those present included representatives and officers of local education authorities exercising or likely to exercise the powers conferred by the act. The object of the conference was—

> to consider the need for extending the work carried out under the act, which empowers local education authorities to make arrangements for giving to boys and girls under 17 years of age assistance with respect to the choice of suitable employment, by means of the collection and the communication of information, and the furnishing of advice.[3]

An all-important problem.—In his introductory address the Hon. H. A. L. Fisher, president of the Board of Education, described the problem before the conference as one of the most important in the whole sphere of educational endeavor. He said:

> There are, of course, some districts in England where this problem of drafting school children into industry solves itself. There are some towns where there is a predominant industry which naturally absorbs all, or the greater part, of the available child labor. The factory gates are open; industry is almost hereditary, and there is a constant and unimpeded flow of child labor from the schools into the factories.
>
> Whether this automatic process be desirable or not, I do not pretend to determine. But these districts are in a minority. In a very large part of England there is a great body of child labor which may be diverted either into this channel or into that channel according to the presence of a directing agency, and it is a matter of vital social importance that in every district

[1] Bloomfield, The School and the Start in Life. (Educ. Bul., 1914, No. 4.) See also the same author's Vocational Guidance of Youth.

[2] The English juvenile employment work is organized under two acts: The Labor Exchange Act of 1909 and the Education (Choice of Employment) Act of 1910. For the text of the two acts see Bloomfield, The School and the Start in Life.

[3] Great Britain, Board of Education. Papers read at a conference on the Choice of Employment Act. (Circular 1012, p. 3.)

where these conditions prevail there shall be an intelligent and watchful agency prepared to divert labor into those channels of work which are likely to be most fruitful, and to divert it from channels which lead nowhere and are likely to be barren.

The schools and the war.—Mr. Fisher emphasized the need for enlightenment of all classes of the public as to the value of education. He showed how industry had made inroads upon the schools at the outbreak of the war:

> At the beginning of the war, when first the shortage of labor became apparent, a raid was made upon the schools, a great raid, a successful raid, a raid started by a large body of unreflecting opinion. The result of that raid upon the schools has been that hundreds of thousands of children in this country have been prematurely withdrawn from school, and have suffered an irreparable damage which it will be quite impossible for us hereafter adequately to repair. That is a very grave and distressing symptom. We even find magistrates up and down the country giving the weight of their authority to the proposition that children of 11 years of age may be safely withdrawn from school and drafted into industry on the ground that industry is a matter of national importance, and with the implication that education is not a matter of national importance.

THE WORK IN YORK.

Under the title of "Five Years' Work and Its Results," D. S. Crichton, chairman of the York juvenile employment committee, gave an account of the work in York since the opening of the Juvenile Employment Bureau in 1912. Mr. Crichton described the conditions in York and the functions of the Juvenile Employment Bureau as follows:

> The population of the city of York is 82,282, of whom 14,193 are in attendance at the elementary day schools. The outflow of children from the schools is about 1,300 annually, so that there are about 4,000 children between 14 and 17 years of age in the city. The bureau is the means whereby the school system and the industrial system are to be linked up; its essential duty is to guide the school-leaving children with a view to their industrial employment. Its particular functions may be stated as follows:
>
> (1) To advise boys and girls as to what work they are fitted for by their ability, tastes, character, and education.
> (2) To supervise, if necessary, the young worker after he is placed.
> (3) To give advice and information to children as to a proper course of further education.
> (4) To gather information about local industries upon which to base advice to applicants for employment.
> (5) To register applicants and bring them into touch with employers.

Work of the bureau.—Between 1912 and 1917 a total of 6,221 candidates for employment were handled by the bureau. Of the applicants, 3,088 made application either immediately on leaving school or within a year thereafter. The total number reported leaving school was 5,258, so that approximately 58 per cent of those leaving school sought work through the agency of the bureau. Mr. Crichton

points out that in more than 2,000 cases a parent accompanied the child in making inquiries about employment.

Some of the special investigations made by the York committee were as follows:

1. Inquiry as to which occupations are responsible for throwing boys of from 17 to 21 years of age on the labor market.
2. Employment of school children out of school hours.
3. Inquiries into the industrial careers of boys in relation to their standard of educational attainment.
4. Inquiries into the careers of applicants for employment who have reached the age of 16 years.
5. Juvenile employment after the war.

The conclusions reached by Mr. Crichton from the work in York are that the plan has undoubtedly given children and their parents better facilities for obtaining good employment; that it has, in general, satisfied the employers; that it has established lines of communication between the employers and the school authorities; and that it has become to a considerable extent an "intelligent department with regard to the requirements of adolescents and the possibilities of meeting these requirements."

THE AUTHORITY AND THE JUVENILE.

Duplication of authority in handling juveniles, and the ineffectiveness of optional provisions, were the main points in the paper read at the conference by Spurley Hey, director of education for Manchester. His contribution included a report of the Manchester inquiry into the out-of-school employment of school children and a suggested program for reconstruction.

Suggestions for reconstruction.—As the result of his experience with juvenile employment plans in three cities, Mr. Hey makes the following suggestions:

(1) That there should be one central authority (the Board of Education) and one local authority (the local education authority) for all matters relating specifically to the general education and training of juveniles from 3 to 18 years of age.

(2) That the powers of educational control and supervision now possessed by the home office, the local government board, the board of trade, in respect of such juveniles should be transferred to the Board of Education.

(3) That the transference of educational powers from certain Government departments to the Board of Education should be followed in the local areas by a similar transference of control and supervision to the local education authorities.

(4) That the adoption of the Education (Choice of Employment) Act, 1910, should be made compulsory upon all local education authorities.

(5) That the juvenile advisory committees, at present in operation, should be abolished or merged into choice of employment schemes.

(6) That choice of employment committees should, as a part of their duties, be required to formulate and carry into effect schemes for aftercare.

(7) That any new legislation set up to deal with day-continuation schools should be compulsory in character and subject to the administration of the Board of Education and the local education authority.

(8) That some development of evening-play centers is desirable on behalf of children who have left the elementary school, that such development should be on the lines of clubs, and that such facilities will be especially needed upon the introduction of any scheme of part-time compulsory day continuation classes.

(9) That legislation should be introduced making it illegal to employ children systematically for wages before 14 years of age; or, in the alternative, that the adoption of sections 1 and 2 of the Employment of Children Act, 1903, should be made compulsory upon all local education authorities.

UNDESIRABLE EMPLOYMENTS.

"The wider and deeper one's knowledge of trades and occupations becomes, and the more experienced one is in placing boys and girls in situations, the less one is inclined to make sweeping condemnations of particular employments or unqualified approval of others," Mr. H. Norwood, of the Birmingham central care committee, in his paper on "Undesirable Employments." Mr. Norwood described the more usual adverse features of employments under the heads of (1) Repetition work; (2) warehouse work, etc.; (3) errand and messenger boys; (4) dirty trades and occupations; (5) heavy work; (6) seasonal trades; (7) overcrowded employments; (8) miscellaneous undesirable employments.

"*Repetition work.*"—In Mr. Norwood's observation the worst feature of present-day juvenile employment is that "such a vast amount of it involves no graduated training over a reasonable period of time"; that most of the work is so limited in scope and monotonous in operation as to stunt growth. Mr. Norwood showed how necessary it is to be constantly warning parents of these facts, giving it as his opinion that "there is no more acute problem and no more discouraging experience to the juvenile employment office" than that of the constant stream of boys and girls 16 to 18 years of age who, having reached the end of their cheapness to employers at merely mechanical processes, come back to the employment office for new jobs.

Education through work.—Mr. Norwood concludes with a plea for more general recognition of the educational effects and possibilities of the boys' and girls' work. He says:

> We are too apt to regard schooling as education and education as finishing with schooling, which, of course, is not the case. Properly considered, the boy on going to work changes the sphere and the means of his education. Some employments are much better than others from this point of view, but none is without effect. I hope that when the day part-time schools come, a determined effort will be made to secure the interest of the employers in the schools, and surely it is inconceivable that the school authorities will be indifferent to what

the pupils are doing in the works. The best can not be done for the boys and girls unless there is close coperation between the two, and coordination, so far as may be, between the education in the school and in the works. With a recognition of the bearing of the one on the other, and of both on the development of the powers of the boy, we may hope to see much-improved and better-planned schemes of training in the industries, whether apprenticeship in a modified form is revived or not, and we may further hope to see a saner regard for the physical, hygienic, and moral conditions in the works.

Demobilization and the juvenile workers.—The remaining papers at the conference were given over to the perils of demobilization, aftercare, and the application of the choice of employment act to rural areas.

In his paper on the perils of demobilization R. A. Bray, chairman of the London juvenile advisory committee, dealt with three questions: (1) Effects of the war on juvenile employment; (2) the problem of demobilization; (3) the part to be played by juvenile employment committees in assisting boys and girls to pass through the demobilization period with a minimum of danger.

Juvenile employment and the war.—Mr. Bray describes the war situation as it affects juvenile employment in the following words:

(1) With industry mobilized for war there has been a great change in the distribution of occupations among juveniles. Boys in numbers far beyond the ordinary have entered engineering shops and are engaged in producing munitions. Girls are similarly employed, and are also replacing boys in office and messenger work, while they have largely forsaken the ordinary women's occupations, such as dressmaking, millinery, and domestic service.

(2) There has, on the whole, been some decrease in the opportunities for training in the workshops. Boys and girls who would in ordinary times have entered an occupation with good prospects of learning a trade are taking up employment altogether uneducative. On the other hand, boys who would have become messengers and office youths are now engaged on work which, from the standpoint of education, is certainly not less, and possibly more, valuable than their normal employment.

(3) It will certainly be found that in the long run the health of the juvenile worker has suffered. Apart from the unsuitability of many of the new occupations, the long hours and the frequent night work of those engaged on munitions are a serious strain on the boy and the girl.

(4) The war has made life very difficult for the youthful workers, and their character has suffered.

Demobilization.—For juvenile workers demobilization will render change of occupation necessary on a large scale, in Mr. Bray's view. Mr. Bray anticipates that in certain districts a third or even more of the boy and girl workers will be discharged and forced to seek new employment. He foresees particularly the following dangers that must be recognized and met:

(1) There will be the danger of juvenile unemployment on a large scale, with the demoralization that necessarily accompanies such unemployment.

(2) There will be difficulty in boys who have been engaged on munitions obtaining employment. On the one hand, employers, familiar as they are with

the lack of training and the absence of discipline which distinguish such boys, will be reluctant to engage them. On the other hand, the boys themselves, accustomed as they have been to high wages and to a practically unlimited demand for their services, will not readily accept employment at the lower rates of wages which must necessarily follow the termination of the war.

(3) There will be danger of the boys and girls, if left without assistance, taking up work for which they are not best suited. On the one hand, there will be the tendency in accentuated form to judge the value of a vacancy by the pecuniary advantages offered. On the other hand, in the case of those who may be experiencing the pinch of economic pressure, there will be the tendency to accept the first work that offers in order to start earning at the earliest possible moment. The danger of unguided choice during demobilization is serious.

(4) There is the danger to the children leaving school during the period of industrial dislocation following the war.

Measures to meet the dangers.—Mr. Bray gives an elaborate analysis of the measures that will be necessary to meet the perils of demobilization as they affect juvenile workers:

(1) The first essential in all preparation lies in the task of securing in every district an active juvenile employment committee.

(2) The first duty of an active committee will be to enlist the services of a body of volunteers drawn from the chief social organizations in the district.

(3) Preparation for dealing with the problem of demobilization requires the establishment of close relations between the juvenile employment committees and the employers. Each committee should, in cooperation with the employment exchange, organize systematic visiting of the employers of the district.

(4) Relations should be established between juvenile employment committees and the welfare and health section of the ministry of munitions.

(5) During demobilization every effort should be used to induce children, free to leave school, to continue in attendance.

Leaflets should be issued to teachers explaining the consequences following a dislocation of labor on a large scale, the difficulty of children obtaining suitable employment, and the uncertainty of obtaining employment at all.

(6) Juvenile employment committees must have ready prepared a definite scheme for dealing with the large numbers of boys and girls who will be displaced.

VIII. SUMMARY AND CONCLUSIONS.

Vocational guidance as a modern movement has been traced in this report through the educational meetings of the past dozen years, through the more important studies of school leaving in relation to employment, made usually with vocational guidance motives, through the developing literature of the occupations, which has made available the kind of information necessary for reliable vocational direction, and through the concrete efforts to set up adequate machinery for vocational guidance in a number of communities.

Those who have watched the vocational guidance movement have seen it broadening out until, originally signifying little more than the giving of limited counsel to individual seekers for employment, it has come to mean an important program affecting fundamentally both education and industry. Educationally, vocational guidance is bound up with vocational training, prevocational education, continuation school work, the cooperative plan of half-time work, the Gary plan, and the junior high school, and, like most of these, it presupposes a complete remaking of education on the basis of occupational demands. Industrially it involves placement, employment supervision, specific attention to such problems as labor turnover in industry, and the education of employers and the public to the possibilities of guidance as a public function to be carried out through the school.

The studies of school leaving and employment were considered in some detail in this report, because it is largely from them that the vocational guidance movement derives its inspiration. These studies are in entire agreement in showing that the untimely entrance of boys and girls 14 to 16 years of age into industry is due mainly to dissatisfaction with school and to economic pressure, the latter cause occupying a much less important place than popular opinion assigns to it. Both causes suggest the school's responsibility and opportunity in guidance. They indicate the need for educational guidance that will keep the boy and girl longer in school; they call for a modification of school programs and school methods and an expansion of continuation school work; they imply the need for a still more general form of vocational enlightenment that will make parents and children see that inability to "afford" adequate education for life is on a par with inability to pay for proper food, cloth-

ing, and shelter to maintain health. The studies of school leaving and employment are further in agreement in showing that with few exceptions the occupations open to boys and girls 14 to 16 years of age are of the sort that provide no advancement beyond the lowest living wage.

The need for guidance established, the next step was constructive studies of the occupations. Census material was interpreted and utilized; vocational pamphlets were prepared after consultation with employers and workers and after investigation of the occupations. Federal and State Governments and private foundations published studies of conditions in the trades. Later, vocational surveys, made to secure a proper basis for a program of vocational training, began to go into the analysis of occupations and processes, thus furnishing invaluable material for an understanding of the requirements for positions. This has led to a wealth of reliable information in accessible form superior to anything available before, and has made possible an approach to industry by the school that would have been inconceivable a few years ago.

School use of this newer vocational material is a problem on which vocational guidance is now working. At least four direct methods of presenting vocational information to pupils are recognized—through vocational talks, through vocational pamphlets, through English and civics classes, and through the "life-career class" in vocations. More important still is the utilization by the school of occupational data as the basis for curricular adjustment and content material in all subjects, from the lowest to the highest school grade.

Examination of guidance plans in typical communities shows little uniformity. In Boston, vocational guidance under private auspices furnished pioneer training, research, and propaganda service, leading to the establishment of what is now a fairly complete organization of guidance as part of the public-school system, under a qualified director. In Cincinnati research has remained the dominant note. In New York, volunteer agencies have been largely depended upon, and the emphasis has been upon placement. Grand Rapids continues to serve as a model for many communities, the plan for vocational information through English courses being adaptable to nearly every type of school system. Chicago has taken over officially the placement work formerly carried on in cooperation with philanthropic agencies. Boston is still the only city of any size that has a vocational counselor in every school.

CONCLUSIONS.

A survey of the field leads to the following conclusions:

1. Vocational guidance in the public schools is not to be confined to individual counseling by a vocation bureau or by a teacher, but is

to be regarded as a movement having as its purpose a better distribution of human service. It implies broadening the program of studies to include a systematic study of the industrial organization of society. "The thought of vocational guidance must live in every phase of educational work from its earliest beginnings."

2. Study of individual aptitudes has made relatively slow progress. Vocational psychology, while of high promise to the vocational guidance movement, is not yet regarded, even by psychologists, as of much direct value in any system of vocational guidance for schools.

3. It is in the field of occupational information that most progress has been made. The important developments in this field have made possible a variety of successful plans for imparting vocational information to pupils in school.

4. The most hopeful next step in guidance work is the interesting of teachers in the world of occupations. A program of vocational guidance for any school system implies teachers who are familiar with the history of modern industry, who have studied social movements, and who believe in the worthiness of all human service. Teachers are logical agents of society in making its work known.

5. The general public will need to be educated to the importance of schooling, and particularly to the necessity of differentiated courses. Employers and labor leaders will need to be utilized as cooperating factors in bringing the school and industry together in such a way as to result in better industry and a better school.

6. Systems of vocational guidance for large cities will usually grow out of vocational education, though they should not be allowed to be subordinated to it. An assistant superintendent or a special director should be in charge and should have considerable latitude in regard to making suggestions for other departments of the school system. In smaller cities vocational guidance will be one of the chief functions of the superintendent.

7. Communities initiating systems of vocational guidance should be particularly careful to use the services of existing social agencies. Vocational guidance touches so many phases of human life and labor that practically every social agency can make some contribution to it.

8. Vocational guidance has special significance for the United States in the light of problems raised by the war. Notwithstanding the repeated warnings given by England and France, entirely too many boys and girls are leaving school to go into industry because of the lure of high wages. The school should do its best to keep as many as possible. Over those who go into employment it should exercise supervision, following them up in the hope of reclaiming some of them for education when the war employment is past. The school can route many of the boys into more permanent lines of work, and can emphasize the value of training both for temporary

war service and for the reconstruction period after the war. To help effectively in this movement the schools must establish contacts few of them now have with labor unions, employers, and the general public. It is only by being thus equipped that the public schools can take the leadership in a movement as fundamental as that for vocational guidance, which has within it the possibilities for a complete reorganization of industrial and social life.

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Detailed statistics, with graphs.

12. Material on Occupations.[1]

Abbott, Edith. Women in industry. New York, D. Appleton & Co., 1916.

A comprehensive history of the employment of women from the earliest times to the present. Important background book for vocational guidance.

Allen, Frederick J. Business employments. Boston, Ginn & Co., 1916. 218 p.

Emphasizes choice of vocation as a life investment. Dissects business organization and analyzes the various occupations in manufacture, trade, and finance. Very specific and practical.

American Academy of Political and Social Science. America's interests after the European war. Philadelphia, 1915. (Annals, Vol. 61, September, 1915.)

A symposium on industrial problems, including guidance in industry.

——— The employment manager movement. (Vol. 65, No. 154.)

Ayres, Leonard P. Constant and variable occupations and their bearing on problems of vocational education. New York City, Division of Education, Russell Sage Foundation, 11 p. 8°. (Russell Sage Foundation. Pamphlets E 136.)

——— Studies in occupations. In National Vocational Guidance Association. Papers presented at the organization meeting, Grand Rapids, Mich., October 21–24, 1913. Washington, Government Printing Office, 1914. p. 27–30. 8°. (U. S. Bureau of Education. Bulletin, 1914, No. 14.)

——— Some conditions affecting problems of industrial education in seventy-eight American school systems. New York City, Division of Education, Russell Sage Foundation. Pamphlets, E 135.)

A study of the occupations of the fathers of American boys. Helpful in an understanding of occupation distribution. Also in Bloomfield's "Readings."

[1] This is a narrowly selective list. It aims to include on the one hand such studies of occupations as will help teachers to get a view of industrial conditions, especially as revealed in rather inaccessible special reports and, on the other hand, such of the books on vocations written from the vocational guidance viewpoint, as are most useful and reliable.

Barnes, Charles B. The longshoremen. New York, Survey Associates, 1915. 287 p.

A sympathetic, discriminating picture of the labor conditions of an important group of workers in coast towns.

Boston Vocation Bureau. Vocations for Boston girls. Bulletins, 1911-12.

This series includes telephone operating; bookbinding; stenography and typewriting; nursery maid; dressmaking; millinery; straw hat making; manicuring, and hairdressing; nursing; salesmanship; clothing machine operating; paper box making; confectionery manufacture; knit goods manufacture.

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Boston Finance Commission. Report of a study of certain features of the public school system of Boston, Mass. Boston, City of Boston Printing Department, 1916.

Occupational needs in Boston are described, p. 126-48.

Bryner, Edna C. Dressmaking and millinery. Philadelphia, William F. Fell Co., 1916. (Cleveland Education Survey.)

——— The garment trades. Philadelphia, William F. Fell Co., 1916. (Cleveland Education Survey.)

Butler, Elizabeth B. Saleswomen in mercantile stores. New York, Charities Publication Committee (Russell Sage Foundation), 1912.

A study of Baltimore stores, made in 1909 for the Consumers' League of Maryland.

Cincinnati. Chamber of Commerce. Industrial survey of Cincinnati: Vocational section. Printing trades. Cincinnati, Chamber of Commerce, 1915. p. 141. 8°.

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——— Garment making industries. Cincinnati Chamber of Commerce 1917. p. 113.

A constructive statement of the advantages and drawbacks of the garment-making trades. One of the type of newer studies that are indispensable to vocational guidance workers.

Cleveland Foundation. Cleveland survey. 1916.

The following nine volumes on occupations are convenient hand books for counselors: Garment trades (Bryner); Dressmaking and millinery (Bryner); Railroad and street transportation (Fleming); Metal trades (Litz); Department store occupation (O'Leary); Building trades (Shaw); Printing trades (Shaw); Commercial work (Stevens); Wage earning and education (Summary volume).

Commission on Industrial Relations. (U. S.) Washington, D. C. Final report. Chicago, Barnard and Miller Print, 1915.

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Davis, Anne. Occupations and industries open to children between 14 and 16 years of age. Chicago, Published by Board of Education, 1914.

Dodge, Harriet Hazen. Survey of occupations open to the girls of 14 to 16 years. Boston, Mass., Girls Trade Education League, 1912.

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Dwight, Helen C. The next chapter in child-labor reform. Child Labor Bulletin, 5: 154–160, November, 1916.

Cites agriculture, street trades, and other occupations where child-labor investigations are still needed.

Eaton, J., *and* Stevens, B. M. Commercial work and training for girls. New York, The Macmillan Co., 1915. 289 p.

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Contains important information about the conditions of office work. Chapter VIII deals with "vocational guidance," but "this whole book is in reality a treatise on vocational guidance in its application to commercial work."

Fitch, John A. The steel workers. New York, Russell Sage Foundation, 1910.

One of the volumes of the Pittsburgh survey.

Fleming, R. G. Railroad and street transportation. Philadelphia, William F. Fell Co., 1916. (Cleveland Education Survey.)

Gowin, Enoch Burton, *and* Wheatly, W. A. Occupations. New York, Chicago, etc., Ginn & Co., 1916.

Designed as a text for use in the first and second years of the high-school course. Part I emphasizes the importance of preparing for a career; Part II treats various occupations in detail.

Gruenberg, Benjamin C. What's in a job? Scientific Monthly, September, 1916.

A plea for careful investigation of the human outlook for all occupations.

Hyde, William De Witt, *ed.* Vocations. Boston, 1911.

President Hyde's foreword to this series of 10 volumes (p. XVIII–XIX) discusses the importance of early choice of vocation and outlines the method of compiling the material.
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Kober, George M., *and* Hansen, William C. The diseases of occupation and vocational hygiene. Philadelphia, P. Blackiston's Sons & Co., 1916. 918 p.

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Lagelle, Mary Augusta, *and* Wiley, Katherine E. Vocations for girls. Boston, Houghton Mifflin Co. [c1913]. 139 p. 12°.

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——— The prevailing occupations of Iowa in relation to the problem of vocational education. Midland Schools, 29: 75–76, November, 1914.

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No. 3. Dangers to workers from dusts and fumes, and methods of protection. (Bulletin 127.)
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No. 7. Industrial poisons used in the rubber industry. (Bulletin 179.)
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No. 7. Vocational education survey of Richmond, Va. (Bulletin 162.)
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No. 12. Regularity of employment in the women's ready-to-wear garment industries. (Bulletin 183.)

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No. 3. Union scale of wages and hours of labor, 1907 to 1912. (Bulletin 131.)
No. 4. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912. (Bulletin 134.)
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No. 6. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912. (Bulletin 137.)
No. 7. Union scale of wages and hours of labor, May 15, 1913. (Bulletin 143.)
No. 8. Wages and regularity of employment in the dress and waist industry of New York City. (Bulletin 146.)
No. 9. Wages and regularity of employment in the cloak, suit, and skirt industry. (Bulletin 147.)
No. 10. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913. (Bulletin 150.)
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APPENDIX A.

TYPICAL JOB ANALYSES FROM THE RICHMOND AND MINNEAPOLIS VOCATIONAL EDUCATION SURVEYS.

RICHMOND.

TINSMITHING OR SHEET-METAL WORK.

Processes.—The work of the tinsmith or sheet-metal worker consists of the laying out of tin or other sheet-metal utensils, the forming and making of waterspouts and the erecting of the same, the bending of lock joint by use of folder or brake, and the laying of tin on roof and the closing of the joint by use of the mallet and seamers, or roofing tongs. The tinsmith or sheet-metal worker erects metal ceilings and side walls, furring and sheathing same, makes crestings, awnings, hollow circular moldings, and metal sash frames and skylights, and covers fire doors and windows.

ELECTRICAL WORK.

Processes.—The electrical worker in Richmond performs perhaps a wider variety of operations than any other trade worker. Electrical work may be roughly divided into three general classes—electrical apparatus work, outside wiring, and inside wiring.

Electrical apparatus work.—Under electrical apparatus work is included the manufacture of all electrical machines, instruments, and devices. This work is so varied and widely differentiated that no brief description can cover it in full detail; in general, however, it may be said to consist of all the skilled electrical work required to be done in the manufacture or repair of all forms of electrical apparatus, such as generators, motors, electric meters, rheostats, telephones, switchboards, and testing and signal apparatus.

Outside wiring.—Outside wiring consists of the installation of all outdoor lines and includes such work as general electrical power transmission lines, street lighting, telephone, telegraph, and signal lines. There are two general types of outside wiring—aerial, in which the wires or cables are supported high in the air on poles or other suitable devices, and underground, in which the wires or cables are laid in conduits.

Inside wiring.—Inside wiring consists of the preparing for and putting up of electric wires for all purposes, so long as the work is done within the confines of some structure. The installation of the appliances and fixtures for which the wires are run is also generally included in the inside wireman's work. This includes such work as lighting, heating, power, telephone, bell, and signal installation. There are four general types of inside wiring: Open work, in which the wires are exposed to view and are mounted on cleats or knobs; molding work, in which the wires are run in a special molding, made either of wood or metal; concealed work (knob and tube), in which the wires are run in partitions and other places not exposed to view and are insulated by means of knobs and

tubes; and conduit and armored cable work, in which the wires are run in metal pipes called conduits or are themselves protected by an integral metal coating or armor. The above classification does not include all forms of electrical work, as there are some specialized occupations which do not fall under the above heads, such as power-house work, for instance.

STORE OCCUPATIONS—EXECUTIVE POSITIONS.

Executives without exception are men and women who have risen from the ranks of store workers. These people have had experience in the line of store work which they are directing, and frequently have had experience in other departments of store work. Buyers, heads of departments, and managers are drawn mainly from the sales force of the department or the store in which they are employed or from the sales force of some other store engaged in the same line of business.

The manager is the merchandising executive. He directs the buying and selling of merchandise through buyers and heads of departments. The advertising manager and display men are also responsible to him for their work. He determines the kind of merchandise the store shall carry, the division of merchandise among departments, the amount of stock to be carried, and the advertising policy to be used for the store. The manager knows markets and merchandise; he understands business conditions; and he knows how to interpret the sales, losses, and demands of the business he directs. To be a successful executive, the manager must be a student of merchandising and business conditions. He must have sufficient knowledge of accounting to understand the statements of the firm. In addition to the larger business qualifications, he must have ability to deal with the buyers and heads of departments.

The superintendent has charge of the care of the building. He employs new workers and places them in the departments and dismisses employees. He has charge of the administration of the store system of sales slips, charges, credits, refunds, and also of the delivery department. He decides questions about the store system that may arise in the daily routine. He has general supervision of the delivery department, and decides upon changes that may be made in the delivery system. Many details of management connected with the daily routine of the departments, the management of crowds on sales days and during the holiday season, and the enforcement of store rules and discipline of workers are also included in his duties.

The superintendent must know how to deal with people. He must be able to judge of their capacity and suitability for the work when employing them, determine to some extent the type of work the applicant may be expected to do, enforce the store rules, and administer discipline with fairness and firmness. The superintendent who is successful combines these factors of training, experience, and education with that quality called personality, so highly valued but difficult to define, which enables him to administer business shrewdly, deal with employees fairly, and gives the customer a maximum of comfort in shopping and satisfaction in purchases made.

Men holding these administrative positions, who have had less than high-school training say that they have made up as far as possible for the education they lacked by reading, study of practical affairs, and attention to business. Without exception, men in these positions interviewed for this study said that a good fundamental education of high-school grade or more, if of a practical sort, is necessary for the success of younger men entering business of the present day.

MINNEAPOLIS.

The mortar mixer.—There is usually one mortar mixer to every five or six bricklayers. This means between 75 and 100 in the busy season. The typical mortar mixer is between 20 and 50 years old and gets $3 for a nine-hour day.

He arrives before the other workmen and prepares the mortar, remaining after the bricklayers to cover his vat. He screens the sand, shovels the right amount of sand, cement, or lime into the vat, adds the water, mixes the material, and adds coloring material if necessary.

His work requires health and strength, as it is heavy and he is exposed to all kinds of weather. Average intelligence, but no superior knowledge or ability, is required. He must understand the action of water upon lime and cement and the proper mixtures of materials for different grades of work. His tools are the shovel and the hoe.

All the knowledge and skill required can be learned in a few weeks on the job, and it would be almost impossible to learn it otherwise. Usually, when a new mortar mixer is wanted a laborer is put on the job.

While this work offers no opportunity for promotion, a mixer who always supplies the bricklayers with mortar properly mixed will have regular employment and be advanced in pay.

The mortar mixer is being rapidly displaced by the more efficient mortar-mixing machine, which is operated by a gas engine and automatically dumps the motar into a wheelbarrow.

Printing trades.—The compositors and stonemen number about 400, including one-man shops. Those two jobs are so closely related that in most shops some duties of stonemen are expected of every compositor. A compositor works nine hours a day, eight hours in union shops, at $15 to $25 a week. The union scale is $21 for day and $24 for night work. He is usually 21 to 50 years old, having become a journeyman after four years of apprenticeship, or, as often happens in getting a new job, when able to "make the scale." A compositor is the fundamental productive worker in the room. The better workman he is, the more profitable the job.

He sets up the job from the copy, corrects proof returned from proof reader, and, after approval by the author, turns it over to the stoneman. If the shop is small, he performs the duty of stoneman. In jobs set partially by machine he sets the rest of the lines, throws space between lines, puts in cuts, and makes up pages. Some time is taken in distributing type and material, although the increased use of the monotype has lessened this item. In some plants he reads proof, orders stock, and performs other duties. In general, the smaller the job the greater the responsibility.

Promotion is toward make-up work as a stone hand, machine operator, or expert proof reader. The real tradesman regards the first as the only true promotion. The higher wages paid machine operators and a mechanical or literary bent causes some compositors, however, to regard the other jobs as worth seeking.

Many compositors go into business for themselves. This is made easy by manufacturers of printing machinery and supplies, who extend credit beyond the point warranted by prospects for business success. Employers complain that this overcrowds the market, stimulates undesirable competition, and demoralizes trade. Many such establishments go out of business every year, because of lack of capital and because of inexperience in business principles.

A compositor should have good eyesight, deft fingers, and steady nerves. He must be patient, painstaking, and accurate, and should be systematic, orderly,

and neat in order to keep his cases in good condition and not lose track of jobs, copy, or proof. Color sense is needed to set jobs in the best taste.

He can not have too broad an education, for he must deal with a wide range of subject matter. Many jobs require a sympathetic and intelligent attitude on the part of the compositor to express adequately the author's ideas. A compositor competent to show this attitude is always in demand.

Thorough knowledge of English, spelling, punctuation, capitalization, division of words, grammar, and paragraphing is essential. Weakness in any point leads to inaccuracy. A good compositor can correct manifest errors in copy. Knowledge of arithmetic through mensuration and compound numbers is necessary in order to estimate in both point and inch systems and monotype unit system.

The best compositors know enough of printing design to sketch roughly the layout of a page, and understand enough about weights and kinds of paper to select the kind suitable for the job. In small shops the compositor needs to know the principles of imposition to do the work at the stone, and this in a large shop enables him to take the place of the stoneman, thus improving the chances for promotion.

The skill required consists in picking up and manipulating type, "dumping" the stick, making up and justifying pages, inking galleys for proof, and handling single lines of type. This comes only from long experience. Proficiency in common-school branches, general information and acquaintance with literary standards, technical application of the principles of design, color harmony, and lettering, and knowledge of paper can not be attained while working on the job.

The common deficiencies are lack of general education, weakness in English, and ignorance of design and color harmony. The younger men are deficient in the fundamentals of other branches of the trade, such as binding, presswork, and stonework.

During the last few years the advertising man has taken from the compositor a large part of the responsibility for the artistic appearance of the job by making rigid specifications as to every detail, from which he may not deviate. There will always be jobs, however, on which he must exercise taste and artistic skill. This makes training in this line necessary. Evening courses in applied design as well as apprentices' courses in the fundamentals—straight and job composition, stonework, and proof reading—should be offered.

The linotype operators, numbering about 72, receive copy from the foreman, just as do hand compositors. The linotype man sets body-type matter and small display lines, places the cast slugs (lines of type) on the galley, and makes corrections in the galley by resetting lines containing errors. In many shops he must keep the machine adjusted properly and make some repairs. Large shops and newspaper offices employ linotype machinists for this work. Operators are from 30 to 50 years old and are paid from $24 to $30 a week for the usual eight-hour day. The union scale is $24 and $27.

Many operators were formerly hand compositors. Some have had little experience as compositors. There is no line of promotion, the only advancement being increased wages with improvement in accuracy and speed.

The machine operator should have nimble fingers to operate the keyboard and be a quick thinker to acquire speed and accuracy in performing the many details of his work. He must be able to concentrate his mind on the copy and still carry the measurement of the line he is setting in order to obtain correct spacing.

These qualifications call for mental ability different from that of the hand compositor. With less variety of detail to interest the worker, greater capacity for sustained mental effort and nervous strain is required. However,

the work is performed while seated, permitting a lame or otherwise physically deformed workman to be a satisfactory machine operator. He needs even better eyesight than the hand compositor to endure steady work on bad copy.

He should have the same educational qualifications and technical knowledge as the hand compositor and also understand the machine thoroughly and know the proper temperature of metal necessary to get good type face of slugs. He does not need all the technical skill required by the hand compositor. His efficiency depends rather upon ability to read manuscript rapidly and operate keys simultaneously. He should be able to make adjustments or minor repairs on his machine.

All these qualifications can be developed on the job, but some men go to machine schools. The best operators are hand compositors who have gone over to the machine. It takes about a year to develop an operator in this manner. Common deficiencies of machine operators are the same as those of hand compositors.

Little training is to be had for this position outside the routine. The great need is for the broad, fundamental training of the hand compositor. It is not enough to learn the keyboard. Improvement in printing standards will come only as previous training and experience in hand composition is required of all who expect to be machine operators. Some instruction in construction of the machine would be valuable.

Monotype keyboard operators, of whom there are about eight, differ from the linotype operators in that they perform only one part of the process—that is, operate the keyboard. Casting the type is not done at the same time or even in the same room, as in linotype work. The monotype operator, by a keyboard, perforates rolls of paper, which control through pneumatic process the operation of the caster machine.

He must care for this keyboard and make minor repairs. He puts in new rolls and takes out perforated rolls, changes the machine for different sizes of type and width of composition, which require changes of drum scales and keyboard, sets the em rack to different measures, and casts up copy if the form is tabular. He must figure various columns of picas and allow for rules or other material to be inserted by hand. His responsibility ends when he turns over the perforated rolls to the caster man.

Monotype operators range from 30 to 50 years old, and are paid $20 to $27 a week, working eight hours a day. Like linotype operators, they come from the composing room or a monotype school. The statements as to the linotype operator regarding preference for the former training and the difference between machine and hand composition in their demands on the nervous system apply equally to the monotype operator.

APPENDIX B.

PUBLIC HIGH SCHOOLS REPORTING VOCATION BUREAUS OR SIMILAR DEPARTMENTS.

[This list was compiled as the result of a card inquiry mailed in February, March, and April, 1918. The following form was used:

The Bureau of Education has been requested to prepare for the use of the Government in the present war emergency a list of schools having DEPARTMENTS OR BUREAUS DESIGNED TO ASSIST YOUNG PERSONS IN SECURING EMPLOYMENT. Will you therefore answer the following questions: Does your school maintain a department or bureau as described above? ———— *Does the department serve mainly as an employment agency?* (*Yes or no.*) ———— *Or does it give general vocational direction?* ————]

Alabama.

Winston County High School, Double Springs.
Graded High School, Marbury.
Blount County High School.

Arkansas.

Graded High School, Cotter.
High School, El Paso.
Eureka High School, Eureka Springs.
High School, Fort Smith.
Langston High School, Hot Springs.
Normal Training High School, Mountain Home.

Arizona.

Mohave County High School, Kingman.
Union High School, Mesa.
High School, Miami.
Union High School, Safford.
Union High School, Phoenix.
High School, Tucson.
High School, Winslow.
High School, Yuma.

California.

High School, Alameda.
Union High School, Anaheim.
Riverview Union High School, Antioch.
Citrus Union High School, Azusa.
Kern County High School, Bakersfield.
High School, Beaumont.
Union High School, Clovis.
Union High School, Dixon.
High School, Eureka.
Armijo Union High School, Fairfield.
High School, Fortuna.
High School, Fresno.
Fremont High School, Fruitvale Station.
Union High School, Fullerton.
Agricultural High School, Gardena.
Union High School, Glendale.
Union High School, Hanford.
Union High School, Hemet.
San Benito County High School, Hollister.
Imperial Valley Union High School, Imperial.
Union High School, Inglewood.
Antelope Valley High School, Lancaster.
High School, Long Beach.
Evening High School, Los Angeles.
Hollywood High School, Los Angeles.
Lincoln High School, Los Angeles.
Manual Art High School, Los Angeles.
Polytechnic High School, Los Angeles.
High School, Marysville.

High School, Modesto.
High School, Monrovia.
Union High School, Monterey.
High School, Mountain View.
High School, National City.
Technical High School, Oakland.
Chaffey Union High School, Ontario.
Union High School, Orange.
High School, Pasadena.
High School, Pomona.
Union High School, Red Bluff.
High School, Redlands.
Sequoia Union High-School, Redwood City.
Polytechnic High School for Boys, Riverside.
Union High School, Roseville.
Evening High School, Sacramento.
High School, Sacramento.
High School, San Bernardino.
Girls' High School, San Francisco.
Mission High School, San Francisco.
Polytechnic High School, San Francisco.
Union High School, San Mateo.
High School, San Pedro.
High School, Santa Ana.
High School, Santa Monica.
Analy Union High School, Sebastopol.
High School, Stockton.
High School, Watsonville.
Union High School, Ventura.

Colorado.

Washington County High School, Akron.
High School, Alamosa.
High School, Colorado Springs.
Manual Training High School, Denver.
East Side High School, Denver.
West Side High School, Denver.
High School, Grand Junction.
High School, Fowler.
Montrose County High School, Montrose.
High School, Ordway.
High School District 20, Pueblo.
High School, Trinidad.

Connecticut.

High School, Bridgeport.
High School, Danbury.
High School, Meriden.
High School, New Britain.
High School, New Haven.
High School, Rockville.
High School, Shelton.
Norwalk High School, South Norwalk.
High School, Stamford.
High School, Torrington.

District of Columbia.

Business High School, Washington.
McKinley Manual Training School, Washington.

Georgia.

English Commercial High School, Atlanta.
Girls' High School, Atlanta.
Academy of Richmond County, Augusta.
Chatham Academy High School, Savannah.
First District Agriculture School, Statesboro.

Florida.

Junior High School, Largo.
High School, Pensacola.
Palm Beach High School, West Palm Beach.

Idaho.

Graded High School, American Falls.
High School, Boise.
Graded High School, Kuna.
Fort Lapwai High School, Lapwai.
High School, Lewiston.
High School, Mountain Home.
Idaho Technical Institute, Pocatello.
High School, Soda Springs.

Illinois.

East Side High School, Aurora.
High School, Barry.
St. Clair Township High School, Belleville.
Graded High School, Cariock.
High School, Champaign.
Austin High School, Austin Station, Chicago.
Crane Technical High School, Chicago.
Englewood High School, Chicago.

Marshall High School, Chicago.
Harrison Technical High School, Chicago.
Albert G. Lane Technical High School, Chicago.
Wendell Phillips High School, Chicago.
Carl Schurz High School, Chicago.
Senn High School, Chicago.
Tilden High School, Chicago.
J. Sterling Morton High School, Cicero.
High School, Coal City.
High School, Coffeen.
De Kalb Township High School, De Kalb.
Maine Township High School, Des Plaines.
High School, Dwight.
High School, East Moline.
High School, East St. Louis.
High School, Elmwood.
High School, El Paso.
High School, Elgin.
High School, Elizabeth.
High School, Galena.
High School, Granite City.
High School, Griggsville.
High School, Highland Park.
High School, Hoopeston.
High School, Ipava.
Joliet Township High School, Joliet.
High School, Kewanee.
La Salle-Peru Township High School, La Salle.
High School, Libertyville.
High School, Marshall.
High School, Moline.
High School, Morris.
Lovejoy High School, Mound City.
High School, Murphysboro.
High School, Nashville.
High School, Nokomis.
Oak Park and River Forest Township High School, Oak Park.
High School, Palestine.
High School, Paw Paw.
Central High School, Peoria.
Manual Training High School, Peoria.
Pontiac Township High School, Pontiac.
Princeton Township High School, Princeton.
High School, Quincy.
High School, Rochelle.
High School, Rockford.
High School, Rock Island.
High School, Savanna.
High School, Saybrook.
High School, Shabbona.
High School, Sterling.
High School, Stonington.
High School, Tonica.
McCray-Dewey High School, Troy.
High School, Urbana.
High School, Virden.

Indiana.

High School, Ambia.
High School, Angola.
High School, Bedford.
High School, Bloomington.
High School, Brazil.
High School, Bremen.
High School, Cayuga.
High School, Clay City.
High School, Columbia City.
High School, Columbus.
High School, Connersville.
High School, Crawfordsville.
High School, Danville.
High School, Deedsville.
High School, Dunkirk.
High School, Evansville.
High School, Frankfort.
High School, Freetown.
High School, French Lick.
High School, Greensburg.
High School, Hammond.
High School, Hope.
High School, Huntington.
Rockcreek Township High School, Huntington.
Shortridge High School, Indianapolis.
High School, Jamestown.
High School, Jasper.
High School, La Fayette.
High School, La Fontaine.
High School, La Grange.
High School, La Porte.
High School, Linton.
High School, Logansport.
High School, Lowell.
High School, Lynnville.
High School, Marion.
High School, Michigantown.
High School, Mishawaka.
High School, Monroe City.
High School, Monterey.
High School, Muncie.

High School, Newberry.
Olive Township High School, New Carlisle.
High School, Noblesville.
High School, North Vernon.
High School, Oolitic.
Bangs Township High School, Osceola.
New Pekin High School, Pekin.
High School, Plainfield.
High School, Richmond.
High School, Rushville.
Washington Township High School, Salem.
High School, Shelbyville.
Adams Township High School, Sheridan.
High School, Sheridan.
High School, Tipton.
High School, Tunnelton.
High School, Valparaiso.
High School, Waveland.
High School, Waynetown.
Washington Township High School, Westfield.
High School, West Terre Haute.
High School, Williamsburg.
High School, Williamsport.
High School, Winamac.

Iowa.

High School, Adair.
High School, Adel.
High School, Albia.
High School, Algona.
High School, Armstrong.
High School, Batavia.
High School, Blairstown.
High School, Britt.
High School, Buffalo Center.
High School, Burlington.
High School, Charles City.
High School, Cherokee.
High School, Cincinnati.
High School, Clarinda.
High School, Coggon.
High School, Collins.
High School, Coon Rapids.
High School, Council Bluffs.
North Des Moines High School, Des Moines.
West Des Moines High School, Des Moines.
High School, Diagonal.
High School, Dow City.
High School, Elliott.
High School, Estherville.
High School, Farragut.
High School, Forest City.
High School, Garden Grove.
High School, Gilmore City.
High School, Grand River.
High School, Greenfield.
High School, Hartley.
High School, Hawarden.
High School, Holstein.
High School, Humboldt.
High School, Independence.
High School, Kellogg.
High School, Keystone.
High School, Lake City.
High School, Laurens.
High School, Lehigh.
High School, Le Mars.
High School, Lisbon.
High School, Lohrville.
Graded High School, Luana.
High School, Manchester.
High School, Manilla.
High School, Marengo.
High School, Marshalltown.
High School, Mediapolis.
High School, Milford.
High School, Montour.
High School, New Albin.
High School, New Hampton.
High School, New London.
High School, Newton.
High School, Northwood.
High School, Oakland.
High School, Ogden.
High School, Oskaloosa.
High School, Pella.
Graded High School, Pisgar.
High School, Pocahontas.
High School, Pomeroy.
High School, Redfield.
High School, Reinbeck.
High School, Remsen.
High School, Rockwell City.
High School, Rowan.
High School, Russell.
High School, St. Ansgar.
High School, Seymour.
High School, Shannon City.
High School, Smithland.
High School, Spirit Lake.
McKinley High School, Stanwood.
High School, State Center.

High School, Storm Lake.
High School, Sutherland.
High School, Tipton.
Graded High School, Tracy.
High School, Union.
East Waterloo High School, Waterloo.
High School, Webb.
High School, Winfield.
Normal and High School, Woodrine.

Kansas.

High School, Belpre.
High School, Blue Rapids.
High School, Caney.
Clay County High School, Clay Center.
High School, Coffeyville.
High School, Coldwater.
High School, Dodge City.
High School, Everest.
High School, Hays.
High School, Herington.
High School, Hiawatha.
High School, Leavenworth.
High School, Lindsborg.
High School, Logan.
High School, Manhattan.
High School, Newton.
Reno County High School, Nickerson.
High School, Nortonville.
High School, Olathe.
High School, Oneida.
High School, Overbrook.
High School, Pratt.
High School, Salina.
Scott County High School, Scott.
High School, Topeka.
High School, Valley Falls.
High School, Washington.

Kentucky.

Russell High School, Lexington.
Girls' High School, Louisville.
High School, Mount Sterling.

Maine.

High School, Bangor.
High School, Castine.
Jordan High School, Lewiston.
High School, Lisbon.
Deering High School, Portland.
High School, South Portland.

Maryland.

Baltimore City College, Baltimore.

Massachusetts.

Punchard High School, Andover.
High School, Amesbury.
High School, Arlington.
Sanderson Academy, Ashfield.
High School, Attleboro.
High School, Belmont.
Howe High School, Billerica.
Mechanic Arts High School, Boston.
Brighton High School, Boston.
Dorchester High School, Boston.
East Boston High School, Boston.
English High School, Boston.
Girls' High School, Boston.
High School of Commerce, Boston.
High School of Practical Arts, Roxbury, Boston.
Roxbury High School, Boston.
South Boston High School, Boston.
West Roxbury High School, Boston.
High School, Brookline.
High and Latin School, Cambridge.
Rindge Technical School, Cambridge.
High School, Chelsea.
High School, Chicopee.
High School, Concord.
High School, Dedham.
High School, Everett.
Technical High School, Fall River.
High School, Fitchburg.
High School, Framingham.
High School, Gloucester.
Searles High School, Great Barrington.
High School, Greenfield.
High School, Haverhill.
High School, Lawrence.
High School, Lenox.
High School, Leominster.
High School, Lexington.
High School, Lowell.
Classical High School, Lynn.
English High School, Lynn.
High School, Mansfield.
High School, Manthuen.
High School, Millbury.
High School, Milton.
High School, Natick.
High School, New Bedford.
High and Putnam School, Newburyport.
Newton Technical High School, Newtonville.

Abington High School, North Abington.
Drury High School, North Adams.
High School, North Attleboro.
High School, Orange.
High School, Plymouth.
High School, Quincy.
High School, Reading.
High School, Rockland.
High School, Somerville.
High School, Southbridge.
High School of Commerce, Springfield.
Technical High School, Springfield.
West Springfield High School, Springfield.
High School, Swampscott.
High School, Taunton.
High School, Uxbridge.
High School, Waltham.
High School, Webster.
High School, Wellesley.
High School, Westfield.
High School, Whitman.
High School, Winchester.
High School, Winthrop.
High School of Commerce, Worcester.

Michigan.

High School, Adrian.
High School, Akron.
High School, Battle Creek.
East Side High School, Bay City.
Western High School, Bay City.
High School, Bloomingdale.
High School, Boyne City.
High School, Breckenridge.
High School, Calumet.
High School, Capac.
Union High School, Cassopolis.
High School, Coldwater.
High School, Charlevoix.
Nordstrum High School, Detroit.
High School, Dowagiac.
High School, Edwardsburg.
High School, Elberta.
High School, Elk Rapids.
High School, Elkton.
High School, Escanaba.
High School, Fenton.
High School, Fowler.
Central High School, Grand Rapids.
Union High School, Grand Rapids.
High School, Grand Ledge.
High School, Greenville.
High School, Hancock.
High School, Harbor Springs.
Ferris High School, Highland Park.
Luther L. Wright High School, Ironwood.
High School, Lake Linden.
High School, Morenci.
High School, Muskegon.
High School, Niles.
High School, Pellston.
High School, Petoskey.
High School, Plainwell.
High School, Port Austin.
High School, River Rouge.
High School, St. Joseph.
High School, Sandusky.
High School, South Haven.
Union High School, Suttons Bay.

Minnesota.

High School, Aitkin.
High School, Chaska.
High School, Deer River.
High School, Delano.
Central High School, Duluth.
High School, East Grand Forks.
High School, Fulda.
Lincoln High School, Hibbing.
High School, Houston.
High School, Hutchinson.
High School, Jackson.
Washington High School, Lesuer.
Graded High School, Lindstrom.
High School, Mahnomen.
High School, Mankato.
Central High School, Minneapolis.
East High School, Minneapolis.
North High School, Minneapolis.
South High School, Minneapolis.
West High School, Minneapolis.
High School, Montevideo.
High School, Monticello.
High School, Mountain Lake.
High School, North Branch.
High School, Ortonville.
High School, Owatonna.
High School, Park Rapids.
High School, Pipestone.
High School, Red Wing.
High School, Royalton.
High School, Stillwater.
Central High School, St. Paul.

High School, Springfield.
High School, Starbuck.
High School, Villard.
High School, Wadena.
High School, Wells.
High School, Wheaton.
High School, Winona.

Missouri.

High School, Aurora.
High School, Carrollton.
High School, Carterville.
High School, Caruthersville.
High School, Joplin.
Central High School, Kansas City.
Kansas City Polytechnic Institute, Kansas City.
Manual Training High School, Kansas City.
High School, Monett.
High School, Montgomery City.
High School, Springfield.
Central High School, St. Joseph.
Central High School, St. Louis.
Sumner High School, St. Louis.
Yeatman High School, St. Louis.
High School, Trenton.
Buchanan High School, Troy.

Montana.

High School, Billings.
Gallatin County High School, Bozeman.
High School, Butte.
Teton County High School, Choteau.
High School, Glasgow.
Flathead County High School, Kalispell.
Fergus County High School, Lewistown.

Nebraska.

High School, Ainsworth.
High School, Ashland.
High School, Bethany.
High School, Chester.
High School, Giltner.
High School, Humboldt.
Kimball County High School, Kimball.
High School, Lexington.
High School, Omaha.
High School of Commerce, Omaha.
High School, Pawnee City.
High School, Ravenna.
Tecumseh High School, Tecumseh.
High School, Wayne.
High School, Western.

New Hampshire.

Stevens High School, Claremont.
High School, Enfield.
Academy and High School, Lancaster.
High School, Manchester.
High School, Milford.

New Jersey.

High School, Bernardsville.
High School, Bloomfield.
High School, East Orange.
Battin High School, Elizabeth.
High School, Englewood.
High School, Hackensack.
Franklin High School, Hasbrouck.
Wm. L. Dickinson High School, Jersey City.
Chattle High School, Long Branch.
High School, Leonia.
High School, Montclair.
High School, Moorestown.
High School, Mount Holly.
Livingston High School, New Brunswick.
East Side Commercial and Manual Training High School, Newark.
South Side High School, Newark.
High School, Passaic.
High School, Paterson.
East Rutherford High School, Rutherford.
High School, Somerville.
High School, Washington.

New Mexico.

Valencia County High School, Belen.
Las Vegas High School, East Las Vegas.
High School, Santa Fe.

New York.

High School, Albany.
High School, Albion.
High School, Alden.
High School, Amsterdam.

Academic High School, Auburn.
Central High School, Binghamton.
Bay Ridge High School, Brooklyn.
Boys' High School, Brooklyn.
Bushwick High School, Brooklyn.
Commercial High School, Brooklyn.
Erasmus High School, Brooklyn.
Girls' High School, Brooklyn.
Manual Training High School, Brooklyn.
New Utrecht High School, Brooklyn.
Hutchinson High School, Buffalo.
Technical High School, Buffalo.
High School, Canastota.
High School, Charlotte.
High School, Dobbs Ferry.
High School, Dunkirk.
Newtown High School, Elmhurst.
High School, Far Rockaway.
High School, Greene.
High School, Huntington.
High School, Islip.
High School, Jamestown.
Union High School, Kendall.
Franklin Academy, Malone.
Curtis High School, New Brighton.
High School, New Rochelle.
Evander Childs High School, New York City.
High School of Commerce, New York City.
Morris High School, New York City.
Julia Richman High School, New York City.
Stuyvesant High School, New York City.
Wadleigh High School, New York City.
Washington Irving High School, New York City.
High School, Niagara Falls.
High School, Perry.
High School, Port Chester.
High School, Port Jervis.
High School, Port Washington.
High School, Richmond Hill.
West High School, Rochester.
High School, Saratoga Springs.
High School, Solvay.
North High School, Syracuse.
Technical High School, Syracuse.
High School, Watertown.
High School, White Plains.
High School, Yonkers.

North Dakota.

North Dakota School of Forestry, Bottineau.
Hawthorne High School, Crary.
Graded High School, Crosby.
High School, Drayton.
High School, Fairmount.
High School, Forman.
High School, Hankinson.
High School, Hope.
High School, Petersburg.
Graded High School, Stanley.
High School, Valley City.
Graded High School, Belhaven.
High School, Bessemer.
Startown High School, Newton.

Ohio.

West High School, Akron.
High School, Alliance.
Brown High School, Cambridge.
High School, Canton.
Hughes High School, Cincinnati.
Pleasant Ridge High School, Cincinnati.
Central High School, Cleveland.
East Technical High School, Cleveland.
Lincoln High School, Cleveland.
South High School, Cleveland.
West High School, Cleveland.
West Technical High School, Cleveland.
High School, Clyde.
High School of Commerce, Columbus.
High School, Coshocton.
High School, Delphos.
High School, Delta.
Shaw High School, East Cleveland.
High School, Greenfield.
High School, Greenville.
High School, Ironton.
High School, Lorain.
High School, McConnelsville.
High School, Medina.
High School, Nelsonville.
High School, Newark.
High School, New Philadelphia.
High School, Piqua.
High School, Salem.
High School, Springfield.
Columbian High School, Tiffin.

High School, Van Wert.
High School, Warren.
High School, Wauseon.
High School, Youngstown.
High School, Zanesville.

Oklahoma.

High School, Checotah.
Eastern University Preparatory School, Claremore.
High School, Cushing.
High School, Custer.
High School, Fort Towson.
Faver High School, Guthrie.
High School, Idabel.
Central High School, Muskogee.
Douglas High School, Oklahoma.
High School, Oklahoma.
High School, Omulgee.
High School, Pauls Valley.
High School, Ponca City.
Graded High School, Sapulpa.
High School, Shawnee.
Murray State School of Agriculture, Tishomingo.
High School, Tulsa.
High School, Wagoner.

Oregon.

High School, Ashland.
High School, Baker.
High School, Dallas.
High School, Eugene.
High School, Grants Pass.
High School, Hood River.
Klamath County High School, Klamath Falls.
High School, McMinnville.
Franklin High School, Portland.
Jefferson High School, Portland.
Lincoln High School, Portland.
Washington High School, Portland.
James John High School, St. Johns.
High School, Salem.
High School, Springfield.
Graded High School, Stanfield.
Graded High School, Stayton.

Pennsylvania.

Lower Merion High School, Ardmore.
High School, Aspinwall.
High School, Avondale.
High School, Bradford.
High School, Briston.
Boro High School, Carbondale.
High School, Chambersburg.
High School, Charlerol.
High School, Chester.
High School, Clearfield.
High School, Connellsville.
High School, Conshohocken.
High School, Danville.
High School, Doylestown.
High School, Dunmore.
Central High School, Erie.
High School, Freedom.
Central High School, Harrisburg.
Technical High School, Harrisburg.
High School, Honesdale.
Boys High School, Lancaster.
Stevens High School, Lancaster.
High School, Lansdale.
High School, Leechburg.
High School, Monongahela.
High School, Mount Union.
High School, Narberth.
High School, New Brighton.
High School, New Castle.
Central High School, Philadelphia.
Frankford High School, Philadelphia.
Northeast High School, Philadelphia.
West Philadelphia High School for Boys, Philadelphia.
West Philadelphia High School for Girls, Philadelphia.
William Penn High School for Girls, Philadelphia.
Fifth Avenue High School, Pittsburgh.
Peabody High School, Pittsburgh.
Schenley High School, Pittsburgh.
South High School, Pittsburgh.
Union High School, Mount Oliver, Pittsburgh.
George Washington High School, Pittsburgh.
High School for Boys, Reading.
Technical High School, Scranton.
High School, Somerset.
High School, Souderton.
High School, South Bethlehem.
High School, Swarthmore.
High School, Tarentum.
High School, Titusville.
Borough High School, Troy.

High School, Tunkhannock.
Borough High School, Uniontown.
High School, West Chester.
High School, Wilkes-Barre.
High School, York.

Rhode Island.

English High School, Providence.

South Dakota.

High School, Aberdeen.
High School, Carthage.
High School, Flandreau.
High School, Geddes.
High School, Huron.
High School, Mitchell.

Tennessee.

High School, Clarksville.
Maury County High School, Columbia.
High School, Greenville.
High School, Johnson City.
Langston High School, Johnson City.
High School, Memphis.
Hume-Fogg High School, Nashville.

Texas.

High School, Amarillo.
High School, Bonham.
Fred Douglass High School, Corsicana.
High School, Del Rio.
High School, El Paso.
High School, Grand Saline.
High School, Houston.
High School, Lubbock.
Central High School, Marshall.
High School, Navasota.
High School, Plainview.
High School, San Antonio.

Utah.

Millard County High School, Fillmore.
North Sanpete High School, Mount Pleasant.
High School, Spanish Fork.

Vermont.

High School, Island Pond.
Black River Academy, Ludlow.
High School, Rutland.
High School, Springfield.
High School, Swanton.

Virginia.

Charlotte High School, Charlotte Court House.
High School, Culpeper.
High School, Hampton.
Maury High School, Norfolk.
John Marshall Night High School, Richmond.

Washington.

High School, Camas.
High School, Chehalis.
High School, Davenport.
High School, Dryad.
High School, Everett.
High School, Kelso.
High School, Lind.
Union High School, Mount Vernon.
High School, Northbend.
High School, North Yakima.
Graded High School, Okanogan.
High School, Port Angeles.
High School, Prescott.
Union High School, Quilcene.
High School, Renton.
High School, Roslyn.
Broadway High School, Seattle.
Foster Graded High School, Seattle.
Franklin High School, Seattle.
Lincoln High School, Seattle.
Queen Anne High School, Seattle.
Lewis and Clark High School, Spokane.
North Central High School, Spokane.
Stadium High School, Tacoma.
High School, Toppenish.
High School, Walla Walla.
High School, Waterville.

West Virginia.

Mount Wesley High School, Berkeley.
High School, Hedgeville.
High School, Morgantown.
High School, Piedmont.
High School, Thomas.
High School, Williamson.

Wisconsin.

High School, Abbotsford.
Altoona High School, Altoona.

High School, Amery.
High School, Antigo.
High School, Appleton.
High School, Arcadia.
High School, Baldwin.
High School, Belmont.
High School, Benton.
High School, Bloomer.
High School, Blue Rivers.
High School, Brodhead.
High School, Cambria.
High School, Cashton.
High School, Chippewa Falls.
High School, Coleman.
High School, Dodgeville.
High School, Eau Claire.
High School, Evansville.
High School, Fond du Lac.
High School, Frederic.
High School, Genoa Junction.
Agricultural High School, Gilmanton.
High School Glenbeulah.
High School, Grafton.
High School, Green Lake.
High School, Hartford.
High School, Hartland.
High School, Hillsboro.
High School, Janesville.
High School, Juneau.
High School, Kenosha.
High School, Kewaskum.
High School, La Crosse.
High School, Markesan.
High School, Melrose.
High School, Menasha.
High School, Menomonee Falls.
High School, Menomonie.
High School, Milton.
High School, Milwaukee.
South Division High School, Milwaukee.
West Division High School, Milwaukee.
High School, Mineral Point.
High School, Monroe.
High School, Mount Horeb.
High School, New Lisbon.
High School, New Richmond.
High School, Oakfield.
High School, Oconto Falls.
High School, Onalaska.
La Crosse County School of Agriculture and Domestic Economy, Onalaska.
High School, Oshkosh.
High School, Plainfield.
High School, Plymouth.
High School, Poynette.
High School, Prairie du Chien.
High School, Racine.
High School, Rhinelander.
High School, Richland Center.
High School, Ripon.
Union High School, Saxon.
High School, Shawando.
High School, Sheboygan.
High School, Shullsburg.
High School, Soldiers Grove.
High School, South Milwaukee.
High School, Spring Valley.
High School, Stockbridge.
High School, Stoughton.
High School, Watertown.
High School, Waukesha.
High School, Waupaca.
High School, Wauwatosa.
High School, West De Pere.
High School, Whitewater.
High School, Wilmot.
High School, Wittenberg.

Wyoming.

High School, Carpenter.
High School, Rock Springs.
High School, Sheridan.

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