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VOCATIONAL GUIDANCE

PAPERS PRESENTED AT THE ORGANIZATION MEETING OF THE VOCATIONAL GUIDANCE ASSOCIATION, GRAND RAPIDS, MICH., OCTOBER 21–24, 1913

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PREFATORY STATEMENT.[1]

The organization of the National Vocational Guidance Association was completed during a series of meetings held in 1913 at Grand Rapids, Mich., October 21–24, inclusive. This was the third national conference on vocational guidance, previous meetings having been held at Boston in 1910 and New York City in 1912. At the latter meeting the conference authorized the selection of a committee to arrange for a convention in 1913 and to present plans for a permanent organization should such a procedure seem advisable after due consideration of the opportunities for service presented by present-day conditions.

In accordance with this authorization, the National Vocational Guidance Association was duly organized at Grand Rapids by the acceptance of the report of the organization committee, the adoption of a constitution, and the election of officers.

This bulletin contains the formal papers presented at the conference.

In addition to these papers, mention should be made of a Round Table "Question Box"[2] and of a remarkable session devoted to a series of demonstrations of the Grand Rapids plan of vocational guidance conducted in the Central High School and the Junior High School in Grand Rapids, the demonstrations being carried out largely by the pupils themselves.[3] The questions presented and discussed at the round table showed more clearly than did the deliberations of any other session the need for such an organization as the National Vocational Guidance Association.

Perhaps the formation of a new society such as this, when societies are multiplying so rapidly, demands a word of explanation, if not of defense.

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; a work, furthermore, which should be undertaken immediately. There is no doubt that a widespread demand exists

[1] By Prof. Frank M. Leavitt, University of Chicago.
[2] See Appendix A, p. 83.
[3] See Appendix B, p. 91.

for a more rational and humane guidance of the youth of the land toward and in vocational life, yet even a superficial study of the movement reveals the fact that divergent, if not conflicting, opinions are held as to the duties of public-school authorities to give advice to their pupils, or to exercise vocational supervision over the children who become wage earners at an early age. It is also clear that, as the result of several excellent but nevertheless partial investigations, a mass of information has been collected which must be more carefully collated before wholly trustworthy conclusions can be drawn.

Particularly important is the fact that the demand for guidance seems to come from three rather distinct sources. There is the economic demand, made in recognition of the fact that our industrial system needs a better or more efficiently chosen body of employees. This is closely allied to the phase of scientific management which shows the need of more scientific methods of selecting workmen.

Then there is the educational demand that our schools enlarge their functions to include not only preparation for vocational life, but also a specific plan of vocational guidance, even to the extent of finding employment for children about to leave school, especially for those who must do so at an early age to become wage earners. But it is not alone for the future industrial workers that teachers are demanding vocational guidance. Recently there has been a severe self-examination by the schools, and educators are coming to feel that even in the high schools and colleges courses of study are too often adopted at the dictation of tradition and too seldom with a clearly defined purpose. It is therefore quite as truly for the benefit of those more advanced students whose education is frequently misdirected, inappropriate, and unapplied, that the schools propose to exercise some form of vocational guidance.

Finally, there is the social demand for the guidance of youth, particularly those destined for early employment, for the very preservation of society itself. Such a demand recognizes the difference between the finding of employees for positions and the finding of suitable employment for would-be workers. It recognizes the need of important modifications in school methods and organization, and also the necessity for larger measure of social control of the conditions of labor in child-employing industries.

It was in recognition of the threefold nature of this demand, economic, educational, and social, that the organization of the new association was recommended. It was felt that it could help materially in coordinating the results, if not the efforts, of chambers of commerce and employers' associations, of educational systems, and of charitable or philanthropic societies in the important project of securing more adequate vocational guidance and supervision of the youth of the land.

The possibility of securing the same results through subcommittees of the National Society for the Promotion of Industrial Education and of the committee on vocational education of the National Education Association was thoroughly discussed. It is believed, however, that more immediate and certain progress can be made by a relatively large association of individuals interested especially in the problems of vocational guidance than by small committees of organizations as strong even as the two societies named. Conferences with representatives of these societies revealed the fact that both had as many specific problems under consideration as could well be studied for some years to come. The National Vocational Guidance Association hopes to cooperate with these and with other strong organizations. It is planning to meet in 1914 with the National Society for the Promotion of Industrial Education, as it did in 1913, and it is assured of a continuation of the helpful services which that society rendered the new association at its organization meeting.

With a clear definition of its field of effort the National Vocational Guidance Association enters upon its work and invites the membership of all who can help it or be helped by it. In the words of the constitution:

> 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.

The organization committee was as follows: Chairman, Frank M. Leavitt, University of Chicago, Chicago, Ill.; secretary, M. Edith Campbell, director Schmidlapp Bureau, Cincinnati, Ohio; treasurer, James S. Hiatt, secretary public education association, Philadelphia, Pa.; Meyer Bloomfield, director vocation bureau, Boston, Mass.; Alice P. Barrows, director vocational educational survey, New York, N. Y.

The officers elected at Grand Rapids for the year 1914 are: President, Frank M. Leavitt, Chicago, Ill.; vice president, Alice P. Barrows, New York, N. Y.; secretary, Jesse B. Davis, Grand Rapids, Mich.; treasurer, James S. Hiatt, Philadelphia, Pa. Executive council: Meyer Bloomfield, Boston, Mass.; M. Edith Campbell, Cincinnati, Ohio; George Platt Knox, St. Louis, Mo.; O. W. Burroughs, Pittsburgh, Pa.; E. M. Robinson, New York, N. Y.

VOCATIONAL GUIDANCE.

I. THE LARGER SOCIAL, ECONOMIC, AND EDUCATIONAL BEARINGS OF VOCATIONAL GUIDANCE.

A.—VOCATIONAL GUIDANCE AND CHILD LABOR.

OWEN R. LOVEJOY,

General Secretary, National Child-Labor Committee, New York.

The present awakening toward practical education has been stimulated from the industrial rather than from the educational side. This fact is both promising and disquieting.

In so far as society is coming to realize that the whole problem of feeding, clothing, and housing the race is a problem of social interest, we may welcome every tendency to make labor significant and purposeful. We have too long divided labor into mental and manual, assuming that although both were necessary to society, they were not both necessary to the same individual. The result has been to exalt those forms of work in which mental activities were most necessary—which demand initiative, originality, creative and organizing genius—and to leave to the less fortunate members of society the physical forms of work called "manual" labor. The effect of such a division is fatal to the progress of those who engage in the manual forms and fatal to the society of which they are a part. It has served for centuries to keep a large percentage of people just above the plane of bare subsistence in reward for the hardest kind of labor.

Furthermore, much of such work has been poorly done. With no incentive to higher positions; with no release from a long daily grind upon forms of work that are crude and monotonous; with quantity rather than quality the measure of usefulness; with a decreasing wage accompanying advancing age; it is not strange that the industrial life of thousands of workers is barren of inspiration or hope. Nor is it surprising that the products of such labor have been the least satisfactory of any, whether viewed from the standpoint of the employer or from the wider considerations of social wealth.

Over 60 years ago Lord Macaulay declared on the floor of the British Parliament in reference to the employment of children:

> Intense labor, beginning too early in life, continued too long every day, stunting the growth of the mind, leaving no time for healthful exercise, no time for intellectual culture, must impair all those high qualities that have made our country great. Your overworked boys will become a feeble and ignoble race of men, the parents of a more feeble progeny; nor will it be long before the deterioration of the laborer will injuriously affect those very interests to which his physical and moral interests have been sacrificed. If ever we are forced to yield the foremost place among commercial nations, we shall yield it to some people preeminently vigorous in body and in mind.

We have in this country already begun to reap the harvest of consigning a certain part of our family to tasks of meaningless, manual drudgery, and naturally enough we do not like the harvest. Let us not be misled by the fact that the prophecy in Lord Macaulay's indictment has not come true. We are gratified that we are not "forced to yield the foremost place among commercial nations." This is not, however, because of our intelligent organization of labor. It is simply because there is no such other race as Macaulay described—"some people preeminently vigorous in body and in mind."

That many other nations have apparently resigned themselves to the fate of such commercial prosperity as they may grind out of their underpaid and overworked children has been amply demonstrated in the international response to the recent proposal in the United States tariff bill to exclude the products of child labor from our ports. The National Child Labor Committee proposed this amendment to the tariff bill, not with any expectation of its enactment, but for the double purpose of calling the attention of our sister nations to the awakening conscience of American citizens against exploitation of young children for the convenience of the purchasing public and with the further object of forcing into the spotlight of universal condemnation those few of our Commonwealths that still persist in exploiting the labor of children of 12 or 10 or even less years. Both purposes have been achieved. The European press has called us hypocrites for proposing an international 14-year age limit while certain of our own States permit children to work at 12; and both the European and the Asiatic press have resented the proposed action of the United States as a menace to their commercial intercourse with us.

The matter is mentioned here because it throws into definite perspective the generally accepted policy of forcing, or at least permitting, a certain portion of every community to become the so-called "unskilled workers," glad to take any kind of job for any kind of wage. In the past our own people have been inclined to uphold such a system because they thought there was economy in low wages; but we are awakening to learn that the system is one of extravagance

instead of economy, and naturally our captains of industry, our leaders in manufacturing enterprises, are among the first to see the error and are clamoring for efficient workers.

It is a commonplace to hear that positions requiring brains can not be filled; that important departments of large manufacturing and commercial enterprises suffer because there are none among the workers who can advance to positions of responsibility requiring initiative and mental resourcefulness. Therefore business is calling on the schools to turn out a better product and to supply the demands of our enterprising industrial age.

The employers have a very definite program. They know what they want and are going after it. Let us not delude ourselves by thinking they are actuated by philanthropy. It is simply good business. They want a crop of fresh, young labor furnished them every year that can make fewer mistakes and more profits.

This is extremely gratifying, if educators will have the courage to take the helm. It indicates that economic self-interest is attempting to shake off the double burden society has long borne—the burden of using goods worth much less than they cost because poorly and inefficiently made, and of supporting by charity those paid less than their work is worth because of their poverty, inefficiency, and consequent helplessness. But while employers are awake to the need of efficiency, industry is not. Industry still beckons to the inefficient, the immature, the unprepared. Low wages and casual employment are open switches that lie ahead on the track of the child laborer of today. Society is very far from having reached a decision that unskilled labor must be abolished. The occupations which, outside of agriculture, absorb the output of our schools are barren of any element to make them of present interest to the child or to offer any hope for the future. The report of the Massachusetts commission made this clear a few years ago. A recent investigation by the Federal Bureau of Labor shows that of a certain number of children under 16 years who left school to work 90 per cent entered industries in which the wages of adults were $10 a week or less. A vocational survey in New York City soon to be published exhibits in one group 101 boys between 14 and 16 years of age and an analysis of the work they are doing. For only five of them is there any opportunity to advance or improve; 96 are in dead-end occupations.

Business is now saying that if we had the right kind of schools all this would be changed; that child labor would become a blessing instead of an abuse for children. We are constantly told that, if the schools had the right kind of curriculum and gave the right kind of training, every child would have his natural capacity developed, and we should speedily put an end to the army of industrial misfits.

All this young life would flow naturally from our schools into the great sea of industry. Everyone would fit his place. The boy or girl of 14 who now leaves our school from the eighth grade or the fourth to enter on the endless quest for meaningless jobs would be succeeded by the boy or girl of 14 fitted to choose life's work intelligently and to enter upon it with efficiency. One educational expert has gone so far as to declare that with vocational schools established to meet the needs of those not destined to business or professional careers, every pupil ought, as the result of his training, to be in a position at 14 years of age to make an intelligent choice of the occupation he desires to follow.

In accepting this challenge of the business world our educators have, in my judgment, assumed an unwarranted responsibility for this condition. Those who assert that only the inadequacy of our school curriculum and the improper development of the child's mind stand in the way of a solution of this perennial tangle of industrial incompetence and inefficient job hunting, overlook two considerations of vital importance, one industrial and the other psychological. The industrial consideration is simply the fact that for the boy or girl under 16 years of age there is no place in industry. I speak broadly, of course, for there are exceptions; but in general it is clear that the time spent in industry or in the pursuit of industry before reaching that age is a loss to industry itself and almost always a loss to the child.

A study of the annual contribution of our city schools to the business interests of the community will show that a considerable percentage is thrown into the discard within the first month; that another large percentage goes drifting from job to job, sometimes advancing, quite as frequently receding, the industries complaining that the children the schools turn out are no good; and that the children lose courage, enthusiasm, and youthful idealism in the various meaningless jobs to which they are assigned. That many drift into casual and thence into permanent idleness is to be expected. The only wonder is that any ultimately rise to positions of efficiency and responsibility.

The skilled trades have no place even for a beginner apprentice under 16 years, and many allow no apprentices to qualify as journeymen under 19 or 20. This puts out of the field the choicer occupations, and leaves the majority of children to seek jobs as errand boys, delivery boys, messenger boys, cash girls, sweepers, cleaners, tenement homeworkers, street merchants, and the like. The building trades; the iron, steel, and woodworking industries; the printers' trade; the trade of the plumber, gas fitter, electrical worker, or glass worker—all these are closed to young children because they lack physical strength or maturity of judgment.

Our schools are not fair to themselves, therefore, in assuming that they or the child are wholly at fault. If the schools need a better curriculum, so does the industrial establishment. If the child needs a more definite and purposeful mind, much more does industry. One of the most vital services vocational guidance can render is to analyze our industries and train our youth to distinguish between a "vocation" and a "job." It is futile to give special training to a child for the purpose of fastening him to a machine on which he shall do purely mechanical labor for life. Business says: "Here are the jobs; what kind of children have you to offer?" We must reverse the inquiry and say to business: "Here are our children; what kind of industry have you to offer?"

Without professing to know much about the educational side of this problem, I am willing to admit all the criticisms our foremost educators launch against the present school curriculum and methods. Nothing can be more essential to the training of a child than a conception of his industrial obligations and opportunities. I should make this general. Instead of having one specialized industrial expert to diagnose and prescribe for our public school children, I should like to have the entire curriculum shot through and through with the meaning, the history, the possibilities of vocation. A glance at the curriculum of any well-ordered school will discover that almost every subject is suceptible of an industrial or vocational interpretation. Such as are devoid of this possibility are of doubtful value in the curriculum and should be dropped, unless someone can advance a valid defense for their retention. One of the most valuable results of the modern tendency to vocationalize our schools will be that both the curriculum and the teaching staff will become so imbued with vocational inspiration that they will advance into the realm where the child lives and speak to him in the language wherein he was born. The child thus finding himself at home in school will long to remain to the last possible moment, instead of, as at present, tugging at the leash, eager to leave at the first possible moment. This will be a tremendous contribution to the elimination of the young child from our industries.

To turn to our other consideration, we maintain furthermore that no child of 14 years under any possible system of educational training is equipped to make an intelligent choice of the occupation he desires to pursue. Any attempt to fit boys and girls to become wage earners at 14 years of age is based on the theory that society is bankrupt; that we need the product of their labor. But we are not bankrupt; the reserve wealth of our nation and of the world was never so great as to-day.

Undoubtedly, intelligent vocational guidance in our public schools will do much to turn the minds of youth into channels of occupation

most attractive and most promising. This has been true of our conventional schools for many years. The old style school is a vocational school to such as plan or are destined by the plan of others for the professions. The child who is to be a doctor, lawyer, clergyman, or teacher finds in the curriculum of the typical high school the very course essential to lay the foundation for his future profession. Every year he spends in the primary and secondary grades is directly contributing to preparation for his life occupation. But he does not have to decide at 14 or 15 or 16 years of age which of these professions he will follow. The decision may be deferred until years have given opportunity for a survey of the field, until the beginnings of experience have helped him to make the choice intelligently. The tendency in this direction is increasing. To-day the young man who desires to enter one of these higher professions is required to make more preparation, to lay a broader foundation than his father or his grandfather. And if the physician desires to become a specialist, he is not even permitted under the rules of the profession to take up his specialized study or practice until he has laid its foundation in a study of the profession as a whole.

The tendency of specialization is just the reverse in industry. For the professions we require a broad general curriculum on which the specialized profession shall be superimposed. For industry we assume it may be substituted.

How can a child of 14 years know whether he is destined for the professions or the manual arts? How many of us in this movement chose our life's occupation at 14 years or would have been capable of doing it under any form of training? I can not boast of my training, but at 14 years I was planning to be a railroad brakeman. At 15 I had determined to be a horse doctor. At 16 the current of my life was changed through the fortunate circumstance of having a brother so determined to go to college that he cooperated with my parents to get the whole family there. It may have been a mistake, but it deferred the choice until after the adolescent period. At a meeting of prominent educators in New York last week I asked the 35 men present how many had chosen their present occupation before they were 20. Only 2 had done so.

The child destined for occupation in what we call "the industrial world" has no such demand laid upon him. He is not required to lay a foundation in general culture; neither is he required to become familiar with the various branches of the occupation in which he is to engage. He is not expected to know how to make a shoe in order to become a shoemaker, or to know how to fit and join in order to become a carpenter, or to know how to corral, segregate, and dispose of dirt in order to become a street cleaner. Instead of superimposing his specialization upon his general training, we seek to substitute

specialization for general training. This not only belittles the industry under consideration, but cribs, cabins, and confines those destined to engage in it. What is that ignoble thing about industry that makes it careless of its craftsmen? It should demand as thorough preparation as professional life, except in such forms of labor as are almost entirely mechanical, and these should never be open to children, but only to those who have had their day of idealism and inspiration. We reveal that we have not yet risen to the point of looking upon our industrial occupations as sacred callings ministering to the necessities of our race, but as the unfortunate fate of those who through poverty, inexperience, or lack of personal initiative are unable to get on top and draw profits from the labor of others.

So long as we view industries in this light we shall continue to consign our children to them; we shall continue to reward the manual laborer with wages too slight to maintain him and his family in decency; we shall continue to place upon our public and private charitable agencies the tragic burden of bent and broken old age, suffering the privation of grinding poverty as the only visible reward for a life of long service in the ranks of labor.

Our whole tendency in this splendidly inspiring educational awakening should be toward recognizing that we have entered upon the credit side of our ledger; that we are having to do henceforth with the problems of human possibility rather than of human poverty; that society has reached a point where it can feed, clothe, and house itself without crushing life, either physical, mental, or spiritual, from any of its children; that we can perform the work required and at the same time guarantee reasonable hours of labor to our adult workers and the opportunity to grow and play and learn to all our children.

What this will mean to the ultimate lifting of labor from its present bent position can hardly be overstated. But to enter deliberately upon an educational policy which classifies little children into those destined for the professions and other pleasant callings on the one hand, and those destined as manual laborers on the other is to attempt a cleavage in society which is a direct contradiction of all our theories of democracy. Prof. Hanus said recently:

> Education is a preparation for complete living. * * * Complete living includes usefulness and happiness. Usefulness is the activity that promotes the interests of mankind. Happiness means the enjoyment of work and leisure. Education should therefore equip a boy for a vocation and also equip him for an enjoyment of the refined pleasure of life.

Such an education will break down the present class distinctions which already cleave society and wreck so many lives. If, as I suppose, we all believe in real democracy, we must reach a point at which

we can stop talking about the "friend of the workingman," the "housing of the working people," etc. Who has a right to be housed except the worker? Why should the worker require a "next friend" at court as his guarantor or sponsor? Who has better right to stand close to the throne? Are not his own hands his credentials? But he can maintain his right only by having been given the opportunity in childhood to store his mind with useful and beautiful knowledge as well as his hands with technical skill.

If we educate our workers to make them appreciate their work, to recognize the unity of industry, we shall have real leaders among them. We now have "captains of industry." The phrase is well taken. In many of the industrial crises the protesting workmen are actually like sheep without a shepherd.

Through a proper system of vocational guidance in our schools industry will cease to be poverty-stricken on the side of leadership. It will cease to depend on leadership from outside. From the ranks will rise statesmen able and glad to defend the people's sacred rights.

Let us accept the goal proposed by Mr. Prosser, secretary of the National Society for the Promotion of Industrial Education, that every minor child shall be regarded as a ward of the State. Let us insist that the industries offering valuable training to children shall become an adjunct of the schools. Let us insist that the child's future usefulness, not the present balance sheet, shall be the measure of the success of this guidance into vocations, and let us resist every scheme to make the labor of young children a makeshift to maintain themselves or their family.

B.—THE LARGER EDUCATIONAL BEARINGS OF VOCATIONAL GUIDANCE.

GEORGE HERBERT MEAD,

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The school is an institution fashioned as other institutions. It has its roots in the past. It has held its own in the midst of contentions and against hostile forces by being what it is. It has been conscious of its value for society because of its past and has found its courage and relf-respect in its accomplishments. Especially the public schools of a democracy such as ours have had need of a strong hold upon its traditions. Our democracy has been suspicious of the standards of a learning and a literary art that belong to an upper class, and of the standard of an efficiency that arose out of a bureaucratic government.

Our school system has had its own practical traditions; and where it has added to its earlier meager curriculum, the addition has been frequently without any controlling principle. We have been very

proud of our American common public school, but we have never been quite clear what our schools have done for us, nor from just what standpoint we should criticize them. They have been the bulwark of our liberties, but we have been very generally unwilling that they should undertake more than the drill in the three R's. When we have overloaded their curricula, and the cry has arisen against the "fads and frills," there has been no definite conception of what they should do by which we can test the demands of rival educational theories.

To a large extent the educational policy of most of our large cities has represented a fluctuating compromise between forces that have been by no means all educational forces. This situation is common to our popular education and to our popular government. We know that they are precious institutions, but we treat them with a great deal of good-humored ridicule. They are the palladia of our liberties, but concretely we have not wished to have to take them too seriously. The school-teacher and the politician have been standing subjects for the wit of humorous papers.

But a change has come about in our attitude toward our governmental institutions. It is a great deal clearer to us what these institutions should and can do. We may not be any clearer as to the fundamental theories of government, but the community now knows that popular government is itself our most precious treasure and it is becoming aware that this precious institution can be called upon to do certain specific things.

Industrial education and vocational guidance mark the points at which our public schools are making such contact with actual life that the community may intelligently criticize the schools and control them in something like the same sense that it may control the management of technical departments of our governing bodies.

Fruitful contact implies primarily that the community shall be able to pass in certain respects intelligent criticism upon the school, criticism which the school authorities will themselves seek and of which they will be able to make profitable use. This implies further that the school life reaches back into the home and the community of which the home is a part and out into the occupations which the children enter when they leave the school. Lack of such intelligence and such connection between the school and the life of the community is evidenced in a type of criticism with which we are familiar. These criticisms gather mainly about the lack of drill in the three R's. Spelling, number work, and English, we are told, are slovenly; the graduates of neither the grades nor the high schools can write a fairly respectable letter; the commonest words are misspelled; the English is atrocious; the ability to cast up a simple column of figures is

lamentably absent; and yet the children are so possessed with a sense of their own competence that they can not be corrected nor taught in the offices where they are employed. The cry arises at once that the curriculum is stuffed with comparatively useless subjects while the weightier matters of essential importance for vocations are neglected.

The school authorities are compelled to bear the onslaught of this irresponsible criticism. Their critics hark back to the good old years when the simpler courses of study and the sturdier discipline of the rod brought forth the results so lacking in our degenerate days. They continue thus to criticize though actual proof from the tests of the schools of our grandfathers clearly indicates that the children came out of these more Spartan institutions less well-equipped even in the three R's than are the graduates of our own grades. These attacks upon the schools are recurrent. Each year when the employer of boys and girls loses control of the irritation caused by youthful incompetence he is apt to pour out his wrath on the institutions from whose hands he receives his employees.

Unfortunately the relation between the school and the occupation has been so slight that the comment and criticism called out by the child's failure to fit into the machinery of the office, the shop, or the factory has little value beyond the registration of friction and of the need of adjustment. It is not illuminating comment and criticism. The teacher naturally resents the implication that the child's entire education should consist in drills in spelling, penmanship, and figuring, flanked by stenography, typewriting, and cataloguing. If the child's employer is to have and express an opinion upon the child's school training, that opinion must be more enlightened and more improved by interest in the child's entire welfare. The teachers, failing to find such all-round judgment in members of the community who employ the graduates of our public schools, naturally come to regard themselves as the only competent judges of what the school training should be.

Fortunately this gap between the community and the school has been bridged at a number of points. The schools have undertaken a certain amount of vocational training, and upon strictly vocational training the comment and criticism of those representing these specific vocations is felt to be pertinent. It has been even in some degree sought by the school itself. Out of this interplay have arisen various departments of vocational training, such as technical high schools and commercial high schools. In touch with these schools the business and technical men have formed advisory boards for consultation with the teaching and administrative forces of the school, both as to curriculum and as to the actual conduct of the training itself, and the teacher, on the other hand, has on occasion followed the child in his first entrance into work, at times guarding the child's

interests and himself getting concrete material for the subject matter of the schoolroom work. The commercial high schools in Boston and in Cleveland and the technical schools in a number of our cities are illustrations of institutions in which the occupational training already present in the school has not only been improved by this technical outside interest and cooperation, but in which the vocational training has become more educative and cultural than it was when it lacked this outer stimulus to efficiency.

The inference from this is that what we have lacked in the community's complaints against school training has been a larger and more fruitful contact between the school training and the social situation for which the child is trained.

No one will assume that such instances as these solve all the many problems of education which, old and rising in novel forms, face the teachers and administrators of our great public school systems. A very large number of our school children are not and can not be oriented toward such specific occupations that their training can be made frankly vocational, and we would be turning our backs upon the best educational traditions if we should separate those who graduate from the grades or the high schools into shops and offices from those who will continue their scholastic training or who have no specific vocations before them. A democratic education must hold together the boys and girls of the whole community; it must give them the common education that all should receive, so diversifying its work that the needs of each group may be met within the institution whose care and generous ideals shall permeate the specialized courses, while the more academic schooling may be vivified by the vocational motive that gives needed impulse to a study which may be otherwise unmeaning or even deadening.

Vocational training came into the American school system somewhat tardily, but it has at last passed the door. It is true that it still remains a question whether in the immediate future it will be frankly recognized as an integral part of our public school work under a single direction, or whether, under a separate direction, it is to be kept outside the organized system of public education.

However this question may be answered in the immediate future, I can not believe that eventually it will be possible to keep separate two sides of the training of children which in material and method supplement each other—as theory and practice, as material and interpretation, as technique and application.

There is a further powerful argument against the separation of vocational training from academic training in the public school, and that is that vocational training has made the contact with the community conditions under which this education is to be used and has thus brought itself into a normal situation within which it must be

checked and tested by its results. It is just this contact which our public-school training for life has hitherto lacked. In so far as vocational training and public schooling can become a part of the same educational process, just so far will the benefits of this close functional relation between the children's training and the life of the community pass over to all parts of the preparation of our children for life. I know of no answer that can be made to this argument exceept one which must maintain that vocational training may not be educational, and that the more academic subjects of the school curriculum have no organic place in the curriculum of vocational training—contentions which the best vocational training in this country and in Europe abundantly disproves.

It is to the other phase of this contact of the school with the community to which I wish to direct especial attention, the answering phase of vocational guidance. I hope, however, it has been sufficiently emphasized that vocational training and vocational guidance are normally linked together. Through these two doors the community gains admittance to the school.

Perhaps the most striking evidence that the community through vocational guidance is able to cooperate healthfully with the school and exercise a legitimate criticism in the process is found in the fact that the school more or less unwittingly has been itself a vocational guide, has been determining what occupations many of the children who leave school shall enter, and the further fact that this unwitting guidance and direction, just because it has been largely unintentional, has been in no small degree unfortunate for the children. In so far as the school has fitted its pupils to enter one occupation rather than another, just so far it is guiding them to this vocation.

If the school had in the past as deliberately trained the children in the mechanical arts, had centered its study of history as diligently around the growth of industry, had studied the industries in the community as earnestly as it has trained them in the arts of the office and the counter, as it has organized its study of history about literature and politics, as it has studied the careers of its successful politicians, warriors, and literary men, it would unquestionably have been guiding them toward the mechanical occupations. But the school has uncritically accepted the general attitude of the community that each child should take advantage of the unequaled opportunities that America has offered of getting up in the world; and the uncritical assumption back of this attitude has been that the upward path lay away from the labor of the hands and led toward the labor of the wits, and that these were trained by the uses of language and mental arithmetic. Success has generally meant achievement in business, in politics, or in one of the professions; and the schools, apart from the

generalities found in its reading books or heard from its rostra concerning the nobility of labor and the beauties of the simple life, have unconsciously adjusted themselves to those callings in which lay the opportunities for the successful man. The training in these branches has not been extensive, but it used to be the boast of our American society that the grounding of the three R's gained in the common school was all that was needed for the energetic man; that he had much better get the rest of his vocational training in business or politics than in the school; while the professional man must gain his technique in professional training schools.

While the curricula of both the elementary and the secondary schools have been immensely enriched, especially in those subjects which are termed cultural, the trend of the training has continued to be toward business, politics, or further preparation for college or professional study. It has followed very naturally from this that the children find themselves directed toward office work, and that when training is offered in mechanical arts side by side with the technique of office work the training for the white-collar jobs is the more attractive. The schools growing up in the traditions of the American community have been guiding the children toward a certain type of vocation.

We have referred to positive guidance. There is a negative guidance, which is the more serious, because it arises from a lack of vocational training or direction. In the schools of the country at large between 40 and 50 per cent of the children in the elementary schools are eliminated before they have finished the grades—that is, before they have acquired a common-school education. It is the judgment of those who have studied these children that they are not able to retain even the meager acquirements of the lower grades. They are less capable readers and writers of English and less capable figurers in the years after they have left school than they were in the school itself. They constitute an inconsiderable fraction of those who attend the night schools. They have not that minimum of education which our common-school system, with the compulsory attendance regulations, contemplates. They are not fitted for any but the unskilled vocations; and our community, in leaving the schools with their predominantly academic curricula, their direction toward only one type of vocation and the inadequate laws governing school attendance is much more effectively guiding these unfortunate graduates of the fourth, fifth, and sixth grades toward the unskilled occupations than any system of vocational training could guide its graduates into the skilled trades.

It is impossible for the community to avoid the task of guidance. If it is not undertaken consciously and with adequate forethought,

the schools, from the very nature of school training, its adaptation or lack of adaptation to the occupations of the community, its success or failure will determine in large degree what doors shall be open or closed to those who leave school. The aptitudes and ambitions gained in school and from the surrounding neighborhoods shape the children's possible careers.

This guidance must be incomplete even when the school system frankly recognizes its duty toward vocational training. It is through the door of the vocational guidance and training that the school enters into immediate concrete contact with the homes and neighborhoods from which the children come, as well as with the industries into which they enter, and the meaning for the school of this contact is not exhausted when it undertakes various types of training in the industrial and household arts. The destination of the particular child can not be left to his own immature judgment or whim; nor is the teacher alone a competent judge; nor can the decision be safely left to the parents alone—in whose hands it might seem to be most safely left.

The experience in vocational guidance in England and in this country is conclusive upon this point. The parent, the social worker who so frequently must help parents to interpret their social situation, the teacher, and some one who understands the labor market for children and the character of the occupations, especially what they have to offer the employees in the future, must get together if the best possible chance is to be offered the child. This is especially true if the child leaves school with but little training and faces a market for only unskilled labor. To find that opening which carries with it some training in skill, some future beyond the minimum wage, which avoids the blind alleys and the many pitfalls that child labor so abundantly provides, to find this opening for the immature child who goes out to work for the community under the least satisfactory conditions is surely the common duty of the school and of the community. And it is an individual task that has a new character with each child. It can not be undertaken or carried out in a wholesale manner. No child should leave school to go to work without the benefit of all the guidance which those who have reared and taught and are about to employ him can give. The meagerness of the training which we can give the majority of our children emphasizes this duty. It is further emphasized by the value for society of the human material with which we are dealing.

But in our interest in the particular child we must not overlook the immense value which such interest should have for the school itself. It is the process by which the institution of the school passes from its fixed dogmatic stage into that of a working institution that has come to consciousness and can test its methods and presupposi-

tions by its results. For in this task of guiding the individual child into his occupation, the school faces its own accomplishment tested by the most important value which society possesses, its future citizen. The standpoint for the judgment of the school and all its works is inevitably given in the conscientious attempt to guide the particular child into the best occupation he can find in view of his training and background.

It is upon this phase of vocational guidance that I wish to insist—its value for the school. Its importance for the individual child is too evident to need argument or rhetoric. The obligation of the community that employs the child; that too often exploits him; that turns him loose upon the streets at the age of 14 and refuses him any employment with a future until he is 16; that invests great sums in an education which half the time it does not carry to the point of adequate return either to the child or to the community—the obligation of this community to reach out its hand to the child and guide him to the most favorable opening is also evident enough; the only difficulty is to find the corporate bodies of the community upon whom this obligation can be fastened. To a very large extent this sense of responsibility has come home only to the social worker whose interest in the child and his family has made his individual case real and pressing. Even the employer has come to realize in some cases the value of vocational guidance to the business that employs the child. The teachers who inevitably feel a genuine interest in their pupils will, if they are able, extend this interest to these most crucial moments in the child's career—when he seeks his first job. Beyond this human interest there is the import to the school of this first test of the child's training. The test, of course, is that of the whole educational process and it affords ground to criticize the age at which the child comes to school, the whole training given in the school, the age of leaving school, the forms of occupation these factors prescribe for the child, and the care of the child after he has left the schoolhouse up to the time of the completion of his training for his occupation.

It is not too much to say that our schools are still in one respect medieval. They assume more or less consciously that they are called upon to indoctrinate their pupils, and that the doctrine which they have to instill—whether it be that of language, number, history, literature, or elementary science—is guaranteed as subject matter for instruction by its own truth, by its traditional position in the school curriculum, and finally by its relation to the rest of the ideas, points of view, artistic products, historical monuments, which together make up what we call our culture. These tests of subject matter in instruction may be fairly called internal and do not carry the judgment of the pedagogue out of the schoolhouse. The subject matter is determined, then, in a real sense by authority, and it follows that

when the results of the training are disappointing, the pedagogue feels that he is secure within his institution and can calmly pass the charge of inefficient training on to other social agents and conditions. No one will question the legitimacy of these tests if they are recognized as organic parts of the larger test of the working of the child's school training when brought up against its use in practice.

The medieval character of the school is shown in the separation of the institution, which has the doctrines of education intrusted to it, from the other training processes in which the intellectual content is at a minimum and the practical facility is at a maximum. In the real sense the doctrine which the school inculcates should be continually tried out in the social experience of the child—there should be a play back and forth between formal training and the child's actual conduct. Until this is brought about the school will continue to be in some degree medieval and scholastic; but every fresh contact with the situation of the child who has been imbibing the doctrine and now must make use of his training in his social world outside is of immense value in enabling us to bring the child's training as a whole a little nearer the normal education of the citizen to be. No small part of this criticism must fall upon industries which are willing to exploit children, in some sense enticed from the school by the promise of a paltry wage, and upon the inadequate training regulations of the governments of our school districts.

After all, the school is the self-conscious expression of the community in child training; it is the rational, intentional institution; and however essential the activity of outside agencies are in direction and training of children, the school should be the central and organizing agency. It can, however, become such a central and organizing agency only as it abandons its medieval position of giving a body of doctrines and techniques which find their justification in themselves rather than in their value in conduct, at home, in the neighborhood, and in the vocations.

Such a testing of the doctrine and technique of school training is not to be taken in any narrow sense. In the first place, it is the final good of the child rather than his immediate wage that must be considered; in the second place, we all realize that many of the values that accrue to the child from the school training are intangible and can be stated with difficulty, if at all, in terms of his success in a trade or an office. What I am pleading for is the recognition that it is in relation to his vocation that all the child has acquired should be regarded, even if some of the acquirements are intangible and can not be weighed in the coarser scales of wage and advancement. In a word, it must be through the child's vocation that he can get to the positions in which these very intangible results of schooling will have

their season of flowering and fruiting. Unless a child can get into life he can not have it, no matter how well he may be prepared to appreciate much that is fine therein. The school may not concentrate its efforts upon values to be realized later unless it sees doors open through which the child can reach the uplands of life. It is the whole life of the child that the school must envisage, but it must conceive of it as growing out of the child's first beginnings in the world after he leaves school. Unless the school helps the child effectively into the larger fields, it is in vain that it has given him their chart.

Now it is at least consonant with the traditions of American schooling to assume that culture and training form a whole, and that the higher values grow out of the immediate necessities; to assume that in the immediate experience of the child there are found the opportunities for development of what the school has to inculcate. It is not only possible, but pedagogically correct, to give a child the history of his country from the standpoint of the industries into which he must enter; to follow the line of the child's vocational interest in organizing his course of study, with the full recognition that such a vocation has its essential relations to all that the child has to learn. Even from the point of view of the subject matter of the curriculum, the school can profit by making its standpoint vocational guidance, the guidance of the child becoming the guiding principle of the curriculum. The illustration has been taken largely from the case of the children who go direct from an incomplete elementary schooling into the shop, factory, or office; but it must be remembered that the same principle holds, whatsoever the vocation of the child may be, and it is even true that the child may well profit in his elementary and perhaps secondary training if he looks toward some vocation whose outline he can discern better than the profession which he may later follow. Trade training when adequately given is sound education even for those who will not be tradesmen.

But it is the still broader outlook that I would insist upon for the school. Not only should the school conceive of its subject matter and method from the standpoint of the success and failure of the children when they leave school; it should be humanized and socialized more completely by keeping the human fortunes of its children perpetually before it, and by continually questioning its own material and method when its graduates stumble and fall before the obstacles that confront them when they leave the schoolhouse. It should be so organically related to the other agencies that regard the success and failure of children—the home, the social workers, the employment agencies, the employers and their various plants, the higher schools into which some of its pupils will pass, and the whole

community into which as citizens it will send its students—that the contacts which vocational guidance brings with it will be largely sought and intelligently used for purposes of criticism and interpretation.

To sum up, vocational guidance means testing the whole training given the child, both within and without the school. It is the point of contact with the outer world from which to criticize both this training and the occupations into which society admits the children whom it has partly educated. The healthful relation of the school to the community, and especially to the other agencies that train our children, depends upon the school making the standpoint of vocational guidance a dominant one in its whole organization.

In accepting this standpoint the school will abandon the medieval position and will come into full human relationship with homes, neighborhoods, occupations, and all the agencies that are bound up with the development of the rising generation. In accepting the challenge of formulating the education of the child on terms of the uses to which he will put it, the school should abandon nothing of the higher values of which it conceives itself to be the carrier, but should recognize its task to be the statement of these values in terms of the child's own experience.

In vocational guidance the school finds its supreme task as the conscious educational institution of a democracy.

In endeavoring to formulate the larger meaning of vocational guidance for the school, I seem to have gone away from the immediate concrete and often meager undertaking of the vocational guidance with which we are familiar, but acquaintance with intensive studies of the schooling and occupations of children in a poverty-stricken industrial section of Chicago has convinced me that the task of following up the boys and girls who, with incomplete schooling, search after wretched jobs, brings out with terrible force the necessity of regarding and judging our whole process of child training from the standpoint of the vocations into which we are unconsciously driving them. The children are worth so much more than the occupations to which we dedicate very many of them, and, after all, the school is the one institution which can express this value of the children in terms of the preparation it gives them for life; hence it can speak with authority to society as to the occupations into which the children may enter. It is at this meeting point of training and occupation that the school can criticize its own achievements and at the same time the life into which the children are to enter. It seems to me of supreme importance both to the children's training and to their vocations that both should be formulated in terms of vocational guidance.

C.—STUDIES IN OCCUPATIONS.

LEONARD P. AYRES,
Director Division of Education, Russell Sage Foundation.

Recently we have been conducting a series of studies in the division of education of the Russell Sage Foundation with the object of finding a fact basis for some of our thinking and acting in regard to vocational education and vocational guidance.

One of our investigations consisted of a study of certain facts concerning the 13-year-old boys in the public schools of 78 American cities, and of their fathers. We chose the 13-year-old boys because they are in the last year of compulsory school attendance. They are the ones who under present conditions leave school in large numbers to enter money-earning occupations. The first fact that we learned about these boys was their school grades. We found that they were scattered in every grade, from the kindergarten through the high school. More significant still, we found that one-half of them were in the sixth grade or below. To my mind, the significance of this fact is that the kind of vocational guidance that these boys need is the kind that will keep them in school longer, and the kind of vocational guidance that these school systems need is the kind that will help them to carry such boys as these forward through the grades further and faster. Certainly, the boy who has completed the compulsory-education period and is in the third, fourth, or fifth grade is not prepared to enter any money-earning occupation.

Another thing that we found out about these boys and their fathers was where they were born. This inquiry disclosed the facts that among the fathers only 1 in 6 is now living in the city where he was born, and that among the boys only a little more than one-half are living in the city of their birth. These facts seem to indicate that vocational guidance must have a broader outlook than that which relates solely to the local industries; for, if present conditions maintain in the future, one thing that we can be sure of is that many of the young people of any given community will eventually find their life work in some other community.

The next set of facts that we gathered concerning the fathers of these boys related to the industries and occupations by which they earn their livings; and the analysis of these data brought to light the significant fact that there are some occupations common to every community, which we may therefore term "constant" occupations. Other occupations are found in some localities and not in others, and these we may term "variable" occupations. The constant occupations are those that are necessary to maintain the many branches of the enlarged municipal housekeeping that must go on wherever large

numbers of people live together in one place. For example, house painting must be carried on in the city where the house is, while paint may be manufactured anywhere. The baking of bread must be carried on by each community, but crackers can be baked somewhere else and brought into the city.

In making our analysis of constant and variable occupations we enlarged the scope of our inquiry so as to include all of the cities of the United States of more than 50,000 population. We discovered the facts concerning the number of people engaged in each of 140 separate occupations in each one of those cities. As a result we found that there are 20 constant occupations in which the number of men workers is at least equal to 1 for every 1,000 of the population, and 7 constant occupations in which the number of women workers is always at least equal to 1 for each 1,000 of the population. We discovered, for example, that in any city in the United States of 50,000 population you will always find more than 50 barbers, and that in the average city of that size you will find 150 barbers. It so happens that this is the most constant of all occupations, so that if anyone knowing these facts had been able to foresee that Gary, Ind., for example, would be a city of 40,000 population, he would have been able to prophesy ahead of time that the city would employ approximately 120 barbers. These constant occupations, with the number of people engaged in them in the average city, are as follows:

MEN.

Occupations.	Average number workers per 1,000 population.
Bakers	2
Shoemakers	2
Street railway men	3
Plumbers	3
Barbers	3
Masons	4
Blacksmiths	4
Printers	4
Engineers	5
Waiters	6
Bookkeepers	6
Printers	7
Machinists	8
Steam railroad men	11
Carpenters	11
Salesmen	12
Teamsters	12
Clerks	15
Storekeepers	15
Laborers	37

WOMEN.

Occupations.	Average number workers per 1,000 population.
Housekeepers	2
Nurses	3
Laundresses	4
Saleswomen	4
Teachers	5
Dressmakers	9
Servants	25

It is almost certain that if this list was brought up to date two, and only two, additional occupations would be included—those of stenographer-typewriter and chauffeur. These occupations include in the aggregate more than half of all the people engaged in gainful occupations in all our cities. These facts appear significant. They

seem to indicate that if all other conditions are equal, vocational guidance should give preference to occupations that are everywhere constant over those that are not.

Our next study consisted of a consideration of certain characteristics of different industries which it would seem fair to take into consideration in deciding whether or not any given occupation holds out such promise to the future worker that it may justly ask the cooperation of the public schools. In considering these tests or criteria for judging industries, we have taken the somewhat unusual position that if any industry is to demand of the public schools, "Train our future workers," the public schools not only may but must ask of the industry, "What have you to offer?" We are looking at this matter from the point of view of the producer and his quality, and not from the point of view of the product and its quantity.

Taking six common manufacturing occupations at random, we asked, first: "What are the current weekly wages paid to adult male workers?" In this comparison we have found the percentage of adult male employees in each of these industries receiving weekly less than $10, the percentage getting as much as $10 but less than $20, and the percentage getting $20 and more. Our object here was to find out whether there was in each industry, in the phraseology of George Ade, "always room and board at the top." Our results were as follows:

Weekly wages in certain occupations.

Occupations.	Percentage of workers receiving weekly—		
	Under $10.	$10 to $20.	$20 and up.
Printing	36	50	14
Agricultural implements	48	48	4
Bakeries	33	63	4
Breweries	16	75	9
Shoes	54	41	5
Pianos	31	60	9

It is not only important to know how much each worker finds in his pay envelope each week, but we also need to know how long he works each day to fill that pay envelope; so our second question related to the prevailing hours of work. The results are as follows:

Occupations.	Hours per day.
Printing	8
Breweries	8
Pianos	9
Agricultural implements	9½
Shoes	9½
Bakeries	10

While wages and hours of work are of prime importance, the problem of the amount of unemployment during the year must also be taken into consideration; and this we have investigated by finding what proportion of the workers are idle during each of the 12 months.

In judging these industries the factors affecting economic efficiency are of prime importance, but those affecting physical health must not be disregarded. This last item has been studied by finding the death rates per 1,000 employees in each of the industries, with the following results:

Occupations.	Death rate per 1,000 employees.
Shoes	9.4
Agricultural implements	10.5
Printing	12.1
Bakeries	12.3
Pianos	18.0
Breweries	19.7

We have included one more factor in our series of suggested tests, and that relates to the degree of concentration of the industry. It is important to know whether the industry is one in which the chances of employment are relatively good throughout the country, or one confined to a restricted locality. Taking some extreme cases, we found, for example, that 79 per cent of all the cuffs and collars manufactured in America are made in the small city of Troy, N. Y.; that 87 per cent of all the grindstones are manufactured in the State of Ohio; and 57 per cent of all clothing is made in New York. There are about 20 other important industries that are to a greater or less degree in the concentrated class.

To summarize, some of the larger social, economic, and educational bearings of this problem, as they have presented themselves to us during our investigations, are as follows: If we are to engage in vocational guidance, our first and greatest need is a basis of fact for our own guidance. The kind of vocational guidance that many of our children most need is the kind that will guide them to stay in school a few years longer, and the kind of vocational guidance that our schools most need is the kind that will show them how to carry the children forward through the grades further and faster. Vocational guidance must have a wider horizon than that offered by the local industries. Other conditions being equal, vocational guidance should favor constant occupations over localized ones. Vocational guidance must be prepared to challenge each industry intelligently, and on the basis of ascertained fact, and to demand of it that it show a clean bill of health with respect to such important factors as wages, hours, unemployment, and hygienic working conditions.

II. PRACTICAL, SCIENTIFIC, AND PROFESSIONAL PHASES OF VOCATIONAL GUIDANCE.

A.—LESSONS EUROPE HAS FOR US.

MEYER BLOOMFIELD,
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The different cities of England, Scotland, and Germany, particularly cities like Birmingham, Liverpool, York, London, Edinburgh, and Glasgow, have developed a vast machinery of service to tide over the transition from school to work, but it is my impression, after looking over the work with some care, that these communities have become too much engulfed in the transition problem of placement to give sufficient thought at the present time to a lessening of the causes which produce such a rush on the labor exchange. It is not a difficult matter to open an employment office and find jobs; and the fact that there are 400 labor exchanges in England is interesting and important only to this extent, that they have begun to organize the labor market—something we have not done in this country.

So far as there is an organization of the labor market, the work on the other side is praiseworthy. So far as the organization of the labor market has swallowed up the child market for labor without clearly differentiating the peculiar problems of children under 18 years of age, the plan is rather too big to be thoroughly effective from our vocational guidance viewpoint. They content themselves on the other side, particularly in Scotland, with seeing to it that all the children who are given places go to night school, to their so-called continuation schools. Their eagerness for night-school enrollment appears to have made them quite lose sight of a fact which we feel very strongly in America, that the only right time for children to be found in night schools is the day time.

Perhaps this great overdevelopment in England and Scotland may delay certain fundamental policies which legislation alone can effect. Nevertheless, this vast system of voluntary service of public-spirited women—there are 1,500 in Birmingham alone—and these vast nuclei of voluntary committees are educating a certain proportion of the English public to see the child problem in modern industry, and it is to be hoped that one of these days they may unload a good deal of

this detail and begin to ask, Why so busy in our labor exchanges? Then we should, indeed, be on common ground.

As to Germany, we have heard much about the continuation schools, which are, indeed, excellent. We have not heard, however, that some of the most thoughtful men and women in Germany have been agitating quietly and now are agitating openly for a system of vocational counseling to safeguard the part-time vocational schools. With all this system of efficient part-time training, it is as true in Germany as it is in England and in this country that the jobs which amount to nothing pay the highest wages and attract most of the children, and it is also true that the problem of the boy or girl in unskilled callings is hardly even considered.

It is interesting to note that in Bavaria, where the continuation schools are best known to us, the Social Democratic Party has in its recent convention written into its municipal platform a strong statement in favor of municipal vocational bureaus to serve, on the one hand, the schools which have not the economic contact, and, on the other, the labor bureaus which have not the social outlook. Within two or three years some of the directors of the municipal statistical offices, who are usually trained economists, have seen the gap between the elementary school and the continuation school. In three or four cities the directors of these offices have established what they call parent consultation hours. They have taken the valuable statistical material hitherto compiled only for the student and dealing with the labor market, apprenticeship, conditions of employment, demand for employment, and the rise and fall of wages, and they have made that information available to parents, children, teachers, and employers who resort to these offices for expert consultation.

I have not found, either in Germany or in England, any considerable recognition of the fact that the vast scheme of medical inspection and factory inspection misses fire at the point of most concern to us, the employment of the child. Since this is a world lack, I hope we shall all call attention to the need of so coordinating our medical inspection that it may be something more than a preventive of school epidemics; so that it may be something more than perfunctory; so that it may in time develop vocational specialists among the physicians, who are almost the most valuable persons at certain times in the whole scheme of vocational guidance.

Finally, the validity of any vocational scheme, whether abroad or here, may be tested by one very simple test: What does it mean to the child and its future? All vocational service takes its meaning from its relation to the child, not its transitory relation, not its statistical relation, but its fundamental relation of continued and farsighted service. With these tests in mind, we shall be able to grade

the vocational lessons from Europe as some good, many indifferent, and many—I shall not say poor—but promising and incipient.[1]

B.—PSYCHOLOGICAL TESTS IN VOCATIONAL GUIDANCE.

LEONARD P. AYRES, Ph. D.,

Director Division of Education, Russell Sage Foundation.

Psychological tests in vocational guidance are of two sorts. Those of the first sort have for their aim the selection of people for positions. Such tests are now being put into practical application in several occupations and industries. They vary in kind from the simplest sensory tests to complicated evaluations of complex mental operations.

Among the simplest of such tests are those for vision, hearing, and color discrimination given to all recruits in the Army, Navy, and Marine Corps. Similar, but more exacting, tests of the same sort are given to candidates for licenses as pilots and for positions as officers of ships.

Railroad employees, and in some cases those of street railways, are subjected to tests of vision, hearing, and color discrimination. In the case of the trainmen, the color discrimination tests result in the rejection of about 4 per cent of the applicants. The tests are repeated every two years for all the men and at intervals of six months for those suspected of defects in color discrimination. In all of these cases the tests have for their object merely the detection and rejection of unfit applicants.

In at least three industries phychological tests are in use that are more highly developed in character and have for their object the more difficult task of selecting from among all the applicants those best fitted to perform the work.

The first instance is the work of Mr. S. E. Thompson, who used reaction time tests in selecting girls for the work of inspecting for flaws the steel balls used in ball bearings. This work requires quick and keen perception accompanied by quick responsive action. Mr. Thompson measured the reaction time of all the girls and eliminated those who showed a long time between stimulus and reaction. The final outcome was that 35 girls did the work formerly done by 120; the accuracy of the work was increased by 66 per cent; the wages of the girls were doubled; the working-day decreased from 10½ hours to 8½ hours; and the profit of the factory was increased.

[1] For detailed information about vocational guidance in Europe, see Bulletin of the Bureau of Education, 1914, No. 4: The School and the Start in Life, by Meyer Bloomfield.

The second of the three cases is the work of Münsterberg, of Harvard, in testing street-car motormen with the object of selecting those least liable to be responsible for accidents. From several viewpoints this problem is of great practical importance, inasmuch as some electric railroad companies have as many as 50,000 accident indemnity cases a year, which involve an expense amounting in some cases to 13 per cent of the annual gross earnings.

The motormen were examined by means of a somewhat complicated laboratory apparatus constructed for the purpose of testing their powers of sustained attention and correct discrimination with respect to a rapidly changing panorama of objects, some moving at different rates of speed parallel to the line of vision of the subject, and others crossing it from right and left.

The results of the experiments showed that the tests were fairly accurate in sorting the motormen for efficiency as demonstrated by actual service. The tests require about 10 minutes for each individual. Even in their still unperfected form their application would result in the rejection of about 25 per cent of those who now are employed as motormen. There can be little doubt that this would result in a large reduction in the number of deaths and injuries from street-car accidents.

The third and last example of the application of psychological tests to the selection of employees in industry is the series of tests of telephone operators. These also were conducted by Münsterberg.

The American Telephone & Telegraph Co. employs some 23,000 operators. Applicants for positions are given a preliminary training of three months' duration in the company's schools, during which time they receive salaries. So many eventually prove unfitted for the work that more than a third leave within 6 months, involving a financial loss to the company of many thousands of dollars each year. The object of the tests was to develop methods whereby the unfit girls could be eliminated before, instead of after, entering the service.

The girls were examined with reference to memory, attention, general intelligence, space perception, rapidity of movement, accuracy of movement, and association. The results showed that the girls who gave the best results in the tests were most efficient in practical service, while those who stood at the foot of the list failed later and left the company's employ. It seems fair to conclude that when such tests are perfected, short examinations of a few minutes each will prevent thousands of applicants from wasting months of study and training in preparing for a vocation in which they can not succeed.[1]

[1] The accounts of the tests of motormen and telephone girls are taken from Psychology and Industrial Efficiency, by Hugo Münsterberg, Houghton-Mifflin Co., Riverside Press, Cambridge, 1913.

In the cases so far reviewed the persons tested have been applicants for positions. With a somewhat different purpose Prof. James E. Lough, of New York University, has tested beginning students in stenography and typewriting to determine which ones possess the abilities which will enable them to succeed. The tests used are designed to measure the subject's ability in habit formation. The experiments are still under way, but already results have been secured which warrant the conclusion that a method has been devised which successfully separates the fit from the unfit candidates.

In addition to these cases in which psychological tests are being successfully applied to vocational problems, several pieces of experimentation are now under way to develop similar tests for marine officers. Ricker, of Harvard, has constructed apparatus for testing chauffeurs. Whipple, of Cornell, has done some work with tests for motormen. Seashore, of Iowa, has published a most careful study of tests of the ability of a singer. So far as is known, no work in this general field has been done in Europe.

All of the tests referred to up to this point are of the sort mentioned at the outset. All of them have as their purpose the selecting of persons for positions.

The second sort of psychological tests in vocational guidance are those having for their purpose the selecting of positions for persons. Up to the present time none has been developed, although expressions of a longing for them and faith that they will ultimately be discovered are features of the literature of the vocational guidance movement. Even definite attempts in this direction are few. In Chicago Dr. McMillan is doing some hopeful work. In Cincinnati Mrs. Woolley has records of tests of the intellectual abilities of 800 children and records of their industrial success or failure, and she hopes to correlate the two sets of data.

In various parts of the country vocational experts are at work who base their decisions not on the results of psychological tests, but rather on character diagnoses made from an inspection of the applicant and from a general evaluation of his answers to questions about himself. The defect of this method is that the questions are put for the purpose of revealing the personality of the subject, but since the replies can not be evaluated until the questioner has some basis for knowing with what degree of truth and significance they have been answered, the whole effort tends to move in a circle. Some of the experts who employ these methods unquestionably obtain good results, but until their tests become objective rather than merely observational and until the results are definitely recorded so that they can be accurately studied, it can not be claimed for them that they have attained the dignity of scientific status and reliability.

Nevertheless, the present situation is that we already have some tests for selecting people for positions and no tests for selecting positions for people. The reason is not far to seek; in one case the problem is vastly more simple than in the other. When we select people for a position, our problem is to sort out the more fit from among the applicants. This involves the development of methods for discovering the degree to which each candidate possesses the needed qualifications for one kind of work.

When the object is to select a position for a person, the problem is to discover which one of a vast number of possible sorts of work the person is best qualified to do. The difficulty arises from the almost unlimited number of possible alternatives.

At the present time we possess a rudimentary knowledge of the qualifications demanded in four occupations—those of inspector of bicycle balls, motorman, telephone operator, and typewriter. Moreover, in the cases of at least two of these occupations the tests required for even a rough sorting of the applicants are numerous, long, complex, and must be given by a trained psychologist.

Now the total number of separate classes of gainful occupations listed in the occupational index of the United States Census is 9,326, and many of them should be split into several subdivisions. This reveals something of the magnitude of the task of sorting children according to their vocational destinations.

Nor is the mere number of our occupations the only difficult feature to be faced. Modern industry is subdivided into occupations of which teachers and psychologists have, as a rule, slight knowledge. For example, if we open the occupational index to "S" we find a list like the following:

shooter	skimmer	sleever	smelter
shoveler	skinner	slider	smither
silker	skiver	slipper	smoker
singer	slasher	slitter	smoother
sizer	slater	slubber	snapper
skeiner	slaughterer	slugger	soldier
skidder			

Now, when we propose to guide children into vocations, we must remember that large numbers of them are going into just such vocations as these. It is true that only a part of the 9,326 gainful occupations are available to the children of any one locality. It is also true that the same sorts of tests would undoubtedly serve for many different occupational examinations. Again, we must remember that we are using a false analogy when we refer to fitting square pegs into round holes in talking of vocational misfits; for people and positions are both plastic, not rigid, and much mutual change of form often takes place without injury to either person or position.

Nevertheless, even after all allowances are made, the inevitable conclusion remains that in vocational guidance the greatest field of immediate development for psychological tests is in choosing persons for positions rather than in selecting positions for persons.

The possibilities in the former field of effort are inspiring. When the best possible adjustment shall have been attained between work and workman, each one will have his full opportunity to achieve at least something for commonwealth and common weal; the tasks of the world will be better done and the workers will receive greater rewards, deeper joy, and fuller satisfaction in their doing.

C.—NECESSITY OF PROFESSIONAL TRAINING FOR VOCATIONAL COUNSELING.

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Reduced to its lowest terms, the chief work of the vocational counselor is to deal with individual persons who are in need of help in choosing a life career. There are, however, factors involved in doing this which make it expedient and necessary for him also to be no less a counselor for the vocations themselves on the one side and for the schools on the other. Of course, there is the great problem of the floating population, the vocational tramps, who need help periodically in getting jobs; but aid given them is essentially in the nature of the employment agent's work. His problem is to know opportunities for immediate employment and to connect the given job with a man who can do it. He gives no advice, counsel, or information save only that necessary to provide the employer with his man, the man with his job. The work of the counselor, however, is concerned much more with the choice of permanent life work. He is, therefore, dealing with a problem that is fundamental, both from the standpoint of the individual seeking his place in the world's work, and of the social world for which his work is to be done.

Whether one who assumes responsibility for such counsel should have professional training may be best answered by noting the elements of specific work which he is to do and the qualifications required to do it. Upon the efficacy of his counsel depends the weal or woe of many individuals and the consequent well-being or misfortune of the society these individuals serve.

Among the qualifications which seem to me to be necessary for successful counseling, I shall note specifically four which are inclusive of many minor elements. These are: Information, experience, appropriate personality, and capacity for constructive research.

The information definitely needed is of two types—that of the vocational world and that of people. It is manifestly impossible for any one person to know the details of all of the several thousand different kinds of work by which people maintain a livelihood, but it is possible to know something of each of the relatively small number of groups of vocations into which these may be classified on the basis of fundamental activities involved. First of all, there is the grouping into the five large divisions, the professional, the commercial, the agricultural, the industrial, and the household. Within each field are subdivisions rather well defined in some particulars. In turn, each of these subgroups is divisible into specific phases of work, making a total of several thousand different kinds of occupation. There are, however, many overlappings in these occupations from the standpoint of the activities and qualities required for efficient service. As a matter of fact, we know little that is of fundamental character in the classification of qualities for vocational success, nor of the activities that are fundamental in the vocations themselves. Viewed from this one standpoint the hit-or-miss, leap-in-the-dark quality of advice given by a counselor who does not even know the little now known and who has not the training and capacity for further discovery is quite apparent. The fundamental activities involved in the larger groups of vocations and their more important subdivisions the vocational counselor should know as the analytical chemist knows the elements, the families of elements, and the compounds of these elements and families of elements.

The counselor must know not only the more fundamental activities involved in these various fields and the personal qualifications required to conduct them, but he must also know the conditions of the occupations as they exist from time to time. The relationship between present and probable supply and demand, the relative wages, and the changes in methods, devices, and organization affecting the workers must all be more or less at his immediate command. Illustrations may be drawn readily from the fields of farming, commercial work, and manufacture to show that new inventions are constantly supplanting whole groups of workers, leaving them out of employment and unable to derive any help whatever from a technical training which may have been developed only through a long and devoted period. A current illustration of this is clearly evident in the commercial field. Stenographers have been in great demand, and means for preparing them have developed in response under both private and public auspices. If a young man or woman seems well adapted to this field, nothing is easier than to advise attendance upon a school appropriately fitting for such work, assuming that such a

school exists. But a disturbing factor immediately appears when it is learned that the dictaphone has begun an invasion of this field which points toward the early elimination of the stenographers from perhaps one-third to one-half of the offices in which they have heretofore been indispensable.

A knowledge of the initial wages in the various occupations is entirely inadequate for the purposes of the counselor. Possibilities for training, advancement, and increase in wages are altogether of more significance than are initial wages. There are hundreds of jobs that offer wages alluringly high for boys in their early teens, 16, 18, or even 20 cents an hour; but there is nothing in the work save the easily attained maximum of the 20 cents an hour. The end of the "blind alley" is reached. When manhood overtakes the worker in such a calling, he either morosely submits to a life sentence of dulling, monotonous drudgery with all that this implies, or he changes to some other occupation, rarely finding one with much more chance of growth or advancement than the first. Dissatisfaction leads him again to change, and the probability is strong that he will soon become a permanent member of the class of "job floaters" or "hoboes." All such occupations the counselor must know.

The counselor must likewise know in which vocations the capital for success lies primarily in manual skill, and in which it is chiefly a matter of vocational intelligence. In the transition from handicraft methods of manufacture to factory and machine production a whole generation of schoolmasters and not a few tradespeople have made the error of prescribing an effective method of training for an outgrown method of production without realizing that it was fundamentally defective in meeting the conditions for which they were presumably preparing. We all thank God and progress that the day of handicraft production has been supplanted by methods far more efficient, just as log cabins, kerosene lamps, hand-reaping machinery, and "prairie schooners" have been supplanted by inventions a hundredfold or a thousandfold more efficient. But the work of a thousand manual-training teachers in this country, fondly supposing themselves to be vocational trainers for present-day industry, shows how the factory system with its division of labor, its machine processes, and its applied science has entirely escaped them. If these and the authorities employing them have been so oblivious to conditions in the real world of industry, it behooves us to have a care that those counseling young people about to enter such callings should be alive to the world's work as it actually must be done by those taking up its problems. I count it a travesty upon our schools and a tragedy for

our boys and girls that a number of large hardware dealers in New York, who conduct supply houses for the whole country, carry a large stock of goods no longer used at all in the trades, but carried to meet the steady or even increasing demand of the manual-training departments and schools of the country.

The vocational counselor must also know people. In addition to the usual meaning which would attach to this statement, I mean that he must know how to use all of the means whereby he may be able to help the candidate to discover his vocational aptitudes and capacities and make the adjustment between these and the work appropriate for him. He must be able to make appropriate use of the tests and devices discovered by psychological research in the finding of individual differences and abilities; he must know the bearing upon the problem of race and national peculiarities, traditions, prejudices, and characteristics; he must know the influence of home and social settings and of previous experiences in determining motives, ambitions, and ideals; and he must know how to interpret those more or less elusive and intangible qualities that go to make up the thing we call personality. Thus to know people requires at least three factors: An intimate knowledge of the methods and values of making records and tests, together with their interpretation; a large background of experience in observing young people and workers in their work, in their homes, and in their social life; and a high degree of common sense or the ability to take the results of common observation and experience and from these to deduce quickly a valid judgment. This resulting judgment will seem to the casual observer a matter of intuition, but it is rather only the product of much knowledge, training, and experience reduced to terms by the instant and almost unconscious application of the expert.

Besides this crystalized experience, the counselor must be characterized by tact, decision, and unbounded human sympathy. He is to give advice, not orders. The candidate is to act as a free person, following counsel because of the appeal it makes to his ambition and sense of worth, not because of any sense of compulsion.

As a final qualification, I would add that of capacity for constructive research. Since human life, and notably vocational life, is in a state of constant change, the vocational counselor must be capable of making or of directing such lines of research and investigation as will insure his progressive familiarity with those changes to which adjustments of workers must be made. Furthermore, in our present state of poverty of knowledge relative to questions of fundamental importance in the classification of vocations and of the means for determining vocational aptitudes, the counselor will have the pressing

problem of initiating means of inquiry which will help to supply this much-needed information.

The relation of the counselor to the schools is of paramount importance. The needed changes revealed by his work must be wrought through the schools. When he looks at the conditions and needs of vocational life on the one hand and at the pitiable emptiness of the schools with reference to these needs on the other, his spirit must indeed be courageous and heroic, or it will shrink from a task that looks almost insuperable. Besides his own experiences, he reads in one of the most recent studies of the vocations entered by children between 14 and 16, based upon 4,386 St. Louis cases, that about 90 per cent entered unskilled occupations; about 7 per cent low-grade skilled occupations; and less than 3 per cent high-grade skilled occupations; that over 70 per cent of these children entered occupations demanding merely fetching and carrying—"blind alleys" in almost every case. Turning to the Massachusetts study of 1906, the New York study of 1911–12, the Cincinnati studies still in progress, the Philadelphia study of 1912–13, and to any others available, he finds this condition approximately true for the country at large. He reads that Charles H. Luddington, of the Curtis Publishing Co., Philadelphia, recently stated that:

> Seventy-five applicants were interviewed for a recent vacancy in our typist force. At least 50 were obviously unfitted, and about 25 were tested before one competent worker was secured. To fill the position of correspondent, it is necessary for the Curtis Publishing Co. to interview from 10 to 50 persons; to find a stenographer, 15 to 25; a typist, 25 to 50; a high-grade clerk, 20 to 25; an ordinary clerk, 10 to 15. Whenever it is necessary to secure operators for our office appliances, which are generally used throughout the commercial world, we are obliged in 90 per cent of the cases to train them ourselves.

From these conditions in the vocations the counselor looks back to the schools. What are they doing about it all? Armies of children are dropping out, largely because the work makes no appeal of appreciable worth to them or their parents; occupations offering opportunity for growth and progress will not have them until they are 16. Counseling 100 children to enter vocations that will take but 3 is as foolish as it is vain; counseling them to go back to the schools from which they came is almost as foolish and usually quite as vain. To counsel the child to make the most of the occupation possible as a temporary measure and to take up part-time school work for entrance into an occupation that is more desirable when adequate maturity is reached appeals to the counselor as the most hopeful solution. But here arises the stone wall of ancient tradition, manned by the guns of academic schoolmasters and political boards of education, backed by a quiescent public opinion. The counselor realizes

that in most communities there are no schools, there is no school work which his honest conscience will permit him to advise as meeting the need. How long must this army of ambitious, capable boys and girls be allowed to go to the scrap heap of adult inefficiency, disappointment, and too often of pauperism and crime? How long must this army of tens of thousands ask for the bread of real, present-day life, of opportunity to prepare for gaining an adequate, respectable, and efficient living and citizenship, and be given the stones of academic gymnastics?

It is my faith that the vocational counselor, properly trained, will become the great force for bridging this gap between the vocational world and the schools. Timely, tactful, and, most of all, intelligent appeals to employers and school people (boards of education, superintendents, and teachers), revelation to them of facts, needs, and plans, should certainly be one of the most effective and far-reaching duties of the vocational counselor. To be sure, his immediate problem is partly an emergency problem—to do all that he possibly can to meet the specific needs of the individual candidates whom he is trying to aid. But if his work does not reach far enough into the vocational world, on the one hand, and into the schools on the other, to better conditions in both, to bring them closer together, and largely to remove the causes producing the emergency, then his efforts are just so much short of adequate success.

Can the vocational counselor achieve the success for which his position is established without professional training? In considering the problems of the counselor and the means and qualifications for meeting these problems, it seems to me that professional training is implied as essential at every point. His work is not a matter of a card-filing cabinet nor of the mere memory of facts. It is a work requiring trained judgment, intelligence trained to see the crucial point in a mass of complex data, a broad and intensive grasp of many complex social and psychological situations, and rigid training in the accurate interpretation of facts, conditions, and human qualities. Efficiency in these activities does not come by intuition alone nor by casual experience alone. Although every day's work of the counselor will be an asset in the work of the days following, training in every phase of the problem for which provision can be made will aid in eliminating waste from the beginning. It will save many a worker who would probably be wrecked on the rocks of misdirection. The problem comprehends the well-being of individuals, of vocations, of the school, and of society at large. For this significant work let us have men and women of the best possible professional training, that their efficiency may be in proportion to their responsibilities.

D.—THE PRESENT TREND OF VOCATIONAL GUIDANCE IN THE UNITED STATES.

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The interest in vocational guidance in this country began with the problem of the misfits—those, chiefly adults, who had failed because they had gone into the wrong occupation. The work began, not in the schools, but in connection with social settlements; and the general attempt was to interview these people who had gone into the wrong occupations and to try to help them.

The general assumption which seemed to underlie these early efforts implied a sort of "niche" theory of vocational guidance. The idea was, apparently, that there were niches enough in society to go around; that the individuals were all right, but that they had been shuffled the wrong way, and some had fallen into the wrong niches. If one could simply find out where these mistakes had been made and reshuffle the people into the right niches, the problem would be solved.

It did not take long for both of those assumptions to break down. In the first place, it became evident that there are not enough of the right sort of niches in society. In the second place, it became evident that very many of these individuals who were coming for advice had failed not merely because they had been shuffled into the wrong niche, but very largely because they had been spoiled in the making. They were no longer fit for any respectable kind of a niche, and it was hopeless to try to fit them. It therefore came to be realized that there was a much more fundamental problem involved, and that this fundamental problem was really, in the first, how to avoid spoiling these individuals; and how, in the second place, to improve the quality of the niches awaiting them. In order to attack any such problem it was necessary to turn toward the public schools. In other words, the emphasis shifted in this field of vocational guidance very early, as it has shifted in nearly every field of social endeavor, from the curative point of view to the preventive point of view.

Accordingly, the leaders in the movement for vocational guidance turned toward the public schools, where are assembled a large mass of individuals in the making, and they said that to advise a child after he has left school what vocation he should follow is entirely too late. What we ought to do is to begin to advise him long enough before he leaves the school so that the school itself can do something to help him to fit himself for a proper vocation.

Then another point logically, if not chronologically, arises: There is little use in placing stress on advising the child as to the kind of work in life for which he ought to fit himself unless you can offer him

training for that work. So we get another shift on emphasis from mere vocationl guidance to vocational training. Most of us have now reached the point where we are ready to insist that an adequate public-school system ought to have at its command courses of training for any legitimate occupation that a child should wish to follow; and we wish to find out some rational way of advising the children how to select their courses of training and consequently their future vocations. We realize that there are none of our school systems that come up to that ideal, but it is something to be at the point where we are all ready to agree as to the need. In other words, we have now reached the problem of ways and means.

Of course the most obvious demand is for an increased variety of instruction and for proportionately increased equipment in our public schools. We need more teachers and different kinds of teachers to present the various subjects which ought to be taught. But here, again, we come face to face with another practical problem. In order to decide intelligently just what kinds of training ought to be introduced into our schools, or at least to decide with what kinds we ought to begin, even if we grant that they all ought to be there ultimately, we need information of at least two kinds. We need, in the first place, a careful educational survey of the community; that is, we need to know what courses of training are already provided for in the community in question. We need such a survey as that made in Boston—a charting of all the educational opportunities of the community; because that might modify very markedly the initial steps toward introducing courses of training into the public-school systems.

We need, in the second place, an industrial survey. The industrial survey is a very difficult thing to make; it is a very difficult topic to deal with. Of course, a school has to take and does take the attitude of working for the welfare of the child and the community. It does not wish to introduce any courses of training into its system which would lead to occupations that are undesirable or injurious to the child. But it is not an easy matter to find out just what the good and the bad occupations are. We have some general information that applies. As to a few occupations, perhaps we know; as to a great many, particularly industrial occupations, we do not know exactly what the conditions are, whether they are such that the public school would be warranted in training workers for them or not, and we can only find out by making a careful industrial study of them.

I do not wish to lay down rules for making industrial surveys, but there are a few things that need to be avoided. In the first place we can not make an industrial survey satisfactorily by sending out cards to be filled out by employers, or even by interviewing employers. A great many employers are not willing to tell the truth about their

industries, or at least are not willing to tell the bad features. Again, the leaders of industry resent a demand for publicity; they insist that their business is their individual affair and that no one has a right to meddle with it. Further, employers often make their answers from a point of view so different from that of the questions that it is not easy to interpret them.

To make an industrial survey we have to consider both sides of the industry as an employment, and it seems to me absolutely necessary to interview a large number of individual employers to get weekly rates, average time unemployed, yearly income, average weekly wages for the year, etc. In order to do all that we need a staff of trained workers. It can not be done by the teachers in the schools, because they have not the time and they have not the experience.

There are various ways of getting industrial information other than by means of a survey. The ways we have at present are the continuation schools; the compulsory continuation schools, which keep our public schools in contact with the children in industries for a year or two; the system of registering changes of positions, such as we have in Ohio, which brings the children all back to the central office, where the information may be obtained; and then the placement work with a systematic "follow up."

There is great difference of opinion as to how early placement work ought to begin, as to whether it is wise at present to try to place beginners in industries at all; but I think we all agree that ultimately placement work is one of the things to look forward to. It is unquestionably a valuable means of getting just the kind of industrial information which the school needs so badly in deciding its courses of industrial training.

Then there is the further problem facing us of the form of instruction; how closely shall industrial courses be identified with the industry and how closely with the school. Is it safe to put the courses on a part-time system—a little bit of industrial instruction in the school and a little within the industry? Should we have separate industrial schools under different boards of education, or should the industrial courses be made an integral part of the public-school system? These are all problems on which we are at present taking somewhat different attitudes and on which we need more information.

Even if we did know what attitude to take about the form of industrial training, we should still be face to face with the problem of guidance; we should still have before us the question, how to sort the children in the schools into the various groups—which class to send into industry, which class into commercial work, which class into professional work, and which class into the academic group.

On what basis are we going to make any such decision as that; and just how is it to be done? Suppose we had teachers who were from

the start interested in a child's future career, interested in him as an individual; would those teachers without any further assistance be able to come to a wise decision as to advice in guiding that child? It is worth finding out how much assistance experimental psychology can render; we do not now know. Sometimes we talk about mental ability as though it was a very special kind of thing; we seem to assume that tucked away somewhere in each individual child there is some special aptitude which, if it could be ferreted out by any proper test, would decide the kind of occupation that child ought to take. Again, we talk about mental ability as though it were a very general quality which, if possessed by the individual, would fit him to follow any one of the higher types of occupation, and which, if lacking, would send the individual to one of the simpler and more mechanical occupations. Where between those extremes does the truth of the matter lie?

We often talk as though individuals were divided into two classes, some of whom should do mental work and some manual work. We talk about mind workers and hand workers, as though if a man works well with his hands he can not work well with his head, and vice versa. Is there any foundation for that assumption? In Cincinnati we tested 149 children with regard to their simple motor abilities and with regard to their mental abilities, and we found that those who are best in the mental tests are also, on the whole, best in the physical tests and in physical development. In so far as that evidence goes it would seem to show that there is not only no opposition between manual and mental ability, but that the two are much more likely to be correlated than opposed. Our reason for assuming that any child that can work well with his hands but not with his head ought perhaps to be assigned to handwork is really because that is all that is left for him. That is not, however, a safe basis for action.

There is also the study of occupations. In Cincinnati we have a man trained in experimental psychology who is making a study of the shoe industry. As he goes through the factories he pays special attention to the details of the occupation. There are some 200 different processes in each factory. He is trying to group them, to see what types of work are involved, and then to find out whether for each type of occupation it would be possible to devise tests which would separate the workers.

The women's work in a shoe factory is for the most part of a much simpler and more mechanical type than that of the men, and the only distinction he can find that seems to be of importance is the distinction between hand workers and machine workers. The foremen tell him that they find quite generally that the women who succeed at the machines do not like the handwork, and that those

who are best at the handwork are likely not to succeed at the machines. They believe that there is a natural difference between those who are most likely to succeed at handwork and those who are most likely to succeed at machine work.

Among the occupations for men in a shoe factory, one of the most skilled is that of a shoe cutter. The shoe cutter has the problem of taking a piece of leather and getting from it as many of the various parts for the shoe as he can. If there are any flaws, they must be placed in such a way that they will miss the cutting or be put in some part of the shoe where they will not spoil its appearance. The work must be done quickly and rapidly. If you ask the foremen or the employers what qualities are required for a shoe cutter, they all make the same answer: "Oh, that takes judgment!" This is not a very definite or specific answer, but it is characteristic. There are very few employers who are able to analyze their own jobs.

We realize in this country more and more that if vocational guidance is to be made effective, it must be through the schools. The great need is for more money for the public schools, and for three distinct purposes. In the first place we need more teachers and smaller classes even for the kind of work we are now giving. In the second place we need a far greater variety of instruction and the equipment that goes with it. In the third place we need departments of research both for economic information and for psychological information, which ought to be parts of the public-school systems.

III. VOCATIONAL GUIDANCE WITHIN THE PUBLIC SCHOOL SYSTEM.

A.—GUIDANCE BY MEANS OF A SYSTEM OF DIFFERENTIATED COURSES.

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I shall attempt to answer four questions, hypothetical but definite. First: Is vocational guidance needed; and, if so, of what kind? Second: How can that vocational guidance be given? Third: Can it be given by means of differentiated courses of study? Fourth: How should such courses be organized?

The first question needs no answer; we all admit that vocational guidance is greatly needed. I should like, however, to cite two instances that prove it.

Last year the records of 4,708 boys and girls of Rochester were collected. A majority of these youths left school at the age of 14, from the seventh and eighth grades. They had been at work or out of work for periods of from one day to four years. The boy of two-years' working experience had averaged six jobs under six different employers. Since they left school over 80 per cent of the 4,700 children had done nothing that led up to the life work in which they were most interested. They surely needed vocational placement.

Three years ago, in the city of Bridgeport, I had occasion to advertise for an elevator boy. Thirty applied. Some of them had been out of work for months. All were mighty anxious to get that job, and at almost any wage. I sat at a table in the center of the schoolroom, with my hat off. The 30 boys came, one at a time, sat down at the table, and gave their experience and qualifications for the position. As the first half dozen were examined I noticed that no one of them took his hat off; so I resolved to give the position to the first boy who removed his hat as he sat and talked with me. No one of the 30 got the job. These boys all needed vocational guidance in applying for positions.

Vocational guidance is the selection of, the preparation for, and the placement in a life work. It should begin when the boy or girl first

begins to think about going to work and should continue until the boy or girl is securely placed in the chosen vocation. Let us think for a moment about vocational analysis and vocational selection. We are looking forward to the day when the psychologists will tell us how to analyze the boy so that we may know exactly what kind of work he is fitted for. I suppose, however, we must wait until the psychologists have themselves found out how to make these analyses. But even if we were able to say to a boy, "From a diagnosis of your case I have discovered that the thing you are best fitted for is the trade of patternmaking," it is certain that the average boy would say: "Go to, now, I am going to be something else. Right now I am going to take a job as messenger boy until I can get a chance in the thing I want."

We have heard a great deal in the last few years about fitting square pegs into round holes. Some of us have discovered that it is not an easy task to fit square pegs into square holes when the square pegs are self-willed American boys who do not wish to go into square holes. In the Old World about all that is necessary is to fit the boy to follow his father's trade, but here boys follow their mates and their whims. In one vocational school in Rochester, all of the boys who entered from Seward School, No. 19, wished to take up carpentry because one boy who was a leader came from that school and took up carpentry. From another, Andrews School, No. 9, every boy wished to be a plumber, and in a short time the school had more plumbers on hand than could be properly placed in good positions. Vocational selection was a game of "follow the leader." We must find some way to give the boy experience and interest in the vocation for which he is fitted.

I have been trying to imagine what a man would do if he were a director in a number of large industries and had a favorite nephew who looked to him for guidance. Mr. Director is to give vocational counsel to his nephew William. What shall he do?

Plan No. 1: Talk the matter over with William, select some one industry in which the opportunities seem to be good, go to the superintendent of that plant and say: "I wish you would try William for three months. At the end of that time, you, William, and I will decide whether or not he ought to remain and take up this business as a life work." Mr. Director goes to Europe and William goes to work. At the end of three months (assuming that William has stuck it out that long), Mr. Director talks with the superintendent and with William, and if the lad has made good and likes the work, the chances are that he will remain. If he had made a failure he is tried out in something else until he finally sticks. That is the method of trial and error, with emphasis on the error.

Plan No. 2. Mr. Director says:

William, I will secure for you a place in six or eight of the businesses in which I am interested. You may remain three months in each. At the end of two years I will get a report from all the foremen and superintendents for whom you have worked. You may decide which kind of work you like best. If the reports of your employers and your own inclination coincide I will try to place you in the kind of work selected.

Plan No. 2 has some decided advantages over plan No. 1. In the first place, in that William's chance to find himself does not come through his failure in a preceding job. The loss of self-confidence in repeated failure is too great a price to pay for vocational guidance. Again, in the second plan the boy has a background of experience on which to make an intelligent choice. Again and again teachers have heard boys say, as they began a new line of work, or as they completed a term's work, "I would like to do that kind of work all my life." But only as a boy looks back over a variety of experiences and compares them is he able to judge intelligently.

Now, every William has not an influential uncle who is a director in a dozen corporations; so we are selecting vocational counselors to assume that rôle. So far their reward comes in their high-sounding title and in the satisfaction of performing a needed work.

But vocational counselors must do more than counsel. Guidance and advice are not synonymous terms. Advice, even vocational advice, has some decided limitations. If advice does not coincide with the boy's preconceived ideas, it isn't heeded. If it does coincide, it isn't needed. Its value is doubtful in either case.

The next question is:

Can not the general industrial school, or the prevocational school, or the intermediate industrial school—whatever it may be called—give this vocational guidance? Can it not help the boy to select his life work? Can it not prepare him for his life work or, at least, begin the preparation? In other words, can not these schools do effectively the work outlined in Mr. Director's second plan? Can not this type of school select the fundamental elements of some of the most important industries, organize these into courses, and "try the boy out"?

I imagine that you are already formulating the question, What industries should be represented in such a course of study? That question is best answered by a survey of the vocational opportunities of a locality, and such a survey need not be exhaustive and expensive to be valuable. One survey, lasting three months and costing only $300, gave material for the beginning of a good course in vocational preparation. Mr. Prosser has mentioned three essentials in a general industrial course for boys: Wood, metal, and power. A girls' school of this type would include the elements of home making as well as the elements of the common industries. I know of one course for boys which includes the elements of carpentry, cabinetmaking,

furniture making, pattern making, molding, casting and machine work, sheet-metal work, plating, printing, electrical wiring, motor maintenance and repair, salesmanship, and office practice.

May I anticipate your next two questions? Where can be found a jack-of-all-trades to teach such a course? Of what value is a course taught by a jack-of-all-trades, anyhow? The best answer to these questions has been given by Mr. McNary, of Springfield, Mass. Mr. McNary has tried out the plan of bringing in a journeyman from each trade to teach the elements of his craft. The plan has also been experimented with in other places. So far the results seem to show that both the regular shop instructor and the pupils profit greatly by this plan. The instructor and the journeyman working together can organize the subject matter so that it is brought down to the level of the pupil's comprehension. The pupils are greatly interested in the "practical" touch given by the work-a-day mechanic.

In one school the pupils have formed a corporation for the manufacture of all sorts of articles, and, although the pupils are not conscious of it, they are being "tried out" as they do the various kinds of work. After the costs of the materials have been deducted, the value of the labor and the profit are distributed as dividends—one half going to the school for the purchase of new equipment and the other half to the members of the corporation. The stock is purchased by salary checks paid to the pupils for work done. The possibilities for instruction of many kinds by such a plan are evident. I remember one boy who came to a trade school resolved to be a plumber. He could never have become a good plumber in a hundred years. Yet that boy after school could sell more copies of certain popular journals than any boy I ever saw. If a visitor came to the school, he would waylay him on the way out and sell him a copy. His instructors had to be watchful to avoid buying two copies of each issue. That boy was a born salesman, and the "corporation" plan of organization would have afforded him training in the line of his greatest ability. A classroom teacher whom I know has a typewriter and a mimeograph in his room and each year certain pupils naturally gravitate toward those machines. These pupils usually "find themselves" in the commercial high school.

A plan that is about to be tried out in an eastern city summarizes the points I have attempted to make. A survey of the youth of the city between the ages of 14 and 18 has been made, so that it is definitely known where pupils go when they leave school. A survey of the industries has been made so that it is known, first, what preparation is needed for each line of work in each industry; second, what kind of continuation or part-time instruction is needed to secure promotion in each line of work.

With the help of the employers, short "try-out" courses are being organized in many lines of work. When a pupil finds himself or herself in one of these "try-out" courses, this course extended becomes a preparatory vocational course. When the course is completed the shop instructor assumes the responsibility of placement.

One more point. I know one manufacturer who keeps only 10 per cent of the persons he tries out. Relieved of this "try-out" process, which is vocational analysis from the employer's point of view, that employer would be able to pay a much higher initial wage to the 10 per cent selected for him than he could pay to the 100 per cent whom he must try out. It is this higher initial wage that will hold pupils in school long enough for us to give them real vocational guidance.

B.—GUIDANCE BY SYSTEMATIC COURSES OF INSTRUCTION IN VOCATIONAL OPPORTUNITIES AND PERSONAL CHARACTERISTICS.

F. M. Giles,
Principal of De Kalb Township High School, De Kalb, Ill.

What I shall describe is a practical experiment in vocational guidance that we have been carrying on in our town for a number of years. Ours is a town of about 10,000 people, a manufacturing center, with definite agricultural, commercial, and professional elements. Although the work was designed for this community, its elements are such that it might be adapted to towns of larger or smaller size.

We undertook this problem of guidance for the following reasons: We felt that we were sending students into the world with very little understanding of the vocations into which they were to go, and with very little idea of the meaning of the industrial world about them. We felt that guidance was a practical problem that demanded immediate action; that we could not wait till a perfect system for guidance was devised, but that we must do something at once.

In taking up our task we decided, first of all, that we ought to know our school from an occupational point of view. Accordingly, we took a survey to find how many different prospective occupations were represented among our students. Perhaps some figures of the results of the survey will be of interest. We found that about 30 per cent of our students had made no choice of an occupation. Here was a problem—to find material for these children which might help them to make an intelligent decision. Next, we discovered that about 23 per cent of all the students, or about 50 per cent of the girls, were going into teaching.[1] Here was another definite

[1] It should be remembered that Northern Illinois State Normal University is located in this town, which accounts for these figures.

group to be considered in any guidance work. Our next largest group was bookkeeping and stenography, with 10 per cent choosing these occupations. Next was agriculture, with 8 per cent; and then came engineering, toward which about 5 per cent of the boys were aiming. Then, in smaller groups, came the machine trades, music, and, finally, a number of scattering occupations.

We had gathered some definite facts which would be of help to us in planning our school work, but we had found also that we had a complicated problem if we were to prepare people definitely for the 24 different occupations represented in our survey.

The next problem was, Could we use our school as a laboratory to help different vocational courses? Could we organize it so that the curriculum would represent in a general way some of the great groups of industry, such as commercial work, trade work, agricultural work, professional work, and domestic arts? Would it not be advisable to let each of our vocational teachers become a specialist in the industrial conditions in his line in our community? For instance, would it not be worth while to ask our commercial man to become thoroughly familiar with commercial conditions in De Kalb; our manual training man, with trade conditions; our agricultural man, with farm conditions; the principal, with professional conditions?

With this idea in mind, we began to study our community, and we devised several blank forms for the purpose of making a survey. For instance, we had what we call our industrial blank, by means of which we made a sort of survey of the industrial conditions in the community. We asked the employer to tell us how many boys he employed; at what wages they were employed; what he paid his men. Then we asked some general questions, as, Are boys deficient in shop work, in mechanical drawing, in book work, or in character qualities?

On our commercial blank we asked the employers questions related to commercial lines, such as the wages paid in stores, the chance of advancement, whether boys were deficient in penmanship, spelling, arithmetic, business training.

To get at these facts in trade lines, we asked our manual-training teacher to go out into the community, from shop to shop and to get, as far as possible, answers to the questions indicated above; our commercial man was to do the same in the stores. We found very soon that we got better results by going to the shop foremen than we did by going to the heads of the business.

We found, for instance, in the commercial investigation, that the things demanded were practically three. Nearly every employer asked that boys be trained thoroughly in penmanship, spelling, and arithmetic. Some employers asked for salesmanship as an additional training, and a few asked for certain character qualities, such as

trustworthiness and courtesy. A few employers were decidedly critical, and reported boys as lacking almost all desirable qualities.

As to the pay, we found that in general it was quite low; and I suppose this is true of the average small city. It varied in the commercial work from a beginning wage of $4 a week for girls to about $6 or $8 a week for girls with experience; and for boys, from $4 a week up for beginners, to $10 or $12 in some of the higher classes of salesmanship. In the trades we found the wages paid boys were from $5 a week up to 19 cents an hour.

Now, what did our investigation show as to the industrial training demanded by the average employer? We found, somewhat to our surprise, that the majority of the shops did not demand a very high training. In general, the foremen stated three things as requisites. They would like to have a boy able to run a drill press, to read a mechanical drawing, and to read a micrometer caliper. Several of the men stated that the boys lacked perseverance. They said that they put a boy on a drill press and that he would stay only about three months.

Finally, what general estimate can we make as to the value of this survey? The greatest value, undoubtedly, was that it gave us a definite knowledge of our town as an industrial community, of the pay offered in various lines, the requirements in the way of training, the opportunity to advance. We are in a position to talk facts when advising a student as to opportunities in De Kalb. It has shown us also that in the smaller towns there are few positions open to the boy, and that promotion is, in general, slow. We see why so many of our students seek the larger cities. Secondly, it has helped our instructors of vocational subjects by giving them an accurate knowledge of shop conditions and demands. This I consider very valuable. It has shown us also that there is not such a demand for skilled or technical training as we thought. We are faced with the problem whether, so to speak, we shall train the boys for unskilled jobs or whether we shall train them for positions out of town.

So much for our preliminary work. We had now, undoubtedly, a better understanding of our school and of our community. The problem was now to give to our students in some way more adequate knowledge of industrial life in De Kalb and of the industrial world as a whole. In carrying out this aspect of the work, the principal planned to meet the upper classes once a week in what we call our "general assembly period." During this time we would talk over with them industrial conditions as related to the choice of a vocation. We realized that a difficult problem confronted us, as we had a big industrial world, with some 9,000 different kinds of jobs in it. But we felt that these different jobs could be classified, and that in

a general way the individual could decide the direction in which he would like to go.

Our plan now is to meet a class of from 40 to 50 once a week for a period of a year or more and talk to them definitely upon industrial conditions. The purpose of these talks is to help the students to see the organization in the business world and to understand something of the industrial life about them with the idea that they may decide more intelligently upon the occupation in which they will make a living.

Their decision as to an occupation should rest, they are told, upon two things: First, knowledge of themselves and their abilities; second, knowledge of social conditions.

You can find out something in regard to your ability by your success in school in the various courses. About other conditions you probably have little knowledge. You will find, for instance, that some occupations are tremendously overcrowded. Other occupations have disadvantages as to working conditions or working hours. These are facts that you ought to know before you choose an occupation. We can not talk to you about all the great occupations to be found in the business world, but we can classify the occupations into great groups, and by considering the qualifications required in these great groups you will be helped somewhat to make a decision on the choice of an occupation. These groups, which we shall discuss from week to week, are as follows: Mercantile, manufacturing, and mechanical; railroads; agriculture; banking; Government service; personal service; the home.

The outline as given above is used as a basis for several talks with the class. In this connection I use diagrams to show the relations of the occupations and figures from the census to show the number of people earning their living in the different occupations. The purpose of these discussions, as I sometimes tell the students, is to give them a bird's-eye view of industry. It is doing in a certain way what Franklin's father did when he took his boy to some of the industries in Boston in order that the boy might more intelligently make a choice of his life work.

After the introductory talks we discuss in detail the characteristics of these groups mentioned before. Let us take as an example of this work a brief discussion of the manufacturing and mechanical group. We consider it first from our De Kalb conditions in order to make it concrete. The manufacturing and mechanical industries in De Kalb are pointed out—certain iron and steel industries, such as gas-engine works, cream-separator works, wire mills, refrigerating-machine factories, foundries, and blacksmith shops; certain wood industries, such as wagon works and planing mills; certain building trades, such as carpentry, plumbing, gas fitting; and certain leather trades, such as the glove factory.

These industries are all grouped together because they deal with the manufacturing and handling of materials. There are, I think,

certain tests by which a boy may tell whether he has ability in this line. For instance, in the mechanical trades, mechanical skill is a fundamental requisite. A boy must have the necessary skill to handle materials deftly. Next, he must have a liking for machines and power. He must have some inventiveness in making things. He should have some skill in mechanical drawing and be willing to learn the trade which lies at the basis of the industry into which he is going. He should not be afraid of hard and dirty work. He should be willing to put on overalls and get his hands dirty if necessary. Finally, he should try, if possible, to get the technical-school training, which is the basis of his trade.

To make this work concrete I try to find as many illustrations from actual life as possible, clipping constantly from the magazines for current material and preserving it in a scrapbook.

After we have discussed the general conditions of this group we bring up the question as to how the individual is to know whether or not he has the necessary skill to succeed in mechanical lines. We tell him that our school courses are planned to help him to decide for himself.

For instance, if you think your ability lies in the direction of mechanical trades, take the work in the manual-training shop and try out some of the courses which are offered in woodwork, metal work, printing, gas-engine work. If you find that your interest is aroused and sustained, that you have skill to do good work in the school shop, you have some indication of your ability. You may, further, use your summer vacations to good purpose by getting a place in some of our shops and finding out whether you really like the work which is carried on in them.

It will be noticed that we do not decide for the individual. We throw the burden back upon the student. Our purpose is to furnish the individual with the material for a more intelligent decision, not to make the decision for him.

Another great division in occupations to which I call the attention of our students is that between business and the professions. I call their attention to the fact that about 29 people gain a living in business to 1 who gains a living in the professions. Hence high-school students who contemplate going into the professions must consider certain things—first, whether they can get the necessary training through four, six, or eight years. They must consider whether they have the capital to get this training and to go through the usual starvation period that comes to the young doctor, lawyer, or architect after he has finished his course. They must consider whether they are interested in social service, for I believe that the professions demand a certain amount of service. They must consider, also, whether they are of a studious disposition, for to-day in law, medicine, teaching, engineering, the individual must be a constant student to keep up

with the advance in his work. These are some of the general qualifications discussed in reference to the professions.

Then we treat, in some detail, the principal professions, such as law, medicine, teaching, engineering. We treat engineering in some detail because so many high-school boys have ambitions in that direction—some, who, so far as their success in school would show, have no talent for the profession. We try to show that the basis for success in engineering lies in mathematical and mechanical skill. Prospective students of engineering are asked to look over such a book as McCullough's "Engineering as a Vocation."

Just this year a couple of boys who were thinking of engineering came to me and asked for information along that line. I asked them to take this book and read it in the light of the discussions we had had. They both came to me a little later and said: "We have come to the conclusion that we would not care for engineering as a vocation. We had no idea that it involved taking higher mathematics, physics, and things like that." This is a practical illustration of the guidance work.

We now come to the second part of our work in guidance, which the program calls personal characteristics, but which I like to think of more as applied ethics. In this part of the work it is impressed on the students that certain qualifications are needed in whatever line they may enter, because they are fundamental to success. These things are attractive personality, practical efficiency, upright character, loyalty. I call their attention to a card which says: "The face you wear at 60 depends upon what you do to-day." Now, what is the reason for this statement? The reason is that youth is the plastic period. This is the period in which we acquire and absorb. It is the period of education. We can make ourselves now very nearly what we desire. A little later our habits will be fixed and we shall find it difficult to change them. It is worth while, then, to have some ideals of personal qualifications and to endeavor to make ourselves like our ideals.

Personality is treated as involving voice, dress, manner, courtesy, tact. In talking to students about courtesy we use this little card, which reads: "Politeness is like an air cushion; there may be nothing in it, but it eases the jolts wonderfully."

When you apply for a position, how do you act when you enter the office? If there is but one seat left and several people are waiting, do you take the empty seat, without considering the others? When leaving the office, do you allow your employer to go first, or do you step ahead of him? On the other hand, suppose some of you go to college instead of into business. You think perhaps your manners will not be observed. Here is what the college editor wrote about the freshmen whom he noticed on the campus: "They do not know better than to walk around with toothpicks in their mouths; they do not know enough

to tip their hats to a lady; and they gurgle when they eat their soup." You see, you are being judged in this matter, whether you are in college or whether you are at work.

I often have the experience that for the next two or three days after talking to a class I find the pupils exceedingly polite when they meet me. They bow deeply; and if I happen to come to the school door with one of them, with great courtesy I am allowed to step through first. This is a small item, to be sure, but it seems to me that they are applying some of the things that have been said to them.

After personality we consider efficiency. What is meant by efficiency to-day? Efficiency is much more than physical; it is largely, if not chiefly, mental. As a striking example of mental efficiency attention is called to the president of one of our great industrial companies. Here is a man who has achieved great success because of his wonderful mentality, his ability to recognize conditions and to do things skillfully, quickly, and accurately.

Then we go a little deeper into our problem of practical ethics. It is pointed out that, besides a pleasant personality and efficiency, there is a demand for certain elements of character. As a basis for talking to them about the elements of character needed in business, the rules that Cyrus Simmons used are read to them. Most of you are familiar with them, no doubt. They contain some moral truths in epigrammatic form. For instance: "Don't lie; it wastes my time and yours." "Don't do anything that hurts your self-respect." "It is none of my business what you do at night, but if dissipation affects what you do the next day, and you do half as much as I demand, you will last half as long as you hoped."

I offer this experiment in vocational guidance not as a panacea, but as an effort to solve the problem in the average high school. I believe it is working effectively to some degree, because we have saved some students from places where they were misfits, and we have helped others to places where they fit. We have guided some boys out of blind-alley jobs. We maintain a sort of an employment bureau in the school and encourage employers to call upon us for help. A few months ago we had a call for a draftsman. Our records showed a boy working as an errand boy who had developed considerable skill as a draftsman while in school. We secured the drafting position for this boy, and he is one of the happiest boys in town because of his success in his work. He has been promoted twice since he obtained the position, and he recently came to school to tell me that this is the greatest thing the school had done for him. He can not get over the fact that we helped him after he had left.

Again, from the character side, I believe the work is worth while. We get a certain amount of school pride in this way that we have not been able to get in other ways. It seems to me we must introduce

our ethics in some concrete and vital way, so that the ideals will take hold. I believe this instruction in personal characteristics accomplishes the work.

C.—GUIDANCE BY THE DEVELOPMENT OF PLACEMENT AND FOLLOW-UP WORK.

SOPHONISBA P. BRECKENRIDGE,
Chicago, Ill.

I bring a very limited contribution to this discussion. I come to report upon an undertaking in Chicago having to do with a very definite group of children. They were limited in number, since we have never had more than five workers, but it is not the small number served (2,186 between October 1, 1912, and October 1, 1913) which is significant here; it is the definite limitations set about the kind of child to be served, for the group of whom I speak consists of 25,000 children between 14 and 16 years old who have left school to go to work.

I do not think that on that account the report is less important. I think, in fact, that the subject will gain and not lose by being presented in relation to well-defined groups of children. It is impossible, in my judgment, to discuss profitably together the college student who looks forward to a professional career, the high-school pupil about to graduate whose uncle might be a director of nine corporations or even of one corporation, the eighth-grade graduate from the home of the skilled artisan, and the third, fourth, fifth, and sixth grade children from poor homes who leave school at the earliest moment allowed by the law and try to find employment. The discussion of the first two groups may possibly be a discussion of an educational problem, involving choice of career and organization of course of study; the discussion of the third group may be a discussion of new sources of information to be tapped by the school in readjusting its curriculum to the needs of the children in a modern industrial community. The discussion of the fourth group in relation to their employment is no discussion of program of study or choice of career. It is neither present organization of curriculum, nor pedagogy, nor guidance. It is a proposed guardianship of children for which the school is the best agency at hand.

Obviously as conditions of living become more pressing and more complex, the school to whom the community entrusts the child for from seven to nine years by its compulsory attendance laws is going to be called on to perform more and more of these services which are services of guardianship and not of instruction. The proper classification of the children in accordance with their mental qualifications (child-study departments), and the maintenance of an adequate

physical well-being (school medical service and school nursing), are services related to education but easily distinguishable from education; they represent services growing out of the position of the school as suitable guardian rather than out of its narrower educational function.

I say nothing of the high-school pupil, nor even of the eighth-grade graduate; but in serving the children who leave before completing the eighth grade to go to work the school is rendering this kind of service. I believe that the school, which is supposed to have its eye single to the well-being of the child, is the proper social agency to exercise this guardianship. It can not, however, exercise it alone. Industry must be called on to cooperate, and the general public, which is concerned for the well-being of the child, concerned for the continued prosperity of industry, concerned for the protection of family integrity, must cooperate. But in my judgment the school should take the initiative and retain the lead in this cooperative effort. Such has, I know, not always been the case. In London the "skilled apprenticeship committees," which inaugurated the effort there, devised the method afterwards adopted by the juvenile labor exchanges, which have themselves extended its use in London and inaugurated similar efforts in other English cities; but in Edinburgh it came from the school, as it should in any community where the work is yet to be begun. This does not mean that the work should be done by teachers, any more than that the nursing, medical inspection, mental testing, all of them dependent on the teachers for cooperation, but performed by independent professional staffs, should be laid upon the teachers. The better the teachers the less should they be diverted from their own profession to tasks for which they are not qualified.

To turn, then, to the experiment which we have been working out in Chicago, it has been made in the effort to serve the children who leave school at the earliest moment allowed by law, to go to work. Each year about 12,000 of these 14-year-old children take out their "working papers," the age and school certificates prescribed by the child-labor law. During the year 1912–13 there were 12,583 of these children; so that we have always about 25,000 children under the age which the law names as the upper limit of the compulsory attendance age. The Illinois statute says that children between 7 and 16 years of age must be in school unless out of school for some one of several recognized excuses, one of which is, if the child is between 14 and 16, being necessarily and lawfully employed. Now, we claim that if this necessary and lawful employment is accepted as an alternative to school, the school should make sure that it is as nearly as possible a true substitute in what it means to the child. That involves supervision of the child in finding his first work, and supervision of the child in his early working life. This means, of

course, placement—the placing the child in what one would like to call the best job available, and what one must call the least demoralizing job available. No one thinks that there are suitable jobs for these children. No one thinks that children under 16 years of age should be in the labor market as industry is organized to-day. Everyone knows that many of the positions are connected with blind-alley and dead-end trades. No one thinks that at the present time the thing that should be done for every child in the community can be done for even a small fraction of these children—enable them to spend these two invaluable years either in a school or at a trade which is more educational than the school and educational in many ways besides industrial efficiency. It is an easy solution of the question to say that since we can not do all we would for these children, we will do nothing; it is perfectly simple to adopt the maxim of the law, "What should be done will be presumed to have been done." Since children under 16 should have been removed from the labor market, they will be presumed to have been removed from the labor market. That presumption seems to me to be possible only to one who knows nothing by actual contact with these children's lives. The question is not whether we can do all that we would for these children. The question is whether we can do more for them than they can do for themselves. If we can, they have a right to demand that we do all we can. Because, however, we can do so little compared with what should be done, we in Chicago were unwilling to call our experiment by an ambitious title like vocational guidance. Instead we selected the title "Employment supervision," which indicated our supervision, not their choice.

The problem then has to do with children whom the law permits to leave school; whose parents are very poor; who come from a group which has never before been either held up to the standard implied by seven years of schooling nor indeed suffered to raise themselves to that standard, and therefore expects its children to stop school as soon as possible and to begin to earn. This does not mean that the members of this group are unworthy as parents, nor that they are dependent in any way. It means only that they are forced by the compulsory education law to a higher level of child care than before. With these children and these parents there are, too, the jobs—only about half enough of them if they were all good—and many of them are most undesirable. By hunting, however, some can be found which are not so bad as jobs, and others which, while bad as jobs, are under good foremen, who will help the child to wring at least discipline, responsibility, and regularity out of the experience.

Placement work of this kind is clearly very different from the guidance that selects the child for the job. Here the child must,

of course, be able to do the work, and there must be a chance of continued employment. But, at least, the job is selected for the child, not the child for the job, which makes all the difference.

This requires, as a preliminary step, investigation of a very high order; quick, skillful selection of possible trades—the selection based on a real intelligence of the children's possibilities and needs; then, equally rapid, accurate, and intelligent investigation of the selected trades. For these investigations qualifications of a high order are necessary. Their high-water level is perhaps reached in the studies made by Miss Collet and Mr. Aves, of the British board of trade, for the London juvenile labor exchanges—not dull and wasteful repetition and enumeration, but close, intelligent observation, applied to an adequate number of establishments to answer the two questions: (1) Can the trade be included in the list? (2) Can the establishment be used as a place of employment for these children?

Needless to say, the most skilled investigator who is only an investigator is not only useless but probably misleading in these preliminary inquiries. The work is not pedagogical in any respect. It is a high grade of personal service rendered in what one might call a program of social treatment. It means obtaining the information about the trade; it means learning what the child wants; it means finding out what the parents' aspirations and plans are, and cooperating with them where possible, and explaining, where cooperation is impossible, why it is impossible; it means learning as well as may be whether the employment is "necessary" in any true sense. For example, a very considerable proportion of the children who have come to us—225 out of the 2,186 last year, of whom only 850 came directly from the school—have been returned to school, either to the one which had been left or to one which would serve the child's needs better. It means often, when the child's chances for better employment depend on instruction as to personal habits—cleanliness of hair in the case of girls, for example—giving the instruction which interprets those habits in terms that the child and the parents can understand. It means, if the child's physical condition is below normal, securing a week in the country, or the minor operation which is necessary. It means innumerable personal services which make it possible for the child to avail himself or herself of opportunities closed by barriers as slight as those I have mentioned.

Furthermore, it means following the child into his work and holding him to it. For these children are children; and if a Polish boy will not work next a Bohemian boy without fighting, the foreman may be willing to place them far apart from each other for a while at any rate, until they can be reasoned with. If they are placed in shops that seem good and the foremen mean to do right, the weight of the loads they carry may be lightened, the speed at which the work

is done may be lessened, and the condition of all the children may be improved because you were there to interpret the needs of some. Foremen are human. Many things that are wrong are wrong because attention has not been called to them; and things look very different to one's own eyes when one knows that an outsider is looking at them, too. And this experience is good for the foreman.

So much for the value of the work from the point of view of the children. In my judgment this is only one side of its importance. It serves, by way of personal service, this limited group of children.

From the point of view of learning what should be done by the school in the way of preparing all children who are going into industry it is invaluable. It is, in my judgment, not only a valuable method of investigation—it is the only sound guide to modifications of the school curriculum in that direction. There may be all the surveys in the world; you may ask employers what they want until the end of time; you may look at processes and repeat them in school shops; but you can not learn what demands are really made by industry on young persons unless you go with them through their experience in industry. On that account, the proposal that Chicago, a community where the organization of industry after the principles of the factory system, including the use of machinery and the subdivision of tasks, has been carried to an extreme, should adopt methods successful in Germany, where that development has been at a very different rate and in different directions—such a proposal seems to one who looks at the situation from a real knowledge of these children's experiences and prospects as nothing short of absurd. The school can learn in this way without abusing its trust what it can do to fit children for the industrial life into which they go, and at what point it must stand absolutely firm and say to industry it will do nothing to fit its children for conditions so far from human—work "which a monkey could do, if it could be kept at it." It can learn by this placement and follow-up work, and only, in my judgment, by this work, skillfully done, honestly recorded, and courageously interpreted, what it needs for its own constructive advance and on what terms it will demand and then force concessions and modifications on the part of industry.

On such a basis, wise and well thought-out plans for changes in the curriculum can be made. The intelligence thus secured, the clarity of vision, adds enormously to the skill with which the more fortunate children who can "go through" eighth grade or even the high school will be handled. We have taken over many things learned from the care of delinquent children into the care of good children; many experiments with the subnormal point the way to more efficient service of the normal; and when I have been exasperated at much of the nonsense written about "counseling" eighth-grade and

high-school children, I have admonished myself to be patient and to remember that not very much could be expected even of principals in a community which had never had the chance really to look at the problem through the eyes of the children and young people it is honestly trying to serve.

D.—DEVELOPING PLACEMENT AND FOLLOW-UP WORK.

CHARLES MARTIN,
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Some of the problems confronting proper placement and follow-up work are that (1) children drift aimlessly about from one position to another; (2) children are almost wholly lacking in any intelligent knowledge of the industries in the community; (3) child labor between the ages of 14 and 16 has practically no economic value to society.

The habit of aimless drifting from one position to another is especially true of those children who leave school before they complete the elementary grades. They lack intelligent supervision, and are often tempted by ease, fairly good wages, and a sense of independence to crowd those occupations which require no skill and promise no future. Their moral and intellectual powers are weakened. Their school knowledge is soon dissipated, and they become unfit either for employment or for further education. Their parents are without adequate knowledge to guide and advise them. Too often they feel concerned mainly in having the children "earn something" at the earliest possible moment. The immediate wage is considered rather than the development of the child's best gifts.

The years between the ages of 14 and 16 are not productive to the industrial world, because the boy or girl is immature physically, mentally, and morally. Grit, mental energy, endurance, and power of concentration are not yet trained and developed. In order that the public-school system may develop placement and follow-up work, it is essential that the pupil be properly developed physically, mentally, and morally to enter the world of labor. It is necessary that the pupils have careful supervision, and training between the ages of 14 and 18—these years that are so vital for the formation of character and for the production of skilled and efficient workmen. Children should be guarded against exploitation. They should have healthy surroundings, just treatment, legal working hours, and an opportunity to advance in an employment that is congenial and that will provide a living wage without overwork. This guidance and protection should continue until they are established as self-dependent earners in the world of labor.

Many opportunities are open to the public-school system to assist in the solution of the problems incident to proper placement and follow-up work. Teachers have the opportunity for careful study of the personal characteristics of each pupil. A permanent record of these characteristics can be used as a basis for the placement and follow-up work. The school studies and shopwork are vitalized by direct contact with the occupations of the community, thus aiding the pupil to realize the value of the school studies and their close relationship to the world of labor.

Some of the necessary requirements for the development of intelligent placement and follow-up work in the public-school system are: (1) Securing a permanent record of the child's personal characteristics and special aptitudes; (2) educational guidance during the school life of the pupils in order that they may be given the proper opportunity to develop physically, mentally, and morally; (3) offering the pupils opportunities for continued education after they have entered the world of labor; (4) imparting to the pupils a knowledge of the world of labor, especially a knowledge of the principal occupations of the community; (5) securing the confidence and cooperation of the public; (6) the establishment of a juvenile employment bureau under the direct control of the school board and working in cooperation with the industries.

Estimates of the pupils' personal characteristics and aptitudes should be based on careful study and should cover a long period of time. They should represent the combined judgment of the school medical officer, and of the teachers who come in contact with the pupil. The school medical officer should enter on the pupil's card the general nature of the employment suited to the pupil, with special remarks as to unsuitable occupations. These records, containing the decisions of the medical officer and the teachers, would place the pupil in one of the broad classes of occupations and thus assist in the choice of a vocation or employment. This record-card system would lessen the habit of aimless drifting and would decrease the number of misfits in the world of labor.

Efficiency and success in one's work are largely dependent upon knowing one's ability and adapting oneself to environment. An opportunity should be given to the pupils to discover their dormant powers before they are compelled to leave the shelter of the schoolroom and take their place among the world's army of workers. A system of differentiated courses in a commercial or industrial school for seventh and eighth grade boys would aid the pupils in discovering their mechanical, commercial, and artistic tendencies. At least half the school time should be devoted to laboratory and shop work. With the discovery of the pupils' tendencies would come a definite

aim in life. The primary importance of such a commercial industrial school is that it would give the pupils the opportunity to try themselves out in different kinds of work. Such a school would aid the pupils who are compelled to leave school at the age limit, and also aid those pupils who are trying to decide whether they will enter the academic, commercial, or technical high school.

The influence of the public-school system should go with the pupil into the world of labor. The pupil should be impressed with the fact that his education does not end with his school days. He should be taught the value of using leisure time for studying as an asset for future advancement. He should be informed by lectures and educational charts as to the opportunities that the community offers for continued education. Stereopticon lectures and a course in economic history and geography dealing mainly with the occupations and their requirements are helpful.

Parents, as a rule, are willing to cooperate if they are convinced that further schooling is worth the sacrifice that they are required to make. They should be advised as to the occupations for which their sons and daughters are best fitted when they leave the school and as to the chances of earning good wages. Employers of labor should be educated as to the aim and efforts of the public-school system's placement and follow-up work. By reporting vacancies, stating the requirements, rate of wages, and future prospects, by suggesting ways of closely relating the industries and school studies, they can give valuable aid. As a rule, the employers of labor are willing to cooperate with the public-school system. The cooperation of churches, social settlements, boys' and girls' clubs, Young Men's Christian Associations, and Young Women's Christian Associations are also valuable.

The juvenile employment bureau should be under the direct control of the school board, with offices in the board of education building. The details of its organization would depend upon the local conditions. Its duties are to advise and to follow up the young persons in their occupations; to keep the educational system in close touch with the local industries; to collect and promulgate general information in regard to industrial conditions. The director at the head of the employment bureau should be appointed by the school board. The advisory committee should be composed of representatives of educators, representatives of public bodies, of trade associations, and of employers of labor. There should be counselors representing the various schools. If teachers are used as counselors, they should be properly trained, and they should have time for the work.

Volunteer men and women workers, representing the different industries of the community, are needed to follow the young persons into the industries and to give them advice and supervision.

E.—THE CONTINUATION SCHOOLS OF CINCINNATI AS A MEANS OF VOCATIONAL GUIDANCE.

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There is so little of mystery shrouding the origin of the Cincinnati continuation schools that one can readily affirm that the dominant motive in this origin was vocational guidance.

These schools are the outgrowth of an interesting combination of circumstances. First, Cincinnati shared with other cities the feeling of regret and responsibility that so many children had each year been leaving school to go to work as soon as the law allowed, that is, when just 14 and upon completing the fifth grade. There is reason to believe, too, that for a large number of pupils, "having completed the fifth grade," as specified by law, is not much more than a phrase without significance.

Second, the success of the work done in the Cincinnati Continuation School for Apprentices was of great influence in the organization of the compulsory continuation classes. The school for apprentices was organized in 1909, at which time it included classes for apprentices in machine shops and in pattern and drafting trades. Two years later classes were formed for apprentices in the 11 trades classed as the allied printing trades. This school is attended by boys who range in age from 16 to 21. They are in school one 4-hour session each week. This school attendance is paid for by the employers at the regular shop rate, and the boys are docked for absence or tardiness. The course of study is entirely academic and cultural. There are no machines in the school, all the direct practical experience being secured by the boy while in regular employment in his own shop.

The teachers in this school are both expert craftsmen and expert teachers. With these qualifications they retain the respect of the boys, to whom they become a very real inspiration, and they command the approval and support of the labor organizations and the employers. Their work is supplemented by the voluntary service of owners, superintendents, and foremen of the shops, and of representatives of labor organizations, who give instruction from time to time and assist in keeping the school and the shop in close connection.

Third, the Women Teachers' Association of Cincinnati has given serious consideration to the problem of girls who leave school to go to work. During the Christmas holidays in 1909 this organization devoted a meeting to the discussion of how to reach girls who were forced by need to leave school for work. At that meeting a committee was appointed to consider the whole matter, to make an investigation of conditions, and to suggest methods by which conditions might be bettered. This committee was called the continuation-school committee. At least half a dozen meetings were held by the

committee in 1910, at which were considered as many phases of the problem as it was possible to study by reading, by inquiry, and by actual observation. The members of the committee became convinced that there should be established a school to which the young women at work could come for at least one-half day a week, and they so recommended to the superintendent of schools.

As a result of these various movements, Supt. F. B. Dyer and the board of education began, in the spring of 1910, a movement to secure legislation upon the subject. In May, 1910, largely as a result of the work of Mr. Dyer and his board, the legislature passed the following law:

> In case the board of education of any school district establishes part-time day schools for the instruction of youth over 14 years of age who are engaged in regular employment, such board of education is authorized to require all youth who have not satisfactorily completed the eighth grade of the elementary schools to continue their schooling until they are 16 years of age: *Provided, however*, That such youth, if they have been granted age and schooling certificates and are regularly employed, shall be required to attend school not to exceed 8 hours a week, between the hours of 8 a. m. and 5 p. m., during the school term. (Sec. 7767, Rev. Stat., Ohio.)

In January, 1911, the board of education adopted a resolution to establish part-time day schools in accordance with the law. These schools were to be opened the following September, when attendance would be compulsory for those subject to the provisions of the law. Employers were so notified and preparations were begun by the school authorities for organizing the work.

In February, 1911, a very competent elementary teacher, who was recommended by the committee of the Women Teachers' Association already referred to, was appointed supervisor of the continuation schools. Her first work was to visit all the department stores, in order to explain the work and to secure the cooperation of the employers. The response of the business men was unanimously sympathetic, and it was decided to open immediately a school of salesmanship.

In May, 1911, this continuation school of salesmanship was opened, under the direction of the supervisor and in immediate charge of a second very capable elementary teacher. This teacher had previously been granted a three months' leave of absence in order to attend the school of salesmanship connected with the Women's Educational and Industrial Union, Boston, Mass. To this initial effort in the field of continuation schools for girls, 25 firms sent their employees, usually young women over 16, one-half day a week. They attended without loss of pay and received instruction in English, civics, the art of salesmanship, store arithmetic and accounting, textiles and fabrics (objectively illustrated), applied art and decoration, personal hygiene, life ideals, and home economics. The school enrolled over

200 students (firms sending from 2 to 20 girls) and continued for three months, until the exigencies of the store vacation period made it necessary to close the school. The following September the attendance decreased because of the great burden put upon the store authorities by the organization of the compulsory continuation classes.

It can readily be seen that this school of salesmanship was entirely vocational in its intent, though its effect in the direction of guidance was rather secondary. Nevertheless, the good results for the employers, evidenced by the repeated expression of approval from them and by the fact that one firm arranged with the superintendent of schools for the exclusive services of the salesmanship teacher for some months, were not greater than the thoroughly stimulating and beneficial results upon the pupils.

The spirit of this school of salesmanship has proved to be the spirit of all the continuation-school work. Compulsory classes for those between 14 and 16 who were regularly employed, having the required age and schooling certificate, were organized in September, 1911. The teaching staff consisted of four persons, who gave their full time to this work, and of a large number of principals and teachers from the regular elementary and high schools. The pupils had left school presumably only after the completion of the fifth grade; but the evident lack of preparation for work which ought to be given such pupils made it doubtful whether many of them had completed the required grade in any very real sense.

At the beginning the work was based upon the regular elementary course. It soon became possible, however, to modify this course, partly by adapting the old material to a new method of treatment and partly by utilizing new material. The course was organized in detail at weekly conferences of teachers held throughout the first year of this work.

English and arithmetic form the backbone of the course, which includes also civics, hygiene, geography, physics, handicraft, art, and salesmanship. Daily drills are given in spelling, correct English, and rapid calculation. English includes reading, spelling, and correct usage, the aim being to connect these subjects with the daily life and work of the child. The work is made intensely practical, so that the spelling lessons will be words suggested by the child's occupation of the day. It is hoped, however, that the reading period will afford an opportunity to bring into the child's life a bit of the ideal, the cultural, which he might otherwise lack.

Arithmetic includes much practice in the fundamental operations, as well as work in fractions, percentage, business forms, pay rolls, the keeping of accounts, and simple bookkeeping.

Civics and hygiene, including moral instruction and personal guidance in conduct, is given more serious consideration than any

other part of the work. It not only has its place on the week's program, but it is brought in incidentally whenever possible.

Geography is studied largely from the commercial point of view, and is brought into close relation to present-day conditions in the child's own city and country. Much use is made of the stereopticon in connection with the geography work, as well as in the study of civics.

Physics has been given with a desire to broaden the child's outlook on life. The work is given by a regular high-school physics teacher, and consists of simple experiments, which illustrate some of the more common experiences of everyday life.

The handicraft or industrial work receives one-third of the pupil's time and, for the eighth-grade boys and girls, may occupy the entire four hours. Many of the boys who thus spend their full time in the shop taking a special line of work have completed the eighth grade and are attending continuation classes voluntarily. The girls who devote their whole time to industrial work are those who are preparing themselves for trade work in millinery or dressmaking.

It is this field of industrial work which offers the largest opportunity for vocational guidance. Not only is instruction closely related to the field of the child's present activity, but opportunity is offered for the child to receive preparation for the field of his preference. It is a common experience to have a child who is working at a blind-alley job elect at school the subject which will fit him or her for a job with a future. Many of the "vocational hoboes" have manifested a very strong desire to cease being such and to settle down with thought for the future.

In dealing with such pupils, the continuation-school teacher has a unique opportunity, for the teacher here deals with a child who has left the regular school and has gone into daily occupation in the business world. The boy or girl attends the school, it is admitted, through compulsion, but nevertheless with the always present consciousness of the job and its significance. To discuss with such children the opportunities of the curriculum and to allow the choice of subjects of instruction which have meaning in the world of jobs and wages, is the special advantage here.

The range of the school's activity in the industrial and commercial lines is therefore made clear to the child. Boys are allowed to elect shopwork in wood and iron, with classes in cabinetwork, woodturning, forging, and electrical work. Art of the applied type, as well as mechanical drawing and lettering, open to the boys an attractive and desirable field. Girls may choose work in either sewing or cooking, as well as in novelty making and in millinery. Classes are conducted in salesmanship by an expert instructor.

In all the industrial work the effort is made to group, as far as possible, the children who work in one line of industry. This makes it possible to give the classes special instruction relating to that industry. However, the work is not always immediately related to the child's regular occupation—partly from a desire to counteract the results of purely automatic work and partly in order to give the child an insight into other lines of industry than those with which he is familiar.

The art course for boys is planned to give the development and skill which will secure him promotion in his field. Thus, the boy engaged in jewelry making is given problems in the designing of jewelry, and one employed in process engraving is given work in line and wash rendering. Mechanical drawing is taught to those who need it in their daily work. A study of simple lettering is made, as well as of the principles of proportion and of good and poor arrangement in signs and advertisements.

Girls who elect sewing or cooking spend half the time in this special field. The work is very practical in character. In sewing, the girls are taught garment making by machine, as soon as they have mastered the simplest principles of sewing. In cooking, emphasis is placed upon practical work and correct methods, the combination of suitable dishes for simple meals being the teacher's aim.

Novelty making is taught in some classes, the pupils being given instruction in sample mounting, making of novelties, covering and lining of boxes and cases, accurate measurements, and the solution of problems pertaining to the economical use of materials. Trade orders are solicited by the teacher, and the articles are made in class, with a view to emphasizing the trade side or money value of time, skill, and materials. The art work in color and design correlates with the work of the novelty-trade teacher. In a similar manner girls in the sewing and millinery classes have one period each week in drawing. This art work is closely connected with sewing and millinery.

Instruction in salesmanship is given to girls from the retail stores. The course consists of practical lessons in business arithmetic, including sales-slip practice and cash accounts; textiles, including cotton, flax, silk, and wool from raw material to finished product; color and design, including color combinations as to counter and dress; and salesmanship, including care of stock, approach, analysis of sale, closing sale, courtesy, demonstration sale. This work is plainly of great vocational value.

Thus, I have attempted to indicate the directions in which the Cincinnati compulsory continuation schools have developed and have seemed to be of vocational significance. To bring the story up to

date and to complete the tale, it is necessary to add that the legislature, at its session in the spring of 1913, changed the statutes regarding school attendance and child labor in such a manner as practically to eliminate the field of the compulsory continuation school. The new law makes it necessary for boys to remain in school until their fifteenth birthday and girls until their sixteenth. This leaves subject to the old unchanged continuation-school law only those boys at work between 15 and 16 who have not finished the eighth grade. However, under an interpretation of the attorney general, which construes as valid all age and schooling certificates issued before the new law went into effect last August, all children thus at work and subject to the law are attending continuation classes. These, with the boys already referred to as now subject to compulsory attendance, are the pupils with whom the work described is carried on.

IV. HOW SHALL WE STUDY AN INDUSTRY FOR PURPOSES OF VOCATIONAL EDUCATION AND VOCATIONAL GUIDANCE?

A. HOW SHALL WE STUDY THE INDUSTRIES FOR THE PURPOSES OF VOCATIONAL EDUCATION?

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Of late years a large number of investigations or surveys have had for their purpose the development of data upon which to formulate measures of vocational education. The results obtained by many of these surveys have not seemed commensurate with their expense, nor, on occasions, with their pretensions. Their frequent weakness has been that the data obtained have not been of a nature capable of interpretation in definite educational terms. The present paper represents an attempt to present principles and lines of investigation that may be turned to immediate practical account. Its distinct purpose is to formulate lines of inquiry and enable data to be obtained upon which desirable relations of vocational instruction to a community or an industry may be accurately determined.

If we analyze the relation of education to industrial workers, we are likely to find that in each industry there is one of three ways by which the welfare of the workers in that particular industry may best be promoted: First, their industrial efficiency may be improved either as regards skill or technical knowledge; second, their general education may be extended; third, opportunities for physical and mental recreation and stimulation may be offered them, whereby the monotony of automatic tasks may be relieved and the narrowing or cramping influences surrounding the daily work may be neutralized.

It is evident that only the first of these divisions constitutes the field, in any strict sense, of vocational education. The other two lines may be equally valuable and important to the well-being of the workers under certain conditions, but they do not constitute in a strict sense vocational education. One is concerned with the extension of general education, perhaps under many conditions the most needed and helpful influence that can be brought to bear. The other represents a field of activities of great importance in large

numbers of factory and mill trades where the conditions are such that a combination of physically recreative and mentally stimulating experiences are the most important benefit that can be brought into the lives of young workers.

Before beginning any survey intended to develop a program of vocational instruction, it is evident that substantial indications should be present pointing to opportunities along the first division. Such evidence should indicate, first of all, that there is large need in the industries of the community under consideration for further skill or technical knowledge that can not be entirely supplied in commercial practice, and furthermore that this need is worth supplying. To be specific, we should know whether considerable difficulty exists in obtaining efficient workers; whether the industries represented are of sufficiently high grade to afford adequate employment that insures a fair standard of living. Besides these facts we should know certain things as to the general industrial situation in the community, such as the proportion of industrial workers to the total population; the status of the community and its social attitude toward industrial work; the situation as regards variety and concentration of industries; racial traditions as regards the use of the child as an income asset; the habit of the community in regard to the use of educational opportunities; whether the industries concerned represent on the whole healthful occupations; whether they represent on the whole industries that from the civic and social standpoint are desirable to encourage.

To obtain such an outlook might require a preliminary survey. If so, the methods and conclusions of such an inquiry should be based upon its particular purpose and should be thoroughly distinctive from investigations of the type to be hereafter considered, which aim to develop data to be used as a basis of a constructive program.

As a result of such a preliminary outlook upon the situation we should be able to determine roughly whether the prospects for the introduction of vocational education becoming a benefit to the community are such as to justify an intimate investigation of the community's industries.

Before attempting to formulate the lines of such an inquiry it may be well to point out that the propositions submitted are based upon the assumption that our main progress in vocational education is to be made by adapting instruction to the specific needs of different industries rather than by setting up general types of vocational instruction and inviting workers or would-be workers to conform thereto. This leads to the conclusion that an investigation that aims at direct constructive results from the educational side should address itself to the study of each of the important industries or types of industry represented in the community.

The first effort of such an investigation would then endeavor to ascertain whether the industrial efficiency of those engaged in any industry or those intending to enter the industry may be improved either as regards skill or technical knowledge. In order to develop the lines of such an inquiry, the following analysis may be of service:

In general there are two aspects to every industry: (*a*) The purely manipulative side, that is, skill or dexterity, which may be denoted by S; and (*b*) the technical side, consisting of knowledge or information, which may be called T. The efficiency of a worker may be expressed by the equation E=S+T. Different industries vary greatly as to the amount of these two elements needed to secure efficiency. The following different cases and intermediate conditions stand out:

(*a*) Both skill and knowledge are needed.

(*b*) Skill is needed, but not technical knowledge.

(*c*) Technical knowledge is needed, but not skill.

(*d*) Neither skill nor technical knowledge is needed except in a very low degree.

Not only does the need for the two elements vary greatly in the different industries, but the opportunities for acquiring either or both of these elements in commercial practice are a matter of great variation.

Under (*a*) we may have three sets of typical conditions: (1) In which the worker can obtain both skill and requisite technical knowledge in regular employment; (2) in which he can acquire skill, but not technical knowledge; (3) in which he can obtain technical knowledge, but not skill.

Under (*b*) there are represented two typical conditions: (1) In which the learner can obtain skill in regular practice; (2) in which he can not.

Under (*c*) likewise there are two typical conditions: (1) In which technical knowledge can be acquired; (2) in which it can not be obtained.

This classification represents extreme typical conditions, between which are to be found intermediate stages.

From this analysis follows the first line of the proposed inquiry:

1. *Is skill or technical knowledge, or both, needed for efficiency and progress in the industry?*

If so, (*a*) can skill be obtained under conditions of regular employment? and (*b*) can technical knowledge required be so obtained?

As a result of these lines of inquiry it would be found, for example, that both skill and technical knowledge are needed in the industry. It would also be found, however, that in many industries under usual conditions the requisite skill may be obtained in practical work, but

that the technical knowledge required for progress and full efficiency may not be readily obtained. This would indicate that in such industries organized school instruction along technical lines may be of service. Again, it would develop that skill represents the important element in efficiency and that technical knowledge is of small account. In many industries the requisite skill can not be obtained under usual conditions of actual practice. Here again it is indicated that the school may have a possible place in the training on the manipulative side.

Further to determine the exact needs of school instruction, the following lines of inquiry are desirable:

2. *Opportunities represented by the industry.*—Opportunity as shown by (*a*) relative number of persons employed in the upper and in the lower stages of the industry; (*b*) average wages in the upper and in the lower grades; (*c*) proportion of new employees each year as compared to the total number of employees; (*d*) intermittence or steadiness of the industry; (*e*) number of departments or kinds of work represented in the industry.

3. *Ways in which the industry is recruited.*—Recruiting as shown under the following conditions: (*a*) Difficulty experienced in obtaining efficient workers. (*b*) How are high-grade workers recruited, by promotions from below or by direct employment? (*c*) Are untrained beginners wanted by employers? (*d*) Different ways in which beginners enter the occupation. (*e*) Average wage at which beginners enter the occupation; preferred age from employers' standpoint. (*f*) Percentage of those between 14 and 16 years of age entering during one year. (*g*) Percentage of those between 16 and 18 years of age entering during one year. (*h*) Average amount of general school training represented by beginners. (*i*) Are the wages small at first, growing slowly to high, or are they comparatively large at first but with small rate of increase? (*j*) Percentage of beginners leaving in the space of one year. (*k*) Percentage remaining in low-paid work at end of six years. (*l*) Percentage advanced to skilled or responsible work at higher wages at end of six years.

4. *In what ways do workers obtain training?*—(*a*) Have all beginners opportunities to learn more than one operation or kind of work? (*b*) Are there opportunities later on for those showing ability to change from one department to another? (*c*) Is the occupation open at the top for all beginners with requisite ability? (*d*) Does the worker receive any instruction or training from the employer? (*e*) Is there an apprenticeship system? (*f*) What percentage of all young beginners are apprenticed?

5. *Qualities demanded in a worker.*—Strength, endurance, intelligence, quickness, accuracy, dexterity, carefulness, artistic feeling.

6. *Conditions under which the work is performed.*—(*a*) Does the work involve any peculiar physical or nervous strain or present peculiarly unhealthy conditions? (*b*) Are the nature and conditions of the work such as to stimulate the intelligence of workers or such as to narrow and restrict their growth? (*c*) Are the influences surrounding the work morally deteriorating?

7. *Relations of occupation to school training.*—(*a*) Is the industry hampered by lack of knowledge or training on the part of beginners? (*b*) Is general school training beyond the "working-paper" grade of value for success in the occupation? (*c*) Is general school training beyond graduation from grammar school of advantage? (*d*) Is a complete high-school education of advantage? (*e*) Is industrial-school training in any form an advantage? (*f*) If either general or vocational training is an important advantage, just what kind of training is most necessary for efficiency? (1) General knowledge, (2) industrial and economic intelligence, (3) specialized technical knowledge, or (4) manipulative skill? (*g*) Would such instruction be most helpful if obtained before entrance upon the occupation or after?

As a result of the investigation outlined it should be possible to determine first of all whether the situation in the particular industry is such as to make school instruction in some form desirable from the standpoint of added efficiency; that is, whether the industry requires some form of skilled or technical knowledge that is not readily or satisfactorily obtained under conditions of regular work. Second, granted that this need is indicated, the investigation should allow us to determine whether the industry represents economic, sanitary, and other conditions that justify the community in providing means to assist its workers. Third, the investigation should indicate with some degree of definiteness what type of vocational school work is best adapted for serving the industry; that is, whether an all-day preparatory trade school dealing with pupils before entrance into the industry or part-time day classes or evening classes is needed and to what kind of subject matter such classes should address themselves. Furthermore, if it is desired, we should be able to ascertain for the industry in which vocational instruction is not an indicated need whether general school instruction or social-welfare work is an important need of the worker. Such data should allow us to ascertain fairly well the type of school instruction needed for the particular industry.

To illustrate the way in which such data might be interpreted in terms of a constructive program, let us examine two or three typical industries.

Industry 1.—In this industry both skilled and technical knowledge are required for efficiency. The requisite skill is obtainable under

conditions of practical work, but not the technical knowledge. The possibility of outside school instruction to supply this technical knowledge is consequently indicated. It is found that difficulty is experienced in obtaining efficient high-grade workers; it is also found that the industry presents adequate economic returns; that the conditions of work are satisfactory; and that opportunities for advancement are open. It is also found that beginners are not admitted below 16 years of age. Such conditions taken by themselves would indicate possibilities for either a preparatory trade school for those between 14 and 16 years of age, part-time day classes, or evening classes.

Further detailed study would be necessary to determine whether the required technical knowledge could be gained by boys below 16 years of age in a preparatory trade school, and whether they would attend such a school; whether or not the employers would allow attendance on part-time day classes; and still further consideration to determine what type of school would be best fitted for this particular condition.

Industry 2.—In this industry skill is needed for efficiency; conditions of practical work do not allow skill to be readily obtained; the trade brings good returns; conditions of work are satisfactory; difficulty is experienced in obtaining efficient high-grade workers; opportunities for advancement to high-grade work are frequent; beginners are not taken below 16 years of age. Such conditions indicate the possibilities of school instruction to supply training and skill. The same analysis would be necessary. In this case four possible school opportunities are suggested—a preparatory trade school for those from 14 to 16 years of age; a trade school for those above 16; part-time day classes; evening classes. Further investigation would be necessary to determine whether sufficient skill to meet the case could be given in a preparatory trade school; whether young boys below 16 would attend such a school; whether they would attend a school for a sufficient period after reaching 16 years of age; and whether or not the employers would allow attendance on part-time day classes. Still further consideration would be necessary to determine what type of school would be best fitted for this particular condition.

Industry 3.—In this industry skill is needed, but little technical knowledge. Difficulty is experienced in obtaining efficient high-grade skilled workers; wages of high-grade workers are good; conditions of workers fairly satisfactory; opportunities for obtaining skill needed for advancement are small; beginners enter in large numbers at 14 to 16 years of age and obtain fair wages. Such conditions indicate the possibility of a day preparatory school with short-term courses, part-time classes, or evening classes. Further study would be needed to determine the type best fitted.

If the need for general education or for social welfare work is to be looked into, the investigation should give at least primary indications on this side—if, for instance, the industry presents need for but little skill or technical knowledge, but presents fair returns in the upper grades, to which advancement can be made through experience; if the conditions of work as far as health and growth are concerned are satisfactory; if beginners are entered at 14 years of age—at the working-paper stage. Under such conditions it is probable that the extension of general education will be of important benefit to the workers. This would be doubly true of conditions similar to those just mentioned, but under which the line of advancement was very restricted, and juvenile workers, although employed in large numbers, would find employment only for short periods.

Furthermore, such an investigation would reveal conditions in which little skill or technical knowledge is required; in which, although the opportunity for advancement to fair wages is present, the work is concerned with such a narrow range of operations in connection with automatic machinery that the daily routine is monotonous and deadening in its effect. The study of such conditions of industry would very probably point to the provision of physical and social recreation as the greatest benefit that could be conferred upon workers.

B.—HOW SHALL WE STUDY THE INDUSTRIES FOR THE PURPOSES OF VOCATIONAL GUIDANCE?

Prof. FRANK M. LEAVITT,
University of Chicago, Chicago, Ill.

Since vocational education and vocational guidance are generally recognized as two phases of the great economic and social movement to improve the condition of those who form the base of the human pyramid which we call civilization, it may be asked, when the question "How shall we study an industry for purposes of vocational education?" has been answered, whether there will remain anything to be said from the point of view of vocational guidance.

If there be any distinction between the two viewpoints, it is because the movement, as already noted, is both economic and social, and because vocational education might possibly be expected to emphasize its economic phases, and vocational guidance certainly should emphasize its social features. It is possible to think of vocational education as having for its purpose the salvation of our industrial system and the maintenance of our commercial supremacy, but vocational guidance must have as its chief purpose the salvation of the lives and the ideals of the Nation's workers.

The two are not necessarily antagonistic, but the energy which impels each movement is likely to be drawn from a somewhat differ-

ent source. For this reason, if we study an industry from the point of view of vocational guidance, it may be for the purpose of bringing about a modification of existing conditions and methods in the industry quite as much as to secure a modification of the conditions and methods of education. It is well within the range of possibility that vocational guidance, when carried out in a comprehensive, purposeful, and scientific way, may force upon industry many modifications which will be good not only for the children but equally for the industry.

For example, we hear much about a "minimum wage." It is frequently contended that the minimum wage should be at least a living wage. But this makes no provision whatever for the fact that we have always had, and always shall have, children who are only partly self-supporting because they are in that transition stage between the period of dependence, on the one hand, and of full responsibility for one's own maintenance, on the other. What is radically wrong in the present situation is that children so often are obliged to work, and work intensely, for the full adult working period, and are given for their services a wage only sufficient for part support. When children work part time only, and when the remaining hours are spent as children should spend them in recreation and study, we shall hear less about a minimum wage for minors. And what is more to the point, the child-employing industry which is forced to adjust itself to the needs and rights of children in respect to hours of labor will inevitably gain by such adjustment.

The point I would try to make is this, that in studying an industry from the point of view of vocational guidance, we should try to ascertain what the possibilities are for reorganizing its methods of employing minors, and to show how such modification may result in common advantage, both to the industry and to the industrial worker. Vocational guidance will not hesitate to demand such modification merely because the industry is rich and powerful and the child relatively poor and weak. Why should we hesitate to lay hands on industry in the name of education when we have already laid hands on the school in the name of industry?

In studying the characteristics of the various industries in order to determine what are the "good" industries, we are told that a "good" industry is one in which there are clearly defined lines of progress from the lowliest "job" up to some of the prominent responsible positions in the organization, thus providing incentive for both work and study. In studying an industry from the guidance point of view, it is essential that we stand between the school and the industry and look in both directions—forward into the shop and backward into the school life of the child. We must be able to

say, eventually, that such and such experiences gained in the last year or two of the child's school life have rendered the first year or two of his vocational life more efficient and progressive than some other type of school work. In order to do this it will be necessary, not only to improve immensely the nature of our school records, but to establish the right to exercise some sort of community control and supervision of working minors, so that records of the early vocational years may also be preserved. It is only by taking the late school records, together with the early vocational records, and by considering them as a whole, as a continuous experience, that valuable conclusions can be reached and the industry be truly "studied."

It is quite clear that all this will take time and that the process can not produce immediate results, but beginnings can be made now; and we should remember that the project upon which we are engaged is one that will last indefinitely, advancing by slow growth from within rather than by superficial accretion.

Since any plan for giving vocational guidance involves the cooperation of parent, teacher, and employer, it is reasonable to expect that modifications will be brought about not only in the school but also in the home and in the shop. It is quite as reasonable to expect that the employer may be brought to see the advantage of making the early vocational experience educative as that the teacher shall be induced to give the later school experiences a real vocational flavor. In the problem of making a better adjustment between the child, the educational methods, and the vocational demands, we shall certainly find that the characteristics of childhood are more fundamental and changeless than are the characteristics of our industrial systems or of our school organizations. The "factory system," which is giving us most of our difficult problems in the industrial education movement, has evolved its important features within 200 years; our modern school has its roots in an educational tradition of perhaps four centuries; the characteristics of childhood are the same now as ages ago. They are constant—one might say eternal—while, by comparison, the "systems" of education and of industry are but transitory.

The child needs for his complete development play, study, and work. We can not improve matters materially by "saving" him from work until he is 16 or 18, for, as Prof. Ely has pointed out, the problem of child idleness is a far more serious one in the United States to-day than is the problem of child labor. So we must "save," that is to say, "improve" the work, and whatever may be of importance in studying an industry from the point of view of vocational education, from the point of view of vocational guidance the prime factor will always be the child, whose rights will be placed far above those of property or the dictates of educational tradition.

APPENDIXES.

A.—THE ROUND TABLE QUESTION BOX.

Presiding Officer, Prof. J. M. TELLEEN,
Case School of Applied Sciences, Cleveland, Ohio.

Question 1.—What should be the relation of vocational guidance to employment agencies?

MR. HENRY D. HATCH, Chicago: In this country we have very much to learn from Edinburgh, Scotland. In that city there is a very vital connection between the educational information department, which practically works out the vocational adjustment problem, and the employment department.

Under the Parliamentary act of 1910 it was made possible for boards of education to expend public funds in Scotland, and later in England, for the establishment of vocation bureaus. Afterwards the board of trade labor exchange made it possible to establish juvenile departments, and now throughout Great Britain and Ireland three different forms of cooperation exist. In my judgment the type found in Edinburgh is the wisest, where there is a combination of both functions, the juvenile department of the board of trade labor exchange and the educational information department in the board of education offices, both under board of education supervision and direct control.

MISS LILLIAN KANE, Hartford, Conn.: I wish to speak of the special problem of placement from my experience in Hartford. When I went to Hartford to start vocational guidance work there was no vocational education at all. The children were leaving school by the thousands between the ages of 14 and 16 and entering any industry they happened to find. We found by investigating in Hartford that placement is needed for children between the ages of 14 and 16.

Vocational guidance is too loose a scheme; that is, you can advise a child to enter a vocation, but you must define exactly the place for him to get the right guidance. Placement work is necessary, but it can not be done legitimately by the public-school system until there is a thoroughgoing system of continuation schools.

CHAIRMAN TELLEEN: There is a rather interesting phase in the city of Cleveland, where they have made provisions for an employment bureau in connection with which vocational guidance will be taken up. It is felt that vocational guidance must necessarily go hand in hand with the employment or placement.

MR. GUSTAV BLUMENTHAL, Washington, D. C.: An employment agency can not have much to do at present with vocational guidance. Most of the vocational agencies which the Young Men's Christian Association has started in Buffalo, Minneapolis, and New York have to do altogether with boys who have already been through school.

Vocational guidance should have its start in the schools before the children attain the age of 14 years and require employment. For the last three years I have practiced in America a kind of vocational employment work, but it was not actually to find positions for people; it was rather to size up what they were

actually capable of doing. We have recently started a vocational bureau in Washington, D. C. The chamber of commerce, the board of trade, and the manufacturers' association have no other purpose in this enterprise than to find work for high-school boys and girls in Washington when they leave school.

MR. EDWIN G. COOLEY, Chicago: They have a most practical bureau in the city of Edinburgh. In the building on Castle Terrace the organizer of continuation schools has his own office, and in the next room the man at the head of the labor bureau has his office, and this serves as a clearing house for the employment of youthful people in the city of Edinburgh. The educational organizer receives from men and women in charge of schools a list of those who are going to be free at the end of the year to seek employment under the law, being 14 years of age. He knows whether they are going to stay in school or whether they are going out. If they are going to leave, they are reported to this organizer of the continuation schools. Information is filed with him about these boys and girls as to their physical and mental characteristics—whether their eyes are good, whether their lungs are good, whether they are stupid or intelligent, industrious or lazy. Any general information that can be made available is all at hand in this organizer's office.

On the other side of the doorway is the application of the employer stating what he wants—a carpenter's apprentice, a plumber's apprentice, or whatever it may be.

It is the duty of this organizer each year, shortly before the close of the schools, to call the students in with their parents for a meeting, at which he, the teachers, the parents, and the members of a special committee appointed by the board of education, representing various trades, all talk with these boys and girls, to ascertain what wages are paid and how many positions there are to fill. Then, before the close of the year, the students make their applications to the educational organizer, stating what they would like to do. On the other side of that application is placed the information as to what is available. The work is carried on in a very systematic and careful manner. As soon as a boy or a girl enters upon employment, the continuation school organizer knows it; the child is called in; and full information is obtained concerning his employment. The system is working admirably in the city of Edinburgh.

Question 2.—At what period of the school work should vocational guidance be begun?

Mr. JESSE B. DAVIS, Grand Rapids: It just happens that we begin with the seventh grade in Grand Rapids. That does not mean that we believe that this is the place where it necessarily should be begun. We have not tried to get at it from that point of view. It is a matter of evolution. We began the work in the high school and have worked it back to this point, and as so much of our work is in a condition of experimentation, this is about the only answer I can make to the question. In other words, so far as this formal study of the problem on the part of the pupil is concerned, we feel that the seventh grade is about as early as it is practicable; but others may have had experience in beginning it before the seventh grade.

There is some work in broadening the vision of the pupils that might perhaps be done earlier—industrial excursions, or something of that sort; but so far we have not attempted to do anything by way of formal instruction earlier than the seventh grade.

Mrs. WILLS, Hartford, Conn.: In the State of Connecticut nearly 70 per cent of the children have left school by the end of the sixth grade. Therefore, if you begin vocational guidance in the seventh grade, it would only

touch a few of the children who leave school at the age of 14 to go to work. We think, in Hartford, that vocational guidance should begin just as early as possible.

Perhaps I do not understand what some of you mean by vocational guidance in the lower grades of school, but to me it would mean the study of aptitudes, such as the teacher can make from daily association with the child. Possibly an illustration would be of more interest. I know of a little apprenticeship school for machinists in a small town in Connecticut, where they take boys in at the age of 16; and the director of that school told me that within three months 40 per cent of the boys are discharged as not having the aptitude for becoming expert machinists. There the special requirement is that a boy should have the correct eye for proportion and direction. Without that qualification he can never be an expert machinist. As I say, the director informed me that the boys go in at the age of 16 and that 40 per cent of them are found to be misfits. Now, that should be found out by the teacher in the school long before the child is 14 years of age. To me what is meant by vocational guidance is the study of aptitude.

MR. F. P. GOODWIN, Cincinnati: A few of us in Cincinnati have been considering the advisability of trying something in the way of vocational guidance with that class of pupils whom we may call prevocationists—those pupils who perhaps are behind in their course, whom we are already putting or expect to put in prevocational work, largely manual in character, and who will spend at least half of their time in school and the other half in employment. We have not attempted this yet, but we have come to believe, as has just been said, that a good deal could be done through the study of aptitude.

I am willing to go further as a suggestion for an experiment and to urge that a considerable body of information should be given pupils of that class concerning the various trades which may be open to them, so that the child himself will be giving some consideration to the question of what his life career shall be. I should add in that connection that in my judgment there should be a strong contrast in the child's mind between the two classes of occupations he may enter—the blind-alley trade and the trade which opens up a career instead of simply a fair living at the beginning.

MR. HENRY D. HATCH, Chicago. Two points occur to me in this connection—one as to the relation of the charts which Dr. Ayres has exhibited[1] and the other in connection with what has just been said. Dr. Ayres very distinctly showed that the sixth grade and those below it contain half of the pupils who leave school. If you begin in the seventh grade to look after the vocational adjustment problems of these children you leave more than half of them out of any consideration whatever, and perhaps you leave out of consideration that half which is most in need of your help, because the circumstances of those who go on with their school work are much more favorable to their life outlook than are the circumstances of those who have dropped by the wayside in these lower grades.

Now, just a word again supplementing what Mr. Cooley has said and adding further to what I suggested in reference to Edinburgh. It is a part of their plan there that when the child is 12 years of age, or when he has reached the sixth standard, corresponding fairly well to our sixth grade, the parents are taken into a heart-to-heart talk with the school authorities as to the outlook for future school attendance on the part of the child. If it is the outlook of the child that he may go on into the higher-grade schools, having completed

[1] See p. 271. for the data on which these charts were based.

the sixth standard, for a two-year course, or a three-year course, or a five-year course, leading eventually to a certificate to the university, then his way is clear through the regular courses that have been in operation for a number of years; but if it is the forecast of the parents that that child must leave school at 14, then it is the thought and arrangement of the school authorities in Edinburgh to care very carefully for the child during these next two years, between the age of 12 and 14, in what are known as the supplementary courses in the regular day school, courses which form the first foundation of the continuation school for those that do not get a chance to accomplish this work before they leave school.

MR. HENDERSON, Hammond, Ind.: It seems to me self-evident, if we are to give the child vocational guidance, that we must give it to the child while we have him and not after he is gone. If practically 70 per cent of the children leave school at the end of the sixth grade, we must get in ahead of that time.

It does not seem to me, however, that we should accept this condition as at all needful, that of a boy leaving school in the sixth grade at 14 years of age, or about two years retarded. We had better devote our attention to getting that boy past the sixth grade at the age of 14. If 70 per cent of the children leave school at the sixth grade, we would have to begin at the fourth grade. That does not seem to me to be needful at all. We as instructors should see to it that those children get beyond the sixth grade at the age of 14.

Question 3.—What methods and agencies are needed for advising school children with a view to securing the training indicated by vocational guidance?

MISS ANNE DAVIS, Chicago: We started to work in Chicago a little over three years ago with a private organization entirely outside of the schools. It started under the supervision of the School of Civics and Philanthropy, being assigned to the research department of that school. They were making an interesting study at that time of truant children who were coming out of the grammar schools, with no one to guide them or lead them into any beginning jobs; and in following up the children they found the majority of them landed sooner or later in the juvenile court as delinquent boys and girls. They began making a study of some of the industries and some of the jobs open to boys between the ages of 14 and 16; and after a few months of experimental work they began studying some of the occupations and industries open to girls in the city of Chicago between the ages of 14 and 16. For nearly two years we worked entirely outside of the schools. The result was the children that came to us were children that had been out of school for some time. They were children who had had anywhere from one to eight or nine jobs; they had drifted from one blind-alley occupation to another; and the result was that there was very little we could do for them in the way of vocational guidance. Some of them had worked on automatic machines; they could not see, and we could not make them see, that it was worth while to enter a trade as an apprentice at $5 or $6 a week, when they could earn $8 or $9 or $10 a week on an automatic machine. For that reason, as I say, the result was that we could do very little for these boys and girls.

We saw, therefore, that the work ought to be done in the schools; that we ought to catch these children before their working certificates were issued and before they had a chance to get into any kind of employment.

In March of this year (1913), Mrs. Young and the board of education very kindly consented to give us office space in the board of education headquarters. Notices were sent out to the principals asking their cooperation and asking also if they would be willing to send children to us before they issued their working

certificates. Now, when a child asks for a working certificate or when a teacher understands a child is thinking of leaving school, the supervisor who has charge of the work nearest that school is notified; the child is seen; the home is visited and the parents interviewed; with the result that we have been able to return a good many children to school.

We found in two or three schools that it had simply become a custom for the children to leave at 14 years of age. In response to inquiry, numerous children said, "We are leaving school because we are 14 years old;" they thought they did not have to go any longer. When we held open the opportunities that the Chicago schools are now giving in the way of vocational training, when they heard of this and of the technical work in the high schools, we found we were able to return a large number of these children to school to continue their training.

We are doing a little work in placement, of course, but our main object is to get the child back to school and to put him in the way of further training if possible.

Miss M. Edith Campbell, Cincinnati: Do you think you can get a good idea of the industries without placement work?

Miss Davis: No; I do not think you can. We did very little work in placement at first. We find out, however, before we place children in these industries, all we can learn about the occupations and the conditions under which these children work, the opportunities open to them, and the wages paid to them. An interview with an employer gives us perhaps a very good idea of a certain occupation or a certain factory or a certain shop, but after a child has worked there we are not always convinced that the employer has given us a correct statement of the conditions in that factory or shop.

Mr. C. B. Conley, Pittsburgh: I should like to ask if there is any cooperation on the part of the manufacturers?

Miss Davis: We have investigated about 4,000 shops, offices, and factories in the city. This is, of course, a very small percentage of the number we have in Chicago; but on the whole, especially since we have started to work in the school, the manufacturer has been very much interested in the work we are doing, and I think we have had very good cooperation. I might add that we have also had very good cooperation on the part of the unions in the work we are doing.

Mr. Richards, Rockford, Ill.: I should like to ask if the manufacturers apply to you for children?

Miss Davis: We do not wish the employers to think we are a regular employment bureau. We try to get that out of their heads. Just before I came away an employer called me up. He had called up the week before for a boy to fill a certain position because we had sent others to him who had been successful, and he told me he wanted another boy just like the boy we had sent him before. His need was a little more urgent than we could supply, however, and he called me up to say that our boy came a day too late; that he hired another boy, but was sorry he had not waited, but that now he wanted another boy and he was willing to wait until we could send him the right kind of a boy.

Mr. Conley: You stated that you had the cooperation of the manufacturer. Does the manufacturer take sufficient interest in your boys to know how they are trained? Have they cooperated with you in any extent as to the curriculum? My reason for asking that question is this: So far as I know the city of Pittsburgh has the only school board that has set aside a sum of money for vocational guidance. We have always been reaching out to get the very best we could. If the manufacturer, from our view point, would do his very

best and interest himself in the training of the child as much as he does in getting him, I think it would relieve our work very much.

Miss Davis: We are working at that from another direction in Chicago by trying to get these manufacturers who employ boys who have had little training and have had to go to work at an early age to send the boys to school half a day a week. There is one company in Chicago sending 20 boys to elementary schools—boys who have not completed the grammar-school grades—for courses in academic subjects, English, history, mathematics, etc. We are working from that direction with these boys. The majority of the manufacturers are interested in their further training, but we have not been able to make them all see the benefit they are going to derive by giving the boys a half day off each week to go to school.

Mr. W. M. Roberts, Chicago: I would like to say that the greatest work that vocational agencies have done has been to get the children back to school. Abount 40 per cent of those who apply for jobs are induced to go back to school and continue their courses. Usually, as Miss Davis has said, it would be advisable to suggest to these people something that could be done in school to further the purpose the child has in mind as his life work, some line of study or vocational course that can be taken up in high school.

Miss Davis: In answer to Mr. Conley's question as to whether the business men are in cooperation with this work, I should like to have Mr. Raymond Booth, who represents the association of commerce in cooperatin with the board of education, state something of the work he is doing with the business men of Chicago.

Mr. Raymond Booth, Chicago: It seems to me to be a rather healthy sign to any community when the business and educational interests realize that their interests in the boy who leaves school or is contemplating leaving school are, in the last analysis, one and the same. The Chicago Association of Commerce has definitely entered upon the work of vocational guidance simply from the business and economic viewpoint.

Employers are generally heard complaining of the loss of time and waste of energy they have in breaking in boys who drift into jobs for which they are not fitted; who therefore last only a brief length of time; and who at the expiration of that time have to be dismissed. It was felt that some means ought to be instituted whereby one of two things could be put into effect: First, that boys who were leaving school might be induced to stay in school longer, so that when they did leave they would give a better type of service to the employers; or second, that those who did leave might be placed in work for which they had the most natural aptitude.

Instead of going about this independently, it was felt that the best way to work it out was to cooperate with all the institutions interested, and particularly with the board of education, inasmuch as the board of education is training the future operatives for industry. So the association of commerce has for the past year been cooperating directly with the board of education. It has kept one representative in the field who has been trying to induce the boys who came to him to go back to school if they possibly could.

Employers are beginning to wake up to the fact that child labor is not in the last analysis profitable. A number of employers have told me that they would be only too glad to raise the age limit at which boys come to them and seek employment. In fact, a number of employers are gradually raising the age limit to 16, because they feel that the type of service that they get under that age is not efficient and is far from proving satisfactory. Employers are voicing a cry which is bound to be heard, and which is heard now, for greater efficiency

and a better type of service from the juvenile employees who come to them. We therefore try to keep the children in school just as long as possible, knowing that in the long run they are going to give a type of service that is better and more satisfactory to the boys and girls themselves and that is going to be of more value to the industries.

Again, those boys who do have to leave want to be linked up with the kind of work for which they have the most natural fitness, and so we have tried to extend the cooperative group of employers, especially among those who are members of the association of commerce. I have therefore been going around to a number of these employers, interesting them in the work by telling them what the board of education is doing, and that it was felt that the board of education and the association of commerce, representing the combined business interests, should work in direct harmony and should have at heart the best interest of these boys who are leaving school and who are potential citizens and business men. Of course, the association of commerce joined in this movement, not so much from philanthropic motives, but because they realized that in the long run they will be the gainers. It is obvious that if this waste of time and money in breaking in misfits can be obviated, the business interests, as well as the boys and girls, are going to be benefited.

So it seems to me that the very fact that the board of education of the city of Chicago and the business interests of the city of Chicago are organized, and that there is a strong cooperation between them, indicates a widened public feeling and a widened civic conscience.

MR. HENRY D. HATCH, Chicago: Mr. Chairman, will you kindly request Dr. Bonser, of Columbia University, to tell us how the Manhattan Trade School for Girls is solving the problem of guidance and preparation for employment and placement?

PROF. FREDERICK G. BONSER, New York: The Manhattan Trade School for Girls is making an endeavor to place girls who come to them in such work as fits their natural aptitudes. This school takes girls in the upper grades, gives them quite a variety of work to find out what their natural aptitudes are, and then advises them to concentrate upon that line of work for which they are best adapted. They are in pretty close touch with the employers in various lines into which the girls go, and they make a careful endeavor when a girl leaves school to help her to find the work for which she is adapted. They carry along a line of work which is from day to day a constant test of what the girl's commercial ability may be when she leaves the school; that is, they know at the end of any day, and the girl herself may know, just what she could earn if she were to go into a trade on the next day. As a result of this careful check as they go along they are enabled to place the girls pretty well.

Question 4.—What are to be the methods for discovering the capacities and aptitudes of school children?

CHAIRMAN TELLEEN: I think Cincinnati is the one city which is best qualified to give an answer to this question. I shall therefore call upon Miss Campbell.

MISS M. EDITH CAMPBELL, Cincinnati: We are attempting to do two things: One is to make a comparative study of children in school for five years and the other is to study the children at work, giving them a simple test at the end of each job, because we have a law which requires reregistration at the end of each job, so that they must come back and get a new work certificate. We are trying to make an extensive study of these children, and we expect at the end of five years to be able to give some information regarding them and as to the

results achieved under this plan. We have tested, in the three years that the work has been going forward, approximately 800 children. We are trying, through the administrative office, to find out about the industries, and we are also trying to find out through simple psychological and physical tests the industrial record of each child in connection with a careful system of home follow-ups after the child has found employment, and also through these tests to discover his aptitude.

Question 5.—Has any complete system of work for a vocation counselor for a series of months been drawn up anywhere?

MISS SARA LOUISE ARNOLD, Boston: A year's program for those desiring to become vocational counselors has been arranged by the Women's Educational and Industrial Union of Boston. This includes research as to industrial opportunities, economics, statistics, observation, and practice. It is planned and will be carried on by the appointment bureau of the Women's Educational and Industrial Union of Boston and by instructors who are thoroughly equipped. It is especially offered to college graduates and experienced teachers who are preparing for the problems of vocational advice or counsel. This is the only year's program I know of offered to teachers. It had been expected that this program would go into operation this year, but conditions have compelled its postponement until next year.

Question 6.—Is vocational guidance a thing that concerns purely the submerged seven-tenths, that is, those children that drop out of school at an unseasonable age, or is it concerned with those who enter the professions—school teaching, say—and a good many other kinds of work?

PROF. BONSER: It has seemed to me from the beginning that vocational guidance is something that concerns all people who are in any way to render social service to others; and that some of our most valuable social capital is represented by those children who are able to go through the schools beyond the sixth and seventh grades. You know there are many misfits in the profession; you know one of the students in the vocational guidance class last year said she though there were more misfits among the school teachers than in any other vocation.

The general character of this question leads me to suggest what might have a relationship to one of the previous questions that I did not feel moved to say anything about at the time. Where should vocational guidance begin? It seems to me that the whole discussion here has been in a certain sense an indictment of our public-school system. If it is the business of the public-school system to deal with problems that are in such close relation to life, problems which involve the earning of a livelihood, and if the boys and girls going through these earlier years of life under the guidance of the school teachers do not learn something that enables them to make a livelihood, then just so far, it seems to me, the public-school system falls short. Eventually, I believe, the outcome of vocational guidance will be to so organize the curriculum of the schools, both elementary and secondary, that the work will constantly bear sufficiently upon life to make it count for something in discovering both the vocational aptitude of the child and the business that has application to the child. If this thing works itself out in a large way and does not confine itself to the submerged and unfortunate class who must get out of school at an early age, then it does affect all the vocations, including professions, and it does affect all the children.

B.—VOCATIONAL GUIDANCE THROUGH ENGLISH COMPOSITION.

WORK IN THE GRAND RAPIDS (MICH.) HIGH SCHOOLS, UNDER JESSE B. DAVIS, VOCATIONAL DIRECTOR.

Members of the vocational guidance conference were admitted to the classrooms to observe the pupils in the discussion of vocational topics according to the following outline:

Seventh-grade theme: *Vocational ambition.*

Purpose, to arouse within the pupil a desire to be somebody and something worth while in the world.

Eighth-grade theme: *The value of an education.*

Purpose, to impress upon the pupil the need and means of obtaining some further preparation for life than that of the grammar grades of the public schools.

Ninth-grade theme, first semester: *The elements of character that make for success in life.*

Purpose, to draw out an understanding of real success in life and how it is obtained, and to apply the fundamental lessons of character building to the needs of each pupil.

Ninth-grade theme, second semester: *Vocational biography.*

Purpose, to continue the same lessons from the lives of successful men and women in varied fields of endeavor.

Tenth-grade theme, first semester: *The world's work.*

Purpose, to study vocation in general in order that the pupil's vision of the call to service may be as broad as possible.

Tenth-grade theme, second semester: *Choosing a vocation.*

Purpose, to attempt to select that vocation or general field of occupation for which the pupil by self-analysis seems best fitted.

Eleventh-grade theme, first semester: *Preparation for life's work.*

Purpose, to plan out a definite course of study and conduct to meet the special requirements of the profession, business, or industry chosen.

Eleventh-grade theme, second semester: *Vocational ethics.*

Purpose, to study the moral problems peculiar to the chosen business, profession, or occupation.

Twelfth-grade theme, first semester: *Social ethics.*

Purpose, to study the relation of the individual in his future vocation to society.

Twelfth-grade theme, second semester: *Civic ethics.*

Purpose, to study the relation of the individual in his future vocation to the state.

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