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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,

Professor of Philosophy, the University of Chicago, Chicago, Ill.

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.