APPENDIX III

The Economic and Social Background of Vocational Education in the United States

A Sociological Analysis of Vocational Education in the United States

The Case for Education for Home and Family Living

The Contribution to the National Economy of the Use of Resources Within and By the Family

Report of the Panel of Consultants on Vocational Education
Requested by the President of the United States
This publication (OE-80026) is Appendix III of "Education for a Changing World of Work" (OE-80021). Although bound separately, Appendix III is a part of the full report of the Panel of Consultants on Vocational Education presented to the U.S. Department of Health, Education, and Welfare, Office of Education, Washington 25, D.C.

The report is contained in the following publications:

Appendix III, The Economic and Social Background of Vocational Education in the United States, by Harold F. Clark—A Sociological Analysis of Vocational Education in the United States, by Wilbur B. Brookover and Sigmund Nosow—The Case for Education for Home and Family Living, by Bernice Milburn Moore—The Contribution to the National Economy of the Use of Resources Within and By the Family, by Elizabeth E. Hoyt, Publication No. OE-80026, 91 pp., 50 cents.

EDUCATION
FOR A CHANGING
WORLD OF WORK

APPENDIX III

The Economic and Social Background of Vocational Education in the United States
by Harold F. Clark

A Sociological Analysis of Vocational Education in the United States
by Wilbur Brookover and Sigmund Nosow

The Case for Education for Home and Family Living
by Bernice Milburn Moore

The Contribution to the National Economy of the Use of Resources Within and By the Family
by Elizabeth E. Hoyt

Report of the Panel of Consultants on Vocational Education Requested by the President of the United States
The material in this publication was prepared under contracts with the United States Office of Education authorized by the Panel of Consultants on Vocational Education. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy. These documents have been printed exactly as they were submitted in final form by the contractors.

For information concerning contractors and the contract numbers under which the material was prepared see half-title sheets on pages 1, 18, 53, and 73.

Superintendent of Documents Catalog No. FS 5.280:80026

United States
Government Printing Office
Washington: 1963

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington 25, D.C. - Price 50 cents.
Foreword

In his Message to Congress on American Education, February 20, 1961, President John F. Kennedy said:

The National Vocational Education Acts, first enacted by the Congress in 1917 and subsequently amended, have provided a program of training for industry, agriculture, and other occupational areas. The basic purpose of our vocational education effort is sound and sufficiently broad to provide a basis for meeting future needs. However, the technological changes which have occurred in all occupations call for a review and re-evaluation of these acts, with a view toward their modernization.

To that end, I am requesting the Secretary of Health, Education, and Welfare to convene an advisory body drawn from the educational profession, labor, industry, and agriculture, as well as they lay public, together with representatives from the Departments of Agriculture and Labor, to be charged with the responsibility of reviewing and evaluating the current National Vocational Education Acts, and making recommendations for improving and redirecting the program.

On October 5, 1961, The White House announced that the Secretary of Health, Education, and Welfare had appointed the President's Panel of Consultants on Vocational Education.

The Panel conferred with various consultants and commissioned special studies in addition to those prepared by its staff, and the Division of Vocational and Technical Education, Office of Education, U.S. Department of Health, Education, and Welfare. The Panel also convened for its guidance a number of special conferences on the educational aspects of our national manpower resources and requirements.

The Panel of Consultants has thus had advice, suggestions, and recommendations from many persons representing a cross-section of the American people: those who produce and distribute the goods and services which the Nation requires; those who are responsible for the educational development of the Nation; and those who take a general interest in the Nation's social and economic well-being. The members of the Panel themselves are a representative group of citizens who believe in the importance of education and who have tried to use reliable information and methods of analysis in order to formulate the recommendations which are presented in its report.

Benjamin C. Willis
Chairman
CONTENTS

The Economic and Social Background of Vocational Education in the United States by Harold F. Clark........... 1

A Sociological Analysis of Vocational Education in the United States by Wilbur B. Brookover and Sigmund Mosow.......................................................... 19

The Case for Education for Home and Family Living by Bernice Milburn Moore........................................ 53

The Contribution to the National Economy of the Use of Resources within and by the Family by Elizabeth E. Hoyt............................................................... 73
THE ECONOMIC AND SOCIAL BACKGROUND OF VOCATIONAL EDUCATION IN THE UNITED STATES

This report was made by
Dr. Harold F. Clark
Teachers College
Columbia University
New York, New York

Pursuant to a contract with the Office of Education,
U.S. Department of Health, Education, and Welfare,

Report of The Panel of Consultants on Vocational Education
Requested by The President of the United States
There are approximately four million unemployed people in the United States. No one knows with any high degree of accuracy, but there may be as many as four million unfilled jobs. The unemployed people tend generally to be those who are relatively untrained, and the unfilled jobs tend to be those that require a fairly high degree of education and training.

It is not possible to state with certainty the extent to which a comprehensive program of vocational education would aid in the solution of the unemployment problem. The chances are that it would help greatly. Such a program of vocational education should also increase the national income substantially. In addition, it should add to the satisfaction the American people get from their work.

The need for more vocational education and training

There can be little doubt that most jobs in the generation ahead are going to require persons who are much more skilled, better trained, and better educated than in the past. The total amount of vocational education provided by all institutions and agencies is undoubtedly going to increase.
This is true in agriculture and industry, where the workers who are going to be needed are those who have a high degree of skill, the capacity to keep their skills up to date, and the willingness to add new skills. The construction industry, which at times in the past has been relatively slow to change, is changing in many aspects. The person in the building trades who is most likely to hold his job in the future is the one who is highly skilled and who is continuously adding new skills to meet the shifting requirements of new jobs. The office worker who has the best chance of remaining employed is the one of high competence who keeps his skills up to date. The same is true in most other fields.

Vocational training by schools, business and industry, the military, and by various agencies

It seems evident that the need for vocational education is going to increase, but it is not so easy to say which organizations and institutions should do most of the additional training. It is probably true that the schools cannot offer all phases of vocational education. Historically, most training for work was done on the job.
In the underdeveloped countries of the world much of the vocational education will be given in the elementary school, or not in any school. A generation or two ago in the United States, vocational education was given in the high school, or not at all, for many, and perhaps most students. Many questions can be raised today, however, regarding the type and the kind of education which should remain in the high school.

It may well be that some of the strictly vocational education now given in the high school should be moved up to the junior college. A great deal of vocational education will still have to be given to people of high school age. Some parts of this training may have to be given in the high school building itself. However it is probable that as much as possible of it should be moved into the work situation under the guidance and control of the school authorities.

During the past generation, business and industry have developed systems of vocational training and education that in many fields rival or surpass those offered in the high schools and colleges and universities - both in size and extent. This did not come about because the formal high schools and colleges had failed in their tasks of vocational training, but rather because of the nature of the economic world.
Institutions that are designed in large part for the age group of 6 to 18 cannot provide all of the vocational education and training that our modern technical society needs. Very simple economic societies can operate successfully with simple educational systems. Complicated industrial societies need fairly complicated educational systems. These systems can be largely confined to the younger age groups. In an extremely complicated technical society, such as that operating in the United States, a very elaborate educational system, extending through the entire working life of the individual, is required. Our businesses and industries have been forced to set up elaborate educational and training programs, which in the future will become even more elaborate. Clearly, business and industry have the competence to do many parts of the total vocational education and training needed in the United States.

The vocational training programs offered by business are especially strong in many of the following fields: the training needed by foremen and supervisors, the training required for a very large fraction of the sales jobs, many aspects of clerical jobs, hundreds of different jobs at the technicians' level, much advanced work in the engineering and highly technical and scientific fields, and most types of office jobs.
This same movement is also evident in the military establishments. In a few instances the military runs schools and offers training facilities to make up for deficiencies of the regular schools. In most instances, however, the education and training provided by the military have been given because of the increased complexity of military problems. As these problems become more complex an alert defense department will be forced to expand its educational and training facilities.

The military is already running superb vocational education programs in many fields. The number of these fields is likely to expand in the future. Much of this training applies in a very large number of vocational fields in civilian life. The typical young men in two years in the military has the opportunity to receive education and training which will help him in any one of hundreds of vocational fields in civilian life.

The vocational education offered by the various parts of the military establishment is very strong in a great variety of fields. These fields include: almost all aspects of electronics; a very high fraction of the technicians in the electronics field have been training by the military. In the fields of aviation much of the training has been carried on by the military; this applies all the way from pilots, navigators, and maintenance and repair people at aspects of the operation and maintenance of motorized equipment of
all kinds have been trained here. Many persons have been trained
in the repair of almost all types of engines. Large programs are
available for training people in many different health fields.
Sizable programs operate in the field of finance and business
operations. Training is also provided in many fields covering
the security of persons and property. Altogether the training
offered by the military establishment would cover many thousands of
different types of jobs that are important in civilian life.
How adequate is information about vocational training facilities

The formal school system is doing a large amount of vocational training. There is also a large amount of training being done on the job. Business and industry are doing an enormous amount of vocational training in many fields. The military also provides a large amount of vocational training that is later used widely in civilian occupations.

Vocational training facilities available today in the United States are more varied and elaborate than most people realize. In many communities, training facilities are probably fairly adequate for most occupations. However, large numbers of people who need the training do not know about such courses. Many of the people who need the information must know least about the opportunities.

One part of a more adequate program of vocational education would be to get more information about the needs for vocational training in each community.

One of the most important things to be done would be to set up some kind of voluntary occupational board in each community. This occupational board should be composed of representatives of business and industry, workers, and the public at large. Its primary function would be to keep attention focused upon the need for a proper balance between supply and demand for workers in all occupations.
Its second function would be to record all of the available training facilities in the community. Those who most urgently need to use such facilities have the least knowledge of the opportunities for training. In the larger cities probably most of the vocational training facilities that are needed are available, but are not used by many people who need them. It is most important that these facilities be called to the attention of those people who need to increase their vocational skills.

The third function of this board should be the outlining of necessary steps to be taken to use small businesses and industries as vital parts of a training program. Large-scale business and industries are already doing a remarkable job of training and education. Many of the small businesses are likely to be in the service fields, employing only a handful of people.

If many of the presently unemployed people are ever employed, it will probably be in very small service businesses. These businesses will be small enough so that the owner can keep an eye on every worker. In fact, he will be working right by the side of his workers. Innumerable handicaps have prevented persons from starting such small service businesses in adequate number. A continuous study of the methods of overcoming these handicaps should be made in each community. The occupational board would make a special effort to see that all the persons in the bottom third of the population know of the vocational education facilities in the community, and use them.
Probably a part of all such training should be conducted on the job, unless there are overwhelming reasons why it should remain in the school. Needless to say, the related academic work should continue to be offered in the school in most cases. Cooperation between the schools, business, and industry, in vocational education has been good. Such cooperative plans should be much further expanded in the years ahead.

A lack of adequate training in mathematics and English has been a major problem of a great number of high school graduates seeking to enter many occupations today. Greater efforts should be made to step up the training in these two fields for vocational students. Many of these students have not done well in these classes. Many of them do well in courses that are related more closely to their job prospects. Everything possible should be done to make these students understand that mathematics and English are a very crucial part of their future vocational success in many fields. On the other hand if they cannot or will not do well in the academic courses, they should not be denied vocational training of some kind. These are the cases where most of the training might well take place on the job.
The vocational education and training needed by various parts of the population

What groups are in special need of more vocational education? Somewhat over one-third of the college-age group will ultimately get a substantial amount of college education, or its equivalent.

A second third of the population will get a high school education, or a rough equivalent to it, plus a fair amount of vocational education and training.

A third of the population will stop their general education before graduating from high school. Many of these people will not get adequate vocational education and training. Some will get little or no vocational training.

Most of the first group will be in the professions, the ownership or management group, or closely allied fields. The upper part of the technical group will also have some college training. Almost all of these workers need extended training for their jobs. Some will need vocational education in the narrow sense of the word. Probably all will have to continue to learn more about their work as long as they are on the job.

Most of the technicians, most of the skilled trades, most of the clerical and many of the sales workers will come from the middle third of the workers. They will be high school graduates or the equivalent. They will need to keep their training up to date. This means they will need additional training at many periods throughout their working lives. Additional vocational training is almost necessary for advancement to a better job.
About one-third of the population will not finish high school before they "leave" school. A substantial fraction of these will do the equivalent of all their high school courses after they start to work. This one-third of the population will provide most of the semi-skilled and unskilled workers. A high fraction of the unemployed will also be in this group.

If by some miracle all these people could become high school graduates, we might have about the same amount of unemployment we now have, and we might have more. This might be likely to happen if we achieved the result by drastically lowering the standards for high school graduation. The answer might depend in part upon whether the student was prepared to enter any occupation. The results would depend in large part upon whether the additional training increased or reduced the range of jobs that persons were able and willing to take.

It is well to remember that India and Japan had heavy unemployment even among their college graduates before World War II. Some Latin American countries today have heavy unemployment among their college graduates, even though they desperately need trained college people in other fields, and need trained technicians by the thousands.
In any country, the number of educated and trained people must be fairly closely geared to the number the country can use in any given occupation at the time. Just any kind of education or training, in any number, is not going to solve the problem of unemployment for the bottom one-third of the population. On the average, however, more education and training, if properly planned in amount, would benefit many of the persons in the bottom one-third of the educational level. Very special difficulties exist in trying to provide vocational training for the lower part of the bottom third of the population.

The bottom one percent of the population in education or health is going to be largely institutionalized. The next two or three percent are likely to be very erratic in employment. Heroic efforts will have to be made to keep these employed even a fair amount of the time. Unusual efforts will have to be made to get the bottom ten percent of the population to an adequate level of technical skill, and to keep them there.
Present and future vocational fields
and the secondary schools

Much of the success in vocational agriculture training has been
due to the fact that it has used the farms of the community in
providing practical farm experience. There is no reason why the
schools and the farms should not continue to meet the needs of each
other through such a program.

Trade and industrial vocational education has a real place in
any total program of education. However, careful study should be
given to the problem of moving a greater proportion of the strictly
vocational part of the program outside the school, at the same time
retaining control of the total educational program.

There will be an increased need for more training in office
skills, and most careful study should be given to the problem of what
fraction of this training can be wisely taught in the formal school
and what should be given on the job. There should also be great
expansion of programs offered in wholesale and retail selling within
these establishments themselves.

The home economics vocational training program raises a whole
series of problems. The theoretical portion of this field might well
become a part of the general knowledge of many high school girls and
some high school boys. However, the vocational part of this program
might be moved up to the junior college. Parts of the program of value
to most students may concern the problems of management. Here, again,
the question arises of how much training should be done in the school
and how much in the work situation.

15
Summary

1. All workers should be provided adequate vocational education and training by some agency or institution.

2. There should be a detailed study made in each community to determine the part of the vocational education program which should be carried on by the schools, by business and industry, by the military, and by other institutions.

3. Adequate information should be available to enable the individual to choose wisely the area of work for which he will be trained.

4. The bottom ten percent of the population in learning ability will have to be given special attention.

5. A large fraction of the training of the bottom third will have to be done on the job.

6. The schools should have complete authority up to the age of 18 to say when a student can work, when he must be in school, and when he can do both.

7. One of the important problems for all groups is to make sure that the learners get enough work experience to acquire good working habits.

8. It is very important to see that all students get enough experience of working and studying at the same time to understand that this will be the normal procedure throughout their working life.
RECOMMENDATIONS FOR VOCATIONAL EDUCATION

1. The laws and regulations should state that vocational education and training should be available for all persons and all occupations.

2. The formal school systems should not attempt to offer all of this training.

3. A voluntary occupational training council should be organized in each community to see: (1) what part of vocational education and training the schools should do, (2) what part business and industry should do, and what part voluntary organizations should do, (3) what part of the training can be obtained while young men and women are in the military services, (4) what part should be provided by the twenty thousand schools not in the formal education systems, and (5) what part should be carried on by individual effort.

4. This same council should study the training facilities in the community to see if they cover all fields; and if some are not covered, what steps should be taken to deal with the situation.

5. Special care should be taken to see that extremely fast-learning students are provided for, and also slow-learning students. Special efforts should be made to see that training is provided for those who might otherwise wind up on the relief rolls. An effort should be made to see that all on relief are provided with such training and work as the situation justifies.

6. It will probably be easier to change and expand the present system of vocational education than it will be to start with a new system. The present laws and regulations should be used as the base for part of a comprehensive system that includes all types of agencies and institutions that provide all types of vocational education and training for all parts of the population.
A SOCIOLOGICAL ANALYSIS OF VOCATIONAL EDUCATION IN THE UNITED STATES

This report was made by
Dr. Wilbur B. Brookover and Dr. Sigmund Nosow
College of Education
Office of Research and Publications
Michigan State University
East Lansing, Michigan

Pursuant to a contract with the Office of Education,
U.S. Department of Health, Education, and Welfare,
Contract No. SA 15284-62.

Report of The Panel of Consultants on Vocational Education

Requested by The President of the United States
The importance of both occupations and education in American society and their complexities make a limited analysis of vocational education extremely difficult. In our discussion we hope to convey some of the basic functional relationships between vocational education and other institutions and to point out the sociological implications of these relationships. The analysis has been organized into three sections: I. The Social Setting of Vocational Education, II. Contemporary Vocational Education in the United States, and III. A Conceptual Approach to the Sociological Analysis of Vocational Education.

I.
The Social Setting of Vocational Education

Today, most reasonable persons would agree that participation in the occupational world is much more successful and satisfactory for the individual and for the community when adequate training and guidance have been provided for the entrant into the labor market. Just as the job market runs the gamut of all possible types of skills from day laborer to skilled surgeon, so too, the possible types of training and guidance exhibit a wide range. Guidance and training are as necessary for the sixteen or seventeen year old "dropout" from high school as they are for the college student uncertain about his future, often after several years of college training. But the paucity of efforts taken by communities for the guidance and training of youth and the haphazard approaches when they are taken have become more apparent as formal preparation of youth for the world of work is
increasingly viewed as a social responsibility.

How should a community go about providing for the vocational needs of its youth? And what individual or social variables should counselors use in advising and assisting youths to find a respectable place in the community?

If the allocation of jobs in our society were indeed rational, guided by an "unseen hand" in a self-equilibrating market, we might have few problems concerning youth and their placement in the world of work. But job distribution and the allocation of occupational roles is hardly a rational process. Not every available or necessary job is filled merely on request, or by pushing a button leading to an employment service. Nor is every job currently occupied by some worker necessarily being performed at maximum efficiency or at the worker's optimum job satisfaction. To be sure, in the process of job allocation in the United States, today, there is some rational allocation of jobs, and some guidance to those entering the labor force. On the other hand, there is also much waste and frustration, and more often than not neither training nor guidance.

What kind of citizens can a community produce if it has a high dropout rate from its school and trains its youth either inadequately or not at all to participate in the world of work? Are such youths likely to participate in community affairs, meeting their obligations as citizens and as parents? On the other hand, are communities with elaborate guidance and vocational education programs necessarily successful in providing their youth with fruitful adult roles in the larger community? No matter how good a program may appear to be, its ultimate test rests in the labor market, for there is a strong and direct interaction between the schools and the labor market. And
let us not underestimate those community norms which structure the labor market and influence the allocation of jobs among the socially acceptable and socially "marginal" groups in the community. Labor market, school, and community each mirror one another.

The sociologist studying vocational education in American society finds an institutionalized set of relationships complexly interwoven with many other significant institutional structures. While vocational education is, sui generis, directly related to the educational system and also the labor market, it is perhaps even more significantly related to the social structure of the community and the values engendered therein. There is overwhelming empirical evidence of the close relationships between the stratification system of the community and the organization and structuring of both the schools and the labor market.

Vocational education is a formalized institutional vehicle which has been introduced into modern industrial societies to facilitate youth's assumption of occupational roles. It is a formal adjunct, as are the schools themselves, to those social mechanisms which differentiate persons within the community and prescribe the types of statuses which they are expected to assume. To understand vocational education, then, in contemporary society, one must understand the nature of the occupational system into which vocational education provides a vehicle for entrance. Certainly a sociology of occupations must recognize the significant role which vocational education performs in the dynamics of occupational role allocation in the community. In the same vein, a sociology of education must recognize the significant bridge which education provides for youth into the world of work. Vocational education is
a nexus between the educational institution and the institutionalized labor market.

American Values Concerning Occupations and Education: The reasons communities are becoming increasingly alarmed over the problems of job placement of youth results directly from the changing industrial complex, the changing structure of the labor market, and the changing values within the community itself. So long as there is an expanding economy which is capable of absorbing new entrants into the labor force urban industrial societies find few problems concerning the vocational preparation of youth. When, however, the labor market manifests an increasing inability to absorb new entrants into the labor market unless they have particular types of skills, vocational training, occupational guidance, and organized placement become community problems. In addition, our society no longer accepts the notion that the full brunt of labor market frictions and dislocations should fall upon the working classes. The values which now demand job training for youths and the dislocated adult workers and a full-employment have historical roots.

The basic democratic values in American society have been continuously reinforced from its birth. Indeed, a young, expanding country, almost as a necessary consequence of its growth, reinforced the values of democracy, social and geographic mobility, and the ideals of economic choice and opportunity. It is embedded in these fundamental values that one finds the occupational structure, educational systems, religion, and political values and attitudes.

Americans view the maintenance of these values as an essential function of the educational system. Freedom of choice and equality of opportunity in relation to occupations mean that any child regardless of origin should be free
to choose between engineering and automobile mechanics, between barbering and the practice of medicine. Americans, therefore, expect the schools to be so organized as to enhance the possibilities of each individual's developing his maximum capacities.

Education is perceived as the mechanism through which persons move up the social ladder. Americans throughout the middle and lower strata of society aspire to have their children enjoy a "better" life than they have had and with few exceptions perceive the educational system as the means by which their children may reach a better life. Opportunity to choose a different vocation from that of one's father, and thus move to a higher status in society, is a major expectation in the American hierarchy of values.

In a broad sense, the functioning of the community in a democratic society attempts to maximize the achievement of important values for the individual while concurrently maintaining the essential functions of the community. Not all individuals can do the same types of work, nor can all occupy equal statuses. However, it is conceivable that through self-conscious, rational activities the community can facilitate both individual goal-achievement and the maximization of community goals. In this context vocational education has a crucial function to perform, today, and would, if adequately meeting the demands upon it (1) help to develop each person's abilities to the highest degree, (2) match these abilities to a satisfying job, and (3) become an integral part of an education program which helps the individual to successfully participate in the community in his role as a citizen.

Unfortunately, there has been a great deal of inertia in helping the individual move from the school system into the world of work. The inertia of the community reinforces the inertia of the schools within it. The industrial system is, by its very nature, guided by impersonal forces organized to
rationally maximize returns in the market. While it, too, has norms around which the system is organized, it is essentially organized for change. In contrast, the community and its schools are organized to a great extent not alone to pass on traditional wisdom and traditional values, but to protect tradition itself. In this respect then the schools have always lagged behind the needs of the industrial community. Formal education, while a product of relatively recent times, in many respects has resembled the types of social organizations which we identify with more static traditional societies. When vocational education is viewed in this context it becomes increasingly apparent why greater effort has not as yet been forthcoming concerning the preparation of youth for the world of work.

Vocational Education and the Social Structure: Generally, vocational education, formal preparation of youth for the world of work, is found in all societies in which there are occupational structures. But occupations are not found in all societies. In primitive societies where work activity is inseparable from everyday family and community activities there are no occupations, merely family or kinship roles, based on age and sex. In contrast, occupational roles are specialized sets of work relationships performed independently of other roles. Generally, therefore, occupations are identified with market economies as contrasted with primitive or barter economies. And occupations have reached major social significance under modern industrial market societies.

One must recognize, however, that the preparation of youth for the world of work is a necessary function in every society. Among primitive peoples and those with traditional agricultural ways of life, the preparation of youth for future adult roles takes place as a matter of course through the entire socialization process. Just as youth learns to take his place in the family
and in other groups in the community, observing the customs of the group and enjoying statuses usually based upon age, sex, and kinship, so too, he learns forms of economic activity.

In our own society, with the possible exception of rapidly disappearing rural areas in which youth learn how to be farmers by working with their parents, the world of work is removed from the home and often from the immediate neighborhood. In fact, a good proportion of the life of youths is spent without any preparation for work as such and often with little familiarity with the world of work generally. A question, of course, arises as to how such extreme differences in modes of preparation of youth for economic activity could emerge for different segments of mankind. It is certainly apparent that these extremes are embedded in a broad social fabric which markedly differentiates total ways of life as well as activities identified with the economic institutions.

In primitive societies, economic activity of an individual or a group is woven into the whole fabric of social relationships. Although exchange may take place such exchanges have "more of a social than an economic significance." The production of goods is for use, at a given time, and by specific persons. Economic activity is embedded in everyday life and one learns to "work" in much the same way as one learns to be a son, a father, a chief, a member of the Bear clan. "The codes which govern behavior in the society... are such that a great deal of economic cooperation is based upon a primary interest in the social aspects of cooperation for its own sake rather than in its economic advantage."

The differentiating characteristics of our own society, an urban, industrial one, and the occupational system which emerges are essentially based upon
the rational structure of a market economy. This system of relationships has both an empirical and theoretical independence from such social institutions as the family and kinship systems, the church, and until recently from political or governmental systems. "Economic action involves a conscious, primary orientation to economic considerations." And the ideal toward which the productive system moves is that individuals and the means of production in this rationalized economy are so organized that there is a maximization of economic output. In this modern urban industrial world, "Not blood-ties, legal compulsion, religious obligation, fealty or magic created the sociological situations which make individuals partake in economic life, but specifically economic institutions such as private enterprise and the wage system." 

Actually, it is the type of vocational training with which we are familiar which takes place in agencies removed from the home and often the neighborhood which is directly associated with the type of impersonal market system we identify with urban industrialism. That which is engendered in a market economy is basic to an understanding of the different modes of preparation for the world of work. Certainly, as we shall see, it is an understanding of market conditions and the social conditions which give rise to them which allows a functional explanation of patterns of preparation for work, and the relationships between work roles and community, family, educational, and associational activities. Problems which arise concerning the preparation of the youth of a nation for the world of work could only arise under certain sets of conditions. For most of man's history, no such problem has confronted any society.

The formal preparation of youth for work in institutions removed from
the family is of relatively recent origin. To be sure, forms of vocational training existed in the apprenticeship practices found in the times of Hammurabi and subsequently in Egypt, Greece, and Rome. The apprenticeship practices of the guilds which we usually associate with medieval Europe, too, offered forms of vocational education to youth. However, the vocational training of the medieval guilds involved relationships in the work situation and in the market place which were basically traditional, based on normative standards, and a just price. Training for the handicrafts was essentially through ascription, that is the training of son by father or father surrogate, and through a guild organization which had complete control over entrance into the trade. Ultimately, the development of industrial practices which did away with the bulk of hand activities-reducing production to machine technologies, and machine tending to the unskilled and semi-skilled, pressed countless thousands into the factories and mines and destroyed the economic and social base upon which the guild system itself rested, making obsolete most of the traditional handicraft skills.

The formal training for occupations remained for a few skilled trades and for the traditional professions which were occupational skills reserved for "gentlemen." Industrial changes not only modified the structure of occupations, but created many new types of jobs from unskilled manual ones to new professions in the mechanical and scientific arts.

Who was to provide training for the new occupations? While the training of skilled workers and of the traditional professions still took place in traditional ways, there were no established patterns for training workers for the new jobs. For the most part, of course, they needed little training. When there appeared some functional necessity to train workers for new jobs
it was conceived to be a public function.

In the United States the new democracy and sectarian religious influences exerted strong pressures to provide some education for the populace. Education was considered to mean a basic training in such skills as reading, writing, and figuring. Education was neither vocational nor designed to change the masses into bourgeoisie. So long as there was a shortage of labor in the community it was unlikely that youths would be kept in school when they were needed in the factories, shops, and especially on the farms. Throughout the nineteenth century increasing industrialism, burgeoning populations, and the territorial expansion of the United States saw increased demands for trained workers in both the manual and white collar occupations, a spreading of secondary education and compulsory school attendance, higher age at entrance into the labor force, and greater community awareness of the complex social problems with which a rapidly expanding urban society has to contend.

Expanding education for a greater and greater proportion of the working classes demanded some modifications in curricula. After all, education for the masses has to be consistent with their needs and station in life. Education must be practical, preparing one to take his proper place in the community. It is against this background that the growth of both a vocational education and a guidance movement in the United States at the turn of the century becomes understandable.

Perhaps education in the United States has always been pragmatic in nature. But the practical education of the masses was quite different from the education which had been and still continues to be offered to other social groups. It is in terms of different social statuses to be subsequently enjoyed in the larger community that education in the United States as well as in
European countries is differentiated for different strata of the population. Hence the existence of dual educational traditions: education for the masses, and education for the elite. 11

Vocational education viewed in this perspective would seem to present a clear functional relationship between the needs of the labor market and of the community and the schools. Perhaps what is more clearly presented is a functional relationship between all institutions and the stratification system of the community.

If vocational education, indeed, prepared youth for the world of work in a clear and unequivocal manner, adjusting educational curricula to the changing needs of industry, then we would have fewer problems today. In actuality, vocational education as it has developed in the United States has become more a reflecting of "appropriate" training for working-class children than a manner of meeting their subsequent vocational needs. Back in 1940, Howard M. Bell studying the problems of youth in the world of work had this to say about mass education and vocational training in the United States:

It would be pleasant to be able to believe that the tremendous increase in the proportion of youth who are in our schools is all the result of a devotion to a splendid ideal and an unyielding determination to prepare them for effective citizenship and wholesome living. But the facts are neither so simple nor so beautiful as that. In spite of the trend toward a stationary population, we still have hundreds of thousands of young people in America who are huddled into crowded classrooms and taught by overworked and undertrained teachers. These youth are in school, not only because we accept with certain "practical" reservations the educational ideals of Thomas Jefferson but also because they have nowhere else to go. 12

In planning for education, it is vitally important, but it is not enough, to realize that the schools are gradually absorbing an increasing proportion of all the nation's youth. It is quite as important to realize that those youth are facing the problem of adjusting themselves, with a minimum of friction, to the occupational realities of an increasingly mechanized industrial civilization. 13
II.
Contemporary Vocational Education in United States

In the previous portion of this paper we have presented a general sociological analysis of occupation and education for vocations. We now turn to a somewhat more specific examination of contemporary vocational education.

Traditionally American educators have conceived of vocational education as different from liberal, general or academic education. This distinction has served to identify different curricula and to some extent different functions of education. It should be recognized that most if not all education is related to some vocational goal in the minds of most Americans.

Although education has many other functions, national polls of American adults indicate that by far the most common expectation that Americans hold for education of their children is better jobs. This is perhaps least immediately relevant at the elementary level, but education at this stage is also related to job opportunities in the minds of many. First of all, of course, it is viewed as prerequisite to other more specifically job-related types of education. Among immigrant and transient labor groups, however, the mastery of English reading and writing and basic arithmetic skills have high value in vocational placement.

We recognize the value of general or liberal education at various levels in the American educational system, but a primary orientation toward education at the secondary, and higher education levels, is its relationship to the kind of job opportunities that such education will provide. The development of universal secondary education and the education of the ever-increasing proportions of our youth to higher levels of education have made
these levels of formal education an integral part of our complex social sys-
tem. Education for constantly extended periods of years provides a founda-
tion upon which our whole occupational structure is based. As increased
division of labor and mechanization have reduced the proportion or low-skilled
workers, educational prerequisites have been established for almost all occupa-
tions. In the minds of Americans, therefore, each level and type of education-
al program is directly related to some perception of occupational prerequisites.

In light of this perception of education, it must be recognized that
those types of education which we commonly term vocational—agricultural edu-
cation, trade and industrial education, business and distributive education,
technical school training, and college programs directly identified with the
vocational goals—form only a fraction of the total vocational education. To
confine vocational education to programs which are reimbursed by the Federal
government circumscribes vocational education even further.

The traditional agriculture, trade and industrial, business and distribu-
tive educational programs provided in American high schools and adult education
programs prepare our citizens for only a very small proportion of the types
of jobs that are now available in American society. Since these traditional
vocational programs are based on a perception of some years ago, there is a
tendency for these "vocational education" programs to concentrate on prepara-
tion for jobs that are declining in numbers and relative importance in the
total occupational system. At the time the agricultural education program was
established, farm operation was the major occupation in American society.
Today only 6-7% of gainfully employed Americans are engaged in farming. Al-
though agricultural education as well as other "vocational" programs have
been modified to give training for some of the new or related occupations,
the general tendency is for this modification to lag behind the changing structure of the occupational system. To a considerable extent, therefore, traditional vocational education prepares personnel for an obsolete occupational system.

We perceive various levels of education as prerequisite to vocational assignments and many curricula at the secondary, college and graduate levels as directly oriented to particular types of jobs, but the actual careers of persons may be very slightly or not at all related to the specific training received. A Purdue University study of its engineering graduates revealed that ten years after graduation less than 10% of the engineering graduates were actually engaged in occupations designated as engineering. Although the engineering degree no doubt provided entry into a career for most of these, their promotion and transfer to other types of jobs led into a variety of fields. Persons receiving teacher education, business degrees, or many others may be found in occupations widely removed from the ones for which they received specific vocational training. This is not true of course, of all types of vocational education. A very high proportion of medical school graduates, for example, engage in the practice of medicine or other occupations directly related to the education they received.

Many persons find themselves in occupations only indirectly related to a specific educational program. It does not follow, however, that this education has no value as preparation for the occupational world. General levels of education such as high school, college or graduate education may be prerequisite to various types of occupations. A direct one-to-one relationship, however, is seldom found between curricula and job placement. Business
executives may have had a wide range of different types of educational experience, but an ever-increasing level of education is prerequisite for such positions. Except for those occupations requiring specific licenses or certification based upon educational prerequisites, the range of educational programs leading to particular careers may be highly varied.

**Occupational Trends in United States:** Recognizing the direct relationship between job opportunities and vocational education, it is essential to examine briefly the occupational trends in the United States.

Recent census figures show a continuation of past labor force trends with some modifications. The proportion of employed manual workers in both the male and female labor force was less in 1960 than in 1950. This is the first relative decline in the male manual work force. The marked decline for females (21.5% to 17.1%) returns to a trend which was first reversed in 1930. The concomitant decline of semi-skilled workers in the past decade was more marked for females than for males. However, for males this is the first reversal of an upward trend in the relative proportion of semi-skilled workers in the employed labor force. As expected, the proportion of unskilled manual workers in the labor force continues to decrease. Employed male laborers, not in mines or on the farm, composed only 6.9 percent of the total employed male labor force in 1960. Neither the proportion of skilled workers or service workers has changed appreciably during the past decade.

The proportion of white collar workers in the employed labor force continues to show a steady increase for both males and females. The increase is greater for males than for females. Of great significance is the large increase in the proportion of men in professional and technical occupations (8.7% in 1950 to 10.3% in 1960), a continuation of past trends.

The size of the labor force continues to grow as does the proportion
of women in it. Trends which have consistently upgraded the skill of the labor force in the United States remain as persistent as ever. One can only conclude that the future will offer decreasing opportunities for employment to the unskilled. Possibly those who now fall into the semi-skilled operative class of workers may find themselves displaced by a lack of semi-skilled jobs and increased technical demands made by jobs which do become available. The profound changes which are taking place in industry represents a new industrial revolution. This has been boldly described by one of the nation's influential union leaders:

The first industrial revolution, usually identified with Watt's steam engine, replaced animal and human muscle power with steam power and electric power; it replaced the handicraft worker with the machine tender or machine operator. Automation uses control devices that result in the automatic production and processing of goods and data; it tends to replace the human regulation and control of machines and thereby changes the machine operator into a supervisor of an automatically controlled operating system. Automation is a new and revolutionary technology that is applicable to almost all, if not all, types of industrial and clerical operations. It makes possible the automatic office, as well as the automatic factory. There is a likelihood that entire departments, offices, and plants, in the major parts of the economy will be using automation equipment within the coming ten years.

Education in Relation to the Changing Occupational Structure: The decline in the proportion of the labor force needed for unskilled and low-skilled occupations and the rapid change in technology have profound implications for the nature of education needed in our society. This is dramatically demonstrated by the high incidence of unemployment among those with the minimum levels of education. The first implication, therefore, is the increased need for all workers to have higher levels of basic general education. Skill in reading, mathematics and other general education fields are essential for acquiring specific vocational competence and the higher levels of education needed for
many occupations. It is, therefore, essential for the schools to increase their efficiency in teaching the fundamental school subjects to all students. The early school leaver who has not acquired the basic skills is not only unable to find satisfactory permanent employment, but is also greatly handicapped in acquiring specific vocational training as an adult. Programs of adult education designed to fit the unemployed for available occupations will necessarily include adult training in the basic reading and number skills as a foundation for the specific occupational training desired. Students who fail to receive the basic education during their youth will be increasingly handicapped as adult laborers. The most valuable vocational training that can be provided in the elementary and secondary school for most youths is, therefore, in the basic general education program which has not previously been identified as vocational education.

The second major implication of the changing occupational structure for education is the need for flexibility in occupational adjustment. Many occupations requiring sizable numbers of personnel have become obsolete during the lifetime of a given generation of workers. There is no indication that the rate of change is going to decrease. On the contrary, the rate of obsolescence and development of new occupations is likely to be accelerated in the foreseeable future. An increasing rather than decreasing proportion of our labor force will be faced with changing occupations in mid-career. The ease with which workers can acquire new skills and adjust to new occupations will depend to a considerable degree on the nature of their education as youths. Personnel with higher levels of general education will find the range of new occupations which they are qualified to learn much greater than those with limited general education. Flexibility of adjustment to new and changing occupational struc-
tures will be directly correlated to the quantity and quality of general education which the labor force has acquired.

Readjustment to new occupations involves the development of a set of attitudes toward change as well as high levels of knowledge and basic academic skills. An understanding of the changing nature of the labor force and flexibility in attitudes toward work will greatly facilitate the process of retraining which will be necessary for large proportions of our working population in the years ahead. This suggests that the major part of our education for vocations should not be oriented to training for a specific occupational career. Rather, the vocational educational program should be designed to prepare youth for a continuing program of adult education throughout life. Vocational education which is designed to prepare an individual for a particular occupation before he completes his pre-service education may serve as a handicap rather than advantage to a large segment of the working force. Although workers in high-level professional jobs such as medicine, scientific research, and other fields may remain in essentially the same occupation throughout their lifetime, the rapidly changing technology in these fields also necessitates a continuing education program. Fewer workers can look forward to a life-time career in which the knowledge and skills which qualify them for a specific occupation in their youth will serve throughout their working life. An understanding of this fact and an education which prepares the individual for a continuing occupational growth and willingness to acquire new skills is probably the best vocational education that can be provided in our pre-service school program.

Relating the highly dynamic changes occurring in the labor market to the characteristics of educational institutions in our society, we are forced
to conclude that the secondary schools because of their resistances to change and the relative inflexibilities of their structures and curricula cannot provide direct vocational education for many, if not most, of the emergent occupations. Structures which are flexible, adapted to change, and able to modify programs rapidly according to both initial and retraining needs of the labor force would be most functionally suited to contemporary conditions. Such training programs might become increasingly the responsibility of private industry which might offer broadly educated individuals training for specific occupational roles through schools, on-the-job training, or some combination of these, similar to some current cooperative or apprentice programs. Or the responsibility might devolve onto the community which might increase the numbers, sizes, and scope of community colleges which could provide short-term terminal courses for both youths and adults. It is possible that vocational education in the future will be a continuous formal educational process throughout the working years for a large proportion of the labor force.

The Allocation of Personnel to Various Social Positions and Occupations:
Like every other society ours requires a system of selection and allocation of personnel to fulfill the various occupational needs of the society. The increasing division of labor and technological changes have necessitated a much more complex and rational system for the selection and allocation of personnel to the wide variety of specialized occupations.

During the past few years, professional, technical and managerial people have become the largest group in the American working population. All signs point to an even greater growth of this group in the future. The large pool of unemployed persons today is predominately composed of those with little
formal education. Job opportunities are readily available in many areas for people with higher levels of education. Our economic progress, our defense strength, and our position in the world depend on an increasing supply of highly educated people, both in quantity and in quality.

As indicated earlier, most positions in the American occupational system now have some type of educational prerequisites. A major responsibility for the allocation of persons to the various levels of occupations, therefore, rests on the educational system. This allocation function begins in the early elementary grades and continues throughout the child's school career. The accumulation of teacher evaluations and student performance largely determines the level and type of education which each child will receive. This, in turn, structures the range of social statuses and occupations in which a person may perform as an adult. This process of allocation as performed by the school involves both the system of grading and testing and the selection of curricula in which the student receives his formal education. The grading and testing process determines to a large measure both the level of education a student is likely to receive and the curricula to which he will be assigned. The student with low grades and low aptitude and achievement test scores in the elementary school is not likely to go much beyond the minimum required level of secondary education. Such students will receive a minimum amount of general education and are likely to be guided into vocational programs which provide minimum training for occupations requiring less skill and lower educational prerequisites. In a similar fashion, students with higher grades in various elementary and secondary school subjects and comparable aptitude and achievement test scores will be guided into higher levels of education. This allocation of the educational system has become much more complicated as a result of the ever-
increasing proportion of the labor force which requires higher levels of educa-
tion. Not only must a school assist in selecting mechanics and doctors by
grading, promoting or failing, and counseling, but a much higher proportion
must be directed into the college and graduate levels of education and allo-
cated to the various positions requiring such education.

The overpowering need for highly educated personnel, increased by the
cold war fear, has put much pressure on the educational system to improve its
effectiveness in the production of such persons. Numerous responses to this
demand can be identified. The National Defense Education Act's support for
science, guidance, new media, and graduate education programs is one of the
most evident. Others are numerous curriculum changes, special programs for
the gifted and culturally deprived, return to homogeneous ability grouping, and
higher standards of achievement for admission to various curricula. The
vastly expanded program of aptitude, interest, and achievement testing along
with the expanded emphasis upon guidance and counseling, reflects the need
for improving the educational system's allocation function.

One of the responses to this increasing emphasis upon the school's allo-
cation process is the specialization of vocational curricula at various educa-
tional levels. Such curricula may not always be identified as vocational.
The demand for greater emphasis upon science and mathematics at both the ele-
mentary and secondary level are clearly reflections of the need for personnel
with high levels of competence in these fields in the technical and profes-
sional occupational ranges.

The current expectations of education in American society place the
educator in a difficult dilemma. On the one hand, the school is expected to
prepare its students for specific types of occupations. On the other hand,
the increasing general education prerequisites and the changing occupational structure make it difficult to prepare personnel for immediate occupational placement with limited education. The inclusion of specific vocational education in the secondary school curriculum reduces the opportunity for students taking such specific training to acquire the general education in science, mathematics, social science and humanities which are prerequisites for more advanced education and higher levels of vocational education. Students who are directed into a specific vocational training in trades and industrial occupations, agriculture, or other fields early in their secondary school program will find that the range of occupational statuses to which they might aspire are drastically limited. Students who postpone the specific vocational training until college undergraduate or graduate levels of education have a much wider range of occupational choices available to them. It seems likely, therefore, that both the needs of the society and the occupational adjustment of individuals will be better served if specific vocational training is provided at the latest possible period in the educational career of the individual.

**Social Stratification and Allocation:** As we have indicated above, the quality of school performance as reflected in grades and achievement test scores, determines to a major extent the kind of occupational opportunities and choices available to given students. It is, therefore, extremely important to recognize the well-known fact that school performance, in the early school years at least, is quite highly correlated with the occupational and educational level of the child's parents. Children from lower status families are generally handicapped in the level of school achievement until they have had an opportunity to acquire the motivation and basic skills for academic success common in the higher status families. If a maximum freedom of choice and
opportunity to choose an occupation in any strata are to be provided, children from lower strata must acquire the necessary academic skills and motivation in the school environment.

Over-zealous efficiency in allocating personnel to various occupational levels early in the educational program may drastically interfere with such freedom of choice and reduce the opportunity of many to achieve higher status position. Current practices in many schools and the extension of differentiated curricula to lower school levels tend to deny many students access to these basic values. Placement of students in differentiated curricula or tracks in the elementary and early secondary school years on the basis of achievement and aptitude test scores denies those who are placed in curricula leading to early vocational training and low-status occupations the opportunity to try for other occupations and a free choice based upon mature judgment. When differentiations in curricula are made in the early secondary or elementary years, only those students with higher test scores are given a curriculum designed to lead to high levels of education and opportunity to enter occupations requiring such education. Although the differentiation in curricula may not be so identified, it is generally understood that those with lower levels of early school achievement will be provided a curriculum which can lead only to a restricted range of occupational choices. Such students are, therefore, directed into "vocational" curricula designed to prepare them for low-skilled occupations comparatively early in their educational years. In contrast, those who go into "academic" curricula will be provided extensive periods of general education before any vocational education is inaugurated. By this program such students achieve greater maturity and a wider range of choices before occupational selection is appropriate.

It is clear that early differentiated and/or segregated education denies
to many, largely from the lower social economic strata, equality of opportunity and the possibility of upward mobility. It is also apparent that any specialized vocational training or differentiated curricula leading to vocational training in the elementary or secondary school years, must be evaluated in relation to the traditional and important democratic values—freedom of choice and equality of opportunity—discussed earlier, as well as to the contemporary needs of the expanding labor market.

Vocational education in the secondary school program did not seriously restrict access to these values a few decades ago. When an eighth grade or slightly higher education was the only prerequisite to most occupational levels, the establishment of vocational curricula on that base was not restrictive. Such education in the secondary school of 1920 would be comparable to specialized vocational education in the later portion of the undergraduate years or graduate school today. Since nearly all occupations now have a high school education prerequisite, specialized vocational curricula as an alternative to general education at the secondary school level restrict vocational education students to a narrow range of occupational choices and limited mobility. Certainly the boy who takes auto mechanics in a vocational high school curriculum instead of mathematics, science or humanities, will not have an equal opportunity to enter other occupations in comparison with the student who takes the latter courses.

We must also continue to recognize the fact that relatively large segments of the population are by endowment ill-equipped to acquire even the basic skills offered at the junior high and high school levels. Most of these persons are found among the dropouts from the schools and as expected constitute a large segment of the unemployed. Somehow they must be matched to the
jobs which demand lowly levels of skill and ability. Many jobs of this type are still found in the service industries.

Perhaps the community must expand the kinds of facilities offered to the public as, for example, in recreation and in beautifying the community through landscaping to increase the number of such jobs and still provide important benefits for the community. Work programs need not be given relief status. By increasing the number of persons employed in public undertakings respectable status and personal security may be granted to persons who could achieve neither of these through other channels.

The Self and the World of Work: Any analysis of vocational education would be inadequate without some consideration of the social-psychological aspects of the individual's relation to the world of work. The task of allocating personnel to the necessary occupational roles may be accomplished, and is in some societies, with little consideration of the individual's desires, aspirations or satisfactions on the job. Our democratic concern for the individual obliges the educator to give great emphasis to each person's self perception of his occupational role.

Even to the casual observer, vast differences in the conditions of work are readily apparent. What effects different work situations have upon given types of individuals is still the subject for empirical study. However, there are basic differences between work situations which demand great physical skills and those which demand high degrees of technical training. There are differences between work situations performed in isolation and those which bring the individual into continuous contact with others. There are different psychological outcomes between a work situation which is
hot and noisy and one which is subdued and air-conditioned. But these differences may not be the crucial variables in significantly relating an individual to his work. Perhaps the most significant factor in analyzing the social-psychological dimensions of work is to recognize the crucial importance of the job itself to most normal individuals in American society. Without an occupational status the individual has few other statuses which are capable of offering him a respected position in the community.

Occupation in American society is the most significant status-conferring role. While it is true that lowly occupations confer lowly statuses, at least they allow the individual to form some stable conception of himself and his position in the community. The significance of work in an urban industrial society must be recognized in all discussion of occupations and vocational preparation. A healthy community must have healthy citizens, and healthy citizens must have work. The job is not alone a means for subsistence—a man without work may draw subsistence from the community but his status is different from one in which he holds a respectable job.

Another crucial variable, which revolves about occupational status and the community status it confers, is the level of aspiration which the individual holds and the reference groups he uses to evaluate his own self-image. An open-class society, like that in contemporary United States, creates problems which are most intensely expressed in the labor market. While it is necessary to hold a job it is also necessary to hold the type of job which one feels is compatible with his status-seeking.

Unfortunately, status-seeking and the occupational conferral of status depends upon abilities, interests, and experience. Job aspirations are not necessarily accurate assessments of qualifications or opportunities. A crucial
variable then in vocational training and guidance rests in bringing into convergence an accurate self-image and a realistic level of aspiration.

We should also recognize the institutionalized patterns through which individuals relate themselves to their work and to their communities. A job also represents a given way of life, given values, and given identifications. It is not easy to change a textile worker into a shoe worker when friends and family are textile workers and when shoe workers represent various "out-groups" based on ethnicity, religion, or recency in the community. Occupational groups hold stereotypes of other occupations and have a hierarchy into which they place given classes of occupations.

Vocational training has to be compatible with the job expectations of the individual. Job expectations are usually class oriented and, as many studies have shown, the probability is high that sons will enter the occupational level of their fathers more than any other level. However, there are mobile individuals, and, in many ways mobile persons present the greatest problems for vocational educators. Unlike those who are immobile socially, the socially mobile are less likely to have accurate images of occupations which are beyond those held by family, relatives, or friends. In addition, the conceptions which the teacher and counselor hold of this youth are likely to be more compatible with the status of his father than of the status he has aspirations of filling. This places a great burden on the educational system. The teacher and counselor must know the student well enough to understand how he may emerge from his past as well as how he reflects it.

III.
A Conceptual Approach to the Sociological Analysis of Vocational Education

The analytical approach to the sociology of vocational education is
very similar to that which one might use for a sociology of occupations. Vocational education is an historical phenomenon, a community phenomenon, an educational phenomenon, and an occupational phenomenon. To understand the social processes related to vocational education we have to understand the social functions which vocational education performs. Vocational education at any time reflects the needs of the community and the needs of the individual. Since individual self-esteem, personal adjustment, and status in the larger community are directly related in contemporary American society to the occupational structures, these crucial personal variables cannot be neglected in an analysis of the meanings of work and preparations for occupational status.

To appropriately train individuals for the world of work we must understand the nature of occupational roles themselves. Once we have adequately identified the types of vocations under discussion it is possible to identify the types and levels of training appropriate to these. Having answered the following questions about the attributes of the vocation we may be more readily prepared to rationally cope with problems of vocational education:

A. **Intrinsic characteristics**

1. What types of activities are involved: manual, clerical, professional?
2. What types of skills are involved: unskilled, semi-skilled, skilled, professional?
3. What types of relationships are found on the job: solitary, group, intra-organizational, inter-organizational, public, private?
4. What types of social structures in which activities take place: bureaucratic, non-bureaucratic independent work stations, assembly line activities, service activities
5. What are the physical demands of occupation and conditions of work?

6. What are the potential job satisfactions?

7. What is the susceptibility of the occupation to economic fluctuations or vagaries?

8. What are the economic returns to the occupation?

B. Preconditions for occupational entrance

1. What types of training are needed for entrance into the occupation?

2. What ascriptive elements characterize occupational selection?
   Who controls entrance into the occupation and to what class of persons is entrance restricted?

3. Is there a psychological orientation or psychological type drawn to the occupation?

C. Extra-occupational variables

1. What is the prestige of the occupation relative to the occupational structure in the community?

2. Who holds the power within the occupational structure?

3. What are the boundaries around the occupation in terms of mobility into and out of the occupation?

4. What is the relationship of the occupation to other occupations or to an occupational family?
It is apparent that it is not only job skills which are involved in vocational education but attitudes, values, and life styles. In addition, the needs of the individual as he moves through the life cycle must be recognized in facilitating vocational adjustment. A recognition of social, psychological, and social psychological variables is needed not only in pre-service vocational education, but perhaps even more significantly in the retraining of workers who have suffered from structural dislocations in the labor market.
FOOTNOTES


6. Ibid., p. 145.


13. Ibid., p. 67


THE CASE FOR EDUCATION FOR HOME AND FAMILY LIVING

This report was made by
Mrs. Bernice Milburn Moore
The Hogg Foundation for Mental Health
The University of Texas
Austin, Texas

Pursuant to a contract with the Office of Education,
U.S. Department of Health, Education, and Welfare,
Contract No. SA 15645-62

Report of the Panel of Consultants on Vocational Education
Requested by The President of the United States
The family endures as the basic institution in a free society! The family remains the major channel of communication of culture, in richness or poverty of content, from one generation to the next. The paramount function of the family continues to be the socialization of the young. From the home environment within the community comes the positive or negative value orientation of children and youth. From the family and its sociocultural status are derived the attitudes of teen-agers toward society, toward peers, and even toward themselves. Texas youth correlated their own mental health, their own feelings of personal worth and social competence, their own sense of adjustment with the adequacy or inadequacy of their family life.

Thirteen thousand high school youth pointed up these well-known facts once again. These young persons comprised a stratified representative sample of 9th through 12th grade students from some 185 high schools who participated in the Texas Cooperative Youth Study.

NOTES

1 The theoretical formulation in this paper is based upon Harry E. Moore, "Definition of Conditioned Participation," Dictionary of Sociology, edited by Henry Pratt Fairchild (New York: Philosophical Library, 1944), p. 57.

The Texas Cooperative Youth Study was undertaken cooperatively between the Home and Family Life Education Division, Texas Education Agency; the Departments of Home Economics Education in some sixteen Texas colleges and universities; and The Hogg Foundation for Mental Health, The University of Texas. The report of the analysis of data under the title, *Youth of Their Families*, written by Bernice Milburn Moore and Wayne H. Holtzman, will be published in the fall of 1962 by The University of Texas Press.


Families are not alike in what they have been able to acquire in cultural content to transmit to their children, no matter in what state they live. Neither are they alike in their competence to pass along a rich legacy. Differential access of families to the common heritage varies in Texas as in the nation as a whole. The United States, as a democracy, assumes that all families have access to all aspects of culture. The assumption is also made that the cultural resources of the nation are readily available to all for use in the development and sustenance of their offsprings. While this principle of equality is an ideal, the Texas study has indicated that even in America it is still more utopian than real.

Many parents have been limited by educational and other experiences to the extent that they have lived only on the periphery of culture. They have undergone no real involvement. They have only skimmed across the deeper currents of national living. They have earned so little that they and their children have been held at a subsistence level, not only economically but socially as well.

Lack of communication skills has cut these parents off from the vast stream of knowledge and ideas. The poverty of their backgrounds has been transmitted to their children as inability to share fully in what may be readily available. A single reflection of this may be observed in the too-high dropout rate from the public schools.

The Texas study offers evidence that youth from culturally handicapped parents do have a more difficult time remaining in school. Yet, the very real interest of some of these parents and of the larger community carries them along. Generally speaking, each generation of
children goes farther with formal education than did their parents. While over one-third of the fathers of Texas youth had completed less than the eighth grade, and while one-fourth of them earned family income from semi-skilled or unskilled labor, their sons and daughters were attending high school. These youth, by this very act, were opening the door to wider cultural participation for themselves as adults and for the children they will bear.

When families have had wider experience and broader opportunity to participate in culture, their children show it in their own relationships, attitudes, school achievement, and personal adjustment. As could be expected, the higher the educational and occupational level of fathers, the better start in life their children received.

The Texas Cooperative Youth Study lends solid documentation to the growing recognition that all youth, of every place of residence, of each racial, ethnic, and subcultural group must be kept in school at least to high school graduation.

Schools are supplemental to adequate family participation in culture for some. For others, schools provide almost the only door to cultural adequacy. Many youngsters of ability can develop their potentialities through educational experiences. The future of American families and the quality of persons they will produce rest upon this increase in opportunity for the many.

Capacities for family living and skills for homemaking have to be studied and learned. This is no less true than that future scientific and technological achievement rests upon an educational base. In truth, the latter cannot be accomplished without the former. Families furnish
talent. Talent is not confined to any one subcultural group. Families may unintentionally stifle the development of talent or destroy opportunity for its discovery. In addition, parents offer or withhold motivation for learning and for academic achievement.

While the Texas Cooperative Youth Study did not set out to prove that family adequacy for child rearing depends upon levels of participation in culture, this conclusion became increasingly evident as the data were analyzed. The study also did not anticipate that youth would define their own self-adequacy and social competence as dependent upon their families. However, their responses proved that quite literally youth are of their families.

Evidences for Consideration

The Texas Cooperative Youth Study was not designed to serve as a microcosm for the nation. However, a fair case could be made for the broad applicability of its findings. The study was instigated to gain information pertaining to personal and family attitudes, concerns, problems, and interests of everyday, relatively "normal" youth attending public high schools. Immediate use was made of the Interest Inventory in curriculum planning for home and family education for the state. Analysis of the fourteen scales measuring attitudes and problems is being reported in a book to be published in the fall of 1962 by the University of Texas Press for The Hogg Foundation for Mental Health. Because of sufficient cases in the larger sample, some twenty-four detailed analyses of variance were possible. Major findings from some of these are reported here with a minimum of detail and documentation.
because of limitation of space. Their relevance to the need for home and family education is implicit.

1. The level of fathers' education proved a telling measure of sub-cultural group membership of the family and of accessibility of cultural resources for child rearing. Basic attitudes toward society and toward people steadily improved as the educational level of fathers rose. Youth reported their own self- and social adequacy, their personal adjustment, their feelings of social acceptance as continuously improving as the families to whom they belonged became more "adequate." Family problems and tensions lessened. Differences between youngsters from families on different educational levels can be generalized regardless of community size, sex, number of brothers and sisters, parental arrangement in the family, or grade level. Educated fathers are imperatives for family competence.

2. The educational level of mothers proved to be equally significant in relation to the responses of their youngsters. However, this was not related to definition of the place of the family in culture as was fathers' education. As years in school for mothers increased from elementary to college, attitudes of their children toward society, toward school, and toward the family in all of its functional aspects were more positive. Resentment toward family life style also was diminished. Young persons were more secure within themselves and in their social relationships. The educated mother, therefore, became another major asset in the lives of the family's sons and daughters.

3. Approximately 35 per cent of the mothers of Texas high school youth were employed outside the home. Employment of mothers, rather than being a major component of problems of youth, appeared not to be a determining factor, expect at the "lower" educational and occupational levels.
Youth from families where mothers were employed and fathers were professional men displayed the least difficulties in their personal and family life. Running a close second were youth from homes where mothers were full-time homemakers if the educational level of their fathers was high school or better.

Tensions were high and difficulties numerous for young people from blue-collar families where both parents were employed. Minimal educational and occupational competence, subsistence income, and general inability to cope with a complicated family and home situation evidently combined as sources of tension. Mothers employed outside the home require competence in home management and capacity in human relations to maintain their complex roles. Employment of mothers, per se, was not sufficient to account for problems among the youth in families of minimal adequacy.

4. Where high school youth were required to contribute to family income through employment, the cultural limitations of the families became evident. Family size was large and occupational status low. When teen-agers were forced to add employment to school attendance to supplement family income, their personal and family problems became more acute. Part-time work for other youth for expense money or work at home for no wages did not show such effects.

5. "Elbow room" was defined as the ratio of the number of rooms in the house to the number of family members in the home. Families tended to live in houses of the size they could afford rather than in space which would be adequate for family size. This was true save in the upper and lower income levels. For the former, the luxury of sufficient "elbow room" was available. Excessive poverty in space was
Personal and social adjustment for girls was much more difficult than for boys when "elbow room" was at a premium. Not until homes reached five rooms or more was there noticeable improvement in their sense of adequacy.

Boys, in contrast, found more severe problems in their social and family relationships when they lived in houses of five or six rooms. They were also more critical of family life style than girls no matter the size of the home.

These distinctions in reaction by sex demand further consideration. However, girls did react more acutely to the amount of space available for the family. Boys were more severely influenced by orderliness or lack of it in the home and by the behavior of family members with one another.

6. Youth reared by a mother and father or by one parent alone displayed no great variations in attitudes or personal and family adjustment. About 77 per cent of the Texas youth lived with both parents. Divorce had taken place in ten per cent of the families and separations were limited to two per cent. Death had taken five per cent of the fathers and three per cent of the mothers.

Youth in families with stepparents in upper socioeconomic levels reported greater stress and more problems within the family. In contrast, stepparents in blue-collar families evidently contributed to the stability of the family group. Learning to live with stepparents is an evident need for youth from more "adequate" homes. Learning to function successfully as stepparents is an indicated area for education of adults.

7. Women in child bearing years in every subcultural group in the
nation recently reported they desired families of from three to four children. This was revealed in a study by Freedman, Whelpton, and Campbell. Youth in the Texas study verified the wisdom of these mothers. They indicated that their own personal and social development was more adequate if they were reared in medium-sized or smaller families. Evidently the family functions more effectively when it remains compact enough to maintain adequate differentiation between adult and child roles and when communication and interpersonal response can be maintained in balance between parents and their children.

Young persons from the largest families of six or more indicated a sharp increase in concern over personal and social adjustment. Youth in families of four children or less offered little or no distinction in their responses. Teen-agers who were only children were no different than those reared in medium-sized families. Family size can be assumed to be an important conditional factor in adequate participation in culture for effective growth and development, though certainly it is not the only factor. This generalization does not indicate that all large families produce young persons who are less at ease. However, this same finding was documented by Bosserd and Boll in their book, The Large Family System. Education for parenthood is indicated no matter the family size.

8. Marriages among high school youth have gained major attention in the nation. A few over one per cent of the youth in the Texas study were married. However, this gave a sufficient number for examination.

Marriage for high school students may seriously limit their preparation for adult roles, both economic and social, particularly if they belong to middle class families. Also, participation in their own peer
culture is impeded by the early assumption of marital status.

Marriage in high school represented a serious break with family aspirations and mores among youth of college educated parents. This was reflected in responses indicating family conflict and stress.

The majority of teen-agers who marry drop out of school. These youth, usually from blue-collar or lower middle class families, take up full-time roles as homemakers or earners. Those remaining in high school from these subcultural groups are more often girls whose young husbands have already moved into permanent employment. On the other hand, sons and daughters from better educated families are pressured to remain in school.

No black or white observation was possible from this study concerning married high school youth. Social class membership evidently placed radically different requirements upon youth for adult participation in culture. Divergent definitions of sex roles and of ages of maturation arise from the subcultural strata from which these youth come. Boys, rather than girls, in higher status families appear to have the more difficult time adjusting to their newly-acquired married roles.

However, it may be well to mention a positive approach to this current phenomenon as taken by the Dallas Independent School District. All married youth in high schools, some 300, participate in a television series designed to raise their competence in understanding their new roles as married persons. Assistance is given them to improve their abilities in taking care of their new homes. Their changed relationships to their peers, to their parents, and to each other are discussed. Effort is made to hold these young persons in school since it is recognized that this may be their final opportunity to gain educational
background for both family and social responsibilities.

9. Role definitions and demands upon the two sexes are becoming increasingly alike. However, Texas boys and girls revealed some striking distinctions in basic attitudes.

High school boys were appreciably more negative in their attitudes toward the world and its people regardless of which subcultural group was represented by their families. Boys were consistently less satisfied with school and were less competent in performance in school than girls. This was verified by a 1961 study of scholastic honors earned by high school graduates in Dallas, Texas, regardless of the location of the high schools. In each instance, the larger percentage of honors went to girls rather than boys.

Boys were substantially more authoritarian in their attitudes toward discipline regardless of family status. Girls, on the other hand, were more critical of their peers.

Problems and concerns of young persons, in contrast to attitudes, revealed no significant differences between the sexes.

Some relevant questions need to be asked. What are the differences in child rearing practices as related to boys and to girls? Does the more pessimistic and authoritarian orientation of young males create a drive to overcome problems or does this dull their desire to achieve? Is this an essential element in the higher rate of dropouts from school for boys?

Do young girls, on the other hand, live in a haze of "unexpectations," as Dr. Mary Bunting has described them. Is their optimism an asset or an escape from reality? Will they make the necessary effort to gain the increasing knowledge they will need as parents, as earners, as those who
must share in the problems of the times?

10. Racial group membership proved to be a powerful factor both in access to and availability of culture for families of teen-aged youth. Subcultural groupings among Negroes offered contrast and problems between the upper and lower strata of families. In general, youth from East Texas which is the least urbanized and most traditional region of the state found it most difficult to accept the future with hope and confidence regardless of the race. Tensions in families were higher as was adherence to the principles of authoritarian discipline.

The challenge for the region and for the minority racial group is the opening of opportunities for rapid cultural as well as economic advancement. Both education and employment are channels toward greater family stability and personal satisfaction.

11. Rearing youth in cities has advantages as does rearing them in smaller communities or rural areas. Neither setting is free of problems, though problems differ. Family tension was found more often among youth in cities, even as resentment of dependence was more acute in rural areas.

Stress related to social isolation and pressures for conformity to peer group behavior were more intense in smaller population centers. Boys in cities found it more difficult to attain a satisfactory level of personal adjustment and social adequacy. Girls in rural areas and city boys faced similar problems. Youth of higher status families in less urbanized communities were more critical of family life style than youth from similar subcultures in cities. The reverse was true for youth from families of minimal adequacy.

The setting in which families live, region, community or neighborhood, influences the responses of youth and needs to be taken into account.
Predicates for Families of the Future

Texas youth were unaware of the irrefutable evidence they would submit to build the case for educated parents. They were equally unsuspecting of the documentation they would furnish for specialized education for home and family life. These findings came, however, through their own replies to an interest inventory.

Moreover, they were unacquainted with the theoretical position of Talcott Parsons and Robert F. Bales. These social scientists note the "professionalization" of the mother role in the socialization of the child and the wife-homemaker role in marriage. They stress the importance of the expressive and subjective contributions women make to their families, but they indicate the importance to child development, marriage, and family living of the "values of rationality." They note that the physical, emotional, and social aspects of family life, as well as the technical components of home management and operation, display many facets of applied science.

Youth in Texas apparently recognized the need for study in this emerging field of professionalization and in the sciences as applied to human relations in the family and to homemaking. Applied science is usually taught as a facet of formal education since it is a systematic, organized body of knowledge applicable to a specific field of action and operation.

Neither could Texas youth have heard of the conceptualization of Cloward and Ohlin in Delinquency and Opportunity where they stress that many problems of youth deviation arise from inadequate opportunities for socialization in the family and community; nor could they know of accumulating evidence that fruitful attack upon major problems of
deficiency in socialization and in personality development may be accomplished through a revolution in environmental adequacy.\(^8\)

Texas youth have suggested a major first step as a predicate for families of the future. They have expressed definite concern for opportunity to study in school toward improved parenthood, happier marriages, and better home living. Attitudes and interests which they stated implied sincere desire for increased opportunities to learn regardless of their subcultural group membership.

Young persons also indicated their agreement with the findings of a recent survey of adult homemakers. Clubwomen in the United States pointed toward the need for formalized educational experiences for the "vocation" or the "profession" of homemaker-parent-marriage-partner not only among subcultures in the nation which were less adequate, but also in their own strata in society. These women agreed that mothers are not training their daughters sufficiently for their adult roles as mothers and homemakers. Their silence concerning their sons was equally telling. They indicated the imperative for more adequate knowledge concerning human relations in the family. They stated their concern for the development of positive attitudes toward homemaking as a vocation or profession. Skills essential for taking care of the nutritional and clothing needs of the family rated below the areas of applied science already mentioned.\(^9\)

Texas youth added the weight of their own attitudes toward the necessity for adequate preparation for home and family living. Over three-fourths of them believed that high school girls should "spend a lot of time in high school" learning to take care of the home and family. Agreement was also strong that boys should spend some time in high school homemaking classes "in order to help learn to manage a home." Youth who
were seniors were most emphatic concerning the necessity for education for home and family life for both sexes.

Over half of the youth agreed that "discussion of problems of personal and family life should take place in classes made up of both boys and girls." Again, it was the more mature youth who were more sure of their position. Well above three-fourths of the young persons desired an opportunity to understand physical, emotional, and social changes as these related to their own personal development.

Education in school for family life, as far as youth are concerned, stands shoulder to shoulder with demands for education for scientific advance, technological competence, and dependable citizenship. The specific evidence they offered appears in the attached tables showing their areas of interest by rank order of preference. In some areas of minimal concern, young persons need motivation to learn what they need to know. In by far the majority of instances, their interests indicate both an appreciation of the importance of family life in the home and their maturation in understanding the fundamental contribution of the family to their own adequacy and to the world in which they live.
LEVELS OF HIGHEST PRIORITY
of
YOUTH INTERESTS IN EDUCATION FOR PERSONAL AND FAMILY LIVING
By Rank Order in Categories
The Top 20 Per Cent

Self
- How to get along with people.
- How to meet people and feel at ease with them.
- Expressing one's self well.
- What is acceptable behavior on dates.
- The effect of the place one lives on personality.
- How to organize work to save time and energy.
- Understanding my behavior and that of others.
- Selecting appropriate clothes which will suit my build and personality.
- Controlling one's temper.
- Authoritative and correct information about sex.
- What personality characteristics make for popularity.
- All kinds of information on the etiquette of dating.
- Planning for the use of one's leisure.
- How to handle fears.
- How shyness happens and how to overcome it.
- Understanding people of other nations and races.
- Why one personality differs from another.
- Jealousy as a personality problem.
- How to order food in a restaurant.

Family and the Home
- To learn how the family can plan together, share work and responsibilities.
- How to get along and do things for elderly people.
- Well planned activities that everyone in the family can participate in.
- How to understand and deal with problems families usually have.
- How to develop citizenship through home and family living.
- Learning democratic family practices.
- What is involved in setting up and maintaining a home.
- Each family member having a place for his things.
- How to have a place of my own for my clothes and other belongings.
- Getting a meal ready to serve so that all food will be ready at the same time.
- Planning nutritious meals.
- Cooking different foods to get variety in family meals.
- Rearranging dark and unattractive rooms to make them more usable.
- How to plan a house to fit our family needs.
Marriage and Parenthood

What is to be considered in choosing a marriage partner.
Planning for marriage.
Child care in emergency situations.
Understanding prenatal care and how children are born.
How children grow and develop.
How to entertain and take care of sick children.

Personal and Family Health

What health problems a family is likely to face.
Keeping mentally and physically fit.
First aid in a disaster or an emergency.
Making the home safe from accidents.
What to do when somebody in the family gets sick.
When it is important to seek help from a doctor.
Dangers of self-doctoring.
What health and protective services are available for families.
What to do to get rid of body odor.

Personal Employment and Family Finance

How to apply for a job -- manners, grooming, clothing.
Judging advertising intelligently and buying wisely from it.
Where to go and things to do which will cost little or no money.
How to prepare one's self for a part-time job.
Investing money one saves.
What kind of insurance a family needs.
How to judge what is a good buy by reading labels on cans, clothes, and appliances.
How to buy and take care of appliances for the home.
What sort of house and furnishings we could have on our income.
What to look for in buying or building a house.
Social Security and how it applies to us.
How one gets a good credit rating.
Advantages of renting or owning a house.
How to cut down the cost of clothes and yet keep them good looking.
Knowing my share of the family clothing money.
What to look for when you buy furniture.
THE CONTRIBUTION TO THE NATIONAL ECONOMY
OF THE USE OF RESOURCES WITHIN AND BY THE FAMILY

This report was made by
Dr. Elizabeth E. Hoyt
Iowa State University
Ames, Iowa

Pursuant to a contract with the Office of Education
U.S. Department of Health, Education, and Welfare,
Contract No. SA 16300-62.

Report of the Panel of Consultants on Vocational Education
Requested by The President of the United States

73
I. Introduction

This paper is concerned with three related propositions:

1. The quality of life of a family is the result of the use made of its available economic resources.

2. The nature, the stability and the prospects of the national economy very largely depend, in the long run, on the use of resources within and by the family.

3. It lies within our power to advance, much more substantially than we have already done, the intelligent use of resources within and by the family.

Although each of these propositions is, in general, what we would like to believe, to be significantly useful, none of them, as stated, is really as clear and obvious as it needs to be. The purpose of this paper is to elucidate them, to point out their limitations, where limitations exist, and to show how the influence of these limitations can be minimized. 1/

1/ Before embarking on this analysis, however, it appears advisable to refer to another kind of approach to the relationship of the family to the national economy, or more strictly to the stability of the national economy, since it has had perhaps more specific attention than the approach which the writer uses here.

At the beginning of the depression of the 1930's, the Ladies' Home Journal ran a campaign, for which it solicited the support of leading economists, to urge families to buy. Even if families were not in need of particular goods at the time, they were asked to buy them, for the sake of restoring the unjustified lack of confidence of businessmen, preventing deflation and "putting the economy on its feet." At a more recent date, similar appeals have been made to families but in an opposite direction: families have been asked to refrain from buying, and especially to refrain from buying on installment, in order to check the overweening confidence of businessmen, prevent inflation, and preserve the stability of the economy.
II. Resources and the Quality of Family Life

The quality of life of a family is the result of the use made of available economic resources. Of the three statements, this is the one which is likely to bring forth the most serious criticism. It can be said, in apparent contradiction, that the quality of life of a family depends on the family's knowledge and ideals, and on the way it applies them. But our initial statement in reality assumes this. Neither knowledge nor ideals are effective unless they are applied. The basic fact here is that in actual application all resources, from the most "spiritual" to the most material, are limited, and therefore, in the large sense of the word, economic. The most famous definition of economics is that of Lionel Robbins: economics is the study of relationships between ends and scarce means which have alternative uses.2/

Continued. It appears to the writer unreasonable to call on families to institute such policies, which are, in effect, to ask them to buy today although it is expected that prices will be lower tomorrow; and to postpone buying now when it is expected that prices will be higher tomorrow—in other words, to act contrary to what they see as their own interest. In the second place, in view of the fact that the causes of deflation and inflation, and policies in relation to them, are very complex, it is doubtful if such recommended action would have discernible effects on either deflation or inflation. This is not to deny that the psychology of buying in relation to inflation and deflation is not a subject of great importance, and one which needs study. Neither is it to deny that installment buying may be harmful as well as beneficial to families. But deflation and inflation, and their causes, are understood only partly by economists themselves, though they do not always give that impression. It is unreasonable to assume that we know these causes well enough to put their burden on the family buyer.

Though money or other material means may not be necessary in order that knowledge and ideals be applied, time and energy are always necessary. In our own society time and energy are as limited, and in fact more limited, than money. To begin with, no one has more than twenty-four hours a day, nor do we have equal energy for each of those twenty-four hours. As a matter of fact, we take time and energy, or the lack of them, for granted: we do not take material resources for granted, but are always trying to get more; consequently, we are more conscious of the lack of the latter.

In Table I we have, in percentage terms, the uses of material resources, measured in values of money, for all the main consumption purposes of the United States in 1960. The data in dollars from which this table is derived are published annually. In the opinion of the writer, there is no other single set of figures in the United States which gives so illuminating an introduction to the quantity and the quality of our life. The Department of Commerce checks its total consumption figures with its figures of the production and of the distribution of income, hence the total is as accurate as it is reasonably possible to secure.

The breakdown which the Department of Commerce gives us is more detailed than this table shows. The food figure of 17.6%, for example, is made up not only of what families and individuals spend for food and the value of food raised and consumed on farms, 15.9%, but also the value of food consumed in government and commercial institutions, 1.7%.
<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, tobacco and alcoholic beverages</td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>17.6</td>
</tr>
<tr>
<td>Tobacco</td>
<td>1.9</td>
</tr>
<tr>
<td>Alcoholic beverages</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Percentages</strong></td>
<td><strong>21.9</strong></td>
</tr>
<tr>
<td>Clothing, accessories and jewelry</td>
<td>3.4</td>
</tr>
<tr>
<td>Personal care</td>
<td>1.3</td>
</tr>
<tr>
<td>Housing</td>
<td>10.5</td>
</tr>
<tr>
<td>Household operation</td>
<td>11.4</td>
</tr>
<tr>
<td>Medical care &amp; death expenses</td>
<td>5.3</td>
</tr>
<tr>
<td>Personal business</td>
<td>5.1</td>
</tr>
<tr>
<td>Transportation</td>
<td>10.1</td>
</tr>
<tr>
<td>Recreation</td>
<td>4.8</td>
</tr>
<tr>
<td>Private education &amp; research</td>
<td>1.1</td>
</tr>
<tr>
<td>Religion &amp; welfare</td>
<td>1.2</td>
</tr>
<tr>
<td>Foreign travel &amp; remittances</td>
<td>.7</td>
</tr>
<tr>
<td><strong>Total personal consumption expenditures</strong></td>
<td><strong>81.8</strong></td>
</tr>
<tr>
<td><strong>Personal saving</strong></td>
<td><strong>5.7</strong></td>
</tr>
<tr>
<td><strong>Personal taxes</strong></td>
<td><strong>12.5</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>
Such a table has its greatest value, however, when it is compared with expenditures in our past. During the time that the Government has compiled these figures there have been two great increases, in household equipment and in transportation by automobile. The greatest percentage decrease is in food, percentage expenditures for which generally decline as prosperity increases. If we had such tables for other countries, still more striking comparisons would appear.

Any table of expenditures has to deal with certain problems of classification, and the classification chosen, while illuminating its value for some purposes, may obscure it for others. In this table it must be noted that the figure for education and research is for private education and research; the chief expenditures for education come out of taxes. The figure for religion and welfare excludes certain expenditures which have been counted in the table already: those for food purchased by religious and welfare institutions, for example. Nevertheless, if all such purchases by religious and welfare institutions were included in the religion and welfare figure the total to most people would still seem surprisingly small.
But even if we had tables of material expenditure suitable for every purpose, it would be apparent that such tables would not adequately interpret our use of resources. We need a table also on uses of time. To compile such a table with accuracy is much more difficult than to compile one for the uses of time, as is done in Table II. This table applies to American adults with regular employment, and to their "free" time only: it excludes time spent in sleep, going to sleep and rest, time spent in eating, in regular occupation and tasks, and in getting to and from work, also time lost through illness. It is likely that percentage uses of time for employment, sleeping and eating are fairly similar, but there is a very great range in the percentage uses of time for the purposes named in the table. In fact it is likely that the percentage distributions for use of money in the United States among individuals are more similar than the percentage distributions for "free" time among them. So far as this table is concerned, people are probably most alike in the percentage of time they give to social interests and this is also the largest percentage in the table. Most unevenly distributed, probably, are the uses of time which represent serious interests in public affairs, in intellectual and in aesthetic pursuits, and in religion. It will be noted that the averages for these interests are the smallest in the table.

4/ See, for example, Sorokin, Pitirim A. and Clarence Q. Berger, Time Budgets of Human Behavior, Cambridge, 1939.
Table II

Estimated Percentage Use of "Free" Time by American Adults with Regular Employment: Weekly Average, with Sundays Included

(Author's Estimates from Data from Various Sources)

(Per capita "free" time, 42 hours)

<table>
<thead>
<tr>
<th>Recreation</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversation, correspondence</td>
<td>16</td>
</tr>
<tr>
<td>Spectator or listener entertainment:</td>
<td></td>
</tr>
<tr>
<td>motion pictures, TV, radio and other</td>
<td>13</td>
</tr>
<tr>
<td>Exercise, sports, games, hobbies, busywork</td>
<td>11</td>
</tr>
<tr>
<td>Riding for recreation or social purposes</td>
<td>7</td>
</tr>
<tr>
<td>Light reading</td>
<td>5</td>
</tr>
<tr>
<td>Music and aesthetic interests involving</td>
<td></td>
</tr>
<tr>
<td>effort or participation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>56</td>
</tr>
<tr>
<td>Dressing and personal care</td>
<td>14</td>
</tr>
<tr>
<td>Shopping, going to and from stores, reading</td>
<td>10</td>
</tr>
<tr>
<td>and hearing advertisements, care of finances</td>
<td></td>
</tr>
<tr>
<td>Public affairs, including radio and serious news reading (citizenship)</td>
<td>7</td>
</tr>
<tr>
<td>Educational and serious radio and reading, apart from public affairs</td>
<td>5</td>
</tr>
<tr>
<td>Thinking and daydreaming</td>
<td>4</td>
</tr>
<tr>
<td>Religion and philanthropy</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>
Our economic development has saved a great deal of time for our leisure. We may now have twice as much "free" time as we had fifty years ago when the work week was longer and people had also more necessary work to do at home. The value of Table II, like that of Table I, would be greatly increased if we had such tables for earlier years and if we had them for other nations and peoples.

In Table III are given percentage uses of the portion of the national income spent by government, federal, state and local. It should be noted that the percentage of national income spent by the government is larger than the 12.5 percent of personal income which individuals pay in personal taxes, for taxes include not only personal taxes but other taxes which are incorporated into the cost of goods and services and become a part of the price which the consumer pays.

It might be thought at first that the family's concern with this table was largely limited to the 35.8% of government expenditures which go for health, education, and welfare. But the other two thirds of expenditures affect it also, not only because these expenditures come from taxes which we all pay but also because these other expenditures react on family welfare indirectly if not directly. The persons who set the figures for public use of the national income are not some independent outside group making decisions on their own. They are, with minor exceptions, the elected and the civil servants of the people, and they are all responsible to the people.
All this bears not only on the money resource of the family, but on its time and energy resources in a two-fold way. In the first place, the father and mother are voters. In Table II it is estimated that adults give seven percent of their free time to public affairs. Public affairs is a larger category than direct political responsibility, and what passes as interest in public affairs includes a good deal which is no more than the affirmation and support of opinions already formed. The percentage of free time given to political responsibility is therefore, much smaller than seven percent. Furthermore, the percentages of time which men and women give to political responsibility are very unequal. A few give nearly all their leisure, but for the majority this time may be only a few minutes at the ballot box once or twice a year; sometimes not that.

The second way in which the public use of the national income is related to family's use of resources is the family's education of the children in political and social responsibility as they grow up. We have no figures on this, but the extent to which families emphasize this with their children differs very greatly with the families, and in some would be nothing.
Table III

(U.S. Department of Commerce)

Percentage Distribution of Government Expenditures, U.S. 1960

(Total government expenditures, $143,318,000,000)

(Per capita government expenditures, $796)

<table>
<thead>
<tr>
<th>Percentages</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>National defense and veterans' services and benefits</td>
<td>36.7</td>
</tr>
<tr>
<td>Health, education and welfare</td>
<td>35.8</td>
</tr>
<tr>
<td>General government</td>
<td>11.6</td>
</tr>
<tr>
<td>Commerce and housing</td>
<td>9.7</td>
</tr>
<tr>
<td>Agriculture and agricultural resources</td>
<td>2.5</td>
</tr>
<tr>
<td>Natural resources</td>
<td>2.2</td>
</tr>
<tr>
<td>International affairs and finances</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>
The most salient consideration to be applied to this relative lack of concern in political responsibility, including the way in which government expenditures are distributed, is the people's ignorance. They do not know the facts, nor what lies behind the facts, or apparent facts, nor do they see the relationship of the facts to one another. To give one example, we continually refer to ourselves as a peace-loving Nation, contrasting ourselves with other nations whose military activities we deplore. Also, we think of ourselves as a Nation which contributes large sums to constructive international causes. Table III shows us that the percentage of government expenditures for international affairs and finance is 1.5. The percentage given for national defense and obligations to veterans in the largest percentage in the table, 36.7. What is even more significant than this is the fact that among the nations of the world we not only give the largest amounts, but the largest proportion, of our net domestic product, 9.7% for military expenditure.5/

---

5/ United Nations, Economic and Social Council, Economic and Social Consequences of Disarmament, New York, 1962, Annex 2, pp. 1-14. In this annex there are tables showing such percentage expenditures in 49 countries: industrial private enterprise countries (18), under-developed private enterprise countries (32), and centrally planned countries (9).
IV. Teaching the intelligent use of resources

It is a commonplace to say that the intelligent use of resources can be taught: the real issue is not that it cannot be taught, but that we have not given adequate emphasis to that teaching in our system nor made adequate place for it. We are much better equipped to understand and to teach specific and detailed aspects of knowledge than we are to understand and to teach issues that arise from broader considerations within a field and from interactions involving several fields of knowledge. When we try to do the latter we are likely to lapse into obvious well-meaning generalizations.

Detail and method in science in relation to integration. During the last generation fields of knowledge in the social and the natural sciences have increased greatly in specificity; also the teaching of them has come more and more to emphasize refinement of detail and rigor of method. Whereas this is all to the good in itself, it has meant in practice that attention to the broader and inter-related aspects of knowledge has declined not only relatively, but it may be absolutely, also. We know more of fact and method than we used to know, but we know less of the inter-relations of knowledge. In the social sciences great progress has been made in refined studies and in new and refined methodologies; but very little attention has been paid, at least on a scholarly and disciplined scale, to the nature of the issues of which the details are a part and to which the improved methodology is applied.
Secondary repercussions of change. A special aspect of the need of integration, and of a broader view of what is taking place under the impacts of modern change, has recently been presented to us in anthropology, with reference to the understanding of change among technologically undeveloped peoples. In a recent book, Professor George Foster has pointed out that we need to consider not only the immediate effects of the changes we introduce, which we see as beneficial, but later effects or repercussions which we may not have expected at all. All changes have reactions beyond their immediate impact.

Associated with every technical and material change there is a corresponding change in the attitudes, the thoughts, the values, the beliefs, and the behavior of the people who are affected by the material change. These nonmaterial changes are more subtle. Often they are overlooked or their significance is underestimated. Yet the eventual effect of a material or social improvement is determined by the extent to which the other aspects of culture affected by it can alter their forms with a minimum of disruption.6/

He gives various examples, such as that the introduction of a cash crop is frequently followed by deterioration in diets; that a money economy tends to break up cooperative efforts in production; and that modern forms of economic enterprise usually lead to the disintegration of existing family patterns.7/

7/ Ibid., pp 31-39.
The fact is that what we are now beginning to see in relation to change among technologically undeveloped peoples is something that has been going on among us all the time. But because we are able to look at these peoples with somewhat more objectivity than we look at ourselves we see the secondary effects of change among them more clearly than we see such secondary effects at home. Actually our culture is full of them. To give but one relatively small example, the introduction of the automobile, which was hailed, among its other virtues, as a means of increasing people's enjoyment of the beauties of the countryside, is now destroying those very beauties. There are places now, such as the Black Hills, where long stretches of road in a region of great natural grandeur are a succession of hot-log stands, curio shops, side-show exhibits, motels, and advertisements for them and other attractions, to the extent that the man who wishes to enjoy the countryside is well advised to keep away. To be sure there are groups now arising in our culture to protect the desecration of natural beauty, and other changes that result from "improvements", but they are isolated groups. We have no science of repercussions to change in the United States as we are beginning to have for Ghana and Gabon and Nyasaland. Anthropology is for somebody else.
V. Conclusion

In our educational system we have kept fairly well up with change by introducing the details and refinements of new knowledge; but we have not kept up with the interactions of change and its social implications. In the older period we did not know so much, but were more in command of our total situation.

There remains the practical question of how to deal with this fragmentation, this lack of command, which stems from lack of integration of knowledge and corresponding lack of concern for the total situation. Here the writer can only state her opinion. It is hardly possible to expect the individual social sciences as at present constituted to embrace within themselves the kinds of issues which we have brought up in this paper. There is a second possibility. Attempts have been made at synthesizing the sciences, and great hopes have been held out for this. Professor George Murdock, writing in the Scientific Monthly thirteen years ago, hailed what he saw as the birth of new and integrated approach to knowledge with special reference to the social sciences. He saw it as resembling "the extraordinary integrative achievement of Einstein in the field of physical science." 8/

These words are not too strong to characterize what is needed, but they have little relation to what has been accomplished. When social scientists have been brought together in the hope of securing an inter-disciplinary approach to current problems we get more essays and more data, but rarely more integration.

8/ The Sciences of Human Learning, Sociology, Culture and Personality, Scientific Monthly 69, 6, December, 1949, p. 381.
Another possibility is left. Outside of the usually recognized social-science disciplines, a vital interest in a set of issues may result in a new discipline which selects from the others what is appropriate for that interest. Such a newly-emerging discipline is mental health, and an illustration of its application is "Cultural Patterns and Technical Change", published by UNESCO for the World Federation for Mental Health. 9/ The idea that led to the conception of this book was that anthropology, economics, sociology, political science, psychology, all are involved in the mental health problems that accompany technical change; that a selection of the most significant applications could be made from the aspects of these sciences that impinge on mental health; and that the whole could be put together in an integrative manner.

The danger for such an integrated approach by a newly-emerging discipline is that the treatment of the sciences involved in it will be superficial. "Cultural Patterns and Technical Change" is rough, but it is not superficial. The book demonstrates that such an approach can be responsibly achieved.

9/ Margaret Mead, editor, Paris, 1953.
The interests with which we have been concerned in this paper are very large and difficult ones, involving, as we have indicated, an over-all view of the total resources of our Nation. All families are concerned, both directly and indirectly, with this use. It would seem reasonable, therefore, to look at the matter of securing the integration which we need as the possibility appears in family-life education. Family-life education is already fairly substantially established. The idea behind it is by no means new. What is new is the scope of the idea, as we see it in this over-all setting.

The writer believes that family-life education, with difficulty but still without too much difficulty, could expand in the directions suggested by this paper. In view of what is needed, what is available, and of what has been accomplished already, no other area of science or education appears equally promising.