CHALLENGE OF CHANGE FOR THE HIGH SCHOOL COUNSELOR
(A TYPOLOGY OF CHANGE PROCESS)

by

OVETTA W. STEELE

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[Signature]
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CHAPTER I

INTRODUCTION

In recent years, guidance programs have been introduced, expanded and modified at a rapid pace throughout the nation. Many people are still somewhat uncertain about the objectives, methods, or results associated with modern guidance programs. Yet, numerous studies of the capabilities needed for gainful employment, and the changing trends point strongly to the need for effective guidance if students are to be properly prepared for productive, satisfying lives.

Effective guidance programs are needed today more than ever because of the accelerating rate of change in many aspects of life. If one understands change, its beginning, its probable course and possible outcome, then it is possible to do something about the direction it takes to effect some control over it. The counselor who does not understand the phenomenon of change, or who assumes that his experience is sufficient to meet all the problems experience his students will bring him, is certainly obsolescent.¹

Counseling is by nature aimed at the future. When one tries to look ahead to the days when change is common for everyone, including the counselors and students, it becomes obvious that prediction is hazardous.

The modern high school counselor needs to know more about which behavior patterns are waning in their use and effectiveness in society.

He needs to know that knowledge is increasing at an accelerated rate and he needs to know in which areas his knowledge of the situation is becoming less valid. He cannot place implicit faith in the facts and information he currently possesses. Nor can he predict accurately, day after day, what knowledge, information or skills will be needed to gain a rewarding entrance into the market place. Neither can he know what kinds of experiences are available in other institutions which may be expected to maximize the student's potential.  

The counselor knows about the mobility of the American people, but cannot predict where the student will find a new home. He may know that research is an initiator of change and a producer of new opportunities, but he cannot predict what they will be or what use will be made of them. He knows there will be racial problems, problems of employment, questions about social behavior, and inter-cultural relations, but he cannot predict their intensity, frequency, nor the degree of his counselee's personal involvement in them. He does know that his students must learn to approach each new challenge with equanimity, with intelligence, and with a problem-solving attitude. Information is by nature, temporary and changing, and problems once solved have a way of coming unglued. If the counselor will accept the assumption that decisions once made are quite likely to need revision and that life consists of continuous decision making, greater permanency may be reached.

If the counselor will accept that it is possible to build into students' mental structures the image of the change process and e

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perception of themselves as change agents, then he may assume that students can begin to conceptualize their problems in a way that develops a measure of strength, security and purpose. The age of the teens is a critical one for building personality, and for building a concept of the world that clearly reflects an expectation that change and innovation are a part of it.

Attention should be given to the fact that an increasing percentage of high school graduates go on to college. Before many years elapse, the educational ladder will extend from age three and Project Headstart, through college. How much does the counselor know about his students' socio-economic background and the changing nature of the social, economic, and cultural world into which they will graduate? The great metropolis, constantly increasing in size, continues to absorb the major portion of the population, but at the same time it becomes more impersonal and objective. Soon much of the work, and many jobs will be automated and programmed. Uneducated and unguided youth will find little sympathy in the business community.

More and more women will prepare for a variety of careers including positions in business and industry and proprietorship.

Changes in business and industry and the innovations of electronics have uprooted many formerly stable occupations. The realization that today a machine can perform work on the same level as a person with a 12th grade education places a premium upon, not only more education and counseling, but a better quality of both. 3

3 Unruh and Richardson, op. cit., p. 150.
These changes and uncertainties of the future have had, and will have even more in the future, an impact on youth. Thus, the situation for the school counselor becomes a serious one. Unless he is a constant and critical student of the socio-economic scene and endowed with vision, he may be counseling his students for an assault on the Maginot line. But counseling is by nature aimed at the future. The problem is to untangle the mixed cues that come from many impressions, and to analyze the seeming instability and insecurity which the future presents.

Statement of the Problem

It was the purpose of this study to investigate through a study of available literature the effects of the dynamic forces of change, upon counseling today's youth. The changing factors studies will include (1) the characteristics of change as they relate to the counseling phase of the total educational program, including some major curriculum changes; (2) the agents of change, conditions which influence counseling, predictions, mobility, educational opportunities, percentage of women in the labor force, changes in business and industry, the interdependency of people; (3) focus of change, the kinds of jobs, or positions, that will be available in the future, the racial problem, attitudes and values; and (4) implications for counseling, that change is reality, and that as a result of these changes the counselor should know about the changing nature of the social, economic, and cultural world into which her student will exist.
Importance of the Study

Conditions for counseling are constantly changing and in various ways. It is obvious that institutions change. The counselor should be concerned with some of the motivational factors of these changes.

If one can describe change by indicating its various characteristics, then it is possible to observe it more closely and to have some management of it. One characteristic is rate, another volume, and a third is direction.

In the difficult task of counseling youth, one tool would be of considerable help to the counselor. He should strive to develop the ability to use the conceptual tools of the modern educator. One such example is a typology of change. From this, the counselor should learn to make projections and guesses, contrasts and comparisons so as to extract every possible interpretation and meaning from his study of the information.

Definition of Terms

Change. The term "change" is relatively simple, although as a sociological concept it may be rather comprehensive. Change here means simply the process of becoming different in any sense, whether it be evolutionary—changes growing in a connected order out of earlier phases of change, or revolutionary—a process of fast change.

Numerical Control. "Numerical control of machine tools" is achieved through coded instructions on punched cards, or on magnetic or
paper tape, which can control the sequence of machining operations, selection of the proper tool, speed and feed, flow of coolant, and machine positions.

Readers who wish to know more about numerical control will do well to consult Occupational Outlook Quarterly for February, 1965, Vol. 9, No. 1, "New Technology in Metal Working" by John J. Macut.

Method of Study

Available books, periodicals, reports and pamphlets in the main libraries of Kansas State University and the University of Kansas were investigated. The information depended very heavily on educational periodicals; current material was used as much as possible.

CHAPTER II

CHARACTERISTICS OF CHANGE

By any crude measurement, the contemporary world appears to be changing more rapidly than at any time in human history, particularly if we accept an arbitrary division and define the contemporary period as the twentieth century. In fact, the early part of the century looks rather placid by comparison with the last two decades. Unless our vision is simply miopic and distorted, this strongly suggests that the rate of change is accelerating. And so it is.

The peculiar textures of contemporary change may be summarized by a set of generalizations:

1. For any given society or culture rapid change occurs frequently or 'constantly'.

2. Changes are neither temporally nor spatially isolated--that is changes occur in sequential chains rather than as 'temporary' crises followed by quiet periods of reconstruction, and the consequences tend to reverberate through entire regions or virtually the entire world.

3. Thus, since contemporary change is probable 'everywhere' it has a dull basis.

4. The proportion of contemporary change that is either planned or issues from the secondary consequences of deliberate innovations is much higher than in former times.

5. Accordingly, the range of material technology and social strategies is expanding rapidly and its net effect is additive or cumulative despite the relatively rapid obsolescence of some procedures.
6. The normal occurrence of change effects a wider range of individual experience and functional aspects of societies in the modern world—not because such societies are in all respects more 'integrated' but because virtually no feature of life is exempt from the expectation or normality of change.  

If one can describe change by indicating its various characteristics, then it is possible to observe it more closely and to have some management of it.

One characteristic is rate. When one remembers that 90 per cent of all the scientists who have ever lived are still alive, it is possible to see that change has come upon us very rapidly. Twenty years ago a Congressional report stated that ten mathematicians were all that were needed for all industry in the United States. Today, however, more than 200,000 are needed simply to operate the various computers. It is said that 50 per cent of the children in the elementary grades today will be employed in occupations that do not now exist. It is possible then to see that rate may be accelerated or decelerated depending upon the circumstances and the factors involved.

The evidence is not conclusive as to the speed which industry is making use of technological change and automation. If management is applying such change at a much more rapid rate than in the past, then the implications for the present are greater, for there will be less time to cushion automation's impact on employment and society. An example of this, as shown in Table I, is the narrowing gap between a discovery and the application of that discovery. The speed with which at least discovery of automated equipment was applied is further indicated by the following statement:

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"While adoption of electric power in industry took fifty years, automated accounting systems, introduced barely ten years ago to banks, are installed in more than one half of the banks in this country now." 2

Intense acceleration might result in a revolution, whereas changes that take generations for its completion would be more descriptive of evolution.

<table>
<thead>
<tr>
<th>Innovation</th>
<th>Year of discovery</th>
<th>Year of application</th>
<th>Time span</th>
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<tbody>
<tr>
<td>Electric motor</td>
<td>1821</td>
<td>1886</td>
<td>65 yrs.</td>
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<tr>
<td>Vacuum tube</td>
<td>1882</td>
<td>1915</td>
<td>33 yrs.</td>
</tr>
<tr>
<td>X-ray tubes</td>
<td>1895</td>
<td>1913</td>
<td>18 yrs.</td>
</tr>
<tr>
<td>Nuclear reactor</td>
<td>1932</td>
<td>1942</td>
<td>10 yrs.</td>
</tr>
<tr>
<td>Atomic bomb</td>
<td>1938</td>
<td>1945</td>
<td>7 yrs.</td>
</tr>
<tr>
<td>Solar battery</td>
<td>1953</td>
<td>1955</td>
<td>2 yrs.</td>
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A second characteristic of change which can be observed is volume. Innovations may begin in one school department and spread quickly to another. Significant changes at school can affect what happens at home. When schools begin to strengthen their curricula and assignments, the increased homework makes it difficult for the family at home to help and a change in family relationships results. When the school and the home change, it is obvious that relationships with the church probably undergo some changes also.

Another characteristic is that change has direction. The easiest way to illustrate this concept is to note that the population is fleeing the center of the great cities and arriving in vast numbers in the suburbs. The continuing development of machines, tools and gadgets makes life much easier in the home and on the farm, and so there is a change from drudgery and long days of hard manual labor to a life of mechanized labor and leisure. This much description may point out that there is a movement in an observable direction.  

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CHAPTER III

FORCES OF CHANGE

Education and Training for Occupational Change

The developments in every broad occupational group seem to call for ever more education and training. The need for educational and skill upgrading will not be confined to the rapidly growing professional and technical fields, nor even to white-collar employment generally. The demand for better educated and trained workers appears to be all inclusive.

The need for education is further underscored by the likelihood that a person may face several job changes during his working career. No longer can a boy or girl expect just one occupation to cover a lifetime of work. Even today, a 20-year-old man could be expected to change jobs six or seven times during his work life expectancy of 43 years. Being able to adjust to changing ways of work applies to women as well because little is likely to remain the same over the 40 years. A single woman can, on the average, plan on working. Even married women, on the average, can count on rather lengthy work life expectancies—about 30 years for those without children, and about 25 years with children. To be able to switch from one specific job to another, a person must have an educational background broad enough to enable him to absorb the training and retraining that will be necessary to permit him to switch. "Stay in school" is indeed the motto for the decade ahead.
Education (Approaches to Change)

The question now arises: To what extent will "the mechanization of human thought and sense processes" directly affect the conduct of the American school? Dr. James Conant in a much discussed work already has sounded a grim warning that the unemployed and/or delinquent (many of whom are school dropouts) pose an alarming problem for our society. As the distinguished educator-statesman put it: "We are allowing social dynamite to accumulate in our large cities." Dr. Conant is here referring to those young people who drop out of school or graduate without prospects of either further education or employment. The young person who drops out of school, for whatever reason, has little opportunity in a society that demands specialized skills for most of its jobs. "From the purely economic point of view, education has three principal effects: (1) it can increase the versatility and adaptability of people and thus help them to adjust to change; (2) it can open up new opportunities of employment; and (3) it can increase the productivity of workers."¹

It is strongly recommended, therefore, that educational opportunity be open to all. A first principle of a progressive and humane society is that no person shall be deprived by financial barriers—by barriers of ethnic or national origin, religion, age, place of residence, or family background—of the opportunity for maximum growth and development through education.²

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² Ibid., p. 25.
Curriculum Changes

Of all the recent changes, what is commonly referred to as the current curriculum reform movement has been the most influential. It has reached into thousands of classrooms in the past decade.

The movement is discipline-centered, the ends and means of schooling being derived from the academic subject. Some educators claim that this cycle of discipline-centered curriculum reforms is over. The writer would doubt it, although it may have reached its peak in the sense that new outlines are taking shape. For the next several years, however, educators' concern will focus more and more on the total curriculum, rather than on bits and pieces of it. If all goes well, this second cycle will reach a plateau in perhaps 10 or 15 years. Perhaps the third cycle will then be what one might call the humanistic curriculum and it may become significantly evident by 1990 or 2000.

These three cycles are not discrete nor are they new. They represent the periodic reappearance of some persistent themes in formal education—concern for organized subject matter, concern for the learner's total educational diet, and concern for man himself.3

Prediction as a Force of Change

Prediction is a fundamental concern of counselors who counsel with clients in the process of making decisions. That is, attempts are made to forecast future success, satisfaction and other types of behavior on

the basis of present knowledge about a given individual. The use of test results in counseling is almost always oriented to the future.

Historically, however, much has been written in the counseling literature about the counselor as a prediction maker. Strang\textsuperscript{4} wrote that the counselor examines data for accuracy, completeness, and relevancy, than formulates and evaluates interpretations before arriving at a best judgment.

Therefore, the counselor is in a perplexing position as he attempts to determine his role as prediction maker; counselor experts inform him that he should function as a prediction maker, but the weight of the available experimental evidence is convincing in revealing the predictive superiority of the statistical methods. Since most educational and vocational counseling is future oriented, the question is not whether counselors do make predictions in actual practice, but whether they should.

Mobility of the Population

Every year nearly one American in five changes his residence.\textsuperscript{5} One person in four lives in a state other than the one in which he was born. There is a movement to the West, to the Southwest, and to the states bordering the Pacific and Atlantic oceans, the Gulf of Mexico, and the Great Lakes. There has been a movement of the rural population to the urban-suburban areas to the extent that the urban population now exceeds the rural population in a majority of the states.


Eight million men and women, or about 1 out of every 10 who did any work in 1961, changed jobs during the year. Some moved voluntarily in search of better jobs or for other personal reasons. Others had to make changes because of job loss.

High rates of job changing among youth, due in part to a lack of training and experience, point to a need for improved vocational guidance and education. On the other hand, the difficulties faced by older workers in finding new jobs are barriers to necessary adjustments in the economy.6

For the kind of society that is developing, a highly mobile one, characterized by rapid change and facilitated by an unpredictable technology, the development of mobile and flexible students is essential. These will be students who are planning or seeking a career. The need today is for those who are able to get today's job done, shift gears, and move on to the next, adapt to new purposes and programs, and move efficiently among new ideas, institutions and technologies. Paradoxically, if there is to be purposeful development for today's youth, it will be preparation of them for the unexpected. Mobility today means much more. It means the ability to move into the rapidly-changing future, not painfully but eagerly.7

The Changing Role of Women

The myth that women are of necessity subordinate to men and must remain in the kitchen all their lives has been a long time dying, even


among women themselves. Females outnumber males by 2,600,000 in America and although the prevailing attitudes favor—end picture—the American woman as mother and housewife, there is a need to reconsider the problem in terms of woman's contributions to our society. 8

The work force will grow by about 13 million during the 1960's end by another 7 million between 1970 end 1975, reaching a total of 93 million. Almost half of these new workers will be women. 9

Higher education for American women began during the nineteenth century. The first authentic instance of a woman being permitted to secure a college education was in 1837 when four young women were admitted to Oberlin College. One hundred and twenty-seven years later, in 1964, there were approximately 1,812,000 women enrolled in colleges and universities throughout the nation. Enrollments are expected to reach 2,715,000 by 1970. 10

Aristotle said that "learning is an ornament in prosperity, a refuge in adversity, and a provision in old age." Although this is a time of prosperity, higher education for women is not ornamental. Never before has the education they received been so influential in shaping their future lives for the multiple roles they must play in modern society as wives, mothers, citizens, and earners.


Earlier marriage, longer life, better health, and modern technology's labor saving devices have had a profound influence on the life patterns of American women. Most women marry and seek employment after their children are grown. Furthermore, in our society the activities of the American woman cannot be confined to the home, for the conditions in the community and in the nation have a great effect on the welfare of her family.

The societal trends which have influenced changes in the life patterns and social roles of women are raveling. Today the life of the young woman differs greatly from the life of the grandmother's day. Four out of five women in the U. S. have been married at some time during their lives. In 1900, however, two out of three women in the total population had been married. The average age of marriage is twenty as compared with twenty-two years of age at the turn of the century. The average couple can expect to have fifteen more years together after the last child has left home, and women outlive their husbands by approximately six years. Over half of the total number of women in the labor force are married, and the average age of the employed woman is forty-one as compared with twenty-six in 1900. In 1960, 5,408,000 of the 3,000,000 women between the ages of sixty-five and sixty-nine were employed. Today a woman of seventy has a life expectancy of twelve years.


13 President's Commission on the Status of Women, op. cit., p. 66.
An increasing number of women are making decisions which are crucial not only for them but for society itself. In the U. S., women control seventy per cent of the savings, purchase ninety per cent of the merchandise produced for family use, and directly influence financial considerations in a number of other fields.¹⁴

Even though their roles as mothers and homemaker take precedence over their other roles, young women of today must be educated for citizenship in the home, in the community, and in the nation.

Higher education in colleges and universities must help to prepare the American woman to accomplish these objectives. It must at the same time help her perform her varied functions throughout her long life with excellence.

The Reflections of Industry

Industry reflects the demands made upon it by others in the marketplace. It also reflects what society in general, at home, and abroad is requiring of all of us. Any analysis of what industry expects of youth must, therefore, be made in terms of what the future of American industry holds for all of us.

We are living in a fast-moving world faced with difficult problems, revolutionary changes and unsurpassed opportunities. We are witnessing the space race, the development of atomic power, new nations being created by the gift of independence, foreign competition, and domestic competition for foreign markets.

Industry, consequently, is experiencing changing markets, a revolution in production methods, tremendous increases in capital

¹⁴ Ibid., p. 71.
requirements, new and different personnel needs, and a complexity of government regulations and controls—all in all, a way of industrial life which now requires great intellect and highly skilled personnel. Industrial management, as we may have known it in the past, must now adapt itself to the crucial problem of national survival, and this survival depends more upon quality of human resources than on almost any other factor.

Along with these complexities, we are faced with a steady increase in the population of this country as well as in the world at large. This, of course, means a rapidly growing market and the consequent demand on industry to increase its capacity and raise its efficiency.¹⁵

A population explosion is no guarantee for a booming economy. A large population without a sound economy can be a danger rather than a guarantee of progress. Our economy must grow with the population and one of the facets of a sound economy is technological development. Manpower is the key resource of this technical development, which means that the technical proficiency of the work force must be raised to a very significant degree.

Our ability to grow economically, to create needed new jobs and to build lasting prosperity hinges on our willingness to embrace and foster technological changes and to cope with the problems arising from that change.¹⁶


¹⁶ Ibid., p. 21.
The most revolutionary change affecting us directly is the use of numerical control and computers on machine tools. These systems place routine and repetitious work on machines and release men for more creative tasks.

The guiding principle of our competitive system is: if a company does not possess manufacturing efficiency, it cannot survive. Automation will gradually reduce the number of manual workers in manufacturing. Fewer operators will be needed to produce increasing quantities of mass-produced goods. On the other hand, the need for engineers and technicians will increase. They will have to be more highly educated, more highly trained, and more technically qualified than ever before.

The job opportunities for the young man with limited potential are diminishing rapidly. The basic knowledge required for the industrial employee has changed drastically in the past five years and will continue to change.\(^{17}\)

He will be required at times to perform tasks that will involve the use of complex machinery to diagnose trouble and the creation of new or improved methods of repair. He will be required to follow complicated directions and to communicate, both orally and in writing, his ideas, solutions, and directions to others. During his lifetime, his job may be obsolete several times, making it necessary to acquire new skills.\(^{18}\)

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\(^{17}\) Ibid., p. 21.

Machine tool companies are building machines so complicated that skilled men who normally have the responsibility of assembling them are finding it difficult to keep up to date. Retraining is then called for. The machines that are presently in the design stage have control systems beyond our imagination. Consequently, the young man seeking employment in industry today has a long road ahead of him. He must be adequately equipped with the necessary tools to survive the journey. He must have potential in three basic areas: attitude, skill, and knowledge.

He must have a realistic attitude toward learning. He will be working in an everchanging climate which requires that he not only acquire the skill of his present task, but that he keep abreast of new techniques as they develop. It has been said that a man starting in industry today may have to learn four different trades in his lifetime. It is essential that he understands this and accepts it as a way of life.19 This means among other things, the realization that he will be working different shifts, that he may be called upon to relocate at other plants or even be assigned to work in other countries.

Delays in arriving at important decisions in work make education and training more difficult to obtain; valuable years of productivity and personal developments are wasted, both to the individual and to the nation's economy. Authorities agree that adequate guidance and proper career planning could eliminate much of the frustration encountered by

youth in the transition from school to work. It could reduce job turnover and narrow the gap, averaging six years between high school graduation and continuing education.

It would be impractical to expect anyone coming into industry to have acquired all the techniques necessary to perform the various tasks of any trade. Additional training is, and should be, industry's responsibility. On the other hand, it is fair to expect that the employee has acquired on his own the basic background of knowledge. If he has the necessary knowledge and the aptitude, he can be trained. An understanding of basic principles in several fields is thus more essential than ever before.

The advance of technology was mentioned as having perhaps the greatest influence on our lives today. "Among the many facets that are in various ways determining our future, perhaps nothing will have a larger impact on the value structure of our culture, and the value of individuals than the increasing automation of industry."

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CHAPTER IV

FOCUS OF CHANGE

The Changing Nature of Occupation

The changing nature of the occupational world, the world of work, is in reality an interaction of many forces. Among the major aspects of the forces for change are: changing make-up of the labor force, changing employment demands in occupational areas, and changing requirements of worker competence. Educators must analyze carefully the changing occupational "mix" if curricula and counseling are to be responsive to actual conditions in the local service area.

From now to 1975, the labor force will grow even faster than the population as a whole mainly because of the large number of young people reaching working age. The labor force is expected to grow from 73 million in 1960 to 93 million in 1975—an increase of 20 million (or 27 per cent).\(^1\) At the same time, the population will grow about 25 per cent. The increase in the labor force is only the net increase over this period. The number of new workers entering the labor force will far exceed this figure. The difference between the total entering or re-entering and the net growth of the labor force represents persons absorbed into the labor force as replacements for those workers who, during the same period, will have died, retired, or left for other reasons, such as disability, or for marriage, or to take care of children.

\(^1\) Mason and Haines, op. cit., p. 10.
During the next 10 to 15 years, much larger numbers of young people than in the past will be in the work force, even though a higher proportion of youth will remain in school longer. Also, women workers are taking a more prominent role in the labor market. Young people under 25 will account for almost half of the net increase in the labor force between 1960 and 1970. Their proportion in the labor force will rise from less than 19 to more than 23 per cent. From 1970 to 1975, workers from 25 through 34 years of age will account for the greatest increase. However, over the 15-year period from 1960 to 1975, young people under 25 and adult women over 25 will, in the aggregate, account for two thirds of the net increase in the labor force.2

Significant changes have taken place and can be expected to continue to take place in the occupational structure of the U. S. labor force. One of the most important changes of the post-World War II period has been the much greater growth in the number of workers in white-collar and service occupations as compared with manual workers, and especially the very large increase in the number and proportion of professional and high level managerial workers.3 Employment of white-collar workers rose by more than one half (54%) between 1947 and 1964, rising from less than 20.2 million to more than 31.1 million. Employment of service workers also rose substantially, growing from 6.0 million to 9.3 million, an increase of 55%. At the same time, employment of blue-collar workers increased

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2 Mason and Haines, op. cit., pp. 10-11.

3 Ibid., p. 12.
much less rapidly, increasing about 8 per cent, from 23.6 million to 25.5 million. The number of farm workers actually declined, falling from 8.1 million in 1947 to 4.4 million in 1964, a drop of 45 per cent.4

Looking ahead, as shown in Table II, an increase of nearly two fifths for white-collar jobs over the next decade is indicated. Among white-collar occupations, the most rapid increase in requirements will be for professional and technical workers, which may grow twice as rapidly (54%) as the average for all workers. Requirements for clerical workers are also expected to increase rapidly, rising by nearly two fifths, and sales workers by nearly one third.5 The demand for managers and officials is expected to rise somewhat more slowly increasing less than one fourth between 1964 and 1975. Requirements for blue-collar workers are expected to rise by one sixth between 1964 and 1975.6 Among the blue-collar workers, the most rapid increase in requirements will be for craftsmen, a rise of somewhat more than one fourth, or about the average rate of increase for total employment as a whole. Requirements for operatives will increase more slowly, by about one seventh, and little change is expected in the demand for laborers. A more than one-fifth decline in requirements is anticipated for farmers and farm workers.

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5 Ibid., p. 88.
6 Ibid., p. 89.
# TABLE II

**MAJOR OCCUPATIONAL GROUPS OF WORKERS, ACTUAL 1964 EMPLOYMENT AND PROJECTED 1975 REQUIREMENTS**

*(NUMBERS IN THOUSANDS)*

<table>
<thead>
<tr>
<th>Occupational group</th>
<th>1964 Employment</th>
<th>Projected 1975 Employment</th>
<th>Per cent change 1964-75</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per cent</td>
<td>Number</td>
</tr>
<tr>
<td>Total, all occupational groups</td>
<td>70,357</td>
<td>100.0</td>
<td>88,700</td>
</tr>
<tr>
<td>White-collar workers</td>
<td>31,125</td>
<td>44.2</td>
<td>42,800</td>
</tr>
<tr>
<td>Professional and technical workers</td>
<td>8,550</td>
<td>12.2</td>
<td>13,200</td>
</tr>
<tr>
<td>Managers, officials and proprietors</td>
<td>7,452</td>
<td>10.6</td>
<td>9,200</td>
</tr>
<tr>
<td>Clerical workers</td>
<td>10,667</td>
<td>15.2</td>
<td>14,600</td>
</tr>
<tr>
<td>Sales workers</td>
<td>4,456</td>
<td>6.3</td>
<td>5,800</td>
</tr>
<tr>
<td>Blue-collar workers</td>
<td>25,534</td>
<td>36.3</td>
<td>29,900</td>
</tr>
<tr>
<td>Craftsmen and foremen</td>
<td>8,906</td>
<td>12.6</td>
<td>11,400</td>
</tr>
<tr>
<td>Operatives</td>
<td>12,924</td>
<td>18.4</td>
<td>14,600</td>
</tr>
<tr>
<td>Nonfarm laborers</td>
<td>3,624</td>
<td>5.2</td>
<td>3,700</td>
</tr>
<tr>
<td>Service workers</td>
<td>9,256</td>
<td>13.2</td>
<td>12,500</td>
</tr>
<tr>
<td>Farm workers</td>
<td>4,444</td>
<td>6.3</td>
<td>3,500</td>
</tr>
</tbody>
</table>

---

b/ Projections assume a 3 per cent level of unemployment in 1975. Per cents do not add to totals due to rounding.

b/ Less than 3 per cent.

As a result of these differential rates of growth, the occupational composition of the nation's employment will be different in 1975 than it was in 1964. The major changes will be in the proportions of professional and technical workers, service workers, and clerical workers, all of which are expected to rise significantly, and in the proportions of farm workers, operatives, and non-farm laborers, which will decline as a proportion of total employment. The remaining occupational groups will be roughly the same proportion in 1975 as they were in 1964.  

Although many factors other than technological changes have had and will continue to have a significant impact on the occupational structure of the labor force, technological change is nonetheless a major determinant of occupational employment shifts. However, technology is inextricably woven with the other factors influencing employment, and the impact of technology itself is often hard to distinguish.

One impact of technological change on industry occupational patterns can be seen most clearly in industries which are declining in employment. In these industries the greatest decreases in employment have usually taken place among laborers and others in the least skilled groups.

Institutions

"College grads are a dime a dozen. Quite a bargain for an item it costs $10,000.00 to produce."  


8 Bowen and Mangum, op. cit., pp. 85-86.

For twenty years tides of change swept the schools. Partly it was sheer numbers. First ex-GI's packed the colleges, going to school on the GI Bill and living with their wives and babies in old barracks and quonset huts.

Then their babies grew and trooped to school by thousands. There were 20,000,000 children in elementary schools in 1947 and there are 36,000,000 today. For a time, building enough classrooms for them seemed nearly impossible. Building them fast enough proved utterly impossible. Youngsters went to makeshift, overcrowded schools for half-day sessions. In these 20 years, we spent over 50 billion dollars to build schools.

It was a nationwide problem and help came on a national scale. Decade-old barriers were finally surmounted, and the federal aid money poured forth. Simultaneously legal props were knocked away from school segregation, lighting new hope for groups long under-privileged.

Inside the classroom was ferment, new ways of teaching nearly everything. Youngsters in the grades were sent to learning foreign languages. Tapes and cameras and TV and teaching machines moved in to help the teacher. Old-time arithmetic was so changed by new math that even youthful parents had trouble helping with homework. A bauble the size of a basketball was lofted to the sky in 1957, and suddenly PTA meetings erupted with demands for more emphasis on math and science. The bauble's name: Sputnik.

10 Ibid., p. 13.
But the biggest educational change of all was everybody's heightened need for knowledge. The high school dropout is today's lost man; tomorrow's will be the college dropout. Advanced degrees are expected for many beginning jobs right now.\[12\]

This upgraded need for knowledge worked two further changes. It set more young people than ever aiming toward college and it made college admission a prime goal of secondary education. Now one judges a high school not by how well its graduates manage life but by which colleges they enter.

Meanwhile, the big, wealthy college, public and private, placed more emphasis on their graduate schools. Those that had none are adding them. And an increasing share of undergraduate schooling is taking place in a new setting, the two-year community college. In a few years, most college students may be at those close to home schools.\[13\]

Change as an Aspect of Our Culture

The rate of change is accelerating to such an extent that it is almost bewildering. Wolfe has estimated (probably on the conservative side) that available scientific and technical knowledge doubles about every fifteen years. Thus, the tempo by which the increments in knowledge accru is rapidly accelerating.


In a forecast made in 1959 of potential scientific and technological developments expected during the 1960's and 1970's, Bello envisaged a world that might have been derived from science fiction.\(^{15}\) He predicted that by the mid-sixties radio-telescopes would probe the "edge" of the observable universe, that manned satellites would be launched and returned safely, that nuclear explosives would be used experimentally for non-military purposes. These developments have already occurred. One of his predictions for the late sixties was the use of satellites for communication purposes. Such satellites have been in orbit since July, 1962. Wrenn has projected a number of "long range" technological developments,\(^{16}\) many of which have now long been realized. But such is the fate of one who dares to predict developments in the changing world of today. What may appear to be an expert's fantasy of today becomes tomorrow's reality.

These scientific and technological developments promise many wonderful products for the consumer, but they do not offer a stable basis for developing life plans. In the face of anticipated changes, it is difficult to imagine any basis on which youth can make long-range occupational plans with any degree of certainty that they will be able to carry them through to completion.

Although the specific nature of the society of the 1980's and beyond cannot be forecast with any degree of accuracy, there are some general indications of changes that might take place during the next two decades.


\(^{16}\) Wrenn, *ibid.*, Chapter 2.
The counselor therefore may use the projections described in the following paragraphs with a reasonable degree of assurance that they will provide the student with a number of anchor points for considering his world of the 1970's and 1980's.

The population increase throughout the world will constitute one of our major concerns. It has been estimated that the present population will grow to 211.4 million by 1970—an increase of some thirty million over the 1960 population. 17

The growth of the population in the United States will vary among the various age groups. The number of youth will increase markedly during the next few decades. In 1958 the number of children under eighteen years of age was estimated to be sixty-one million, which represented an increase of about fifteen million over the number in 1950. This rate of increase is about twice that of the total population. 18 According to the Wrenn report, in 1980 the number in the age group of fourteen to seventeen will be double what it was in 1950. 19

Cultural ambiguity probably will increase as the size of the population increases. Established living patterns will either have to be changed or modified in order to accommodate the inevitable population changes. Undoubtedly the trend toward large cities will continue. As the size of the


19 Wrenn, op. cit., p. 17.
cities increases, providing transportation and housing facilities will pose major social problems. The slums will still exist. Courtship and marriage patterns will probably be altered. The average age at which young people marry is decreasing; this change, of course, has implications for educational planning. Wrenn indicates that in 1960 the average age of marriage for men was 22.6 and for women, 20.4.\(^2\) The sight of the baby buggy on the campus, a rarity before 1946, is now commonplace, as father watches the baby while mother attends class, or vice versa.

The social institution most seriously affected by the mushrooming population will be the school. By 1958, enrollments in the elementary schools were estimated at some thirty-one million students, an increase of nine million over 1950 enrollments. Enrollments in the high schools had shown an increase of 2.2 million during the same period, or a total of 10.6 million. Projected enrollments to 1970 indicate that there will then be some thirty-seven to forty million elementary students and more than fourteen million high school students in the United States.\(^2\)

Even as this paper is being written, providing necessary buildings and staffs for schools is a major national problem. In September, 1964, there was an expected shortage of 118,000 teachers for a total of more than 1.5 million elementary and secondary positions.\(^2\) It is likely that economy measures will be required in order to meet the necessary expenses.

\(^{20}\) Ibid., p. 29.

\(^{21}\) Bernert, op. cit., p. 31.

of expanding school facilities. Thus the so-called "supplemental" serv-
ices, including guidance services, may be in for serious scrutiny by
those who control the budget. The nature of the schools themselves may
be modified rather drastically as a new technology of human learning is
developed as new procedures are devised to meet the pressure of increased
enrollment.

As the population boom continues throughout the world, dire pre-
dictions are being made about the drain on available food supplies and
natural resources. At the present rate of consumption known reserves of
certain minerals could be exhausted in a few years. Stephenson and
Meir's hopes for meeting future needs, however, through advances in
technology. Meir, for example, maintains that there is a basic fallacy
in the pessimistic outlook regarding the sufficiency of resources for the
future: the assumption that there is a fixed base for available resources.
According to Meir, available resources will change as the need arises.
For example, through chemistry, what were once waste products have now
been turned into plastics, thus creating new resources. Already scientists
have turned to the sea for food, minerals, and water, and to the sun for
solar energy. Who knows what space exploration will uncover. Along with
the discovery of these new resources, new jobs and new industries will
develop.

23 E. P. Stephenson, "Past Gains and Future Promise," H. Jarrett
and Resources (Baltimore: The Johns Hopkins Press, 1959). p. 34.
Whether science can cope with the problem of increasing population is a question only the future can answer. Whether there will be food, clothing, shelter, and jobs for all, or whether the "have nots" will become even poorer than they are now, there will be accompanying changes in our way of life—changes that will challenge the skill of the counselor and make even more difficult the adolescent's task of knowing just who he is.

Race Relations. Once upon a time there were two kinds of children—black and white. But now we know that a child is just a child with a mind wanting to be taught, a human being needing and waiting for the tools with which to process his development. This change was not brought about in a day or a week or a decade. In this country alone, it has taken more than one hundred years to look beyond and beneath the color of a child's skin.

The history of minority groups everywhere it seems has been marked by bitterness and prejudice, where it has not been tragic. "Man's inhumanity to man" is nowhere more in evidence than in the treatment of those who may for one reason or another differ from the majority. But this is a problem which must be faced by those seeking to help all individuals. There is, in fact, no escape from what is taking place in American society. The issue of civil liberties has become part of our everyday reading, and few can, or will, foretell the outcome in this heated and complex area of human relations.

The writer is hopeful and very optimistic.

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Whatever else is involved, people are "the basic national resources" of our society, as has been emphasized by many writers.\(^{27}\) As Ambassador Galbraith writes:

> Maybe there are other ways of augmenting the flow of resources into personal development. Since the society is changing, we dare not assume that we have the last thoughts in the subject. For man has not retreated before the machine; rather the machine has become desperately dependent on the improvement of man.\(^{28}\)

It follows then, if we are to use these prime resources, a whole new approach to the problem of minority groups will have to be found.

In early social groups, "enemy" and "stranger" were synonymous terms and xenophobia (fear of strangers) still lingers on as a grim reminder of those perhaps less civilized times. Primitive man hiding in his cave may have had good cause for such behavior since for him, every stranger was indeed an enemy. With the technological society has come, however, the need for living and getting along with others. Modern modes of transportation and communication have, despite personal feelings in this matter, made us all neighbors at least in time and distance.

The nature of prejudice is being studied on numerous different fronts, but it is no secret that prejudice still exists. Everyone has certain prejudices. Why people dislike others is not always quite clear, but that they do is common knowledge.\(^{29}\) The problems ahead of us will require the efforts and cooperation of every citizen; but it is difficult to

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\(^{27}\) Mortensen, op. cit., p. 86.

\(^{28}\) Ibid., p. 87.

see how this is possible under conditions of distrust and prejudice. For guidance personnel the issue is of paramount importance since they are involved in a function which is dedicated to helping every individual make his maximum contribution. There is need to explore the nature of prejudice and, if possible, turn its anergies into constructive channels. Byrne in describing the counselor's duties, sums up the case for every guidance worker:

The counselor's goal, firmly based on the human worth of the individual, regardless of education, intelligence, color, or background is to use his technical skills: (a) to help each counselee attain and maintain an awareness of self so that he can be responsible for himself, (b) to help each counselee confront threats to his being, and thus to open further the way for the counselee to increase his concern for others wellbeing, and (c) to help each counselee bring into full operation his unique potential in compatibility with his own life style and within the ethical limits of society.

The Changing Family. Social changes hurt worst at the family level. Parents are affected more by the changing nature of the home than are the children who know nothing else. The parent, though, is constantly trying to put new wine into old casks, to see the home in 1960 as similar to the one in which he or she was reared in 1930. The controls and aids that were used with the parent may not fit the home conditions under which their children live and they blame both themselves and the "times" when they find this out. The slow-paced home life, with focused authority and both parents in the home for several hours per day, fita the conditions of urban, split-

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30 Ibid., p. 90.
32 Saul S. Beck, op. cit.
level living less well than it does the small-town or rural setting, particularly that of a generation ago.

It is more important than ever before that the counselor become a student of family life. If the home is so important an influence in the life of the child, and within the foreseeable future it will certainly continue to be the most important, and if the home is changing, then the counselor must keep up with the changes in order to understand and help the student. How can the counselor help Bart in vocational planning, for example, unless he knows that Bart's home is a very closely knit one in which every decision is discussed by all members of the family? With Mary the parents are "emancipated" and carefully follow the hands-off policy which avoids exerting any influence on a child's decision, a policy interpreted by Mary as "they don't care." Peter, on the other hand, is in the middle of a power struggle between father and mother and must attempt to satisfy both. Ken comes from a home where the father leaves all home and family decisions to the mother, but the mother wants the father to accept responsibility for some. As a consequence, both avoid doing anything about "school decisions." How indeed can the counselor communicate effectively with a student unless the counselor's perception of the home from which the student comes is reasonably close to the reality? He may not know this student's home, at least not at first, but he must know the various patterns of modern family life and the social influences that create these patterns.

It seems apparent that the careful student of the family will distinguish between long-term and short-term changes in marriage and family phenomena. Long-term trends—smaller households, changing authority patterns,
changing role of husband and wife—are undoubtedly related to industrialization and urbanization trends. Perhaps also these are expressions, in the social language of this period, of equalitarian and achievement values. Short-term changes are those in response to economic levels and conditions of war and peace, best typified by marriage rates and birth rates. 33

It seems likely that the long-term trends will not be modified easily no matter how much agitation is developed. They are a reality to be lived with like death and taxes. No one is going to bring back the economically integrated, self-sufficient, authority-centered rural home both because only 12 percent of American families now live on farms and because rural families also change. Living in metropolitan areas will increase as will the proportion of married women who work outside the home. Family mobility has increased, with about one fifth of American families reported as moving from one community to another within a single year. Many of these trends may well be a cause of concern but they are tied to long-range social changes which are likely to persist or intensify. 34

33 Byrne, op. cit., p. 21.
34 Wrenn, op. cit., pp. 28-29.
CHAPTER V

IMPLICATIONS FOR COUNSELING
(THEORY OF RATIONALE)

First, and most basic is the helping relationship to students, parents, and teachers. The writer is convinced that the counselor must be seen more and more as a helper to teachers, not taking the teacher’s problem students off his hands, necessarily, but in being a thoughtful and sensitive person in terms of student behavior as the teacher meets these problems. Maybe this includes being the helpful person to the teacher personally. Certainly this must be true of the counselor’s relationship to parents.

One cannot talk with parents about their children without seeing pretty clearly the needs and problems of the parents. And maybe all one does in helping a parent with the child is to help the parent with himself. Just listening with some degree of acceptance may change the parent’s attitude toward his child and the school more effectively than anything one might do directly. A counselor can be the first person the parent ever had contact with at the school who simply listens to the parent talk about himself. The counselor does not have to have answers. Maybe the student’s problems never come into the picture. The writer is convinced that this is one valuable way of working with parents.

Secondly, the counselor is the coordinator and developer of certain things in the school program which together could be thought of as a guidance program. The writer is thinking particularly about the way in which information about students is collected, interpreted, and utilized by everybody
on the staff. Probably this is a counselor function. Somebody has to know the community resources and provide some liaison between the school and the community; maybe that is the job of the counselor. If this coordination can be done by the teachers, the principal, or someone else, fine; don't take it on. And don't take on too many of these general functions. This is what counselors have done in the past.

The third responsibility of the counselor is to serve as a member of the educational team of the school, a team composed of the principal, teachers, supervisors, and other personnel workers such as school psychologists. The counselor is a member of this team, and he cannot stand off and be superior. The problem is how to find a way in which his particular talents and abilities can be best utilized. These abilities die on the vine if he is asked to do a lot of busy work and become an administrative assistant to the principal or a trouble shooter for the teacher. If this occurs then his team membership is being prostituted, even though he is a member of the team and must do some things that everybody does, such as serving on committees.

The image of the counselor presented thus far is that of a person who is increasingly aware of his specialized responsibilities. He is a person with a mission, the boundaries of which are encompassable. He is an educator and he is a psychologist but neither term describes his work with adequate preciseness. He is a specialist in student behavior, its present manifestations and its potentials for growth. He sees the student as a dynamic changing personality, constantly affected by various

environments, each of which in turn is dynamic and moving in certain directions. He is a specialist in human relations and in the psychology and sociology that makes people behave the way they do.

The image here presented is that of a changing counselor, too. The look is to the future; each counselor will move from where he is now in the direction of these stated goals if the needs of our changing children and youth are to be met. He may never arrive there—he may find it quite enough to keep moving. No one expects any more. No counselor need be a superman but he must be a person who is able to live with the awareness that he can never quite live up to his job. All who want a placid self-contained life should apply elsewhere.²

² Wrenn, op. cit., p. 134.
CHAPTER VI

RECOMMENDATIONS, SUMMARY AND CONCLUSIONS

1. Perhaps the most serious deficiency in our educational system has been the inadequate opportunities available to those in greatest need, namely, children of families and communities where there is cultural deprivation, segregation or isolation. At least 100,000 additional classrooms and 133,000 teachers would be necessary by 1970 to provide compensatory full-year education from ages three to five for all who are in need of it.¹

2. The quantity and quality of primary and secondary education, especially in low-income urban areas and rural backwaters, should be improved.

3. High school graduation should become universal. It is generally accepted that those with less than a sound high school education are unprepared for both employment and life. To accomplish this, both the problems of motivation and inadequate family income must both be faced realistically.

4. For most secondary school pupils vocational training should be deferred until after high school. General education is especially necessary in a rapidly changing economy in which versatility and flexibility are at a premium. The training for many—perhaps most—specific jobs can and must be done on the job as a responsibility of the employer. However, properly designed vocational education can help implant the self-renewal indispensable for continuing adaptability in a changing world.

¹ Conant, op. cit., Chapter 11.
5. A nationwide system of free public education through two years beyond high school (grade fourteen) should be established.

6. All qualified students should have realistic access to university education. No qualified student should be deprived of education at any level because of his family's lack of financial resources.

7. Education, training, and retraining should be available to individuals throughout their lives. The ability to manage change, whether to keep up with new developments in a profession or to retool for a new job, requires that further education be available when needed. Public education should provide a comprehensive program of educational opportunity for persons of all ages and of varying educational attainments. A system of education that is open-minded, with freedom for mature students to enter, leave when alternative experiences seem more fruitful, and then re-enter, can be a reality through the coordinated efforts of public schools, community colleges, vocational schools, universities, and employers.

8. Of special importance is the need to provide more extensive educational opportunities for adults whose basic education is deficient. It must be recognized that every effort to improve the education of children now in school will increase the disadvantages of adults with substandard education. Recent developments in educational technology appear to have special applicability to the needs of the adult learner.

9. Workers should be given incentives to undertake full-time educational programs during periods of layoff and during negotiated sabbatical leaves.
10. The task of expanding educational opportunity must also focus on those who appear unable to respond effectively to existing systems and methods. New educational technologies are under development that show promise of helping those who have been regarded as slow learners or as poorly motivated.

11. In retrospect, one of the highest return investments we as a nation have made was the GI bill following the Second World War and the Korean War. Not only did we aid veterans to make up lost years, but we brought about a veritable social revolution. Men and women whose backgrounds precluded the possibility of higher education and advanced training were lifted into totally unexpected positions in life. And in simple monetary terms, the investment has already been returned in taxes on their higher incomes. The lesson should not be forgotten or neglected.²

Our world has faced change since the beginning of time, but we have a different problem than our predecessors. The difference is in the rate of change. A generation ago one could more nearly teach definite answers to specific questions in most subjects, and this type of education was entirely satisfactory for students who were graduating into a world that was fairly stable and certain—a world where the knowledge they learned in school would last a lifetime. Look at the contrast today. The time has passed when it makes sense to concentrate our efforts on teaching specific answers to specific questions.

² Bowen and Mangum, op. cit., pp. 65-66.
Our students of today will in a few years be called upon to answer many questions to which we do not know the answers today. More important, they will be solving problems for which we do not even know how to pose the questions.

Sixty per cent of today's male students will eventually end up in jobs which do not even exist today. With such a rapidly changing world ahead of us, the question to which we must seek an answer is:

How do we educate our students to live and work in a world which will be so very different from what we know today? We literally are in the midst of a tremendous knowledge explosion. By 1800 the sum of human knowledge was doubling every 50 years. By 1950 the sum of knowledge was doubling every 10 years, and by 1970 it will be doubling every five years. This ever expanding knowledge explosion not only presents difficult questions of what we teach and how we teach it, but also poses complex questions of how to find and use the knowledge which is available to us. 3

Fortunately there seems to be a way to master these huge quantities of information—that way is the computer. A typical computer can memorize a billion or more bits of information in a matter of seconds. These computers can talk to each other over distances of thousands of miles, and they are so efficient and so fast that the entire novel "Gone With the Wind" could be transmitted in about three minutes.

In the field of education, the computer should have great potential. But it is, after all, a machine and it can do only what some human brain tells it to do. The computer does not know anything. It can store and recollect, identify and judge when it is told how. But it has to be told by man. The computer is incredibly fast, accurate and stupid. By comparison, man is slow, sloppy and brilliant.

In the interaction of the two, there will certainly be written a major part of the story of our future progress. What should we be doing about it? How do educators keep pace? There is no single, simple answer. Perhaps the answers will be found through research, and here the word is used in its broadest sense—to include all kinds of experimentation and special studies of new ideas.

Some research is needed in such areas as:

1. How the public schools can best approach the elimination of the unskilled worker.

For the student who is not headed for college, perhaps we need some drastic changes in our thinking about the kind of education which will best prepare him for life in this world of accelerating change.

2. How long should the school year be?

Our present concept of nine months of school and three months of vacation originated with our farmer ancestors who needed to have their children available to help them on the farm during the summer. Is the idea still practical even though times have changed?

3. How do we best teach our young people to continue to be good, independent learners so that they can keep pace with the changing world?
A recurring observation of this report has been the vagueness of the educational response to the challenge of the new technology. Donald Michael has stated the issue well:

The problem involves looking ahead five, ten, twenty years to see what era likely to be the occupational and social needs and attitudes of these future periods; planning the intellectual and social education of each age group in the numbers needed, motivating young people to seek . . . certain types of jobs and to adopt the desirable and necessary attitudes; providing enough suitable teachers; being able to alter all of these as the actualities in society and technology indicate. . . .

If we do not find the answers to these questions soon, we will have a population in the next ten to twenty years more and more out of touch with . . . realities, ever more the victims of insecurity on the one hand and ennui on the other, and more and more mismatched to the occupational needs of the day. If we fail to find the answers, we can bumble along, very probably heading into disaster . . . .

Because vocational and technical education are a service so vital to the nation, there now exists something of a national consensus that new efforts be made, that decisions and commitments be reached. The Vocational Education Act of 1963 evidences an administration and congressional determination to come to grips with this nation's problems of youth and work. By its nature, that act was formulated as a bank account for, as a mandate to, American education to provide new and meaningful vocational preparation for this nation's youth. Educational decisions will have to be made, decisions that will affect the future direction of the entire educational system, just as earlier vocational education decisions did in 1962 and 1917. The questions are, therefore, by whom and on what basis.

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4 Donald Michael, The Silent Conquest (Santa Barbara, Calif.: Center for the Study of Democratic Institutions, 1962), pp. 41-42.

Technological change will continue, as a master of all or as a servant for all. The overriding necessity of our time is to prepare youth and adults to use technological advancement for the benefit of every individual and the strengthening of the total society.

Education, although not the sole means, is the best means by which the individual and society can adjust to technological change. The real task is to make education the driving force in the equipping of all youth and adults to meet the technological explosion already so far advanced.

The new technology has removed the margin for educational error. Historically, the number and kind of jobs available to the uneducated and undereducated permitted schools and colleges a "margin for error" in planning educational programs and providing educational opportunities. Today, however, the inability of a technological society to make full use of uneducated individuals narrows the margin to the point where the repercussions of each educational failure can be felt throughout the entire society.

Technological change has immediate impact which is nationwide in scope. The absence of a national educational policy has tended to obscure this factor, which affects the course of both general and occupational education. The uneducated becomes the unemployed no matter where he resides.

Occupational education must become a responsibility of society. The cost of failure to provide occupational education is incalculable, whether viewed in terms of national security, economic growth, or political and social stability. A proper investment in occupational education is at least a generation overdue.

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6 Venn, op. cit., p. 155.
Occupational education must become an integral part of total education. The importance of general education to the individual and his success in occupational preparation, as well as to the preservation of national values, cannot be overestimated; however, it is not enough for the great majority of youth and adults who work in today's society. To provide general education without occupational education is to ignore the facts of modern technological life; to attempt one without the other is to be totally unrealistic.

Occupational education is the responsibility of every segment of the educational system. Each segment of education must provide the kind of occupational education most appropriate to students enrolled in that level of the educational system. No single segment of education can provide the diversity of occupational education needed to meet the wide range of occupations or abilities and aspirations among youth and adults of the nation.

Higher education has a responsibility to raise the educational level of all American youth. It is no longer sufficient that junior colleges, colleges, and universities educate the relatively few. Rather, post secondary education must become a catalyst for the over-all improvement of a free society. The evidence was never clearer that the greatest waste of human talent results not only from a failure to educate the gifted but from neglect of those who make up the great "average" in America.

Sound occupational choice is made in direct proportion to information, guidance, and opportunity available to the individual. The right to choose an occupation does not assure anyone of a good choice unless there is a basis for judgment. Failure to provide adequate occupational guidance to youth
and adults represents still another tragic waste of manpower. For too
long, choice of occupation and therefore choice of occupational preparation
has been left primarily to chance.

The image here presented is that of a changing counselor, too. The
look is to the future; this means provisions for keeping such information
current and up to date and provision for its interpretation to both students
and staff. This may be done by the counselor's use of the group process,
through regular classes as parts of the curriculum, and through automated
provisions for the materials to be kept current and in condition for use by
students and counselors. He should be expected to provide leadership in ideas
that grow out of his knowledge of student life and human relations in general,
and knowledge of vocational and social conditions.
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**NEWSPAPER**

CHALLENGE OF CHANGE FOR THE HIGH SCHOOL COUNSELOR
(A TYPOLOGY OF CHANGE PROCESS)

by

OVETTA W. STEELE
B. S., Alabama State College, 1962

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

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The present age is like no other, but is one in which the revolution in science and technology has transformed the entire pattern of daily life. Since change is the order of the day, no one can predict with security what the next century will produce or what life will be like then. One can only try to distinguish some important current trends, to project them, and to see what the results are most likely to be.

The burden of uncertainties and the drastic scope of alternative possibilities which have become apparent in our time have made commonplace the edage that "human history is more and more a race between education and catastrophe."

Social change is not only rapid, but uncertain and complicated. One cannot predict precisely how it will effect our values and our way of life. The release of atomic energy is both heartening for human welfare and frightening.

The increasing recognition that women have much to contribute in all occupations and professions is a move in the right direction. But it will change the concept and make-up of the family in ways that cannot be foreseen. Such changes pose problems but they are problems which seemingly can be met if we are prepared to face up to the full implications of these problems.

The growth of the world's population has grave implications for American youth and their education. An understanding of population phenomena and their educational implications is essential to the task of providing education for a growing and mobile population.
Migration has been part of America's history, and easy mobility is characteristic of its people.

The automation revolution is changing the occupational structure fully as drastically as did the industrial revolution, the difference being in the increases of the brain power required.

The changing nature of the occupational world, the world of work, is seemingly an interaction of many forces. Among the major aspects of the forces for change are changing make-up of the labor force. The occupations that require the most education and training have grown the fastest, while employment has dropped in unskilled jobs. Among blue-collar workers, those in skilled jobs had almost all of the increase in employment in the past decade. The number of farm laborers declined, and there was no real increase in operative and other semi-skilled jobs.

Social change hurts worse at the family level. It is more important than ever before that the counselor becomes a student of family life. If the home is changing, then the counselor must keep up with the changes in order to understand and help the student.

The counselor of tomorrow will no longer be a teacher appointed to the job because she relates well with students or because she merits some reward for years spent in the classroom. Rather, she will be a highly trained professional who is capable of helping students in any and all areas of their lives.

The answers to complex educational problems always have been difficult, but even more so now and for the future. Even as talk
concerning decisions on certain issues being made, the guidelines themselves are changing. Therefore, we have less and less direction and knowledge from past experience than we have ever had before.

This report, above all, looks to the future. It emphasizes the crucial fact that there is only one way to continue to serve youth in the years ahead. One must understand the new forces of change that are influencing young people, as well as others. One must learn to apply new insights into the nature of the individual.

An attempt has been made to write clearly and simply about the changes of today, about the needs of young people for counseling help in a rapidly changing world, indeed a Challenge of Change for the High School Counselor.