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ABSTRACT

Institutions of higher education are today faced with a challenge that is more prevalent today than it has ever been before. They must prepare their graduates for the jobs and careers that will be in need of manpower in the future rather than for those jobs that are empty at present. This requires careful planning and accurate prediction on the part of administrators. This document comprises papers presented at a conference of the ACT on the new career thrust in higher education. The papers are: "The New Learning Environment of the Emerging Society" by Ernest L. Boyer; "Emerging Students: Career Education and Career Goals" by Johnnie Ruth Clarke; "The Challenge of Career Education to the Two-Year College" by Joseph P. Cosand; "The Role of Private Career Schools" by W. A. Goddard; "Career Guidance for Every High School Student" by Norman C. Gysbers; "Emerging Students and Academic Reform" by Clark Kerr; "The Role of Military Education and Training" by D. C. Leatherman; "Where Do Students Go After High School?" by Garland G. Parker; and "Occupational Needs in the Society of the Seventies" by E. Grant Venn. (HS)

Emerging Students... and the New Career Thrust in Higher Education

EMERGING STUDENTS . . . AND THE NEW CAREER THRUST IN HIGHER EDUCATION

Proceedings of the
1971 ACT Invitational Conference
May 3-4, 1971
Iowa City, Iowa

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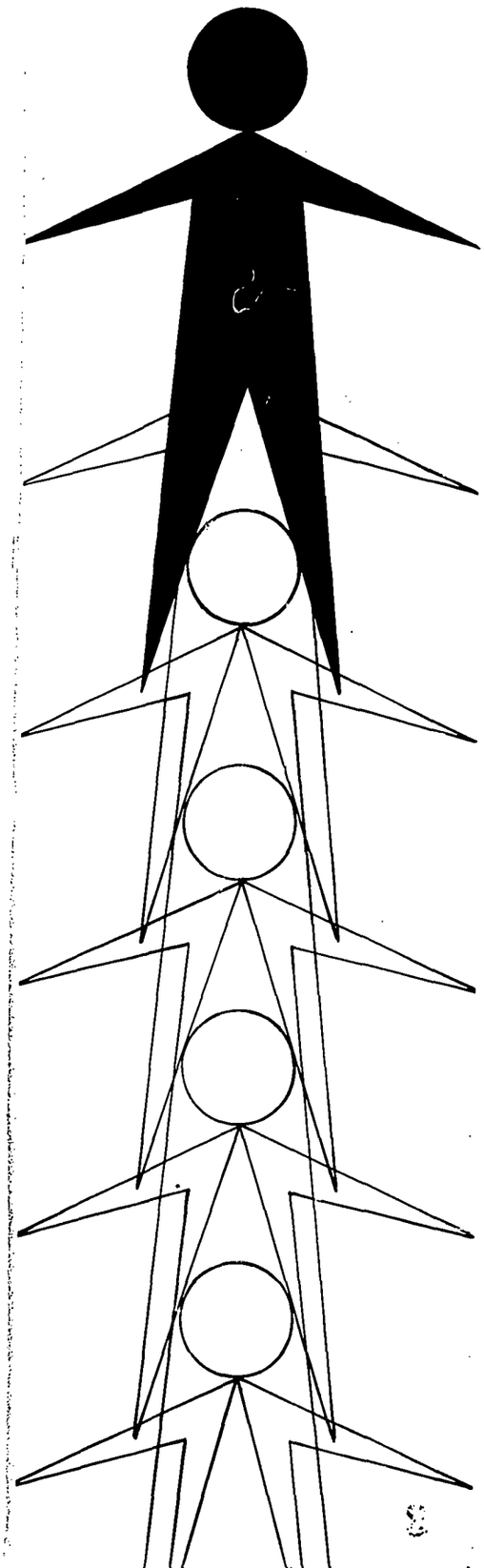

ACT SPECIAL REPORT FIVE

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TABLE OF CONTENTS

FOREWORD

Four-year and two-year colleges and universities, private career institutions, military education—how will they respond to student needs of the seventies? Especially critical are needs of the "new" emerging students who want an opportunity to explore career fields considered an almost impossible dream in the past.

These and other equally probing questions pertaining to the "relevance" of higher education in our emerging society are handled candidly and realistically in the nine chapters that make up this book. The contributors, covering the spectrum of postsecondary education, spoke at the ACT Invitational Conference May 3-4, 1971, in Iowa City. The speakers' papers are presented here under the theme of the conference, "Emerging Students . . . and the New Career Thrust in Higher Education."

They provide a fresh look at what's being done and what some of the contributors feel *must* be done to meet student and societal challenges. Broad insights and future probabilities from Clark Kerr and Ernest Boyer. Career education discussions by Johnnie Ruth Clarke, Joseph Cosand, and Norman Gysbers. Statistics and key trends from Garland Parker and Grant Venn. Important perspectives on private career institutions and military educational opportunities, by W. A. Goddard and C. D. Leatherman, respectively. These lie ahead for the reader.

The American College Testing Program is pleased to make these papers available. With increasingly critical problems facing American society today, we hope that both general and professional readers will find encouragement for their efforts, as well as ideas for future improvements.

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Chapter 1

THE NEW LEARNING ENVIRONMENT OF THE EMERGING SOCIETY

Ernest L. Boyer

About a dozen years ago when I was a young dean focusing on such "high level" responsibilities as setting up academic calendars and preparing college catalogs, I was fortunate enough to have spent 1 full week at a seminar on learning directed by Ralph Tyler. I think it was there that I first caught a vision of what education is all about. When the seminar was over, it was clear to me that such things as catalogs, classroom hours, course credits, years of study, and the like were only the outward trappings of our profession, and that *education* had something to do with people, process, development, measurement, and goals. That sounds like a trite statement to most of you; it has been said before so many times and in so many places. But I am sure I hardly need remind you that a great many people in higher education today still have an extremely limited concept of their responsibilities. They seem far more concerned about programs than about students to be served.

Many people in higher education today still have an extremely limited concept of their responsibilities.

In 1869, during his first year as President of Harvard, Charles W. Eliot made the following rather remarkable and insightful observation: "The university," he

said, "must accommodate itself promptly to significant changes in the character of the people for whom it exists." Eliot saw a new kind of secular-industrial America emerging out of our religious and agrarian past, and he called for the reconstruction of higher learning to match the new directions he envisioned.

NEW SOCIETY, NEW STUDENT

One hundred years later we are involved in a transition fully as dramatic and penetrating as the one Eliot referred to in that earlier day. I am convinced that a new society is emerging, and along with it a new kind of student and a new learning environment. They will either enlighten our institutions or render them obsolete. We are now in some sort of mid-passage which, like all sharp transitions or social shifts, has its moments of tumult and discovery, its periods of folly and irrationality, its times of exhilaration and reawakening.

It is in this context and with this conviction that I should like to comment briefly on the developments that I see ahead, focusing particularly on two specific areas: the nature of youth and the changes in the social context in which we must carry on our educational work.

Changing Nature of Youth

Clearly, one of the most dramatic developments during the past half century has been the emergence of a remarkably different kind of young person in this nation. Over the years, we have slowly but significantly altered the lives of our children—by discovering vitamins, by developing vaccines and penicillin, by making television available from early morning to late at night, and by increasing the length, the coverage, and the excellence of our schools.

Consider *physical* appearance alone. Does anyone here recall seeing in his or her youth a basketball player 7 feet tall? When I was in college, players over 6 feet 8 inches were rare indeed. Now their appearance on dozens of teams is commonplace. And what is more, many of them are marvelously coordinated! The evidence is clear: The average young American today is taller, healthier, and heavier than at any time in history. Young people are, on the average, about 3 inches taller and 10 pounds heavier than their counterparts were just 50 years ago.

As for *health,* modern medicine has succeeded in conquering most childhood diseases. And medicine has also done much the same for adults. Our average life span is no longer 45 or 50 years; normally, we now can expect to live to the age of 65 or 70, or beyond. And this, too, has its social consequences for our young people. Years ago, many children became orphans at an early age, and thus never had to confront the problems of an elderly parent. Today, senior citizen care has

become a major social question. Many young people, no longer threatened by the prospect of becoming orphans, now find themselves faced with the necessity of dealing sensitively and humanely and continuingly with the elderly.

Moreover, young people are maturing *physiologically* 4 months earlier each decade. The average American girl in 1920 began to menstruate at age 14. Now this occurs when she is about 12½ years of age. And boys reach puberty at age 13½ instead of at 15 as was the case not too many years ago. Most teen-age Americans are nearly 2 years ahead in their physical development of what our senior citizens were when they were young.

The change in *intellectual* development is even more striking. Fifty years ago, over four-fifths of all 16-year-old persons were working. Not many graduated from high school, and less than 1 in 10 went to college. Today, of course, the situation is vastly different. It seems clear that what we face is not so much the so-called "generation gap" but, rather, an "information closure." To say it another way, the dilemma of today is that our young people become too smart too soon.

The dilemma of today is that our young people become too smart too soon.

As I reflect on my own childhood, it seems to me that my experiences went through a kind of screening process—an adult filter, so to speak. I was surrounded by adults, I saw few newspapers, I rarely read magazines, there was no television. I was 11 years old before a radio came into our home. My world was the world adults chose to filter down to me. It was not until 10 or perhaps even 15 years later that I began to realize that a perception gap existed between the world that I encountered and the one in which I had been sheltered for so long. By that time, however, I was far away from home, and the authority of my parents was now not so immediate nor so threatening. We got together only occasionally, and the need for confrontation had disappeared.

But what a contrast we see today. It is not a matter now of being 28 or 30 years of age before one discovers the differences between the filtered world of the child and the real world of the adult. This knowledge comes at an early age through television and other media while children are still at home. Wars, disasters, and violence are not remote events of which they are only vaguely aware. All of these catastrophes are vividly described daily on news programs which they watch as regularly as their mothers and their fathers do. And young people feel they are as well-informed and as capable of making judgments as are their parents.

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The "information closure" has brought about an intensity in the relationship between the parent and child that has never occurred before in human history. The child is more confident in his perception because he is much more broadly informed. Increasingly, the young and the old are relating as peers. And, I might add, the same kind of relationship exists between the teacher and the student. The teacher is no longer the all-knowing mentor. Children bring to the classroom insights and judgments that, in some instances, are far more advanced than those of their teachers. The result often is lethargy and disinterest on the part of students, or even scorn and open hostility.

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Technically stated, the average student today scores approximately 1 standard deviation above his counterpart of a generation ago on standardized tests of intellectual achievement. This simply means that a young person of today is more than one grade ahead of where his parents were at the same age. He should be: he has had more and better schooling than at any time in history. What we now have in this nation is a generation of young persons whose intellectual activity—if not their wisdom and understanding—is vastly superior to that of any previous generation.

Another area of change—and this is one very close to my own concern—has to do with *moral* judgment. Not too long ago most students entering college believed that there was a clear and absolute distinction between what is right and what is wrong. Skepticism developed late in life if at all. Cynicism was usually the result of brutal encounters and tragedies of middle-aged life. Today, with what little concrete evidence we have (plus a good deal of unscientific observation), it appears that the moral thinking of many young people is undergoing a radical change. A new precociousness is being evidenced here as in other aspects of youth's nature. We may now encounter unbelief and cynicism as well as idealism and statesmanship in youngsters who are still in the process of puberty. This is the era of the "put-on," the "power game," "staying loose." It is also the age of *commitment* and profound social concern. A startling and sometimes unsettling moral sophistication—mixed, understandably, with a confusion of values—is becoming one of the outstanding characteristics of the young.

Finally, we are witnessing a fundamental *psychological* change in the nature of our young people. You may have read the section of the report of the President's Commission on Student Unrest that describes the shifting attitudes and the changing behavioral patterns of our children. Whatever may be the limitations of that report, in my opinion, the section on the psychology of the

young was written with great perception, and I commend it to you. I strongly suspect, then, that the growing numbers of television-oriented young people, while similar in many ways to the young of all generations, are at the same time more *unlike* their predecessors than was any other generation in history.

New Kind of Learning Environment

In addition to this new breed of youth, a new kind of learning environment clearly is also emerging—and indeed the two are closely interlocked. We now confront not only a new student, but a new context in which we must work. Consider these facts: Only 50 years ago the great majority of Americans still lived on farms, without insecticides or hybrid plants, helped primarily by the work of oxen and mules. Automobiles and airplanes were a novelty; radio and trade unionism were in their infancy; television was unheard of. Social Security for the elderly and unemployment insurance for the workers were unavailable. Even as recently as 1950, television and penicillin were just coming into widespread use, and Red China was only beginning to emerge as a world power. Computers, birth control pills, and the age of jets—these were still ahead. My own institution—the State University of New York—which is now the world's largest university, was born less than 25 years ago.

Amidst the social upheaval of the past 2 decades, several developments stand out as being especially consequential for higher education. One, of course, is in the communications field. In addition to television, there are now more libraries, more museums, more paperbacks, more in-service training programs, more films, more industrial institutes, more advertising, countless U.S. military schools, and many more educational toys and games. Combined, they provide a vast network of instruction for citizens, young and old. No longer is there any validity to the old notion that learning can be accomplished only if a person is isolated in some remote enclave within four walls, or that higher learning must be squeezed into a fixed block of 4 years. Indeed, learning—*formal* learning—everywhere abounds. There is, of course, a kind of nostalgia associated with the idea of a quiet contemplation on an attractive campus in intimate discussions with thoughtful professors about profound ideas. But surely there is little question that countless inroads have been made in the traditional educational patterns of our campuses. And higher learning must respond.

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Another development of enormous consequence to our own work is the new sophistication of our technology. It is frequently observed (but unfortunately

often forgotten by our colleges) that advances in photography, sound engineering, optics, communications, and transportation have revolutionized the movement of information, ideas, even people themselves. It has made possible such things as international telephone seminars in astrophysics; short intersessions of anthropological study in West Africa or Peru; the study of Eskimo culture through films; and the acquisition of foreign language skills by means of tapes and recordings. To repeat then, the spread of the "knowledge industry" has assaulted the traditional view of 4 years of on-campus study, and the refinements of technology have eroded the age-old custom of the isolated classroom. And, as the centrality of the classroom lecture fades, the old yardsticks of higher education—faculty-student ratios, classroom contact hours, credit hours by examination, and letter or number grades for performance—are becoming increasingly obsolete.

INSTITUTIONAL EVALUATION

Finally, I cannot leave this litany of change without noting some of the important trends within the colleges themselves. I think the most significant one is the shift in our concept of who should go to college. In 1945, only one out of seven young persons entered college. College admissions seemed to be the art of keeping people out. However, since World War II, with the astounding growth of the public colleges—especially the community colleges—the situation has changed dramatically.

Impact of the GI Bill

I think we should take note here of the enormous impact of the GI Bill. In many ways, it was a watershed commitment of higher education, the implications and reverberations of which may never be fully measured. Here was a move that set higher education in a new direction, quite opposite to the elitists' restricted notion that colleges are intended for the privileged and the gifted. Veterans were told: "You have served your country, irrespective of station or status in life, and you should have an opportunity to continue learning if you desire it." Admission to college was based upon a service rendered, not necessarily upon an academic record achieved. And so, hundreds of thousands enrolled in our colleges and, once there, they discovered that they could succeed.

There can be no turning back from the convictions that led to the enactment of the GI Bill . . . .

Not only could they enter those hallowed halls, they could leave them with dignity and pride in their accomplishment. And *their* children, in turn, understood that message, and not only tentatively embraced it, but demanded the same opportunity. I am sure you will agree that there can be no turning back from the convictions that led to the enactment of the GI Bill following the second great war.

Since that time, as I have said, people have had the state colleges and community colleges to turn to. These institutions have not been forced on the public, but have been created in response to a demand. I find myself trying endlessly to remind people in New York State that the State University of New York, which to them seems to grow so constantly, is not being designed by some madmen in Albany, without sense or purpose. Indeed, despite our best efforts, we still are unable to keep abreast of the demand. This past year alone we had to turn away tens of thousands of students for whom we had no places. So we are not in any way trying to deceive the people by giving them something they really do not want. We are trying desperately to design a system that can respond adequately to the rising aspirations of the people. Currently, over one-half of all high school graduates and two out of five young Americans go on to college—and with good reason. Increasingly, the jobs they are to secure and the requisites they must meet throughout their lives demand training and instruction far beyond the 12 years of formal learning which may have sufficed for their fathers a generation ago.

Trend toward Continuing Education

Moreover, as I need not remind you, we are at the beginning of a second admissions boom—that of the older persons who are now re-entering college. With new technologies, increased leisure, the changing role of women in society, greater affluence, and cultural shifts, it seems to me that we are moving steadily toward *continuing* education as an important new frontier. This is a very dramatic example of an idea that was ahead of its time—but I am convinced that its time has now come. Thus, most colleges and universities—especially the public institutions—are moving to help people in rather than to screen them out. I suspect that we in higher education do not fully comprehend the phenomenon of the vast numbers of adults entering higher education; certainly we have not yet come to grips with it in any meaningful way.

And so, we have made a shift in one of the variables, which is, who is coming to college? I am not sure, however, that we really understood that we cannot change one variable—the clients served—without reassessing all of the other variables: what they study once they arrive, how long they study, where they study, and when they study. I suggest that we are on a collision course if, having changed our fundamental assumptions concerning who should be coming, we try to hold rigid and static all the rest of the university apparatus. The real

educational crises I have seen on campuses across the country have been precisely at those institutions which try to be expansionist and open on one hand while remaining inflexible and protective on the other.

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I think, therefore, that the immediate task facing higher learning is to try to understand that when we have opened the doors for students with enormously varied backgrounds and qualifications, with different interests and differing aspirations, we had better start redesigning what we offer them. A 19th century vehicle is not adequate for a 20th century highway—or the other way around if you prefer. Clearly then, the colleges and universities of tomorrow must offer many new approaches, many options, and many different programs to assist students in the new areas of intellectual inquiry—as the recent Carnegie Commission report, *Less Time, More Options*, so well expressed it.

THE NATURE OF OUR RESPONSE

Since we are dealing with a new kind of student, and since these students are in turn creating a new kind of environment, what should be the nature of our response?

First, I believe we must modify drastically the format and content of our organization and the ways in which we adjust to the new student. For example, I think we will move increasingly toward the idea of setting up colleges within colleges. This has been talked about in many different places, but too often the concept has been limited to using the traditional curricular design and designating one college as humanities, one college as arts and science, and one as social sciences; in effect, adhering to a rigid pattern and attempting to create common interests in terms of the curricula. In other instances, such as at the University of Missouri, the organization has been built around so-called learning centers in an effort to develop a communal concept.

What we need to have, it seems to me, is a diversification of colleges within the campus. I envision, for example, an undergraduate institution where there would be a traditional liberal arts college, a college of vocational studies, a college of social issues, a college of professional studies leading to graduate work, and a college of independent study, each—and I wish to underscore this—with its own dignity and with broadened options. The student then would not be so rigidly circumscribed as is now the case. It seems clear, then, that we must provide in our collegiate system a variety of "systems within the system," so

that students who have great diversity in interests can move freely within the institution and make their own choices from among the different collegiate models that are available. I also hope that, in time, we will give credibility to the variety of options that extend beyond the college campus. I think we are beginning to understand at last that there are valid and dignified ways of continuing development that are not directly under the jurisdiction of colleges and universities.

I am concerned about another matter, namely, the need to be more realistic concerning where *a person studies.* As I said earlier, the idea that we must bring people together in a given location and hold them there for *a* specified period of time—on the assumption that this is the only way education can take place—is an outmoded concept that must be abandoned. This, of course, was the traditional pattern of the liberal arts church-related college of the past, and it served as a model for similar institutions subsequently established in this country. We were anxious to provide students with a kind of protective moral shield so that, after 4 years, we could send them forth—safe, sane, and clean for the rest of their lives. It is not my intention to disparage the noble mission of these institutions, nor the excellence of many of their programs.

We were anxious to provide students with a kind of protective moral shield . . . .

My point is simply this: We are now in a new era; our population is more mobile; information, skills, and ideas can be transmitted with great speed and in many ways that were undreamed of a century ago. Therefore, our colleges must be designed along quite different lines.

One concept that I find tremendously exciting is that of having a college with no campus at all. We hope to start one such institution—now called Empire State College—in New York in the fall of 1972. We plan to have learning centers scattered across the state in proximity to some of our existing campuses, where faculty members will be available to guide and counsel students. However, the student will not be obliged to spend full time on any given campus but will be allowed to proceed at his own pace. In the 3 weeks following the announcement concerning the new college, we had six or seven thousand inquiries from people eager to know how they could continue their studies—on *their* terms, not on administrative terms, at *their* convenience, not necessarily at the convenience of the faculty.

I have one other concern about the nature of our adaptation to the changes I have described: *Not only must we think about providing more options in terms of what students study, but we must rethink our notion of* how long *they study.* I have already said that most of the students coming to our colleges today are far more advanced than their parents were 20 years ago. Yet we have held rigidly to

a 4-year program, much of which is a repetition of what students have had—or should have had—in high school. In the 8-year sequence of high school and college, there is at least a year's duplication. I feel strongly that some modifications are imperative.

Many students are ready for college in their junior year in high school. It seems to me that we could at least experiment with a system that would provide for 3 years of high school instead of 4—not that there is anything sacrosanct about "3 years," and not to substitute one rigidity for another—but in recognition of the fact that something quite remarkable has been happening in the development of our children. I think we at the collegiate level have an obligation to respond to the needs of these young people in their precollege years.

SUMMARY

In summary, then, what we are really talking about here is moving from a closed system to an open system; recognizing that the collegiate pattern is not rigid and fixed but, rather, flexible and open and responsive to individuals. As conditions change, the institution must change or become obsolete and die. You in the testing profession perhaps know better than most of us what changes have occurred among the young in the context within which we work. It was from test experts that we first learned of the rising intellectual achievement scores of our population and the fact that the basic structure of a young person's thought processes does not shift appreciably after 15 years of age.

I suggest that it is incumbent on all of us—those in administration and those in tests and measurement—to face the realities of our time and rebuild our houses. We must do so with openness, imagination, skill, and a sense of urgency as well. And, most importantly, we must do so without sacrificing the goal of quality in education which ultimately translates itself in the excellence of our teaching and in the excellence of the student's response. In short, we must hold firmly to the basic *goals* of education while shifting dramatically the *process*—responding, as we must, to changes in both the context of our work and the students whom we serve. We must provide a time for learning that is continuing, not terminal. We must provide a content of learning that is infinitely varied, not narrowly prescribed. We must provide a place of learning that views the campus as a point of departure, not as a place of confinement. This, then, is our challenge: To create a new learning environment reflecting the emerging society. I am convinced that with courage and imagination—and good luck—we may be able to meet it.

The institution must change or become obsolete and die.

Chapter 2

EMERGING STUDENTS: CAREER EDUCATION AND CAREER GOALS

Johnnie Ruth Clarke

The case of education for careers is fundamental to the educative process. Historically, careers recognized by the society as being good for the general welfare were the primary training task of the university—the training of ministers, doctors, and lawyers. So, education for specific careers is not new; and when we view our society objectively, one can readily see that career education has been very successful. That is, most persons who have completed the training process have been effective in the pursuit of their careers.

Therein lies the problem—those persons who complete the programs are far too few for an advancing technological society. Many of these represent a traditional class of successful careerists, while a larger proportion of the society does not have access to resources for making such meaningful choices of and successful pursuits of careers. The discussion presented here, therefore, will be addressed to the problems involved in providing access to career education for those persons who traditionally have not been in positions to take advantage of such resources.

In the title of this paper, the use of the words "emerging students" was planned as a means of avoiding such terms as "disadvantaged," "marginally prepared," "culturally deprived," and other such labels which have proved to be emotionally laden terms. The students we refer to as the emerging students are the new students who in the past would not have chosen postsecondary education and may not have needed it to fulfill the jobs opened to them. These

are the students whose socioeconomic states place them in the lower class. These are the students whose life styles are described in this little poem.

He is black and white and brown
and red and yellow and pink
And rainbow-like arrayed.

He is a Catholic, a Protestant, a Jew,
a Muslim, a Buddhist, a Hindu,
And even a Jesus freak.

He lives in a slum, a ghetto, an alley,
a patch somewhere across the tracks
Of orderly structured places.

His family is matriarchal, patriarchal,
broken, deserted, extended, nuclear,
Big and whole and even together.

He eats little sometimes, much sometimes
nothing sometimes and sometimes even
A planned hot lunch.

He is never sick unless he plans to die
but sick much—dying ever.

Yet,

He breathes, he lives, he laughs, cries,
dreams and schemes, works and plays,
Loves and forgets—always striving for
a hold on the chain which raises all
Men from the bottom up to where they want to go.

NATURE OF EMERGING STUDENTS

Let us look at the nature of these emerging students. Their aspirations are high—sometimes much higher than researchers expected. Such high aspirations are the result of parental or family prodding, of the students' knowledge of the need for education, and of the students' acquaintances with the results of a lack of education. These high aspirations have been translated by the students into a desire for mobility—that is, movement upward toward the acquisition of more education for more power in order to exercise more control of those factors

which affect them. Such aspirations are reinforced by the socioeconomic affluency portrayed by mass media. The political scene, including all phases of government made aware of their responsibilities to all of the people through conflict, confrontations, and elections, has served to stimulate interest in a better life by provoking a desire to acquire larger shares in this nation's future.

They represent the hope of the family, the way out of the present circumstances of life.

These students, therefore, are often the first of their families to seek postsecondary education; they represent the hope of the family, the way out of the present circumstances of life. Some come from the Reservation, leaving the security of their own subculture to attempt to seek their educational fortunes in the strange world of the educational society. Others come from their Spanish-speaking homes, where they are often more comfortable with the customs and language of their forefathers, to find their futures in the mainstream of academia. Nevertheless, these students feel the need to master the tools of education for participation in activities of the larger society. Most of these emerging students come from the bottom of the socioeconomic stratum—the lower-lower or "lolus." Because of this position, they often feel the weight of the rest of the stratum upon them. This feeling is reflected in their life styles.

So for the good of these students, for the hope of the nation, and for the preservation of our world resources, it is imperative not only that we make adequate provisions at the postsecondary level to help these students make meaningful goal choices but also that we become facilitators in helping them realize these goals.

Career choices should, therefore, precede career education because some of the problems encountered in career education could be avoided if career choices could be made more carefully. Recorded experiences indicate that emerging students show a great reluctance to participate in career education unless it involves one of the traditionally high prestige careers. This exists because the whole process of career choice, change of career choices, and knowledge of career alternatives has been a problem of the emerging student. As a consequence, the tracking system of high school has hedged many of them into career prep courses which none of them wanted. Likewise, the high school vocational-technical programs for all the traditionally non-college-bound students have made a major contribution to the negative feelings toward career education. This, the placement of the less academically able students into programs which lead directly toward job placement, has become stigmatized,

and most emerging students who are aware of the negative attitudes associated with this practice shy away from career counseling altogether.

CAREER SELECTION FACTORS

The selection of a career involves many factors, some of which can be controlled by the school and others which are beyond the province of the school. Let us look at the latter first.

The traditional treatment of career education by societal forces is that of assigning status to various types of careers. The term "white collar" means good, high status, lucrative, respectable while the term "blue collar" refers to less status careers, less lucrative, and sometimes less respectable. Even within these occupational groups some careers are "whiter" or "bluer" than others. Such assignment of prestige to various career groups is reflected in our mass media. Have any of you ever seen an automobile body repairman pictured in the rich suburban area where he lives? Have any of you ever seen a plumber pictured on television in his real role as a clever rich businessman? Has there ever been a television show entitled the paraprofessionals or the repairmen? No! So, the problems of career choice are greatly influenced by how our society values a career.

Has there ever been a television show entitled the paraprofessionals or the repairmen?

When making career choices, students are greatly influenced by the subcultures to which they belong. So, their families, their ethnic membership, and their group models exert a tremendous influence upon the goals emerging students set for themselves. These students' families, like the families of all other students, want them to succeed—success being defined in terms of the way the larger society defines it. These families do not want their sons and daughters to follow the dead-end careers of the past—dead-end careers meaning those less than the so-called "white collar" ones. They want them to "better" themselves.

Ethnic membership may influence the emerging student negatively toward some careers and positively toward others. In the case of the black student, careers in medicine, dentistry, law, and teaching are highly valued. Recently, there has been reported a large number of Blacks who are selecting business administration as a major. This type of career selection by ethnic groups has been so rigidly followed that certain careers have been associated with certain ethnic groups.

The group models who influence the emerging students are often persons who have achieved success through the traditional career ladder or through some exotic career. The careers of most group models are high status ones. Therefore, the models become those who can be imitated through the traditional mode or those who are admired from afar.

It is now evident that there must be some changes in those factors which affect career choices which cannot be controlled by the school. Yet, the school must point out the necessity for changes to take place in these areas. The school must also point out the nature of the changes and provide a rationale for positive change.

As has been previously stated, career choices involve factors the school can control such as the assignment of a value hierarchy to the curriculums. When there are two or more curriculums, it is very necessary that the self-concept of each student, especially that of the emerging student, is enhanced in whatever curriculum he pursues. This the school can do. For although career curriculums are eventually pursued by every student, the status of each career differs. If the school adopts a position that the success of each student in the area which he has chosen is the primary goal, then the curriculum which is used as a vehicle to this success will become secondary.

Meaningful Match

The sorting of career alternatives is a very important function of the school, a function which should make adequate provisions for students to know about many careers. This knowledge should extend beyond the names, requirements, and salaries attached to these careers. The students, especially the emerging students, should have opportunities to explore various career fields and to engage in planned activities which will help them make a meaningful match. The use of various inventories, simulated experiences, and some direct, on-the-job observations can be used to help students make satisfying career choices. The schools are not only responsible for providing such experience, but they are also responsible for providing on-the-staff persons who are adequately trained to assume these responsibilities. Career counseling and guidance, therefore, may be the most important function the school may provide for some emerging students.

Career counseling and guidance . . . may be the most important function the school may provide . . . .

"NEW CAREERS" PROGRAMS

This, then, leads us to career education, particularly, but not limited to, education for new careers. The term "new careers" is being used to refer to the many paraprofessional or technician-level programs being developed throughout the country. The development of these career programs received its greatest impetus from the Office of Health, Education, and Welfare. This federal support along with support from various professional groups, agencies, and industries has helped to establish the new careers as meaningful, profitable programs. These programs are primarily designed to help students develop a level of competency at a specific level in a specific area. This level is less than that of a professional practitioner and is usually referred to as the paraprofessional or technician level. Many of these programs are also designed to help the student fit into a particular position on the career ladder and yet provide a base upon which the student may build future training for upward mobility.

A brief list of some of the new career programs reveals much about the nature of the programs:

Urban planning aides
Library technicians
Welfare caseworker aides
Early childhood educational specialists
Special policemen
Legal services assistants
Recreational services technicians

Let us look at careers for emerging students which may lead to the level of full-fledged professional competency—careers in banking, marketing, merchandising, computerization, and management—which the emerging students have not traditionally been associated with. Here are career areas with which very few of the emerging students are familiar. These are career areas which these students should know more about and should acquire some knowledge of how to pursue successfully. Many of the fields which these types of students have traditionally entered provide few or no opportunities for present employment; therefore, the emerging students need to explore other alternatives.

STIMULATING EMERGING STUDENTS TO ACTION

The question now is how do we get the emerging students to pursue the careers of their choices? Up to this point, this paper has dealt primarily with the problems involved. Now an attempt will be made to be more positive. *First of all, the emerging students want to feel like the colleges want them, too.* The last

word is the key. These students are new to postsecondary education, and they must be made welcome. Making them feel welcome can be accomplished through recruiting procedures and through warm and accepting institutional arrangements, both social and academic.

A second thing is to provide career curriculums which are relevant to the needs of the students and to the requirements of the careers. Such curriculums should allow the students to become acquainted immediately with the career activities. Concomitant with the development of theory and skills should be some practice in the specialty areas. In addition to the practice, specific reforms in career curriculums should reflect the innovative ideas being introduced in other curriculums; for example, the pacing of courses in terms of the learning styles of the students. This allows a student to pursue a course until he has attained mastery of the content. No longer will semesters, quarters, or trimesters hem a student into an incompatible time space. Another example is the changing reward system wherein the rewards serve as reinforcers rather than punitive measures. Further, career curriculums should involve students in planning, revising, and evaluating. All these fresh new ideas will help to make the career curriculum more viable and certainly more dynamic for the emerging student.

A third suggestion is to provide the appropriate teaching and counseling personnel to make career education adequate and effective. This means that a new type of counselor may have to be trained. Such a one should have not only proficiency in career analysis but also special training in human relations. This is necessary in order for the counselor to plan meaningful career-sorting activities. This counselor must have an adequate knowledge of group dynamics in order to work with groups of careerists and with teachers and to so direct these groups that the emerging student will have an opportunity to happily pursue a satisfying career.

A new type of counselor may have to be trained . . . [with] not only proficiency in career analysis but also special training in human relations.

Teachers in these programs must demonstrate both academically and socially that their specialties in the careers are important, worthwhile, and status bearing. These teachers must not only demonstrate their competencies as professionals but, also, must show pride in the functions they perform and thereby stimulate similar feelings in their students.

To make all of this real, all that has been postulated in this paper must take place in an institution where commitment to the student as an individual is a prime objective. It must take place in an institution in which arrangements are

structured so that the welfare of the student is reflected in the curriculum, in the financial aid services, and in the other supportive services. It must take place in an institution in which student growth toward the realization of well-examined goals is the prevailing theme of its combined agencies and especially in those which are concerned with the emerging student. It is imperative that in such an organization the administration and every other component of the institution work together to create a learning environment where all students can feel they are wanted and that people care about them.

"One day when man has conquered the waves, the wind and tides, then he can gather all the energies of love for God and for the second time man will have discovered fire." (Chardin)

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Chapter 3

THE CHALLENGE OF CAREER EDUCATION TO THE TWO-YEAR COLLEGE[1]

Joseph P. Cosand

McGeorge Bundy, speaking in 1968 at an American Council on Education (ACE) Conference in Denver, made the statement that never had higher education had it so good, but never had it told its story so badly. He indicated that a day of reckoning was coming. About the same time, while on the Carnegie Commission, David Riesman made very similar comments. I thought both were crepe hangers at that time, but their predictions have come true. It's interesting to look back on the Carnegie meetings, which began 4 years ago, when the attitude in the group was one of optimism. About 2 years ago the climate began to change, and now the meetings are not optimistic, they are realistic. Some might call them pessimistic, but maybe it's a pragmatic attitude.

Some reports and articles will te'l you that never in the history of higher education has there been such an urgency facing higher education as there is today. This is true for many reasons: certainly finance is one when you hear that Columbia University may have a deficit of $15 million in 1 year and that New York University may have a deficit of $7 million in 1 year. In the public sector, university after university is being financially curtailed.

[1] At the time this paper was written, Dr. Cosand was President of the St. Louis (Missouri) Junior College District. He is now Professor and Director of the Center for the Study of Higher Education at the University of Michigan, Ann Arbor.

In the state of Missouri the legislators seemingly are more interested in increased mileage expenses, increased per diem, and increased retirement benefits for themselves than with education. I testified before a committee in Jefferson City and the first question I was asked was, "Why should the community college offer technical education programs? That is the job of the high school." The next question was, "What's wrong with you people, are you trying to educate everybody? What are you trying to do, run a social welfare state?" Along similar lines, the third question was, "Why are you interested in continuing education for adults unless they pay every penny of it; we don't have the tax funds to support programs for adults." These are the kinds of questions being asked today that were not asked a few years ago, and we ought to be aware of this change in public attitude. I don't think we can sweep it under the rug.

"What's wrong with you people, are you trying to educate everybody?"

"LET THE STUDENT PAY" PHILOSOPHY

Something that concerns me even more is the growing attitude I find not only in St. Louis or in Missouri, but in Washington, that there's a way out of all this financial crunch and the way out is to let the student pay for his own education; the philosophical idea being that education is for the individual and therefore let the individual himself pay—through loans, primarily, and through a bill which would permit a person, if he went through graduate school, to borrow up to $17,500. Suppose a couple were to marry, one having borrowed $17,500, the other $10,000. With interest included, that is a heavy dowry to assume. In testimony before both Edith Green's committee and Senator Pell's committee, these and similar questions were raised. While they are concerned about student aid, there is also a move on the part of too many educators, lay citizens, legislators, governors, and people in Washington to solve this financial problem by letting the individual finance his own education. We then wouldn't have to worry about taxes so much. If we get institutional aid through the federal government based on the Edith Green bill or a similar bill, will the states seize this opportunity and say, "well good, we won't have to give as much support now. The federal government is going to do it, so we can deduct that from our state contributions." Everyone in higher education should wake up to what's going on. If you are not aware of the proposed bill in Ohio which says that

people going to a 4-year college shall pay back to the state the cost of their education, you should be.

At least half of a recent meeting of the ACE Board of Directors was about the problem of financing higher education. What has happened to the philosophy that while education is also for the individual, it is for society first because it builds the society? Why some reverse that clause to say it's for the individual first is indeed curious. A very interesting point was brought up by one of the ACE Board members who happens to be black. He said in essence, "isn't it a coincidence that when the doors of colleges are being opened to minority groups, be they Blacks, Chicanos, Puertoricanos, or Cubanos, we suddenly say, let the student pay—knowing, perhaps, that the less affluent student, unaccustomed to big loans and not confident of being able to repay, will not borrow. Perhaps we are moving away from egalitarianism to meritocracy without knowing it."

I attended a conference in England early in 1971 where there were 12 Americans, 12 English men and women, and 3 Canadians. The purpose of the conference was to talk about education in these three countries, the need for more education, and so forth. In England 10 to 12% of the post-high school graduates go to college. They want that percentage to increase to 25%. In Canada, 25% go and they want it to increase to 50%. In America 50% go to college and we want it to increase to 75%. There was one thread, however, that went all the way through the discussion: whether we wish the increase to go from 12 to 25%, 25 to 50%, or 50 to 75%, none of us can afford it. Along with this realization came the dilemma that we've got to afford it. So it seems that in each country, there is concern about the financial crunch which may prevent the move towards a universality of opportunity.

There is concern about the financial crunch which may prevent the move towards a universality of opportunity.

A TIME TO LISTEN, A TIME TO ACT

Today in higher education is a time to listen and a time to act. However, before we act we should check our motives for we might very well then change our actions. During the past 25 years, we have heard increasingly about the "open door" college, open or equal access to a postsecondary education, equality of opportunity, and the egalitarianism which will provide the interested and motivated student with a real chance to learn regardless of his income. Many

pamphlets and books have been written and scores of speeches have been made on the philosophy of egalitarianism versus meritocracy. Among the more direct and articulate publications are those of the Carnegie Commission—*Quality and Equality, A Chance to Learn, The Open Door College, Less Time, More Options,* and the new publication by Leland Medsker and Dale Tillery, *Breaking the Access Barrier.* Two other publications are also of great significance in today's higher education climate: *Institutions in Transition* by Harold Hodgkinson and *Free Access to Higher Education* by Warren Willingham.

However, the challenges these publications bring us are endangered by the crises facing all of postsecondary education, public and private, 4-year and 2-year, academic and technical, undergraduate and graduate. We are all being challenged as never before to serve educationally the millions of students, both youths and adults, who have been told again and again that some type of postsecondary or higher education is essential in today's and certainly in tomorrow's world. We have said to these students, come at any age after your high school years, we will take care of your educational needs, be they academic, cultural, occupational, or remedial. We have made these statements throughout our 50 states and within our hundreds of 2-year community colleges: in our catalogs, in our brochures, in our speeches, and in our counseling sessions. We have told our story so well to millions of people, to legislators in our states and in Washington, D.C., to our governors, and to the President, that we have become by far the fastest-growing segment of higher education, and perhaps the most accepted. We have put ourselves out on the proverbial limb and we have no choice but to "put up or shut up," and produce the educational programs which will validate our claims to being "open door, equal access, peoples' colleges."

We have no choice but to "put up or shut up" . . . .

Perhaps we neglected for too many years and too long a time to put into action what we have been preaching. Perhaps we failed to realize that the citizen support of the 1960s might end and that the financial resources might be curtailed with the result that all of us could well face agonizing analyses of the priorities within our total educational programs. In our district, with a 20 million dollar budget, we lost two tax elections and the legislature hasn't helped us. We had to cut $1,700,000. What goes? What do you get rid of?

There is evidence to support the fact that our national and state governments place a higher priority on career education than do many of our community college boards, administrators, and faculty members. This statement is based on the visits I have made to community colleges during the past several years. There is evidence that many of our 2-year institutions give only lip service to the career

There is great evidence that the physical plants of our comprehensive community colleges are so planned that the career programs are "over there" . . . .

programs, believing that such curricula are of less than college grade and that only the low ability students are suited for such non-academic classes. There is evidence that many of our boards and presidents see only the federal funds available to help finance the career curricula and thus could be accused of a form of educational dishonesty. There is great evidence that the physical plants of our comprehensive community colleges are so planned that the career programs are "over there," well away from the purity of academic respectability. There is evidence among far too many of our counseling staffs that the student who is "a good student" should be counseled into an academic curriculum regardless of what his interest or motivation might be for he is too good to be enrolled in a career curriculum. There is evidence that the financial crunch now facing most of us may well eliminate many and perhaps most of the more costly career curricula in order to save the less costly academic programs which, of course, are already available in some 1,500 4-year colleges and universities.

The boards of trustees, the faculties, the deans, the presidents of the 2-year colleges must face up to a very simple fact. The 2-year comprehensive community college is the greatest development in higher education during the 20th century. This institution is a peoples' college, with an open door for youths and adults where there must be equality of opportunity through open access to varied curricula developed to meet the interests, abilities, and motivations of the people we are supposed to serve. This is the true status of the 2-year college and every board member and staff member should believe implicitly in the role such an institution can and must play in today's society.

CHALLENGES FACING CAREER EDUCATION

The challenge of career education to the 2-year college is a pluralistic challenge, just as the total educational program of such institutions is pluralistic in nature. Enumerated below are some of the challenges facing career education as I see them in the community colleges today and tomorrow:

1. *The challenge of status.* Will the colleges accept career programs as being equal in status to the academic curricula?

2. *The challenge of priority.* Will the colleges give equal priority to both academic and career curricula?

3. *The challenge of cost.* Will the budget decisions be based only on the retention of low-cost academic classes, or will there be an accepted understanding that many career curricula are of necessity costly; e.g., nursing, hygiene, or engineering technology. When somebody says it costs $10,000 to $15,000 a year to educate a medical student, we say we can afford the cost because we need doctors. But when somebody says it costs three to four times as much to educate a nursing student as it does to educate an academic major, we ask, "how can we afford it?"

4. *The challenge of location.* Will the planners continue to locate career curricula facilities "across the tracks" in second rate buildings, or instead will the planners come of age and integrate the career and academic facilities in order to have one college, one faculty, one administration, and one student body? It would seem that an open door college could well dispense with a physical plant "peck system."

It would seem that an open door college could well dispense with a physical plant "peck system."

5. *The challenge of obsolescence.* Will the board and staff together realize that a first-class career curriculum must have up-to-date equipment in order to produce a first-class graduate? Also, will there be the realization that obsolescence can occur to an even greater degree to the faculty member? Will opportunities be afforded through sabbaticals or summer in-service training programs for faculty members to keep up to date with what is going on in business, industry, and in such paraprofessional areas as the allied health services? I would ask here: are we using our advisory committees as they should be used, as functional entities within our district, within our colleges, or are they figurehead committees? At our college we reappoint our committee members every year. If they do not attend the meetings, they are not permitted to continue the next year. These committees meet regularly, not just to get a program started and then forget about it, but to evaluate the program—hopefully year by year—to keep it from becoming obsolete. Faculty members teaching those programs can then interact continuously with representatives from the business, professional, or industrial community that is employing these people.

6. *The challenge of evaluation and change.* Will the staff evaluate continuously the career curricula in terms of curriculum and course content, in terms of needed modifications and additions, and in terms of new curricula to be added and out-of-date curricula to be deleted? There is no justification for the continuance of a career curriculum which no longer prepares students for employment.

7. *The challenge of a broad educational background.* Will the career faculty as well as the academic faculty members understand the need for man to be more than an employee in some business or industry? Will the total faculty be able to develop general education courses that are in themselves challenging to the career students? This is one of the most difficult problems we have to face. Can we do that? Will the student be sufficiently motivated by such courses to realize their value to him and to society through this type of cultural and social development?

8. *The challenge of unity.* Will the staff, both faculty and administration, learn the importance of one staff and one college in order to have one student body? Will the staff learn the lesson of self-respect through mutual respect? Will the staff learn that the career teacher is just as much a professional as is the English teacher, just as worthy of respect, and just as worthy of advancement within the profession? Or will we as we do in most community colleges say that to be a professor you must have a doctor's degree? When will we stop such elitism?

9. *The challenge of student acceptance.* Will the staff and the community build into the career curricula those elements of belief, importance, status, and respect that will enable students to enroll without feeling stigmatized or lacking in self-respect. This is an increasing danger, especially among the minority groups. There is a sprouting seed of tragedy in this challenge, and every effort must be made to stop its growth.

10. *The challenge of cooperation.* Will the 2-year colleges initiate cooperative efforts with the secondary schools and with the 4-year colleges in the development of a broad, in-depth vocational-technical program where the emphasis is on cooperation instead of duplication? Will these three types of institutions act in concert, with their motivations student centered instead of institutional-ego centered? How can we ego-centered board, faculty, and staff members find fault with taxpayer revolts when the taxpayers see us rooting individually in the hog trough without concern for unjustified, often poor quality, duplicative career programs? This is one of the biggest challenges the 2-year colleges face, but so also is the same challenge for the

high schools, and for the universities and colleges which are moving increasingly into 4-year technical programs. We could do a tremendous job here, together. However, I'm deeply concerned about this growing move of the 4-year college into the technical field. These colleges say they will start only upper-division courses; then they say that in order to have a strong upper division, they have to have the lower-division courses—and so unnecessary duplication develops.

11. *The challenge of enlightened and strong leadership.* Will the presidents support through belief and action the career curricula? Will the board and staff support the president's leadership? Will the career staff become confident and through this confidence lose their defensiveness, which I see in far too many colleges?

There are other challenges facing the 2-year colleges as far as career education is concerned, but the 11 challenges are pertinent to the success of career curricula. We have to develop accessibility within our educational programs to defend our open door philosophy. The open door is no good if it becomes a revolving door—if when students get inside the door, there's nothing there for them.

Each person who comes to us has the right to expect quality, the right to expect equality of opportunity, and the expectation of—at last—a chance to learn. No other action on our part is acceptable.

One of my favorite quotes goes like this: Each person's success enriches each one of us—each person's failure diminishes each one of us.

This should be our creed, for it describes in simple terms our often-stated comprehensive community college philosophy.

"Each person's success
enriches each one of us—
each person's failure
diminishes
each one of us."

Chapter 4

THE ROLE OF PRIVATE CAREER SCHOOLS

W. A. Goddard

The accredited private schools throughout the country serve as "gap-fillers" in the career education spectrum. These are the business, beauty, trade, technical, and correspondence schools which many professional educators have never had an opportunity to study or explore. These schools are able and willing to meet the intensive career training needs of young people and adults who feel they have neither the time nor the desire to attend colleges or other more comprehensive but less specialized programs offered in many public community colleges and technical institutes.

Because of its character and capabilities, the private career school serves as a vital link in the educational process. By working hand-in-hand with public education, these private business, trade, and correspondence schools complement rather than compete with tax-supported facilities.

FLEXIBILITY

The nature of the private career school has many facets. One of its most important characteristics is flexibility. Since a private career school is financially dependent on offering courses that are legitimately needed by industry, such schools are quick to sense demands for new types of training. Because the

private school is not required to obtain authorization from a public governing body in order to introduce a new training program, purchase equipment, obtain space, etc., it can quickly provide educational offerings as soon as employer demands become evident.

The private school . . . can quickly provide educational offerings as soon as employer demands become evident.

By the same token, the private career school is not obligated by tradition to observe a typical school year. Instead, classes are started at frequent intervals throughout the entire calendar year to serve the needs of students who cannot or will not wait until a "free" course may be available. An additional advantage of frequent starting dates is the avoidance of flooding the labor market once a year.

Private career schools are also able to tailor hours of attendance to suit the needs of students, many of whom work part time in order to finance their education.

PLACEMENT ASSISTANCE

From a business standpoint, the private school has a strong obligation to assist its graduates in finding proper employment opportunities. All accredited trade and technical schools are required to provide placement assistance to graduates. Thus, the schools must obtain close liaison with the industries with which they are concerned. This close contact also results in a school being kept up to date, almost on a day-to-day basis, with new technological advances and developments. Because industry is constantly changing, the curricula of the school must change also. Private career schools can do this without pursuing a long road of justification to a higher authority.

A recent detailed study of this field is found in *Private Vocational Schools and Their Students—Limited Objectives, Unlimited Opportunities.* This book was written in 1969 by Dr. A. Harvey Belitsky of the W. E. Upjohn Institute for Employment Research and was financed by the Ford Foundation. Dr. Belitsky disclosed that a total of 7,000 private vocational schools served approximately 1.5 million students during 1966. Three thousand of these schools were in the trade and technical field, enrolling over 835,000 students.

RESPONSE TO TRAINING NEEDS

The variety of occupational courses found in private career schools reflects a unique ability to respond to the training needs of many industries and

professions. Over 200 different occupational courses in the more than 500 trade and technical schools are examined in the Belitsky study. Since most schools offered more than one course, the total number of courses provided by these schools was nearly 1,500.

Since students are the major "consumers" at private career schools, it has been in the interest of school administrators and instructors to adjust to student differences in age, educational attainment, ability, and health. Although the average age of enrolled students is comparatively young, there have been numerous instances of success in training older persons who are either healthy, or ailing physically or emotionally. The Belitsky study of our member schools disclosed a median age of 20 years for students enrolled in the day sessions; only about 10% of students were 26 years of age or older.

The average age of the evening students was considerably higher, nearly 40% being 26 years and over. Most evening students had been employed full time and a high percentage still found it necessary to work full time during the day while training for a speciality within their occupation, or for a completely different vocation. For both day and evening sessions, the general age range at our schools during 1965 to 1967 was 17 to 48 years; but some schools even had students who were in their sixties.

The specialized career school accommodates students of varied backgrounds and educational preparation.

AID TO DISADVANTAGED STUDENT

The flexibility and individual instruction capabilities of most private career schools are especially suited to the disadvantaged student. Great numbers of persons with economic, social, and physical handicaps have changed themselves from tax users to taxpayers as a direct result of training received in private career schools. Many governmental agencies recognize the capabilities of these schools and support programs utilizing them. The Vocational Education Amendments of 1968 authorized public school contracts with accredited private schools.

More than 60% of the students are compelled to work part time.

When a typical student is enrolled in a private career school, his major challenge is having adequate funds to finance all expenses during the period of education. Only a small minority of students attending our schools can rely upon their parents or personal savings to pay all of their schooling. More than 60% of the students are compelled to work part time. Despite financial pressures, the

student dropout rate of approximately 20% in our schools is lower than the rates for both high school and college students. This is at least partially a function of the self-selection of courses which is likely to satisfy particular vocational interests of students. Financial problems are the major reason for a student's failure to complete courses. Only a minor percentage of students fails to complete our courses due to lack of ability.

Through the years, private career schools have asked for little assistance from government agencies. Despite the desire to continue this independence and to retain the ability to be financially self-supporting, it is agreed that if education is a primary ingredient for an ever-improving society, it follows that the national educational requirement is of such magnitude, and diversification, that all educational resources at all levels must be used and encouraged, whether they be public or private.

With this in mind, the private career schools, as part of the national educational scene, deserve additional interest and attention—for these schools also are concerned with the availability of quality education and the best possible training for all citizens.

CAREFUL EVALUATION OF SCHOOLS

Accredited private career schools are carefully evaluated by organizations which the U.S. Office of Education has designated as nationally recognized accrediting agencies. In addition to the normal administrative and educational measurements performed by most accrediting agencies, the National Association of Trade and Technical Schools Accrediting Commission utilizes employers' representatives on its examining teams to assure that the training is geared to employment objectives.

In summary, the accredited private career schools are especially useful in meeting needs to broaden the occupational opportunities for all citizens.

If education is a primary ingredient for an ever-improving society . . . all educational resources at all levels must be used and encouraged, whether they be public or private.

Chapter 5

CAREER GUIDANCE FOR EVERY HIGH SCHOOL STUDENT

Norman C. Gysbers

Beginning in the 1950s but particularly during the 1960s, research and commentary concerning the nature of career development has flourished. Recent textbooks, numerous journal articles, and many national, state, and local conferences on the topic attest to this fact as do the numerous pieces of federal legislation on education and manpower which directly or indirectly mention career development. In fact, it now appears that Congress will pass some form of legislation on career education or career development education in the near future.

CAREER GUIDANCE ANTECEDENTS

The interest in career development has done much to reawaken the interest of educators in career guidance. This is not the first time this interest has existed, however. Around the turn of the century, persons in business and industry (they founded the National Society for the Promotion of Industrial Education) together with other reform-minded individuals—people like Frank Parsons and Jane Adams—were concerned about providing adequate vocational counseling to youth and adults. The conceptualization of vocational counseling at that time

utilized a 1-2-3-step approach.

> In the wise choice of a vocation there are three broad factors: (1) a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations, and their causes; (2) a knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; (3) true reasoning on the relations of these two groups of facts [Parsons, 1909, p. 5].

During a relatively short period of time, using a structured interview approach, a vocational counselor would meet with an individual to help him analyze himself. Concurrently, occupations would be explored in a similar manner. As a result of such exploration, a matching or true reasoning concerning the relationships between these two sets of data was assumed to occur. Today, however, with our increased knowledge concerning human behavior and our more effective tools of individual and occupational analysis, we know that the 1-2-3-step approach of Frank Parsons is no longer an adequate model for vocational counseling and certainly not a model for career development.

OLD WINE IN NEW SKINS

And yet, unfortunately, many people today perceive career development as simply a new term to describe the original 1-2-3-step approach to vocational counseling. Individuals who feel this way tend to stress the meeting of manpower requirements. At the extreme, vocational counseling is viewed by them as a mining operation in which individuals are selected to fill manpower needs. Occupational training begins only after a choice has been made. Vocational counseling is an event which occurs at 2:00 p.m. on Wednesday afternoon. By concentrating only upon techniques which stress the assessment of abilities, thought to be related to career choice, these people have neglected to concern themselves with the development of abilities and aptitudes (Tennyson, 1970).

At the same time, there are individuals who are applying the term career development only to certain groups of students—those who have chosen to seek employment upon leaving high school and just possibly to those who have chosen some type of post-high school vocational-technical training. Students who plan to attend college are not viewed as having careers. (They apparently have something else.) There is real

Students who plan to attend college are [apparently] not viewed as having careers.

danger in this type of thinking for several reasons. First, if the term career is being used as just another word to replace the term vocational in vocational education and business goes on as usual, we will continue to support the division which presently exists between vocational and general education. And second, if the term career is person oriented, as I believe it is (people have careers; the work world has occupations), then we need to be talking about the career development of all people, not just a certain group that has chosen a certain type of training. Career guidance then is appropriate and necessary for all students, not just for one or two special groups of students.

CURRENT CONCEPTS

Current research and commentary concerning career development clearly indicate that this aspect of human development is a result of the interaction of individuals within their environments and that it occurs over the life span. Viewed from this perspective, the traditional approach to vocational counseling as an aid to career development as we now understand it is not adequate. We cannot afford only to assess what is; we also must provide the conditions and stimulation to develop what could be. The traditional approach to vocational counseling must give way to a broader, developmental, and more comprehensive approach called career guidance in which assessment is but one aspect. In today's language, the term career guidance should be thought of as describing activities and processes while the term career development should be thought of as describing and explaining an aspect of human development. Career guidance is what is done to stimulate and enhance an individual's career development. Following this line of reasoning still further leads to the conclusion that career guidance programs must begin in elementary school at the kindergarten level so that all youth at all levels have the opportunity to continuously and systematically explore, from an internal frame of reference, their values, attitudes, aptitudes, and interests in relation to the wide range of educational and career opportunities which may be available to them to avoid premature educational and occupational foreclosure—so that they will be able to visualize a career life. Thus, career guidance should not be seen as taking place only on Wednesday afternoon at 2:00 p.m. nor for that matter should it be

We cannot afford only to assess what is; we also must provide the conditions and stimulation to develop what could be.

thought of as occurring only during an individual's high school years. Rather, those career guidance activities that do occur during the high school years should be understood as a natural extension of activities begun in the elementary years.

CAREER DEVELOPMENT NEEDS OF YOUTH

Before discussing the nature of career guidance activities in the schools in general and for all high school students in particular, the career development needs of all youth must be examined.

Youth need improved and expanded opportunities to become aware of their career identities. Most students are disadvantaged in their opportunities to become aware of their career identities. It is not that they don't have such identities, but what they have generally are vague and ill-defined. A lack of such opportunities does not result in an occupational knowledge and value vacuum in students, however. On the contrary, occupational values and attitudes are formed (usually on the basis of fragmentary and incidental information) and are used as the basis for judgments. These inadequately formed values and attitudes concerning the work world (occupational stereotypes) provide a restricted and clouded view of the wide array of educational and occupational opportunities which may be available, and in turn may produce inappropriate educational and occupational decisions. An opportunity unknown is not an opportunity at all. If you don't know, you can't decide.

An opportunity unknown is not an opportunity at all.

Youth need improved and expanded opportunities to conceptualize their emerging career identities through continuous and sequential career exploration activities. All students need a chance to explore and conceptualize their notions about the work world. Possible career options require continuous testing to help individuals evaluate what such options may mean to them. Students need to ask themselves the question, "What do these options mean to me as I'm developing and growing in my career identity?" To accomplish this it is not enough just to provide economically oriented occupational information or to buy 20,000 copies of the *Occupational Outlook Handbook* and put them in schools and say we've done our job.

Youth need improved and expanded opportunities to generalize their emerging career identities through effective placement and follow-through adjustment activities. All students need help in translating their emerging career identities into reality. Individuals at all educational levels need the opportunity to continuously and systematically explore the wide range of educational and

career opportunities which may be available to them. It should be understood that the primary goal of such programs is not to end up choosing people to fit jobs, but rather to enlarge the capacity of individuals to make career decisions.

CAREER GUIDANCE PROGRAMS

Once the career development needs of all youth have been identified, career guidance programs to meet these needs must be developed and managed. Meeting the career development needs of all youth cannot be done on an ad hoc basis (which unfortunately is the case too frequently in schools). It must be approached with the same scope and magnitude given to other curricular areas. It must be seen as a major educational objective so that adequate resources to do the job are made available.

The career development process is viewed as involving three kinds of learning: (1) perceptual, (2) conceptual, and (3) generalization (Wellman, 1967). These kinds of learning are sequential and interactional in nature, one building upon the other. While it is recognized that the three types of learning occur in individuals at all educational levels, the career development tasks and decisions faced by students of different ages and levels of maturity will require career guidance programs which broadly emphasize perceptual learning, then conceptual learning, and finally generalization learning. In educational terms, this means that career guidance programs need to emphasize perceptual learning activities during early elementary school years, conceptual learning activities during later elementary school years, and generalization learning activities during secondary school years.

Perceptual learning has three dimensions: becoming aware, being able to differentiate, and being able to discriminate. Perceptual learning focuses on the processes necessary for an individual to become aware of himself and his environments and to differentiate and discriminate between and among them. In an occupational sense, perceptual learning begins at the early elementary school level as students develop occupational awareness. Occupational differentiation and discrimination also takes place at this level as students are able to differentiate between certain kinds of occupations. Students at this age, however, are less likely to be able to discuss in detail what persons in various occupations do or what their life styles are like. To do this requires the ability to conceptualize, and this occurs as the next type of learning is mastered. As students learn how to conceptualize occupations as to occupational functions and life styles, they attach values to and develop attitudes about these aspects. These values and attitudes (conceptualizations) become the prism through which occupational generalization learning occurs. As students come in contact with

occupations new to them, they see them in the light of these values and attitudes.

Career guidance programs should be arranged in a manner which increases the learner's ability to grasp (perceptualize), transform (conceptualize), and transfer (generalize). Career guidance processes used in these programs should emphasize "a vital people-oriented approach based on creative expression, nonverbal experience, direct encounters with people in work, and multi-media portrayals of real human experience" (Sherman, 1967).

Elementary and Junior High School

Elementary school career guidance programs should expand the perceptual base of individuals concerning their awareness of self, education, and work. The content of career guidance activities should focus on the nature of work, who works, where people work, why people work, and school as a work place. The development of such awareness provides the base for concept formation, the next type of learning. Conceptual learning requires activities which expose students to more abstract qualities and relationships concerning self, education, and work. In junior high school, concepts which have been acquired previously are used to build further concepts and to form generalizations concerning self, education, and work. Attention should be paid to elements which influence career decision making.

High School

During high school the concepts which students hold about self, education, and work become internalized to the point that they form the bases for more specific generalizations concerning their career life identities. They begin to take on certain aspects of the occupational roles related to their visualized career lives. This behavior precipitates the formation of generalizations concerning their potential styles of living including marriage, family, and community life.

Career guidance activities should stress active student participation. For example, activities should be devised in which students assume aspects of the roles people play in the occupations the students may be considering before they actually have to commit themselves fully (role rehearsal). Quasi-work experience programs based on the type

Activities should be devised in which students assume aspects of the roles people play . . . before they actually have to commit themselves fully . . . .

already in operation in many schools should be considered for this purpose (Gysbers, & Moore, in press).

Career guidance programs at the high school level should make use of the wide array of career guidance media available. Thompson (Hollis, 1969) classifies such media into four categories: (1) Prestructured and Fixed, (2) Input Controlled by Individual, (3) Simulation of a Situation, and (4) Real Situation (see Table 1). Thompson's first category contains most of the traditional career guidance media. New and expanded material content and format have made these resources valuable in meeting a wide range of career guidance objectives.

The second category in Thompson's classification system—Input Controlled by Individual—provides an opportunity for an individual to relate with appropriate media in his own unique way. Simulation of a Situation, the third category in Thompson's scheme, may be the most patent medium for achieving conceptual and generalization type learning. Such media allow students to actively assume portions of the occupational roles they may be exploring. Finally, Thompson's fourth media category, Real Situation, has been used frequently in career guidance programs. The medium of Actual Occupational Experience can be especially meaningful in that the day-to-day events on the job can provide for an exploration of students' values and attitudes—both personal and work related.

Career guidance programs must make provisions for placement and follow-through activities which help students make their next step in generalizing their emerging career identities.

Finally, career guidance programs must make provisions for placement and follow-through activities which help students make their next step in generalizing their emerging career identities. This may mean helping students who leave school make the transition to work, or it may mean helping students develop readiness for and move to another educational setting (community college, postsecondary vocational-technical education, 4-year college) to gain additional training before entering the work world. Placement and follow through should be viewed as a joint responsibility of the school and appropriate local community and state agencies. Such responsibility goes beyond the mere mechanics of placement. In the broadest sense, the concept of placement and follow through includes helping students become aware of, conceptualize, and generalize their emerging career identities.

TABLE 1

Schematic Classification of Media and Specific Methods for Utilizing Occupational Information with Persons on an Individual and Group Basis

CLASSIFICATIONS[a]	MEDIA[a]	SPECIFIC METHODS
Prestructured and Fixed	Publications	Biographies Magazines and periodicals Newspapers (school, business, and community) Booklets and brochures Reference books Career fiction Songs and poems Occupational briefs, abstracts, monographs, and guides
	Audiovisual aids	Bulletin boards, displays, exhibits, posters, and charts Murals and art Phonographs, videotapes, and tape recordings Radio and television "Show and Tell" Slides, films, and filmstrips
	Planned programs	Assembly programs Panels and career talks Career day
	Programmed instruction	Vocational workbooks Occupational exploration kits Reports by individuals
Input Controlled by Individual	Computer-assisted information	VIEW Computer-assisted information systems
	Interviews	Conferences with workers and personnel officers Making a job analysis Group discussions Job clinic Career conferences
Simulation of a Situation	Role-playing and/or game	Quiz contest Dramatization and role-playing Practice job interviews Game theory activities Brainstorming
	Synthetic occupational environment	Clubs (career) Laboratory study
Real Situation	Direct observation	Visitations to places of work (plant tours, field trips) Foster uncle and aunt
	Directed exploration	Occupational units Occupational curriculums Occupational courses Exploratory jobs
	Actual occupational experience	Work experience programs Temporary jobs On-the-job training Entry jobs

[a]**Note.**—"Classifications" and "Media" based on comments by Albert S. Thompson at U.S. Office of Education National Conference on Occupational Information in Vocational Guidance, Chicago, Illinois, May 16-18, 1967.

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Career guidance
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Career guidance is
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Chapter 6

EMERGING STUDENTS AND ACADEMIC REFORM

Clark Kerr

EMERGING STUDENTS

Since 1870 we have been doubling the number of students in American higher education every 15 years. This record will have been going on for 100 years when we reach 1980 and enter quite a new period in history—a period when higher education no longer is a fast growing segment of American society.

We started 1870 with 2% of our young people going to college. They came from rather standard origins, roughly the middle class; they went into rather standard careers—teaching, law, medicine, theology, in particular. In the intervening century, we have increased this number until now about 50% of our young people enter college. The Carnegie Commission is estimating that by the year 2000, this will rise to at least 66 2/3%. That estimate is based on the assumption that by the year 2000 the average state will do as well as the best state (Minnesota) does now in graduating young people from high school, and all states will average where California now is, in terms of high school graduates entering college. In California, 70% of the women high school graduates and 80% of the men go on to college, and if you average these out at 75% and multiply that against the 90% graduating from high school in Minnesota, you get two out of three. As we have gone from 2% of the age group to 50%, and perhaps up to 66 2/3% or more, the student body has become obviously more diverse. It is going to become even more diverse.

At the present time the minorities are not yet equally represented in higher education. For young black persons, the chance of going to college is about one in two to their white counterparts. The situation is even less favorable for Spanish-speaking Americans and native Indians.

In terms of income, for all the progress that has been made, in 1969 the chance of a young person going to college if his or her family had an income then of over $15,000 was five times as great as it was if he or she came from a family with an income of $3,000 or less. So we have a long way to go in terms of equality of opportunity by racial and ethnic origin and in terms of equalization among income groups.

The student body is also becoming more diverse because more and more adults are coming back into higher education for the sake of their leisure-time activities and for the sake of their changing jobs.

And it is more diverse in another rather unfortunate way as we are getting more and more involuntary students who might not attend except for pressure from parents, peer groups, and employers. A study made at the Columbia Survey Research Center showed that about one out of six students is now on campus in an involuntary way. If we move up the number of young people attending college from 50% to two-thirds, I think we will find even more of an involuntary audience on campus than we have already.

"One out of six students is now on campus in an involuntary way."

– COLUMBIA SURVEY RESEARCH CENTER

Basic Changes

But there are changes coming in students that go beyond the changes in differing origins. These changes are perhaps somewhat comparable to what happened at the time of the American and French Revolutions, when there was a turning from an aristocratic to a more democratic type society. We are obviously moving toward a more sensate culture and the students are quite responsive to this. It is something of a reaction against the protestant ethic—that you work and work, and save and save, and always enjoy tomorrow but never today.

The first time I came across this thought was a good many years ago as a graduate student in economics when I read a little essay by John Maynard Keynes. It was called "Prospects for Our Grandchildren," and he wrote it sometime in the early 1930s. It is now about time for the grandchildren that he was talking about to reach college age. He discussed the protestant ethic and he talked of how this someday would change. I have never forgotten a phrase he

used. He said that we have been living since the beginning of the Industrial Revolution on the idea of always jam tomorrow and never jam today, and by the time our grandchildren come along, they are going to be asking for jam today as well as jam tomorrow. So we are facing a new situation, with a new attitude toward life that is bound to affect us and is now already affecting our campuses quite substantially.

Also, there is the demand of young people for more relevant studies. I think we can compare this demand for relevancy with the great controversies before the Civil War when students were rebelling against the classical college and the classical curriculum, and were demanding something more relevant than they then got in college. Today we have a new demand for relevance as society changes. We also have students with higher expectations about their own participation, not only in the governance of campus life, but also in the classroom. There is more participation in the home, there is more participation in the earlier schools, and there is more participation in church groups, so they come to us in higher education with different expectations and different backgrounds. *So I see the students of the future as being products of two very basic changes in our society. First of all, the democratization of access, and second, the development of the cultural revolution.*

ACADEMIC REFORM

I turn next to some comments about academic reform—how higher education may change in response to the different nature of our student body. I would like to comment, first, about new types of institutions; second, the loosening of structures within the institutions; and then, third, change within these structures.

New Types of Institutions

I think some types of institutions which we have already are going to become much more prevalent. I think we are going to be moving toward more emphasis on the community colleges—not just colleges for the community, but also colleges for the neighborhood. In highly populous areas such a college would be easily available within walking distance rather than commuting distance of its students

colleges for the neighborhood. . . . within walking distance rather than commuting distance . . . .

and could serve individuals of all ages and be responsive to their interests. So I see a further development of what is going on already, the bringing of colleges closer and closer to the people, particularly with the community college, but also by breaking that down more to the neighborhood, with more adaptation of the idea of the store front.

Second, I think—as in Japan, and England—we are going to get open universities not just in New York State but clear across the United States. They will take the place of the old correspondence schools but will use the new technology. Rather than the picture of someone doing a correspondence course in bed late at night, one can envision living rooms all over the United States being turned into classrooms. We will then have a society where learning is possible for everybody.

Another type of institution developing already, and one which I think will develop increasingly but to a modest degree in terms of numbers, is what might be called the "pay and split college." I got this phrase from a faculty member of one of the new colleges in the United States who was explaining how the college really ran. He said the motto of this college ought to be "pay and split." He said they were charging $4,500 a year to each of their students. The parents, he said, will not pay this amount of money for their sons and daughters to go to Haight-Ashbury or Harvard Square or whatnot, but they will pay it if the students attend college first and then go to Haight-Ashbury or to Harvard Square. One such college had a class that involved going around to all the major ski resorts in the United States and concluded with a final examination on Mount Washington in New Hampshire. There are increasing numbers of "pay and split" colleges—some new, some old ones changing—where students are interested not so much in intellectual experience, as in some other kinds of experience. This kind of college I think is going to grow, though others may have quite different opinions about this.

The Loosening of Structures

I think in all institutions we are going to find that our structures have to loosen. We have had quite a rigid system. We have told the students that "if you want to get the basic degree, the BA degree, you have got to go 4 years and straight through; if you want to get the PhD, you have got to go another 4 or 6 years; if you want the MD, you have to go 4 more years and then you must have 4 or 5 years as an intern or resident."

I think we are going to have to develop more modules for students: offer degrees every 2 years instead of every 4 years; maybe offer some

maybe offer some kind of certificate every 1 year, maybe every 2 months, or 2 weeks . . . .

kind of certificate every 1 year, maybe every 2 months, or 2 weeks; give prospective students a chance to pick and choose how long they want to stay and what they want to take in that period of time. There is nothing really sacred about the 4-year modules which we have had in the past.

I think that between these shorter modules, we are going to have to plan for more interruption of study. The Carnegie Commission has recommended that rather than talking about the evil "drop-out," we start talking about the good "stop-out" and actually encourage students to take some time off between high school and college or lower division and upper division, or before graduate work; and try to create opportunities for them to use this time successfully.

I also think that in terms of loosening of structures, we must open up opportunities for people to come back to campus or to at least engage in some form of higher education throughout their lives, and not let it remain something which is concentrated on in the early years of life only. I think, too, we are going to have to loosen up our structures by providing many more apprenticeship opportunities in society, many more opportunities for field work, and we are going to have to give students credit for these activities. *I think the two greatest problems in the 1970s are going to be the financial problem which is facing almost every college and university, and the problem of loosening up our historic structure.*

Changes within Structure

In terms of changes within structure, first, I think we are going to have to take the students where they are, when they come to us, and adapt more to them, rather than force them to adapt to us. They come from increasingly diverse backgrounds; we can no longer treat them all as if they came from a single background.

We [institutions] are going to have to . . . adapt more to them [students], rather than force them to adapt to us.

Second, we are going to have to pay attention to the consumption functions. I realize that historically higher education has been engaged in production functions--training for productive skills and undertaking research and services. I would say that there are two important consumption functions of higher education. One is, on the campus itself, to make campus life interesting. The students today look upon it as a slice of life—not preparation for life, but an important slice of life—and I think we are going to have to respond to that and make the campuses more exciting and dynamic places. But also we are going to have to pay attention to more courses which prepare the students to be better consumers of their lives later on—to improve the whole quality of their lives, not just their capacity to earn a living.

Third, we are going to have to introduce many more free choices for students in picking their courses, providing options for them in all sorts of ways. One thing which greatly disturbs me currently in higher education is the way we are giving up general education. Faculty after faculty across the country is giving up general education requirements entirely. At the University of California at Berkeley at the present time, there are really no rules on general education. You take anything you want. The faculty has voted out all requirements; the students did not want them. The faculty said, "we do not know what general education is any more, but you as a student have to spend 2 years finding out." I think that is not a satisfactory answer; I do not think we should go back to the old rigid requirements we had in the past—so many years of language, etc.—but I do think we can explore the idea of options for students. The faculty should work along with students to chart a series of options that the students could pick and choose among. Any one of these options should give students good general education, in the sense of enabling them to learn about the society at large and also about their place within it. I can see a good option in Far Eastern Civilization, the history and philosophy of the Far East; or a good general education option in the field of ecology; and many others. We should work out ways to give students these options instead of the rigidity of the past and instead of what I think is an unwise requirement at the present—take anything you want to, but don't bother us with it.

In terms of free choice in options, we are going to be moving toward much more independent study. I am impressed with the program at New College in Florida, wherein they set up a learning contract, after negotiating with the individual student, as to what would be an accepted learning experience and then expect him to fulfill it.

The pressures against grading . . . are so great that one academic reform is going to be to reduce the sense of competition . . . .

A fourth development is going to be less emphasis on competition. In many ways I regret this, but I think the pressures against grading, particularly in the general courses outside the major, are so great that one academic reform is going to be to reduce the sense of competition in classrooms.

A fifth one is that, under student pressure, we are going to have to put a great deal more emphasis upon teaching and a great deal less upon research than we have done during the past century beginning with the research emphasis at Harvard and Johns Hopkins. With that in mind, the Carnegie Commission has recommended that we ought to be abandoning the PhD as the standard advanced degree. We should make it a specialist degree for those who are going into research. We prefer a Doctor of Arts as a degree for people who choose a career in teaching, who are trained to teach, who are expected mainly to teach, and

who will not undertake research later on.

Then, as another reform we are going to have to make our curricula more relevant, whatever that means. To some, it means making it more political, to others it means teaching more than just white Anglo-Saxon culture. To others, making the curriculum more relevant will mean making it more relevant to more different kinds of jobs in society.

CARNEGIE COMMISSION SURVEY

I say these changes are coming partly because of the results we are getting in from the Carnegie Commission study of academic opinion. We have undertaken the largest survey ever made of undergraduates, graduate students, and faculty members—some 70,000 undergraduates, 30,000 graduates, some 60,000 faculty members—and the results are beginning to come out now. We are soon going to be able to say more than has ever been said before about the participants in academic life. Many of those who conduct national polls contact 1,300 or 1,500 people and then say they know what needs to be done. We are going to be able to divide up the respondents by type of college, geographical region, individual departments, age of professors, and by many other characteristics.

Four Insistent Student Demands

Of the returns of the study which are coming in, there are four which are so overwhelmingly emphasized by the undergraduate students that they absolutely cannot be neglected. Let me indicate what these four are:

The *first* is that students overwhelmingly favor open access, not necessarily to an individual campus but to the system of higher education; 96% say they favor an open access system. I was as responsible as anyone else back in 1960 for the development of the Master Plan for higher education in California. This plan marked the first time in history that a geographical division in any nation had guaranteed access to higher education to every graduate of any high school, for that matter to anyone over the age of 18. That guarantee was looked upon as a very radical thing at the time, but by now 96% of the undergraduates are saying this is the system they expect to have. Not just in New York and California, but clear across the nation, this is going to come.

The *second* thing voted for overwhelmingly is to put the emphasis in hiring and promoting faculty members on their teaching effectiveness and not on

publications. This is an old complaint of students, and it has reached overwhelming proportions. Students who feel positive about this now are 95% of the total of those we surveyed.

A *third* demand is for more relevant coursework and again, as I said earlier, relevance can be defined in many different ways, but 90% of the students feel that curricula today are not sufficient for development of their interests and for the developing world.

Huxley said that colleges . . . were going to have to be more concerned with the senses of the students—teaching them how to see . . . how to feel . . . how to hear . . . to taste . . . to smell.

And then *fourth,* and this rather surprised me, is the number (80%) who say that the colleges are going to have to pay a lot more attention to the emotional—not just the intellectual—growth of students. This sounds like a new type of *in loco parentis* to me. A few years back I heard this idea for the first time on the Santa Barbara campus at the University of California in a Charter Day address by Aldous Huxley. I remember how shocked I was and also remember the expressions of disbelief on the faces of students and others in the Charter Day audience and the comments afterward. Huxley said that colleges had been concerned with the minds of their students, and that in the future they were going to have to be more concerned with the senses of the students—teaching them how to see, teaching them how to feel, teaching them how to hear, teaching them how to taste, teaching them how to smell. At the time, I was shocked by the idea that the colleges which had always been concerned with intellect should now be concerned with senses. Now there is this great demand for attention to the emotional growth of students. What kind of reform can respond to that demand? And what does it do to intellectual growth? And what does it do to *in loco parentis?* I don't know. But if we have 80% of the students demanding this, maybe we had better start thinking about it.

Other Student Demands

Now let me give you some other areas where there seems to be sufficient demand to require at least our partial adaptation to it.

On the question, "Do you feel that colleges should have a responsibility for helping to solve the social problems of society?"—not just through research only—67% responded yes. On the question, "Do you believe that colleges should

be governed by faculty and students by themselves without trustees?"—I guess also without governors—62% said they think that the governance should be entirely by the faculty and by the students. On the question, "Do you think that all grades should be abolished?" 59% answered yes. On the question, "Do you think that all courses should be electives—no requirements whatsoever?"—53% said yes. On the question, "Do you think that every student should be *required* to undertake a year of national service?" 51% answered yes. And then on the question, "Should colleges provide more opportunities for students to engage in creative activity, particularly the creative arts?" 53% said yes. These figures are sufficiently substantial that I think we are going to have to adapt to them.

SECOND GREAT PERIOD OF CHANGE

So I would like to suggest then that we are moving into the second great period of change in the history of American higher education. It is a period of change which is going to bring in some new structures, a great loosening of existing structures, and aside from the loosening of the structures, substantial changes within them. We are going to go through a period something like that between 1870 and 1890, in some ways perhaps more basic. Early in the period new institutions were created (the land grant universities), then the state colleges began their history, and community colleges came along somewhat later. There was no loosening of structures but there was a good deal of adaptation within the structures, particularly to provide new subjects for the students outside of the classical curriculum. So we are facing another 20 or 30 years of substantial change.

The Testing Agencies' Role

Let me conclude, as a complete outsider, by at least asking some questions about the testing agencies—the two main ones, of course, being ACT (The American College Testing Program) and ETS (Educational Testing Service).

The testing agencies may need to change as much as or even more than the rest of higher education.

Facing this situation, I think the testing agencies may need to change as much as or even more than the rest of higher education. So I ask these questions. The *first* is one that everybody is asking: "How can we get better tests to fit the more diverse students who are coming our way?"

Second, how can we (and I'm using this word *we* in the sense that testing agencies belong to all of us and work for all of us) do a better job of counseling and guiding these more diverse students and the more diverse institutions that are being created?

Third, how can we devise tests which will take the place of formal education so that people can prove their accomplishments and their abilities without having to be channeled down this one funnel of formal higher education? I do not think we are going to get away from the credentialing society, but I think there can be some good substitutes for everybody spending 2, or 4, or 6, or 8, or 10, or 12 years after high school in formal education. So I think tests for credit are going to become extremely important.

Fourth, what can we do to help employers hire individuals without relying on the sorting functions performed now by higher education? My field is industrial relations, and I have seen and worked with and met with hundreds of personnel managers, and they are a rather cautious lot. The top employer may be brave and want to take risks on people, but the personnel manager does not want to. If an employee goes bad, he wants to say, "Well, it wasn't my fault, it was somebody else's fault." So he now looks for the degree the individual has and says, "It was the fault of California for giving him the degree. It wasn't my mistake. I relied upon that degree." But this then forces the students to get more education than some of them either want or need. Isn't it possible to develop tests which will do a better job of sorting than is done by college attendance and give these cautious personnel managers something else to rely upon, and to help them in making their difficult decisions?

This [college degree] then forces the students to get more education than some of them either want or need.

And then *fifth,* how may the testing agencies perform a role in handling the new technology? Sir Eric Ashby has talked about the current period as the fourth great technological revolution. The first one was when teaching stopped being done within the family and was turned over to experts. The next was when these teachers could rely not only upon oral instruction, but also upon written instruction. The third revolution occurred when the printing press came along and there were printed books (not just hand-written instruction and hand-written books). And now we face the fourth great revolution in the history of education during the life of mankind on this planet—with computers and the

possibility of terminals in every home, with video cassettes that may have adapters on TV sets in every home.

So we have this new technology coming along, and at some point there is going to be a struggle as to who plays what part in handling it. Will it be the federal government, say through the U.S. Office of Education, handling it on a nationwide basis? I do not think that is within the spirit of the American nation. Is it going to be handled by industry? A number of the larger companies in the United States and perhaps in consortia want to get control of this new opportunity. Is it going to be handled by campuses separately or by campuses working together in consortia? May it be done by one or more foundations? And also, is there some role for the testing agencies in this area? They cover the nation; they have contacts with higher education, with secondary education clear across the country, and are already experts on testing results. Might they play some significant role in introducing the new technology in the United States?

The testing agencies in this country are moving from what has been a place on the periphery of higher education toward its center. And rather than being necessary but auxiliary enterprises, they are becoming now a more and more integral part of the total process of higher education. We have seen the great growth of ACT in the past decade; I would think that the opportunities, as we look ahead to the next 2 or 3 decades and the year 2000, are going to be even greater.

The testing agencies . . . are moving from what has been a place on the periphery of higher education toward its center.

They are becoming now a more and more integral part of the total process of higher education.

Chapter 7

THE ROLE OF MILITARY EDUCATION AND TRAINING

C. D. Leatherman

The Army, as well as our whole Defense Establishment, is vitally interested in the influences of training and education on technological advances. We accept as a basic axiom that "education is our nation's largest business."

We who are deeply involved with Army activities are also vitally interested in education and training. Even so, too few people realize the extent, the impact, or the size of the Army's school system. In effect, our Army school system is the largest campus in the world.

OVERVIEW OF ARMY SCHOOL SYSTEM

In addition to the United States Military Academy, we have 2 other colleges, 22 branch schools, and 11 specialist schools. Our Army schools offer over 700 different courses of instruction on a campus which is located in 17 different states. During last year, we had 80,000 in our Army classrooms each day of the year and enrolled over 400,000 servicemen and civilian employees in our Army school system. Those data are for the last fiscal year only, and the program is growing.

Courses of instruction cover a wide spectrum of academic subjects as well as

skills, trades, and crafts, most of which are readily transferable to civilian pursuits.

Servicemen who desire to compete for the U.S. Military Academy, if qualified, can attend a U.S.M.A. Preparatory School. While there, they are given extensive training and instruction designed to prepare them for competition and appointments to West Point.

Project 100,000

Project 100,000 helps many men who ordinarily could not serve in the Armed Forces because of insufficient education. Some have high school diplomas but read below the sixth-grade level. Following special training, many become effective soldiers and—even more important—they learn skills and develop aptitudes and habits which will make them more productive citizens.

They learn skills and develop aptitudes and habits which will make them more productive citizens.

Project TRANSITION

Through project TRANSITION, the Army assists soldiers in preparing for civilian life. While still in the military service, these men can receive special training to better prepare them for civilian jobs in government and industry. During the last fiscal year, 1,300 men were trained as law enforcement officers. The Post Office Department, after providing orientation training, hired more than 5,000 men in an 18-month period.

Most individuals stay in the Army only 2 or 3 years. Therefore, we make every effort to improve our educational techniques and our school system to assure them the largest benefits possible. As a result, we are constantly trying new techniques, exploring innovative approaches, and evaluating promising ideas.

Systems Approach

Currently we are using a systems approach to revise our training center courses of instruction. These courses are being redesigned using seven sequential steps. First, we conduct a thorough job analysis. In turn this leads to job descriptions, job management, and requisite training information predicated on the computerized storage of specific job data gathered world-wide. Preliminary

estimates by CONARC indicate that we are able to reduce training time by at least 10%.

Programmed Texts

Programmed texts are being used also. These are the key to individually paced instruction in which the student can proceed at his own rate of progress. Even though an average of about 100 hours of effort is required to prepare 1 hour of instruction, cost savings are achieved through improved learning, anticipated improved retention, and individually paced instruction which saves both student and instructor time.

Computer Assisted Instruction

Over and above these new developments, we have begun experimental studies with computer assisted instruction as another method of handling students with different abilities. Computers have the capability to "tailor make" instruction to the individual student almost instantaneously. Interestingly enough, each individual student interacts with the computer as if he were the only student in the class, even though 50 students can be seated in any one classroom. And each student can be provided a different problem in the same subject area at the same time.

Varied teaching and training aids are considered necessities for effective instruction, such as closed circuit television, audio and visual tapes, multi-media, and a variety of projectors. As our weapons and equipment become more complex, we continue to rely on a variety of training simulators since the actual equipment costs and size preclude such use in the classroom.

We also expect civilian institutions to provide the intellectual foundation . . . .

Even though we operate an extensive school system, we also expect civilian institutions to provide the intellectual foundation which our military leaders need in a modern Army.

EDUCATIONAL LEVEL OF OFFICERS

Regarding the level of education, nearly 90% of our career officers hold undergraduate degrees; our goal is, of course, to reach 100%. In a program we call BOOTSTRAP, we offer motivated officers, who have not completed college,

an opportunity to earn a baccalaureate degree. Currently about 500 officers are enrolled.

About 25% of our career officers now hold advanced degrees. However, we estimate that approximately 75% of our career officers may expect the opportunity to gain advanced degrees during their service.

The Army also sends selected officers to leading colleges and universities for graduate education in many different disciplines so that they can meet our needs—normally at the master's and doctorate level. Currently, more than 1,200 officers are enrolled in 136 colleges and universities throughout the country, pursuing courses in 111 fields of study.

Even though I represent the Army, I would like to broaden the scope of this paper by using some Air Force examples. My illustrations are taken from a talk given by Dr. Robert G. Seamans, Jr., Secretary of the Air Force, at the University of Georgia in early 1971. He was referring specifically to computer applications in the field of education and training.

First, by way of background, the Air Force operates more than 1,000 general purpose computers around the world. This represents about one-fourth of the computers which the federal government operates. Many Air Force jobs have now been computerized which permits the work to be done by fewer people, with fewer errors, and at less cost. This advanced technology has also been used by the Air Force to train people for skilled work. The magnitude of this effort is understood more fully when one realizes that the Air Force alone uses 130,000 instructors, offers 3,000 courses, and thus far has trained over seven million people.

TECHNICAL TRAINING

Placing this activity in proper perspective with the Department of Defense (DOD), we learn that the DOD spends about a billion dollars each year on technical training, extending from auto mechanics to computer training to systems engineering to nuclear physics. This is what I term "skill" training.

For example, our civilian economy requires men and women with "skill" training in such diverse fields as electronics, automotive and other mechanical fields, engineering technology, communications, medical and other health pursuits, space sciences, aviation, etc.

Our Army schools provide technical training in all of these diverse fields, and this technical training is the best which can be given by any agency in the world. We accept General Westmoreland's philosophy that the Army is in fact a mirror of our civilian economy. In this regard, it is not uncommon for representatives of industry literally to be waiting outside the Army gates to hire service personnel who have been trained by the Army—have fulfilled their military

obligation and are returning to civilian life and vocations with a skill.

One technique which the Air Force uses effectively should be mentioned. Personal instruction in the Service Schools is supplemented with programmed learning and a variety of teaching devices. The net result is the more rapid completion of individual courses. For example, there are now five complete Air Training Command courses which use only programmed instruction. In addition, teaching machines have been used to bring some recruits up to the desired minimum sixth-grade reading level. These are Project 100,000 personnel, and advanced technology has allowed recruits to overcome their social and environmental handicaps.

There is still a broader aspect to the problem involved in "how to use technological advances." The application of skills acquired through military training to related civilian requirements is a matter of common knowledge although seldom publicized adequately. The basic building blocks are: advances in educational technology; the pioneering and experimental work done by the Armed Services; and, finally, the application of these two elements to requirements in the civilian economy. Here is only one example. The State of Utah, the U.S. Office of Education, and the Aerospace Educational Foundation cooperatively undertook a project designed to determine how well specific courses and course materials (books, slides, training aids, and advanced techniques) could be adapted for civilian use. Courses selected for experimental studies were electronics and aircraft mechanics. The only difference is that the courses were taught in five different high schools or colleges by the regular civilian instructors. Other factors remained the same. All concerned were enthusiastic about the results. Experimental results indicated that many military technical courses can be easily transferred to civilian institutions. The net results for the civilian community are: reduced training costs, reduced training time, and improved manpower utilization. Even though these represent significant and dramatic steps forward, much more needs to be done. Technological advances can and should be exploited through imagination, ingenuity, resourcefulness, and good management.

The net results for the civilian community are: reduced training costs, reduced training time, and improved manpower utilization.

ARMY ROTC

Here are a few basic facts about the Army Reserve Officer Training Corps (ROTC). This is the Army's effort to educate, train, and develop leaders.

The Army depends on the civilian education system for its ROTC program. ROTC plays two vital national roles. First, it contributes to the defense and preparedness of the United States. (Yes, this occurs even during a time when dissent against national policy, disregard for the law, mob rule, and "pot" make the news.) Next, it develops discipline, character, leadership, and patriotism in young people—young people who will be among the future leaders of this nation.

It [ROTC] develops discipline, character, leadership, and patriotism . . . .

In the Junior ROTC program, many young people first learn camaraderie, leadership, discipline, and respect for authority—traits which some of our young people sorely need. I believe that the Junior program is required now more than ever before.

The major source of newly commissioned officers for the Army each year is its Senior ROTC program. This year (1971) we expect to commission about 14,000 new officers.

Much has been said and written to the effect that ROTC enrollments dropped to a mere trickle for the fall of 1969 and 1970, which in turn was positive proof that ROTC was fading out of the picture. The following facts do not substantiate such claims. There was a significant drop in enrollment from SY 1968-1969 to SY 1969-1970, down from 113,872 to 75,276 in the Basic program (MS I and II). The decrease of 38,596 represents a 34% loss. The situation is quite different for the ROTC Advanced program (MS III and IV) where the decrease was about 3,000 (8% loss). Actually, we expected to exceed our production requirements last year and did commission more than 16,000 new officers and around 14,000 this year.

So far as we know, the negative causes for the reductions in enrollment are: reduced draft pressures, announced troop withdrawals from Vietnam, the effects of pressure groups on college students including dissident activities, budget cuts in military spending, a most unpopular conflict in Southeast Asia, and discussions about an All-Volunteer Army.

ROTC Scholarships

Public Law 88-647 (the ROTC Vitalization Act of 1964) provided 5,500 scholarships for each of the three Services. Army ROTC scholarships have been awarded on a phased basis since 1965, and we reached the authorized ceiling of 5,500 in the fall of 1970 (SY 1970-71).

Each cadet who wins a scholarship for 2, 3, or 4 years is provided full tuition to an ROTC host institution of his choice, textbooks, and laboratory fees plus a monthly subsistence allowance for the period of the scholarship. Each scholarship cadet commits himself to 4 years of active duty and acceptance of a regular Army commission, if it is offered.

Legislation passed by the 92nd Congress increased Army ROTC scholarships by 1,000—from 5,500 to 6,500. In addition, this legislation authorizes 20% of the scholarships to be allocated to the 2-year scholarship program, which had not been authorized previously. The Army feels that this proposed legislation will attract additional cadets into the ROTC Advanced Program.

In other legislation, Congress raised the monthly ROTC subsistence allowance from $50.00 to $100.00.

ROTC Objectives

Our ROTC objectives on American campuses are: to attract, motivate, and prepare selected students with potential to serve as commissioned officers in the Regular Army or the Army Reserve; to provide an understanding of the fundamental concepts and principles of military art and science; to develop a basic understanding of associated professional knowledge, a strong sense of personal integrity, honor, and individual responsibility; and to develop an appreciation of the requirements for national security.

Young men are drawn from all geographical areas of our country and all economic and social strata of our society. Many educational disciplines are required for the modern Army. For this reason alone, men are educated in a broad spectrum of American institutions of higher learning and are commissioned annually into the Army officer corps. Thus, ROTC provides a mutually advantageous and cooperative arrangement between the Army and institutions of higher learning.

The questions are often asked, "What about the ROTC college graduate who has completed his military service? Has he lost time? Is he behind his college classmates who didn't choose this route?"

We know the answers. Here are quotes from three industrial executives.

Bell Aerosystems Corp.: "We have found that in the many cases where we have hired engineers and other professional people who have had ROTC training, this has proven to be a valuable asset both in work habits and performance on the job."

Chrysler Corp.: "Our experience has shown us that the college graduate who has served as an officer makes an excellent candidate for employment. I am sure that the chance to exercise judgment and assume responsibility in a leadership situation gives this person an edge over most other candidates."

Philco-Ford Corp.: "I am convinced that industry's view of ROTC training is similar to ours which is that ROTC training is an invaluable asset weighed heavily in all employment considerations. We have found that ROTC students are well on the road to achieving the proper blending of leadership and management skills with their formal education, and in that sense they are much ahead of their contemporaries who will enter industry upon graduation."

Enrichment Program

One recent development, about which you may not have heard, is called the *ROTC Enrichment Program.* The National Strategy Information Center (NSIC) conceived, financed, and initiated the program in January 1968 for the Metropolitan New York area.

For each of the first 14 campuses, NSIC undertook to provide guest lecturers for ROTC (Army, Navy, and Air Force). In many cases these academic specialists were of national repute. Their subject areas included, for example, sociopolitical aspects for a given geographic area, national security affairs, international relations, strategic policy considerations, and other subject areas where the ROTC curriculum could be enriched by presentations from nationally recognized academic specialists.

This program has been received enthusiastically by all participants. This is underscored by the fact that the program has grown from the original 14 to 88 participating institutions. We expect to reach 120 in 1971. The geographic coverage extends throughout the United States.

Actually, this plan could and probably should be a two-way street. For example, on any given campus, civilian faculty members could supplement and strengthen the ROTC program by offering their particular expertise. On the other hand, the Professor of Military Science could serve as guest lecturer in some other department of the university, such as civil engineering, international relations, or a particular foreign area of the world.

Another new development deals with special *ROTC opportunities for selected ethnic groups.* In the fall of 1970, a pilot program was initiated to provide

additional opportunities and incentives for specially selected probationary cadets to participate in the Senior ROTC program. The first experimental group of students was selected by a joint military-civilian board at Morgan State College. Prerequisites or criteria for selection by the evaluation board are:

1. an ROTC Qualifying Examination Score of at least 30
2. an academic grade point average of at least 2.2 based on a 4-point system
3. demonstrated outstanding leadership abilities
4. aptitude and motivation for service in the Army as a commissioned officer.

Cadets who entered the advanced ROTC program (MS III) were entered on probation. Each cadet signed a certificate that he would participate in a remedial program (special classes and/or tutoring) to correct known deficiencies in mathematics and English. College Entrance Examination Board tests and the test battery scores of The American College Testing Program were reviewed and maintained as a part of each cadet's personnel folder.

ARMY MEETS NEEDS OF NATION

We feel strongly that the Army has made and will continue to make significant contributions to the development of this country. Here are only a few historical examples where the Army met the needs of our growing and developing nation.

- The need to map and survey our new and growing nation caused our young Republic to send its small Army west to the Appalachians.
- Needs for increased arteries of communication in a developing nation caused Army engineers to plan and construct roads, railroads, and canals, including the Alcan Highway, the Panama Canal, and the St. Lawrence Seaway.
- Needs of health gave impetus to the Army Medical Corps to conquer typhoid and yellow fever, to develop a means of water purification through chlorination, and to develop blood plasma substitutes. The first American psychiatry text was written by an Army doctor.
- Needs for research in space vehicles led to Army development of EXPLORER I—the only ready satellite with which the challenge of SPUTNIK could be met.

- The need to chart the Antarctic led Army experts in 1962 to map parts of that vast frozen continent. Today Army cartographers chart the surface of the moon.
- And in times of natural disasters, the Army, when directed, sends relief to those in distress.

We have in fact a large, well-educated and well-trained Army. Our Army school system is an integral and basic part of the Army's total program.

Our objective is to reach an all-volunteer, modern Army. We expect to achieve this goal, and it will be done in cooperation with the academic community.

Our Army school system is an integral and basic part of the Army's total program.

Chapter 8

WHERE DO STUDENTS GO AFTER HIGH SCHOOL?

Garland G. Parker

The paucity of data pertaining to the dispersal of high school graduates creates serious problems in the area of research, and perhaps the most formidable obstacle is the lack of timely enrollment information. Obviously, there is a premium upon figures for the most recent year(s), but, regrettably, such information as is available in many cases is several years old. The fast pace of events in higher education in our time diminishes the value of stale data. The writer, though partisan on the subject, would exhort institutions and their reporting officers to make every effort to share as freely as possible their student information with legitimate data collectors and analysts. Enrollment information is only valuable inside or outside of an institution when it is shared in the interest of students generally, the institutions themselves, and the nation or society as a whole.

Technological or computer problems often are cited as reasons for reporting delays, but these can be overcome and should not be used as alibis for nonperformance over any significant period of time. Massive size on the one hand and diminutive numbers on the other complicate and often delay effective enrollment analyses in many schools.[1] The inadequacy of organization within

[1]Garland G. Parker, "Enrollment Survey to Appear in February Issue," *School & Society*, 99 (January 1971), p. 19.

various school groups and the mere fact of the existence of many thousands of proprietary schools are factors further indicative of the difficulty in garnering viable data from such a host of institutions. Also, there is the fact of overlapping data in various enrollment reports and between different categories of schools. The segmenting of enrollments to show class year and program distinctions is a serious problem. The available enrollment reports are surprisingly few in number, and in too many program areas and school classifications there are no reports at all.

It should be noted that many high school graduates enter directly into the labor market, some enter military service, others get married, and, of course, large numbers move directly into postsecondary training programs. With the delayed and staggered entry of persons from the first three categories into various study programs, the complexity of the answer to the question of "Where Do Students Go after High School?" is clearly manifest. These observations are not made to excuse the inadequacies of this or any other enrollment analysis, but to set forth the hazards impeding data collection and, above all, *to highlight the need for more enrollment reporting and further research in the career education area.* Progress in this field will require careful organization, subtle distinction in types of students and schools, institutional cooperation, and adequate funding either by private foundations, professional organizations, or federal agencies. The dearth of such data is lamentable in this increasingly technological and socially complex era of our national life. In the 1970s and the 1980s, when career, occupational, and service-oriented jobs must become increasingly important, in partial reflection of our growing population, exploding urbanism, and rising ecological concern, the need for viable data on postsecondary training in career education is evident.

These observations . . . highlight the need for more enrollment reporting and further research . . . .

To gather such data, we must move into the statistical swamp that comprehends the enrollment of high school graduates and their dispersal in various directions after graduation. This swamp is characterized by some islands of high ground with reasonably well-defined paths beat out, others where the figure trails are circuitous, often overlap, and sometimes lead us into bush, bogs, and even quagmires of quicksand. In other areas, there is wilderness, unexplored territory, and uncharted waters. Nevertheless, to get anywhere we must start, and that is the objective now. If we can beat out some of the ground and lay out some road markers, perhaps others who come later can better define and extend the data trails.

HIGH SCHOOL BASE

Our starting place should be from the high school base. In recent years, the high school graduates have been numbered as follows: 2,665,000 in 1965; 2,672,000 in 1966; 2,680,000 in 1967; 2,702,000 in 1968; 2,839,000 in 1969; and an estimated 3,055,000 in 1970.[2] Of these, in 1970, about 288,000 were graduates of private and parochial schools, and some 2,767,000 were products of public schools. A related statistic of importance is the estimate that some 700,000 other high school students drop out each year prior to graduation. Sooner or later these also enter the various adult arenas where the high school graduates go.[3] What happens to the dropouts not only is important to them, but their irregular pattern of reentry into the job, school, or other markets offers still another complicating factor in our enrollment data picture.

Now, we push off from the high school base and seek to track our elusive quarry of graduates into the statistical swamp ahead of us. The strategy will be first to scout the better known and relatively solid data bases and move from there to the lesser known ones. The most comprehensive information source is the U.S. Office of Education enrollment reports. Even here, however, we have a problem because of the delay in the issuance of those studies. As of April 1970, only an advance report on opening fall enrollment in higher education for 1970-71 was available and, in part, it was based on estimates. Even for 1969, no more than a preliminary survey report on opening fall enrollment, published in November 1970, was on hand. There was promise, however, that the basic survey report for 1970 soon would be forthcoming. The intent here is not to appear overcritical but to point out that, in May 1971, comprehensive enrollment data for all institutions of higher education were not yet available for 1969, let alone 1970. This delay is a high handicap to the researcher who prefers to deal with current rather than archival data.[4]

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[2]"Enrollment Data," in *A Fact Book on Higher Education*, First Issue (Washington, D.C., 1971), p. 71.7; telephone conversation with George H. Wade, U.S. Office of Education, April 13, 1971.

[3]Hon. John Dellenback, "Report on Proprietary Vocational Schools," *Congressional Record*, Vol. 116, No. 139, August 12, 1970.

[4]George H. Wade, *Advance Statistics on Opening Fall Enrollment, 1969, Basic Information* (Washington, D.C.: National Center for Educational Statistics, Department of Health, Education, and Welfare, 1970); George H. Wade, *Opening Fall Enrollment in Higher Education, Report on Preliminary Survey, 1969* (Washington, D.C.: National Center for Educational Statistics, Department of Health, Education, and Welfare, 1970); George H. Wade, *Advance Report on Opening Fall Enrollment in Higher Education, Institutional Data, 1970* (Washington, D.C.: National Center for Educational Statistics, Department of Health, Education, and Welfare, 1970).

The last year for which the most pertinent data for our purpose are available in U.S. Office of Education reports is 1968. In that year, first-time bachelor's degree-credit students numbered 1,643,632; of these, 931,036 were men (766,209 full-time and 164,827 part-time) and 712,596 were women (573,996 full-time and 138,600 part-time). In addition, there were 264,306 first-time students in undergraduate occupational programs not chiefly creditable toward a bachelor's degree. In this group, there were 158,376 men (86,523 full-time and 71,853 part-time) and 105,930 women (56,595 full-time and 49,335 part-time). All of these first-time students were enrolled in 2,491 institutions of higher education as recognized by the U.S. Office of Education.[5] The first-time bachelor's degree students amounted to 60.8% of the 2,702,000 high school graduates of that year, and the first-time students in undergraduate occupational programs comprised 9.8% of the same class. Of course, this is in some error since a significant number of entering students derive from earlier high school graduating classes, but the relationship is nevertheless worthy of attention. In the fall of 1969, there were 1,983,525 students reported as first-time students in all 2,536 institutions of higher education, but no distinction was made for students in occupational programs in the preliminary U.S. Office of Education survey for that year.[6] Of those reported, 1,123,988 were men and 859,537 were women. For 2,574 reporting institutions in 1970, the advance U.S. Office of Education report showed that 2,099,813 first-time resident and extension students were enrolled as compared to a high school graduating class of 2,839,000 in 1969, or 74%. Of these students, 1,166,916 were men (908,900 full-time and 258,016 part-time) and 932,897 were women (706,969 full-time and 225,928 part-time).[7] Although the data vary slightly, it is of interest to cite information supplied by Charles Johnson of the Census Bureau that in October 1969 there were 2,842,000 high school graduates of 1969 in the so-called "civilian population" (nonmilitary, noncollegiate, and noninstitutional). Of this number, 1,516,000, or 53.3%, were enrolled as college degree-credit students; 1,466,000, or 51.6%, were full-time; 50,000, or 1.8%, were part-time; and 46.7% or 1,326,000, were not collegiate students.[8]

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[5]Marjorie Chandler, *Opening Fall Enrollment in Higher Education, 1968: Part B—Institutional Data* (Washington, D.C.: National Center for Educational Statistics, Department of Health, Education, and Welfare, 1969), pp. 1, 134.

[6]Wade, *Opening Fall Enrollment, Preliminary Survey, 1969,* p. 8.

[7]Wade, *Advance Report on Opening Fall Enrollment in Higher Education, 1970,* pp. 1-2.

[8]Telephone conversation with Charles Johnson, Chief, Education Branch, Population Division, Census Bureau, Department of Commerce, April 20, 1971.

COLLEGE POPULATIONS SURVEYED

Further refinement of the enrollment data base for higher education is presented by this writer in the annual reports published in *School & Society.* These studies survey college populations in the accredited 4-year colleges and universities, the 2-year institutions administered by them, and in the so-called upper division or senior colleges, and the specialized graduate schools. In the *School & Society* reports, particular attention is given to full-time freshman enrollments. The purpose is to gain a perspective of freshmen in the accredited schools and some measure of their program choices on the assumption that this will provide a basis for judging what the academic output may be at the various degree levels in later years. Therefore, it matters little whether the freshmen are recruited from an earlier or the last high school graduating class, whether they are returning veterans, former students, or whether they derive from the adult segment of the population. Indeed, to regard all freshmen as if they were only first-time students is inaccurate. Statistics on both first-time students and classified freshmen are valuable but for different reasons; they are complementary and not necessarily contradictory.

With this understanding in mind, the *School & Society* freshman figures deserve attention. The freshman tables in these reports are not exhaustive but are illustrative and help delineate important trends in numbers and program choices among college freshmen. The fields covered, with separate figures for men and women, are arts and sciences, engineering, business administration, agriculture, education, nursing, and a catch-all or "all others" category. Statistics for freshmen in these disciplines are available in these studies for many years back, but reproduction of the data will be limited here to 2 years, 1969-70 and 1970-71. The accompanying table covering 960 accredited institutions indicates the study fields and the full-time enrollments in them by men, women, and total categories for the years shown.

This accounting for the freshmen in 960 comparably reporting institutions does not comprehend all of the 1,185 accredited institutions covered in the 1970-71 report. The reason for this is that a significant number of institutions of higher education, among them some of our most prestigious academic agglomerations in terms of reputation and size, apparently do not know and cannot report on the number of freshmen they have by late November in each year. We have lost ground because 10 or 15 years ago they usually could provide such information. Systems, programs, computers, and persons responsible for such a lamentable lag in the reporting of prime enrollment data should be the subject of critical review in the institutions thus affected. In one great university, the reporting representative assured me that the only unifying factor among the 18 or so disparate academic units on his campus was the heating system! If our

TABLE 1

Freshman Enrollments in 960 Accredited Institutions*

Fields	1969-70 Men	1969-70 Women	1969-70 Total	1970-71 Men	1970-71 Women	1970-71 Total
Arts and Sciences	238,682	212,932	451,614	248,423	222,272	470,695
Engineering	59,420	1,370	60,790	58,789	1,539	60,328
Business	57,030	16,295	73,325	60,864	17,741	78,605
Agriculture	11,722	2,378	14,100	11,951	2,783	14,734
Education	31,656	76,131	107,787	31,095	75,731	106,826
Nursing	256	13,703	13,959	375	15,906	16,281
All Others	117,584	97,393	214,977	121,452	102,774	224,226
Totals	516,350	420,202	936,552	532,949	438,746	971,695

*Garland G. Parker, "Statistics of attendance in American universities and colleges, 1970-71," *School & Society*, 99 (February 1971), p. 118.

lethargy in gathering and reporting enrollment data is in any measure symptomatic of our operations in other vital segments of the academic community, it is little wonder that on occasion we perceive some ripple of unrest. Such circumstances are the bane of enrollment reporters. The purpose here, however, is not to glorify or whitewash the *School & Society* reports. Indeed, I am probably their severest critic. They do not include 100% of the accredited schools, the freshman coverage is lesser still, and there are many restrictions imposed by budget, time, the publisher, and the human inadequacies of the author that are exceedingly frustrating. Nevertheless, the reports are produced regularly and promptly each year, usually earlier than any other comparable study, they get wide press coverage, they do get published, and I hope they render an important service to higher education. Although not inclusive of all schools, they give more information about the entry of high school students into given program areas of postsecondary education than any other single compilation.

In one great university . . . the only unifying factor . . . was the heating system!

Dramatic Growth of Junior Colleges

One of the most striking phenomena of higher education in the last decade has been the dramatic growth of the junior colleges. As a result of research for *The Enrollment Explosion* book,[9] the preparation of 11 annual *School & Society* reports, a professional involvement with several junior college units at the University of Cincinnati, and a keen personal interest in the subject, the author has reviewed junior college development over the last 50 years, with an especial emphasis on the period since 1960. In such study the writer has been aided greatly by representatives of the American Association of Junior Colleges. Aiken Connor and William L. Harper have been especially helpful.

The 1835-1900 period was marked by the rise of private junior colleges in the U.S. and the 1901-20 era brought the evolution of the public junior colleges. Yet, in 1920 there were only 8,000 students registered in 52 junior colleges in 23 states. Kelly and Wilbur report that by 1947 there were 323 private colleges, but by 1952 they were surpassed in number by 327 public institutions.[10] In addition to the preliminary data published each year in the *School & Society* reports, more comprehensive enrollment information appears later in the year in the *Directory of the American Association of Junior Colleges.* The *1971 AAJC Directory* contains a comprehensive listing of "all institutions that are organized on a two-year basis, have state recognition and/or regional accreditation, and offer two-year associate degree programs. . . . The Directory does not include proprietary colleges."[11]

By 1970, using this definition, there were 1,091 junior colleges, of which 847 were public and 243 were private. The total enrollment in these colleges was 2,499,837, with 758,556 listed as full-time freshmen and 516,077 as part-time freshmen. The respective sophomore totals were 336,550 and 178,679; similar counts of 51,755 and 341,930 in the unclassified categories completed the tabulation.[12] It should be noted that the 1,091 junior colleges included "two-year community and junior colleges, technical institutes, and branches of universities."[13] Thus, the enrollments in the public junior colleges affiliated

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[9]Garland G. Parker, *The Enrollment Explosion: A Half-Century of Attendance in U.S. Colleges and Universities* (New York: School & Society Books, Inc., 1971), pp. 93-96.

[10]Win Kelly and Leslie Wilbur, "Junior College Development in the United States," *School & Society*, 97 (December, 1969), pp. 485-498, 520.

[11]*Directory of American Association of Junior Colleges, 1971* (Washington, D.C.: ERIC Clearinghouse for Junior Colleges/American Association of Junior Colleges, 1971), p. 5.

[12]Ibid., p. 88.

[13]Ibid., p. 5.

with 4-year colleges and universities overlapped those reported elsewhere for the latter institutions. A research service of significance would be the isolation of the enrollments in the university-affiliated 2-year units from the independent public and private junior colleges. The preponderance of programs in junior colleges emphasizes career, occupational, and service-oriented curricula; but, regrettably, data on such enrollments that would be so helpful here are woefully lacking. Two-year college enrollments have been forging ahead in recent years much more rapidly than those in the 4-year institutions. An increase of 11.4% for 1970 over 1969 in the junior colleges may be compared to an estimated growth of no more than 7% in all institutions and something less than 5% in the accredited 4-year institutions.[14] This writer's projection is that the trend toward higher increases in junior colleges than in other institutions will be continued in 1971-72. If all junior college freshmen were from the 1970 high school graduating class, they would comprise about 42% of that class. We know that the actual proportion is something less, but this relationship is indicative of the large segment of high school graduates that enter junior colleges.

VOCATIONAL EDUCATION

When we depart from the traditional 4-year colleges and universities and pass beyond the 2-year junior colleges, our search for the trail of the dispersing high school graduates becomes even more frustrating. The confusing semantics of vocational, technical, business, and trades education, in terms of definitions, comprise another pitfall. Suffice it to say that these important postsecondary training areas absorb a large segment of the students leaving high school, probably have room for many more, merit our serious attention, and in the future should be the object of comprehensive research, especially in the areas of enrollments. This exposition perforce must be limited to a review and some appraisal of the information and data currently available—the writer's objective is to "tell it like it is," rather than to give the comprehensive and refined analysis that the subject deserves and that, hopefully, some day will be possible.

The confusing semantics . . . comprise another pitfall.

The writer is aware of continuing debate over the distinction between "vocational" and "technical" education, but he notes that the National Study for Accreditation of Vocational-Technical Education is under the sponsorship of

[14] Parker, "Statistics of Attendance . . . 1970-71," p. 123.

the American Vocational Association. Thanks are extended to Lane C. Ash, Director of the above-mentioned study, and to Harold F. Duis of the U.S. Office of Education for information supplied on vocational education enrollments. Some of these data are based on reports compiled in the Division of Vocational and Technical Education in the U.S. Office of Education. In the public sector, federal support is vital to most vocational educational programs. In the Vocational Education Amendments Act of 1968, federal grants to the states were authorized

> to assist them to maintain, extend, and improve existing programs of vocational education, and to provide part-time employment for youths who need the earnings from such employment to continue their vocational training on a full-time basis, so that persons of all ages in all communities of the state—those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market but need to upgrade their skills or learn new ones, those with special educational handicaps, and those in postsecondary schools—will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training.[15]

In this Act, the term "vocational education" is defined as

> training or retraining which is given in schools or classes (including field or laboratory work and remedial or related academic and technical instruction incident thereto) under public supervision and control or under contract with a State board or local educational agency and is conducted as part of a program designed to prepare individuals for gainful employment as semiskilled or skilled workers or technicians or subprofessionals in recognized occupations and in new and emerging occupations, to prepare individuals for enrollment in advanced technical education programs, but excluding any program to prepare individuals for employment in occupations which the Commissioner determines, and specifies by regulation, to be generally considered professional or which requires a baccalaureate or higher degree; and such term includes vocational guidance and counseling (individually or through group instruction) in connection with such training or for the purpose of facilitating occupational choices; instruction related to the occupation or occupations for which the students are in training; job placement; the training of persons engaged as, or preparing to become, teachers in a vocational education program or preparing such teachers to meet special education needs of handicapped students; teachers, supervisors, or directors of such teachers while in such a training program; travel of students and vocational education personnel while engaged in a training program; and the acquisition, maintenance, and repair of instructional supplies, teaching aids, and equipment, but such term does not include the construction, acquisition, or initial equipment of buildings or the acquisition or rental of land.[16]

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[15] "Vocational Education Amendments Act of 1968," *Public Law 90-576*, 90th Congress, H.R. 18366 (October 16, 1968), p. 1.

[16] Ibid., p. 7.

Enrollments in vocational education programs for secondary, postsecondary, and adult students are spread among high schools, technical or vocational schools at the postsecondary level, junior and community colleges, and 4-year colleges and universities. A tabulation of enrollments for the 1970 fiscal year is included in Table 2, but I want to especially emphasize the following postsecondary enrollments by fields: agriculture, 23,381; distribution, 82,160; health, 102,515; consumer and homemaking, 24,702; home economics—gainful, 19,557; office training, 331,001; technical, 151,621; trade and industry, 261,182; and other, 17,307. The postsecondary grand total was 1,013,426. How many of these students derived from the most recent high school graduating class is unknown but presumably the percentage would be high. Some overlapping of these enrollments with others reported for the colleges and universities is obvious, but there is no present way of eliminating this duplication. Harold F. Duis indicates that these enrollments reflect postsecondary students in "area vocational schools, community colleges, technical institutes, and 4-year colleges." He also suggests that about 57% of these enrollees are first-year students and some 43% fall into second-year or other classifications.[17]

PROPRIETARY VOCATIONAL SCHOOLS

Another postsecondary education base that merits careful consideration is made up of the proprietary vocational, trade, technical, and business schools. Too long have these institutions been ignored, disregarded, or denigrated in

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[17]Personal letter from Lane C. Ash, Director of National Study for Accreditation of Vocational-Technical Education, April 13, 1971; and "Vocational Education Enrollment, FY 1970" (Washington, D.C.: American Vocational Association, Inc./Division of Vocational & Technical Education, Reports and Statistical Data Division, U.S. Office of Education, Department of Health, Education, and Welfare, 1970); "Summary Data, Vocational Education, Fiscal Year 1970" (unpublished report, Washington, D.C.: Division of Vocational and Technical Education, U.S. Office of Education, 1971), pp. 1-2; see also, Harold F. Duis, *State Vocational Education Statistics, Fiscal Year 1969, Preliminary Report* (Washington, D.C.: U.S. Government Printing Office, 1970), pp. 1-20; personal letter from Harold F. Duis, Senior Program Officer, Reports and Statistical Data, Ancillary Services Branch, U.S. Office of Education, April 13, 1971.

TABLE 2

Enrollment in Vocational Education, by Program, Level, and Completions
Fiscal Year 1970*

Instructional Program	Total	Elementary and Secondary	Post-secondary	Adult	Completions	Left Prior to Normal Completion
Grand Total	8,793,960	5,114,451	1,013,426	2,666,083	1,685,739	92,929
Agriculture	852,983	550,823	23,381	278,779	132,657	7,515
(Off-Farm)	(268,226)	(212,650)	(18,132)	(37,444)		
Distribution	529,365	230,007	82,160	217,198	151,250	8,761
Health	198,044	31,915	102,515	63,614	61,746	2,383
Home Ec. (Gainful)	151,194	66,237	19,557	65,400	38,780	2,707
Office	2,111,160	1,331,257	331,001	448,902	508,507	33,258
Technical	271,730	34,386	151,621	85,723	38,188	4,036
Trades & Industry	1,906,133	692,396	261,182	952,555	343,116	26,260
Other (Unduplicated)	354,135	309,608	17,307	27,220	7,438	43
Exemplary	(85,142)	(83,591)	(383)	(968)	--	--
Prevocational	(586,046)	(529,257)	(50,650)	(9,842)	--	--
Prepostsecondary	(7,823)	(2,855)	(741)	(491)	--	--
Remedial	(27,240)	(14,307)	(9,351)	(3,510)	--	--
Consumer & Homemaking	2,419,216	1,867,822	24,702	526,692	404,057	7,966

*"Summary Data, Vocational Education, Fiscal Year 1970" (Washington, D.C.: Unpublished report, Division of Vocational and Technical Education, U.S. Office of Education, 1971), p. 1.

comparision to the public and private nonprofit institutions. In some understandable pique, R. A. Fulton, Executive Director and General Counsel of the United Business Schools Association, protested against "the system which somehow has managed, over the years, to ignore or to treat these schools and students enrolled therein as 'non-people' in the George Orwell sense of the word."[18] As long ago as 1964, the estimate in one national study was that there were more than 35,000 private and proprietary vocational and leisuretime training schools, with more than five million students enrolled.[19] In 1966, A. Harvey Belitsky identified some 7,000 such schools, devoted primarily to vocational education, with an enrollment of 1,563,556. These schools by occupational category were as follows: trade and technical (3,000), with 835,710 students; business (1,300), with 439,500 students; cosmetology (2,477), with 272,470 students; and barber (294), with 15,876 students.[20] No comprehensive enrollment studies have been made in this field since 1966, but W. A. Goddard, Executive Director of the National Association of Trade and Technical Schools, indicates that "the enrollment in private occupational schools exceeds 1,500,000 students annually."[21] These private or proprietary vocational schools generally are profitseeking, if not always profitmaking, as compared to public and private nonprofit colleges and universities. They are characterized by small enrollments, highly specialized curricula, generally short-term courses, highly personalized counseling and student-teacher relationships, close relations with business and industrial firms, careful attention to job placement, and most prized of all, by a delightful minimum of red tape in operational procedures.

They are characterized by . . . a delightful minimum of red tape . . . .

Given the freedom generally allowed by law to such schools in finance, advertising, admissions, operation, instruction, administration, and the invitation

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[18]Personal letter from R. A. Fulton, Executive Director and General Counsel, United Business Schools Association, April 12, 1971.

[19]A. Harvey Belitsky, *Private Vocational Schools: Their Emerging Role in Postsecondary Education* (Kalamazoo, Mich.: W. E. Upjohn Institute for Employment Research, 1970), p. 3; H. F. Clark and H. S. Sloan, *Classrooms on Main Street* (New York: Teachers College Press, 1966), p. 4.

[20]Belitsky, *Private Vocational Schools,* p. 3; A. Harvey Belitsky, *Private Vocational Schools and Their Students: Limited Objectives, Unlimited Opportunities* (Cambridge: Schenkman Publishing Company, Inc., 1959), p. 9.

[21]Personal letter from W. A. Goddard, Executive Director, National Association of Trade and Technical Schools, April 13, 1971.

to abuse to which these circumstances sometimes have been conducive, it is understandable that professional organizations have grown up to provide support, guidance, criticism, information, and accreditation for several school categories.

The National Association of Trade and Technical Schools previously referred to, founded in 1965, now has 248 accredited member schools but is in communication with many times that number of other institutions. In 1966, the 3,000 trade and technical schools enrolled over 53% of the more than 1.5 million students enrolled in the 7,000 schools then surveyed. Such schools usually enroll fewer than 200 students, often much less than that, and, in 1966, Mr. Belitsky says they were operating only at about 60% capacity. The trade and technical schools, according to Belitsky, well might accommodate an additional one-half million students.[22]

The author is indebted to Dana R. Hart, Executive Secretary of the Accrediting Commission for Business Schools, and R. A. Fulton for information on the United Business Schools Association. Hart reported that there were 454 accredited schools in the Association with an enrollment in excess of 200,000 students. These institutions include 52 junior colleges and 11 senior colleges but are exclusive of schools less than 2 years of age and with programs shorter than 9 months in duration.[23] Since there were 1,300 private business schools in 1966 with 439,500 students, it seems safe to assume that there are 500,000 or more students in such schools today. Unfortunately, there is no way to distinguish between first- and second-year students or to ascertain the number of entrants directly from high school into these colleges.

In 1966, 2,477 cosmetology and 294 barber schools enrolled some 18% (over 288,000) of the students in the proprietary vocational schools. These schools have professional organizations and keep their own enrollment records that the author has been unable to peruse to date. These schools are important because most professionals who enter these fields are trained in them.[24]

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[22]*Directory, National Association of Trade and Technical Schools* (Washington, D.C.: National Association of Trade and Technical Schools, 1971), pp. 1-49; Belitsky, *Private Vocational Schools: Their Emerging Role in Postsecondary Education*, pp. 2-3; Dellenback, "Report on Proprietary Vocational Schools."

[23]Telephone conversation with Dana R. Hart, Executive Secretary, The Accrediting Commission for Business Schools, April 12, 1971; *Directory of Accredited Institutions, 1971* (Washington, D.C.: The Accrediting Commission for Business Schools of the United Business Schools Association, 1971), pp. 1-38.

[24]Belitsky, *Private Vocational Schools: Their Emerging Role in Postsecondary Education*, pp. 3-4.

CORRESPONDENCE SCHOOLING

Also deserving much emphasis is the significant segment of education known as home study or correspondence schooling. The professional organization in this field is the National Home Study Council, organized in 1926. When correspondence schools are approved by the Council's Accrediting Commission, they become members of the Council. In 1971, there were 152 accredited member schools and more than 700 home study schools in the nation that were in communication with the National Home Study Council. The Accrediting Commission reported that there were about 1,750,000 students, generally adults, "engaged in studying private home study courses at any given time during the year. Three and one-half million are enrolled in all types of correspondence courses in this country. The number of new students enrolling in home study courses each year is greater than the number of new students or freshmen enrolling in all of the colleges and universities in the country."[25] Of course, these huge enrollments comprehend students at many levels, and no data are available on the number of first-year students entering postsecondary programs directly from high school.

MILITARY SERVICE AND LABOR FORCE

Preliminary information provided by Frank M. McKernan of the Department of Defense suggests that of 1.4 million male high school graduates in 1969, about 8%, or 106,000, entered directly into military service after completing high school. On the other hand, of some 799,000 total accessions to the armed forces in fiscal year 1969, about 420,274, or 52.6%, were high school graduates but not necessarily from the 1969 high school graduating class. He indicated, also, that 90,000 to 100,000 persons in the military services each year complete the General Education Development Examination (GED), thus receiving high school equivalency certification.[26]

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[25] *The Accreditation of Private Home Study Schools* (Washington, D.C.: Accrediting Commission, National Home Study Council, 1971), pp. 1-7; *Directory of Accredited Private Home Study Schools, 1971* (Washington, D.C.: Accrediting Commissions, National Home Study Council, 1971), pp. 1-10.

[26] Telephone conversation with Frank M. McKernan, Director, Transitional Manpower Programs, Department of Defense, Washington, D.C., April 13, 1971; personal letter from Mr. McKernan, April 21, 1971; and mimeographed report of Department of Defense, "Educational Level of Enlisted Accessions, Fiscal Years 1959-1969," October 13, 1969.

Finally, some very significant data items pertain to the entry of high school graduates directly into the labor force. In 1969, 1,577,000 high school graduates entered the labor force—55.5% of the civilian population of that class. Of this number, 1,397,000 were employed and 180,000 (11.4%) were unemployed.

On the other hand, there were 1,265,000 of the 1969 high school graduates (civilian population) not in the labor force. Of this group, 988,000 were in college and 277,000 not in college. By sex, the same group included 566,000 men; of these, 512,000 were in college and 54,000 were not. There were 699,000 women not in the labor force, of whom 476,000 were in college and 223,000 were not. Among the women not in college, 153,000 were single and 70,000 held some marital status.[27]

In the area of labor force and non-labor force statistics, it again is true that data on enrollments in postsecondary career-occupation programs are incomplete or unavailable. Obviously, many of these persons, as well as those entering military service, undertake postsecondary education programs later in their careers, very often in career-occupational types of programs. The available data are inadequate relative to the rate or volume of their reentry into the postsecondary education field, but it is highly important to the students and society that many of them resume their training.

SUMMARY

At the outset of the research for this paper, the writer naively expected that he would be able neatly to package and number the various student groups pursuing postsecondary education. It was hoped that those in career-occupational programs could be identified by program and headcounts, especially in relation to the proportion of high school graduates that entered directly into them. Because of enrollment overlaps between types of institutions, different program levels, and data lacunae in many areas, it is presently impossible to account statistically for the exact distribution of high school graduates into various career or educational programs. Nevertheless, it is hoped that the analysis presented of postsecondary enrollments (first-year counts whenever possible) in all colleges and universities, accredited 4-year schools, junior colleges and related

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[27]Howard Hayghe, *Employment of High School Graduates and Dropouts* (Washington, D.C.: Special Labor Force Report 121, U.S. Department of Labor, Bureau of Labor Statistics; reprinted from the *Monthly Labor Review,* with supplementary tables, August 1970, Reprint 2684), p. 37.

institutions, proprietary vocational schools, and home study schools, as well as the study of the entry of high school students into the military, marriage, and the labor market will be helpful as a frame of reference for further study and research.

We must move
into the statistical swamp
that comprehends
the enrollment of
high school graduates
and their dispersal
in various directions
after graduation.

It is presently impossible
to account statistically
for the exact distribution
of high school graduates
into various career
or educational programs.

Chapter 9

OCCUPATIONAL NEEDS IN THE SOCIETY OF THE SEVENTIES

E. Grant Venn

The White House Conference on Youth appeared to deal with major national crises, which it did, yet as an adult delegate participating in the section on education, my feeling was that the most serious problems were individual. Each young person I talked to was asking, "What will be my role in the future and how do I get ready for it?" The general consensus seemed to be that the schools and colleges they were attending, or had attended, were not concerned with either question. It seemed that they were frustrated over the following problems:

1. The lack of any real experience in society—either work experience or relevant societal participation.
2. The lack of flexibility in educational processes and programs.
3. The lack of optional patterns toward preparation for the future.
4. The lack of knowledge by counselors and teachers as to what the future would be or what the real world was like today.
5. The apparent lack of concern by the educator for the need to change.

YOUTH PARTICIPATION IN SOCIETY

Summing it all up, the general consensus was that youth must participate in society in a meaningful way as part of their educational experience or education

is not relevant. Youth is demanding a meaningful part in society which will give them dignity and worth NOW. In my judgment, the educational institution that does not or cannot provide these experiences will be dying soon.

Youth is demanding a meaningful part in society which will give them dignity and worth NOW.

The most meaningful link is to the work force since work is the relevant and contributing role all males will have in the future, as well as the vast majority of females.

THE NATURE OF THE WORK FORCE

At one time, not too long ago, the work force demanded a majority of uneducated, unskilled manpower. Today, and in the future, almost the opposite is true. Yet our educational institutions are essentially the same as they were 50 years ago.

The work force today is quite closely aligned to the nature of the normal curve, that is, it requires few uneducated and a small percentage of professional people with the vast majority in the middle. Today this middle requires high educational levels and specific occupational skills of a very technical nature related to the new work force demands. It is probable that the normal curve of the work force parallels the normal curve of interests, abilities, and aspirations of the general population; if we assume that, continuing education and skill development are available so the individual can be mobile vertically and horizontally during his working life.

OCCUPATIONAL NEEDS[1]

In 1980, according to Flanders, 80% of all jobs will require less than 4 years of college despite the rapid rise in professional and technical fields.

Our present educational structure implies that there is a pattern of elementary, secondary, and postsecondary education that will fit every young person. It might also imply that a next step in either education or employment is relatively stable and that we can predict the future with a high degree of

[1] Russell Flanders, "Employment Patterns for the Seventies," *COMPACT*, August 1970. (Mr. Flanders is chief of the Division of Manpower and Occupational Outlook, Bureau of Labor Statistics, U.S. Department of Labor.)

certainty. Apparently these conditions do not now exist and it is less than likely that they will in the future. What does this mean for education?

The projections for the seventies indicate the following specific job opportunities:

White Collar Workers

1900 - 18% of the work force
1980 - 50% of the work force

This includes:

professional and technical	-	50% increase
clerical	-	33% increase
computer operators	-	over 50% increase
office machines	-	40% increase
secretaries, stenographers, etc.	-	33% increase
sales and managers	-	25% increase

Farm Workers

1900 - 37% of work force
1980 - 3% of work force

Blue Collar Workers

1900 - 37% of work force
1980 - 33% of work force

Service Workers

1900 - 8% of work force
1980 - 13% of work force

NEW RELATIONSHIPS

It would seem that changes now confronting us must be thought about in terms of certain new relationships that have developed between man, education, and society. Essentially, for the first time in man's history, education is the link between an individual and society; and for the first time this is true for every individual.

Education, instead of a selection agency, must become an including agency;

multiple options and approaches must be developed because certain basic changes have occurred in this technological age. These changes must be understood if we are to look at education as more than simply preparation. I would list the basic understandings that have evolved as follows:

1. The nation today believes in the dignity of every individual, the worth of every person, and the right of every person to receive from society and to contribute to society.
2. A life devoted to learning is not better than one devoted to the use of learning for enhancing the quality of our society.
3. The separation of education from society as a basis for preparation for further schooling or for functioning in society does not make sense now or in the future.
4. It is necessary that all persons today have a level of education and skill which allows them to continue to learn.
5. Much of today's work is more cognitive and challenging than is some of our education.
6. Preparation for further schooling has always been accepted; it is now equally necessary to prepare for future adult and work roles.
7. Technology for the first time has created a situation in which our nation's wealth is the people; their minds, their skills, and the ability to adapt and learn have become our true wealth. Muscle power, natural resources, and property contribute very little to enhancing the quality of our culture.

The answer to our problems in education must lie in more direct and closer relationships between educational institutions and the changes and problems of society. Historically, the schools have had an unstated assignment—to select those who should continue formal schooling. This was once necessary because the role of most adults was unskilled work. The schools have done this remarkably well.

Historically, the schools have had an unstated assignment—to select those who should continue formal schooling.

"QUALITY" AS MEASURE

Too often "quality" of an educational institution is still considered to be the selective process by which the student body is determined. Can we afford to continue this myth?

- Can a measure of quality be established, based on how well the institution serves those most in need of education?
- Can accreditation be based on how well the institution succeeds in reaching its goals rather than how much it is like another institution?
- Can educational quality be defined in terms of how well individual differences and unique talents are developed rather than how well each student becomes like all others?
- Can quality be defined in terms of one's behavior and contributions after he leaves school, rather than what he does while in school?
- Can quality be defined by other means than levels of education or course content?
- Can quality be defined in terms of individual achievement rather than group averages?
- Can status for an educational institution be gained by how well it meets unfilled needs rather than how much it is like recognized institutions?

Can quality be defined in terms of one's behavior and contributions after he leaves school, rather than what he does while in school?

We have surely learned in the past few years that simply providing a person with knowledge and facts is not adequate nor is simply providing a person with job skills adequate—these become obsolete and inadequate.

Technological change has, very suddenly, thrown up a dramatic challenge to this nation's political, economic, social, and educational institutions. Though the full scope of this challenge may not be comprehended for years to come, its dimensions are now clear enough to call for a massive response on the part of American education. All levels of education must move quickly to assume greater responsibilities for preparing youth and adults for entry into the changed and changing world of technological work. Unless far more and far better education on the semiprofessional, technical, and skilled levels is soon made available to greater numbers of citizens, the national economy and social structure will suffer irreparable harm.

There can be no doubt that damage has been done to the social order, especially with the disenchantment of youth with the relevance of their education. This is the time for those who have spent long years in preparing to be prepared, as well as those who have been selected out, to find new options within the postsecondary institutions. Both groups are now finding difficulty in achieving a role as adults. We have a surplus in certain professions and a shortage of highly skilled and technical personnel.

PREPARATION FOR ADULT ROLE

It would appear that education today must do several things, particularly at the postsecondary level for the high school graduate and adult, and at the high school level for those who enter directly into an adult role:

1. We must broaden the options for learning by providing work experience for all youths as part of their education, in close cooperation with industry and business.
2. We must provide specific skills, knowledge, and theory as it is needed, not only in a sequential pattern for those who are preparing for further preparation.
3. Every educational institution must help provide transition to a next step for every individual it accepts as a student.
4. Continuing education and skill upgrading must be available to everyone.
5. The community college and high school should operate throughout the calendar year with the added time devoted primarily to career planning, occupational preparation, and youth involvement in adult roles in society.
6. We must develop a method for measuring what is learned, rather than courses completed, as a basis for acceptance into a course or program.
7. Last, we must take the lead in trying new approaches to learning outside the four walls of the school, first because such approaches can work better in many cases, but most of all because we need the contact and ideas from a part of society with which we have had little dialogue in the past. This is essential to education's future as well as the nation's future.

A life devoted to learning
is not better than one
devoted to the use of
learning for enhancing
the quality of our society.

Preparation for further
schooling has always
been accepted;
it is now equally necessary
to prepare for future
adult and work roles.

THE AMERICAN COLLEGE TESTING PROGRAM

The American College Testing Program conducts its nationwide and international educational service activities from a headquarters complex, six regional offices, four subregional branches, and a Washington, D.C., office. The national headquarters building is located in suburban Iowa City, Iowa, at 2201 North Dodge Street. General mailing address is P.O. Box 168, Iowa City, Iowa 52240.

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ACTivity. National newsletter published periodically. Provides timely and important information about the ACT Program. Add your name to the mailing list by writing to the address at the beginning of this section. ACT routinely sends one copy to each secondary school guidance office. Free.

Charting Student Needs. Annual Report of The American College Testing Program, 1970-71. ACT looks at the past year and the future in this 90-page document, which also includes lists of personnel associated with ACT and an extensive list of ACT publications. Free.

College Student Profiles: Norms for the ACT Assessment. Describes students, by geographic region and institutional level, enrolled in ACT colleges and universities. $3.00.

Counselor's Handbook: A Guide for Using ACT Services in Precollege Guidance. Provides secondary school counselors with pertinent and accessible information for use in advising college-bound students and their parents. Free.

The Developing State Colleges and Universities: Historical Background, Current Status, and Future Plans, by Fred F. Harcleroad, H. Bradley Sagen, & C. Theodore Molen, Jr. Describes a project undertaken to determine the extent and kind of change that has taken place in the developing state colleges and universities in the past and is projected for the near future. $3.00.

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Student's Booklet: A Guide to Understanding Your ACT Report. Provided automatically to students at the time they receive their ACT score report. Explains how ACT data collected from the ACT Test Battery are used as valuable counseling tools in precollege planning. Also describes ways institutions make use of ACT data. Free.

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Using ACT on the Campus. A guide for the use of ACT services at institutions of higher education. Provides assistance in understanding and using ACT data in colleges for admissions, scholarship selection, course sectioning, and personnel services. Free.

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A collection of several special reports concerning two-year colleges and their students. The focus is on institutional characteristics, student characteristics, and predictions.

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