HIGHER EDUCATION IN THE 1980's AND '90s.

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My assigned title for your seminar series is "Higher Education in the 1980's and 1990's". People differ about how much change is likely or possible in the remaining years of this century. Some maintain that in the face of declining enrollments and largely tenured-in faculties, higher education will be relatively unchanging in the 1980s and 90s. On the other hand, if the 1990s are as different from the the 1980s as the 1980s are from the 1970s, then we are in for substantial change.

Do you remember what 1970 was like in higher education? Community colleges had experienced a growth rate of 260% during the 1960's; campus demonstrations were beginning to subside, but not before Blacks had burned the gates at the City University of New York, demanding entrance. Sid Marland was at work in Washington promoting career education, full-time students outnumbered part-time students in community colleges, NIE and FIPSE were the bright new promises of the Federal government for research and innovation. The Chronicle for Higher Education was years old, and I had just written a book entitled Beyond the Open Door which predicted that higher education generally and community colleges in particular, were going to be struggling with increasing numbers of new students who were shockingly underprepared for college-level work.

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I wonder if 1984 will seem as much like ancient history from the vantage point of 1994. I suppose it will. Indeed, the pace of change is escalating, and the changes of the 1980s and 90s are quite likely to exceed those of the 1960s and 70s. The most publicized changes ahead seem to be quantitative, and they are pegged to the demographics of the birth rate. The U.S. population of 18 year olds increased 45% between 1960 and 1970, and it will decrease 19% between 1980 and 1990. The decrease, although smaller numerically, is going to be far more traumatic for higher education than the increase was.

But the qualitative changes that are in part a by-product of growth or retrenchment are the most interesting and challenging types of change. The special challenge for educators in the growth of the 1960s, lay not in building more buildings or hiring more faculty, but in designing new programs for the different populations of students who were entering colleges for the first time under the press for expanded educational opportunities. Similarly, the most interesting and challenging changes of the future will be the qualitative changes; community colleges are going to be doing different things and doing them in a vastly different environment.

Most change in higher education comes from forces external to the institution --factors such as the demographics of the birth rate, migration patterns, directives from the state board of education, sweeping court decisions, shifts in job markets, and

the like. These external pressures for change are sufficient now to call for a new lens through which to view the role of higher education in society. That new lens might be likened to a wide-angle lens which includes a great variety of educational providers and an unprecedented diversity of learners of all ages. When most of society's people engage in formal learning throughout their lives and many of society's organizations become engaged in instruction and training, a new education industry is in the making. It is known as the learning society.

For the next half hour or so, I would like to look at the growing education industry through the wide-angle lens of the learning society. To do that, let me set forth six propositions. The propositions are derived from an analysis of current trends and happenings and then projected onto my crystal ball of the future.

Proposition One. Proposition One is that higher education no longer enjoys a monopoly on the provision of educational services. In yesteryear when college students were late adolescents whose primary occupation was going to school, if they were engaged in education at all, it was typically full-time on a college campus. Colleges sometimes competed with one another for students, but students didn't have a lot of other learning options.

Today, adults who enroll in college classes, whether for credit or not, voluntarily choose that option from a large number of possible alternatives, including courses offered by employers, labor unions, professional associations, community organizations,

television, and a host of other providers. Higher education today provides a little over a third of the organized learning opportunities for adults; the remaining two-thirds is provided by vast array of schools and non-collegiate providers, many of whom offer everything colleges do and more. They may offer credit, degrees, education leading to promotion, licensure, personal fulfillment, intellectual stimulation, practical skills. You name it and you may be sure someone offers it. Industry, for example, spends not mere millions but billions of dollars annually on the education and training of employees. Business currently allocates more money for education and training than all fifty states combined allocate for higher education (Lynton, 1982). Aetna, Xerox, IBM, and other corporate giants have built campuses with classrooms and residence halls that surpass anything offered at our most exclusive and expensive colleges. Professional associations, too, are becoming the builders of vast education networks. The American Management Association conducts 3,200 programs annually, and enrolls 100,000 learners, but even they have no corner on the market for business education. It is estimated that 3,000 different providers, many of them private entrepreneurs, conduct some 40,000 public business seminars each year. Thus Proposition One states that higher education faces unaccustomed competition from other providers of education in the society.

Proposition Two is related to Proposition One. It states that the roles of educational providers, once reasonably distinct, are increasingly blurred. It is no longer clear what

courses merit credit, who may offer it, or who needs it. Academic purists like to make a distinction between the education offered by colleges and the training offered by industry, but such distinctions are difficult to maintain. Non-collegiate organizations have moved into education almost as fast as colleges, especially community colleges, have moved into training, and the distinction is now blurred beyond usefulness -- at least when applied to providers. Colleges are heavily involved in training as well as in education, and the programs of many corporations contain as much emphasis on theory, research, and personal development as those of any college. Listen, for example, to this description of IBM's Systems Research Institute:

> The Institute's educational philosophy is in many ways that of a university. It stresses fundamental and conceptual education and allows students to choose those courses that will best nurture their own development. The intent is to stimulate and challenge, to teach the theoretical and the practical, to discuss and argue differing viewpoints, to broaden the individual, focusing on his or her special skills (IBM Systems, 1981, p. 6)

simple more and intent

Contrast that broad educational philosophy with this course description taken from a college catalogue. The course is called Airline Reservations and carries three academic credits. The description reads as follows:

> Prepares students for airline employment opportunities through a familiarization of the procedures involved in airline reservations, the use of official airline guides, and airline route structures.

If one were given a blind sample of course descriptions today, it would be hard to tell whether they came from industry, colleges, museums, labor unions, or professional associations.

A related blurring of educational functions occurs in the distinction between credit and non-credit learning. Within higher education we have certainly muddied the waters by some shifting of non-credit, non-funded courses to the credit, funded side of the ledger. Outside of higher education, non-colleges are beginning to offer not only fully legitimate credit courses, but full-scale degree programs. In the Boston area alone there are four new degree-granting programs founded by non-colleges -- a hospital, a bank, a consulting firm, and a computer manufacturer. While the image of Bachelor's and Master's degrees offered by these non-colleges is still mildly sensational, the movement of collegiate institutions into the realm of non-credit instruction is now commonplace. Between 1968 and 1978 more than a thousand colleges introduced non-credit programs on -- or more likely off -- their campuses. Today it is the norm rather than the exception for degree-granting colleges to be involved in non-degree instruction.

But whether a course was originally taken for credit is not especially important today. It is increasingly easy to convert non-credit learning into college degrees. Just a decade ago only about a third of American colleges granted credit if students could demonstrate on standardized examinations that they knew the material; today 84 percent of all colleges grant credit by

examination. Ten years ago, only 14 percent of the colleges would consider granting credit for experiential learning; today 41 percent do (Stadtman, 1980).

Historically, colleges have been reasonably generous in accepting credit from other colleges; today they are increasingly likely to endorse learning regardless of its source. The American Council on Education's Office of Education Credit lists over 2,000 courses offered by more than 180 corporations, that appear worthy of college credit to faculty members conducting on-site visits.

Illustrations of the blurring of once distinctive functions for higher education could be extended, but my point is that the education frontier is very large, and higher education is not alone out there. Thus Proposition Two states that the roles of the various educational providers in the learning society are far from clear, and that blurring of functions rather than distinctiveness seems to be the trend.

Proposition Three states that higher education no longer has the full-time commitment of students -- or for that matter of faculty. In the past decade, the proportion of part-time students enrolled for college credit has gone from 32 percent to 42 percent, and 52 percent seems likely before the end of the decade.

While faculty of an earlier era may have complained that students were not giving undivided attention to their studies, traditional students were at least in the college environment twenty-four hours a day. They lived in an unreal "city of

youth," and their full-time occupation was with the social and intellectual demands of college. Formal education is now changing from a full-time commitment for four years of a student's life to a part-time commitment for forty years. The first priority of the adult learner of today is not college, but job, family, and an array of other adult responsibilities that serve as enhancers, detractors, and sometimes inhibitors of education. Thus Proposition Three states that higher education faces unaccustomed competition for the time and attention of students. Education cannot do whatever suits institutional convenience and assume that students can or will go along with it.

Proposition Four states that learning has become a lifelong necessity for almost everyone. There are very few jobs left in this world that are immune from the necessity for retraining and constant upgrading of skills and knowledge. The development of human capital is now recognized as a fundamental and necessary component of progress in this era of technological change and international competition. In today's climate, the widening gap between the skills available in the work force and the skills needed for economic productivity is nothing short of alarming. While the want ads burgeon with appeals for technically competent personnel, thousands of unemployed provide tragic testimony to the gap between supply and demand for educated workers.

Lifelong education for jobs is the most visible symptom of social change. But in that change, from full-time education for a few years to part-time education for a lifetime, lie changes

for curriculum, instruction, delivery systems, and lifestyles. So far in the history of industrialized nations, there has been a pronounced tendency to increase the separation between education, work, and leisure. The result has been termed the "linear lifeplan" in which education is for the young, work for the middle-aged, and leisure for the elderly. But a study of the progression and influence of the linear lifeplan in the United States warns that "There can be little doubt that many of our most serious and persistent problems stem from the ways in which education, work, and leisure are distributed throughout lifetimes" (Best and Stern, 1976, p. 24). The major social problem is unemployment. Although that problem is especially critical right now, it is not new. For the past fifty years, society has been unable to provide jobs during peacetime for everyone willing and able to work. A blended lifeplan (Cross, 1981) in which education, work, and leisure are concurrent throughout the lifespan can address not only the urgent demands for lifelong education for the workforce, but it can also address personal and societal problems that are arising for youth, the elderly, two-career families, and mid-career executives. There are increasing demands from a variety of people for greater balance in their lives -- more job-sharing, more part-time educational arrangements, more leisure.

Proposition Five is almost proposition 4 1/2, but the distinction between lifelong learning and adult education deserves its own space. We in the United States tend to equate lifelong learning with adult education. In Europe, and

especially in the publications of UNESCO, they make quite clear that lifelong learning begins at birth and ends at death. The official UNESCO definition is that:

> The term 'lifelong education and learning' denotes an overall scheme aimed both at restructuring the existing education system and at developing the entire educational potential outside the education system; in such a scheme men and women are the agents of their own education.

That definition contains among other things, a basic challenge to schools and colleges to help students become lifelong learners; it calls for "restructuring the existing education system." Most traditional education is still geared to the notion of teachers as experts and students as empty vessels to be filled. Alvin Toffler, futurist author of The Third Wave, claims that "the reasons schools are in deep trouble today is that they no longer simulate the future, they simulate the past" (Toffler, 1981). Schools devised for the factory world emphasized virtues such as obedience, punctuality, and the willingness to do rote work because those were the demands of the Second Wave workforce. Despite the arrival of the Third Wave, schools still simulate the standardized work patterns of the factory. Everyone arrives for class and departs at a common time; students move on to the next lesson en masse, whether they have learned the material or not, and there is still an emphasis on absorbing information, despite the futility of that mode of education in the era of the knowledge explosion.

The knowledge explosion is just that. There is no way to keep up with the explosion of new knowledge. It is created faster than it can be learned or taught. Between 6,000 and 7,000 scientific articles are written each day, and information doubles

every 5.5 years. The problem for the future is not the supply of information, but the selection. People need to know how to select appropriate information from an overwhelming array available, and they need to know how to use it in conceptual thinking. We're talking about something far more basic to education than technical and scientific training. We're talking about the need for broadly educated people with the skills that will serve as the foundation for a lifetime of learning. That calls for fewer information-laden lectures and more active analysis, synthesis, and application of knowledge on the part of students. Teachers who see their role as providers of information can and will be replaced by machines. Teachers who nurture, inspire, and assist in cognitive growth and intellectual development cannot be replaced by machines. They are our greatest resource in the development of human capital.

Proposition Six comes full circle. It concludes that education will play new roles in the society of the future. There is widespread agreement now that we are facing a major revolution in society. It has been called The Third Wave, the Information Society, and the Technological Revolution. Whatever its nomenclature, the direction seems clear. Jobs, the economy, and lifestyles will be based on the creation and distribution of information. In 1950, only 17 percent of the jobs in America involved the processing of information; today more than 60 percent of all workers are creating, processing, or distributing information. Taking note of such changes, the Office of Technology Assessment of the United States Congress concluded

that "The so-called information revolution, driven by rapid advances in communications and computer technology, is profoundly affecting American education. It is changing the nature of what needs to be learned, who needs to learn it, who will provide it, and how it will be provided and paid for" (OTA, 1982, p. iii).

The colleges and universities that are at the forefront of these changes tend to be those that are by the nature of their curriculum or mission closest to the demands of the technological revolution. The Department of Electrical Engineering and Computer Science at M.I.T., on the occasion of their hundredth anniversary, issued a report called Lifelong Cooperative Education (M.I.T., 1982). The title is significant; it suggests that the future of engineering education should be continuous throughout the working life of the engineer and that it will be provided by industry and education working in partnership. The report rejects the notion that a few years of formal education can provide an adequate foundation for half a century of professional work, and they call for more sharing of faculty, knowledge, ~~and~~ equipment and resources. Such partnerships are a precursor of things to come. Community colleges are considerably more likely than most other types of colleges to be involved in the type of partnerships that characterize the learning society. A study conducted in 1981 showed enormous growth between 1976 and 1981 in the number of communities colleges developing formal cooperative agreements with other providers of educational services for adults. By 1981, between 33 percent and 41 percent of the community colleges in the nation had formal cooperative

relationships with the public schools, business and industry, senior citizens programs and other colleges and universities. Other communities organizations that were well represented in cooperative agreements were public health agencies and parks and recreations programs (Young, 1981). I suspect that within the past few years cooperative relationships have increased both in volume and the variety of the partners. Moreover, I would predict that in the future relationships will shift from contractual agreements for services provided to two partnerships which involve more two-way communication and joint planning. Thus proposition six asserts that the providers, the organizations, and the role of education in the society is changing.

These six propositions taken together will, I believe, affect higher education profoundly, both externally in terms of the role that it plays in society and internally in terms of its educational programs and services for students.

George Keller (1983, p. 145), the guru of strategic planning in higher education, contends that, "keeping the institution in step with the changing environment. . . is strategic planning's single most important contribution to organizational decision making." Keeping in step with change, however, requires more than knee-jerk responsiveness to the passing fads and fancies of the marketplace. An internal sense of integrity and mission is especially important as the multiple providers of educational services seek to find their places in the learning society. How then should community colleges respond to the changing student population? I refer not only to larger numbers of older and

returning students, but to the expectations and lifestyles of students who are becoming part of the lifelong learning generation. Learning, whether full-time or part-time, is an integral part of life, and it is increasingly likely to be formal, organized, and serious. Students will come to regard themselves not as alumni, but as permanent students of the nearest college. The concept of continuing educational relationships with students is an exciting one. Unfortunately, higher education, in general, has been slow to capitalize on the potential richness of such relationships for the college, for the ~~perpetual~~ permanent students, and for the community. It is no longer a question of launching a young person on a career and hoping that the college has provided him or her with the tools to carve out a successful life. Students of the future will be using various combinations of learning experiences to grow and develop as workers, family members, and citizens. They will be in and out of communities colleges, seeking the kinds of learning experiences that will move them to the next stage of career or personal development.

Methods of classroom teaching will also change under the combined impact of lifelong learning, the information society, and the technological revolution. Classroom teaching has remained unchanged for centuries. The formula is simple. Professors tell students what they know. For many reasons, that formula is no longer adequate. In the first place, professors cannot keep up with the information explosion themselves. One estimate contends that a compulsive psychologist would have to read 30 to 40 articles and books each day just to keep abreast of

the current literature. Professors as well as students will have to become experts in the selection and retrieval of information rather than its organization and storage in the human brain. A second change for classroom teachers has been known for some years; we just haven't done much about it. That is the fact that telling students about something is a very low-power learning device when far more powerful interactive methods are coming into existence via technology, but also via teaching techniques.

A third reality of the future for classroom teachers is that teaching and learning will have to be geared to the escalating pace of change. When change is extremely rapid, it does little good to teach facts or skills which are quickly outdated. Content learning will be useful and necessary at any given time, but it cannot ~~be~~ serve as the foundation of a college education. A foundation built on rapidly and constantly changing content will crumble under the demands of lifelong learning. Learning how to learn, which means gaining the cognitive skills and attitudes that characterize the lifelong learner is, I submit, the ~~real~~ ~~learning~~ educational task for colleges in the year 2000.

Advising, career planning, and placement also take on new dimensions when viewed through the wide-angle lens of the learning society. None of these activities are ever "over and done with." Career planning is a lifelong challenge that changes with the life stage of the planner. Planning for an entry-level position with a 20-year old is a very different activity from planning a career change with a 50-year old. The professional knowledge and skill required of counselors and advisors escalate

sharply with the need for increased understanding of the stages of adult growth and development.

Professionals in education, whether teachers, administrators, counselors or researchers, will do their jobs differently under the impact of a student body that encompasses all ages and that comes from the workplace as well as prepares for it. Students of the future will be, in many cases, older and wiser in the ways of the world and their jobs than those who teach and counsel them. Their interest in the institution will be based on this year's or last year's experience with it, not on what they remember from 20 years ago, which tends to be charitable in obliterating the petty annoyances and failure of educators to address their needs.

The learning society will be an exciting challenge to all of us who work in education. We will make many mistakes as we try to keep up with it, but the greatest mistake would be not to accept the challenge, not to respond to new times and new kinds of students, not to join with others in making the learning society all that it can be.

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