




1989

Higher Education and Corporate Careers

Michael Useem
University of Pennsylvania

Follow this and additional works at: https://repository.upenn.edu/mgmt_papers

 Part of the [Business Administration, Management, and Operations Commons](#), [Higher Education Commons](#), [Human Resources Management Commons](#), [Liberal Studies Commons](#), [Management Sciences and Quantitative Methods Commons](#), and the [Organizational Behavior and Theory Commons](#)

Recommended Citation (OVERRIDE)

Useem, M. (1989). Higher Education and Corporate Careers. In Useem, M. *Liberal Education and the Corporation: The Hiring and Advancement of College Graduates*, 1-24. De Gruyter.

This paper is posted at ScholarlyCommons. https://repository.upenn.edu/mgmt_papers/340
For more information, please contact repository@pobox.upenn.edu.

Higher Education and Corporate Careers

Abstract

American business has looked to higher education for over half a century for the training of its managers. Until the 1920s, few future managers would have sought a college education for entry into management. Although college degrees have long been the expected foundation for the medical and legal professions, it was not until this era that business turned to higher education for the socialization and preparation of its future leadership. The emergence of the large, multidivisional corporation, the rise of what business historian Alfred Chandler has termed the "visible hand," placed a premium on sophisticated decision making, increasingly recognized as a developed rather than intuitive skill. As the first generation of entrepreneurial founders was gradually losing its grip on the executive suite to a new generation of professionally trained managers, college came to be viewed as a major avenue of preparation. Once it was so defined, a rising flow of interest would be assured. David O. Levine, an historian of the era, writes: "There could be no greater incentive for the pursuit of higher learning than individual ambition."¹

Disciplines

Business Administration, Management, and Operations | Higher Education | Human Resources Management | Liberal Studies | Management Sciences and Quantitative Methods | Organizational Behavior and Theory

1

Higher Education and Corporate Careers

American business has looked to higher education for over half a century for the training of its managers. Until the 1920s, few future managers would have sought a college education for entry into management. Although college degrees have long been the expected foundation for the medical and legal professions, it was not until this era that business turned to higher education for the socialization and preparation of its future leadership. The emergence of the large, multidivisional corporation, the rise of what business historian Alfred Chandler has termed the "visible hand," placed a premium on sophisticated decision making, increasingly recognized as a developed rather than intuitive skill. As the first generation of entrepreneurial founders was gradually losing its grip on the executive suite to a new generation of professionally trained managers, college came to be viewed as a major avenue of preparation. Once it was so defined, a rising flow of interest would be assured. David O. Levine, an historian of the era, writes: "There could be no greater incentive for the pursuit of higher learning than individual ambition."¹

By the 1970s and early 1980s, the exercise of that ambition had moved hundreds of thousands of students to concentrate their undergraduate studies in business. Liberal arts, long viewed as an appropriate general preparation for the responsibilities of business leadership, declined in appeal as courses in accounting, finance, and management drew more and more students. The number of liberal-arts majors went into decline, whereas the number of undergraduate business majors was growing steadily. The business degree came to be perceived as the avenue for the managerially ambitious, the liberal-arts degree for the career ambivalent. Yet new forces within both the business world and higher education now challenge this perception.

I. Corporate Challenge

American companies are facing unprecedented challenge from European, Japanese, and other Far Eastern companies, and many

are facing unusual competitive pressures at home as well. The threat of corporate raiders, hostile acquisitions, and profit squeezes have added "downsizing" to the lexicon of corporate strategists and spread fears of employment termination through the ranks of many companies. By one estimate, half a million middle managers with 300 companies lost their positions between 1984 and 1986 as a result of mergers and divestitures. Surveys of managers reveal, as a result, widespread career anxieties and fragile employee loyalties. Almost half of the managers of the nation's 1000 largest corporations surveyed in a 1987 poll expected their employer to "cut back its salaried work force in the next few years." Corporate response to the competitive challenges from abroad and at home, and to the task of retaining a committed work force during a period of uncertainty, will require innovation and change in the kinds of products marketed, the organization and culture of the company, and the ways of doing business.²

The educational preparation of the next generation of managers is critical as well. Rosabeth Kanter in her study of innovation and change in U.S. industry concludes that "The potential for an American Renaissance" is enhanced by managers who "are broader-gauged, more able to move across specialist boundaries, comfortable working in teams that may include many disciplines, knowledgeable about how to manage ambiguous assignments and webs of interdependencies." A liberal education is, in her view, the foundation: "The style of thought and problem-solving capacity associated with such Renaissance people are encouraged by a strong, affordable educational system that combats narrow vocationalism and permits people the luxury of studying a variety of fields before becoming too specialized." The next generation of managers must have the broadest possible vision, and a liberal education remains one of the effective avenues for engendering a breadth of understanding among the hundreds of thousands of college graduates who enter the private sector every year.³

Corporations are also more active than ever in the social and political arenas of American life. Nearly all major corporations operate programs for giving to community and nonprofit organizations, contributing to political candidates, and lobbying for legislation in Washington and state capitals. The practice of assigning managers to take an active part in community affairs, a kind of "grass-roots" political action, is increasingly widespread. Effective management of external affairs is becoming an important complement to the traditional internal management functions, particularly among the company's middle and senior ranks. Here, too, managers who are broadly educated can

be more effective. A capacity to understand and move in circles far beyond those of the company is essential, and a liberal education may be one of the avenues for better comprehending the divergent cultures and values certain to be encountered. This is implicit, for example, in the conclusions of a 1985 study of business-school programs by the Business-Higher Education Forum, a select association of more than 90 chief executives of corporations and universities. Its report recommends that coursework "should be designed to enable students to recognize that problem-solving and managerial decision-making require an understanding of the total political and social environment within which the modern business firm operates."⁴

II. Liberal-Arts Challenge

If American corporations were battered by international competition and domestic takeovers, liberal-arts programs were battered by the rise of undergraduate interest in more practically oriented programs, above all—business. Few eras in American higher education have witnessed as profound a change in student preferences as occurred during the 1970s and early 1980s.

Between 1970 and 1985, the proportion of first-year college students professing an interest in the liberal arts declined from 40 to 21% (Table 1.1 and Figure 1.1). Within the liberal arts, freshmen preferences for the arts and humanities declined most sharply. Between 1970 and 1985, the percentage of first-year students intending to major in the arts and humanities dropped from 21 to 8%. The natural-science interest declined less precipitously, from 10 to 6%; social-science interest, however, remained relatively constant at 8 to 9%.

The decline of freshmen interest in the liberal arts was primarily a phenomenon of the 1970s. After dropping by 16 points between 1970 and 1978—from 40% of entering freshmen to 24%—the proportions of entering classes with intentions of majoring in the liberal arts stabilized at just over a fifth. By the mid-1980s, there were even signs that the liberal-arts proportions were again on the rise. The fraction of the freshmen reporting an interest in the liberal arts in the fall of 1986 stood at 24%, up from 21% the preceding year, prompting the *New York Times* to headline a front-page story in late 1986, "Liberal Arts, Long in Decline, Are Reviving Around Nation." In the fall of 1987, the proportion edged up further, reaching 25%, the highest proportion since 1978.⁵

The intertwined fates of undergraduate programs in liberal arts

Table 1.1 Percentage of Entering College Freshmen Intending to Major in the Liberal Arts, Business, or Engineering^a

Year	Liberal arts	Business	Engineering
1970	40	16	9
1975	29	19	9
1977	25	22	9
1978	24	24	10
1979	24	24	11
1980	22	24	12
1981	22	24	12
1982	21	24	13
1983	21	24	12
1984	22	26	11
1985	21	27	11
1986	24	27	11
1987	25	27	9

^aLiberal-arts fields of study include the arts and humanities and the biological, physical, and social sciences.

Source: Astin, Green, and Korn (1987); Astin *et al.* (1987a,b); Boyer (1987).

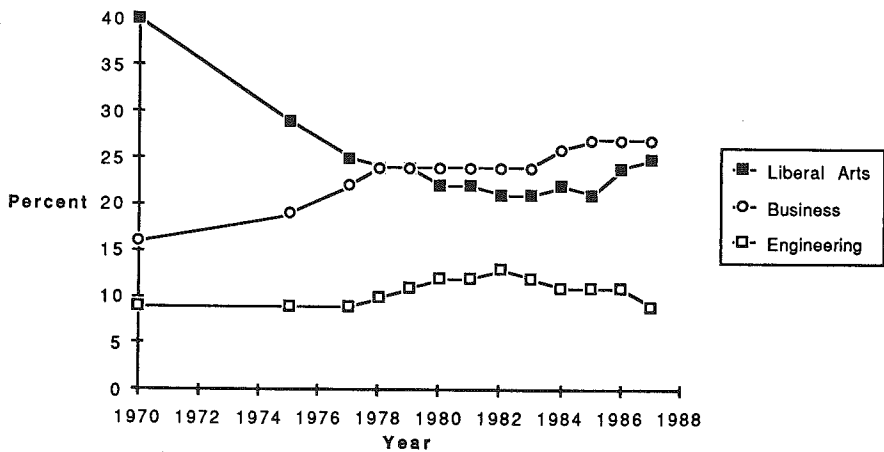


FIGURE 1.1. Percentage of entering college freshmen intending to major in the liberal arts, business, or engineering, 1970-1987.

and business in the 1970s can be seen in the trends of first-year students intending to major in business. As the liberal arts went sharply down, business fields went sharply up, rising by half—from 16 to 24%—over the decade of the 1970s. More recently, however, the proportion of freshmen with plans to major in business displayed a far more moderate growth rate, rising from 24% in 1980 to a plateau of 27% in 1985–1987. Interest in engineering grew along with business in the 1970s, but it peaked in 1982 with 13% of first-year students intending to major in the area, and since then it slowly declined. By 1987, the proportion of freshmen with engineering plans had dropped back to 9%, the same as in 1978.

These patterns are also evident, albeit in a lagging way, in trends in the volume of baccalaureate degrees in the liberal arts and business. From 1971 to 1986, the number of bachelor's degrees earned in all fields grew slightly, rising to about 1 million in 1986. But the proportion of these degrees earned in liberal-arts fields dropped from 45% in 1971 to 28% in 1985, while the percentage in business grew from 14 to 24 and the percentage in engineering from 6 to 10 (Table 1.2 and Figure 1.2). During this 15-year period, the ratio of the number of liberal-arts degrees to business and engineering degrees

Table 1.2 Percentage and Total Number of Degrees Awarded in the Liberal Arts, Business, and Engineering^a

Year	Liberal arts (%)	Business (%)	Engineering (%)	Total number, all fields (1000s)
1971	45	14	6	840
1975	40	14	5	923
1977	36	16	5	920
1978	35	17	6	921
1979	33	19	7	921
1980	32	20	7	929
1981	31	21	8	935
1982	30	23	8	953
1983	29	23	9	970
1984	28	24	10	974
1985	28	24	10	979
1986	29	24	10	989

^aLiberal arts includes degrees classified in the life, physical, and social sciences, foreign languages, letters, and philosophy, and mathematics.

Source: U.S. Department of Education (1987a,b).

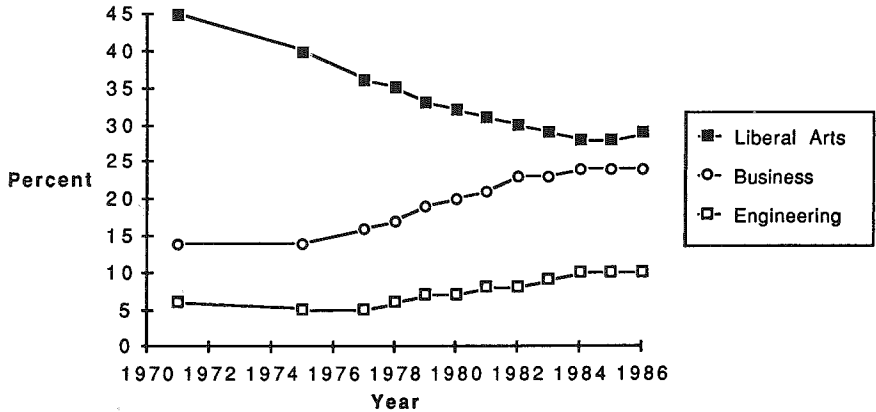


FIGURE 1.2. Percentage of degrees awarded in the liberal arts, business, and engineering, 1971-1986.

reversed from 2.3 to 0.8. "Higher education has a stake as never before in the study of business," observed the Carnegie Foundation for the Advancement of Teaching in 1987. It called the change "certainly one of the most important trends in higher education during the last decade."⁶

However, the proportion of baccalaureate degrees awarded in the arts and sciences increased from 28% in 1985 to 29% in 1986, the first sign of growth in 15 years. Since shifting freshmen preferences would not be mirrored in graduation majors until at least 4 years later, the even stronger recent upturn in freshmen interest in the liberal arts may push this proportion still higher in the years ahead. At the same time, business held its own, with an historic high of 24% of the graduating seniors majoring in this area in 1984, 1985, and 1986. Thus what have been opposing trends between the liberal-arts and business enrollments may be becoming parallel trends, with both the liberal-arts and the business level holding steady if not increasing.

The decline in the fortunes of the liberal arts during the 1970s was in all likelihood symptomatic of several concurrent trends: (1) a slack job market that made all new employment, including that of new college graduates, more difficult; (2) a more career-oriented and income-conscious cultural climate on campus; and (3) a decline in student academic abilities.

A. Employment Market for College Graduates

The employment market for college graduates generally worsened in the early 1970s, partly because the rise in the number of college

graduates during that period was not accompanied by a corresponding rise in the skill levels of the employment market. Comparing conditions in 1976 with those in 1960, for instance, one analyst found that this condition of "overeducation" had significantly increased, particularly for the college educated, forcing many to take jobs below the skills level they would have found in the past. Added to this was a general weakening of the economy in the late 1970s and early 1980s. With slackened corporate earnings, the message coming from many companies was particularly disheartening for the liberal-arts major. Northwestern University's annual "Endicott Report" on the employment of college graduates, for instance, gave a bleak forecast in 1983 for hiring during the coming several years. Of the more than 260 companies responding to the annual Northwestern survey, 20% foresaw an increase in the hiring of liberal-arts graduates, while 40% expected a decrease. By contrast, 69% expected an increase in the hiring of engineers, and only 4% a decrease. With the results of the Northwestern survey and similar reports widely circulated in the media, many students turned to the security of undergraduate professional majors such as business and engineering, viewed as more certain avenues to employment than most liberal-arts majors.⁷

Employment prospects in areas of traditional strength for certain kinds of liberal-arts majors—such as teachers—also sharply declined. In 1963, according to a national study, humanities graduates from the class of 1958 found ample opportunities in the then-expanding field of teaching: of those employed full time 5 years after graduation, a third of the male graduates in humanities (35%) and nearly two thirds (64%) of the female graduates were teachers. By contrast, an analogous study of humanities graduates in the late 1970s found only 6% of male graduates and 17% of female graduates engaged in teaching. With the renewed demand for teachers emerging in the late 1980s, however, this trend could well reverse.⁸

The relative earnings value of a college education also slipped in the latter part of the 1970s. While this affected all college graduates, its impact may have been most acutely felt by liberal-arts majors who already felt more vulnerable to the problems of securing employment upon graduation. One traditional measure of the economic returns from higher education is the ratio of the earnings of college graduates compared to high-school graduates who are in the work force. As seen in Table 1.3, the earning power of the college degree declined in the late 1970s. Young male college graduates who were working full time in 1975 had a 21% advantage over their high-school-graduate contemporaries in 1975, but by 1979 this had dropped to 15%. Young female college graduates working full time had a 36% advantage in 1975, but this had also declined to 28% in

Table 1.3 Median Income of Year-Round Full-Time Employed College Graduates and High-School Graduates 25 to 34 Years Old

Year	Men			Women		
	College (\$1000)	High school (\$1000)	Ratio	College (\$1000)	High school (\$1000)	Ratio
1975	14.7	12.1	1.21	10.4	7.7	1.36
1976	15.3	12.6	1.21	10.8	8.2	1.32
1977	16.0	13.5	1.19	11.3	8.8	1.29
1978	17.3	15.0	1.15	12.1	9.4	1.28
1980	20.5	17.0	1.21	15.1	11.3	1.36
1981	22.8	18.1	1.32	16.7	12.0	1.39
1983	25.3	18.8	1.34	18.2	13.1	1.43
1984	26.5	20.3	1.30	19.9	14.0	1.43
1985	28.9	20.1	1.44	21.3	14.6	1.46

Source: U.S. Bureau of the Census (1987 and earlier years).

1978. However, during the early 1980s the advantage was more than fully restored for both genders, reaching 44% for men and 46% for women in 1985.

Indeed, this restoration of the earnings advantage of a college education is probably a critical contributing factor in the recovery of interest in the liberal arts among first-year college students recorded during the fall of 1986 and 1987 (see Table 1.1). If liberal-arts undergraduates felt more vulnerable than business and engineering undergraduates during the period of slack employment for college graduates in the late 1970s, their confidence may also have been more rapidly restored during the period of more robust employment prospects for college graduates in the mid-1980s.

B. Campus Culture

A more career-oriented and income-conscious culture on campus also skewed curricular choices away from liberal arts toward business and engineering, areas promising early access to well-paying positions. The political activism and concern with broader social issues of the 1960s and early 1970s gave way to the self-focused concern of "getting ahead." This reversal of the predominant cultural currents is perhaps no more starkly illustrated than by the opposite trends in two key barometers of college-freshmen values, their financial and

philosophical goals. In 1970, 39% of the nation's entering students endorsed "being very well-off financially" as one of their primary life goals. By 1987, this had risen to 76%. Conversely, 80% of the freshmen in 1970 had endorsed "developing a meaningful philosophy in life" as a major goal, but by 1987 this had dropped to 39% (Figure 1.3).

Research on student values and occupational choice generally reveals that intensified concern with career values and diminished concern with reflective values encourage students to move toward careers in business. This is shown, for instance, in a detailed 4-year study of undergraduates in the graduating class of 1981 at Stanford University. The study designated as "careerists" those students who viewed the college experience primarily as an opportunity to prepare for a vocation; their values stood in sharp contrast to those who took great interest in learning for its own sake, designated "intellectuals." Careerists, the study found, were far more likely than the intellectuals to plan for a career in business.⁹

Campus currents became not only more career and less socially concerned in the 1970s and early 1980s, but student aspirations also became more explicitly oriented toward a future in the private sector. Comparing the outlook of first-year college students in 1987 with those in 1970 and at 5-year intervals between (Table 1.4), significantly higher proportions of college freshmen in 1987 than in 1970 (1) intended to seek a career in business, (2) sought to have administrative responsibility for others, (3) looked to be successful

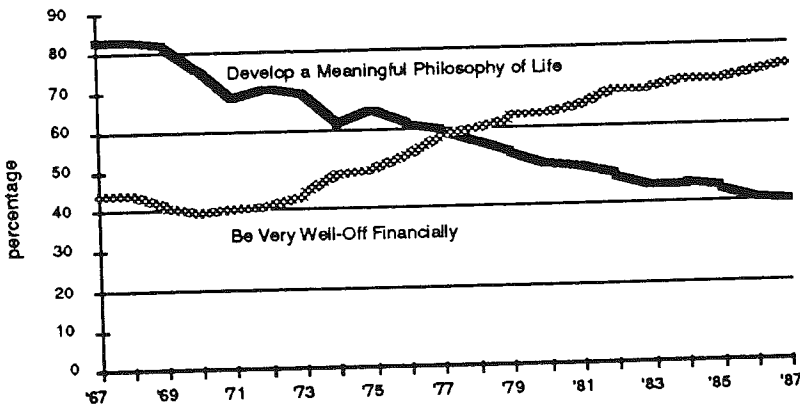


FIGURE 1.3. Goals of first-year college students, 1967-1987. Data in percentage of freshmen who identify goal as "essential" or "very important." Source: Astin *et al.* (1987b), reprinted by permission.

Table 1.4 Percentage of First-Year College Students Endorsing Business-Related Career Goals, 1970-1987

Business-related goal	1970	1975	1980	1985	1987
Business is probable career occupation ^a	11	14	20	24	25
Having administrative responsibility for others is essential or very important	22	31	39	43	45
Being successful in business of one's own is essential or very important	44	44	49	52	51
Becoming an expert on finance and commerce is essential or very important	16	—	—	26	28
Being able to make more money was a very important reason for going to college ^b	50	54	63	70	71

^aIncludes business management, owner or proprietor, salesperson or buyer, and accountant or actuary.

^bThe figure in the 1970 column is for 1971 and in the 1975 column is for 1976; information was not collected on this issue in 1970 and 1975.

Source: Astin, Green, and Korn (1987); Astin *et al.* (1987b).

in a business of their own, and (4) aspired to be experts on finance and commerce. Also, consistent with the rise of financial well-being as a primary life goal, a higher proportion of freshmen stated that (5) being able to make more money was an important factor in their decision to attend college. College-student values, in short, markedly shifted during the 1970s and early 1980s toward goals far more oriented toward careers in business.

C. Academic Abilities of College Students

A third current that may have been responsible for the liberal-arts decline was a deterioration in the academic abilities of college-bound high-school graduates. The well-documented decline in student abilities during the 1970s, as measured in SAT scores and other standardized evaluations, left fewer students well prepared to enter certain liberal-arts disciplines. The national average SAT verbal score in

1970 was 460, but by 1980 this had dropped to 423; the average SAT mathematics score had declined from 488 to 467. The lowered verbal abilities among college entrants may have deterred some from entering English or foreign languages. The weakened mathematical abilities may have discouraged others from entering the quantitatively demanding fields of physics or chemistry.¹⁰

Graduating high-school seniors also brought a weaker foundation to college in many of the specific liberal-arts disciplines. The knowledge base of 17-year-olds has long been tracked by the National Assessment of Educational Progress, and knowledge in science and mathematics declined during the 1970s. Although time-series data are not available on the humanities and social sciences, a 1986 national assessment of the knowledge of 17-year-olds in the fields of history and literature found grave deficiencies in these areas as well. Chester E. Finn, Jr., one of the study's authors concluded: "We're raising a generation of historical and literary incompetents." Increased student hesitancy to enter college majors that presupposed certain levels of secondary-school preparation may have been one of the casualties.¹¹

Liberal-arts colleges themselves were also partly to blame. The diverse and often weakly structured curriculum introduced or evolved by many institutions in the 1970s discouraged some students from pursuing the liberal arts, and perhaps even more parents from endorsing such study. The loss of "integrity in the college curriculum," noted an assessment offered by the Association of American Colleges, was among the most fundamental problems confronting higher education in the mid-1980s. How widespread public dissatisfaction with the overspecialized courses and understructured graduation requirements had become was evident in the mass public readership attracted to Allan Bloom's 1987 critique of the liberal-arts curriculum, *The Closing of the American Mind*.¹²

Sniping at the structureless curriculum found currency in other public forums as well. "At Princeton, they call it an education," but it amounts to a "total disintegration of Princeton's academic standards," said an author on the op-ed page in the *New York Times*. The target for his commentary was the publicly available transcript of a 1986 Princeton graduate with a degree in French, actress Brooke Shields. The critic noted that Princeton failed to require her to take any courses in history, mathematics, economics, world literature, or a science with laboratory experience. "If that adds up to a liberal arts education from a place like Princeton, there is no longer any danger that our society will ever suffer from elitism in any form," he concluded.¹³

III. Educational Reform

The ebbing of student interest in the liberal arts in the 1970s and early 1980s engendered a renewal of national interest in the mid-1980s. Alarmed at the declining numbers of liberal-arts graduates and limited exposure to the liberal arts by students in business, engineering, and other programs, public agencies and private associations initiated a range of efforts to revitalize the liberal-arts curriculum and restore public confidence in it (see Table 1.5). The initiatives focused on the quality of liberal education in itself, the importance of a liberal-arts foundation for undergraduate education in other fields, and the utilitarian value of liberal learning for professional and managerial careers.

Several federal-government agencies spearheaded the reform. The National Institute of Education charged a study group with reviewing the quality of higher education, and among its final recommendations in 1984 was a call for a vigorous strengthening of liberal learning on campus. The panel urged "what some might regard as a radical restructuring of undergraduate professional programs in fields ranging from agriculture, business administration, and engineering to music, nursing, pharmacy, and teacher education." The goal: students in all undergraduate fields—including management—should carry at least 2 years of liberal education, a change in requirements for many of the professionally oriented undergraduate disciplines that could mandate an undergraduate education extending beyond the customary 4 years.¹⁴

The National Endowment for the Humanities added its voice in 1984. Drawing on the findings of a special study group on the humanities, William J. Bennett, then chairman of the Endowment, called for the restoration of humanities to a central place in the college curriculum. The goal, he wrote, is for "all students to know a common culture rooted in civilization's lasting vision, its highest shared ideals and aspirations, and its heritage." This challenge was extended to secondary education as well in 1987 by the next chairman of the National Endowment for the Humanities, Lynne V. Cheney.¹⁵

Reform of the entire undergraduate curriculum was the objective of a far-reaching critique in 1985 by the Association of American Colleges (AAC). The AAC identified nine elements essential to any undergraduate education, ranging from instruction in critical inquiry and abstract reasoning to the study of science, arts, and a subject in depth. The elements define many of the generic components of a liberal education, and the AAC urged that they be part of every

Table 1.5 Recommendations for Educational Reform and Strengthening of the Liberal Arts

Organization (and author)	Year	Recommendations for liberal-arts education
National Institute of Education	1984	Require 2 years of liberal education for all undergraduate programs
National Endowment for the Humanities (William J. Bennett)	1984	Place study of humanities and Western civilization at the core of the college curriculum
Association of American Colleges	1985	Include nine elements basic to all undergraduate education, from critical inquiry to science, art, and international experience
Business-Higher Education Forum	1985	Broaden the curriculum in business programs to include social, political, and ethical issues
Carnegie Foundation for the Advancement of Teaching (Ernest L. Boyer)	1987	Integrate the liberal and useful arts in the undergraduate curriculum
National Governors' Association	1987	Expand international education and foreign-language requirements in undergraduate education
Professional Preparation Network	1988	More effectively integrate undergraduate liberal-arts and professional programs
American Association of Community and Junior Colleges	1988	Strengthen core curriculum and close gap between liberal and useful arts
Educational Leadership Project	1988	Provide a liberal-arts education for all high-school students

undergraduate experience, whether in the liberal arts, in business, or in engineering.¹⁶

Increasing the place of the liberal arts in enriching professionally oriented undergraduate training was among the goals for educa-

tional reform stressed by Ernest L. Boyer in his report, *College*, prepared for the Carnegie Foundation for the Advancement of Teaching. The challenge for undergraduate education, he concluded, "is to enlarge lives by bringing meaning to the world of work. And the special task of the undergraduate college is to relate the values of the liberal learning to vocation." He urged that college education combine the liberal arts and the "useful arts" throughout the undergraduate curriculum.¹⁷

Still other organizations urged additional emphasis on special elements of a liberal-arts education for those planning a career in the private sector. The Business-Higher Education Forum, a select group of corporate and university presidents, recommended in 1985 that the nation's business schools diversify their curricula to include more study of the social and political context of business and more emphasis on communication skills. Sharing similar concerns about national competitiveness, in 1987 the National Governors' Association called upon the states to increase their emphasis on international education. Colleges should raise or reinstate foreign-language requirements and courses should be more widely available on the history, geography, culture, and economics of other nations. "American businessmen involved in international trade have much to learn as they get started," observed the governors' report, and thus states "have an important role to play in educating businesses about the languages, cultures, and practices of foreign countries that are potential markets for American goods and services."¹⁸

Professional organizations also pressed for the strengthening of liberal education for undergraduate professional training in specific areas. The American Association of College Nursing recommended in 1986 a stronger liberal-arts experience for the undergraduate nursing curriculum. Observing that "liberally educated nurses make informed and responsible ethical choices and help shape the future of society," a national panel of the association asked for a vigorous exposure of nursing students to the liberal curriculum. In the field of teacher education, the Carnegie Forum on Education and the Economy urged in 1986 that the undergraduate preparation of teachers take place entirely in colleges of liberal arts—rather than in schools of education—and a similar reform was proposed in 1986 by the "Holmes Groups," an informal association of the leading graduate schools of education. To encourage the greater use of undergraduate liberal-arts programs that include teacher-training opportunities, the Association of American Colleges completed a study in 1988 of the approximately 1000 programs in the country offering such

training. Many were found to be effective in attracting and training able students, suggesting that a national effort to more strongly base teacher training in liberal-arts programs could indeed improve the quality and supply of the next generation of schoolteachers.¹⁹

Even the undergraduate engineering curriculum felt the liberal-arts momentum. The Colorado School of Mines instituted a program stressing liberal learning as early as 1979, for instance, and the Massachusetts Institute of Technology moved to do the same in 1987. The MIT faculty adopted a new set of undergraduate requirements intended to significantly increase the exposure of its engineering students to the humanities and social sciences. A professional engineer "lives and operates in a social system, and he needs to understand cultural and human values," observed the president of MIT, Paul E. Gray. Among the goals was enhancing the engineering graduate's prospects for promotion into the managerial ranks of business. Said one Institute official: "Too many M.I.T. graduates end up working for too many Princeton and Harvard graduates." More generally, a study of the liberal-arts coursework of undergraduate engineering students at 18 institutions, completed by the Association of American Colleges of graduates in 1986, confirmed that many engineering students develop little depth or breadth in the humanities and social sciences. To improve the liberal-arts coursework of undergraduate engineering students, the association initiated efforts to enhance campus advising in this area.²⁰

Focusing on all areas of undergraduate professional study, a group of educators called in 1988 for a general strengthening and integration of liberal arts and professional programs. Whether architecture, business, engineering, journalism, nursing, pharmacy, social work, or teacher education, the "Professional Preparation Network" urged that undergraduate teaching in these areas be more effectively integrated with traditional liberal-arts offerings. Among the proposals put forward by the educators, organized through the University of Michigan's School of Education, were the addition of courses jointly taught by faculty in liberal arts and professional programs and the creation of more joint faculty appointments across these disciplines.²¹

Still other groups urged a general strengthening of liberal education at levels of the American educational system where the liberal arts curriculum had generally received less attention. Focusing on the curriculum of community colleges, a commission created by the American Association of Community and Junior Colleges urged in 1988 that all 2-year colleges require a core curriculum "that provides historical perspective, an understanding of our social institu-

tions, knowledge of science and technology, and an appreciation of the visual and performing arts." Headed by Ernest Boyer, the commission recommended that "community college faculty should take the lead in closing the gap between the so-called 'liberal' and 'useful' arts. Students in technical studies should be helped to discover the meaning of work," the panel wrote. "They should put their special skills in historical, social, and ethical perspective." Similarly, a group of more than 30 educators, brought together by the New York-based Educational Leadership Project, issued a call in 1988 for a liberal education for all high-school students, regardless of whether they are college bound. "Liberal arts and science courses should be established as the basis of the curriculum in all schools," recommended the group. All high-school "students deserve the opportunity that it affords to know what is possible for them in their lives."²²

A range of agencies and organizations thus promoted a revitalization of liberal learning as a goal of American education. Liberal education was viewed as central to a variety of undergraduate programs, not just the liberal arts. But also at issue were the quality of liberal education and the underestimated value of liberal education for postgraduate careers.

IV. College Education and Corporate Employment

While educational reform is a deserving end in its own right, it acquires special power because of the strong linkage between college education and later occupational achievement. Moreover, the linkage between a college education and *corporate* employment is particularly strong, and both students looking to the private sector and employers in the private sector have a major stake in the outcome of the educational change.

The association between higher education and employment in America is well documented, and the critical event is completing college. Of those employed in 1986 who had completed a high-school education only, 17% held managerial and professional positions, and of those who had completed 1 to 3 years of college, 20% were so employed. But 60% of the college graduates were employed in managerial and professional positions.

The importance of having a college degree is also evident in individual earnings. This is starkly illustrated by a study of the graduates of one large Midwestern university: those who completed 3½ years of their undergraduate education with a solid "A" average—but then

dropped out for personal reasons—earned *less* than those students with a “C” average who finished one additional term and graduated from the university. More generally, among full-time workers aged 25 to 34, college graduates have in recent years commanded salaries that are 30 to 45% higher on average than salaries of high-school graduates (Table 1.4). This income disparity increases as the employees grow older. Among those aged 45 to 54, the college educated are earning from 60 to 75% more than those with only a high-school education.²³

The linkage between higher education and corporate management is also well established. A college education has become a virtual prerequisite for entry into a company’s professional and managerial ranks. Surveys of middle and senior managers typically reveal that 80 to 90% hold college degrees. The present survey of company managers, for instance, finds that 88% had graduated from college. The nonmanagerial ranks of most companies, by contrast, include majorities who have not obtained a college degree.

Corporate employers use the college credential, according to a variety of studies, as a selection device for three interrelated reasons. The first and foremost acknowledged reason is the set of educated skills and abilities that the bachelor’s degree confirms. Yet the specific skills and abilities of the college graduate are only part of the story. Employers also rely upon the college credential, second, as a measure of the social and personality skills that are required for exercising authority in a company setting. Maturity and drive are among the qualities often singled out by employers. Third, companies draw upon the college degree as a screening device, a measure of the holder’s success in gaining entry into a competitive setting and in possessing the intelligence and self-discipline required to earn the 4-year degree.²⁴

Within the corporate hierarchy, the college credential continues to exercise a commanding influence on promotion and salary. This is evident, for example, in detailed studies of employees within specific companies. An analysis of the career records of one well-established corporation with nearly 15,000 employees reveals that a BA degree provides a significant advantage to the holder’s probability of promotion not only in the early years with the corporation, but also, for those who stay with the company for many years, throughout the career span. Moreover, earnings are sharply affected by the college degree as well. Focusing for analytic reasons on white males who had entered the firm during a 10-year period beginning in 1953, it is found that employees without a college degree earned on average

about 42% less in 1962 than those with a college degree. Following the same cohort over a further 13-year period, the study revealed that the difference diminished some over time but never vanished, with the difference remaining about 25% in 1975. Additional education in the form of a MBA degree added modestly to the employees' earning power: MBA holders earned some 6% more than BA holders at the start of the period, and they retained a 3% advantage by the end (larger differences in MBA earnings may have been observed if the study had been conducted during the 1980s, an era in which the MBA acquired special salary advantages in many firms).²⁵

Study of lower and middle-level managers in another large manufacturing corporation by two other analysts yields corroborating results. With a data base of over 8000 professionals and managers, they found that, even after taking preemployment and experience within the company into account, high-school graduates earned about 20% less than those with college degrees, and master's degree holders earned about 11% more. The introduction of performance ratings into the analysis reduces the direct effects of a college education on earnings, but even then a modest but statistically significant relationship remains.²⁶

While a college degree thus has a substantial bearing on whether one enters the professional and managerial ranks of a company, and on promotion probabilities and earnings prospects long after hiring, we know that colleges differ in their capacity to deliver both. Certainly many students and their parents act on the assumption that the choice of a college does make a major difference. This is particularly true among parents who themselves have completed college. They are especially likely to encourage their children to take preparatory courses to maximize their SAT performance, to invest in the cost of applying to a number of institutions, and to take their children to visit a range of college campuses. While such steps are motivated in part by a search for a good "fit" between the student's abilities and the college's offerings, they are also intended in part to maximize the child's postgraduate opportunities.

Corroborating evidence comes from a market-research company whose clients include colleges and universities. With periodic surveys of high-school students intending to enter college and their parents, it found that a driving concern among students and parents in the mid-1980s had become the capacity of a college or university to assure good postgraduate opportunities. "What do students want? For what are they and their parents willing to pay?" asked the head of the market-research company: "There seems to be one answer—

status as embodied in programs that will lead to high-paying jobs or entrance to a prestigious professional school." Moreover, a college's capacity to deliver desirable postgraduate outcomes became more significant to students by the mid-1980s. Tracking college-bound-student assessments of the academic quality of colleges from the late 1970s to mid-1980s, the company found a steady increase in the proportions of students who emphasized the importance of the record of the college's graduates in gaining desirable positions in business and industry. In comparing two institutions with similar qualities in their academic faculties and teaching, graduating high-school seniors increasingly chose the institution with the superior track record in placing its matriculants after graduation.²⁷

First-year college students confirm that future job opportunities are indeed a leading consideration in selecting their college of choice. In the fall of 1987, more than 200,000 freshmen at 390 colleges and universities were asked to rate 15 factors in their decision to attend the college in which they had enrolled. The institution's academic quality was the leading factor, but closely behind was its record of placing graduates into "good jobs." The five leading factors and the percentage of college freshmen selecting each are as follows:²⁸

Percentage stating reason	Leading reason for attending this particular college
56	College has a very good academic reputation
48	<i>College's graduates get good jobs</i>
28	College's graduates gain admission to top graduate/professional schools
27	College has a good reputation for its social activities
22	College offers special educational programs

Research generally shows that a college's selectivity and reputation are indeed correlated with its graduates' career prospects in the private sector. One study examined the quality of the colleges from which nearly 1000 white male managers of Ford Motor Company had graduated, and the quality factor was found to enhance both earnings and the probability of promotion. Focusing only on graduates with grade-point averages of 3.5 or better, for instance, the study found that the annual probability of promotion was .53 for those from the most selective colleges, but .33 for those from the

least selective colleges. The study of the 15,000-employee corporation described above also examined the impact of college selectivity on the likelihood of promotion, and it revealed that advantages do accrue from having attended a highly competitive institution, at least in the early years of employment. The probability of promotion averaged .63 among those from top-ranking colleges during the first 3 years of service, but it stood at .50 on average for those who had graduated from the least selective colleges. These promotion differences cannot, of course, be entirely attributed to the quality of the college or other intercollegiate differences, since students themselves bring important individual differences to college that are correlated with college selectivity and other institutional factors.²⁹

The quality and reputation of a college can have lingering career effects on managers even after their arrival within the senior corporate ranks, according to a study of more than 2700 senior managers of 208 large American corporations. This research compared senior managers who held BA degrees from 11 top-rated institutions (such as Stanford University and Williams College) with those who held BAs from other colleges and universities. Both groups were far more likely than those without a college education to have reached their elevated status within senior management, but they also differed significantly from each other. The group of managers from top-ranked undergraduate colleges reached the vice-presidential level substantially earlier in their careers than the other college graduates; they were over 40% more likely to have reached the position of chief executive officer; and they were over 80% more likely to have been invited onto the boards of directors of several corporations. Differences in the managers' family origins and their "old-boy networks," the evidence suggests, explain some but far from all of these career disparities.³⁰

The stature of the MBA institution also makes a difference, according to the same study. Graduates of the nation's top 11 MBA-granting institutions first acquired a vice-presidency at a significantly younger age than those from other MBA programs, and they were 25% more likely to have reached the chief-executive suite. In fact, holders of MBAs from institutions other than the top 11 were significantly less likely to reach the top of the corporate hierarchy than those who held BA degrees only from the top-ranked undergraduate colleges.³¹

It also should be noted that academic ability—as measured by college grades—has an independent effect on corporate employees' earnings and promotions. In the study of Ford managers cited above,

the annual rate of salary increase among all managers was 4.5%, but, after taking the selectivity of the college into account, the college grade-point average accounted for as much as half-a-point difference in the percentage rate of salary increase above or below the average. Similarly, promotion rates among BA-degree holders with grade-point averages from 3.5 to 4.0 were a quarter to a third higher than among those with averages from 2.5 to 3.0, again taking into account the competitiveness of the college. Other studies of managers in specific companies (e.g., American Telephone and Telegraph), graduates of specific colleges and universities (e.g., Stanford and Michigan), and college graduates in cross sections of companies, often, though not always, find correlations between college grades and employee earnings.³²

If a college education makes a difference in corporate careers, and if the quality of the college also makes a difference, logic would suggest that the field of the college degree should also make a difference in the careers of those who enter the private sector. We already know that the college major has a critical bearing on the likelihood of entering business and managerial fields. One study followed up college graduates from the class of 1958, for instance, focusing on their occupation 5 years later. It found that 59% of the male graduates in business and commerce were employed in business and managerial positions, while no more than 25% of the graduates of other fields were so employed; the analogous percentage for females graduates were 21 and 6%. Similar disparities are reported in other studies.³³

While much of the divergence is obviously a product of differences in the career preferences of the graduates, there is ample evidence that employers place significant emphasis on college seniors' major field of study during campus recruitment. Michigan State University's placement services surveyed 648 employers, 80% in the private sector, in the fall of 1984. They were asked to rate the importance of 10 factors in prescreening candidates for campus interviews and 18 factors in inviting candidates to visit the company after the initial interview. Ratings were placed in five categories ranging from "no importance" to "extremely high" importance. The leading consideration at both the point of selecting candidates for interviews and the point of inviting them to visit the company was the academic major (Table 1.6). The field of study far outranked any other consideration in deciding who would be interviewed on campus; two thirds of the employers considered it extremely important—far ahead of such factors as grade-point average, work experience, extracurricular ac-

Table 1.6 Percentage of 648 Employers Highly Rating Criteria in Selecting College Students for Campus Interviews and for Visits to the Employer, 1984

Screening criteria	Percentage reporting extremely high importance
Campus interview	
Academic major	67
Degree level	21
Major grade-point average	16
Previous work experience	16
Expected date of graduation	14
Invitation to visit employer	
Academic major	45
Attitude toward work ethic	44
Oral communication skills	43
Enthusiasm and confidence	34
Motivation to achieve	34

Source: Shingleton and Scheetz (1984), pp. 34–35.

tivities, and communication skills. Academic major was still first in deciding who would come to visit the employer for a second round of interviewing, edging out work attitudes, confidence, and motivation.

With 9 out of 10 professional and managerial employees in most corporations now holding a college degree, having a BA degree has lost most of its power of distinction, other than to reinforce the divide between managerial and nonmanagerial employees. Within the managerial ranks, the quality of the college has become a new source of distinction, however, and the general area of study may have become a significant source of distinction as well.

The evidence that follows shows that companies do draw upon a college graduate's general field of study as a major consideration in their hiring and promotion practices. The decision to pursue undergraduate studies in the liberal arts, business, engineering, or other general area can therefore have a decisive bearing on how a graduate fares in the private-sector employment market. Yet the picture is a highly complex one. The general field of study influences many facets of hiring and promotion in the private sector. Liberal-arts graduates do not follow career paths identical to business and engineering graduates, the evidence indicates, but they do well. A college stu-

dent's decision to major in the liberal arts or some other general area is thus found to be less one of whether to enter corporate employment and more one of orienting toward certain kinds of companies and specific areas of work within the corporation.

Notes

1. Chandler (1977); Levine (1986), p. 49.
2. Willis (1987); Hirsch (1987), p. 69.
3. Kanter (1983), p. 368.
4. Useem (1985); Keim (1985); Business-Higher Education Forum (1985), p. 13; Useem (1987); Directors and Boards (1987).
5. Fiske (1986).
6. Carnegie Foundation for the Advancement of Teaching (1987).
7. Rumberger (1981); Lindquist (1983).
8. Sharp (1970); Sharp and Weidman (1986).
9. Katchadourian and Boli (1985).
10. Astin, Green, and Korn (1987), p. 16; Austin and Garber (1982); E. Useem (1986).
11. Raizen and Jones (1985); National Assessment of Educational Progress (1978, 1983); Finn and Ravitch (1987); Fiske (1987b), p. B8; Cheney (1987).
12. Association of American Colleges (1985); Bloom (1987).
13. Koppett (1987).
14. National Institute of Education (1984).
15. Bennett (1984); Cheney (1987).
16. Association of American Colleges (1985).
17. Boyer (1987), pp. 110, 115.
18. Business-Higher Education Forum (1985); National Governors' Association (1987), p. 8.
19. American Association of Colleges of Nursing (1986), p. 5; Carnegie Task Force on Teaching as a Profession (1986); Holmes Group (1986).
20. M.I.T. School of Engineering (1986); Fiske (1987a); Johnston, Shaman, and Zemsky (1988).
21. Professional Preparation Network (1988).
22. American Association of Community and Junior Colleges (1988); Educational Leadership Project (1988).
23. U.S. Department of Education (1987a), p. 284; O'Neill and Sepielli (1985), pp. 39-42.
24. Gordon and Howell (1959), pp. 121-125; Collins (1979), pp. 31-48.
25. Rosenbaum (1984), p. 148-149.

25. Rosenbaum (1984), p. 148-149.
27. Krukowski (1985), p. 21.
28. Astin *et al.* (1987b).
29. Wise (1975a, 1975b); Rosenbaum (1984), p. 171; Klitgaard (1985), pp. 220-223.
30. Useem and Karabel (1986); the top 11 BA-granting institutions, as determined by a detailed study of their status in 1940, are Columbia University, Cornell University, Dartmouth College, Harvard University, Johns Hopkins University, Massachusetts Institute of Technology, University of Pennsylvania, Princeton University, Stanford University, Williams College, and Yale University.
31. Useem and Karabel (1986); the top 11 MBA institutions, as identified through several studies, are Columbia University, Dartmouth College, Harvard University, Massachusetts Institute of Technology, Northwestern University, Stanford University, University of California at Berkeley, University of California at Los Angeles, University of Chicago, University of Michigan, and University of Pennsylvania.
32. Wise (1975a, b); Bisconti (1978); Klitgaard (1985), pp. 220-223, provides a recent review.
33. Sharp (1970); Sharp and Weidman (1986); Freeman (1971); Calvert (1969).