College Enrollment in the 1980s:
Projections and Possibilities

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Growth and size have long been hallmarks of progress in America, and by these standards, higher education has been a resounding success. Enrollments at colleges and universities have climbed to record levels in the past 25 years. In the 1960s alone, undergraduate enrollment doubled to 4 million and total enrollment rose to 8.6 million (Carnegie Foundation for the Advancement of Teaching, 1975). A number of conditions have combined to produce this growth. Foremost is a population boom that doubled not only the college-age population between 1953 and 1977 but also the demand for college-trained teachers at all levels. The market for college-educated people was further fueled by extraordinary expansion in the economy. Pressures for equality of opportunity have also brought unprecedented numbers of blacks, women, and disadvantaged students to the campuses during the past decade.

Recently, however, much of this has changed or is in the process of changing. The annual double-digit increases in enrollment that were common in the 1960s have shrunk to the more typical 2 to 4 percent annual growth of the 1970s; and much of this growth can be attributed to older students. Most projections for the next 10 or 20 years, as will be discussed later in this report, forecast enrollment declines. Growth in the sectors of the economy that draw most heavily on college graduates has already slowed substantially. And the size of the college-age population—the most important factor affecting future college rates—will shortly begin to decline. By 1990, as Figure 1 illustrates, the 18 to 21-year-old population will return to its 1970 level, just above 14 million. The decrease between
1980 and 1990 will be about 18 percent. The drop during the first half of the coming decade is especially precipitous at 11 percent. By 1985 there will be 1.7 million fewer 18 to 21-year-olds than in 1980. And by 1995, the 18 to 21-year-old population is expected to drop to about 13 million, representing almost a 25 percent decline from the 1979 peak.

A second important factor in determining enrollment is the degree of attendance or enrollment rate for the college-age cohort and other groups. Will enrollment rates increase enough during the coming years to compensate for the decline in the college-age population? Forecasters differ widely on this question.

The purpose of this report is to analyze the various projections made for the 1980s and their underlying assumptions. The forecasts are essentially based on extrapolations of recent trends for different groups, plus some educated guesses about future conditions. Each of the forecasts are compared and contrasted to determine whether some general agreement exists. Forecasts by region of the country and for different types of institutions are also discussed. Finally, possible new clientele and other ways proposed to increase college enrollments are considered.
Figure 1


1960 -- 9.550
1970 -- 14.541
1977 -- 16.970
1978 -- 17.105
1979 -- 17.156
1980 -- 17.117
1981 -- 17.018
1982 -- 16.875
1983 -- 16.499
1984 -- 15.988
1985 -- 15.442
1990 -- 14.506
1995 -- 12.995
Recent Projections

The 1977 edition of *Projections of Education Statistics* presents projections by the National Center for Educational Statistics (NCES) to 1985 (Frankel and Harrison, 1977). Projections of total enrollment, which include degree-credit and nondegree-credit students combined, are listed in Table 1. High and low alternative projections made by NCES are also included. The NCES projections assumed that selected trends exhibited during the 7- to 10-year period before 1975 (the last year actual figures were available) will continue through 1985.¹ In addition, NCES used different assumptions for the high and low projections. One of the assumptions of the high alternative projection is that by 1985 the proportion of the 18 to 21-year-old male population taking college course work will increase to the high enrollment rate levels of 1970 and 1971 (when the draft was in operation). The low alternative, which, according to more recent figures, appears the most reasonable of the three NCES projections, was based on three assumptions: (1) the proportion of the 18 to 21-year-old male population enrolled as degree-credit undergraduates (either full-time or unclassified) will follow the 1968 to 1975 downward trend through 1985; (2) the percentage of the 18 to 21-year-old female population enrolled as degree-credit undergraduates will remain constant at the 1975 level through

¹For example, they assumed "the percentage that full-time undergraduate and unclassified enrollment is of total undergraduate and unclassified enrollment will follow the 1968 to 1975 trend through 1985." (Frankel and Harrison, 1977, p. 17.)
1985; and (3) for both men and women the proportion of the 18 to 21-year-old population enrolled as full-time nondegree-credit students will remain constant at the 1975 level through 1985.

The NCES low alternative projection called for slight increases until 1981 when a high of 12.1 million is reached. After that, NCES projected steady decreases to a 10-year low of 11.2 million in 1985. The low alternative projections for 1976 and 1977 of 11.5 and 11.7 million students are slightly higher than the actual total enrollments for those two years given in recent NCES reports and in other studies. According to NCES reports, there were 11.1 million full-time and part-time students enrolled in 1976 and 11.4 million in 1977 (Chronicle of Higher Education, 1978c). Similarly, Parker, who surveys colleges and universities annually, estimated the grand total enrollment in fall 1976 and fall 1977 as 11.2 million and 11.5 million respectively (Parker, 1977a, p. 18; 1978a, p. 16).

The Carnegie Council in 1974 projected enrollments to the end of the century (Carnegie Foundation for the Advancement of Teaching, 1975). These enrollment projections, summarized in Table 1, are considerably lower than those made by Carnegie in 1971 (Carnegie Commission on Higher Education, 1971). The 1974 projections called for a decreasing rate of growth after 1973 and a leveling off in the early 1980s. The Council's projections, as indicated in Table 1, are fairly similar to NCES's low alternative at certain points: the 1980 figure of 11.5 million is about a half million less than the comparable NCES figure, but by 1985 the Council projected 12.1 million, almost one million more than NCES's low alternative. The Council assumed the continuance of the early 1970s trends and thus increas-
Table 1
National Center for Educational Statistics and Carnegie Council Projections of Total Enrollment in All Institutions of Higher Education
(in millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>NCES High Projection</th>
<th>NCES Low Projection</th>
<th>Carnegie Council Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>11.7</td>
<td>11.8</td>
<td>10.5</td>
</tr>
<tr>
<td>1977</td>
<td>12.1</td>
<td>12.3</td>
<td>--</td>
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<tr>
<td>1978</td>
<td>12.6</td>
<td>12.9</td>
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<tr>
<td>1979</td>
<td>12.9</td>
<td>13.4</td>
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<tr>
<td>1980</td>
<td>13.2</td>
<td>13.8</td>
<td>11.5</td>
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<tr>
<td>1981</td>
<td>13.5</td>
<td>14.3</td>
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<td>1982</td>
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<td>1995</td>
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<td>--</td>
<td>12.2</td>
</tr>
<tr>
<td>2000</td>
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<td>12.8</td>
</tr>
</tbody>
</table>

\(^a\) Includes degree-credit and nondegree-credit enrollment.

ing enrollments, at a modest rate, of part-time, older adult, and nondegree-credit students. Other assumptions by the Council were that the military draft will not be reinstated, that student financial aid will continue to rise, and that the demand for public school teachers will not increase (due to, for example, a change in the pupil-teacher ratio). The long-term projections further assumed that white male enrollments will return to their peak levels of the late 1960s by the year 2000 and that a relatively conservative fertility rate of 1.8 children per family will result in resumed slow growth in enrollment by 1995 or so. The Council also presented an alternate projection which assumed that enrollment rates would remain constant at the 1973-74 level. That is, they assumed that enrollment rates by age and sex and race, by full-time and part-time, and by level of academic work would remain as they were in 1973-74. This "constant 1973" projection results in a peak total enrollment of about 10.7 million in 1980, a figure already surpassed, and a decline to about 10.3 million in 1985.

Another forecast that calls for very modest growth by 1990 was provided by the late Allan Cartter (1976). Cartter projected slight increases (an average of 2 percent) until 1979 and a total enrollment figure of 11.3 million in 1980. Cartter's projections for the 1970s ran slightly behind actual figures reported up to 1977. Although his 1980 figure is very similar to what the Carnegie Council projected, unlike the Council, Cartter predicted a drop in enrollment during the first half of the 1980s. The NCES low alternative also projected annual contractions between 1981 and 1985. Cartter further projected a modest recovery during the 1986-1989 period followed by another drop in 1989-92 and an upswing by the mid 1990s.
Cartter's projections emphasized full-time equivalent (FTE) students rather than total enrollment since FTEs are especially significant in determining faculty demand and institutional incomes. He assumed that the ratio of college enrollment to the 18 to 21-year-old age group will remain constant in the future. By itself, this would result in a decline in FTE enrollment of about 1.8 million students between 1980 and 1994. But expanding non-degree enrollments, a higher rate of college attendance by older students, and more stable enrollments in graduate and professional programs should reduce the decline to a half million or so, according to Cartter.

Froomkin (1974) described three scenarios of projections to 1985, the first of which is the most optimistic. This first scenario essentially projected stable enrollment growth to 1985 as the trends established in the early 1970s continue. But since Froomkin also estimated that between a third to a half of all college graduates in the 1975-1985 period will take jobs formerly filled by persons with less education, he reasoned that a poor job market for college graduates could result in high school graduates being less inclined to enroll in college. Consequently, Froomkin's alternate projections call for declines in enrollment during the early 1980s. These additional scenarios project decreases by 1985 of either 15 or 50 percent from the 1974 college enrollment level. The projection of a 50 percent decline by 1985 is one of the most pessimistic published; it would, according to Froomkin, bring the supply of college graduates and the number of suitable jobs into overall balance by 1985.

Dresch (1975) also believes that higher education has overexpanded and that the income gain that graduates can expect from a degree has diminished considerably. He therefore predicted sharp declines in enrollment in the mid-1980s. By the year 2000, he projected a decrease in
undergraduate enrollment of 50 percent from a high point in the early 1980s. Most of the decrease—40 percent—will take place before 1990, according to Dresch.

Freeman's (1976) projections are also based heavily on a general model of supply and demand for educated labor, though he takes a less drastic view of the job market for college graduates than either Dresch or Froomkin's third scenario. He believes that the poor 1970s job market for college-trained workers will improve moderately in the early 1980s and boom in the 1985-1990 period because of the fall in the supply of new baccalaureates. That is, declining enrollments in the latter 1970s and early 1980s will produce small graduating classes that will eventually shift the labor market from surplus to shortage. Even so, Freeman does not foresee the economic rewards of college training restored to the level of the 1960s.

The most optimistic view of higher education's growth potential is provided by Howard Bowen (1974). He sees the possibility of higher education doubling or tripling in size during the next 20 years as part of a major social and cultural change in America. Bowen also views the growth of higher education as being tied to an ever expanding service sector of the U.S. economy. Leslie and Miller (1974) are not quite so optimistic but they see the enrollment curve continuing generally in an upward direction. Although they concede that college enrollment in the next two decades will not resume the growth experienced in the 1960s, they do think that it will expand as long as the U.S. economy continues to grow and prosper.

Summary

In spite of the wide range of predictions and possibilities about future enrollment trends, the majority of the forecasters take a moderate
view of future growth. Figure 2 summarizes the various projections. Five of the projections call for annual contractions during the first half of the 1980s: the NCES low alternative, Froomkin's middle scenario, Cartter, Freeman, and Dresch. A third (the Carnegie Council), predicted a 3 percent increase in total enrollment during the 1980s because it assumed older and other nontraditional students will enroll in record numbers; it too, however, predicted a slight decline among undergraduate enrollees in the 1980s. The NCES low projection, the most recent of the projections, predicted 12.1 million total enrollment in 1980 and 11.2 million in 1985. This means a 9 percent decrease between 1980 and 1985 and essentially a return to the enrollment levels of the mid-1970s. Beyond 1985, the picture becomes much more hazy. Cartter predicted a modest recovery in the 1986-1989 period and an upswing in the mid-1990s. He forecasted an enrollment decline of 6 percent between 1980 and 1990, even though he assumed that a higher proportion of the college-age population will choose to enroll. In other words, the decline in the number of college-age students, in Cartter's view, will be only partially offset by a higher rate of attendance.

The projected declines in enrollment during the first half of the 1980s will have followed a five year period in which enrollment began to show only modest gains or even occasional dips, as in 1976. The decrease in total enrollment in 1976 was 1.5 percent, according to NCES figures, and .2 percent according to the annual survey by Parker (1977a). This was the first time enrollment had declined in 25 years. NCES reported an increase of 2.6 percent in 1977, due largely to sizable increases in part-time students and new students (Chronicle of Higher Education, 1978c). Parker
Figure 2

Projections and Possibilities for Total Enrollment in Postsecondary Education to 1990

(Relative to actual 1977 total enrollment of 11.4 million)

Note: The lines for Bowen, Freeman, Dresch, and Froomkin's second scenario are not based on actual figures but instead are an approximate illustration of their views.
(1978a) reported an increase of 1.6 percent for four-year colleges in 1977 and only .4 percent for two- and four-year colleges combined. NCES also reported a continued trend of increased enrollment of women (5.8 percent from 1976 to 1977) and a slight decline for men. Slightly over 51 percent of new freshmen in 1977 were women. The overall increase in enrollment between 1975 and 1980 will probably be close to 6 or 7 percent. In comparison to the 1960s or even to the early 1970s, this is indeed moderate. And if the number of full-time students rather than total enrollment were considered, the rate of increase would be much less.

Trends by Regions

Enrollment projections for the nation as a whole do not take into account important regional and state variations. A 1977 American Council on Education (ACE) report estimated state enrollment levels by 1985 (Henderson, 1977). The estimations for each state focused on the projected 18-year-old population and were based on three factors. The first was that continued regional shifts in the population to the South and West would result in many states in those regions having a larger college-age population in 1985 than in 1975. For the nation as a whole, as Figure 1 illustrated earlier, the opposite will be true. A second factor taken into account was the expected enrollment rates of 18-year-olds at institutions within their home states. The report estimated that state-by-state rates would vary from 22 to 34 percent. The third factor considered was the historical migration patterns of students between states. Since these patterns and the percent-
age of freshman attending colleges in other than their home state has been relatively stable, averaging between 15 and 18 percent, the ACE report assumed no change over the 1975-85 period.

The net impact of these factors, according to the ACE report, is that six states can be expected to have higher college enrollments in 1985 than in 1975. These are: Arizona, Colorado, Delaware, Florida, Idaho, and Utah. The largest number of states, 33, will not experience significant enrollment declines because the immigration of students will offset the normal population decline. These 33 states enrolled 62 percent of all freshmen in 1975.

The ACE analysis by Henderson further suggested that 11 states will experience a decrease in enrollments: Arkansas, Connecticut, Illinois, Iowa, Kentucky, Minnesota, New Jersey, New York, North Dakota, Ohio, and Pennsylvania. These states, which enrolled 28 percent of 1975 freshmen, will experience a decrease in the college-age population and, with the exception of Iowa and Kentucky, they have traditionally exported more students than they imported.

Parker's 1976-77 survey of collegiate enrollments indicated that regions of the U.S. have begun to reflect the general pattern predicted in the ACE report: the South, Southwest, and Pacific areas gained in total enrollment while other regions decreased slightly. His 1977-78 survey, however, found that all regions except the Middle Atlantic region increased enrollment slightly (Parker, 1977a; 1978a).
Changes in state policies that affect the basis for these projections could, of course, alter these results considerably. It is also possible to reach different conclusions about individual states by using different assumptions. For example, the Southern Regional Education Board's (SREB) projections of college enrollment in the 14 Southern states in 1985 were based on the projected 18 to 24-year-old population and differed somewhat from the ACE forecasts (Mingle, 1976; Spence, 1977). Both the SREB and ACE reports agreed that Florida will be the one state to grow in enrollment, and that five states will remain fairly stable (Maryland, Texas, Virginia, Georgia, and North Carolina). SREB, however, projected enrollment declines for six of the states that ACE expects will remain fairly stable. These are: West Virginia, Alabama, Mississippi, South Carolina, Louisiana, and Tennessee. The two reports also differ in their forecasts for Arkansas, with ACE projecting a decrease and SREB predicting stability. In addition to using a broader age group than that used by Henderson for ACE, the SREB predictions did not take into account the historical migration patterns of students between states. Several of the Southern states import more students than they export, and the ACE analysis indicated that this can balance declines in the college-age population in 1985. The Southeast and the Southwest states also have the lowest secondary school graduation rates in the country, under 70 percent, which suggests that both of these regions have the greatest potential for increasing the pool of college-going students.
States must also consider how migration trends and population declines will affect different types of institutions within their boundaries. As the ACE report points out, of the out-of-state freshmen attending college in California, 97 percent attended public institutions, while in Massachusetts almost all incoming students attended private institutions. The states should therefore develop an enrollment projection model that predicts how well each institution within the state will fare in the years to come. Many states have already done so. As one example, in New York State, where state officials predicted a 10 percent decline in enrollment between 1976 and 1985, an enrollment model developed by the State Education Department was based on the existing "mission" of each college and the state's financing policies (Hollander, 1977). Enrollment projections were made by estimating each institution's enrollment share of the expected number of high school graduates from each region of the state and from out-of-state. The "drawing power" of each institution during the most recent five-year period determined its enrollment share. As Hollander notes, dissemination of the projections affected the plans of many institutions; a number, for example, responded by expanding the constituencies they serve. Although changes in institutional plans and behavior are likely to negate the projections, forecasts made by state coordinating boards, or for that matter by individual institutions themselves, can serve as a catalyst for institutional change and adaptation.  

2 For another example of forecasting in a large state system, see Render (1977).
Trends by Type of Institution

Enrollment trends for public and private institutions and for different levels of institutions also vary a great deal. The Carnegie Council considered several factors that would likely affect enrollment levels differently among the various categories of institutions. The first set of factors was external to the institutions themselves; it included the shrinking 18 to 21-year-old pool, the declining market for teachers, the increasing number of part-time students of all ages, and the rising state support for private higher education. More part-time students, the Council estimated, will benefit community colleges in particular, while the declining market for teachers will negatively affect enrollments at universities, the less selective liberal arts colleges, and comprehensive colleges and universities (largely institutions that offer bachelor's and master's degrees—the state colleges are a major part of this group). Another external factor is the increased emphasis on vocational and professional studies, which will benefit comprehensive colleges and universities but hurt the liberal arts colleges. Glenny (1976) reported that just over half the institutions he surveyed recently had increased enrollment in the vocational and professional areas.

A second set of factors identified by the Carnegie Council relate to characteristics of individual institutions, only some of which are under the control of the college. The financial condition, reputation, size, and location of the institution are examples. An institution that is financially
sound and has an established reputation can more likely adjust to enrollment shifts; small institutions generally have higher per student costs and are therefore more sensitive to declining enrollment; an urban location enables an institution to respond to the demand for part-time study and a commuter population that can more easily cut college expenses by living at home. Many four-year colleges and universities in or near urban locations have already begun to recruit students normally part of the two-year college pool.

After summing up the effects of both sets of factors, the Carnegie Council concluded that there are two broad categories of institutions:

(1) those institutions which, on the average, are likely to do relatively well with their enrollments and institutional health—the public community colleges, the universities, and the more highly selective liberal arts colleges; and

(2) those institutions which, on the average, are likely to do relatively less well, given the same amount of effort, with their enrollments and institutional health—the comprehensive colleges and universities (particularly the private ones), the less highly selective liberal arts colleges, and the two-year private colleges (Carnegie Foundation for the Advancement of Teaching, 1975, p. 76).

It is possible to consider other categories of institutions—for example, single sex colleges, sectarian colleges, and black colleges. In addition to the factors already discussed, these institutions must also take into account the special constituencies they serve and the increasing competition for these groups from other kinds of institutions. Many of these colleges have already chosen to broaden their purpose and the types of students they serve; others have elected to continue their special focus in an effort to stress their unique identity and contribution.
Recognizing that generalizations about types of institutions have to be qualified by the special circumstances surrounding each individual institution, McPherson (1978) doubted that the more favorable position of public over private colleges will necessarily continue in a time of enrollment declines and retrenchment. Nevertheless, after analyzing enrollment and price trends, McPherson conceded that the less selective private liberal arts colleges are most vulnerable to public competition, and that even a substantial portion of the more selective colleges may be so as well. Only the best of the liberal arts colleges and the doctoral-granting universities are in a relatively strong position, according to McPherson. In Froomkin's (1976) view, the private colleges affected most drastically by enrollment declines will be those having little claim to academic distinction; they will be small, probably sectarian, and will recruit students from a single state or area. Minter and Bowen (1977, 1978) found that 8 out of 30 less selective private liberal arts colleges in their national sample were in a weak financial condition in 1976; in 1977 three-fourths of the group were financially weak.

Spies (1973, 1978) studied high ability students applying to the 30 highly selective institutions in the Consortium on Financing Higher Education. The results of his two studies, which are based on students who applied in 197 or in 1976, indicate that financial considerations have some impact on the

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3 In addition, Minter and Bowen point out that 40 private two-year colleges closed between 1970 and 1976.
college application decision but, in general, educational considerations are more important. In spite of large increases in tuition in recent years, highly selective institutions have continued to attract a disproportionate share of the most able students, according to the Spies studies.

In analyzing public versus private competition for students, McPherson (1978) and Minter and Bowen (1977) point out that the tuition gap has not changed dramatically relative to income in the past decade or two. In other words, although public and private college expenses have increased, as has the gap between them, incomes have also gone up proportionately. Specifically, the dollar gap between public and private college expenses (tuition, room and board, and the like) was $1,022 in 1965-66 and $2,099 in 1975-76. Per capita disposable income also doubled during this same period: $2,430 vs. $5,040 (Minter and Bowen, 1977, citing NCES and ACE figures). Yet, as McPherson (1978) points out, the cost of private higher education is rising relative to other things that could be bought with the money, and parents may not be as willing to pay its cost, even though they may be able to afford it. Indeed, the middle class may already be reacting to a price squeeze in private higher education. McPherson cites evidence of a decline in the proportion of middle-class students in private higher education, due in part to the increasing difficulty of qualifying for financial aid. Spies (1978) points out that the relatively high cost of selective institutions has made them less accessible to middle- as well as low-income students.
Because much of public and private higher education serves the same clientele, the ability of many private colleges to compete at a time of declining enrollments will undoubtedly be determined by tuition assistance programs established by federal and state legislatures as well as by the individual efforts of the colleges. A special commission on the financial problems of institutions, established by the Regents of the State of New York, issued a report in 1975 recommending "a state policy that permits institutions, public or private, to compete under state financing policies based on fair rules of the game as they seek to attract students and serve public needs" (Hollander, 1977, p. 23).

Possible New Clientele

Adults, women, and minorities are frequently mentioned as groups that could help alleviate projected enrollment declines in the 1980s. All three groups increased their participation rates in higher education in the early 1970s, and most enrollment projections discussed earlier in this report have taken those trends into account. Whether any of the groups will exceed past trends and have a dramatic effect on enrollment in the 1980s seems unlikely according to the current evidence.

Adults. Citing NCES figures, O'Keefe (1977) points out that, between 1969 and 1972, the eligible adult population grew by about 7 percent and the number of adult participants in education increased by a very large 21 percent. Between 1972 and 1975, however, the number of adults grew by just
over 5 percent and the number of participants by only 8 percent or so. Hence, adult participation in formal education appears to have passed its period of rapid growth. And by the mid-1980s, the number of adults in the prime college attendance group--generally ages 25 to 34--will dwindle.

Taking into account changes in the total number of adults and variations in the rate at which adults may participate in education in future years, O'Keefe provides three alternate projections to the year 2000. The middle projection seems to be the most likely of the three discussed, although O'Keefe cautions that even this projection may be somewhat optimistic. Based on a maximum participation rate of 18 percent of the adult population, O'Keefe's middle projection estimates 25 million adults in organized educational activity in 1990 compared to about 20 million in 1980. How many of these adults will enroll in colleges or universities is not entirely known. O'Keefe notes that there could be a shift in college-going habits, resulting in a significant portion of the traditional college-age group (18 to 21-year-olds) delaying their college enrollment until later years and then participating on a part-time, in-and-out basis. A decline in enrollment of regular full-time students could therefore ultimately result in additional growth in participation by the adult sector.

In brief, O'Keefe's analysis suggests that the growth rate of adult participation in higher education will slow considerably in the 1980s. Drastic reductions in the number of Vietnam veterans attending under the G.I. Bill and the declining economic returns of a college education will likely combine with normal demographic changes to produce only modest
modest increases in total enrollment. If one also considers that it takes several adults attending on a part-time basis to have the same impact as one full-time student, adult participation is even less hopeful to college administrators. For some institutions, however, adult participation could have a substantial effect, particularly if scholarship support for adults is made readily available and if federal programs for lifelong learning are enacted.

Women. The number of women entering American colleges and universities has increased steadily to a point where it is now close to the number of men. The 1977 enrollment report from the National Center for Education Statistics states that 48.8 percent of all students were women; among new freshmen, women were in the majority with 51.6 percent (Chronicle of Higher Education, 1978a). By contrast, a decade earlier only 40 percent of all college students were women, while 30 years ago less than a third were. At the two-year college level, Parker's (1978b) survey indicates that women exceeded men in total enrollment in 1977 with 51.5 percent.

Much of the growth in women's enrollment can be attributed to the increasing economic advantages for women with a college education and to societal changes that make higher education and careers outside the home more acceptable for women. Higher family incomes and smaller families have also made it more possible for women to attend college.

Quite likely, increases in the rate of attendance by women have forestalled serious enrollment declines in recent years. How much longer that may occur is questionable in view of the near parity now evident. But
while women are approaching parity in college attendance, their retention and completion rates are not yet equal to those of men. Leslie (1977) cites Census Bureau figures indicating that only 50 percent of the women who started as freshmen in 1971 were seniors in 1974; for men, the comparable figure was 61 percent. Therefore college enrollment could be affected noticeably if the retention rate for women could be increased.

Minorities. Black Americans, Mexican Americans, Native Americans, and Puerto Ricans have been historically underrepresented in U.S. colleges and universities, but they have made sizable gains in recent years. The 1974 Office of Civil Rights and the ACE freshmen surveys indicated that 13.1 percent of total college enrollment were minority group members, which was very close to the proportion of minorities in the 18 to 24-year-old population (Leslie, 1977). Blacks, however, were still underrepresented in that they constituted 12.3 percent of the 18 to 24-year-old group but only 9.7 percent of the 1974 total college enrollment. Recent unpublished figures provided by Fred E. Crossland of the Ford Foundation estimate the minority percentage of the college population in 1978 at 10.7 percent (blacks 8 percent), compared to 6.8 percent in 1970. Although there are always inaccuracies in data of this nature, it would appear that the four minority groups have made important strides but, particularly in the case of blacks, are not quite at parity. The major reason for this underrepresentation in postsecondary education is the lower retention and completion rates for the minority groups. Only 41 percent of the 1971 black freshmen were seniors in 1974 as compared to 57 percent of the whites (Leslie, 1977), and only an
estimated 6 percent of the baccalaureate degrees in 1978 were awarded to individuals from one of the four ethnic groups, according to Crossland's figures.

Thus, as with women, the four minority groups are approaching parity in college access but their dropout rates are higher than average. If means can be found to increase the number of women and minorities who complete college, enrollments would climb appreciably. But this will not be an easy task. In the past decade or so, generous student aid programs directed at low income families have helped larger numbers of minority and other economically disadvantaged students attend college. Many of these same students are also from educationally disadvantaged backgrounds so there is a greater likelihood that they will have academic difficulties in college. Regardless of race, students with weaker academic backgrounds and abilities are less likely to complete college. Minority retention rates and hence enrollment totals might best be increased by improving the academic skills of students prior to attending college and, to some extent, through remedial work in the early college years.

Some Additional Considerations

College enrollments could be affected by any number of events or new emphases. Increasing the number of college courses for twelfth-grade students is one of the ways that some people think colleges can add to their enrollment. For the four-year colleges, attracting more transfers from two-year colleges is another possibility. A third possibility and, perhaps the one that colleges are most hopeful about, is a more comprehensiv-
and generous student aid program provided by government. Each of these are discussed in this last section.

Twelfth-Grade Programs

A few colleges and universities offer courses for talented high school seniors that enable students to earn college credit. In some instances, such as Long Island University's FATS program (Faculty for Accelerated Talented Students) and Syracuse University's Project Advance, twelfth graders receive instruction at their high school from college faculty members (Bailey, 1975). Other colleges offer courses on campus for qualified high school students. These cooperative programs enhance the student's educational experience and shorten the time for a baccalaureate degree. There are therefore good reasons to encourage these kinds of arrangements. But it is questionable whether college twelfth-grade programs will expand to a point where they will noticeably alleviate the expected total college-enrollment decline in the years ahead. A few colleges could benefit somewhat, but, in general, it is unlikely that secondary schools, facing their own enrollment declines after having expanded their staffs and facilities, will choose to promote the programs. Furthermore, giving twelfth graders credit for college courses merely postpones enrollment dips.

Similar to the twelfth-grade programs are recent efforts by colleges and universities to provide on-site courses for employees of business and industry. Most of the courses are vocationally oriented and are therefore limited in number. These efforts are worthwhile and will benefit some
departments in particular; but, as with twelfth-grade programs, they will
probably not boost overall enrollment very much.

Transfer Students

Many more students are now choosing to enter two-year colleges
following graduation from high school. National surveys indicate that
almost twice as many graduates were entering two-year colleges in 1972
(14.4 percent) as in 1961 (7.6 percent). During this same period, the
proportion of students entering four-year colleges immediately after high
school decreased from 33 to 29 percent (Peng, 1977). Although many of the
students entering two-year colleges would not previously have gone to
college, others are clearly students who would have entered four-year
colleges. Results of the National Longitudinal Study of the High School
Class of 1972, for example, indicate a marked increase in the number of
middle- and high-ability students entering two-year colleges (Peng, 1977).
These figures suggest that the potential number of transfer students to
four-year colleges has also increased. Willingham (1974) estimated that
between 200,000 and 260,000 students transferred annually from a two-year
college to a four-year college in the early 1970s (about half as many
transferred in the opposite direction). Higher college costs, and the
likelihood of more high-ability students starting their postsecondary
careers at the two-year college level, have probably increased this figure
in recent years.

Some states and institutions appear to have been especially effective
in fostering transfer admissions. Although total college enrollment may
only be affected moderately by increasing the number of transfers, a number of institutions could improve their own circumstances significantly. Several private colleges, for example, having decided to recruit more actively among the two-year colleges, found that they could more than offset declining freshmen admissions and dropouts by increasing transfer admissions (Doermann, 1976).4

Increasing Student Aid

Another possible way to increase total college enrollment is by lowering the cost of attendance. Presumably, the decision to attend college is related to price, along with a number of personal and family background characteristics. Economists and other researchers have conducted a number of "demand" studies that attempt to determine what effect price changes have on enrollment. The studies must be interpreted cautiously because of weaknesses in the data available and in the assumptions that must be made. Nevertheless there appears to be some consensus in their findings. One not very surprising conclusion is that price does affect access. Each of 10 studies reviewed by McPherson (1978) found a significant negative relationship between the cost to students and their probability of attending college. The magnitude of this price effect, however, is not great. A $100 cut in tuition, according to McPherson, would result in only

4 Several publications include discussions of transfer problems and make recommendations for improved policies and practices. The Association Transfer Group's Airlie House Conference on the College Transfer (1974) is one example. Others are Knoell and Medsker (1965), Willingham (1972), and Menacher (1975).
a 1 percentage point increase in the enrollment rate. McPherson estimates that tuition would need to be cut in half to raise the enrollment rate by 15 percent. Jackson and Weathersby’s (1975) review of seven demand studies essentially concurred that both low tuition and student grants stimulate increases in enrollment, but the cost per additional student attracted to higher education is very high—$4,000 for each additional student attracted into college by a price reduction, according to their estimates.

A more manageable way to increase total college enrollment is to target student aid on the group most sensitive to price in their enrollment decisions. This group, according to most of the demand studies, is the low-income student. Froomkin (1978) points out, however, that college costs for students from families with incomes below $15,000 are largely met by existing federal and state grants, work-study, and loan programs. Students in families with incomes over $20,000 received little of these direct subsidies in 1975, according to Froomkin. Various proposals to aid students from middle- and upper-income homes now being considered, which include grants, loans, increases in work-study appropriations, and a possible tax credit, could have a positive effect on enrollment if college prices do not rise accordingly. But with increasing operating costs, due to higher salaries and energy costs, college fees will likely continue on an upswing. Therefore additional student aid may be necessary to ward off potential enrollment declines, and very large sums will probably be needed to increase enrollments beyond present projections.
Conclusions

Long-term enrollment forecasts assume that there will not be any drastic changes in the nation that will affect higher education. Wars, depressions, or radical changes in technology are among the more obvious and least predictable occurrences. Changes in government policy that would channel significantly more financial aid to higher education or provide more jobs for college graduates (for example, large increases in research and development spending) could also alter the enrollment projections that have been made. Barring such uncertainties, the majority of forecasts reviewed in this report see a decrease in enrollments during the 1980s. Although some predict very large decreases and others even project modest increases, the majority call for annual contractions during the first half of the 1980s that may total 8 or 9 percent. The last half of the 1980s should bring smaller decreases, according to most of the forecasts, but nonetheless continued declines.

A declining college-age population is the major reason for the projected decrease in enrollment. The most pessimistic forecasts, however, are also based on a lower rate of attendance because of a weak job market for college graduates. The International Labor Office predicted a surplus of 950,000 graduates for the jobs available in the United States over the 1974-1985 period (Chronicle of Higher Education, 1978b). In addition to a weak job market for college graduates, other factors may depress enrollments even more than suggested by most projections. Inflation is one of these.
Between 1965 and 1976, college budgets increased by some 84 percent according to HEW figures (U.S. News and World Report, 1978). Rising operating costs have led to fast-rising tuition and other college fees. Although incomes have gone up proportionately during the past decade, the rising cost of essentials such as housing and food has reduced the amount of income many families have available for higher education; other families may be able to pay the higher costs, but their willingness to pay remains a question. Higher college expenses will be especially hard on families with more than one college-age child. An especially high fertility level and closely spaced births in the late 1950s has resulted in what has been termed a "sibling squeeze" (Morrison, 1976). These cohorts are now maturing to college age, which means that a higher-than-average number of families will be faced with multiple sets of college expenses in the years ahead. This may result in less encouragement to attend college or a shift from high- to low-cost institutions for children in these families.

Still another likely depressant on college enrollments, not accounted for in most of the present projections, is the intention of the military to recruit a large portion of male high school graduates in the early 1980s. The current goal, in fact, is to recruit one-third of the 18-year-olds annually in order to maintain an active-duty military force of 2.1 million (Church, 1977). Military recruiting, therefore, together with high costs and a weak job market could cause college enrollments to decrease more than the 8 or 9 percent predicted.
Most projections have already taken into account recent trends for adults, women, and minorities to participate in higher education in increasing numbers. It appears unlikely that any of these groups will exceed these recent trends and affect college enrollments dramatically in the next decade. Neither is it likely that institutions will be able to recruit and enroll significant numbers of twelfth-grade students. Some four-year colleges may, however, benefit from a probable increase in the number of transfer students from two-year institutions. Foreign students too might help alleviate projected declines for some institutions.

The projections for the nation as a whole do not apply to the different regions of the country. Population shifts and other factors will probably result in larger enrollment declines in some areas and increases in others. Because of significant variations by regions and type of institution, many states have developed useful projection models for each of the institutions within their boundaries. Generally speaking, public community colleges, highly selective liberal arts colleges, and universities are expected to do better than other types of institutions. But as pressures to maintain enrollment increase, four-year colleges may compete more vigorously for two-year college enrollees, and the community colleges may be less well-off than expected. Tax limitations such as those imposed recently in California may also lead to increased fees followed by lower enrollment in public institutions.

All indications point to a reversal in the growth spiral in American higher education for at least the next decade. Undoubtedly some institutions will be forced to close their doors, and this will make it easier for
competing institutions to continue. Cooperative arrangements and mergers among other institutions will be increasingly attractive. Many institutions will reduce in size and consolidate their strengths. Growth, automation, and "giantism", as Schumacher (1973) argues, have been idolized for too long. Enrollment stabilization may give more institutions the opportunity to improve the education they provide their students.
References

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