A research project concerned with college planning for the period 1960-1985 is described. Five basic questions were discussed---(1) what is the outlook for population changes, for the country as a whole and by categories of the population? (2) what is the outlook for jobs, and what are the implications for training? (3) what is the outlook for enrollments, private as well as public? (4) what is the economic outlook? (5) what do these things mean for the average liberal arts college? (PPO)
The Need for Planning At Private Colleges and Universities

SIDNEY G. TICKTON

Four years ago, at the AAC meeting, held that year in Kansas City, Sharvy Umbeck and his associates helped me put together the first long-range planning projection for an institution of higher education.

Six months later I polished up the material, inserted some revised figures and produced the Ashford College case study, which was described by the McGraw-Hill people who published it as "a new tool for college and university management."

In the 36 months that followed, that case study and the blank tables which go with it have been used as a basis for projections by more than 250 private colleges and universities. More than 150 of these institutions have debated their assumptions, their figures and their problems in laying out a course of action for the future at one of the long-range planning seminars sponsored by the Fund for the Advancement of Education. Twelve such seminars were held last year. At least twelve more are scheduled for this year. If you would like to participate in one of these seminars, and are prepared to bring your president, dean, business officer and one trustee, and to do the homework called for in my tables, drop me a note and I'll send it through appropriate channels.

Recently the question has been raised as to how it happened that a technique such as the long-range budget, used for many years by business but never before applied to colleges and universities, has suddenly caught on. The answer is that this was a time when colleges and universities really needed a new tool of management, because higher education was feeling the first puffs of the breeze that is about to develop into a hurricane of changes.

These changes can be expected to be dramatic, probably traumatic, and possibly fantastic in dimension. Jesse Hobson, former director of the Stanford Research Institute, said in a speech two months ago...
that it has been said that the changes in our economy, our society and our culture during the next 38 years—that is to the year 2,000—can be expected to equal in significance the changes of the past 400 years, all taken together. I won't dispute with him. Even if he were only half right, his observations are bone-rattling. They prompted me to send my statistical colleagues searching for facts and figures. I asked them to dig into government files at the Census Bureau, the Office of Education, the Bureau of Labor Statistics and other agencies in Washington. Some of the materials they found were published; much is unpublished and still in worksheet form.

The purpose of these investigations was to come up with the best possible answers to five questions:

1. What is the outlook for population changes, for the country as a whole and by categories of the population?
2. What is the outlook for jobs, and what does this imply when it comes to training the labor force?
3. What is the outlook for college and university enrollments, particularly with respect to private as compared with public institutions?
4. What is the economic outlook, and if higher education can be expected to cost more, can the country afford it?
5. What does all this mean to the average liberal arts college?

In order to pin down some answers to these questions, I asked my statistical associates to make projections for a generation ahead where possible (that is from the actuals of 1960 or 1961 to, say, 1980), not because these could be considered as precise figures but because they would provide magnitudes to be kept in mind as policy decisions for higher education are made within the next few years. Briefly, the answers to my questions, the considerations involved in arriving at these answers, and a short summary of the most relevant statistics are shown in a number of charts that have been prepared especially for this meeting.

The first chart shows the growth of the population of the United States between 1960 and 1985. This chart is designed to throw some light on the question:

I. What is the outlook for population changes?

As can be seen from the chart, during the generation ahead the population of the United States can be expected to grow from a total of 179 million in 1960 to a total of 214 million by 1970, and 260 million by 1980, and 285 million by 1985. These figures are from the projec-
tion files of the U.S. Census Bureau. They assume that the birth rate will be at 1955-57 levels during the generation ahead. This is not the highest level reached during the post-war period, but it is a reasonably high level nevertheless.

The chart also shows that, as the population increases, there will be an increasing concentration in metropolitan areas—the 200 largest cities and their suburbs. The shift in concentration from rural and small-town to urban and suburban areas started nationwide during the depression. It accelerated during the war and early post-war period, and has continued persistently since. My statistical associates and the Census Bureau believe that it will continue at least for the generation ahead.

I now turn to the next chart which takes the population totals and distributes them between categories which indicate what people are doing and can be expected to do.

The chart shows that, as the total population grows, there will be changes in the rates of growth in the various categories of the population. The best guess is that in the years ahead the nation can expect a 70 per cent increase in the number of employed persons (from 64.7 million in 1960 to 108.7 million in 1985) and a 75 per cent increase in the number of children and young adults going to school or college (from 43.8 million to 76.2 million). There will be increases in other categories too—housewives not considered members of the labor force, children below school age, retired persons, military personnel, possibly the unemployed, etc.—but proportionately the increases in these categories will not be as great in the other categories.

These are indicative statistics, not as precise as I would like them but useful nevertheless. A number of different forecasts could of course be made for the various categories, but my statistical associates considered this to be the most reasonable in the light of nationwide trends in births and deaths, the tendency of women to return to the labor force once their children are beyond the age when they need all-day care at home, and the tendency of young people to stay in school longer than heretofore.

We have then a background showing a large increase in population and a large increase in the labor force in the generation ahead.

II. What is the outlook for jobs, and what does this imply for the training of the labor force?

For this question they prepared a chart which divides up the number
of employed people into major categories of activity—skilled, service, unskilled, and farm. The chart shows that we expect:

1. There will be a continued increase in employment in skilled occupations;
2. Skilled workers will constitute a greater percentage of the labor force than heretofore;
3. Unskilled workers will constitute a smaller percentage of the labor force by 1980; and
4. The number of farmers and farm workers will level off by 1970 after a big decline between 1950 and 1960 and a further, small decline during the '60s.

In arriving at these projections, my statistical associates judged that the trend toward mechanization and automation throughout the country, both on the farm and in industrial activities, could be expected to continue and even accelerate in the future.

They also considered that the number of women employed outside the home could be expected to increase. On the other hand, older people will leave the labor force more rapidly than, say, a generation or two ago. Also there will be fewer jobs, proportionately, for unskilled people than there were when the country was largely an agricultural economy.

What do these job projections mean when it comes to training the labor force? By 1985, it is clear, we can expect to live in a nation that requires a high degree of training and skill for a large percentage of the people in the labor force. Most of these people will have obtained much of their academic and technical training in schools, colleges and universities. The job for educational authorities is, therefore, to establish a system of education from kindergarten through graduate and professional schools which will provide the training when it is needed, where it is needed, and in the various types that are needed, all at a reasonable cost.

Having looked at the population and labor market possibilities in the generation ahead, my statistical associates now turned to the third question:

III. What is the outlook for college and university enrolments, particularly with respect to the distribution as between private and public institutions?

For this there is a chart showing enrolment estimates from 1950 to 1985.

In the generation ahead, my statistical associates believe, the number of persons going to colleges and universities, full time and part time
together, can be expected to grow from 3.6 million in 1960 to 7.0 million in 1970, to 10.2 million in 1980, and 12.6 million in 1985. This means enrolments will double between 1960 and 1970 or thereabouts, triple by 1980 or thereabouts, and continue upward thereafter for years to come.

As to the distribution of these very large increases between public and private institutions, our best guess is that "private" education will expand from 1.5 million in 1960 to 2.3 million in 1970—an increase of about 50 per cent in ten years—and then grow rather slowly in the years beyond. The great expansion in college and university enrolments in the future will not take place at private institutions. It is now developing and will continue to develop at public colleges and universities. As a result, the percentage in private institutions can be expected to continue to decline—from the 61 per cent noted at the beginning of the century, to the 42 per cent today, to not more than 20 per cent of the total, we believe, by 1985.

The enrolment totals for 1970 shown at the top of the chart are somewhat greater than the estimates that have been published by government agencies until recently. My statistical associates believe that the 7-million figure is pretty realistic; that it and the subsequent projections recognize two main factors, the combined effect of which has been underestimated everywhere in the past. These factors are shown in the next chart.

They are:

1. The increase in the number of college-age people (18-24 years of age) in the years ahead;
2. The increasing percentage of young people that will be attending colleges and universities, both full time and part time.

Census statistics and developing trends lead us to believe that the number of 18-24-year-olds, which was level from 1950 to 1960, will double by 1985. They also indicate that the percentage in college, which was 14 per cent in 1950 and is 22-23 per cent now, will go to 40 per cent by 1985. This is for full-time and part-time together.

My statistical associates think that these are conservative estimates. The emerging evidence is that "going to college" is rapidly becoming as important to many individuals (and to their parents), and as necessary to the welfare of our country, as going to high school became during the period between the two world wars.

Moreover, going to college is economically possible now for a large proportion of our population. This comes as a result of the increased national income since the war and its wide dispersion among the peo-
ple. There has been a reduction in the need for parents to require children to support themselves or augment the family income after they finish high school. Many parents now consider a college education for a child as a kind of "consumer good," the purchase of which may be an alternative to the purchase of a new car, a long vacation trip or a new home.

Against this background, we believe that, if business continues at prosperous levels in the future and personal incomes remain high, a large proportion of parents can be expected to find ways to send their children to college despite the costs involved. On the other hand, if business is at relatively low levels there will be substantial unemployment among unskilled young people. Many of them may then be expected to enroll in colleges and universities, possibly with scholarship aid from government agencies.

I then turn to the fourth question considered by my statistical associates. This was a three part question:

IV. What is the economic outlook in the years ahead, what can higher education be expected to cost; and if it costs more proportionately over the years, can the country afford it?

For this question I have a chart comparing the expected growth of personal income and higher education expenditures.

A. Economic Outlook. Since the war, economists across the country have been studying and projecting the economic, demographic, political and sociological factors that affect the activities of this country.

Economists at the National Planning Association, a leading economic research organization, estimate that by 1976 the gross income of all individuals in the United States can hardly be less than $803 billion compared with $414 billion in 1961—a 94 per cent increase, with inflation excluded. We as a nation can achieve this great increase in income because, day after day, we are bringing to bear on the expansion of industrial productivity all the ingenuity, the inventiveness and the ability of our people. Moreover we are concentrating more time, effort and money on research and development on the problems of mankind than the world has ever known.

B. Costs. When it came to estimating what higher education is going to cost in the future, my statistical associates--looked at more than 100 long-range projections in my files, and at government data too. Their conclusion is that the costs of higher education are rising and can be expected to rise rapidly in the future. A good guess is that the total operating costs--that is, educational and general expenditures, exclud-
ing construction, auxiliary enterprises, scholarships and contract research—will go from $4.3 billion in 1962 to no less than $14 billion by 1976. Obviously this is a pretty rough estimate, but it is close enough to use for analytical and planning purposes.

C. Can the country afford such expenditures? If personal income rises along the lines set out in the chart (and this appears to be reasonable and possible in the absence of war or other national emergency), the answer is clear: “Certainly we can”—if the American people are willing to allocate the additional dollars that will be required. The amount involved will still be but a small percentage of the increase in personal income and productivity, and an even smaller percentage of total national income.

Financing higher education is therefore a problem of policy, not of resources. The problem is to select the basis on which to make a small portion of the increased income and productivity available for a service the people need and desire.

I now turn to the fifth question I asked my statistical associates:

V. What does all this mean to the private liberal arts college?

In order to arrive at some answers, we went back again to that now well-known creation of our imagination, Ashford College. Here is how the twenty-year period 1953 to 1973 looks at Ashford:

Students: up from 775 in 1953 to 1,125 now, to 1,265 in 1973;
Faculty: up from 67 in 1953 to 73 now, to 84 in 1973;
Salary level: up substantially over the period—from $4,265 to $13,000.

Ashford, you remember, is a 125-year old institution located in a town of 30,000 in the Midwest. Sixty per cent of its students are men and forty per cent are women. The student-faculty ratio has grown moderately from 12 to 1 in 1952-3 to 15 to 1 at the present time, partly as a result of filling up the junior and senior classes. There are ten main buildings and eight dormitories, four of which were built with the assistance of the federal government's college housing program. Ashford graduates 190 B.A. degree candidates a year, 55 per cent of whom go on to graduate or professional school. The students are better than they used to be, the average CEEB score having jumped more than 100 points in the past five years. The faculty is better too, and much better paid, than a few years ago.

The outlook is for a 60 per cent rise in the student body from 1953 to 1973, a 25 per cent rise in faculty and a 200 per cent rise in salaries. I then asked my statistical associates to take these estimates and work them into a budget for Ashford College for 1953, 1963 and 1973.
Here is what happened: the total operating budget jumps from just over $1 million to just over $5 million, about 400 per cent, in a twenty-year period. This includes educational and general expenditures, scholarships and auxiliary enterprises. Expenditures for construction are excluded because of their irregular timing, but they will be on top of these totals and will average nearly $1 million a year for the next ten years.

This rise in expenditures has moved Ashford from a little corner-store type of activity to a big business operation. Five million dollars a year plus a million dollars of construction is a sizeable total. Management practices consistent with this expenditure level are certainly required. For one thing, Ashford has already found that it needs much more experienced operating personnel. For another, they know they have to be much more careful about mistakes—even a small one can be very costly. For example, the president observed recently that putting a faculty member on tenure is a $300,000 decision—and that you should not make such a decision casually some afternoon just before tea. He also observed that “Old Main” is 105 years old and still in very active use, as he emphasized the fact that, if a building mistake is made, the college has to live with it a very long time.

My statistical associates believe that the rate of rise in expenditures shown in this chart is going to be pretty typical of private liberal arts colleges. At universities, with their expanding research budgets and professional schools, the percentage increase may be even higher.

The next question obviously is where the money is coming from. For this we have another chart.

This chart shows that at Ashford most of the operating money is coming from students. Ashford is one of those colleges that by 1962 had already balanced their educational and general budget, without any gifts and grants, and balance their auxiliary budget every year, including a charge for supervision. The gifts and grants shown on the chart after 1962 are for scholarships only. The amount would certainly be bigger if the administrators at Ashford thought they could raise more scholarship money.

Can students afford to provide for such a large increase in the operating budget of a small college? I believe they can; and that the future financing of most private colleges lies mainly in appealing to willing students rather than to reluctant donors. The students are going to be there; they can afford to go to college; many will be willing to pay a good price for the high-quality education that many private
colleges can provide. The future of private colleges and universities depends, it seems to me, upon their ability to do the job required.

Before leaving Ashford College, I should like to show you two more charts: one on assets, the other on fund raising.

On the asset side of the picture, Ashford expects that its plant will grow from the $3.3 million (at cost value) in 1953 to $9.0 million at the present time, to $18.0 million by 1973. During the twenty-year span this will involve a great enlargement of the library, the construction of a new union building, a new fine arts building, a new service building, a number of new dormitories, the conversion of an older building to new purposes and general refurbishing of the century-old campus.

As to endowment, Ashford expects growth from $4.1 million in 1953 to $5.7 million in 1963, to $7.7 million in 1973. Ashford would like to see the endowment grow faster than these figures indicate, but the administration knows from recent experience that endowment is hard to raise and that there are many other crying needs, particularly "people needs" that take first priority.

The last chart covers fund raising.

In order to portray the magnitude of the fund-raising problem at Ashford, I asked my statistical associates to figure a five-year average. This smoothed out irregular fluctuations due to fund-raising campaigns and the unregulated timing of receipts from bequests. The figures show that Ashford's fund raising was running at the rate of $423,000 a year during the early 1950's; it will be running at the rate of $1,393,000 a year during the early 1960's, and will reach a rate of no less than $1,667,000 a year in the early 1970's. Fund raising at Ashford has now only three purposes: scholarships, endowment and plant. None of it, as I have indicated, is for operations.

Ashford is in the midst of a special fund-raising campaign at the present time. Its 1963 figures are therefore a little higher than they would otherwise have been. Skipping over this temporary factor, however, you will observe that, on the average, Ashford's fund-raising effort can be expected to be four times larger in the early 1970's than it was during the early 1950's.

This completes my presentation. The figures, I believe, are more eloquent than any words I might say about the need for long-range planning at private colleges and universities. I refer them to you for your earnest, continuous and active consideration.