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ABSTRACT

Concerns relating to the economics of higher education, including inflation, are considered. It is suggested that future sources of rising costs are energy, equipment, books, and federal requirements, and that another major economic concern involves trends in enrollments and in tuition revenues. Projections of declining enrollments should be subjected to further analysis, since college enrollments depend on economics and politics as well as demographics. Population trends in the different states vary markedly above and below the national average, and only 25 to 50 percent of the college-aged population are actually enrolled in college. It is noted that while college and universities are seeking to attract adult students to compensate for the decline in 18- to 24-year-old cohorts, those institutions facing the sharpest enrollment declines are not necessarily those best located to attract larger numbers of adults. The federal government attempt to redefine equality of access in narrow economic terms, using a concept of net price, is criticized, along with proposals for tuition tax credits. Other economic factors include the future decline in veterans' benefits, which indirectly provide financial support to higher education, and a relative shift of federal revenue sources from income taxes to employment taxes, which erodes the benefits of the tax-exempt status of higher education institutions. Additionally, the burden of federal program requirements, the need for new budgeting formulas, meeting capital requirements, the need for better analysis of college financial conditions, state and federal roles, legislative cycles, and research funding are addressed. (SW)

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Economic Realities

by Carol Van Alstyne

Economic conditions shape the environment in which states will be establishing their role in planning, coordination and governance of postsecondary education. I have been asked to characterize some of these conditions and to discuss their implications for these functions.

Inflation

The major economic concern facing higher education is inflation. For years, higher education price indexes have registered larger increases than have general measures of inflation. In previous periods, the faculty were blamed for this situation on the grounds that faculty salaries account for a major share of college budgets and that faculty pay increases were greater than cost-of-living increases. But in the last few years faculty have lost purchasing power relative to both the cost of living and the wages of workers in other sectors of the economy. Though inflation persists in higher education, it is no longer driven by faculty increases. In fact, faculty are now bearing much of the brunt of the adjustment to inflation in the other components of the budget.

Given the decline in their real income in recent years, will the faculty have sufficient bargaining power to make up for their losses, or must they accept the relative erosion of their economic status? In many institutions, larger cost-of-living adjustments have been given to lower-paid than to higher-paid employees, thus compressing salary ranges. Now, however, as institutions are pressed to meet competitive salary offers, higher-paid people will probably get more attention. Generally, it does not look as if the faculty will be the source of persistently higher inflation in higher education.

On the other hand, costs will probably continue to rise in other areas, including energy, equipment and books. To find out why inflation has been higher in education than in the rest of the economy, the American Council on Education conducted a study in 1976 that covered twelve federally mandated social programs ranging from age discrimination and affirmative action to occupational safety and health.

The results showed that the implementation of these programs is one source of added costs which academic institutions, as nonprofit organizations, cannot easily pass along. Indeed, these costs had doubled over the previous five years, growing considerably faster than the cost of instruction. These program costs are not expected to taper off soon.

Enrollments

A second major economic concern for higher education involves trends in enrollments and in tuition revenues. It is generally expected that college enrollment will decline in the 1980s. Given the comparatively large base of fixed costs that colleges have in providing educational services, enrollment declines mean that student tuition will rise even faster than inflation in higher education (which is, remember, higher than the economy as a whole).

We should not, however, accept the projected enrollment declines as established fact that renders needless any further analysis. In the first place,

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some of the "doom-and-gloom" projections of enrollment declines are based on simulations or models of how our economic system works and how the education sector is related to the overall economy, and these models yield answers that depend on the assumptions fed to them. Simulation techniques are designed to show how the computed results differ, depending on differences in the data and assumptions used. Some of the "doom-and-gloom" specialists have, inappropriately, used simulation techniques as if they were deterministic—that is, as if the model produces a single answer that is derived inexorably from the demographic statistics.

But different assumptions produce different answers. Careful analysis should focus on the assumptions. In this country, enrollments at the elementary and secondary levels are closely tied to population. They are demographically driven because of the extremely high proportion of all those within the school-age cohort who go to school. But in most states, only 25-50 percent of the college-age cohort are actually enrolled in college. (California has the highest college-going rate, with close to 58 percent in 1975. The national average is about 40 percent.)

In reality, college enrollments depend on economics and politics as well as demographics. The economic and political variables that intervene between the population and the enrollment must be taken into consideration in estimating future levels. In recognition of these, planning for higher education can move from an environment of absolute constraint to one of relative choice, and the connection between planning and action can be changed from passive administrative response to active policy initiatives.

Further, population trends in the different states vary markedly above and below the national average and that has to be taken into account by planners estimating future college enrollment within the individual states.

A lot of editorial implications about how the public values higher education have been drawn from apparent declines in college-going rates, which peaked about 1969. (Even though they have begun to rise again in the most recent years, they have not reached the levels of a decade ago.) One explanation offered for the decline is that, in the late sixties, young men enrolled in college to avoid the draft, but after the country switched to an all-volunteer army that reason no longer existed.

What this explanation overlooks, however, is that the Census Bureau, which generates these education statistics, uses the civilian population base in calculating education participation rates. This means that as the number of people in the military declines, those formerly in the service are moved into the civilian population base. With a given number of people in the population of the country, and a given number of people enrolled in college, then a decrease in the military population results in an increase in the civilian population, which in turn increases the population base on which education participation rates are calculated. The final result is a decrease in the rates. To some extent, then, recent apparent declines in education participation rates are statistical artifacts.

In addition, year-to-year fluctuations in total enrollment are closely related to year-to-year fluctuations in the number of students receiving veterans' benefits. If this source of short-term fluctuation is separated out of the enrollment data to derive a better estimate of the underlying trend from 1970 to the present, one finds an increase in the enrollment of students going to college without GI benefits.

New Clientele

The eighteen-to twenty-four-year-old cohort will decline in coming years. But fewer than half of the students currently enrolled in college are "college age." With that realization, colleges and universities are paying greater attention to the adult students they have, and are actively seeking ways to attract more.

But those institutions facing the sharpest enrollment declines are not necessarily those best located, in urban centers, to attract larger numbers of adults, most of whom work full-time and go to school part-time. Questions are being raised about

whether the adult college-going rates can indeed be increased by very much.

In any case, adult enrollments are highly changeable from year to year, being more affected by cyclical economic conditions such as unemployment than are enrollments of younger students. The year 1976 was one of comparatively little growth in overall college enrollments, largely because the recent trend toward increased adult participation flattened out. But this is probably not the beginning of a long-term declining trend, but rather a short-term response to cyclical fluctuations in overall economic activity.

The volatility of adult enrollments from year to year is one of the many reasons why those who plan for higher education should pay more attention to the relationships between this sector and the economy as a whole, so that they will become more aware specifically of the impact of trends *and cycles* in overall economic activity on revenues and expenditures. I think a major flaw in much economic analysis of higher education is to project the current conditions, whatever they are, into the long-term future, without paying enough attention to where we are in the business cycle.

Access

In judging recent progress toward the national goal of equal educational opportunity, the standard of performance has been framed in terms of education participation rates: that is, the proportion of a particular group - identified by such characteristics as race, sex, and income - who are enrolled in college. The concept of equal opportunity in education has now been broadened beyond just access to include choice among different institutions. And disadvantaged groups are pressing for still further expansion of the fundamental concept of equality to embrace greater equality of educational outcomes.

Currently, however, the government is attempting to move in another direction by redefining equality of access in narrow economic terms, using a concept of "net price." Proponents of this measure start with the cost of an educational option and subtract financial aid to the student (including support from parents) to arrive at a calculation of net price to the student. "Equal net price" to students, across the range of family incomes and across the range of different college costs is then defined as "equal educational opportunity."

But this attempt to redefine access in terms of net price poses great dangers. It is possible to have equal net prices to students and still to have actual college-going rates for the rich students three times higher than for the poor students. The introduction of the "net price" concept is a move to redefine equality rather than to achieve it.

Tuition Tax Credits

The various tuition tax credit proposals considered by Congress over the years have generally been viewed by the higher education community as being bad ideas. They are regarded as neither equitable (since they are not directed to those most in need of financial aid) nor efficient (since they would not change the decision to go to college). In sum, they have been characterized as a rather ineffective way of allocating public resources to higher education. Thus, when asked to review proposals by those formulating them in Congress the higher education community has almost uniformly rejected them.

The academic community also feared that the federal revenue lost through tuition tax credits would be made up by cutting direct student aid in the federal budget. The result would be the same number of dollars flowing to higher education, but with more in the form of nontargeted tuition tax credits, and less in the form of targeted student aid.

But budget outlays for student aid programs are considered by one set of congressional committees and tax credits by another set. Even with the new congressional budget process, the two forms of aid may not be traded off against each other, particularly if the tax credit measure is seen in part at least as a form of middle-income tax relief rather than just as student aid.

There is tremendous congressional interest in creating these tax credits and forcing them on the higher education community. Many educators are opposed in principle to the use of the tax credit or tax deduction mechanisms in public finance, preferring the public accountability of direct budget outlays. But given the fact that they are used in the world of second best, they can be as justified for investing in education as they can for drilling oil wells or for borrowing money to buy houses.

Veterans' Benefits

In 1976, four years after the introduction of the massive new program of Basic Grants, veterans' benefits still constituted a larger share of total federal funds available to students then they did in 1972. The reasons were that: awards under veterans' benefits were larger than the awards under the Basic Grants program; a large number of people received them; and they were full entitlements, which Basic Grants still are not, being subject legally to annual budget authorizations.

The flow of total benefits will decline, however, as people use up their eligibility, as the number in military service decreases and as the military converts their educational benefits largely to in-service programs. The $4 billion of veterans' benefits in 1976 will sink to S3 billion, S2 billion, or even less. More attention should be paid at the state level to the impact, which varies considerably by state, of that withdrawal of indirect federal financial support for higher education.

Social Security

Another economic concern for higher education institutions is Social Security contributions, which are, in effect, taxes on employment. Up until about two years ago, this was not even included in the domain of issues that concerned higher education, much less was it thought to be a matter that something could be done about.

Nevertheless, it is important to recognize that, because higher education is highly labor intensive, a relative shift of federal revenue sources from income taxes to employment taxes erodes the benefits of the tax-exempt status of higher education institutions. Even though they are exempt from income taxes, they are not exempt from employment taxes, which they cannot shift, at least in the short run as conventional theory holds, to the employee. Since 1960, employment-based taxes have increased from less than one-sixth to almost one-third of the federal budget receipts.

Regulation

Because market mechanisms and voluntary actions have failed to advance adequately goals of social justice or to protect the environment, the government relies more and more heavily on regulation, which varies in effectiveness. Nonetheless, if regulation is good for the rest of the country, it is good for higher education as well. In trying to deflect the effects of federally mandated programs, some have argued that higher education is different from the other employers or federal contractors subject to the laws. But such an argument is politically costly. Rather, the claims of higher education for special attention must be based on the difficulties that nonprofit organizations have in covering the added costs of implementing federally mandated programs.

For instance, modifying facilities and equipment to meet the requirements of the new regulations related to the handicapped can increase both capital and operating costs. But academic institutions have no added revenues to pay for these added costs.

To take another example: colleges and universities fear the cost consequences of raising the mandatory retirement age if older, higher-salaried staff members cannot be replaced for another five years with younger and lower-salaried staff members. But preliminary data on the age distribution of academic employees indicate that very few are currently near the age where this regulation is going to make a difference in their decision to retire. There are, however, a large proportion of staff in the forty-five- to fifty-year-old age group. The real impact of the change in the retirement age will not be felt for another ten to fifteen years; there is, consequently, time to prepare for it.

Some additional implications of these economic realities for statewide planning, coordination, and governance can also be identified.

Budgeting

When all the trends were up, simple formula funding based on enrollments was adequate for estimating budget requirements. But now, as is widely recognized, more complex funding formulas are needed, based on better analyses of the ways costs are affected by changing levels of enrollment, both up and down.

For some types of program functions, for instance, head count may be a more reasonable basis for funding than full-time-equivalent enrollment.

But a more significant shift may be away from enrollment-driven funding formulas altogether, to entirely new bases of budgeting financial support, more firmly grounded in cost data by function and by object, adjusted for anticipated inflation with more refined price indexes for higher education. Such a shift will lead to much more rigorous requirements for identifying those costs and to the development of a whole new set of analytic techniques which yield marginal costs rather than average costs. Still more effort will be necessary to relate these costs to program quality and program diversity.

Capital Requirements

Next to inflation of operating costs, meeting the capital requirements of higher education may be the topmost financial concern facing higher education in the 1980s. Capital is needed to rebuild endowments not yet recovered from earlier decimation because of poor stock market performance and now eroded by inflation; to renew structures undermaintained for the last five to ten years; and to implement regulatory requirements that involve major modifications of older plant and equipment to meet newly mandated standards.

Recently, with projections for an eased national economic situation in the near term, a burgeoning number of colleges—both in the private sector and increasingly in the public—are planning capital fund drives. Many more dollars are expected to be generated from these capital fund drives planned in the next two years than from those completed in the last two. But with the aggregate plans for drives increasing sharply, growth of the funding goals may exceed the growth in the support available from the traditional sources of support. Under these conditions, all the plans cannot be carried out.

Improving Measures of Financial Conditions

State planners and coordinators need better analyses of the financial conditions of the institutions within their states. A vast amount of new work to improve the tools of analysis is now producing results which can be further tested and refined through careful use. Scanning income statements to identify current operating surpluses and deficits is now recognized as an inadequate measure of longer-run financial equilibrium, which requires that not only the budget balance but also the trend in future revenues be adequate to cover the trend in future expenditures.

In addition, greater attention to balance sheets and assessment of trends in net worth will be helpful in evaluating the adequacy of the capital base and future needs for capital. Because most fund accounts for higher education institutions do not include depreciation, and because plant fund reserves are often inadequate for replacement, it is likely to be of special importance that those concerned with financial planning and coordination take a close look at the capital side of the financial requirements of the higher education institutions in their jurisdiction.

Maintenance-of-Effort Standards

A major concern in government programs of support for higher education is the extent to which federal funds merely substitute for state funds, or state funds substitute for institutional funds, rather than providing additional assistance as intended by the legislation enacted. State planners and coordinators share an interest in the development and implementation of maintenance-of-effort standards or conditions for public funding. These standards may be derived in terms of dollars of support per student, adjusted for infla-

tion in order to judge the real net effect of additional program funds.

Institutions in the public sector stridently object to increased support for private institutions if they regard that support as having been taken out of their budgets. A full maintenance-of-effort standard applied to state support of public institutions would probably recognize the need for funding quality improvement in the public sector in establishing the criteria for judging whether state support for private institutions was taken away from the public sector.

State and Federal Roles

An historic concern in our federal system is the delineation of the separate and the overlapping responsibilities of the state government in financing higher education institutions and the federal government in redistributive programs to create greater access and choice for students. The impact of federal need-based student aid on state tuition levels and on state student aid programs is a much debated question. Planners at the state level may find that need-based Basic Grants are causing the states to raise their tuition levels—thus increasing student need, which in turn increases federal student aid—as a way of shifting more of the financing from the state to the federal level.

Other actions, both within and outside the domain of higher education, also affect the division of public support for higher education between the state and the federal levels of government. The effects stemming from legislation on intergovernmental shifts in these financial flows should be the object of much more careful analysis on the part of state planners and budgeters. Does an increase in Social Security employer contributions, which increases employment costs at many state institutions, tend marginally to shift a greater share of the financing to state appropriations? Or, in the other direction, would a tuition tax credit permit states to raise tuitions at the public institutions which would be paid by families and credited against their federal income tax, so that through foregone revenues, one effect would be a shift of financing shares more toward the federal government?

Legislative Cycles

Congress is currently operating on a four-year cycle of legislative authorization of support for higher education. An expanded federal role was set out in legislation enacted in 1972 and reauthorized in 1976 for another four years. This puts 1978 in the middle of the legislative cycle. It can be easily anticipated that educational subcommittees will direct their attention toward legislative oversight and program effectiveness. They are very likely to be looking at such matters as abuses of student aid programs and the costs of administering them. In preparation for that program review, the states and institutions could start making sure that their houses are in order. Ideas for changes in the programs should be worked out and presented in 1979 in anticipation of debates on new education legislation in 1980.

Research Funding

In the late sixties, at the peak of federal support for research, every institutional dollar invested in research attracted four to five additional federal dollars. In recent years, the institutional research dollar has been matched by only two to three federal dollars. The result of this significant shift is that an increasing share of total investment in research performed in colleges and universities is funded by the institutions themselves. Planners at the state level should be aware of this structural shift in the financing of research because it affects institutional activities, staffing, expenditures and revenues.

State Financing of National Benefits

Beyond educating people, colleges and universities perform activities which produce very significant social benefits. These activities range from performing basic research to delivering health care. Greater educational opportunity is promoted by the nearly $500 million of student aid funded by the institutions themselves. Those making decisions about state plans and budgets need to think very carefully about the proper balance of support when they are asked to invest state funds in higher education activities that benefit not just the state but the nation.