

Grapevine

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TIMELY DATA CIRCULATED WHILE CURRENT

Reports on state tax legislation; state appropriations for universities, colleges
and community colleges; legislation affecting education beyond the high school.

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THE QUALITY AND AFFORDABILITY OF PUBLIC HIGHER EDUCATION: A VIEW OF THREE DECADES 2282-2287

Cost containment continues to be a major concern in higher education. The following quote from the NACUBO Business Officer (October 1989) is instructive:

Fueling concerns about the quality of higher education, managers are suspicious that many institutions have not adequately identified and controlled their costs, maintained and strengthened their capital bases, and improved their productivity and competitiveness. Such questions have prompted some influential Washington insiders to conclude that higher education, in general, is not a well-managed industry (page 21).

Grapevine recently has published three articles dealing with cost issues in higher education. In June 1988, an article on cost containment by David Longanecker identified three cost containment strategies: incremental budget cuts, incentive funding, and enhancing revenue by raising tuition. The March 1989 Grapevine featured an article by John Wittstruck and Stephen Bragg, showing that the economic recession of the early 1980s was accompanied by a slower rate of increase in state tax appropriations for higher education but a higher rate of increase in student tuition. An article by Paul Brinkman in the May 1989 issue of Grapevine explored a number of options for cost analysis.

The contributed article in this issue of Grapevine was written from a campus viewpoint by a university president. Thomas Wallace of Illinois State University analyzes the dilemma of increasing costs in the face of a leveling in state tax support. He proposes a creative way to increase financial assistance to students from lower-middle income families while increasing the operating revenue of the institution.

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In Grapevine, "consolidated system" is defined as several institutions which are governed by one board. Only those systems which received appropriations of \$100,000,000 or more appear in the table.

THE QUALITY AND AFFORDABILITY OF PUBLIC HIGHER EDUCATION:
A VIEW OF THREE DECADES
By Thomas P. Wallace

A few decades ago, it was financially possible for a student from even the poorest family circumstances to complete an undergraduate program from a public college or university in four years. Summer employment, and perhaps a few hours of work per week during the academic year, provided sufficient funding to complete a four-year undergraduate program with little, if any, postgraduate indebtedness. Today, such a self-funded, debt-free college education is not possible. The usual media explanation for the reduced affordability of an undergraduate education is attributed to the tuition increases over the last two decades. Indeed, a college education on a full-time, or even on a part-time basis, is unaffordable to a large segment of the American population. A typical description of the increased cost of attending public colleges and universities was reported in The Chicago Tribune in the Spring of 1989: "Since 1977, tuition in the State's public universities has risen 287 percent--more than 2.5 times as fast as the CPI."

As an aside, it should be pointed out that the period chosen ignores the years of recession in which universities lost ground to cost increases. Illinois State University is a case in point. Since 1971, tuition at Illinois State University has risen 225 percent while the corresponding increase in the Higher Education Price Index (HEPI) was 189 percent (thus, tuition increased 1.2 times as fast as the HEPI). This time period included six consecutive years from 1971 through 1976 of no tuition increase. For the same period, tax support increased 100 percent which is 0.53 times the HEPI. Thus, the combined increase of tuition plus tax support for ISU can be justified by increases in an appropriate economic indicator (i.e. the HEPI). However, during this period the state permitted an inappropriate shift of institutional cost from the taxpayer to the individual student and parent. Eighty percent of ISU's appropriated fund for FY79 was from state tax revenues, while in FY89 the percentage was 63%. In Illinois, and elsewhere, most public universities have acted responsibly to protect the necessary scope and quality of their programs by increasing tuition, but the problems hindering the affordability of public higher education are more complex than simply the rising levels of tuition.

A broader examination of the evolution of public higher education in America over the last three decades provides insight into why public higher education has been forced to reduce affordability in order to protect quality and mission. The parameters in the affordability/quality equation go beyond tuition levels and extend to:

- (1) the quality and the scope of programming available to the student in public higher education today, relative to two and three decades ago,
- (2) the redistribution of wealth in America,
- (3) state income tax structures,
- (4) the cost of a four-year undergraduate education relative to potential summer employment earnings,
- (5) the salary level of the first job as related to the level of debt that graduates encounter,
- (6) the shift in financial aid funding from grants to loans, especially at the federal level, and
- (7) tuition levels as related to the forms and funding levels of student financial aid.

In the 1959 era, the total cost of attending a public university was about \$750 a year (or less) with most institutions offering only a few degree programs, often related to teacher preparation. The student could usually earn the necessary annual college cost through a summer job and, thus, did not require great reliance on parental support. In 1959, a beginning teacher's salary was about \$4400 a year; therefore, the ratio of first-year earnings as a teacher to the four-year cost of the education was 1.5. In 1989, at Illinois State University, the four-year cost was about \$28,000 and a starting teacher's salary was about \$17,000 a year which corresponds to a 0.6 ratio of first-year earnings as a teacher to the four-year cost of education.

Quality and Scope of Programming

The mission of public higher education is dramatically different today from what it was in 1959. Today, the quality of public higher education is significantly improved, relative to well-established private universities. Currently, public universities provide a broader range of programs, including professional schools. Thus, the comparison of what an individual can and does receive from a public university today is much different than in 1959. Correspondingly, the cost of operating today's large multipurpose, public universities with significantly broader missions and mandates has increased dramatically.

Although, tuition is not too high relative to the quality and scope of educational programs, tuition is too high for a large segment of American families who increasingly cannot afford the higher cost of improved programming offered by public universities. The quality, maturity and the cost of public higher education over the last few decades has moved much closer to that of the established private universities. The change in quality and maturity is most welcome, but the unaffordability is not.

Redistribution of Wealth

The fact that many families cannot afford the current level of college costs is not surprising if one examines the redistribution of wealth in America today. The April 1989 "ACT Student Financial Aid Research Report Series 89-1" contained the following data:

- (1) In 1970, American families were almost equally divided between three income groups: one group of families had incomes above 125 percent of median family income for all American families; a second group had incomes of between 75 percent and 125 percent of median family income; and a third group had incomes below 75 percent of median family income.
- (2) Between 1970 and 1987, the proportion of families that had middle incomes declined from 32.2 percent to 25.6 percent of all families. The proportion of all families that were affluent increased from 34.5 percent to 38.3 percent. The proportion of poor families increased from 33.3 percent in 1970 to 36.1 percent in 1987--the largest proportion of poor families at any time since data were first collected in 1947.
- (3) Poor and affluent families are now larger proportions of all American families and middle-income families are a smaller proportion.
- (4) Using 1986 income data, over 70% of all children would require financial aid to be able to attend public two-year colleges and over 80% of all children would require aid to attend a public four-year college or university. More than 90% of all children would require financial aid to attend an average cost private four-year college.

While all lower and middle-income families are increasingly affected by the indirect redistribution of American wealth, minorities are disproportionately being impacted. Blacks are graduating in greater numbers from high school, scoring higher on college entrance examinations, showing greater interest in attending college, but fewer Blacks are attending college.

The American Council on Education study indicates a decline in low-income black high school students entering college from 40% in 1976 to 30% in 1988. In 1976, 53% of black middle-income high school graduates enrolled in college compared to 36% in 1988. This decrease included a decline in attendance of black men from 53% to 28%. Financial reasons are the primary cause for this situation with specific reasons including increased tuition, reduced financial gift assistance and increased emphasis on student loan programs. Loans and long-term debt are less readily accepted in minority cultures as an acceptable financial strategy for acquiring an education.

State Income Tax Structures

Given the increased college costs and the socioeconomic trend toward a bipolar American society of poverty and affluence, the parameters of student financial aid and institutional tax support should be examined. The lack of progressive income tax structures in many states results in the poor bearing a higher state income and local tax burden while at the same time not receiving college financial aid that meets their college costs. In Illinois the working poor are taxed more heavily than the rich by a factor of 2. The average poor person in Illinois pays 9.4% of income in state and local taxes while a similar size wealthy family pays only 4.2%.

A 1989 Congressional Joint Economic Report concluded that:

- (1) Growth in U. S. income was spread unevenly across the population.
- (2) The upper-income Americans were the main direct beneficiaries of tax reductions in the 1980s.
- (3) The standard of living of 60% of American families has stagnated during the 1980s.
- (4) The poorest 40% of families in American received 15.3% of all income compared to 16.8% a decade ago.

The increases in social security rates and salary limits over the years have imposed another type of regressive income tax on lower and middle-income families. During the Reagan administration personal income tax declined as a percent of total federal revenues by 6% and corporate income tax dropped by 23%. At the same time social security tax revenues increased by 23%, resulting in 74% of taxpayers paying more social security taxes than income taxes.

In Illinois, as in other states, legislatures have not satisfactorily increased state income tax support to assist the lower and middle-income families to enable them to attend its public state colleges and universities while tuition remains a bargain for the higher income families.

Student Financial Aid

In 1959, Illinois initiated a scholarship program based on scholastic achievement and financial need; beginning in 1971 the program began supporting only need. In 1989 the state's program allocated \$176 million which was \$80 million short of meeting the need of the applicants. The average state grant in 1977 funded 78% of the average tuition and fees while in 1988 the percentage was 60%.

The financial aid categories of loan, grant and work are not presently designed nor funded at a level to give relief to those with a financial burden. An estimated \$24.5 billion was awarded nationally to students (public and private) for financial aid in academic year 1987-88; 50% for loans, 47% for grants and 3% for work. These percentages for 1982-83 were 44%, 52% and 4%, respectively. The number of first-time, full-time freshmen receiving Pell grants since 1980 declined from 32% to 16% with only 3% receiving \$1,500 or more in 1988. However, the number of Guaranteed Student Loans (GSL) increased from 10% in 1978 to 20%

in 1988. Institutional grants increased from 13% in 1987 to 20% in 1988 and reflect, to a great degree, a paper transaction which in effect discounts the stated tuition in private colleges and universities.

Forty-three percent of 1983-84 graduates of all four-year institutions had average debts of \$5,500 or twice the average of 1977. For public universities, 29% owed more than \$7,000. The use of loan and bond programs are easy answers for the state and federal government since they don't require finding tax dollars as is the case for grant and scholarship financial aid.

Part-time student status has become the financial answer for many students. The number of part-time students in higher education has increased over the last few decades and now approaches 50%. Particularly in the urban areas, where work is more readily available, students will often spend 6 or more years obtaining their undergraduate education in order to avoid the route of long-term debt which is the only other alternative remaining for full-time study. The current situation results in more than 80% of graduate students being part-time--an atmosphere which intellectually provides less stimulation for the student than the traditional immersion in full-time graduate study. Full-time students are increasingly finding it necessary to work. The American Council on Education data show that three-fourths of today's university students have a job and work, on the average, 37 hours per week.

Public Policy Issue

In recent years, the gap between financial need and financial aid for public universities has widened as universities find it necessary to protect quality by increasing tuition. There does not seem to be an alternative for the student except for long-term debt or the part-time student status. This is less than a satisfactory situation, from the point of view both of the student and society. A new model of financial grants and scholarships is needed as the current public policy has failed to provide a large segment of American families with access to higher education. A successful financial aid model must recognize the political reality of limited additional financial support from tax dollars to higher education. Given the ever-increasing political and financial importance being allotted to the elderly, prisons, road and bridge infrastructure, health care and substance abuse, higher education should expect a decreasing percentage of federal and state budget appropriations over the next decade.

Today's prevailing public policy that determines institutional funding and tuition levels is a carry-over of the 1960s and reflects the commitment to educational opportunity through a philosophy of low tuition. Those dedicated to the low tuition model which is an outgrowth of the public school movement of the 1950s wait for the day when state legislatures will provide sufficient tax dollars to "appropriately support public higher education" and reduce current tuition levels. They will retire still waiting! Currently, affordability cannot be equated to low tuition as it was in the 1960s; in reality the low tuition model is synonymous with acceptance of low quality, and inadequate space and support budgets for faculty instruction and research.

A much more responsible public policy appropriate for the 1990s would be a program of targeted subsidies for lower and middle-income families either from tax revenues or from tuition income. If a public university is perceived as having high quality education and is accepting a relatively small percentage of those who apply for admission, it may be possible to increase tuition dollars in order to fund financial aid grants based on student need and eliminate the gap between financial need and financial aid. Such a university would approach the construction of its institutional budget and the establishment of institutional level by balancing institutional operational needs with the student financial aid needs. Of course, this is the private university budget model and many in public higher education find it abhorrent to consider adopting a private college strategy which is synonymous with abandonment of sacred public university principles. Harvard University increased financial aid during the last ten years by 300% while tuition and fees increased by less than 150%.

This recommended model of higher tuition coupled with increased financial aid grants for public universities is based on the assumption that states will not increase income tax revenues in order to assist lower and middle-income families with increased financial aid at the expense of increased taxes for higher income families. It should be noted that while student financial aid from all sources increased from \$17.2 billion in 1980 to \$26.6 billion in 1988, the increase from state sources contributed only 8.5% to the total increase. This nine-year record plus the current attitude of state legislatures and taxpayers toward additional taxes for education does not warrant a positive expectation for the rescue of the lower to middle-income families with a subsidy from tax revenues.

Universities could accomplish the same objective by increasing tuition and taking part of the increased revenues from the tuition increase to establish financial aid grants (i.e. a subsidy) for needy students. This model is applied to Illinois State University in order to illustrate the potential financial outcomes. During the 1988-89 academic year, the average unmet need for student financial aid at ISU was \$392 per student. If a \$250 per semester tuition increase had been put in effect with 40% going into student gift financial aid, the average unmet financial need would have been reduced to \$129. In addition, this example would have provided \$6.4 million to the university's operational budget. Obviously, such parameters as the percentage going to gift financial aid and the distribution of these funds to the various segments comprising the lower and middle-income families can be adjusted as desired.

The concept of such a subsidy is founded, not only on the concept of reduced reliance on tax revenues but also on the market rationalization economic model currently used in federal government policies dealing with irrigation, aviation, postal services, petroleum reserves and housing. This economic model of federal subsidies and user fees for providing important and expensive facilities and services to the public is intended to promote overall desirable societal outcomes but inherently recognizes differential benefits and costs, as well as abilities to pay for such services. Those economists subscribing to the use of the market rationalization model for public university tuition policy reject the low tuition philosophy as having long ago failed American society.

Basing public higher education's future on a public policy of low tuition is ineffectual and unjust. It is well-recognized that a significant portion of the student body in a public university can afford higher tuition and that combined with the often regressive state income tax structures the higher income family is receiving an unneeded state subsidy. In place of this subsidy, these resources should be used as financial aid to those who cannot afford to attend public higher education without such resources. Public universities inherently offer across-the-board financial aid to all students by virtue of the tuition charged being less than the cost of instruction. Thus, public universities with low tuition in states with regressive tax structures are redistributing the wealth in the wrong direction from lower income families to the higher income families. It should be noted that the increase in educational cost to upper-income families would be adding additional cost to the particular market segment that is most indifferent to changes in cost.

Of course, the question arises can the consumer receive and understand the marketing message of a new financial aid model rather than to be frightened by a tuition increase? The economic theory of riskless choices defines the "economic man" as possessing complete information, infinite sensitivity, and rationality; and thus choosing the best alternative available. However, the concept of "the net price you pay" as an individual student may be a difficult marketing concept for public higher education to accept and implement. The quote from Edwards and Tversky may be appropriate, "Apparently, the most serious deficiencies in human decision-making behavior arise in processing information, not in making decisions."

The lack of attention to new, sound economic policies and financial strategies in public higher education is a major problem. George Keller recently referred to this situation as "the black hole of higher education studies." He commented that "The microeconomics of single institutions and rigorous studies of campus finance scarcely exists. The addiction to politics needs to be replaced with equal time for economics." Stanford's Henry Levin states the problem as: "Much educational research and policy is premised on assumptions about effectiveness or efficiency in resource use, but does not draw on economic analysis."

In summary, for those public universities that are perceived as high-quality institutions, it is quite possible that an increase in tuition, much of which is earmarked for gift financial aid to lower middle-income families, could reduce or eliminate the institutional gap between financial need and financial aid for lower middle-income families. At the same time, such a policy could provide additional resources for the university. The assumptions are that the parents and students will understand the concept and that the perceived quality of the institution will continue to attract the higher income families as the increased costs will continue to be viewed as a bargain.

Unfortunately, it is much easier for those involved in public higher education to cry out each year for "a new state tuition policy" than to formulate a new public policy for student financial aid that actually addresses the economic reality of today for the lower and middle-income families in America. This call each year for a new state tuition policy can be translated to mean give us more operational tax dollars so that we can hold the line on tuition. That's politics, not sound economic theory based upon responsible financial analysis and management.

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APPROPRIATIONS OF STATE TAX FUNDS FOR OPERATING EXPENSES OF 28 CONSOLIDATED SYSTEMS OF HIGHER EDUCATION, FISCAL YEARS 1979-80, 1987-88 AND 1989-90, WITH PERCENTAGES OF GAIN OVER THE MOST RECENT TWO AND TEN YEARS. (In \$1,000s)

System	Year	Year	Year	2-yr gain	10-yr gain
(1)	1979-80	1987-88	1989-90	Percent	Percent
	(2)	(3)	(4)	(5)	(6)
CA California State U	819,474	1,714,997	1,987,492	16	143
NY State U of NY	820,398	1,440,890	1,578,200	10	92
NC U of North Carolina	429,649	957,814	1,091,119	14	154
FL State U System of Florida	427,919	898,283	1,009,251	12	136
GA U System of Georgia	385,132	759,404	884,669	16	130
MA Bd of Regents of High Ed	314,929	894,998	815,998	- 9	159
WI U of Wisconsin System	386,340	579,167	650,690	12	68
NY City U of New York	181,271	535,745	637,844	19	252
AZ Arizona Board of Regents	202,012	429,516	491,434	14	143
IA Iowa Board of Regents	212,812	336,612	403,395	20	90
KS Kansas Board of Regents	219,633	326,580	398,061	22	81
TN State U and Comm Coll Sys	161,626	341,587	382,337	12	137
PA State System of Higher Ed	194,999	300,430	345,281	15	77
OR State System of Higher Ed	172,531	277,718	313,387	13	82
MS Insts of Higher Learning	175,606	260,601	312,556	20	78
UT State Board of Regents	138,787	257,218	272,199	6	96
WV Bd of Trustees System	106,788	148,651	180,759	*	*
IL Illinois Bd of Regents	109,182	145,584	177,056	22	62
LA Bd of Trustees System	118,959	165,869	174,292	5	47
MN St U System of Minnesota	80,782	130,898	167,400	28	107
IL Illinois Bd of Governors	98,988	133,305	165,958	24	68
ID Idaho Board of Education	71,336	118,240	134,384	14	88
NV U of Nevada System	56,896	112,551	146,636	30	158
RI Bd of Governors for H Ed	71,725	127,759	144,522	13	101
ME U of Maine System	43,864	113,255	142,803	26	226
ND State Bd of Higher Ed	76,889	115,723	139,911	21	82
MT Montana U System	58,554	102,055	106,208	4	81
CO State Bd of Agriculture	43,147	87,517	100,213	15	132
Totals	6,180,228	11,812,967	13,354,055	13	115

Weighted averages percentages of gain 13 115

*The percentages of gain are not comparable, because the sum for FY1990 contains an estimate of fringe benefits and these were not included in the figures for FY1980 or FY1988.

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