

Higher Education Funding: On the Way Up, But for How Long?

By William Zumeta

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By 2007, most public colleges and universities had enjoyed the benefits of three years of improved state financial support—much needed after unprecedented cut-backs earlier in the decade. For the majority of states the (relatively) good times promised to continue in 2008. But, as usual, the future of the national economy was unpredictable; it showed clear signs of a slowdown by late 2007. A serious dip would quickly affect state revenues and support for higher education.

This chapter outlines current economic conditions and shows how economic health affects higher education funding. The chapter then reviews the financial condition of the states, the

chief financial supporter of public colleges and universities and their students. It also provides recent data on state support of higher education, and notes developments in tuition and financial aid policies. Last, the essay assesses longer-term trends in state support and the potential impact of these trends on student access, degree productivity, equity, and the nation's global competitiveness.

THE STATE OF THE U.S. ECONOMY

The fiscal fortunes of public higher education are closely tied to economic performance. The primary reason: the link between employment rates, personal income, and economic growth

and state revenues from sales, individual, and corporate income taxes. Slow growth or recession rapidly translates into weak state tax revenues. Policymakers contemplate budget reductions when revenues drop much below levels assumed in budgets, unless reserves are large. But large reserves are politically vulnerable, so most states, at best, stave off large budget cuts in the current fiscal period. When confronted with a weak economic outlook at the time a new budget is being prepared, budget makers usually minimize or eliminate year-to-year spending increases before turning to politically unpopular tax increases. Higher education is especially vulnerable to budget cuts in bad or uncertain times.

Economic performance was not bad in fall 2007, but the outlook was uncertain. The annual growth rate in Gross Domestic Product for the April-June quarter was estimated at a healthy 4.0 percent, an improvement from the anemic 0.6 percent growth rate recorded in the first quarter of 2007.¹ But rising interest rates triggered upward adjustments in adjustable rate home mortgages during the summer. These increases, in turn, led to a big jump in defaults, mainly by “subprime” borrowers.² Home foreclosure rates reached record levels and the stock market retreated sharply from record territory it reached in early summer.³ Monthly job growth was modest. The official unemployment rate remained a low 4.7 percent in September,⁴ but new claims for unemployment benefits edged upward. U.S. housing credit problems affected banking institutions worldwide; such weakness in banks, observers speculated, might jeopardize heretofore-strong growth in exports to Europe. Estimated growth in the second half of 2007 was only about half the robust rate of the spring quarter.⁵

There were also positive economic signs. Productivity was up and inflation seemed to be under control.⁶ Retail sales were stronger than expected in August suggesting that the housing market’s problems did not hurt consumer spending.⁷ Federal Reserve officials noted the

limited effects of this sectoral problem on the larger economy, while stating that they would lower interest rates if a large spillover effect on the banking system and business and consumer confidence became evident.⁸ In mid-September, the Fed lowered the rate at which it loans money to member banks by half a percentage point, a big change after more than four years of rate stability, and followed this with another quarter-point cut in October.⁹ The economic outlook in autumn was therefore guarded.

STATE OF THE STATES

Fiscal year (FY) 2007 (July 1, 2006 through June 30, 2007 for all but a few states) showed relative strength in revenues and expenditures.¹⁰ According to one estimate, total state general fund spending would grow for FY 2007 by a robust 8.6 percent over FY 2006, more than two percentage points above the 29-year historical average.¹¹ This growth was possible because revenues met or exceeded budgeted levels in 41 of the 50 states, by an aggregate total of 2.4 percent.¹² The estimate calculated year-end general fund balances across the 50 states (money in the treasury at the end of the fiscal year including reserve funds) to total \$50.4 billion, a \$12 billion decline from FY 2006 but still a healthy 8.2 percent of expenditures.¹³ The estimate predicted the FY 2007 year-end balance to exceed ten percent of expenditures in 22 states and to be above the usual five percent standard sought by bond rating agencies in 37 states. Only four states expected a precarious year-end balance of less than one percent.¹⁴

During the first half of 2007, most governors and state budget officers expected continued favorable conditions. Governors’ proposed budgets called for FY 2008 revenue collections that exceeded FY 2007 levels by 3.3 percent in aggregate.¹⁵ This figure might be conservative if then-current economic trends continued. With healthy treasury balances, governors called for expenditure growth of 4.2 percent in their FY 2008 budget proposals. This expenditure level would draw down the aggregate year-end

balance by another \$12 billion—to about six percent of the year's expenditures. If favorable economic trends continued, these projections might leave room for budget supplements during 2008 legislative sessions that would reduce the predicted decline in aggregate expenditure growth (from 8.6 percent in FY 2007 to 4.2 percent in FY 2008). Even so, governors' budgets in half the states called for expenditure growth of five percent or more, and eight governors sought more than ten percent budget growth.¹⁶

An August 2007 survey of state legislative branch fiscal officers included budget information for 45 states and tax information for 41 states.¹⁷ This report updated FY 2007 data and included legislative actions on FY 2008 budgets.¹⁸ The news was good. "Excess revenues" above budgeted projections for FY 2007 allowed many states to supplement FY 2007 spending or roll the excess into FY 2008 budgets. This development often helped higher education. Reflecting concerns about the future, 19 states shored up their reserve funds, in aggregate by 16.4 percent.¹⁹ Some states used their unexpected FY 2007 revenues to cut taxes.²⁰

Expected revenue growth in enacted FY 2008 budgets for the 45 reporting states totaled just 2.6 percent above FY 2007 levels. Only eight states expected growth of more than five percent; four states projected a decline.²¹ But enacted budgets called for general fund spending to grow by 5.4 percent in these 45 states, resulting in a 24 percent decline in year-end balances by the end of FY 2008.²² Eight states budgeted for FY 2008 spending *decreases*, but 26 planned increases of at least five percent.²³ Despite a more conservative outlook this year, the prospect for higher education support was surprisingly favorable if revenues held up. The 45 reporting states budgeted general fund higher education spending to grow by 7.9 percent in FY 2008 (8.0 percent when all state funding including lotteries and natural resource revenues was considered).²⁴ This growth compared favorably to budgeted increases for the other major state functions: Medicaid (8.1 percent),

K-12 education (7.0 percent—9.6 percent including all state funds such as lottery proceeds), and corrections (6.4 percent).

Concerns remained about the sustainability of the revenue growth assumptions for FY 2008 budgets. By late summer 2007, Florida, Maryland, Rhode Island, and Virginia reported problems that threatened cutbacks in enacted budgets.²⁵ Revenue slowdowns contributed to the inability of California, Illinois, and Michigan to pass FY 2008 budgets as of mid-August.

The latest published report on state revenue trends indicated generally "soft" tax revenue receipts compared to historical trends.²⁶ Faced with continued stock market instability, states dependent on personal income taxes could suffer from reduced income of high-earners from stock options and capital gains.²⁷ Consumer concerns about high gasoline prices and housing and credit market uncertainties resulted in sluggish gains in state sales tax receipts in FY 2007.²⁸ The tendency to remove stable elements of consumption, such as groceries and clothing, from the sales tax base portends further volatility in a downturn.²⁹ Sales tax revenues grow slower than the economy because the fastest growing component of the modern economy, the services sector, is lightly taxed relative to sales of goods. Also, the federal government and the states have yet to come up with an acceptable method of taxing fast-growing Internet sales transactions. The third significant component of the tax base in many states, business taxes, is volatile and subject to large dips when corporate profits fall. Thus, there were ample reasons to be wary about the stability of the apparently favorable FY 2008 appropriations for higher education.

HIGHER EDUCATION BUDGETS

Higher education received unexpected aid during 2007 legislative sessions. Revenues exceeded budgeted amounts in more than half the states due to conservative revenue forecasts and solid economic growth. Some of the surplus went to higher education in 17 states, enabling long-neglected capital projects.³⁰

According to one National Conference of State Legislatures (NCSL) report, the favorable outlook for FY 2008 produced budgeted appropriations increases for higher education totaling eight percent across the 45 states, the largest annual gain in many years. The median gain was 9.25 percent in the 32 states announcing FY 2008 higher education appropriations data by late October 2007; 12 states reported double-digits gains. The top five gainers: North Dakota (19.1 percent), Louisiana (15.8 percent), Mississippi (15.4 percent), Alabama (14.9 percent), and Arizona (14.6 percent). Only four states reported gains below 4.4 percent: Pennsylvania (1.8 percent), Massachusetts (2.1 percent), New Jersey (2.7 percent), and Alaska (3.6 percent).³¹ No reporting state reduced its appropriation for higher education between FY 2007 and FY 2008. The larger gains tended to be in the southern and western regions (Table 1).

On the negative side, lagging revenues threatened enacted FY 2008 higher education budgets in Florida, Maryland, Virginia, and Rhode Island. California, Illinois, Michigan, and Wisconsin delayed enacting their state budgets beyond statutory deadlines—usually a sign of fiscal difficulties. A dispute in Texas over responsibility for community college employee health benefits led the governor to veto \$154 million of state funding for these colleges, causing a budget crisis.³²

On the positive side, several states that cut higher education appropriations during the last economic downturn restored some funding. Massachusetts, which made the deepest reductions in higher education appropriations (-23 percent between FY 2002 and FY 2004), increased funding by 2.1 percent for FY 2008. Colorado and South Carolina, which had also cut more than 20 percent, provided 8.4 percent and seven percent increases, respectively, for FY 2008.³³

Oregon had slashed funds for higher education by more than 11 percent between FY 2002 and FY 2004. But the state appropriated its largest-ever increase for the Oregon University System for the FY 2007–09 biennium—23 percent

more than for FY 2005–07. The university system expected to finance about 15 percent more freshman and transfer slots.³⁴ Oregon also sharply increased long-neglected capital funding and enhanced its student aid programs. Missouri, another state that had deeply reduced appropriations, followed a 2.3 percent appropriations increase in FY 2007 with a 4.4 percent boost for FY 2008. Maryland and Virginia also sought to recover substantial lost ground. Maryland's enacted FY 2008 budget provided a 10.5 percent increase for its university system and Virginia gave higher education an additional 5.3 percent. But lagging revenues forced considerable cutbacks early in the fiscal year in both states.³⁵

The outlook for higher education support was favorable early in FY 2008, but there was plenty of variation, and vulnerability to economic uncertainty could quickly affect the sector.

A LONGER-TERM PERSPECTIVE

There are reasons for longer-term concern even if FY 2008 state revenues and budgets hold up. A comprehensive analysis of state fiscal capacity relative to higher education needs through 2013 paints a pessimistic picture.³⁶ The analysis uses conservative assumptions: no deficits or tax cuts after its base year of FY 2005, state economic performance in line with long-term averages (no allowance for cyclical ups and downs), ordinary changes in Medicaid, welfare, and prison caseloads, demographically-based K-12 and higher education enrollments, and per-case spending growing only at historic rates of inflation. The analysis projected a “structural deficit” in the general fund budget for every state by 2013 (Figure 1). All 50 states would have to raise taxes, improve economic performance above historical norms, or reduce spending on basic services to balance their budgets. The national aggregate of state structural deficits would amount to 5.7 percent of revenue in that year.

This scenario augurs bad news for higher education funding, given the relative political force of claims by other key state functions. Officials

Table 1. State Higher Education Appropriations FY 2007 and FY 2008 (Dollars in Thousands) and Percentage Change

State	FY 2007 Revised	FY 2008 Enacted	Percent Change 2007/2008	State	FY 2007 Revised	FY 2008 Enacted	Percent Change 2007/2008
Alabama	\$ 1,684,901	\$ 1,936,513	14.9%	Montana ¹	\$ 169,434	\$ 189,506	11.8%
Alaska	284,082	294,270	3.6	Nebraska ¹	576,327	616,042	6.9
Arizona	1,106,045	1,267,786	14.6	Nevada*	597,852	641,459	7.3
Arkansas*	785,273	857,955	9.3	New Hampshire	123,966	133,607	7.8
California	10,470,384	11,062,155	5.7	New Jersey	1,987,225	2,040,132	2.7
Colorado	—	—	—	New Mexico	—	—	—
Connecticut	923,719	989,436	7.1	New York	—	—	—
Delaware	—	—	—	North Carolina	—	—	—
Florida	—	—	—	North Dakota	215,719	256,838	19.1
Georgia	—	—	—	Ohio	2,177,680	2,377,796	9.2
Hawai'i	503,627	554,292	10.1	Oklahoma	955,483	1,015,150	6.2
Idaho*	364,173	398,660	9.5	Oregon	649,466	720,365	10.9
Illinois	2,785,865	2,919,547	4.8	Pennsylvania	2,153,998	2,193,274	1.8
Indiana	—	—	—	Rhode Island	—	—	—
Iowa	804,488	881,031	9.5	South Carolina	—	—	—
Kansas*	788,720	825,698	4.7	South Dakota	—	—	—
Kentucky	—	—	—	Tennessee	1,254,677	1,361,977	8.6
Louisiana	1,430,956	1,656,927	15.8	Texas	5,449,196	6,058,375	11.2
Maine*	259,089	274,767	6.1	Utah	705,073	798,257	13.2
Maryland	1,436,474	1,573,339	9.5	Vermont	—	—	—
Massachusetts	1,029,545	1,051,518	2.1	Virginia	—	—	—
Michigan	—	—	—	Washington	—	—	—
Minnesota*	1,400,500	1,577,102	12.6	West Virginia	389,611	438,176	12.5
Mississippi*	904,205	1,043,246	15.4	Wisconsin	—	—	—
Missouri	895,376	934,957	4.4	Wyoming	—	—	—

Source: Grapevine, <http://www.grapevine.ilstu.edu> (accessed October 24, 2007).

¹ Revised amounts reflect state reversion deductions applicable to the fiscal year. The reversion is calculated at the end of the biennium, FY 2007, for each fiscal year in the biennium (FY 2006 and FY 2007) and it is not calculated until the end of FY 2007.

² Figures do not reflect full state support for student aid. In addition to the tax funds included here, lottery monies support student aid.

* No revisions to FY 2007 Enacted.

Note: Blank entries indicate no FY 2008 data was available for the state at time of writing.

would feel pressure to reduce spending per student and to slow enrollment growth needed to respond to population growth and societal needs for advanced education. As an alternative, this fiscal squeeze could impel rationalization of state tax structures needed to reduce volatility and capture more revenues related to growth

in the service sector and in Internet transactions. The squeeze might also lead to more federal funding of higher education—as much a national as a state priority now—though large federal deficits and impending commitments to support the aging population make doubtful the feasibility of such a major fiscal policy shift.

What are the historical trends in the nation's commitment to higher education? Figure 2 depicts changes in the share of state personal income—one measure of total state wealth available—devoted to operating expense appropriations to higher education from tax sources.³⁷ State commitments grew strongly during the 1960s and 1970s, peaked at just above \$10.50 per \$1,000 of personal income in the late 1970s, fell in stages to below \$7.00 per \$1,000 in the early 2000s, and bounced back slightly to \$7.08 in FY 2007.³⁸ The decline in this ratio from FY 1980 to 2007 was 32.4 percent. The three steep drops that dominated the long-term decline coincided with the three major economic downturns of the past quarter century: in the early 1980s, early 1990s, and early 2000s. States tended to reduce higher education support disproportionately as demands for recession-related services in health, welfare, and criminal justice grew.

Higher education funding recovered somewhat during subsequent periods of greater prosperity relative to personal income but not nearly enough to return to the pre-recession ratios. Among the reasons: the strong resistance to taxes emerging in the late 1970s,³⁹ a commitment to K-12 education reform beginning in the early 1980s, a move to longer criminal sentences beginning in the 1980s, and inexorable growth in Medicaid and other health care costs resulting from explosive inflation in per-unit costs and the aging of the dependent population. In addition, policymakers discovered that colleges could substantially increase charges to users, unlike clients in the other functions, to offset partially the effects of appropriations cuts or sluggish increases. And, if necessary, colleges could hold down enrollment growth rates to (more or less) meet available resources.

Figure 3 shows the substantial growth in tuition as a share of higher education's revenue since 1980.⁴⁰ Tuition revenue replaced state funding to the tune of about 15 percentage points in share of total educational revenue, a nearly 73 percent increase in the tuition share

over 26 years. In inflation-adjusted per-student terms, *state and local higher education funding was actually lower in FY 2006 (\$6,325) than in 1980 (\$6,517)*. Net tuition revenue more than made up the difference, allowing total educational revenue per student to grow by a modest 20 percent over the 26 years.

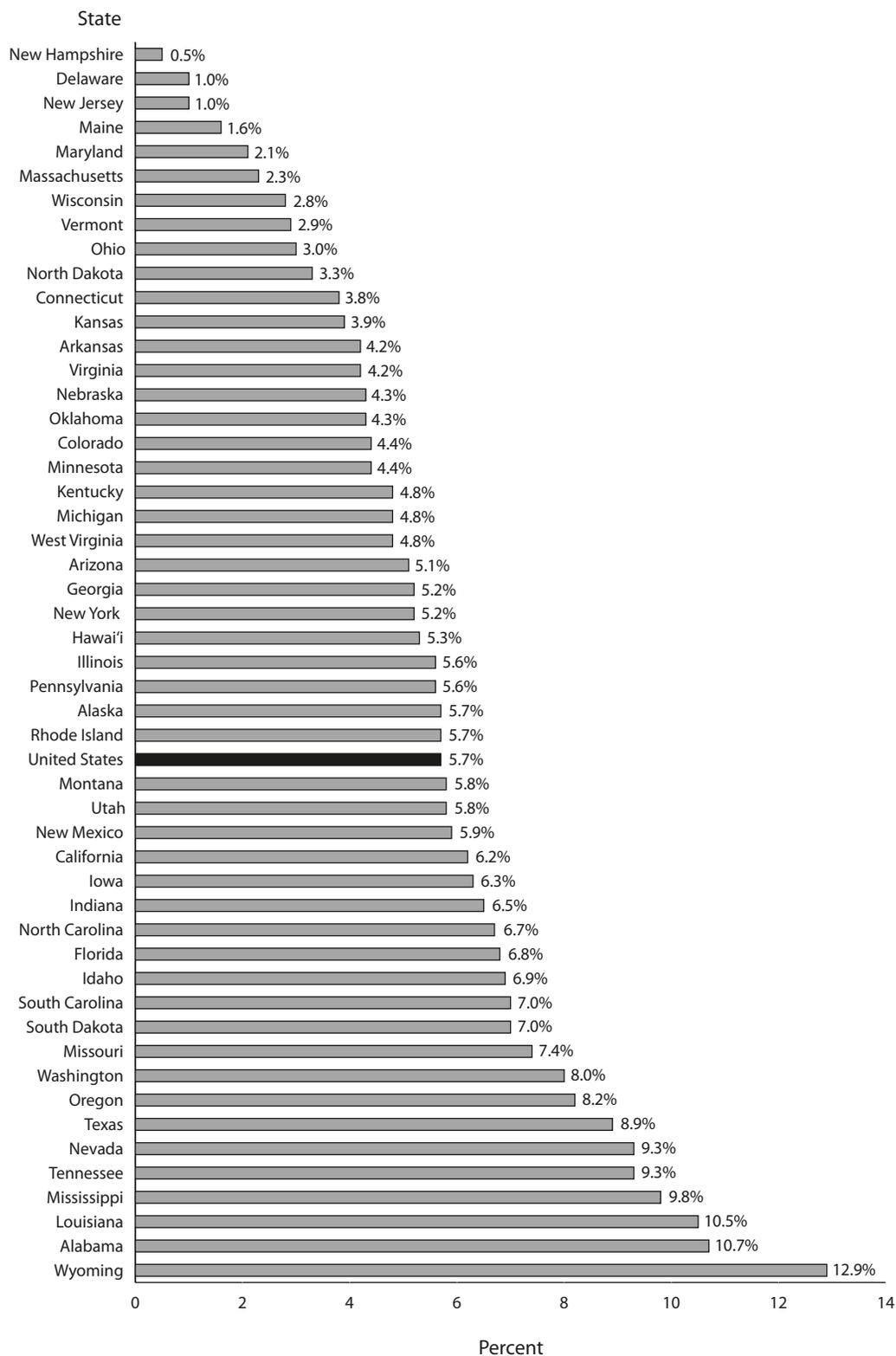
Figure 4 depicts the year-by-year trends beginning in FY 1991. The effects of economic cycles are shown by the declines in state funding during the early 1990s downturn, followed by gains through FY 2001, and then by a steep 18.4 percent drop in the FY 2001–FY 2005 downturn. Tuition revenue moved in the opposite direction, but increased tuition during the recent downturn did not prevent a 9.2 percent decline in total educational revenue between FY 2001 and FY 2005.⁴¹ Repeating the historic pattern, tuition increases moderated and state and local per student funding jumped by 5.1 percent in constant dollars between FY 2005 and FY 2006 as the fiscal health of states improved. Total educational revenue per student increased by 4.6 percent. Another regularity related to the economic cycle aided these per-student gains. The recent economic doldrums stimulated enrollment growth of almost 18 percent from FY 2000 to FY 2005. The enrollment growth rate fell to less than half of one percent in FY 2006,⁴² as jobs became more plentiful and as the accumulated effects of years of large tuition increases perhaps took a toll.

Economic downturns can be painful for higher education and its students. Academe may face greater difficulty in mitigating cutbacks in state support by increasing tuition during the next downturn. Students and policymakers appear more sensitive to the consequences of continued tuition escalation.

TUITION AND STUDENT AID: IMPACTS ON ACCESS AND EQUITY

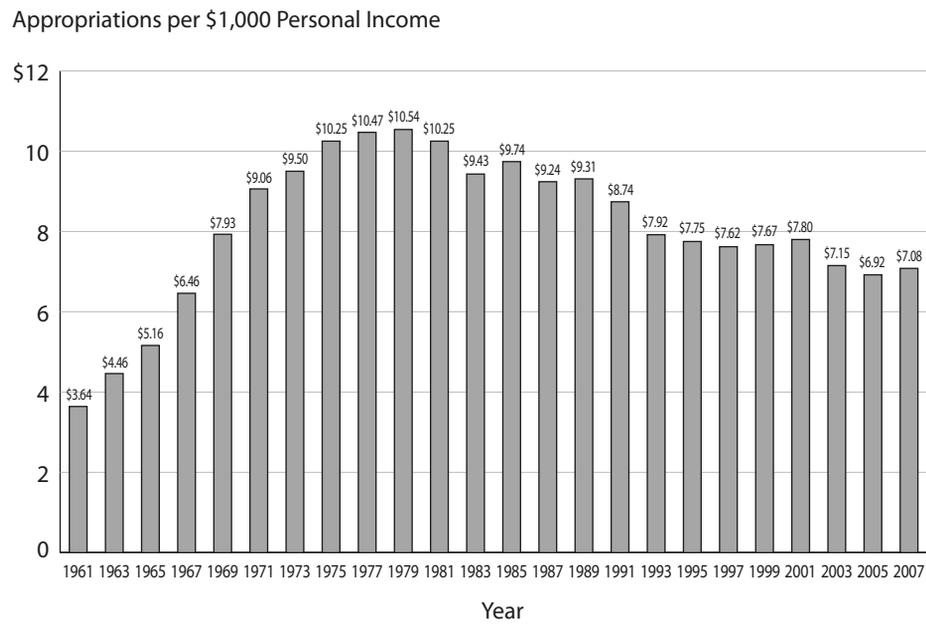
Figure 5 shows the average rate of tuition growth for state-resident students in public two-year and four-year colleges for the academic years, 2000–01 through 2007–08.⁴³ The large jumps in

Figure 1. Projected State and Local Deficits in 2013, as Percentage of Revenue



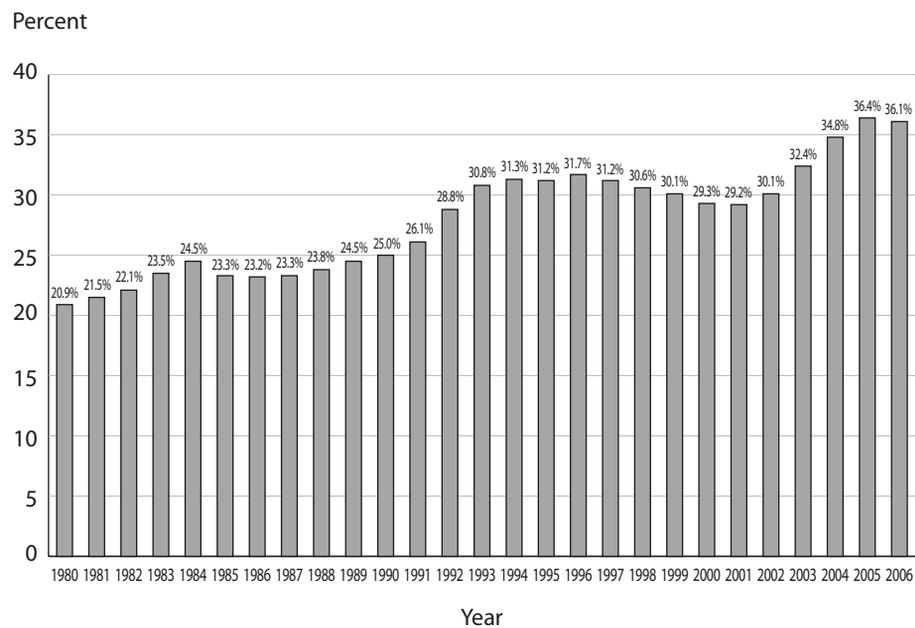
Source: Boyd, 2005.

Figure 2. State Tax Fund Appropriations for Higher Education per \$1,000 Personal Income, FY 1961 to FY 2007



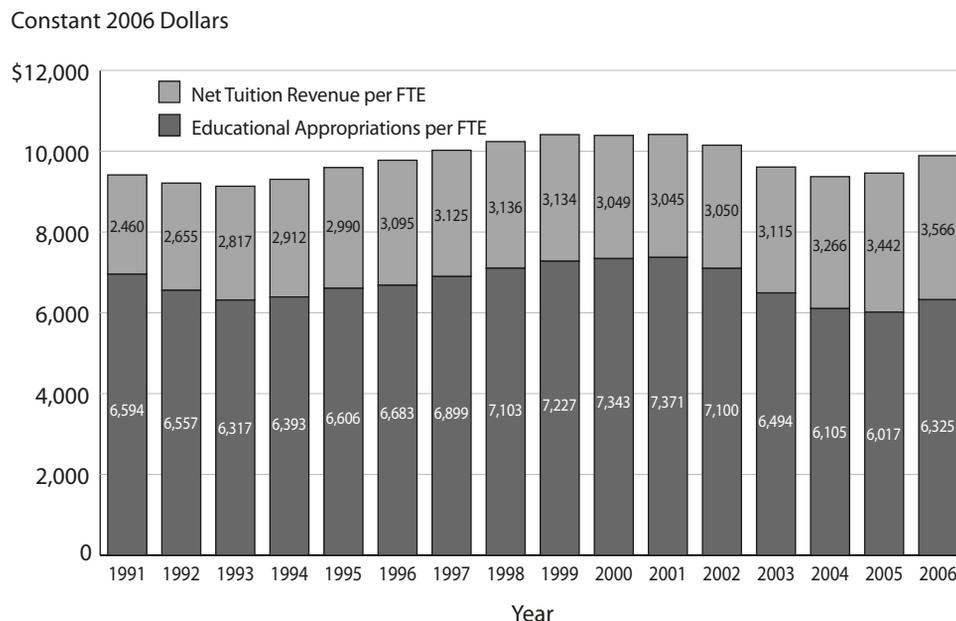
Source: Mortenson, 2007c, 1.

Figure 3. Net Tuition as a Percent of Public Higher Education Total Educational Revenue U.S., FY 1980 to FY 2006



Source: SHEEO, 2007, 8.

**Figure 4. Total Educational Revenue by Component, U.S., FY 1991 to FY 2006
(Constant 2006 Dollars)**



Source: SHEEO, 2007, 9.

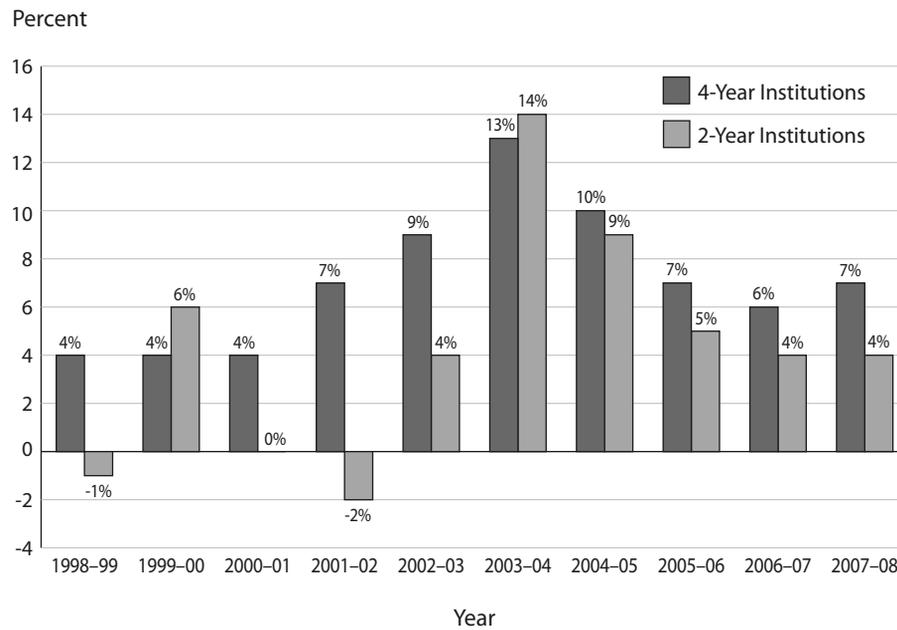
response to state funding cuts during the recent downturn are clear. But tuition increases have declined steadily as state support improved in the most recent years. After peaking at an average of 14 percent in the two-year sector and 13 percent in the four-year sector in 2003–04, these increases dropped to 4.2 percent and 6.6 percent, respectively, in 2007–08.⁴⁴ But even these more moderate increases exceeded gains in family incomes by several percentage points, thus further compromising the affordability of public higher education⁴⁵ and adding to the political pressures to control tuition.⁴⁶

Public four-year college tuition and fees grew considerably faster than available aid per student over the past decade. At the same time, median incomes of families in the age group typical of the parents of college students decreased slightly in inflation-adjusted terms (Figure 6). Federal loan aid was particularly sluggish as tuition costs bumped up against long stable dollar caps on the subsidized loans.

Students therefore turned to costly private loans that often carried variable interest rates and lacked protections in case of unemployment or disability.⁴⁷ About two-thirds of undergraduates borrow to finance their college education and their debt at bachelor's graduation averages around \$20,000. Heavy debts appear to discourage many low-income and minority students, and reduce their enrollment and degree completion rates—a major concern as more youths have these characteristics. Legislation enacted in September 2007 will reduce interest rates on federal loans and improve repayment terms for borrowers with modest incomes after college.⁴⁸ The law will also increase the maximum Pell Grant from its long-stagnant level of \$4,050 to \$5,400 over five years.⁴⁹

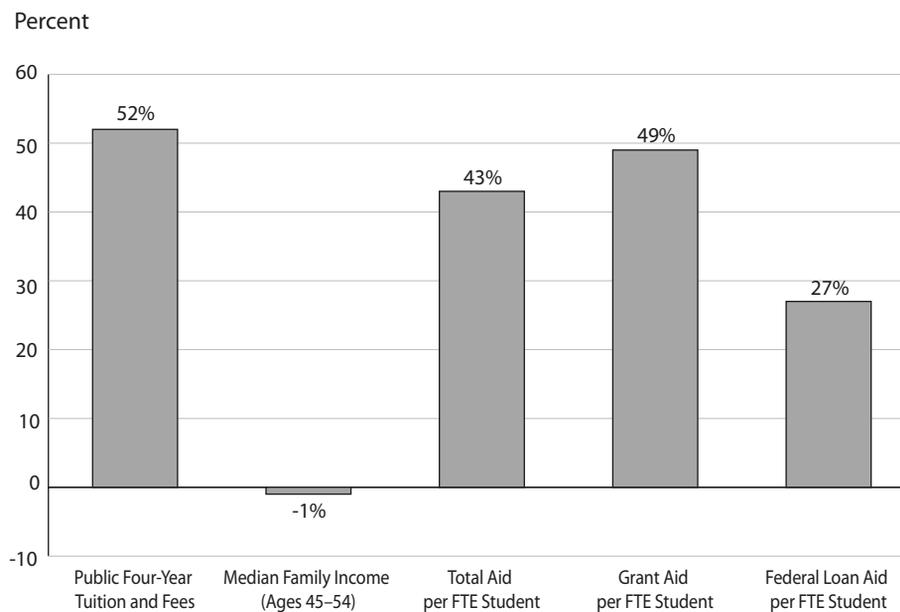
States, too, ease affordability burdens by offering \$8.5 billion annually in financial aid—83 percent of which is grant aid—to more than four million students.⁵⁰ States offered approximately \$7 billion in grant aid in 2005–06;

Figure 5. Percent Change in Average Published Tuition and Fee Charges in Public Four-Year and Two-Year Institutions 1998–99 to 2007–08 (Enrollment Weighted)



Source: The College Board, 2007a, 10.

Figure 6. Ten Year Growth in Inflation-Adjusted Tuition and Fees, Income, and Aid, 1996–97 to 2006–07



Source: Adapted from The College Board, 2007b, 23.

federal Pell and other major grant programs totaled around \$13 billion.⁵¹ So the state aid is significant. States were generous with student grants even during the economic downturn. The national total for undergraduates, who receive the vast bulk of the state grants, grew strongly in every year of the recession except 2002–03 (Table 2). The aggregate gain was less robust in 2005–06, at just under six percent, though state fiscal conditions had improved considerably by that year.

State grants based on academic merit or the choice of a field of study grew faster than grants based on financial need (Table 2, columns 2 and 4). These trends raise concerns, despite considerable state-to-state variation, because need-based grants are typically most accessible to larger numbers of low- and moderate-income students, students from underrepresented minority groups, and first-generation students. Non-need-based aid does not affect the decision to attend college for most relatively affluent grant recipients, though it may influence where they attend and what they study. But such aid is appealing to legislators seeking to assist middle and upper income voters feeling the pinch from college pricing trends.

A further problem: a few states provide most grant aid; 65 percent of the need-based grant dollars are located in just seven states. Equally problematic: several states with the largest undergraduate grant programs provide most of their funds on non-need bases; Georgia and South Carolina are the most prominent examples.⁵²

IMPLICATIONS OF FINANCE TRENDS

Along with significant demographic changes—a growing share of the population comes from groups with historically low college participation rates—these shifts in college finance affect participation and completion. After many years of steady gains, the national college “continuation rate”—the proportion of recent high school graduates entering college—has remained around 65 percent for the last decade.⁵³ The

college “participation rate” of 18-24 year-olds from low-income families is defined as the enrollment of Pell Grant recipients divided by the number of fourth to ninth graders eligible for the National School Lunch Program nine years earlier. This rate fell between FY 1999 and FY 2005, the latest year available.⁵⁴ The gap between the college participation rate of this group (25.4 percent), and of all 18 to 24 year olds (38.9 percent) was more than half the low-income rate in FY 2005.

Differences in college completion by income are even more dramatic. In 2005, the odds on completing a bachelor’s degree by age 24 for a young person from a family in the nation’s top income quartile were nearly 73 percent, a gain of more than 32 percentage points since 1970.⁵⁵ By contrast, the chances of such educational attainment for a youth from the lowest family income quartile were a mere 12.3 percent in 2005, up just six percentage points from 1970. The statistics for students in the middle income quartiles: 16.6 percent for students in the second-lowest quartile, a 5.7 percentage point gain between 1970 and 2005, and 27.9 percent for youth in the second-highest quartile, a 13 point gain. Making the plight of lower-income college students more difficult: Pell Grants, the main federal need-based grant program originally designed to meet most tuition costs at a public college or university, have not nearly kept up with tuition increases.⁵⁶ Partly as a result, the share of Pell recipients attending public or private four-year colleges or universities fell steadily from 62 percent in 1974 to 46 percent in 2004.⁵⁷ Chances for baccalaureate completion for students starting at two-year colleges are considerably lower than for students beginning at a four-year school.

The level of public funding contributes to degree productivity, states a historical analysis published by two economists. Large student cohorts—such as the current “baby boom echo” generation—negatively affect aggregate degree attainment rates, they argue. Resources, these economists note, do not keep pace with

Table 2. Growth in State Undergraduate Grant Aid, Need-based and Non-need-based Grants, Current Dollars and Annual Percentage Change (in millions of dollars)

Year	Need-based Grants	Percent Change	Nonneed-based Grants	Percent Change	Total	Percent Change
1995–96	\$2,459.40	—	\$ 411.10	—	\$2,870.50	—
1996–97	2,579.50	4.9	458.50	11.5	3,038.00	5.8
1997–98	2,761.20	7.0	551.80	20.3	3,313.00	9.1
1998–99	2,945.70	6.7	668.00	21.1	3,613.70	9.1
1999–00	3,136.40	6.5	872.90	30.7	4,009.30	10.9
2000–01	3,515.70	12.1	1,089.70	24.8	4,605.40	14.9
2001–02	3,826.00	8.8	1,208.60	10.9	5,034.60	9.3
2002–03	3,966.90	3.7	1,202.80	-0.5	5,169.70	2.7
2003–04	4,257.40	7.3	1,462.50	21.6	5,719.90	10.6
2004–05	4,703.30	10.5	1,738.40	18.9	6,441.70	12.6
2005–06	4,926.60	4.7	1,896.50	9.1	6,823.10	5.9

Source: NASSGAP, 2007, 3.

the increased numbers; therefore colleges and universities are neither able to accommodate all students nor have adequate resources per enrolled student.⁵⁸ Another analysis found that state appropriations for student aid positively affected completion. The study, conducted across a large nationally representative student sample, controlled for many student and institutional variables affecting completion rates.⁵⁹ Among institutional variables, the level of educational and general expenditures per student was strongly associated with completion rates, all else held constant. The conclusion was that adequate funding matters for degree completion.

Stagnant college participation and completion rates are a national concern. Overwhelming evidence shows that advanced education is more important than ever to the fortunes of individuals, regions, states, and nations in a “knowledge society” and a global economy dominated by rapid technological change.⁶⁰ Yet by 2003, the United States, long the world leader in educating its population, had lost its edge to Canada in the proportion of its working

age population with college degrees (including associate’s degrees). The Japanese proportion almost equaled the U.S.

More ominous: the U.S. ranked seventh (tied with Belgium) among the 30 European and Asian members of the Organization for Economic Cooperation and Development (OECD) in the share of degree-holders among its younger workers (ages 25–34). Canada, Japan, Korea, Finland, Norway, and Sweden led the U.S. in 2003, with Spain, France and Ireland close behind.⁶¹

Most ominous: the U.S. degree attainment figure for younger workers barely exceeded the figure for its entire workforce while the younger population of these competitor nations showed markedly higher attainment rates. These lags will increasingly affect comparative U.S. workforce productivity—and thus our prosperity in a competitive world—as the well-educated Baby Boom generation retires, unless we substantially improve the productivity of our educational system.⁶²

To obtain these improvements, this system must better educate the fastest-growing groups:

students of color, especially Latinos, and first-generation college students. The proportion of prime working age (25–64) whites with a bachelor's or higher degree increased from 20 to 30 percent between 1980 and 2000. But whites' share of the U.S. labor force will sharply decrease in the foreseeable future. The proportion of Hispanics and Latinos holding bachelor's degrees inched up only from eight percent to 11 percent over the same 20 years, and the proportion of African-Americans gained only a bit more—from nine percent to 15 percent.

Dramatic improvement in these educational attainment gaps by ethnicity is an economic and a moral imperative. Improving elementary and secondary education effectiveness for disadvantaged groups will better prepare students for college. But tuition affordability, realistic funding of student aid programs, and better supports for students on campus are also needed. Public tax support is limited, so the education enterprise must become more efficient in getting students to degrees with available resources.

CONCLUSION AND POLICY IMPLICATIONS

Many states, experiencing relative prosperity as the 2008 fiscal and academic years began, had restored financial support to higher education eliminated in the prior economic downturn. But gains varied widely across the states and lagging state revenues resulting from economic softening put some gains at risk. Higher education could face renewed cutbacks, absent strong economic growth. Discouraging medium-term projections showed states pinched between pressures for health care and other spending and tax resistance, while federal commitments and deficits made uncertain the prospect for any new intergovernmental partnership in higher education. Yet, after years of tuition increases exceeding growth in typical family incomes, policymakers might no longer be willing or able to resort to this well-worn method of mitigating state funding reductions.

Government policymakers and business leaders increasingly recognize the importance of higher education to economic prosperity and social comity. These leaders appear more willing than in the past to increase investments *if* accompanied by greater efficiency and outcome-based accountability. Academe may have little choice but to find ways to live with these new realities.

NOTES

¹ Crutsinger, 2007.

² These are borrowers with credit scores or income below the norms for conventional mortgage loans.

³ "Rate of Home Foreclosures Hits Record," 2007.

⁴ Monthly job gains slowed from an average of 126,000 in the second quarter to 96,000 in the third quarter. The unemployment rate crept up 0.1 percentage point in September (Aversa, 2007).

⁵ Crutsinger, 2007. The GDP growth rate had slowed from an estimated 3.8 percent in the spring quarter to about 2.4 percent in the summer with a further decline expected for the fourth quarter (Aversa, 2007).

⁶ "Productivity Rises, Easing Inflation Worries," 2007.

⁷ Barbaro, 2007.

⁸ Reddy, 2007; Irwin, 2007.

⁹ Associated Press, 2007.

¹⁰ National Governors' Association (NGA) and National Association of State Budget Officers (NASBO), 2007. NGA and NASBO based this June 2007 estimate on a January–May survey of governors budget officers in the 50 states.

¹¹ *Ibid.*, vii. The figures must be estimated because the surveys are completed before the end of the fiscal year in most of the states.

¹² *Ibid.*, 17. Reflecting greater-than-forecasted growth in the economy, corporate income tax collections exceeded budgeted levels by 10.9 percent.

¹³ *Ibid.*, viii.

¹⁴ *Ibid.*, 22. This contrasted markedly with conditions in the midst of the last downturn (FY 2003) when the 50-state aggregate year-end balance fell to 3.2 percent as many states had very low balances and were forced to cut enacted budgets and/or borrow.

¹⁵ *Ibid.*, 17.

¹⁶ *Ibid.*, 3.

¹⁷ Eckl and Snell, 2007.

¹⁸ Unfortunately, data were missing from some large states: California, Illinois, Michigan, North Carolina, and Wisconsin had not completed actions on their FY 2008 budgets by late July. All of these states, save Michigan, plus Delaware, Hawai'i, Missouri, New York, and Ohio were not able to provide tax information. NCSL estimated that the information from the missing states would modestly depress final aggregate percentage growth figures from those described in the text (Ibid., 1).

¹⁹ Ibid., 3.

²⁰ Ibid., 6.

²¹ Ibid., 4-5.

²² Ibid.

²³ Ibid., 5.

²⁴ Ibid., 7.

²⁵ Lewis, 2007; McNeill, 2007; "The States," 2007. Some concerns were also reported in California.

²⁶ Grinnell and Ward, 2007, 3. This report covered the April-June quarter of 2007. Personal income tax revenues grew at a strong pace but sales tax and corporate income tax receipts were sluggish.

²⁷ Ibid., 10.

²⁸ These elements continued to be serious economic concerns at the time of writing.

²⁹ Ibid., 10-11.

³⁰ Eckl and Snell, 2007, 6. NCSL mentioned Hawai'i, New Mexico, North Dakota, Oklahoma, Oregon, South Carolina, Tennessee, and Wyoming.

³¹ Three states had increases in the 4.4 to 5.0 percent range. The data is from <http://www.grapevine.ilstu.edu/statereports/FY08/web/index.htm>, accessed October 24, 2007. *Grapevine*, a service of the Center for Education Policy at Illinois State University, is the standard source for state higher education operating appropriations data.

³² "The States," 88.

³³ Ibid., 85. These states had yet to report final figures to *Grapevine* as of late October.

³⁴ Ibid., 81.

³⁵ Ibid., 62, on Maryland; on Virginia, see McNeill, 2007.

³⁶ Boyd, 2005.

³⁷ The data on higher education appropriations came from *Grapevine*, which encompasses state and local appropriations for operating expenses of higher education, including expenditures for student aid and state governance

bodies. It excludes appropriations for capital outlays and debt service, and tuition and fee revenues.

³⁸ All but two states (Louisiana and Wyoming) showed a decline in this measure of commitment to higher education from 1980 to 2007. (Mortenson, 2007c, 4).

³⁹ Archibald and Feldman, 2006, show the long-term negative effects of tax and expenditure limitations and of supermajority requirements for enacting tax increases on state higher education support.

⁴⁰ This graph was adapted from State Higher Education Executive Officers, 2007. Net tuition is the difference between gross tuition revenue and state-funded student aid. Total educational revenue is the sum of net tuition revenue and state and local support including general funds and lottery and similar sources. State funding for research, agricultural extension, and medical education is excluded from total educational revenue.

⁴¹ Ibid., 9.

⁴² Ibid., 3, 7.

⁴³ The data are from The College Board, 2007a.

⁴⁴ Recent tuition increases in private institutions have resembled hikes in public colleges: a 6.3 percent average at four-year private nonprofits and 6.2 percent at for-profits ("Federal Student Aid," 2007).

⁴⁵ Net prices (the published tuition rate less student aid) increased more rapidly than published tuition rates in public institutions over the last five years (Ibid.).

⁴⁶ Recent debates in Congress and in many state legislatures give evidence of this.

⁴⁷ Shireman, 2007, cited in Sander, 2007a. Private loans increased from six percent to 24 percent of the average undergraduate's total aid between 1996-97 and 2006-07 (Sander, 2007b).

⁴⁸ Hebel and Selingo, 2007; Field, 2007.

⁴⁹ Field, 2007.

⁵⁰ The figures in this paragraph, the latest available, are for (or through) the 2005-06 fiscal year and came from a survey by the National Association of State Grant and Aid Programs, 2007.

⁵¹ Welch, 2007.

⁵² NASSGAP, 2007, 2, 23.

⁵³ Mortenson, 2007a.

⁵⁴ Mortenson, 2007b.

⁵⁵ Mortenson, 2006c.

⁵⁶ "Federal Student Aid," 2007, 2.

⁵⁷ Mortenson, 2006a, 1.

⁵⁸ Bound and Turner, 2006, 309-310.

⁵⁹ Titus, 2006, 308.

⁶⁰ For example, see Mortenson, 2006b.

⁶¹ The data came from OECD as reported in Wagner, 2006, 20.

⁶² The proportions of the Chinese and Indian populations with advanced degrees will not soon approach western levels. But their educational institutions, rapidly increasing in capacity and quality, should produce competitive absolute numbers in a much shorter time frame (National Science Foundation, 2007).

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