Financing Higher Education Access in Challenging Times

By William Zumeta

William Zumeta is professor of public affairs and education policy at the University of Washington-Seattle and senior fellow at the National Center for Public Policy and Higher Education in San Jose, California. He has published widely on higher education finance issues, accountability, public policy and private higher education, and graduate and postdoctoral education. Numerous government agencies and national foundations have supported his research.

During 2006 Zumeta led a Hewlett Foundation-sponsored study of policy alternatives regarding affordability in the California Community Colleges and published "Public Higher Education in Washington State: Aspirations Are Misaligned with Fiscal Structure and Politics," in R. Ehrenberg (ed.), What's Happening to Public Higher Education? *(Westport, Conn: ACE/Praeger). He is currently co-authoring a book on the challenge of financing increased access to higher education in the United States.*

Zumeta has served on the Policy Council (national board) of the Association for Public Policy Analysis and Management and the editorial board of The Review of Higher Education. He is a member of the executive committee of the Association for the Study of Higher Education's Public Policy Council.

The American public and its leadership cadres have finally showed signs of recognizing the strong links among investments in higher education opportunity, individual prosperity, and the attainment of the economy and society.[1] This awareness emerged as the tertiary participation rates and higher degree completion rates attained by America's global competitors increased.[2] Matching this performance, observers noted, meant providing access and assistance for burgeoning numbers of students from groups with historically low attainment rates.[3] Higher education, these observers concluded, demonstrated unprecedented needs.

State financial support of the academic sector improved as the economy strengthened in 2005 and 2006. But paying for the near-Herculean efforts required to achieve greater access and success remained problematic. Analysts offered gloomy medium term projections of state finances and noted the vulnerability of higher education funding—and tuition rates—to inevitable economic cycles. This article updates the status and immediate prospects for the economy, the fiscal condition of the states, their support for higher education, and tuition and financial aid trends. It then turns to issues of access and retention.

ECONOMIC CONDITIONS AND PROSPECTS

Unusual levels of uncertainty plagued economic forecasters in the second half of 2006. The Federal Reserve Board of Governors engineered a "soft landing" for an "overheating" economy by implementing a string of 17 straight increases in its benchmark interest rate beginning in June 2004. Economic growth declined sharply from a 5.8 percent to a 2.5 percent annual growth rate between the first and second quarters.[4] The relatively low 4.8 percent July unemployment rate increased by 0.2 percentage points from June. Monthly job growth dropped

below the rate required to keep unemployment stable.[5] Home sales dropped sharply.

The Federal Reserve also signaled concern about inflation, its primary charge. Consumer prices increased 3.4 percent in 2005. By July 2006, these prices swelled by 4.8 percent above their level a year earlier—their biggest such jump in several years.[6] Skyrocketing energy prices played a significant, largely uncontrollable role.

But inflation showed signs of cooling as the economy slowed, and the Fed halted its run of interest rate hikes in August 2006.[7] Looking forward, the respected *Survey of Professional Forecasters,* published by the Philadelphia Federal Reserve Bank, foresaw the growth rate in the Consumer Price Index slowing from 3.6 to 2.7 percent between the third quarter of 2006 and the first quarter of 2007, followed by further moderation.[8] The forecasters expected only a slight uptick in the economic growth rate, from 2.5 percent (actual) in the second quarter to 2.8 percent in the latter half of 2006. They expected job growth to continue to lag, with the unemployment rate edging up to 4.9 percent by the second quarter of 2007.

What should the Fed do next? A misstep in interest rate policy could allow inflation to pick up again or move the economy toward another recession. Making its job more difficult: the potential for further shocks to oil supply and prices from instability in the Middle East and elsewhere, and the ever present possibility of a disastrous terrorist attack. This economic picture, noted a July 2006 Federal Reserve System regional survey, applied to much of the country; the western region reported somewhat stronger performance.[9]

FISCAL CONDITION OF THE STATES

The fortunes of public higher education and the economy are closely intertwined. A shortfall in state coffers makes the higher education sector a prime target for budget cutting. In contrast to the other major state-funded sectors—K-12 education, Medicaid, and corrections—state and federal laws do not mandate the college "caseload" (enrollments) to receive services, or require an "adequate" level of services per head. The recourse: colleges can reduce enrollments or increase tuition to mitigate the effects of state funding reductions.

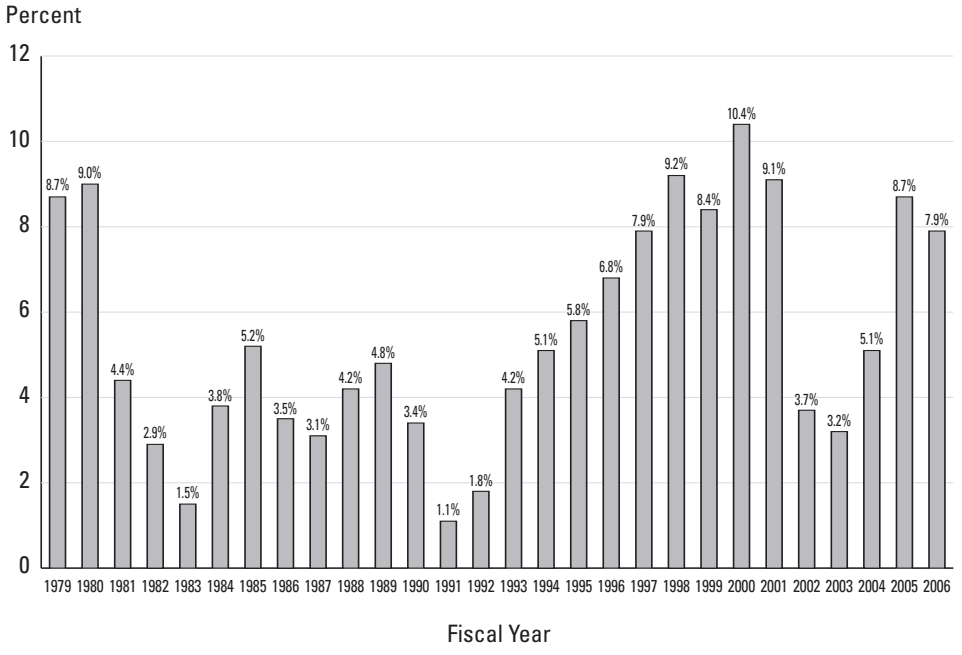
Earlier in this decade, revenue shortfalls and recession-induced expenditure requirements in health and welfare forced states to close a $264 billion gap between projected expenditures and revenues. But the fiscal fortunes of the states improved in each of the past three years.[10] Revenues for FY 2006 (ended June 30, 2006 in most states) increased by 7.7 percent over FY 2005; initial projections had suggested a 2.7 percent increase.[11] The sum of states' year-end budget balances, including "rainy day" and similar funds, jumped 25 percent to a record $57.1 billion—10.2 percent of FY 2006 general fund expenditures. This total resembled the level attained at the peak of the previous economic boom (FY 2000), and was one of the highest levels in decades (Figure 1).[12] No state ended the year with a negative balance—the first time this occurred in several years—although Arkansas finished at zero.

States, budgeting conservatively, used much of the FY 2006 revenue surge to rebuild fund balances depleted by the earlier steep downturn. Total FY 2006 general fund spending grew by 7.7 percent, well above the 6.4 percent average annual growth rate compiled over the previous 29 years (Figure 2).[13] FY 2007 budgets and projections also looked good. The 49 states reporting to the National Conference of State Legislatures (NCSL) budgeted general fund expenditures—the main source for higher education appropriations—to grow by 7.6 percent. But several states reported less favorable outlooks: the Louisiana, New Mexico, and Oregon budgets called for decreased spending in FY 2007; Minnesota's budget contained a level spending plan, and budgets in another 17 states called for spending growth of 4.5 percent or less.[14]

Half the states budgeted for replenishing rainy day funds and reserve accounts.[15] K-12 and higher education benefited from this revenue growth as well: 24 states enhanced K-12 education in FY 2007; 20 states strengthened higher education; 14 states bolstered Medicaid, 11 corrections, and ten increased transportation funding.[16] Another 14 states used the unplanned revenue for one-time, non-transit related capital expenditures. Twenty states reduced state personal income taxes; another six provided property tax relief.[17] In aggregate, though, the states increased tax rates slightly.[18]

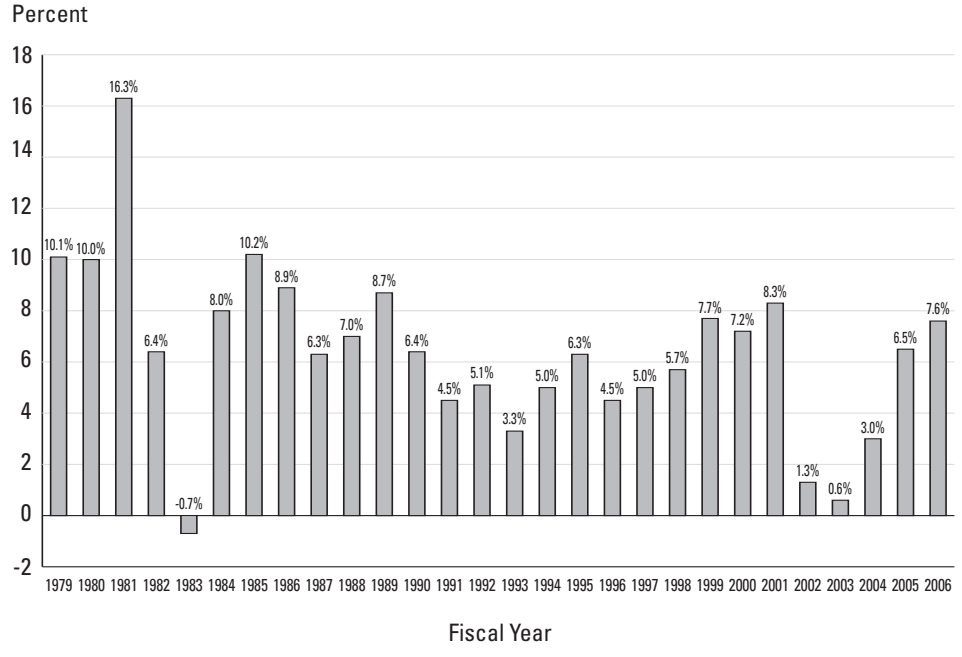
Of concern: states budgeted a 7.6 percent growth rate in FY 2007 expenditures, but projected revenues to increase by only 3.0 percent.[19] This revenue projection was probably conservative and the large reserves in most states could absorb much of the difference. But Medicaid expenditures could easily outpace the budgeted 6.3 percent growth—a real concern since Medicaid represents about 17 percent of aggregate state general fund spending and 22 percent of all

Figure 1. Total Year-End Balances as Percentage of Expenditures, FY 1979–2006



Source: National Governors Association and National Association of State Budget Officers, 2006: 18.

Figure 2. Annual General Fund Percentage Budget Increases, FY 1979–2006 (preliminary)



Source: National Governors Association and National Association of State Budget Officers, 2006: 2.

state spending.[20] Medicaid spending often exceeds budget projections: 18 states faced Medicaid shortfalls in 2005; 15 in 2006—these deficits totaled more than $5 billion.[21]

Growth in state Medicaid costs fell from 7.5 percent to 6.1 percent between FY 2005 and FY 2006 after aggressive cost containment measures. But health cost inflation and an aging population make moderate growth rates doubtful for the future. The Congressional Budget Office projected Medicaid costs to increase by about eight percent annually over the next decade.[22] If Medicaid costs to states grew in FY 2007 at the budgeted 6.3 percent rate, the costs would equal, not exceed, the budgeted increase in higher education operating appropriations for the first time in many years. K-12 education—the largest component of state general funds at almost 36 percent in aggregate—would receive the largest increase according to governors' recommended budgets: 7.9 percent. This increase reflects growing school-age populations and high policy priority.[23]

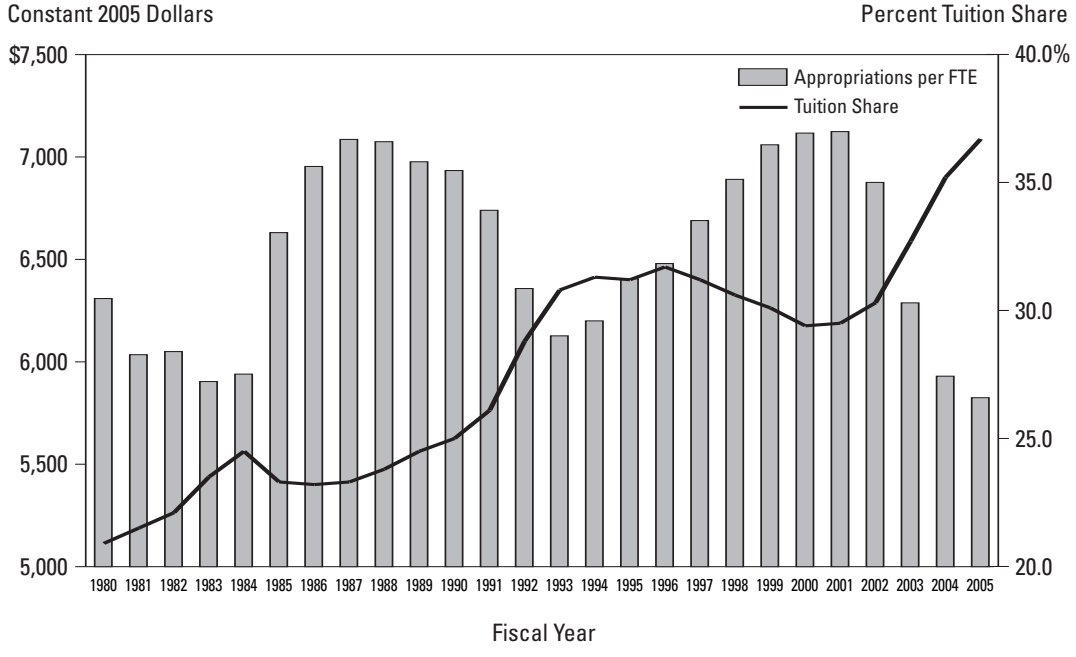
State policymakers thus remained cautious about the future despite a recent cash surge. They continued to build up near record level reserves and to focus on capital projects. Barely contained pressures on expenditures and heightened economic uncertainties provided good reason for caution.

HIGHER EDUCATION FUNDING, TUITION TRENDS, AND STUDENT AID

Let's review some history to understand funding trends for higher education. Figure 3 depicts state and local appropriations for operating expenses in public higher education per FTE student since 1981, adjusted to 2005 constant dollars.[24] State support is closely tied to economic cycles, with sharp declines in per-student support following the recessions occurring in the early years of the past three decades. Appropriations per FTE peaked in FY 2001 at levels just slightly higher than late 1980s levels (see bars and left axis), then plummeted by more than 18 percent in just four years.

Figure 3 also shows how public colleges and universities and state policymakers turned to tuition as a revenue source when state and local support lagged (see line and right axis). Net tuition revenue (net of financial aid) increased from 21.5 percent to about

Figure 3. Public Higher Education Appropriations per FTE and Tuition Share of Total Educational Revenues, Constant 2005 Dollars, FY 1981–2005



Source: State Higher Education Executive Officers, 2006a.

25 percent of total educational revenue (net tuition revenue plus state and local appropriations) from 1981 to the end of the aftermath of the 1981–82 recession.[25] This percentage then leveled off until the 1990–91 recession during which it jumped to the 31-32 percent range by the mid-1990s. The tuition share declined to 29.5 percent in FY 2001 after state appropriations surged in the late 1990s. Tuition's share of total revenue then surged again to nearly 37 percent by FY 2005, following the latest downturn.

Tuition is therefore an important revenue source for public colleges and universities because state support—always volatile—is now well below levels reached nearly two decades ago. Higher prices depress access and persistence opportunities for students from modest financial circumstances and minority ethnic groups, though financial aid mitigates the worst effects. Sharp tuition increases during economic hard times are especially perverse as students seek college access when job markets are slack—a time they can least afford to pay higher prices.

Higher education suffered in many states during the last downturn. State and local appropriations for higher education declined by more than $2.5 billion (without adjustment for inflation), or four percent, nationwide between FY 2002 and FY 2004.[26] State funding declined absolutely in 29 states and increased between zero and one percent in four more, though enrollments grew almost everywhere. Funding declined by more than 20 percent in three states, and by more than ten percent in four more states. In total, 15 states saw declines in state funding of five percent or greater (without adjustment for inflation) over the two-year period. Such budget cuts are difficult to absorb without damaging quality so it is not surprising that national average tuition increases in public four-year colleges and universities reached seven percent in FY 2002, nine percent in FY 2003, 13 percent in FY 2004, and ten percent in FY 2005. Community colleges showed a similar pattern, but reported smaller increases.[27]

Higher education appropriations turned upward in FY 2005—a modest 3.8 percent gain in the 50 states. But eight states still reported declines; three more reported no change from FY 2004.[28] FY 2006 looked considerably better. The aggregate gain reached 6.0 percent; 45 states reported increases from FY 2005—27 showed increases of five percent or more—and only four reported decreases.

Table 1 reports FY 2006 and FY 2007 state and local appropriations for higher education (FY 2007 as of October 2006).[29] We cannot report the final national figures for FY 2007, because we lack data for several states. But aggregate gains will likely exceed FY 2006 figures, and more states will probably show substantial increases in state appropriations while only a few will show decreases. Of the 42 reporting states, nine enacted double-digit increases in higher education appropriations for FY 2007; only two states showed decreases (including -8.4 percent in Massachusetts). The median year-to-year change for the 42 states was 5.3 percent, well above the inflation rate; 22 states showed appropriations growth of more than five percent. Many states reporting healthy increases had experienced deep cuts in the previous downturn, including California, Colorado, Maryland, Oklahoma, South Carolina, Virginia, and West Virginia.

An old pattern thus repeated itself. When state revenues decline, higher education usually suffers deeper budget cuts than criminal justice, health, and welfare—harder to reduce functions in a recession. Tuition tends to increase sharply to mitigate the impact of the budget cuts. When the good times come back, the operating and capital budgets for higher education often benefit disproportionately, and tuition increases moderate.

After two years of double digit increases, average tuition in four-year public colleges and universities grew by 7.1 percent in 2005–06 and by 6.3 percent in 2006–07.[30] Rates at public two-year colleges jumped by 14 percent in 2003–04 and nine percent in 2004–05, but moderated to 5.4 percent in 2005–06 and 4.1 percent in 2006–07. Average net price (which includes the effects of grants and tax benefits)—less than half the gross tuition price at four-year public institutions—increased by 69 percent (after inflation adjustment) to $2,700 between 2001–02 and 2006–07. Grants and tax benefits covered on average all but about $100 of tuition and fee costs at public two-year colleges, in 2006–07, but this was up from -$200 in 2001–02.[31]

Student Aid Trends. Student aid can mitigate the effects of tuition increases. The number of Pell Grants, the federal government's major student grant program, increased substantially from 2000–01 to 2003–04, but the gain was just three percent in 2004–05 and 1.5 percent in 2005–06.[32] The maximum award size remained the same for five years, despite steep tuition increases. The result: increasingly large "unmet need" gaps in financial aid packages.[33]

Table 1. State Higher Education Appropriations, FY 2006 and 2007 (Dollars in Thousands)[1]

States	FY 2006 ($1,000s)	FY 2007 ($1,000s)	Increase (%)	States	FY 2006 ($1,000s)	FY 2007 ($1,000s)	Increase (%)
Alabama	$1,407,875	$1,670,508	18.7%	Montana	$172,767	$171,641	-0.7%
Alaska	252,122	284,041	12.7	Nebraska	548,353	571,047	4.1
Arizona	974,291	—	—	Nevada	559,616	597,852	6.8
Arkansas	736,924	785,273	6.6	New Hampshire	117,172	123,966	5.8
California	10,127,854	10,958,550	8.2	New Jersey	2,025,077	—	—
Colorado	597,454	680,407	13.9	New Mexico	705,804	784,751	11.2
Connecticut	832,019	883,116	6.1	New York	4,361,561	—	—
Delaware	216,168	233,226	7.9	North Carolina	2,925,046	—	—
Florida	3,295,233	—	—	North Dakota	215,031	215,031	0.0
Georgia	2,088,286	2,208,459	5.8	Ohio	2,111,733	2,175,930	3.0
Hawaii	492,171	503,627	2.3	Oklahoma	840,072	956,464	13.9
Idaho	350,672	364,173	3.9	Oregon	623,983	650,066	4.2
Illinois	2,641,164	2,791,287	5.7	Pennsylvania	2,047,114	2,153,998	5.2
Indiana	1,430,424	—	—	Rhode Island	180,142	196,731	9.2
Iowa	779,847	803,998	3.1	South Carolina	790,146	859,360	8.8
Kansas	754,550	788,720	4.5	South Dakota	166,602	175,817	5.5
Kentucky	1,207,616	1,253,076	3.8	Tennessee	1,164,332	1,205,457	3.5
Louisiana	1,322,116	—	—	Texas	5,242,541	5,457,578	4.1
Maine	248,223	259,089	4.4	Utah	677,668	701,439	3.5
Maryland	1,264,380	1,436,659	13.6	Vermont	82,043	85,217	3.9
Massachusetts	1,087,366	996,025	-8.4	Virginia	1,594,605	1,856,731	16.4
Michigan	2,012,271	2,074,370	3.1	Washington	1,536,329	1,631,059	6.2
Minnesota	1,365,500	1,400,500	2.6	West Virginia	346,670	387,211	11.7
Mississippi	795,882	904,205	13.6	Wisconsin	1,131,515	1,177,160	4.0
Missouri	855,340	878,337	2.7	Wyoming	221,012	—	—

Source: Grapevine, http://www.coe.ilstu.edu/grapevine, accessed October 24, 2006.

[1] FY 2006 appopriations are revised figures from the FY 2007 report or the most recent FY 2006 Grapevine data available.

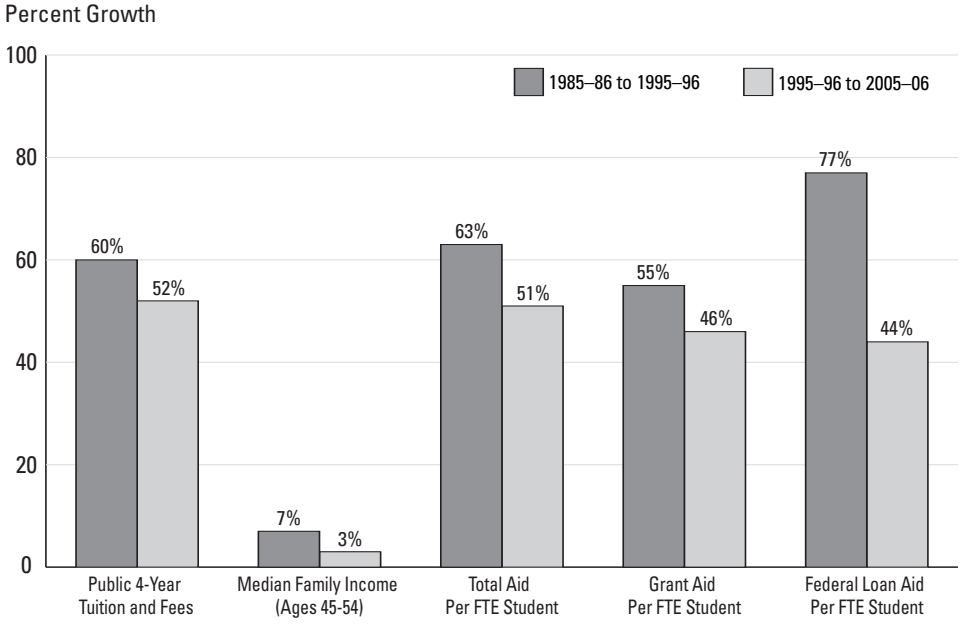
—- No data was available as of October 24, 2006.

Figure 4 juxtaposes grants available per student and tuition and family income trends. Over the past ten years, tuition growth in public four-year institutions has outpaced gains in both grant and loan aid. Large "unmet need" gaps as a result deter some students of modest means from starting college, and contribute to excessive hours spent working and to high levels of student debt.[34] Excessive work hours correlate with taking fewer credits, earning lower grades, reduced chances for degree completion, and longer time to completion for successful students.[35]

Student debt levels have increased rapidly. Two-thirds of bachelor's degree graduates now finish with loan debt averaging $15,500 for public college graduates and $19,400 for private college graduates.[36] Such debt levels may lead to truncated career and life options.[37] Some cultural groups are averse to debt; in any case, taking on debt to finance college is risky for low-income students whose chances of degree completion are far below average.[38] Borrowing is thus a limited option for many students who need college most.

Despite these drawbacks, student debt will increase further. Congress responded to the upward movement in market interest rates by raising limits on student borrowing and by increasing interest rates on federal student loans. New loans will cost 6.8 percent in annual interest for the life of the loan, up from a pre-July 1, 2006 variable rate of 4.7 percent. The interest rate on existing variable rate Stafford loans also increased from 5.3 percent to 7.14 percent.[39]

Figure 4. Ten Year Growth in Inflation-Adjusted Tuition and Fees, Income, and Aid, 1985–1986 to 2005–2006



Source: Adapted from The College Board, 2006,

Some states used scholarships and grants to meet students' financial needs as tuition prices climbed and federal aid lagged. In 2004–05, the latest year for which data is available, total state student aid expenditures exceeded $7.9 billion. Need-based state aid increased by more than ten percent over 2003–04 to $4.7 billion awarded to more than 3.5 million undergraduates.[40] Such growth rates in the aggregate sum remained surprisingly strong during the recent economic downturn, except for 2002–03 (Table 2).

But there are some troubling patterns. The national average figure for state aid was $562 per enrolled undergraduate, but this aid was geographically skewed. Student access to state aid depended on the state of residence. Eight states provided two-thirds of all aid; two states provided no aid, and nine states provided less than $100 per enrolled undergraduate.[41] Also, the share of state grant aid awarded on the basis of student financial need continued its slow decline, from the 90 percent range several decades ago to 73 percent in 2004–05. State aid becomes less accessible to needy students—whose rates of attendance and completion most require a helping hand—as the award criterion becomes prior academic performance ("merit") or comes in the form of loans.

Medium-Term Fiscal Prospects. State fiscal experts expressed well-founded concern about the ability of state revenues to keep pace with spending demands after FY 2007. One analysis of state fiscal capacity through 2013 projected state spending forward from FY 2005. The analysis used conservative assumptions: the end of recent deficits, unchanged revenue structures—no tax cuts—state economic performance according to long term averages—no allowance for cyclical ups and downs—ordinary changes in welfare and prison caseloads, and increases in spending per unit of caseload in line with general inflation.[42]

Every state's general fund budget would be in deficit by 2013 even under these conservative assumptions, the analysts found (Figure 5). Projected expenditures exceeded revenues by more than five percent in the majority of states and the national aggregate "structural deficit" was 5.7 percent. Service demands on the states—often driven by changing demographics—are outgrowing the revenue structure. The imbalance will

Table 2. Undergraduate Grant Aid in Current and Constant 2004–2005 Dollars: 1995–1996 through 2004–2005 (in millions of dollars)

	Current Dollars				Constant 2004-05 Dollars			
Year	Need-based Grants	Nonneed-based Grants	Total	Annual Change (%)	Need-based Grants	Nonneed-based Grants	Total	Annual Change (%)
1995–1996	$2,459.4	$411.1	$2,870.5	—	$3,016.5	$504.2	$3,520.7	—
1996–1997	2,579.5	458.5	3,038.0	5.8%	3,076.2	546.8	3,623.1	2.9%
1997–1998	2,761.2	551.8	3,313.0	9.1	3,235.9	646.7	3,882.6	7.2
1998–1999	2,945.7	668.0	3,613.7	9.1	3,395.5	770.0	4,165.4	7.3
1999–2000	3,136.4	872.9	4,009.3	10.9	3,514.7	978.2	4,492.9	7.9
2000–2001	3,515.7	1,089.7	4,605.4	14.9	3,804.9	1,179.3	4,984.1	10.9
2001–2002	3,826.0	1,208.6	5,034.6	9.3	4,068.7	1,285.3	5,353.9	7.4
2002–2003	3,966.9	1,202.8	5,169.7	2.7	4,128.1	1,251.7	5,379.	0.5
2003–2004	4,257.4	1,462.5	5,719.9	10.6	4,335.2	1,489.2	5,824.4	8.3
2004–2005	4,703.3	1,738.4	6,441.7	12.6	4,703.3	1,738.4	6,441.7	10.6

Source: National Association of State Student Grant and Aid Programs, 2006, 3.

worsen if states fail to control Medicaid costs as the population ages, spend more per K-12 student, or confront a new recession. Funding for higher education would likely have difficulty competing for resources under any of these scenarios; colleges could curtail enrollment growth or reduce spending per student—two undesirable prospects.

But such pressures could also force states to rationalize their tax structures: adding personal income taxes in the seven states without them, extending sales taxes to the lightly taxed, but now-dominant service sector of the economy, and taxing rapidly growing Internet sales. Carefully designed federal subventions to states for higher education—recently proposed by the Democratic Governors' Association—could also offset some of the harmful effects of the state budget squeeze.[43]

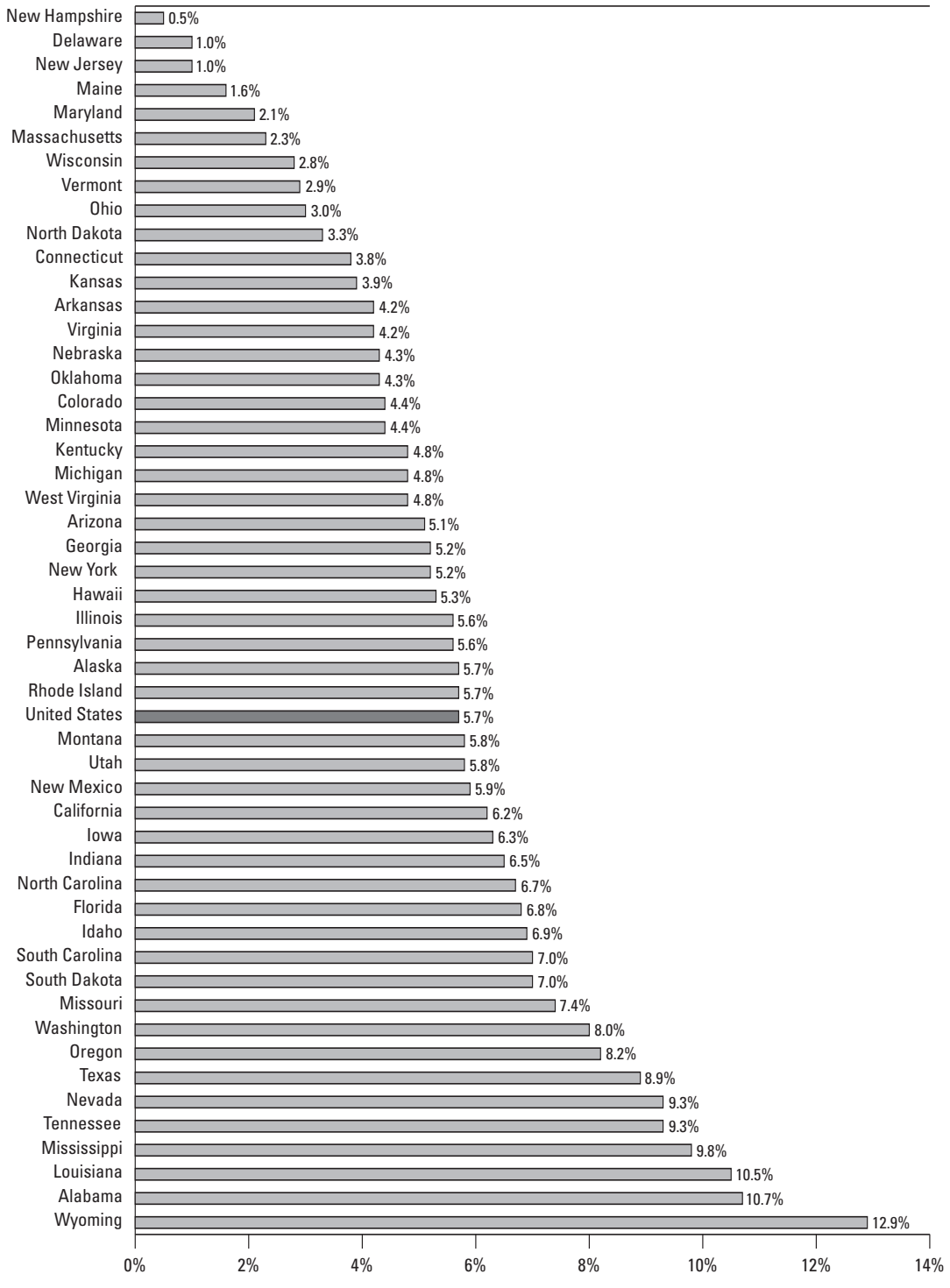
THE ACCESS IMPERATIVE

Against this sobering fiscal backdrop stands the social and economic imperative to educate more of the population. Postsecondary enrollment and degree completion rates are unequal across ethnic groups and income classes (Figure 6).[44] But economists, forecasters, and business leaders agree with much of the public that individual and societal economic prosperity and competitiveness requires broader distribution of postsecondary education.[45] Some competitor nations have already surpassed the U.S. in the educational attainments in the younger workforce; higher education participation and attainment rates here have stagnated for over ten years.[46] This "education gap" will increase as the U.S. workforce growth rate decreases—a result of baby boom generation retirements and completion of the absorption of their children into the labor force. Why? A rapidly growing young population of ethnic groups of color, particularly Latinos, with much lower participation and attainment rates in higher education will replace a well-educated cohort of mostly white workers. The result: a decreased share of the workforce with college and graduate degrees.[47] This is hardly a recipe for competitive success and prosperity in an age of global competition driven by rapid technological innovation. We would more likely predict economic stagnation and social unrest unless we better educate these young people, beginning with the pre-K and elementary levels, and pay for outreach, financial aid, and services at the postsecondary level thereby sharply improving attendance and graduation rates.

PAYING FOR THE NECESSARY CAPACITY

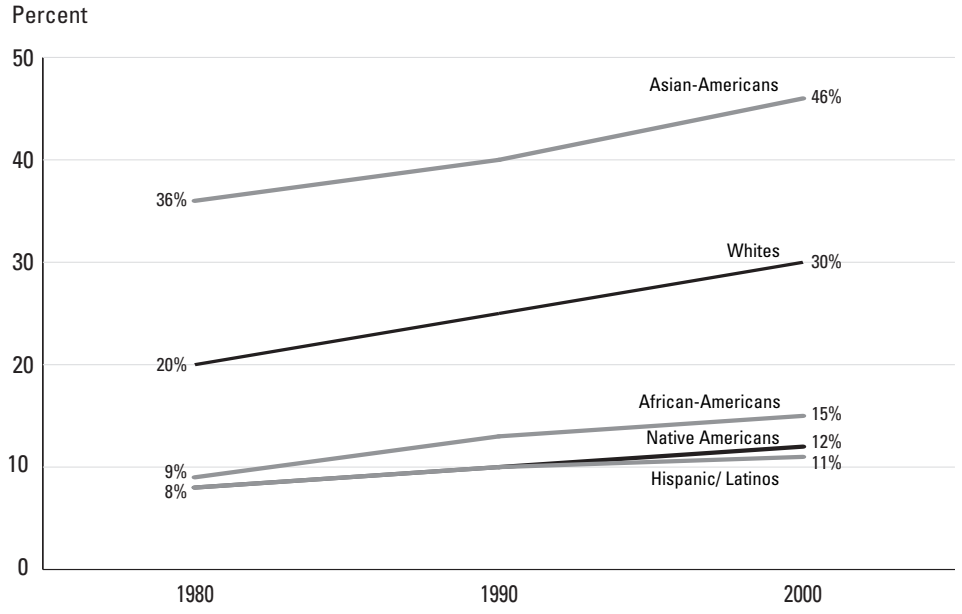
How can Americans effectively respond to the access and attainment imperative, given the current challenges to state finances, and the problems looming over the federal budget? The answer requires increased investments and improved systemic efficiency.[48] Making increased investments feasible requires modernized state tax structures, and federal fiscal policy shifts. Creating the climate for increased

Figure 5. Projected State and Local Deficits in 2013, as Percentage of Revenue



Source: Jones, 2006: 3. Data are from Boyd, 2005.

Figure 6. Percentage of Population Ages 25-64 with Bachelor's or Higher Degree



Source: Adapted from National Center for Public Policy in Higher Education, 2005, 4. Data are from U.S. Census Bureau, 5% Public Use Microdata Samples (based on 1980, 1990, and 2000 Census).

investments requires an emphasis on the *social* and economic investment dimensions of higher education, buttressed by empirical evidence, along with visible improvements in systemic efficiency. Any strategy for increasing public support and funding for higher education requires a sense of *shared responsibility* and effort.

"Systemic efficiency" means that educators and policymakers must bridge gaps between sectors that have heretofore often operated on separate tracks. Two examples: improving still too-low transfer rates from community colleges to public four-year institutions[49] and facilitating more public-private sector transfers. By far the largest chasm: between K-12 education and the postsecondary system. Colleges communicate weak and confusing readiness signals to K-12 schools and their students.[50] Too many students and their families do not understand the knowledge and skill standards, courses, and sequences needed to prepare for college. Not knowing the difference between college admission *and* placement into college level courses, many students arrive at college poorly prepared for college-level work and require costly remediation. Enrollment in sub-college courses is associated with lower completion rates and longer time to degree even for persisting students.[51] The public and legislators lose faith in the system's rationality and efficiency.

A related problem is the lack of articulation between the increasing battery of tests taken by high school students for graduation and those required for college admission and placement. Under legislative pressure to reduce remediation costs, the California State University system attempted to link its placement examination to mandatory 11th grade state tests.[52] The premise: offer college readiness information early enough for students to remedy deficiencies in high school, the most efficient setting. Early results of this widely recognized and praised initiative appear promising, despite arduous implementation problems.[53] Other systems should emulate this program, if it proves successful. Public and policymaker confidence in the integration and systemic efficiency of public education will grow.

Another example is financial aid outreach. Many low-income and ethnic minority populations, having little family knowledge about college, believe that

higher education is unaffordable, that financial aid is unavailable, or that the aid apparatus is inaccessible or impenetrable.[54] Even good students from these groups often do not consider college education possible; they make educational choices accordingly in secondary school. Early outreach involving families—at the beginning of middle school or earlier—can effectively change these attitudes. But effective outreach requires greater cooperation between K-12 and higher education.

Systemic efficiency also requires controlling the capital costs of educating substantially more people. Avoiding large capital outlays saves money, and increases public willingness to support essential needs. States and institutions can try many viable capital-saving strategies if they invest in faculty and student incentives, change organizational structures, and bear the personal costs of organizational change.

The more promising strategies include:

- Accommodating students in evening and weekend classes. This approach also benefits the adult, working population for whom increased education is vitally important. Private institutions often use this option more aggressively than public colleges.
- Redesigning course schedules and providing strong incentives to faculty and students to encourage summer enrollments in otherwise under-utilized classroom buildings.
- Increasing on-line course enrollments. This measure—also requiring faculty and student incentives and support—further reduces the need to add classrooms. To date, community colleges have opted for distance education faster than four-year colleges and universities.
- Using private colleges to help meet enrollment needs. Incentives, such as financial aid grants available to both private and public sector students may redirect some students to private institutions and cost the state less per student than accommodating all enrollment demand in the public sector. Of course this approach requires that appropriate private sector capacity be available and states must invest more in oversight and quality control.

Responding positively to accountability pressures also builds public and policymaker support for higher education.[55] Colleges can develop credible evidence about alumni careers, satisfaction, and social contributions and about the social and economic spin-offs from academic research and service. Colleges also need to show improved student persistence and degree completion rates, particularly for low-income and first-generation students and those from underrepresented ethnic groups. These improvements require better K-12 preparation and adequate investments in early outreach, support services, and financial aid.

Recall that the persistence of sharp cyclical fluctuations in financial support for higher education is tied to the business cycle but mitigated by tuition increases in downturns. Students on the financial and academic margins are least able to adjust to these fluctuations. States should seek to insulate these crucial human capital investments from the effects of economic downswings to the extent possible. States, after all, have typically inflicted the deepest cuts on higher education during downturns. Permitting institutions to carry over end-of-year fund balances and providing incentives, such as matching funds, for building unrestricted endowments for "rainy day" reserves would mitigate the effects of downturns, while promoting institutional efficiency.

Some states have special revenue sources, such as natural resource royalties, that they could dedicate to building these endowments. In any case, states must plan for future downswings by building up their reserve accounts as they now seem to be doing—a tactic that should reduce the need for sharp budget cutbacks at least when a downturn is not extended.

Increased need-based student financial aid and outreach efforts should accompany tuition increases deemed needed to finance increased capacity or to mitigate cyclical budget cuts. Upper income students are less sensitive to price increases, so states should target grant aid to students from low- and moderate-income circumstances to minimize enrollment effects. Institutions can use their increased tuition revenue to help finance needed aid increases if necessary. For example, the California State University and the University of California grants programs provide for such enhancements in aid resources when tuition jumps sharply.

CONCLUSION

Entering 2007, state finances looked up and higher education saw the benefits. But, experts say, states will be hard pressed to meet their existing service obligations, much less finance increased investment in higher education, in coming years unless they control health care costs and modernize their revenue structures.

Investing in people's knowledge, skills, and innovative capacities is key to maintaining a high wage economy; preparing students poorly served in the past is now an economic as well as a social equity imperative. But generating the needed resources and political support requires attitude changes, greater efficiencies throughout the educational system, and shared responsibility for results. States may increase human capital investments through postsecondary education by targeted student aid and strategic matching grants. But the national interest obliges the federal government to contribute in new ways if state efforts prove inadequate. Whatever the aid source, colleges must be prepared to be accountable for the results.

NOTES

[1] *The Investment Payoff,* 2005.

[2] Wagner, 2006.

[3] National Center for Public Policy and Higher Education, 2005.

[4] Willis, 2006.

[5] Ibid.

[6] Crutsinger, 2006.

[7] Barbash, 2006.

[8] "Philly Fed Sees Slower Growth…," 2006. The figures given represent the median of the estimates provided by the economic forecasters surveyed.

[9] "Federal Reserve Survey…," 2006.

[10] Prah, 2006.

[11] NCSL, 2006. The figures are based on budget data from 49 states and tax data from 44 states.

[12] This statement is based on more recent figures than those shown in Figure 1.

[13] NGA-NASBO, 2006, vii. More recent figures from NCSL (2006) covering 49 states show general fund spending grew by 8.4 percent for these states.

[13] NCSL, 2006, 4-5.

[15] Ibid., 3.

[16] Ibid., 5.

[17] Ibid., 8.

[18] NCSL estimated the net sum of state tax increases and decreases would be a $1.4 billion increase in FY 2007, compared to $3.4 billion in FY 2006 and a high of $9.1 billion in FY 2002 (Ibid., 12).

[19] Ibid., 4.

[20] NGA-NASBO, 2006, 1-2.

[21] Ibid., 6.

[22] Cited in Ibid., 7.

[23] NCSL, 2006, 6.

[24] The inflation adjustment is based on the State Higher Education Executive Officers' Higher Education Cost Adjustment (see SHEEO, 2006, 5).

[25] Data cited in this paragraph are from Ibid., 6.

[26] Zumeta, 2006, 42. The data came from *Grapevine,* an archive on state higher education appropriations maintained by the Center for Higher Education Policy at Illinois State University: http://coe.ilstu.edu/grapevine/. Data cited here are from *Grapevine* except as noted.

[27] Tuition data presented in Zumeta, 2006, 40, came from The College Board, 2005.

[28] From *Grapevine,* accessed October 24, 2006. *Grapevine* also provided the other data in this paragraph.

[29] These data exclude state funding from lottery proceeds and natural resource revenues, which typically increase the national total by a few tenths of a percent. (See NCSL, 2006, 6).

[30] Figures in this paragraph came from The College Board, 2006a.

[31] These cost figures do not take into account textbooks or other living costs faced by students.

[32] The College Board, 2006b, 5.

[33] The maximum Pell award will likely not be increased for 2007–08. The *average* Pell grant actually fell by $120 from 2004–05 to 2005–06 (Ibid.).

[34] *Working Their Way through College,* 2006.

[35] *Working Their Way…,* 2006, 5. The authors cite U.S. Department of Education studies and Pascarella and Terenzini, 2005, 414-415.

[36] Sandra Baum, College Board senior financial aid policy analyst, cited in Block (2006). The percentage of bachelor's graduates with debt was under 50 percent in 1993.

[37] Block (2006) cites data from the Public Information Research Group's Higher Education Project, which found that, using industry standard formulas, nearly one-fourth of public college graduates and 38 percent of private college graduates would not be able to repay their college debts on a starting teacher's salary.

[38] Burdman, 2005.

[39] Stiger, 2006.

[40] Data in this paragraph came from National Association of State Student Grant and Aid Programs, 2006, 2-3.

[41] Ibid., 23.

[42] As reported in Jones, 2006. The data and conclusions cited in this paragraph and the next two came from that report.

[43] Yuan, 2006.

[44] Mortenson, 2005, 1, reported that students from the top family income quartile had a 75 percent chance of completing a bachelor's degree by age 24; this probability was 8.6 percent for the bottom quartile.

[45] Committee for Economic Development, 2005; *The Investment Payoff,* 2005; Immerwahr, 1999, 2000; Sommers, 2006.

[46] Wagner, 2006; National Center, 2006. In the share of 25-34 year olds holding the equivalent of a bachelor's degree, the United States has fallen behind Belgium, Canada, Finland, Japan, Korea, Norway, and Sweden.

[47] National Center, 2005, 6.

[48] The author is exploring these questions in a project with several colleagues.

[49] For example, more could be done to support efforts to offer upper division courses and programs on community college campuses, particularly in areas underserved by baccalaureate institutions, and to develop baccalaureate programs relevant to students holding professional-technical associate's degrees.

[50] Conley, 2005; Venezia and Kirst, 2005.

[51] Adelman, 2006, 81, 177. Analytically, the effects on completion depend upon which other variables are statistically controlled.

[52] Smith, 2006.

[53] Ibid.

[54] Horn et al, 2003; Kane, 1999; Ellwood and Kane, 2000, especially 311-12; King, 2003.

[55] On accountability pressures see Zumeta, 2000.

REFERENCES

Adelman, C. *The Toolbox Revisited: Paths to Degree Completion from High School through College.* U.S. Department of Education, Office of Vocational and Adult Education, 2006.

Barbash, F. "Rate of Inflation Slows in July." Washingtonpost.com (August 16, 2006).

Block, S. "In Debt before You Start." *USA Today* (June 12, 2006), A1.

Boyd, D. *State Fiscal Outlooks from 2005 to 2013: Implications for Higher Education.* Boulder, Colo: National Center for Higher Education Management Systems, 2005.

Burdman, P. "The Student Debt Dilemma: Debt Aversion as a Barrier to College Access." Center for Studies in Higher Education, University of California, Berkeley. Research & Occasional Paper Series CSHE 13.05, 2005.

College Board, The. *Trends in College Pricing 2005.* Princeton, New Jersey: College Board, 2005.

_____. *Trends in College Pricing 2006.* Princeton, New Jersey: College Board, 2006a.

_____. *Trends in Student Aid 2006.* Princeton, New Jersey: College Board, 2006b.

Committee for Economic Development. *Cracks in the Education Pipeline: A Business Leader's Guide to Higher Education Reform.* Washington, D.C.: CED, 2005.

Conley, D. *College Knowledge: What It Takes Students to Succeed and What We Can Do to Get Them Ready.* San Francisco: Jossey-Bass, 2005.

Crutsinger, M. "Drop in Clothing Prices Key in Lowering Inflation." *The Seattle Times* (August 17, 2006), E1.

Ellwood, D., and T. Kane. "Who is Getting a College Education? Family Background and the Growing Gap in Enrollment." In S. Danziger and J. Waldfogel (Eds.), *Securing the Future: Investing in Children from Birth to College.* New York: Russell Sage Foundation, 2000, 283-324.

"Federal Reserve Survey Shows Slowing Economy." *The Seattle Times* (July 27, 2006), C3.

Horn, L., X. Chen, and C. Chapman. *Getting Ready to Pay for College: What Students and Parents Know about the Cost of College Tuition and What They Are Doing to Find Out.* Washington, D.C.: National Center for Education Statistics, 2003.

Immerwahr, J. *Great Expectations: How the Public—White, African American, and Hispanic—View Higher Education.* San Jose: Calif.: National Center for Public Policy and Higher Education and Public Agenda, 2000.

_____. *Taking Responsibility: Leaders' Expectations of Higher Education.* San Jose, Calif.: National Center for Public Policy and Public Agenda, 1999.

The Investment Payoff: A 50-State Analysis of the Public and Private Benefits of Higher Education. Washington, D.C.: The Institute for Higher Education Policy, 2005.

Jones, D. *State Shortfalls Projected to Continue Despite Economic Gains.* National Center for Public Policy and Higher Education Policy Alert, February 2006.

Kane, T. *The Price of Admi$$ion: Rethinking How Americans Pay for College.* Washington, D.C.: The Brookings Institution and The Russell Sage Foundation, 1999.

King, J. *Missed Opportunities: Students Who Do Not Apply for Financial Aid.* Washington, D.C.: American Council on Education Center for Policy Analysis, 2003.

Mortenson, T. "Family Income and Higher Education Opportunity 1970 to 2003." *Postsecondary Education OPPORTUNITY* (June 2005), 1-16.

National Association of State Student Grant and Aid Programs. *36th Annual Survey Report on State-Sponsored Student Financial Aid, 2004–2005 Academic Year.* Washington, D.C.: NASSGAP, 2006.

National Center for Public Policy and Higher Education. *Income of U.S. Workforce Projected to Decline if Education Doesn't Improve.* NCPPHE *Policy Alert.* November 2005.

_____. *Measuring Up 2006: The National Report Card on Higher Education.* San Jose, Calif.: National Center, 2006.

National Conference of State Legislatures. *State Budget and Tax Actions 2006: Preliminary Report.* Denver, Colo: 2006 (August).

National Governors Association and National Association of State Budget Officers. *Fiscal Survey of States.* Washington, D.C.: National Governors Association, 2006 (June).

Pascarella, E., and P. Terenzini. *How College Affects Students, Volume 2: A Third Decade of Research.* San Francisco: Jossey-Bass, 2005.

"Philly Fed Sees Slower Growth, Higher Inflation (Update 1)." Reuters.com (August 14, 2006).

Prah, P. "Boom Time for State Finances." *Kansas City infoZine* (August 16, 2006).

Smith, V. "Bridging the Gap between High School and College: An Interview with David Spence." *Change* (May/June 2006), 40-46.

Sommers, P. *Returns on Education Investments.* Paper prepared for the Washington State Office of Financial Management and Washington Learns. Olympia, Wash: 2006.

State Higher Education Executive Officers. *State Higher Education Finance FY 2005: Executive Overview.* Boulder, Colo: SHEEO, 2006.

"States Use Unexpected FY 2006 Revenue for Rainy Days, Education, Tax Cuts." *NCSL News* (August 15, 2006).

Stiger, S. "The High Cost of Learning." *Albuquerque Journal* (August 6, 2006), C1.

Venezia, A., and M. Kirst. "Inequitable Opportunities: How Current Education Systems and Policies Undermine the Chances for Student Persistence and Success in College." *Educational Policy* 19 (2005), 283-307.

Wagner, A. *Measuring Up Internationally: Developing Skills and Knowledge for the Global Knowledge Economy.* Paper prepared for the National Center for Public Policy and Higher Education, 2006. Available at: www.highereducation.org.

Willis, B. "U.S. Jobless Claims Rose to 319,000 Last Week (Update 2)." Bloomberg.com (August 10, 2006).

Working Their Way through College: Student Employment and Its Impact on the College Experience. American Council on Education Issue Brief (May 2006).

Yuan, X. "Democrats Propose Higher Education Agenda, Including New Tuition Tax Plan." *The Chronicle of Higher Education Today's News* (July 20, 2006).

Zumeta, W. "The New Finance of Public Higher Education." *The NEA 2006 Almanac of Higher Education.* Washington, D.C.: National Education Association, 2006, 37-48.

_____. "Accountability: Challenges for Higher Education." *The NEA 2000 Almanac of Higher Education.* Washington, D.C.: National Education Association 2000, 57-71.