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Improving Postsecondary Education Through the Budget Process: **Challenges & Opportunities**

NATIONAL ASSOCIATION OF STATE BUDGET OFFICERS •



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Brent Doig, MT	Michael Marcelli, NM	Latishia Ortiz, NM	
Tammy Dolan, ND	Karen Matsunaga, MD	Britta Reitan, MN	
David Eater, NJ	Michael Maul, VA	Keith Reynolds, ID	
Kayla Effertz, ND	Jerry McDaniel, FL	Brandon Sharp, AR	
Nick Fuller, AR	Bill McGee, OR	Sara Swan, CA	
Dennis Gill, DC			

Executive Summary

This National Association of State Budget Officers (NASBO) project and report, supported by a grant from the Bill & Melinda Gates Foundation, presents both the current landscape of state higher education finance and opportunities for improving it—from the perspective of state budget officers.

Present financing models are unsustainable and the incentives created by them need to change.

The current approach to funding public higher education may have worked well in past decades, but fiscal changes at the federal and state levels make reform inevitable. Present financing models are unsustainable and the incentives created by them need to change.

Public Higher Education Funding Landscape

Following are some of the key forces and challenges currently facing public higher education finance, which policymakers at the state level as well as higher education institution officials should keep in mind when developing and assessing the merits of potential reforms.

- **Enrollment growth will persist.** The postsecondary funding problem will not gradually fade away, even if enrollment growth rates appear to be slowing. To meet future goals for increased degree attainment, enrollments will need to continue to grow for the foreseeable future.
- **State funding will be limited.** State revenues for higher education are still a major source of operating support for public higher education institutions. However, state funds for higher education have been declining on a per capita basis and as a percentage of state appropriations. State spending on higher education is also more erratic than other major areas of state spending—higher increases of state funds for higher education in ‘good economic times,’ and deeper reductions in ‘bad economic times.’
- **Tuition growth rates will need to slow.** Students are paying more, but in many cases, less is being spent on them. When state and other funds have declined, institutions have tended to shift costs on to student tuitions and fees. Tuitions are rising much more rapidly than spending. One driver of tuition increases is replacement of state funds. However, higher education may have less and less of an ability to increase tuition, as current trends indicate that softened market demand will require institutions to slow tuition growth rates going forward.
- **Institutions’ spending patterns raise some questions.** Until the 2008 recession, institutional spending patterns showed more evidence of cost shifting and budget balancing than cost reduction or restructuring. Over time, spending on instruction has declined slightly, and administrative and general support costs have increased. Lower division education (freshman and sophomore levels) has historically been a source of ‘cross-subsidy’ to upper division and graduate education, a spending practice that may be contributing to high rates of attrition in the first two years of college.
- **States are focusing more on performance.** State budgeting practices have changed over time, and a number of states have experimented with and/or implemented some form of performance-based or outcomes-based budgeting models for higher education and other program areas. This trend is expected to continue as many state officials have proposed tying additional public funds for higher education to increased higher education performance.
- **The federal fiscal and policy role is evolving.** Although states have historically been the primary funders of higher education, the federal fiscal role is growing as tuition rates, and federal financial aid spending, have increased. In addition, at the federal government level, key leaders including the President have been discussing policy changes involving increased accountability, containing costs, and making higher education more affordable.

State Efforts to Improve Higher Education

Some states have already been making great strides in addressing these challenges. These efforts entail a number of financing and management strategies focused on funding performance, restricting tuition increases, expanding access, improving information, and increasing cost-efficiency. Some promising strategies identified in one or more states are highlighted on the next page.

Financing and Management Strategies: Options for States to Consider

FUNDING PERFORMANCE AND RESULTS



- Distribute a set percentage of funding (or any increase in appropriations) to institutions based on certain performance targets.
- Allocate all appropriations based on an outcomes-based funding formula.
- Build performance models tailored to institutional mission.
- Reward institutions that increase number of degrees in workforce priority areas.
- Encourage institutions to use performance information to make targeted investments.

RESTRICTING TUITION INCREASES



- Set tuition and fee levels through central coordinating board appointed by the governor.
- Buy down system's tuition increase with a designated amount of general funds.
- Require institution to keep tuition increase below historical average in order to qualify for a pot of money set aside by the state.
- Require that undergraduate tuition increase not exceed historical average increase.
- Set maximum tuition increase allowed by institutions.
- Encourage institutions to find innovative ways to offer low-cost degree options for students.
- Establish guaranteed tuition plan to enable students to pay the same tuition rate for four years.
- Eliminate use of tuition set-asides for financial aid purposes and replace with a new or expanded state grant program.

EXPANDING ACCESS



- Award funding premium to institutions for graduating financially at-risk or nontraditional students.
- Steer more students to start postsecondary education at community colleges.
- Simplify and streamline transfer process from community college to four-year institutions.
- Add or expand need-based scholarship programs.

IMPROVING USEFUL INFORMATION ABOUT HIGHER EDUCATION SPENDING AND RESULTS



- Require institutions to submit detailed cost and performance information to state budget offices for use in decision-making.
- Establish standards for institutions to follow in disclosing key accountability and financial metrics to the public to make students and parents more informed consumers.

INCREASING COST-EFFICIENCY



- Conduct multi-year expenditure forecasts to encourage long-term investments.
- Require student vote on all amenity and facility upgrades, and provide students information about the costs and additional revenue required for such upgrades
- Create incentives to promote spending on deferred maintenance.
- Require institutions to set aside some tuition revenue for infrastructure projects.
- Offer more introductory courses online or in re-engineered formats.
- Limit number of credits that institutions can require for degree completion.
- Reward institutions and students to encourage on-time or accelerated degree completion.
- Restrict remediation coursework at four-year institutions and redesign remedial education.
- Realign institutional structures to capture administrative efficiency gains and avoid duplication.
- Establish entity(ies) to identify and recommend cost-cutting strategies.

Opportunities for Change

State and higher education officials will need to work together even more closely to deal with the significant challenges facing higher education finance and increase postsecondary attainment while reducing costs. The imperative for change is evident, and there are numerous available opportunities for states and higher education institutions to collaborate through reforming approaches to financing, perhaps the single most important policy lever for reform. Opportunities for change include:

- Performance funding.** Performance funding approaches have emerged as a compelling strategy for states to exercise more influence over the priorities and outcomes of public higher education institutions. While many such methods are in the experimental stage and have their limitations, perhaps their greatest potential benefit at this point is in helping to align public goals with institutional missions, and to improve use of data to monitor student performance and retention. Increased serious discussion alone about improving performance can be a positive development.
 - Appropriate role of student tuition.** Student tuition policies in public institutions should be based on a shared understanding of the appropriate role for tuition in relation to costs and benefits, and not just what the market will bear. States need to set policies that combat institutional incentives to simply raise tuition, overuse student fees, discount tuition, and increase out-of-state enrollment.
 - Increasing access and attainment.** Maximizing education access and attainment of a state's population needs to be a key part of the mission of any public higher education system. State and higher education officials can work together to strengthen need-based grant aid programs—both at the state and institutional levels—and align accountability and performance incentives to encourage, not penalize, institutions to educate and graduate low-income and at-risk students. States can also partner with and invest more in community colleges and vocational and technical education schools.
 - Information access and reliability.** States and institutions use different measures to account for spending and changes over time—leading to real gaps in understanding about both revenues and spending. Sound decision-making—on the part of states, institutions, and consumers—requires reliable, consistent, and accessible information on revenues, expenditures, costs and benefits.
 - Reducing costs.** Institutions must curb costs, as well as manage and spend resources wisely and effectively, to put public higher education on a sustainable fiscal path. Efficiency gains can be captured through strategies like shared administrative services, reducing duplication, streamlining application and enrollment processes, and leveraging new technologies. These efforts can also support (both directly and indirectly through freed-up resources) initiatives to restrict tuition increases, expand access, and improve information.
- However, it will take time for this larger agenda for reform to be developed, adopted and implemented. In many cases, higher education finance may have to be reformed incrementally when opportunities for change present themselves. Though, the urgent need to put public higher education on a sustainable path calls for some steps to be taken immediately. Not all priorities are equal, and some states will have different circumstances and objectives. As a state chooses which items to focus on first, taking the following steps may offer a good starting point:
- Align public goals with higher education outcomes and institutional missions.** Through collaborative strategic planning, create measures for key outcomes and establish a process for institutions to report progress to stakeholders and the public.
 - Develop differential funding strategies for different institutions or sectors,** based on the contribution of those institutions to the public agenda, and in light of other resources available to them. In some states, that effectively will mean allocating more 'new' state dollars to public masters' institutions than to either community colleges or research institutions, and allowing the research universities to increase tuitions. The decisions will be different in other states. Treating institutions or sectors equitably may not be the best use of funds in the years ahead.
 - Push a "re-set" button on formulae for building the base budget,** including old cost-based formulae and procedures for funding 'fixed costs' before workload or improvement, and move to funding over multiple years based on performance or outcomes as well as enrollments. New funding mechanisms need to create the right incentives and be tied to results such as greater degree attainment, reduced growth in tuition and fees, and reinvestment of 'savings' in innovations and in areas that are priorities for the institution and the state.
 - Fix the metrics.** State budget officials and institutional leaders too often talk past one another in discussions about state finance and institutional costs. Leaving aside issues of what funding levels should be, the two sides should be able to agree about basic facts for how to account for funds in higher education, including accountability metrics for spending and performance.
 - Control the growth in spending for employee benefits,** either through action by the state when state policies drive benefits, or through pressure on the institutional governing boards. If employee benefit cost growth is not reduced, all new funds going to higher education—and this increasingly means student tuition revenues—may have to go to pay for employee benefits rather than for increased capacity or quality.

Introduction

This National Association of State Budget Officers (NASBO) report presents the current landscape of state higher education finance, identifies strategies used by states to achieve postsecondary education goals, and highlights opportunities to improve outcomes while reducing costs.

Higher education, like many areas of state spending, has experienced public funding erosion in today's challenging budget environment. Yet, higher education's financial problems are unique in some respects, largely because postsecondary institutions have other sources of revenue in addition to state appropriations. The availability of alternative revenue sources, such as tuition and fees, helps explain why state funding for higher education tends to be more volatile than for other program areas. While state appropriators are typically generous to higher education in good fiscal periods, they tend to disproportionately cut funding during severe revenue downturns.

In recent years, tough fiscal constraints have led to the shifting of a larger share of the higher education financial burden from the state to the individual, rather than a reduction in costs and/or improvement in efficiency. Despite funding cuts, however, state dollars and policy decisions still play a key role in the public higher education system, with state funding support accounting for more than half of public higher education revenue for general operating expenses.¹ While this paper focuses primarily on state spending for higher education operating budgets, it is important to remember that states also make significant contributions to institutions through providing state-funded financial aid programs and financing for capital projects, subjects touched upon later in this paper.

There are a number of different elements to the state higher education financing situation. None alone captures all of the dynamics at work, which are not just about financing higher education institutions, or even about keeping tuitions low, but also about ways to use resources to meet public needs for higher education. The key message throughout this analysis is that states have the ability, through the budget process and in collaboration with higher education institutions, to implement postsecondary education reforms that lead to better outcomes, such as higher completion rates, increased access, improved



States have the ability, through the budget process and in collaboration with higher education institutions, to implement postsecondary education reforms that lead to better outcomes.

preparation of graduates for the workforce, and greater earning potential with less student debt.

Part I of this report draws from existing research to describe the forces and challenges affecting public higher education finance, beginning with: 1) growing demand for higher education; 2) state fiscal conditions and stiff competition for funds; 3) rising tuition and cost-shifting; 4) institutional spending trends; 5) evolving state budgeting practices; and 6) changing federal role in postsecondary finance. Part II highlights specific examples of how various states have employed state policy and budgeting strategies to address some of these issues to better achieve the public goals of higher education. Drawing on background research and specific state examples, Part III of this analysis identifies key opportunities for state budget offices and higher education institutions to work together to improve the effectiveness and efficiency of the public higher education system. Finally, Part IV summarizes recommendations for using state finance strategies to reform the nation's public postsecondary education system.

Part I: Public Higher Education Funding Landscape

Many of the trends affecting state funding of higher education are not different from those facing other areas of public support. Public assistance, Medicaid, K-12 schools, corrections and general government have all been affected by lean state revenues and in many cases have been forced to cut costs and re-evaluate functions. This has led in some cases to painful actions but also to improved efficiencies and money savings in certain processes. In the case of public higher education, however, certain aspects and challenges are somewhat unique. Concentrating on these unique challenges helps to focus on places where changes in policy and practice might make a difference in improving capacity to meet public needs.

Growing Demand for Postsecondary Education

The postsecondary funding problem will not gradually fade away, even if enrollment growth rates appear to be slowing. Overall, the student population is still growing and, to meet future goals for increased degree attainment, enrollment capacity will need to continue increasing for the foreseeable future.

In the last thirty years, postsecondary enrollments have increased rapidly nationwide. Between 2000 and 2010, undergraduate enrollment in public institutions grew at a rate more than six times that of K-12. Public sector enrollments continue to constitute over three-quarters of total postsecondary enrollments, although their market share is declining because of the rapid growth in enrollments in private colleges and universities. (See Table 1.)

The demographic characteristics of incoming students have changed as well, and students are increasingly coming from families living in or near poverty. Enrollment demand from older working adults also continues to grow, although not at the rate of recent high school graduates in the last few years.

Going forward, expectations are that enrollment growth will continue, although the rate of growth will taper off as the number of high school graduates declines.² Enrollments of recent high school graduates may decline in a number of states, although demand among older adults is expected to continue to grow. Overall, the average enrollment growth rate could decline to close to one percent per year. While this may

still be a fairly healthy rate of increase, it is considerably lower than the two-to-five percent increases seen in many states in the 2000's.

The other factor influencing future demand for higher education is the growing call from many public policy makers for the United States to increase postsecondary attainment to meet future needs for educated workers. Estimates from various sources suggest that within the next fifteen years around 50-55 percent of the adult population will need to have some type of postsecondary credential (not necessarily a degree)—up considerably from current credential/degree attainment levels of around 40 percent. Accomplishing that in the next decade will require increases in degree production in the vicinity of 2-4 percent per year, compounded annually.³ There is also growing emphasis being placed on STEM (science, technology, engineering and mathematics) education at all levels to ensure that the U.S. remains economically competitive globally, and education in these disciplines tends to be more expensive than in other fields.

Current aggregate rates of degree production (measured as the number of degrees awarded relative to enrollments) have been increasing slightly—around 0.75 percent per year in the last few years—a heartening increase in performance, but far less than what is needed to meet the national attainment rate goals. Accomplishing this growth in educational production will be difficult under the best of circumstances, and the educational challenges of getting more students through high school academically prepared to suc-

ceed in college are enormous. The financing challenge will, of course, also be significant.

Texas offers a prime example of a state where demographics are shifting in a way that has important implications for public higher education. Not only has the state's total population consistently grown more rapidly than the nation has as a whole in every decade since 1850, but it continues to grow more racially and ethnically diverse. In 1980, 66 percent of the population was white while 21 percent was Hispanic. By 2006, whites accounted for just 48 percent of the population, while the Hispanic population comprised 36 percent.⁴ Meanwhile, the educational attainment of Hispanics, as well as of African Americans, in Texas continues to lag behind that of whites. In light of these trends, in 2000 the Texas Higher Education Coordinating Board (THECB) launched its master plan, *Closing the Gaps by 2015*, focused on several goals, including increasing higher education participation rates across Texas and closing the gap in enrollment by ethnic group in the state. According to THECB's most recent progress report, improvements have been made, but challenges persist with respect to participation rates and degree completion among African Americans and Hispanics.⁵ Texas policymakers continue to focus initiatives on increasing educational attainment in the state.

Tough Competition for State Funds

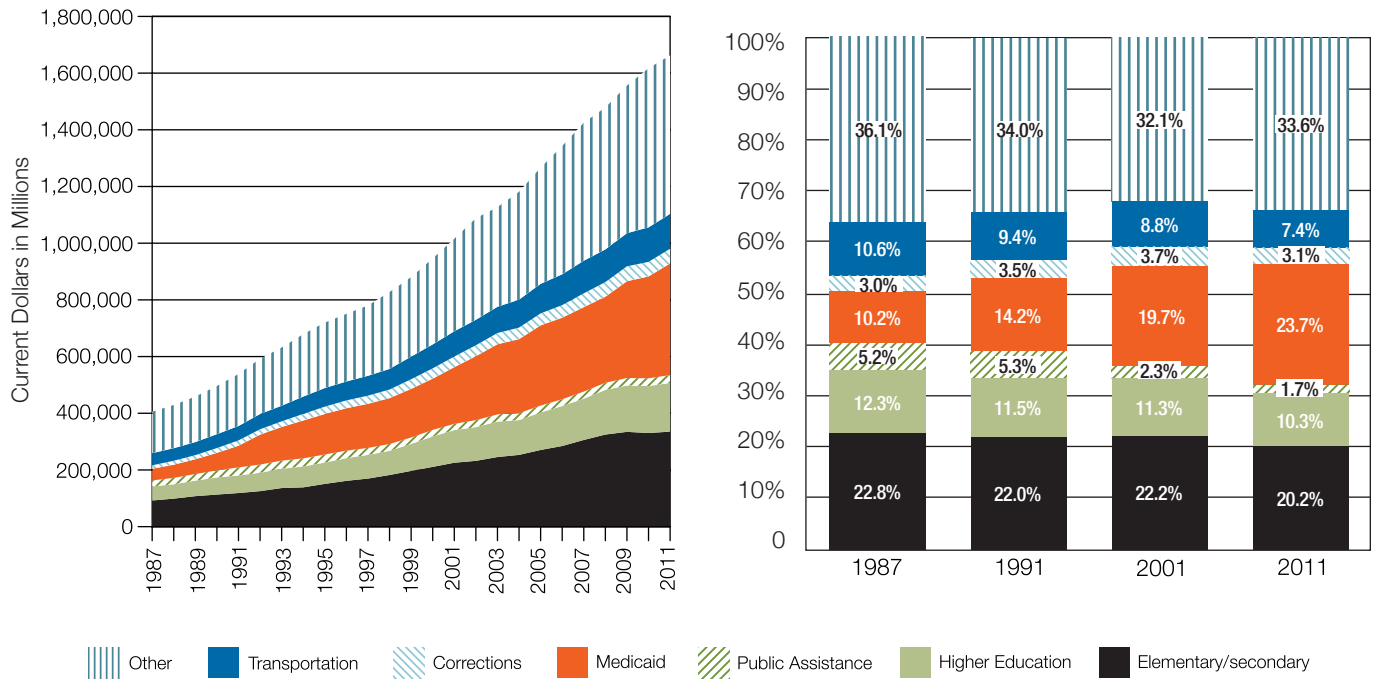
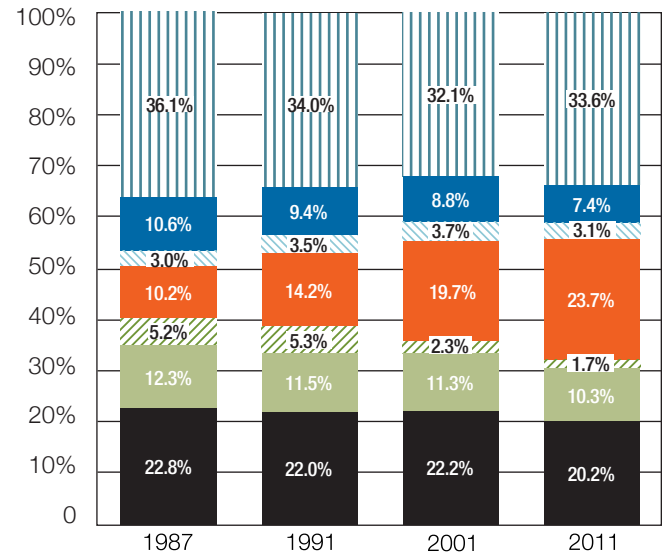
State revenues for higher education are still a major source of operating support for public higher education institutions. However, lean state revenues have led to a decline in higher education appropriations on a per capita basis and as a percentage of total state appropriations. State spending on higher education is also more erratic compared to other major areas of state spending—higher increases in 'good times,' and deeper reductions in 'bad times.' Consequently, this has led many public institutions to call for greater flexibility and independence from state government.



TABLE 1: ENROLLMENT GROWTH IN U.S. EDUCATION, 1980–2011 (IN THOUSANDS)

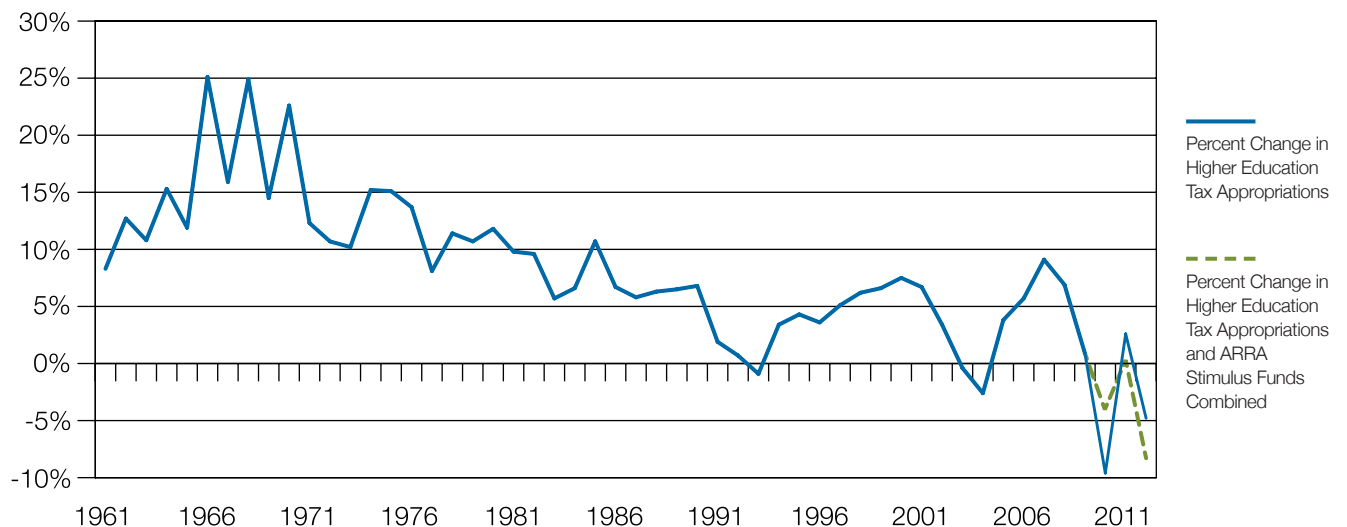
Degree Program	1980	1990	2000	2010 (Projected)	2011 (Projected)	30-year % change (1980–2010)	10-year % change (2000–2010)
Public Elementary/ Secondary	40,877	41,217	47,204	49,306	49,422	20.6%	4.5%
Private Elementary/ Secondary	5,331	5,648	6,169	5,398	5,324	1.3%	-12.5%
Public Postsecondary Undergraduate	8,442	9,710	10,539	13,704	14,134	62.3%	30.0%
Private Postsecondary Undergraduate	2,033	2,250	2,616	4,374	4,413	115.2%	67.2%
Graduate and professional, public and private	1,622	1,860	2,157	2,937	3,028	81.1%	36.2%

Source: National Center for Education Statistics, *Digest of Education Statistics 2011* (November 2011).

FIGURE 1: STATE EXPENDITURES, FY1987–FY2011**FIGURE 2: CHANGES IN DISTRIBUTION OF TOTAL STATE EXPENDITURES OVER TIME**

Note: “Other” includes state contributions to pensions and health insurance, children’s health insurance program (CHIP), institutional and community care for mental health, public health programs, economic development, state police, parks and recreations, housing, and general aid to local governments.

Source: National Association of State Budget Officers, *State Expenditure Reports, FY1987–FY2011*.

FIGURE 3: ANNUAL PERCENT CHANGE IN HIGHER EDUCATION APPROPRIATIONS, FY1960–FY2012

Source: Annual Grapevine reports, FY 1960–FY 2012, <http://grapevine.illinoisstate.edu/index.shtml>. Figures not adjusted for inflation or enrollment.

Overall state funding for higher education has grown fairly consistently until the last few years of the recent downturn, up by around 25 percent nationwide during the 2000-2010 decade. At the same time, total state spending is growing at a faster rate than is state support for higher education, which means that higher education's share of total state spending is declining. (See Figures 1 and 2.) Probably more important (since funding can increase even as the share of appropriations declines), state funding has generally not kept pace either with enrollment growth or Consumer Price Index (CPI)-measured inflation. Nonetheless, it should be noted that public funding for colleges and universities has indeed increased in most years, demonstrating that higher education remains a priority for state governments.

The state general fund revenue pattern fluctuates somewhat from year to year, up in good economic times, and down in bad economic times. Until 1990 overall state appropriations for higher education—not adjusted for FTE enrollments—increased each year at a fairly healthy rate of more than 5 percent per year. But there were significant variations along the way, with a great deal of instability over time in funding from year to year. (See Figure 3.) Since 1990, the picture has changed, with overall funding declining in 4 of those years, and average increases over time dropping to around 2.5 percent per year.⁶

Budget analysts and higher education advocates have characterized higher education as a structural 'balance wheel' inside state budgets, as it constitutes the largest area where spending is not driven by mandates or entitlements, and where tuition and fees can be raised to compensate for reductions in state spending.⁷ Looking at per capita (e.g., adjusted for enrollments) spending for higher education between 1987 and 2010, in 2008 constant (inflation-adjusted) dollars, state general fund spending for higher education ranged from a low in 2010 of \$6278 per FTE against highs in the late 1980's and again in the early 2000's of around \$7800—a 20 percent range. (See Figure 4.) State spending for Medicaid per beneficiary and corrections per inmate also show fluctuations over time, but within a narrower range. Of course, even as the per capita costs in Medicaid have declined somewhat, the share of spending on Medicaid continues to rise—because of growth in the eligible population. The latest NASBO State Expenditure Report shows that Medicaid expenditures accounted for 23.7 percent of total state spending and 16.7 percent of general fund spending in fiscal 2011, compared to 19.7 percent of total state spending and 15.2 percent of general fund spending one decade earlier. According to estimated data, Medicaid spending continued to rise in fiscal 2012 as a share of state spending, accounting for 23.9 percent of total state expenditures and 19.6 percent of general fund expenditures.⁸

Higher education analysts (and advocates) have made much of the fact that the proportion of state spending now going to higher education is lower than in the past. They also point to their own budgets and to the shrinking share of total institutional spending coming from state revenues. Both points are used to support their calls for greater regulatory freedom from state government. While it is objectively true that the share of state spending going to higher education has declined over time, in most states this is also true of every other area of state spending except for Medicaid.

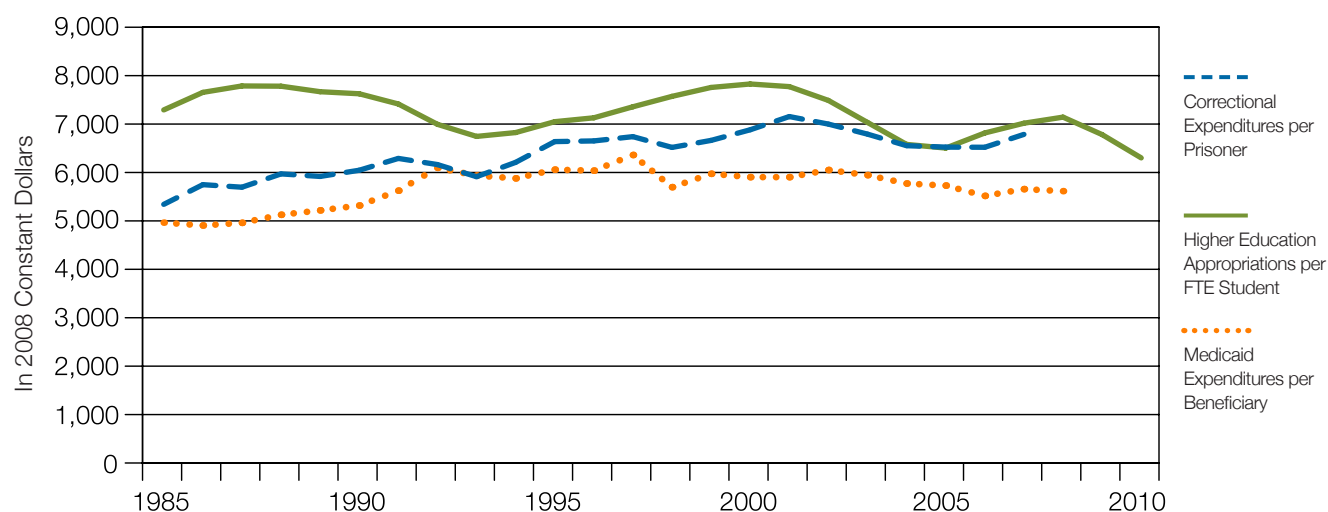
It is also the case that state revenues have declined as a proportion of institutional budgets, but not quite to the level claimed by some presidents of research universities who also count research contracts and grants, hospitals and auxiliary enterprises inside their bottom lines. Revenues for research and auxiliary enterprises are not fungible; they are special purpose revenues that are not directly available for general purposes. If institutions count only general purpose revenues, there are just two major sources—state appropriations and tuition and fees.

Unfortunately, this is evidence of a serious communication problem between state officials and higher education advocates. The importance of state funding support for higher education operating costs and capital expenditures should be recognized, as should the fact that state monies for higher education have indeed increased year over year in all but the worst years of a revenue downturn or major recession like the most recent one.

Rising Tuition and Cost Shifting

Whenever state funds have declined, institutions have tended to shift costs to student tuitions and fees. Tuitions are rising much more rapidly than spending. While one driver of tuition increases is replacement of state funds, other ways of keeping costs from rising have not necessarily been undertaken. Students are paying more, but in many cases less is being spent on them. Higher education may have less and less of an ability to increase tuition, as current trends indicate that softened market demand will require institutions to slow tuition growth rates going forward.

The issue of rising college tuitions is the most common frame for the higher education 'cost problem.' The current cost trajectory—and the ability to keep increasing tuition—appears to be unsustainable. Other actions by higher education such as increasing efficiencies may have to occur. Average published tuition and fees at public four-year institutions increased by 31 percent, after adjusting for inflation, between 2002-03 and 2007-08 and by another 27 percent between 2007-08 and 2012-13. Private nonprofit four-year colleges and universities

FIGURE 4: HIGHER EDUCATION, MEDICAID, AND CORRECTIONS PROGRAM EXPENDITURES PER POPULATION SERVED, FY1985–FY2010

Notes: Higher education and corrections data include only state expenditures; Medicaid data includes the federal share. Corrections data includes federal and state prisoner, parole, and probation population, but the federal share is quite small (about 5%); jail populations are excluded (they are generally under local, not state, jurisdiction).

Sources: Centers for Medicare and Medicaid Services, Center for Strategic Planning. 2010. *Medicare & Medicaid Statistical Supplement, Tables 13.1 and 13.4*, available at <http://www.cms.gov/MedicareMedicaidStatSupp/LT/list.asp>; University of Albany, Hindelang Criminal Justice Research Center. 2010. *Sourcebook of Justice Statistics Online, Tables 1.9.2006 and 6.1.2010*, available at http://www.albany.edu/sourcebook/toc_6.html; State Higher Education Executive Officers (SHEEO). 2010. *State Higher Education Finance FY2010, supplemental web data file "1985-2010 All States and National,"* available at http://www.sheeo.org/finance/shef/shef_data10.htm.

TABLE 2: STATE/TUITION SHARE OF EDUCATION & RELATED SPENDING, 2010 BY PUBLIC INSTITUTION TYPE

	Research		Master's		Bachelor's		Community Colleges	
	State Subsidy	Net Tuition	State Subsidy	Net Tuition	State Subsidy	Net Tuition	State Subsidy	Net Tuition
Nationwide Average \$ Per FTE Student	\$7,340	\$8,611	\$5,880	\$6,360	\$6,995	\$5,746	\$6,233	\$3,269
Nationwide Average Share of Costs Per FTE Student	43.8%	56.2%	47.1%	52.9%	52.5%	47.5%	63.8%	36.2%

Source: IPEDS Analytics: Delta Cost Project Database 1987–2010, 11-year matched set

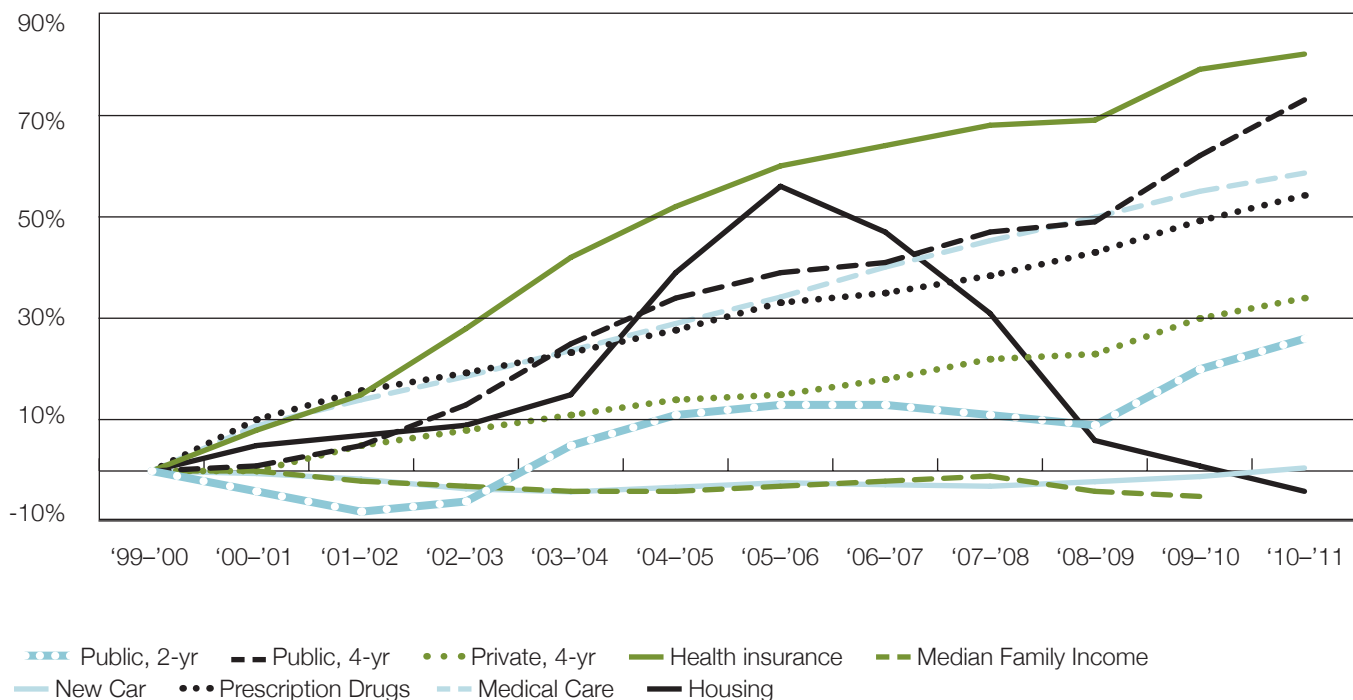
had smaller, but still sizeable, increases in published tuition and fee rates, which on average rose by 13 percent from 2007–08 to 2012–13, after adjusting for inflation.⁹

By any measure, college prices are increasing more rapidly than virtually all other major consumer spending areas, excluding health care costs. (See Figure 5.) Negative public and policy reactions to rising prices have also increased, and with them the critiques of spending priorities within higher education. The public values higher education and sees a great need for it. At the same time, it also sees higher education moving out of reach financially, and questions about the value of the

investment are arising in some quarters. A majority also think that institutions are increasing tuition out of concern for their own ‘bottom lines’ and could do more to manage funds without compromising quality or access.¹⁰

In an effort to distinguish between tuition increases that are caused by increases in spending, as contrasted to increases caused by cost-shifting, the Delta Cost Project has developed an aggregate measure of what it calls “education and related” (E&R) expenses per student. This is an average ‘full cost’ of operating expenses, including direct per student costs for instruction and student services, and a share of spending for

FIGURE 5: COLLEGE PRICES GROWING
PERCENTAGE CHANGE IN COLLEGE STICKER PRICE AGAINST OTHER CONSUMER AREAS, 1999–2011



Source: College Board, *Trends in College Pricing for higher education sticker price data*; Bureau of Labor Statistics for other consumer price information.

operations and maintenance, and academic and institutional support. Importantly, this excludes revenues and spending for sponsored research, auxiliary enterprises and hospitals. Looking at student tuition revenues as a share of E&R expenses, one can distinguish between price increases (the changes in tuition) as contrasted to costs (changes in E&R spending over time).¹¹ This is done by looking at the subsidy share of costs—the amount of average costs that is subsidized by the institution (through state funds or philanthropy)—versus the student share of costs, paid by students in the form of tuition (or scholarships that pay for tuition).

For public research universities nationwide in 2010, the *student* share of E&R was around 56 percent, with the *subsidy* share making up the remaining 44 percent of costs, on average. This represents a substantial shift from just a decade earlier, when the *student* share of costs averaged just 38 percent. The *subsidy* share of costs for master's institutions in 2010 was slightly higher than in the research sector, at 47 percent of costs, and highest in community colleges, at 64 percent of costs. However, the actual spending *levels* (until 2010) have historically been highest in the research sector. (See Table 2.) It should also be noted that there are considerable variations between states in their subsidy and tuition patterns.¹²

The Delta data are based on institutional reports to the federal Integrated Postsecondary Education Data System (IPEDS) system, and because they rely on expenditure data as well as revenues, they are roughly two years out of date. Since state funds have been reduced further since 2010, and tuitions have increased, it is important to consider that additional changes have already occurred. In the research sector, the student share is now likely closer to 60 percent on average, putting the state subsidy share in the arena of 40 percent of costs. While this subsidy share may be lower than it was twenty years ago, it is still far greater than what some university presidents claim it to be.

By any measure, college prices are increasing more rapidly than virtually all other major consumer spending areas.

Prices are also going up faster than spending, creating a price/cost gap. This gap is biggest in community colleges, with net tuition revenue up 40 percent in 10 years, against spending reductions averaging nine percent per student, and state funding reductions of 20 percent per student. In both the comprehensive institutions and in the research sector, tuition

The Unsustainable Cost Model: Growing Gap in Tuition Revenue v. Spending, 2000–2010

FIGURE 6: PUBLIC RESEARCH UNIVERSITIES

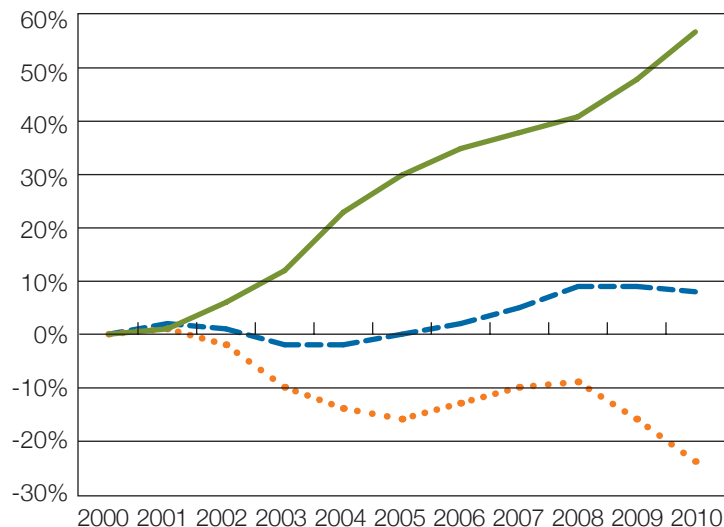


FIGURE 7: PUBLIC MASTER'S UNIVERSITIES

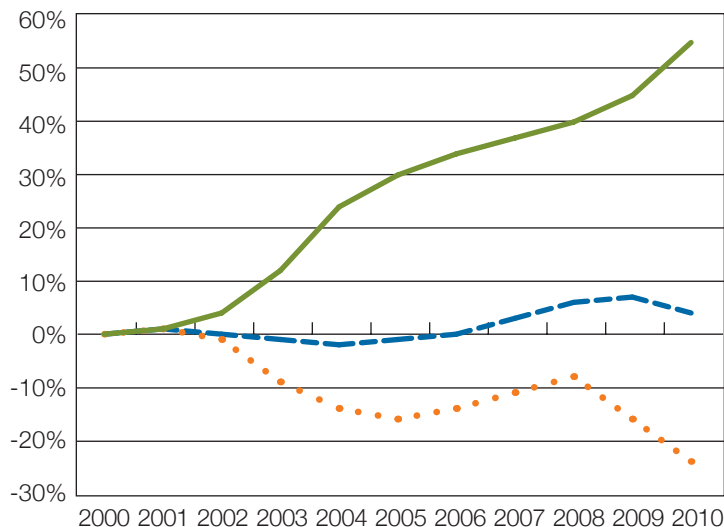


FIGURE 8: PUBLIC BACHELOR'S INSTITUTIONS

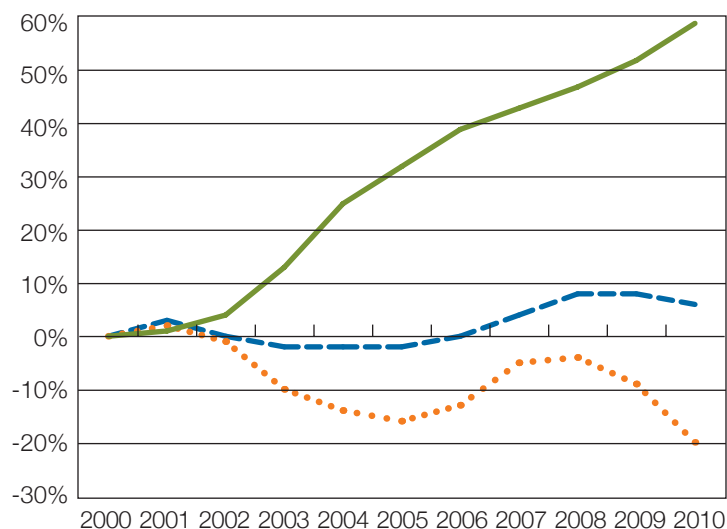
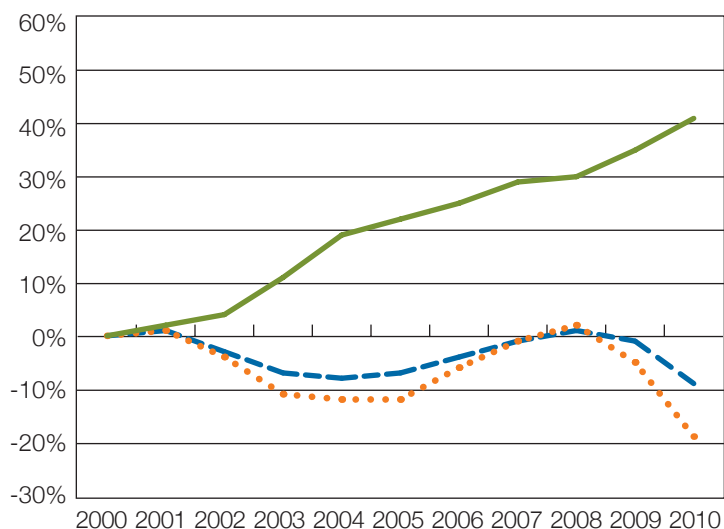


FIGURE 9: PUBLIC COMMUNITY COLLEGES



— Net tuition revenue - - - Education and related spending State and local appropriations

Source for Figures 6-9: IPEDS Analytics: Delta Cost Project Database 1987–2010, 11-year matched set. Note that all figures are in 2010 constant dollars per FTE student.

TABLE 3: EDUCATION AND RELATED FUNDING PER FTE AMONG PUBLIC V. PRIVATE RESEARCH UNIVERSITIES, 1987 AND 2010

	1987	2010	Average Annual Growth Rate
Public research universities	\$13,182	\$15,925	0.8 %
Private research universities	\$21,502	\$35,354	2.2 %

Source: IPEDS Analytics: Delta Cost Project Database 1987-2010, 24-year matched set. Figures are adjusted for changes in full-time enrollment (FTE) and in CPI-adjusted constant 2010 dollars.

increases have been steeper, allowing real (e.g., adjusting for inflation and for student enrollments) spending increases from 2000 through 2010 of a little less than one percent per year in both sectors. (See Figures 6-9.)

Although public research universities generally fared slightly better in revenues and spending per student in comparison to other public sector institutions, they were also falling behind private research institutions, where real spending increases were double those in the public sector. The funding advantage now enjoyed by private research institutions is a major concern for leaders in the public research sector, and a driver of institutional behavior around costs, pricing and spending. In 1987, private research universities spent \$1.63 per student on education and related expenses for every \$1.00 spent by public research universities. By 2010, this spending gap had widened, with the private research sector spending \$2.22 for every \$1.00 spent in the public research sector. (See Table 3.) State officials and public higher education leaders may need to acknowledge and accept that this disparity will continue to exist and missions may need to be adjusted accordingly.

Some signs point to a slowdown in tuition rate growth for the higher education sector. According to a report released in early 2013 by a credit rating agency, one-third of higher education institutions anticipate net tuition revenue to decline or grow below the inflation rate in fiscal 2013. Moreover, on average, this year's net tuition per student is projected to increase 2.7 percent, much lower than the annual average increase over the past five years of 6.7 percent. This new trend was attributed in the report to a combination of factors, including "weakened pricing power" due to reduced family income and uncertain employment prospects and challenges in growing enrollment for reasons discussed earlier in this paper. The press release also cites "tougher governmental scrutiny of higher education costs and disclosure practices" as another factor contributing to slowing tuition rate growth.¹³ In other words, market forces and governmental efforts are already working together to begin putting pressure on higher education institutions to restrict tuition increases and become more efficient.

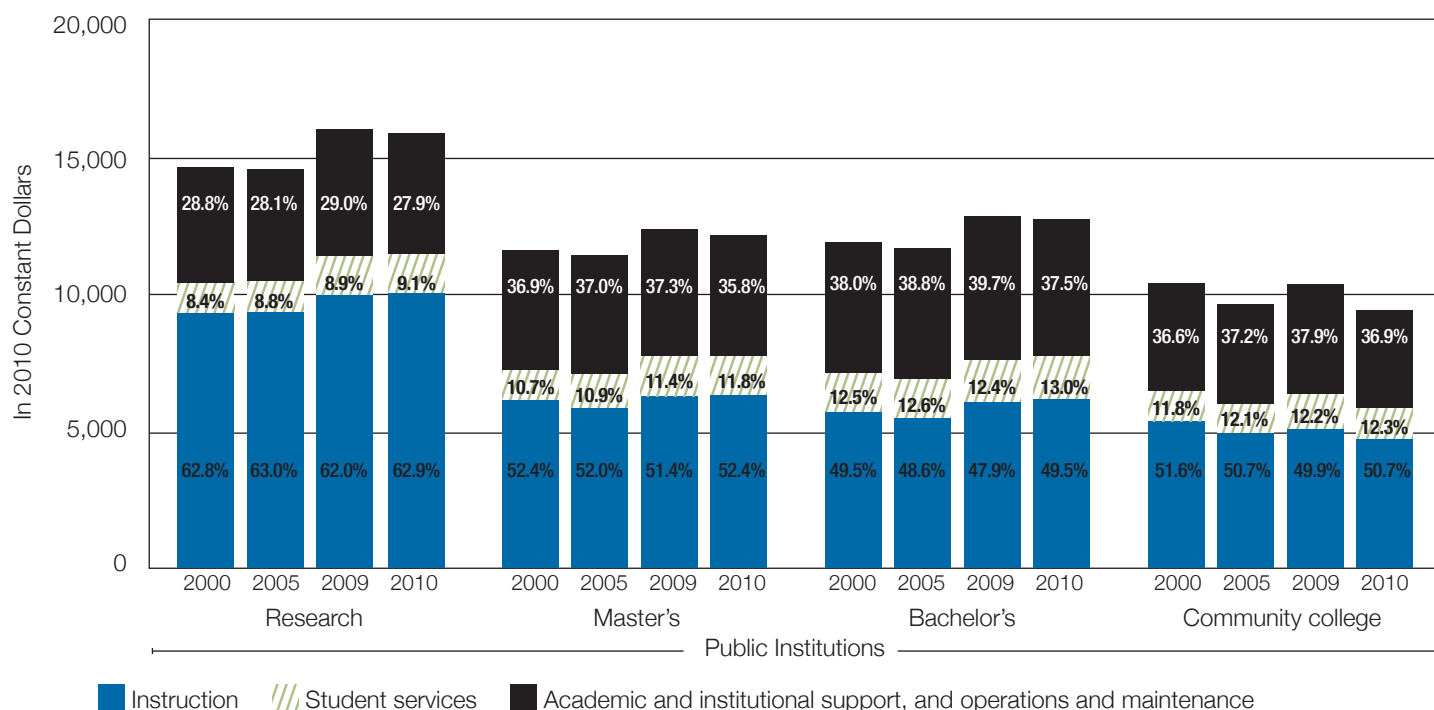
Institutional Spending Trends

Until the 2008 recession, institutional spending patterns showed more evidence of cost shifting and budget balancing than cost reduction or restructuring. Over time, spending on instruction has declined slightly, and administrative and general support costs have increased. Lower division education has historically been a source of 'cross-subsidy' to upper division and graduate education, a spending practice that may be contributing to high rates of attrition in the first two years of college.

Up to the latest recession, there has been little evidence of permanent changes to the core cost structures within colleges and universities. When faced with constrained resources, institutions have focused instead on budget cutting, through across-the-board cuts, hiring freezes, shifts to temporary and part-time workers, and layoffs. "Base" budgets and the formulae used to build them have not materially changed, although they are often being ignored or set aside. This is true even in the majority of states with performance-based incentives in place, since fixed costs for benefits and inflation are funded before performance incentives, and in this environment the 'new' money has run out before performance is funded.

Analysis of spending patterns within public colleges and universities institutions shows little evidence *either* of increased spending on education and related expenses *or* cost cutting over the 2000-2010 period. (See Figure 10.) Expenditure data by function is not yet available for 2011 and 2012. It is quite possible that analysis of these additional years will show more evidence of deeper spending changes in some sectors. However, the pattern following all prior recessions has been for institutions to engage in cost shifting, to raise tuition rates to replace in whole or in part declines in state funds, rather than to significantly reduce spending to keep tuitions from rising.

There are some slight trends, however, that probably reflect deeper patterns. One is a tilt away from spending on instruction in public masters' and community colleges, and a slight increase in spending on administrators and other professional titles. The decline in instructional spending is clearly related to the increase in the per-

FIGURE 10: AVERAGE EDUCATION AND RELATED SPENDING PER FTE STUDENT BY COMPONENT, 2000-2010 (IN 2010 DOLLARS)

Source: IPEDS Analytics: Delta Cost Project Database 1987-2010, 11-year matched set.

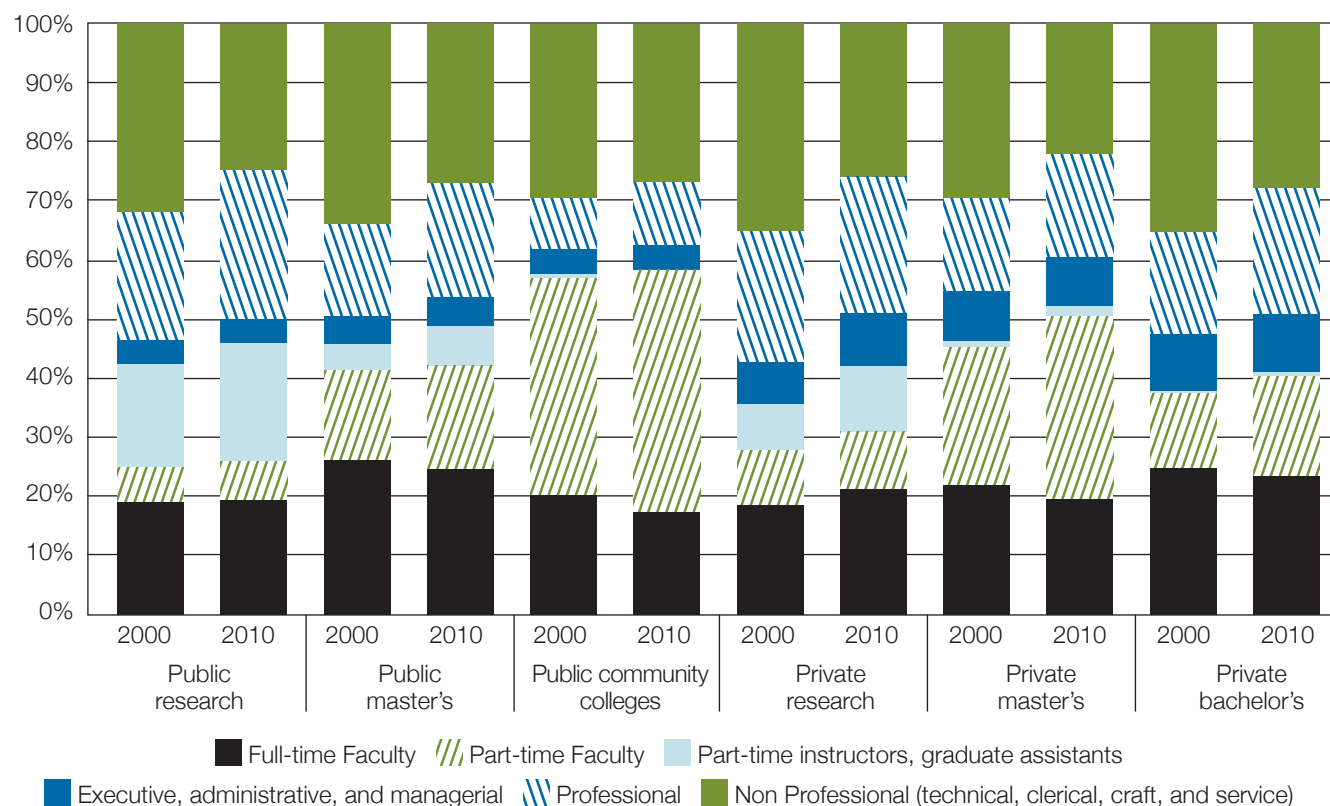
centage of part-time and adjunct faculty. The number of administrators as well as 'professional/technical' non-faculty has increased in all sectors. While these changes may not be driving college costs, they are a concern in many institutions because they occurred at the same time that full-time faculty positions were being lost, and student tuitions were going up. (See Figure 11.)

The pattern following all prior recessions has been for institutions to engage in cost shifting...rather than to significantly reduce spending to keep tuitions from rising.

Institutional spending habits in public higher education have long suppressed spending at the lower division level (freshman and sophomore levels), in favor of higher spending for upper division (junior and senior levels), graduate and professional education, which tend to be more expensive (for example, due to smaller class sizes). These spending patterns were first developed in the public research universities, and from there im-

ported to public masters' and community colleges. They reflect both institutional habits and spending priorities for small class sizes and greater use of full-time faculty at upper division and graduate levels. They also reflect the organization of the curriculum, with fewer course titles and greater standardization of the curriculum in the entry level core courses.

Recent national data on spending by level of instruction is not available, as very few institutions and states monitor or publish such data. The National Study of Instructional Costs & Productivity conducted at the University of Delaware (nicknamed "The Delaware Study") show that instructional level and discipline explain more about spending differences between institutions than any other variables.¹⁴ Four states do maintain detailed expenditure data: Ohio, Illinois, New York (SUNY), and Florida (4-year institutions). A meta-analysis of that data by the State Higher Education Executive Officers (SHEEO) in 2010 show these spending patterns, with lower division education accounting for 36 percent of all credits taken, against 23 percent of spending on instruction, whereas graduate education accounts for just 16 percent of the credits, against 32 percent of spending.¹⁵ On average, unit costs of upper division instruction are about one and a half times that

FIGURE 11: DISTRIBUTION OF EMPLOYEES BY JOB TYPE, 2000 AND 2010

Source: IPEDS Analytics: Delta Cost Project Database 1987-2010, 11-year matched set; IPEDS Fall Staff Survey, 2010.

of lower division instruction; spending on graduate education is four times that of lower division education. (See Table 4.) In some cases, the higher cost areas are paid with dedicated funding sources, such as higher tuitions for professional programs, or through endowments of faculty positions. But for the most part, the higher cost programs are supported through cross-subsidies, or a reallocation of funds from lowest cost, lower division courses to pay for the higher cost programs.

The internal patterns of cross-subsidies are problematic for several reasons. The first relates to spending and student success. Over 60 percent of attrition from higher education occurs in the first two years of study—where unit costs per student are lowest. (See Figure 12.) In many states and systems, students at this level are effectively ‘profit-centers’ for the institutions—bringing in more money in enrollment-related revenues and tuition than is being spent on them. While it is not obvious that more spending alone would increase student success, the magnitude of the spending differences and the attrition patterns are too great to be ignored. Attention to increasing lower division success is at the center of a number of higher education reform initiatives, such as the work of Complete College Amer-

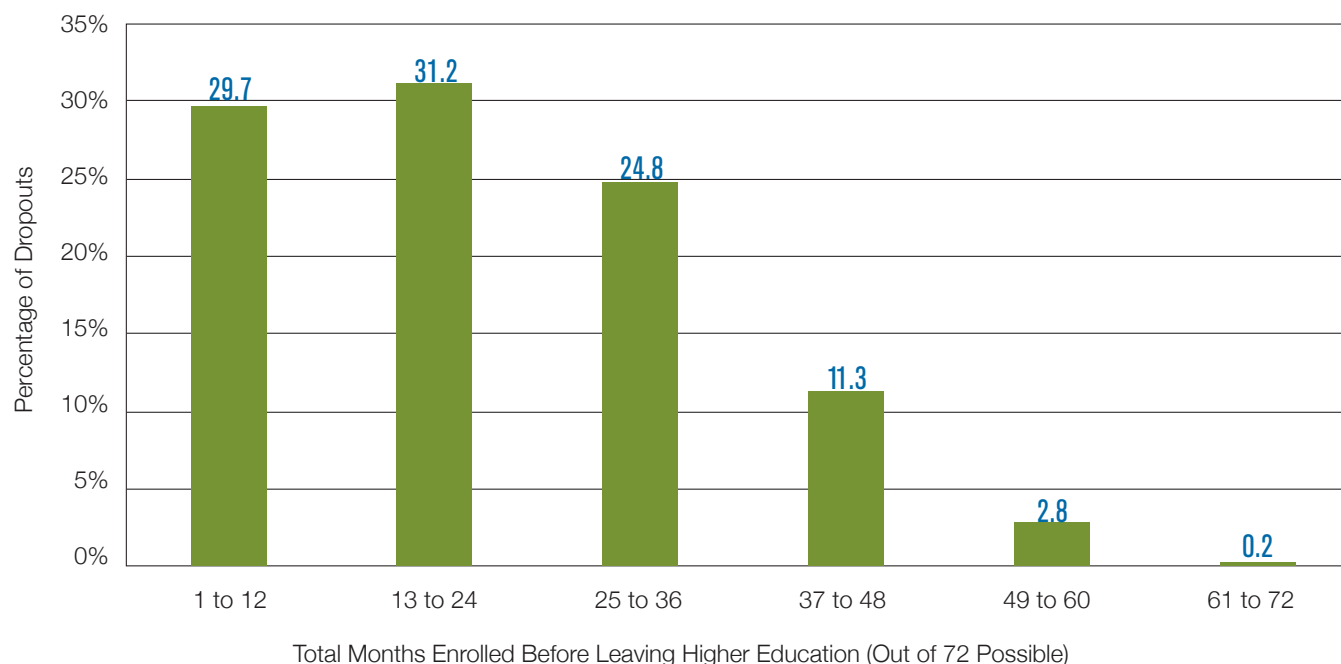
ica, a national nonprofit focused on increasing quality postsecondary education attainment, and to efforts to change budgeting to focus on student success rather than inputs alone. These experiments are discussed in more detail in the next section.

A second issue with cross-subsidies relates to tuition policy, and whether it is appropriate for public institutions to be charg-

TABLE 4: CREDIT HOUR DISTRIBUTION AND AVERAGE INSTRUCTIONAL COSTS

Averages of four-state cost study (SUNY, Florida, Ohio, Illinois)			
	% of all credits taken	% of total spending on instruction	Average weighted cost/credit
Lower Division	36%	23%	1
Upper Division	48%	44%	1.42
Grad 1	12%	23%	2.88
Grad 2	4%	9%	4
	100%	100%	1.55

Source: State Higher Education Executive Officers (2010).

FIGURE 12: PERCENTAGE OF ALL DROPOUTS BY CUMULATIVE MONTHS ENROLLED, BEGINNING POSTSECONDARY STUDENTS, 2003-2004

Source: Delta Cost Project, *Cost of Attrition* (2012), from National Center for Education Statistics, *Beginning Postsecondary Students (BPS) Longitudinal Study, undergraduates only*.

ing students more than is being spent on them. At a time when states were the primary source of subsidies for higher education, public funds paid for the higher spending on graduate education. That is changing now, with the rising share of revenues coming from student tuition. In many public four-year institutions, it is likely that lower division students are now paying more in tuition and fees alone (independent of living expenses) than is being spent on them. While some “cross-subsidization”

is likely to always occur, this raises issues of equity and fairness, as well as efficiency and effectiveness.

Another key driver of tuition increases is the rising cost of employee benefits, which is the fastest-growing area of spending in public higher education. Benefit costs per full-time employee are rising at an average rate of 5 percent per year in the public sector—more than twice the rate of increase in private nonprofit institutions. (These figures are taken from IPEDS data, so the split between pension costs and health care costs is not known, although for the 2000 period it is likely most of these increases were going to health insurance.) The underfunding of retirement systems and the growing unfunded liabilities in those areas will only increase cost pressures in the years ahead. (See Table 5.)

TABLE 5: CHANGES IN EMPLOYEE COMPENSATION, 2002-2008

	Salary outlay per employee	Benefit cost per full-time employee	Compensation per employee	Compensation per FTE student
Public Institutions				
Research	1.5%	5.2%	2.3%	1.6%
Master's	-0.2%	4.6%	0.9%	0.6%
Community colleges	0.8%	5.2%	1.7%	1.1%
Private Institutions				
Research	0.1%	1.6%	0.5%	1.7%
Master's	0.0%	2.4%	0.4%	0.6%
Bachelor's	-0.1%	1.3%	0.2%	0.7%

Source: IPEDS Analytics: Delta Cost Project Database 1987-2010, 11-year matched set.

A special analysis of spending and options for productivity created by the National Center for Higher Education Management Systems (NCHEMS) for the Lumina Foundation found that spending on employee benefits per FTE *student* (not employee) in 2008 averaged \$3,153 in public masters' institutions—compared to \$3,923 in instructional salaries.¹⁶ One way of putting that into context is to frame it as a percentage of tuition and fees, which in 2008 were around \$5,600 on average across the nation. In that context, with no new money from state funds, benefit increases of 5 percent per year will require perpetual increases in student tuitions of around 4 percent per year.

One of the dynamics that makes benefit costs so problematic has to do with decision authority over them. Many states (an exact number is not known) determine benefits at the state level, and pass on the costs to the institutions. In many other states, benefits are determined through collective bargaining. Unless unions agree to changes in benefits through bargaining, it will be difficult, if not impossible, for states or institutions to unilaterally control this cost category. Further analysis should be done as to the impact of employee benefits on higher education costs and how to deal with the issue. If these employee benefit challenges are not fully addressed, many other higher education finance issues will continue to be a serious problem.

States Increasing Their Focus on Results and Performance-Based Budgeting

State budgeting practices have changed over time, and a number of states have experimented with and/or implemented some form of performance-based or outcomes-based budgeting models for higher education and other program areas.

State budgeting for public services has evolved over the last forty years from program-based systems (PBS), to formula-funding models, and now increasingly to performance, results or outcomes-based efforts. All of the models are predominantly incremental, with the base budget set based on prior year appropriations, and adjustments then made to account for ‘fixed costs,’ inflation, salary increases, workload (enrollment), and other priorities. In performance-based systems, at least in theory, adjustments to the base budget are based on evidence of improvements in select performance measures. Some states have well-established, mature performance measurement systems in place to help inform budgetary decision-making. Meanwhile, others are just starting to implement performance-based or results-based budgeting reforms.

In higher education, a performance-based budgeting approach means that public funding is allocated to institutions—at least in part—based on outcomes such as student retention or degree production instead of or in addition to traditional workload or output measures like enrollment. A survey of college and university business officers about budget practices and effectiveness conducted in 2011 by *Inside Higher Education* shows that public institutions report a combination of approaches, with over 75 percent characterizing the approaches as incremental, despite a growing percentage (around twenty percent) also experimenting with performance-based funding. The survey also asked CFOs about their perceptions of the effectiveness of their budget model. Without asking them precisely what they mean by ‘effective,’ a bare majority of the CFO’s reported their systems to be ‘effective’ in the sole category of ‘managing resources during good times.’ When asked



Another key driver of tuition increases is the rising cost of employee benefits, which is the fastest-growing area of spending in public higher education.

about how the models helped in using data, developing new business plans, helping them to set priorities, or managing resources during difficult times, less than 30 percent of CFOs reported that their budget models were ‘effective.’¹⁷

The trend in the past few years for state higher education funding has been away from adjusting base funds based on enrollments, to allocations based on some measure of performance or outcomes. Advocates of performance, results, or outcomes-based budgeting argue that funding on performance shifts incentives away from inputs or enrollments, to results.

The history of performance or outcomes-based funding in higher education is mixed at best however.¹⁸ Early experiments with performance-based models in South Carolina and Tennessee died of their own weight, laden down by so many indicators that they lacked face value either with institutions or policy makers. These efforts were basically variations on formula- or cost-based models, with incentives added to enhance funding to institutions that met a variety of performance goals. These models have given way in the current environment to what many are calling performance-funding

2.0, a “re-set” in effect, which is focused almost entirely on meeting state needs for increased student retention and degree production, with incentives provided to institutions that show progress in retention and graduation.¹⁹

Performance-based models are being promoted by a number of national and state-based organizations interested in increasing postsecondary attainment with reduced costs, including the Lumina Foundation, the National Governors Association, Complete College America, and NASBO. Their proponents argue that these models shift institutional incentives away from enrollments to results, such as credit hours or degrees completed. Skeptics about performance-based funding models raise questions about whether they might induce institutions to also reduce quality, and to pass on degrees to students without paying attention to learning results. Both sides recognize the need for more evidence about learning outcomes, and not just credit or degree production, if quality is to be maintained or increased under these new funding structures.

Use of performance-based funding models for higher education is growing increasingly popular at the state level. A recent study on developments in performance-based funding performed by HCM Strategists for the Lumina Foundation’s productivity initiative identified and reviewed performance funding models for higher education in six states or state systems. These included Indiana, Florida, Washington, Pennsylvania, Ohio, and Tennessee. The study also highlighted other states in the process of adopting performance-based funding for colleges and universities, such as Colorado, Arizona, Illinois, Texas, Arkansas, and Mississippi.²⁰

Evolving Role of the Federal Government in Higher Education Finance

Although states have historically been the primary funders of higher education, the federal fiscal role is growing as tuitions increase. If current trends continue, in ten years the federal government could have a larger subsidy share invested in higher education in Pell grants alone than do states, whose budgets are increasingly being crowded out by Medicaid and K-12 education. At the federal government level, key leaders including the President have also been discussing policy changes involving increased accountability and making higher education more affordable.

Historically the federal role in higher education finance has been to pay for functions rather than for institutions, via contract and grant funding for research, through student financial aid grant programs, and via subsidies for federal loans. It provides relatively little direct aid to institutions. However, as

student tuition revenues have grown, the federal role as an indirect but important source of subsidies for tuition is also growing. There are not good estimates of the proportion of tuition dollars that are effectively subsidized by the federal government through grant aid. Using estimates based on the Pell share of tuitions, roughly 20 percent of tuition revenue nationwide is currently supported with federal grant dollars. The federal share of tuition subsidy is highest in the community colleges (around 43 percent) where the Pell population is largest, and lowest in the private four year institutions (around 7 percent) where tuition rates are highest.²¹

As the federal interest and investment in higher education has grown, so also has federal interest in the public policy agenda for higher education, notably in the Obama administration’s interest in increasing higher education attainment and in controlling costs, and prior to that the Bush administration’s interest in improving public accountability. Both administrations have been advancing an agenda of stronger federal policy capacity for higher education, through goals for attainment and more aggressive enforcement of quality control via accreditation.

In 2012, President Obama proposed several new initiatives for higher education, designed to address rising college tuitions and to create incentives for states and institutions to control growth in tuitions. Among other provisions, the package included reallocation of federal campus-based aid programs to reward institutions showing progress in holding down tuition costs, as well as a \$1 billion fund for the “Race to the Top: College Affordability and Completion” challenge to provide incentives to states to reform and reinvest in higher education to hold down tuition costs. Neither proposal made much progress in Congress, but the President reaffirmed his commitment to containing costs and increasing accountability of colleges and universities in his 2013 State of the Union address, again calling on lawmakers to begin tying certain federal financial aid to outcomes. The President also announced the launch of the U.S. Department of Education’s “College Scorecard,” an interactive tool to provide students and families with more information about the costs and benefits of higher education institutions across the country.

States should expect to see the federal government continue on this path toward a stronger policy role in postsecondary education, particularly around student success, accountability, quality, and productivity. However, with the federal budget situation as it is, states and institutions should probably not look to the federal government as the source of fiscal salvation for their public higher education funding challenges.

Part II: State Efforts to Improve Higher Education

Though much work lies ahead to address the key challenges facing state budgets and public higher education systems, many states have already begun to tackle some of the fundamental issues discussed in the previous section of this report. Strategies vary in their specific objective and design, but they all share a broader purpose to advance reforms that will help the higher education system better serve public interests. The strategies and reforms described in this section focus on funding based at least in part on performance, restricting tuition, expanding access, increasing cost efficiency, and improving information.

State budget directors and higher education budget analysts assembled twice in 2012, once in April and again in August, to discuss how states can leverage the budget process to better achieve the goals of the public higher education system. Support provided by the Bill & Melinda Gates Foundation helped bring together more than 40 state budget officers and staff members for the two meetings, along with NASBO staff and Jane Wellman, the founding Director of the Delta Cost Project, a non-profit organization devoted to developing data and policy tools to improve performance in the postsecondary education system. These sessions, along with subsequent discussions with state budget officers and other research, together informed the following overview highlighting state-led reforms and initiatives to improve postsecondary education through a variety of funding mechanisms.

Strategies vary in their specific objective and design, but they all share a broader purpose to advance reforms that will help the higher education system better serve public interests.

Funding Performance and Results

One key trend observed among states is growing use of and interest in performance, results-focused, or outcomes-based state funding for colleges and universities.

STRATEGIES USED TO FUND PERFORMANCE



- Distribute a set percentage of funding (or any increase in appropriations) to institutions based on certain performance targets.
- Allocate all appropriations based on an outcomes-based funding formula.
- Build performance models tailored to institutional mission.
- Reward institutions that increase number of degrees in workforce priority areas.
- Encourage institutions to use performance information to make targeted investments.

In recent years, a number of states have begun to shift from funding higher education based solely on outputs such as enrollment to funding based at least in part on key performance outcomes such as degree completion. For example, in Michigan, the legislature in 2012 increased state appropriations for public higher education by 3 percent, and these additional funds were completely tied to performance outcomes. In order to do this, the state conducted a three-year retrospective review to establish benchmarks and targets for select performance metrics, such as growth in degrees completed. While the use



of performance-based funding strategies is very young in the state, it has begun to change the dynamic between the state and its institutions of higher learning.

For decades, Tennessee has allocated a small percentage of higher education appropriations to institutions based on certain performance metrics. However, until recently, most state dollars were tied to enrollment. This changed with the passage of the *Complete College Tennessee Act* (CCTA) in 2010, which established an advanced, comprehensive outcomes-based funding formula for its higher education system. All public funding support for institutions is run through a performance model. The model is not “one-size-fits-all” however. The state understands that each type of school—community colleges, technical colleges, flagship university system—has a unique mission, and therefore also has a different outcomes model. Over years of developing this performance management system, the state has worked to define outcomes while allowing institutions to assign their own weights to various metrics. In order not to penalize institutions while this system was still under development and in flux, the state put in place a “hold harmless” feature whereby institutions would not lose any funding for failing to meet performance goals. However, this feature began to be phased out in 2011-2012 and is planned to be fully phased out for the 2013-2014 period.²² At that time, the state will begin to practice true outcomes-based budgeting,

tying state funding to institutions’ outcomes in key areas, including how well they steer students towards science, technology, engineering and math (STEM) degree programs. Due to the administrative complexity of such a system, the state has a separate office and staff to operate the higher education budget on an annual basis, and also has developed advanced data systems to support the process.

Indiana first adopted a performance-based funding formula in 2003 with a research incentive, and the formula has continuously evolved over time. It is now a key method promoted by the state’s “Reaching Higher” strategic plan for public higher education, first adopted by the Indiana Commission for Higher Education in 2008 and updated earlier this year. The latest version of the strategic plan notes that Indiana began allocating five percent of overall state higher education funding based on a performance formula, and that the state’s 2011-13 biennial budget maintains this funding approach. Additionally, in response to a request from the legislature, the Commission also proposed a revised performance formula that will reward effective remediation, student persistence and completion, increases in workforce priority (STEM) fields, and on-time graduation, while also being tailored to each institution’s mission.²³ The Commission officially adopted this new formula in August 2012 and will recommend to the legislature how to use it to distribute performance funding dollars.

Other states are looking to Tennessee and Indiana for inspiration as they embark on the path to improving performance through funding mechanisms. This fiscal year (FY 2013), New Mexico began setting aside five percent of higher education appropriations to be tied to performance. Rather than the standard enrollment formula, this performance funding is allocated based on course and degree completion, with additional funding incentives to reward institutions for degrees awarded in STEM and health care fields. Like Tennessee, New Mexico's performance-funding formula also stays away from a "one-size-fits-all" approach, instead tailoring performance metrics to the particular missions of different postsecondary education institutions.

In South Dakota, the Board of Regents adopted a performance funding model that distributes \$3 million in one-time appropriations from the state legislature based on performance, to be matched with the same amount from public universities' base budgets. Specifically, the allocation of funds is based on cumulative data on graduate production over three years, with larger rewards for degrees at higher levels and in certain workforce-priority fields.²⁴

Several governors have introduced proposals to increase postsecondary education attainment in their states through use of performance funding methods. The governor of Texas has recommended that the legislature tie 10 percent of state funding to the number of students an institution graduates. Utah's governor has set mission-based performance funding for higher education as one of his administration's legislative priorities to support his PACE Plan, which aims to ensure that 66 percent of the state's adult population holds a postsecondary degree or certificate by 2020. In Ohio, the governor's budget proposal for fiscal years 2014-2015 includes a new funding formula for higher education that links college graduation rates to campus funding aimed at increasing degree completion, along with other performance-based policy changes.²⁵

The state of Washington still uses a funding formula tied to enrollment, but is in the process of exploring ways to tie funding to outcomes and promote STEM majors. Kentucky is also interested in moving towards performance funding. While the state does not yet have a formal system that ties funding to performance measures, it does track certain performance indicators to inform decision-making more broadly and make targeted investments where returns are likely to be high. For example, the state has institutions focus on encouraging college-dropouts who have completed at least 60 credit hours to return to school to complete their degrees. Meanwhile, Massachusetts, which has a highly decentralized higher education system, is using "Performance Incentive Grants" to make targeted investments by soliciting proposals from various public colleges and universities and rewarding the best ideas with funding support.

Restricting Tuition Increases

States have various levels of influence over tuition policy depending on the state university system's governance structure, political dynamics, and other factors. Some have formal authority to set or restrict tuition levels, while others use indirect funding mechanisms to encourage institutions to limit tuition increases.

STRATEGIES USED TO RESTRICT TUITION INCREASES



- Set tuition and fee levels through central coordinating board appointed by the governor.
- Buy down system's tuition increase with a designated amount of general funds.
- Require institution to keep tuition increase below historical average in order to qualify for a pot of money set aside by the state.
- Require that undergraduate tuition increase not exceed historical average increase.
- Set maximum tuition increase allowed by institutions.
- Encourage institutions to find innovative ways to offer low-cost degree options for students.
- Establish guaranteed tuition plan to enable students to pay the same tuition rate for four years.
- Eliminate use of tuition set-asides for financial aid purposes and replace with a new or expanded state grant program.

For example, Kentucky has a central coordinating board, appointed by the governor, which sets tuition levels. The University of Wisconsin System is also governed by a Board of Regents, with the majority of its members appointed by the governor and subject to Senate confirmation, and must review and approve the system's operating budgets and tuition rate increases. The University of North Carolina (UNC) Board of Governors, meanwhile, is made up of members elected by the state general assembly, and has the ability to set tuition policy. Beginning in the 2007-08 academic year, then UNC President Erskine Bowles proposed and the UNC Board of Governors approved a cap on annual increases in tuition and fees for undergraduate resident students of 6.5 percent, the average annual increase in tuition since 1972. However, this cap has not always been adhered to in recent years, and the Board of Governors' latest tuition plan, approved in 2010, allows for one-time increases exceeding the cap when a campus can demonstrate a need to "catch up" to the tuition levels of similar institutions.²⁶

While many states do not have much direct say in setting tuition policy, they can sometimes use funding strategies as enforcement mechanisms to incentivize institutions to limit tuition increases. States found this ability particularly critical to restricting tuition hikes during the recession in response to state funding



cuts. To prevent institutions from shifting a greater cost burden to students following the cuts, Michigan lawmakers implemented a higher education funding formula, not only to tie some funding to performance as discussed above, but also to create an incentive to limit tuition increases. More specifically, the state set aside a percentage of an institution's state funding equal to the institution's average percentage increase in tuition over the previous five years. In order to qualify to receive this pot of money, an institution could not raise tuition by more than the five-year average rate of increase for all state institutions. For fiscal year 2013, the state used a different method to restrict tuition rates, setting aside a pot of funding for which universities could compete. In order to qualify to receive these competitive funds, an institution's tuition and fees percentage increase was required to be less than or equal to 4 percent. The funds were then distributed to each eligible institution based on how far below this limit the institution's percentage increase in tuition and fees was. According to a staff member in the Michigan budget office, all public universities chose to participate in this competition and qualified for funding in fiscal year 2013.

Maryland provides an example of another approach to using funding strategies to encourage institutions to keep tuition rates down. The state negotiated an agreement with the higher education system whereby the system would cap tuition increases at a certain level and the state would buy down the system's tuition increase by providing a certain amount of general funds. For instance, for the state's FY 2012 budget, the state provided \$9 million to ensure that tuition increased by no more than 3 percent.²⁷

In multiple states, governors have called on public higher education institutions to find innovative ways to offer low-cost degree options to students. In Texas, the governor issued a challenge to institutions in 2011 to offer bachelor's degree programs that cost \$10,000 or less over four years. As of October 2012, ten public universities had already responded to the challenge by announcing or implementing a \$10,000 degree option.²⁸ Florida's governor also recently issued a \$10,000 degree challenge to the state's university system.²⁹

Some public colleges and universities have also set up guaranteed tuition programs that enable students to pay the same tuition rate for four years of undergraduate study to increase predictability, improve students' ability to plan, and encourage on-time degree completion. For example, in 2004, all public colleges and universities in Illinois began making a tuition rate guarantee to new undergraduate students for four calendar years in accordance with legislation passed by the state.³⁰ More recently, beginning in fall 2012, Northern Arizona University made such a pledge to incoming undergraduate students.³¹

The state of New York recently adopted another type of initiative aimed at restricting annual tuition increases and providing greater certainty to students and their families. For years, the State University of New York (SUNY) system's tuition had been constrained through the state appropriations process. SUNY was not permitted to raise tuition rates except occasionally to replace cuts to state funding support. This would result in several years of stable tuition rates followed by a year or two of huge tuition hikes. SUNY's new approach, adopted by the Board of Trustees in 2011, implements a "rational tuition policy" whereby smaller regular increases in SUNY tuition rates are permitted on an annual basis.

Another trend that can be observed in a growing number of states is public universities shifting away from earmarking a portion of tuition revenue from middle- and high-income students to fund financial aid for low-income students, as well as merit aid for high-achieving students. This "tuition set-aside" approach, widely used by private institutions, had become more common at public colleges and universities in recent decades as a way for institutions to accomplish their goal of enrolling both low-income and gifted students, without having to rely on state appropriations for aid programs. Not surprisingly, public debates over the fairness of this "tuition set-aside" practice, especially in light of fast-rising tuition costs, have arisen in several states. One example of this can be found in Iowa, where public universities began using tuition set-asides to fund financial aid in the 1980s. In October 2012, the state's board of regents eliminated their practice of earmarking 20

percent of tuition revenue from in-state students for financial aid programs, which will bring down the sticker price of attending the state's public universities by \$1,000 per year. The board hopes to replace this financial aid funding source with a new statewide need-based grant program, which will require nearly \$40 million in additional state appropriations.³² This shift away from tuition set-asides also aligns with states' goal to enhance the financial transparency of their higher education institutions, discussed later in Part II.

Expanding Access

Another matter of great interest to state budget officers, as well as many other public officials, is preserving and expanding access to higher education, and ways to align this objective with the goals of increasing completion rates and other outcome measures.

STRATEGIES USED TO EXPAND ACCESS



- Award funding premium to institutions for graduating financially at-risk or nontraditional students.
- Steer more students to start postsecondary education at community colleges.
- Simplify and streamline transfer process from community college to four-year institutions.
- Add or expand need-based scholarship programs.

States recognize the benefits that performance funding can potentially offer, but also worry about unintended consequences of such reforms, as they could provide a disincentive to institutions to accept higher-need student groups. A key challenge will be: How can states fund colleges and universities based on performance measures such as completion rates, while at the same time reward these institutions for educating low-income, nontraditional, and other at-risk students? Tennessee had these very concerns in mind when establishing its performance funding system described above. The state knew it would have to create the right incentives and hold public institutions accountable for the quality of the education they provide, but also for their commitment to promoting college access. As such, the state awards a 40 percent funding premium to institutions for graduating nontraditional (adult) students from bachelor's degree programs. In its new performance-based formula for higher education funding, New Mexico also included a funding incentive for institutions to award degrees to students defined as financially "at-risk," while the performance funding formula recently adopted by the Indiana Commission on Higher Education allocates about a third of the state's performance funding to institutions based on low-income student persistence and completion.³³

Also, to reduce student debt levels, particularly for low-income students, Tennessee has implemented reforms to steer more students towards starting their postsecondary education at community colleges and make it easier for them then to transfer to four-year institutions. According to the National Conference of State Legislatures, additional states, including Colorado, Indiana and Mississippi, also passed legislation in 2012 to make it easier for students to transfer credits among the public higher education institutions in their states.³⁴ With a similar objective in mind, Michigan lawmakers created an incentive for universities to adopt policies and participate in programs that simplify the transfer process by establishing these as prerequisites to be eligible for the performance funding pot of money discussed earlier in this report.





Improving Useful Information about Higher Education Spending and Results

In response to the fast-growing transparency movement in the public sector, state governments are aiming to provide more information to the public. The issue of transparency can relate to a variety of areas—transparency in performance indicators (such as graduation rates), transparency in revenues and expenditures, etc.

STRATEGIES USED TO IMPROVE INFORMATION



- Require institutions to submit detailed cost and performance information to state budget offices for use in decision-making.
- Establish standards for institutions to follow in disclosing key accountability and financial metrics to the public to make students and parents more informed consumers.

Well-guided efforts in the states to improve transparency are driven by goals similar to those behind performance funding. Both are based on a desire for greater accountability and better information for decision-making. The case for more transparency though tends to focus on increasing accountability and information for not only state officials, but also the public—particularly students and parents, the direct consumers of higher

education institutions, as well as taxpayers. Of course, it is important to be aware of the differences between higher education performance indicators (such as graduation rates) that will be important to students, parents and policymakers and the data of interest to the general public and other groups.

For example, Indiana passed a law in 2011 resulting in the Financial Transparency Project, which requires Indiana's public colleges and universities to submit audited financial statements and other financial documents to the state's Commission for Higher Education to make sure this information is consolidated and easily accessible to the public. In addition, the Commission also called for greater college cost transparency aimed at educating students and families about the net price of attending Indiana colleges, partnering with state agencies and non-profit organizations to provide this information via a user-friendly web portal.³⁵

Massachusetts' Open Checkbook online database serves as another example of a recent state-led initiative to increase spending transparency for public higher education as well as all state government agencies. Michigan collects expenditure data from colleges and universities in a central database, and effective this fall, each state higher education institution will be required to post every expenditure and human resource record for public disclosure.

Increasing Cost-Efficiency

Certainly, the strategies highlighted above to fund performance, restrict tuition increases, expand access and improve information are all aimed in part at creating incentives for public higher education institutions to be more cost-efficient, but are primarily focused on improving performance, accountability, information and equity. This last section of Part II focuses on strategies intended first and foremost to cut costs and enhance productivity.

STRATEGIES USED TO INCREASE COST-EFFICIENCY



- Conduct multi-year expenditure forecasts to encourage long-term investments.
- Require student vote on all amenity and facility upgrades, and provide students information about the costs and additional revenue required for such upgrades
- Create incentives to promote spending on deferred maintenance.
- Require institutions to set aside some tuition revenue for infrastructure projects.
- Offer more introductory courses online or in re-engineered formats.
- Limit number of credits that institutions can require for degree completion.
- Reward institutions and students to encourage on-time or accelerated degree completion.
- Restrict remediation coursework at four-year institutions and redesign remedial education.
- Realign institutional structures to capture administrative efficiency gains and avoid duplication.
- Establish entity(ies) to identify and recommend cost-cutting strategies.

A number of states have leveraged technology to deliver more online education options. Launched over a decade ago, the Virginia Tech Math Emporium learning center—with hundreds of computer workstations and staff on-site to assist students enrolled in a number of courses—has served as the model for other institutions in how they deliver introductory mathematics courses. Maryland redesigned its system's introductory courses so that some of them can be offered online, and also has an entire institution, University of Maryland University College, that focuses on distance and online learning. Budget officers from Maryland and Virginia both noted the need to gain buy-in from faculty in order for such initiatives to work. Maryland also pointed out that while delivering introductory courses online may not have necessarily been “cheaper,” this method did result in higher course pass rates than did the traditional in-person delivery method, and might therefore be more “cost-effective.” California's gover-

nor recently urged the state's two major public higher education systems to expand online learning and reduce costs, and reached an agreement with a private company to make available three introductory courses through a massive open online course (“MOOC”) format.

During the NASBO convenings, many states raised questions about how their peers support capital projects and promote deferred maintenance on college campuses, while at the same time discouraging wasteful or excessive spending on unnecessary facilities. South Dakota explained that the state requires public higher education institutions to direct 20 cents out of every tuition dollar to an infrastructure fund to support construction projects, since these are not funded by general fund appropriations. In addition, the state requires institutions to pay for any additional operating costs that result from campuses increasing their footprint, which in turn incentivizes universities to invest in deferred maintenance or repurpose existing facilities rather than undertake new construction when possible. Kentucky requires that institutions put all amenity and facility upgrade projects up to a vote by students to put a check on universities' spending on non-academic activities. Under a higher education reform law, the state also conducts six-year expenditure forecasts to encourage a multiyear investment approach by institutions.

Some state cost-cutting strategies target reducing time until degree completion. Indiana passed a law recently mandating that all baccalaureate degree programs at public higher education institutions require no more than 120 credit hours without special approval from a state commission. Similarly, community colleges must require no more than 60 credit hours for associate degree program completion without special justification.³⁶ Missouri's governor developed the “Innovation Campus” grant program for public higher education institutions to create three-year degree tracks for some students, in part by helping students pay for college-level courses during high school.³⁷ Meanwhile, Tennessee has sought ways to directly reward students who complete their degrees in four years. Remedial coursework has also become a common target for states trying to cut higher education costs and the time required for degree completion. Connecticut and Kansas both recently passed legislation to limit remedial courses delivered at higher education institutions, while New York and Missouri passed laws directing their states' public higher education systems to study, identify, and implement best practices with respect to student remediation.³⁸ Indiana's “Reaching Higher” strategy for public higher education also calls for transforming remediation and identifies specific approaches to this, including expanding computer-assisted learning, akin to Virginia Tech's Math Emporium model.

Part III: Opportunities for Change

As discussed throughout this paper, the nation's public higher education system faces numerous challenges and changes—including potential growing demand, tough competition for state funds, an evolving role of the federal government, rising tuition and cost shifting, increasing non-academic spending and cross-subsidizing by institutions, and new state budgeting approaches. Current financing models are not sustainable and the imperative for change is evident. Based on background research and the state budget officer discussion summarized in the previous section, this analysis identifies several key areas where state budget offices, higher education institutions, and other state policy officials can work together to address some of these challenges. These opportunities for change to improve public higher education are presented in more detail below.

State budget offices, higher education institutions, and other state policy officials can work together... to improve public higher education.

Using Performance Funding and a Focus on Results to Build Consensus on Goals

Performance funding approaches have emerged as a compelling strategy for states to exercise more influence over the priorities and outcomes of public higher education institutions. While many such methods are in the experimental stage and have their limitations, perhaps their greatest potential benefit at this point is in helping to align public goals with institutional missions, and to improve use of data to monitor student performance and retention.

A review of the literature, coupled with points shared during discussion with state budget officers, reveals that a number of states are increasingly applying performance funding approaches to budgetary decision-making in higher education. Analyses of the impacts of performance-based budgeting recently completed by Kevin Dougherty and Vikash Reddy at the Columbia University Center for Research on Community Colleges found that the most important effects have been:

- Greater awareness by institutions of state priorities and institutional performance;
- Improved use of data about performance by the institutions and the state; and
- Improvements in academic and student service policies and practices that promise to improve student outcomes.³⁹

However, the authors also cautioned that there is—as yet—no evidence that performance-funding *by itself* leads to improved institutional outcomes. Similar conclusions were reached in an analysis of performance funding by Donna Desrochers for the National Association of System Heads.⁴⁰ Desrochers looked at changes in graduation rates, credit hour accumulation, and degree/credential production for public two and four year institutions over the 2002-2009 period, and compared these to where performance funding had been implemented. She found that almost all states and sectors had seen improvements in their degree production, whether or not performance funding was in place, with some of the biggest gains occurring in states without performance funding. The weak relations between funding and performance may be because the experiments

There is no evidence that performance-funding *by itself* leads to improved institutional outcomes.

are relatively new, and it may be because the amount of money being ascribed to 'performance' is relatively small. Even in the strongest performance-based models, funding the 'base' budget, including fixed costs for employee benefits and cost of living, tend to take precedence over either enrollments or performance.

Whether state appropriations comprise 10 percent or 90 percent of an institution's general operating budget, the public identity of state colleges and universities should not be in question. If state investments in higher education over the last hundred or two hundred years are taken into account, along with a proper accounting of the institutional assets including lands and buildings, the balance sheet quickly tips back toward the state side. Public institutions are fiscally coming to look more like non-profit private institutions than state agencies, but this does not mean that their funding priorities should be advancing institutional rather than public purposes. Private non-profits are also chartered (and in many cases receive some public funds) to serve public purposes.

The changing fiscal identity of public higher education does raise the issue about how best to budget for and regulate institutions that receive substantial revenues from non-state resources, and operate in a competitive market with both for-profit and non-profit institutions. This again does not really distinguish higher education from some areas of state funding, in particular health care. But it does suggest the need for new approaches to setting expectations and managing performance in higher education, away from a focus on year-to-year budget balancing and more in the direction of an investment approach through multiple year strategies based on shared views about goals and results. The investment approach is further justified by the very function of higher education, a long-term investment expenditure, which yields returns to society and to individuals over many years.

An investment approach also requires states and higher education institutions to re-evaluate regulatory relationships between the institutions and state government, around issues of fund management and reserve policies, to encourage better institutional practice in managing costs over multiple years to both improve performance and to take pressure



off of tuition increases. For example, available funds (either general fund only or general fund plus tuition) could be divided into several funding streams, such as basic operations, innovation, and infrastructure. The basic operations fund could be partially or fully performance-based. Innovation funds could be available through a competitive grant and/or loan process for institutions who propose creative ways to accelerate progress on their outcomes or achieve substantial cost savings. The infrastructure funds could be grants or loans to create system wide cost savings or improved outcomes. New funds would not be necessary to implement this strategy, but some new funds might help ease anxiety during the transition to the new approach. This approach also argues for updated and refined measures of the return on educational investments.

Some states have strengthened their policy capacity for higher education in the last decade, while others have



Discussion must be grounded in future goals for access, equity, certificate and degree production, and economic development.

moved in the opposite direction, through dismantling or neutering of the coordinating agencies, and by weakening the public systems and their boards. Many of the ‘flagship institutions’—always the most powerful politically in the states—have looked to cut their own deals with governors and legislators, asking for certain freedoms including tuition authority and exemption from certain state agency regulatory oversight in exchange for reduced public funding. In this environment, it is necessary that state governments stay actively engaged with public higher education institutions to set and achieve shared goals.

Changing finances justify changes in governance, to simultaneously decentralize and deregulate controls where appropriate, while also improving public accountability for both

fiscal stewardship and academic performance. As state higher education funding declines—and along with it, state leverage over institutional direction and priorities—states will also need to think about whether they have the best structures in place to ensure the proper balance between how public needs and institutional interests are accounted for in the multi-faceted missions of public colleges and universities. Conversations about the financing of higher education should not primarily be about protecting institutions, or protecting jobs for college and university employees. Though these are still important considerations, discussion must be grounded in future goals for access, equity, certificate and degree production, and economic development. Performance funding strategies offer creative and innovative ways to ensure this is the case.

State and higher education officials, through effective strategic planning, can collaboratively identify the desired outcomes of each level of higher education, as well as each institution. Some outcomes (such as higher completion rates) may be common across states, while others may be more state-specific. As part of this process, state governments may also consider creating a charter or performance contract with each institution. The charter could include the outcomes and measures to be achieved, along with the funding methodology, incentives and other expectations of the institutions in return for funding and flexibilities the institution may request in order to meet the expectations in the charter. Each charter could include provisions unique to the institutions’ strengths or weaknesses, and serve as a way to track and report progress to stakeholders and the public.

As stiff competition for state funds is expected to continue, there will be an increasing need for higher education institutions to demonstrate to governors, lawmakers and the public how any increase in state appropriations will be used to improve outcomes associated with such goals. Performance funding can provide a structure to help meet this need, especially if coupled to broader efforts to improve financial and performance information, another opportunity for collaboration discussed in the next section.

Rationalizing Tuition Policy and Defining Appropriate Role for Student Tuition

Student tuition policies in public institutions should be based on a shared understanding of the appropriate role for tuition in relation to costs and benefits, and not just what the market will bear. States need to set policies that combat institutional incentives to raise tuition, overuse student fees, discount tuition, and increase out-of-state enrollment. High debt loads among recent graduates should also be a major public policy concern.⁴¹

Tuition increases that are moderate, gradual and predictable, and accompanied with need-based aid, are preferable to big jumps in some years and none in others. Also, it may be appropriate to set higher prices for more expensive programs and at successive levels of educational attainment where the individual benefits from higher education are greatest. However, public institutions should not be charging students more on average than is being spent on them.

Consideration should be given to creating tuition trust funds that can be carried forward from year to year, to regularize tuition increases and make them more predictable for students and institutions. Institutions should be able to keep tuition reserves and interest earnings from them. At the same time, state policy makers and systems should not completely decentralize authority over tuition policy. Institutional incentives to raise tuition to compete with private institutions and to leverage markets are simply too strong.

The charging of fees by colleges and universities must also be rationalized. Fees ought to be user-defined, for specific purposes, and easily differentiated from tuition. Institutions should not be able to use fees as a loophole to circumvent restrictions on tuition policies imposed by states or to hide the true cost of attendance to prospective students and their parents.

In all types of public institutions, sticker prices—posted in-state tuitions for undergraduate students—are lower than either gross or average net tuition revenue per student. (See Table 6.) This is different from tuition discounting patterns among all types of private non-profit institutions, where sticker prices are higher than net revenues after discounting. Especially when faced with reductions in state support and pressure to hold down the in-state tuition rate, public colleges and universities seek other means to generate revenue. These include increasing out-of-state and international enrollments to get more ‘full-pay’ students, raising tuition rates on these nonresident students and raising incidental charges and user fees. Tuition discounts—estimated by the Delta Cost Project based on the difference between gross and net tuition revenues and how these compare to published sticker prices—are around 10-12 percent among public masters’ programs and community colleges, compared to 18 percent in the public research sector, and around 30 percent among private institutions.⁴² Some of those discounts are going to pay for need-based student aid—an increasingly controversial practice, as discussed in Part II of this report—but some are going to pay for tuition waivers, and other types of merit-based aid.

If such discounting practices were to be eliminated—or least substantially scaled back—tuition sticker prices could be reduced substantially. This is an outcome that both states and institutions may be able to support and work towards together.

Tuition increases that are moderate, gradual and predictable, and accompanied with need-based aid, are preferable to big jumps in some years and none in others.

Expanding/Preserving Access and Need-Based Financial Aid

Maximizing education access and attainment of a state’s population needs to be a key part of the mission of any public higher education system. State and higher education officials can work together to strengthen need-based grant aid programs—both at the state and institutional levels—and align accountability and performance incentives to encourage, not penalize, institutions to educate and graduate low-income and at-risk students. States can also partner with and determine how to invest more in community colleges and vocational and technical education schools.

States and institutions both recognize that in the context of this discussion around improving the higher education system, it is vital to remember that one of the core objectives of public colleges and universities must be preserving access to postsecondary education for all students—particularly those who are low-income or otherwise at-risk financially. Given the budgetary challenges at the federal level, states cannot depend on the federal government to pay for all—or even most—need-based aid in the future. Thus, finding ways to promote access must be part of any state solution to fix our system of public higher education.

Need-based student aid should ideally be funded from centrally managed state grants rather than through institutional tuition discounts or set-asides. Yet, states vary widely in the size and structure of their student grant programs, and few states have large, well-funded programs for need-based assistance.⁴³ If state grants are not available, or are not adequate to meet needs, the practice of using tuition funds to pay for need-based aid may be a legitimate way to protect access despite rising tuitions. But institutions need to be held accountable for meeting student economic need as a higher priority than spending on merit aid, and the trend toward increased tuition discounting to pay for merit aid should ideally be reversed. States can also encourage institutions to accept and focus resources on higher-need students through a variety of funding mechanisms, akin to some of the strategies discussed in Part II of this report.

Also discussed in the previous section, some states have already taken steps to steer more students toward community colleges, a more affordable path for both those who end their formal education with an associate’s degree, have life situations that preclude full-time study at four-year institutions, or otherwise move on to

a four-year institution. Along with these initiatives, states are establishing rules that make it easier for students to transfer credits from community colleges to public four-year institutions. Moving forward, states may also consider making technical and vocational schools an investment priority, especially as this is an area where the United States lags other OECD (Organization for Economic Cooperation and Development) countries in attainment.⁴⁴

Developing Common Language and Metrics to Improve Information and Analysis

States and institutions use different measures to account for spending and changes over time—leading to real gaps in understanding about both revenues and spending. Sound decision-making—on the part of states, institutions, and consumers—requires reliable, consistent, and accessible information on revenues, expenditures, costs and benefits.

One of the unique problems facing higher education and state finance relates to language and to the ways that funds are

counted. Higher education analysts at the state level look at higher education finance through the lens of state appropriations. Institutional analysts look at funding through the lens of their fund accounting systems and budgets. The differences between the two sides in language and in accounting metrics contribute to huge problems in communication, as the basic measures vary widely depending on what is counted and how funds are adjusted. The problem is compounded when national data sources are brought into the mix: the National Association of State Budget Officers, the State Higher Education Executives, Grapevine, and the Delta Cost Project all use different measures when looking at spending patterns over time.

As just one example, the following three facts are all true:

- Nationwide, state appropriations for higher education more than tripled between 1987 and 2011—from \$49,806 million nationwide in 1987 to \$170,364 in 2011.⁴⁵
- When adjusted for inflation and enrollment, state spending for higher education increased by 21 percent between

TABLE 6: PUBLIC HIGHER EDUCATION PRICES V. TUITION REVENUES (IN 2010 DOLLARS)

						2009-2010 change	
		2000	2005	2009	2010	Dollars	Percent
Public Research	Sticker Price	\$4,526	\$6,194	\$6,993	\$7,400	\$408	5.8%
	Gross Tuition	\$6,513	\$8,642	\$9,974	\$10,536	\$562	5.6%
	Net Tuition	\$5,469	\$7,116	\$8,106	\$8,611	\$505	6.2%
	Tuition Discount	16%	17%	18%	18%	0%	
Public Master's	Sticker Price	\$3,796	\$5,014	\$5,713	\$6,079	\$366	6.4%
	Gross Tuition	\$4,616	\$5,999	\$6,805	\$7,226	\$420	6.2%
	Net Tuition	\$4,114	\$5,365	\$5,961	\$6,360	\$399	6.7%
	Tuition Discount	11%	11%	12%	12%	0%	
Public Bachelor's	Sticker Price	\$3,859	\$4,875	\$5,474	\$5,752	\$278	5.1%
	Gross Tuition	\$4,149	\$5,525	\$6,445	\$6,722	\$276	4.3%
	Net Tuition	\$3,611	\$4,759	\$5,471	\$5,746	\$275	5.0%
	Tuition Discount	13%	14%	15%	15%	0%	
Public Community Colleges	Sticker Price	\$1,830	\$2,266	\$2,421	\$2,546	\$125	5.2%
	Gross Tuition	\$2,506	\$3,051	\$3,403	\$3,537	\$134	3.9%
	Net Tuition	\$2,324	\$2,831	\$3,130	\$3,269	\$139	4.4%
	Tuition Discount	9%	9%	11%	10%	0%	

Notes: “Sticker Price” refers to average published full-time, in-state undergraduate tuition and fees; “Gross Tuition” refers to all revenues from tuition and fees before discounts; “Net Tuition” refers to all revenues from tuition and fees after discounts; and the “Tuition Discount” is an estimate of the extent to which institutions utilize tuition paid by some students to “discount” the tuition paid by others.

Source: IPEDS Analytics: Delta Cost Project Database 1987-2010, 11-year matched set.

1987 and 2011—and spending in 2011 had fallen by 12 percent below spending levels in 2000.⁴⁶

- c. When looking ONLY at state general fund appropriations, adjusted for enrollments and inflation, state funding for higher education declined between 1987 and 2011 by 20 percent—far larger than declines in funding for any other state function.⁴⁷

The difference between the measures is produced by adjustments for inflation and enrollment, and the inclusion of tuition and fee revenues inside state appropriations. They are all legitimate ways to look at patterns, but can produce very different conclusions about the role of the state in funding higher education.

Higher education analysts also typically adjust inflation using the higher education price index (HEPI) rather than the consumer price index (CPI). The HEPI is a measure of inflation for higher education that historically has increased at around 3.5 percent per year against average increases of the CPI of 2.4 percent. Whatever the analytical validity of the measure,

it is viewed by state budget analysts and others as a way for institutions to justify budget requests because they spend more, and not because they need more. Many state finance officials are skeptical that higher education cost increases are justifiably higher than the rise in overall inflation. Fortunately, in an effort to find a better measure than the HEPI, the State Higher Education Executive Officers (SHEEO) has produced a third measure of inflation, the Higher Education Cost Adjustor (HECA). In the State Higher Education Finance (SHEF) reports produced annually by SHEEO, they also adjust figures for both the ‘enrollment mix’ of institutions and for local differences in the cost of living. The SHEF figures thus are different from either the figures produced by NASBO, which count tuition revenues, or the ones produced by the institutions, which do not adjust for enrollment mix or for local cost of living.

State budget officials and institutional leaders too often talk past one another in discussions about state finance and institutional costs. Regardless of questions and debates over what funding levels should be, the two sides should be able





While the structure and function of statewide governance needs re-thinking in many states, the need for adopting a systems approach is greater than ever...

to agree about basic facts for how to account for costs and revenues in higher education. Developing common terminology and cost metrics, and sharing cost and performance information so that it is transparent and consistent, can go a long way towards advancing the dialogue between state budget officials and higher education institutions and informing sound decision-making on both sides.

Improved, consistent information for consumers of higher education can also be a powerful tool for reform, especially when the information being shared is accessible and meaningful to the target audience. Better data on metrics such as completion rates, time-to-degree completion, and the average cost of a degree, presented in a clear, user-friendly man-

ner, can be extremely valuable to students and their families and empower them to make informed decisions about where to attend college and how to budget for expenses.

Improving Fiscal Management and Efficient Use of Resources

Institutions must curb costs, as well as manage and spend resources wisely and effectively, to put public higher education on a sustainable fiscal path. Efficiency gains can be captured through strategies like shared administrative services, reducing duplication, streamlining application and enrollment processes, and leveraging new technologies. These efforts can also support (both directly and indirectly through freed-up resources) initiatives to restrict tuition increases, expand access, and improve institutional performance and financial information.

To the extent possible, state policy makers should consider supporting multi-year investment approaches to the financing of higher education that can be the basis for setting expectations about state funds, the role for student tuitions, and the place of cost control in meeting future funding needs. These changes are justified because state funds for higher education are more erratic than for other functions. Also, somewhat in contrast to spending for corrections, Medicaid and general government, spending for higher education is an investment expense which pays off in benefits over many years to society and to individuals. Investment approaches to funding are best approached from a multi-year rather than a year-to-year basis.

While the structure and function of statewide governance needs re-thinking in many states, the need for adopting a systems approach is greater than ever—around issues of public needs, student flow across institutions, development and promotion of best practices, and improvement of efficiency and effectiveness. One area where higher education institutions stand to capture substantial efficiency gains is in consolidating administrative functions. Colleges and universities currently lag behind other sectors on this front—for example, law firms have embraced back office cost-cutting strategies through outsourcing, consolidating, or moving to less expensive locations their support functions such as billing and human resources. There is no reason why higher education institutions cannot take similar actions to increase administrative efficiency and reduce costs. Inter-campus cooperation and collaboration should be a goal not just in administration but also in certain academic areas. This is not a time when more competition between institutions and duplication of academic programs is the best way to meet future needs for higher education.

Opportunities for Change

Highlighted below are key opportunities for states and higher education institutions to work together to improve public higher education.

USING PERFORMANCE FUNDING AND A FOCUS ON RESULTS TO BUILD CONSENSUS ON GOALS



- Shift from a focus on year-to-year budget balancing to a multi-year investment approach based on shared views about goals and results.
- Simultaneously decentralize and deregulate controls where appropriate, while also improving public accountability for both fiscal stewardship and academic performance.
- Frame discussion about the financing of higher education around future goals for access, equity, certificate and degree production, and economic development.
- Use strategic planning, as well as performance contracts or charters, to identify the desired outcomes of each level of higher education and each institution.

RATIONALIZING TUITION POLICY AND DEFINING APPROPRIATE ROLE FOR STUDENT TUITION



- Establish policies that encourage institutions to keep tuition rate increases moderate, gradual and predictable, and accompanied with need-based aid.
- Decrease instances of tuition discounting practices (using tuition paid by some students to “discount” the tuition paid by others), especially for merit-based aid.
- Set student fees that are user-defined, for specific purposes, and easily differentiated from tuition.

EXPANDING/PRESERVING ACCESS AND NEED-BASED FINANCIAL AID



- Fund need-based aid programs through centrally-managed state grants rather than through institutional tuition discounts or set-asides.
- Hold institutions accountable for meeting student economic need as a higher priority than spending on merit aid.
- Consider making technical and vocational schools an investment priority.

DEVELOPING COMMON LANGUAGE AND METRICS TO IMPROVE INFORMATION AND ANALYSIS



- Build consensus among state government and higher education officials on how to account for and share financial and performance information.
- Present key metrics such as completion rates, time-to-degree completion, and the average cost of a degree, in a clear, user-friendly manner to better inform students and their families.

IMPROVING FISCAL MANAGEMENT AND EFFICIENT USE OF RESOURCES



- Support multi-year investment approaches to better set expectations about state funds and save money over time.
- Consolidate administrative functions where possible to capture efficiency gains.
- Collaborate between campuses and institutions to reduce duplication in certain academic areas.

Part IV: Conclusion and Next Steps

The financing challenges facing institutions of higher education are attributable to both state funding patterns and institutional spending habits. States are working to address fiscal challenges that extend beyond higher education. A number of analysts have commented on the need for comprehensive approaches to state budget ‘reform’ to address chronic and long-term fiscal issues (such as unfunded pension liabilities and increasing retiree health care costs) facing many states. Institutions should increase their attention to fund management and to student success, and to finding ways to increase efficiencies by reducing high cost and underperforming programs, by consolidating redundant and costly administrative structures, and by improving public transparency for their management of funds.

Institutions should increase their attention to fund management and to student success, and to finding ways to increase efficiencies by reducing high cost and underperforming programs.

As discussed in Part I, the fiscal landscape for public higher education is challenging and complex. Enrollments are growing, and to meet future goals for increased degree attainment, they will need to continue to grow for the foreseeable future. Meanwhile, state expenditures for higher education have been declining on a per capita basis and as a percentage of state appropriations in recent years, but they still continue to be major source of operating revenue for public higher education institutions. As state funds have declined, institutions have sought more independence while also shifting costs on to student tuitions and fees. Tuitions are rising much more rapidly than spending, and while students are paying more, in many cases, less is being spent on them. Over time, spending on instruction has declined slightly, administrative and general support costs have increased, and institutions’ use of various “cross-subsidies” has grown increasingly common.

State government budgeting and financing practices have been evolving, and a growing number of states have experimented with and/or implemented some form of performance-based or outcomes-based budgeting models for higher education, as well as other spending areas. Adding another layer of complexity, although states have historically been the primary funders of higher education, the federal fiscal role has been growing as tuitions increase. Federal actions to reduce the deficit may well impact this trend line. However, if current trends continue, in ten years the federal government (through Pell grants alone) will have a larger subsidy share invested in higher educa-

tion than do states, while states will be paying more of their money into Medicaid.

Some states have already been making great strides in addressing some of these challenges. These efforts, discussed in detail in Part II, entail a number of financing and management strategies focused on funding performance, restricting tuition increases, expanding access, improving information, and increasing cost-efficiency. These state-led strategies offer signs of progress towards addressing the short- and long-term challenges facing public higher education.

Much work still remains and a number of opportunities for collaboration between states and higher education institutions exist, as highlighted in Part III. Performance funding approaches have emerged as a compelling strategy for states to exercise more control over and build consensus on the goals of public higher education institutions, though this practice alone will not address the underlying cost structural problems facing this nation’s higher education sector. States can also work with institutions to define the appropriate role for tuition in relation to costs and benefits, and to combat institutional incentives to increase tuition sticker prices, overuse student fees, and increase out-of-state enrollment. In addition, need-based grant aid programs can be strengthened to the extent possible, both at the state and institutional levels. Measures to improve financial and performance information can help promote sound decision-making on the part of states, institutions, and consumers. And to put public higher education on a

sustainable fiscal path, institutions will need to increase cost-efficiency through approaches such as sharing administrative services, reducing duplication, streamlining application and enrollment processes, and leveraging new technologies. These efforts can also support (both directly and indirectly through freed-up resources) initiatives to improve institutional performance and financial information, restrict tuition increases and expand access.

However, it will take time for this larger agenda for reform to be developed, adopted and implemented. Not all priorities are equal, and some states will have different circumstances and objectives. As a state chooses which items to focus on first, taking the following steps may offer a good starting point:

- **Align public goals with higher education outcomes and institutional missions.** Through collaborative strategic planning, create measures for key outcomes and establish a process for institutions to report progress to stakeholders and the public.
- **Develop differential funding strategies for different institutions or sectors,** based on the contribution of those institutions to the public agenda, and in light of other resources available to them. In some states, that effectively will mean allocating more ‘new’ state dollars to public masters’ institutions than to either community colleges or research institutions, and allowing the research universities to increase tuitions. The decisions will be different in other states. Treating institutions or sectors equitably may not be the best use of funds in the years ahead.
- **Push a “re-set” button on formulae for building the base budget,** including old cost-based formulae and procedures for funding ‘fixed costs’ before workload or improvement, and move to funding over multiple years based on performance or outcomes as well as enrollments. New funding mechanisms need to create the right incentives and be tied to results such as greater degree attainment, reduced growth in tuition and fees, and reinvestment of ‘savings’ in innovations and in areas that are priorities for the institution and the state.
- **Fix the metrics.** State budget officials and institutional leaders too often talk past one another in discussions about state finance and institutional costs. Leaving aside issues of what funding levels should be, the two sides should be able to agree about basic facts for how to account for funds in higher education, including accountability metrics for spending and performance.
- **Control the growth in spending for employee benefits,** either through action by the state when state policies drive benefits, or through pressure on the institutional governing boards. If employee benefit cost growth is not reduced, all new funds going to higher education—and this increasingly means student tuition revenues—may have to go to pay for employee benefits, rather than increased capacity or quality.

In many cases, higher education finance may have to be reformed incrementally when opportunities for change present themselves. However, the urgent need to address the challenges faced by states and higher education institutions calls for action. As demonstrated by the information in this report, higher education finance policy changes can play an instrumental role in improving postsecondary education outcomes, while also putting public higher education on a sustainable fiscal path.



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The National Association of State Budget Officers

444 N. Capitol Street NW, Suite 642, Washington DC 20001

P: 202.624.5382 **F:** 202.624.7745 **E:** nasbo-direct@nasbo.org www.nasbo.org