STATE HIGHER EDUCATION FINANCE FY 2011

State Higher Education Finance

FY 2011

SHEEO

State Higher Education Executive Officers (SHEEO) is a nonprofit, nationwide association of the chief executive officers serving statewide coordinating and governing boards for postsecondary education. The mission of SHEEO is to assist its members and the states in developing and sustaining excellent systems of higher education. SHEEO pursues its mission by: organizing regular professional development meetings for its members and their senior staff; maintaining regular systems of communication among the professional staffs of member agencies; serving as a liaison between the states and the federal government; studying higher education policy issues and state activities and publishing reports to inform the field; and implementing projects to enhance the capacity of the states and SHEEO agencies to improve higher education.

An electronic version of this report, State Higher Education Finance FY 2011, and numerous supplementary tables containing extensive state-level data are available at www.sheeo.org. These may be freely used with appropriate attribution and citation. In addition, core data and derived variables used in the SHEF study for fiscal years 1992 through 2011 are available on the SHEEO website and also through the National Center for Higher Education Management Systems (NCHEMS)-sponsored Information Center for State Higher Education Policymaking and Analysis website at www.higheredinfo.org.

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A project of the staff of the
State Higher Education Executive Officers (SHEEO)

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Acknowledgements

We are pleased to present the ninth annual SHEEO State Higher Education Finance (SHEF) study of state support for higher education.

SHEF builds on and augments the surveys of various federal agencies. The higher education finance surveys and reports produced by the National Center for Education Statistics in the U.S. Department of Education provide extensive institution-level data, which can be aggregated to the sector, state, and national levels. The Bureau of Economic Analysis, the Bureau of Labor Statistics, and the U.S. Census Bureau are additional data sources on other aspects of higher education financing and operations. Together these federal sources provide the foundation and reference points for our collective understanding of how we finance higher education and for what purposes.

Over the years, a community of policy analysts has utilized federal surveys, collected supplemental data, and performed a wide range of analytical studies to inform state-level policy and decisions. This report builds directly on a twenty-five year effort by Kent Halstead, an analyst and scholar of state policy for higher education, who conceptualized and implemented a report on state finance for higher education and created a file of state financial data that extends from the early 1970s to the late 1990s. Halstead's data were frequently used in the states as a resource to guide policy decisions. While he never described it as such, his survey became widely known as the "Halstead Finance Survey."

SHEF also draws on the surveys and analytical tools provided by the *Grapevine* survey, established in 1962 by M.M. Chambers and maintained by his successors, Edward Hines and, currently, James Palmer, at Illinois State University. In the summer of 2010, SHEEO and Illinois State University aligned the *Grapevine* and SHEF data collections into one. For the past two years, the combined State Support for Higher Education Database (SSDB) data collection has simplified and aligned data collection procedures, reduced the burden placed on state offices, and created a more timely and comprehensive picture of state fiscal support for higher education. We are grateful for the leadership of James Palmer in making this effort possible.

SHEEO is deeply indebted to the staff of state higher education agencies who provide the state-level data essential for the preparation of this report. Their names and organizations are listed in Appendix C. We also appreciate the input and suggestions from many state higher education finance officers (SHEFOs) and others who have contributed much to the development of this report. Andrew Carlson, a former data provider from Colorado, took charge of the State Higher Education Finance Study this year, building on the foundation laid since 2003 by a talented group of other SHEEO staff, most recently Allison Bell. Katie Zaback and Chris Ott also made important contributions to this year's study, and Hans L'Orange and Gloria Auer gave the narrative their expert editorial touches. I am grateful for their dedicated professional work.

Finally, we gratefully acknowledge the assistance of The College Board in financing the costs of publishing and distributing the FY 2011 report.

Paul E. Lingenfelter
President
State Higher Education Executive Officers

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Introduction

Financing higher education requires political leaders, policymakers, and educators to address broad public policy questions, including:

- What levels of state funding to colleges and universities are necessary to maintain the economic and social well-being of the American people?
- What tuition levels are appropriate given the costs of higher education, its benefits to individuals, and the desirability of encouraging participation and improving degree and certificate attainment?
- What level of student financial assistance is necessary to provide meaningful educational opportunities to students from low- and moderate-income families?
- How might colleges and universities use available resources to increase productivity without impairing the quality of services to students?

The State Higher Education Finance (SHEF) report is produced annually by the State Higher Education Executive Officers (SHEEO) to broaden understanding of the context and consequences of multiple decisions made every year in each of these areas. No single report can provide definitive answers to such broad and fundamental questions of public policy, but the SHEF report provides information to help inform such decisions. The report includes:

- An **Overview and Highlights** of national trends and the current status of state funding for higher education;
- An explanation of the **Measures, Methods, and Analytical Tools** used in the report;
- A description of the **Revenue Sources and Uses** for higher education, including state tax and non-tax revenue, local tax support, tuition revenue, and the proportion of this funding available for general educational support;
- An analysis of **National Trends in Enrollment and Revenue**, in particular, changes over time in the public resources available for general operating support;
- **Interstate Comparisons—Making Sense of Many Variables**, using tables, charts, and graphs to compare data among states and over time; and
- **Indicators of Relative State Wealth, Tax Effort, and Allocations for Higher Education,** along with ways to take these factors into account in making interstate comparisons.

The SHEF report provides the earliest possible review of state and local support, tuition revenue, and enrollment trends for the most recent fiscal year.

Please note: Generally, years referenced in the body of this publication refer to state fiscal years, which commonly start July 1 and run through June 30 of the following calendar year. For example, FY 2011 includes July 2010 through June 2011. All enrollments are full-time-equivalent for an academic year (including summer term). National averages are calculated using the sum of all of the states. For example, the national average per FTE expenditure is calculated as the total of all states' expenditures divided by the total of all states' FTEs.

Overview and Highlights

National Trends in State Funding for Higher Education

State and local government financial commitment to higher education has increased substantially over the past twenty-five years. In 1986, state and local governments combined provided $31.4 billion in direct support for general operating expenses of public and independent higher education institutions. This investment increased to $47.8 billion in 1996, $77 billion in 2006, and $88.8 billion by 2008.

A recession beginning in 2008 dramatically reduced state revenue and ended the growth in state and local support achieved between 2004 and 2008. In response, the American Recovery and Reinvestment Act approved February 17, 2009 provided funding to stabilize state support for education among other interventions to achieve economic recovery. With the approval of the Secretary of Education, funds allocated to the states by Congress could be used to supplement state and local funding for education in 2009, 2010, and 2011.

In 2011, 31 states provided ARRA funding to their higher education systems totaling $2.8 billion, helping to offset reductions in state and local support since 2008. State and local support in 2011 including ARRA funds totaled $87.5 billion, actually showing a 2.5 percent increase in funding for higher education over 2010 (although still below 2008 and 2009). The stability in support for higher education is an indicator that ARRA funding has served its purpose in minimizing the negative effects of the economic recession on higher education.[1]

In addition to state and local revenue, public institutions collected net tuition revenue of $56.3 billion in 2011, for a total of about $143.8 billion available to support the general operating expenses of higher education (see *Figures 1 and 2*).

The share of total revenue for general operating expenses for higher education originating from net tuition revenue showed an increase from 32.2 percent in 2008 to 39.0 percent in 2011. Tuition revenue collected by independent (private, not-for-profit) and for-profit institutions is not included in this total.

Of the $87.5 billion in state and local support during 2011, about 78 percent was allocated to the general operating expenses of public higher education. Special purpose or restricted state appropriations for research, agricultural extension, and medical education accounted for another 12 percent of the total. The percent of total support allocated for financial aid to students attending public institutions increased to 7.1 percent in 2011. This is up from 5.6 percent in 2006. The remaining three percent supported students attending independent institutions and independent institutions' operating expenses.

Analysis of the data indicates that constant (adjusted for the impact of inflation over time) dollar per student state and local funding for public colleges and universities continued to decrease between 2010 and 2011. State and local support (excluding appropriations for research, agricultural extension, and medical education) per full-time-equivalent student was $6,532 in 2010, a $500 constant dollar (or 7 percent) decrease from 2009, and the lowest in the last 25 years. This trend continued in 2011 with state and local support per FTE at $6,290, an additional 3.7 percent decrease. This decrease in per student support, despite relatively stable state support, was driven by an increase in enrollment of more than 8 percent in the two years between 2009 and 2011.

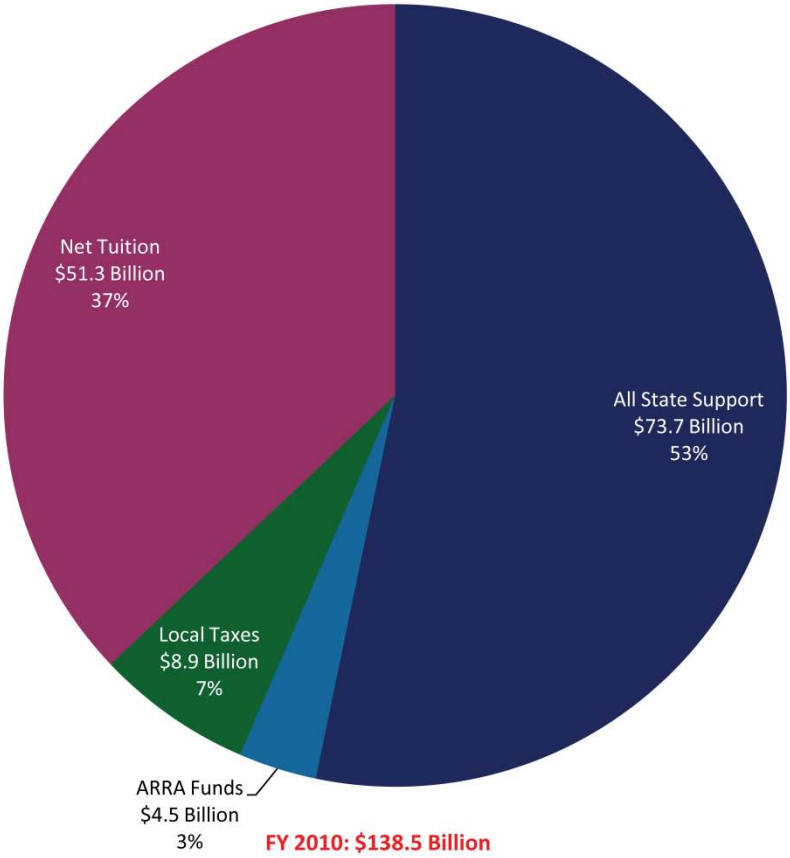
[1] "State and local support" in SHEF is generally meant to include funds allocated to states by the federal government through the American Recovery and Reinvestment Act of 2009 (ARRA) and both funds from the Education Stabilization Fund and the Other Government Services Fund used to fill shortfalls in state support for general operating expenses at public colleges and universities.

Higher education has historically experienced large increases in enrollment during times of economic recession, and this tendency has been accentuated by the growing economic importance of postsecondary education. Nationally, FTE enrollment grew 5.4 percent between 2009 and 2010, 2.4 percent between 2010 and 2011, and 33 percent between 2001 and 2011.

Highlights of the SHEF report provided below illustrate the long-term patterns, shorter-term changes, and state-level variables affecting the resources available to support higher education between 1986 and 2011. These and other factors that shape higher education funding are examined in more detail in the sections of the full report that follows.

Figure 1

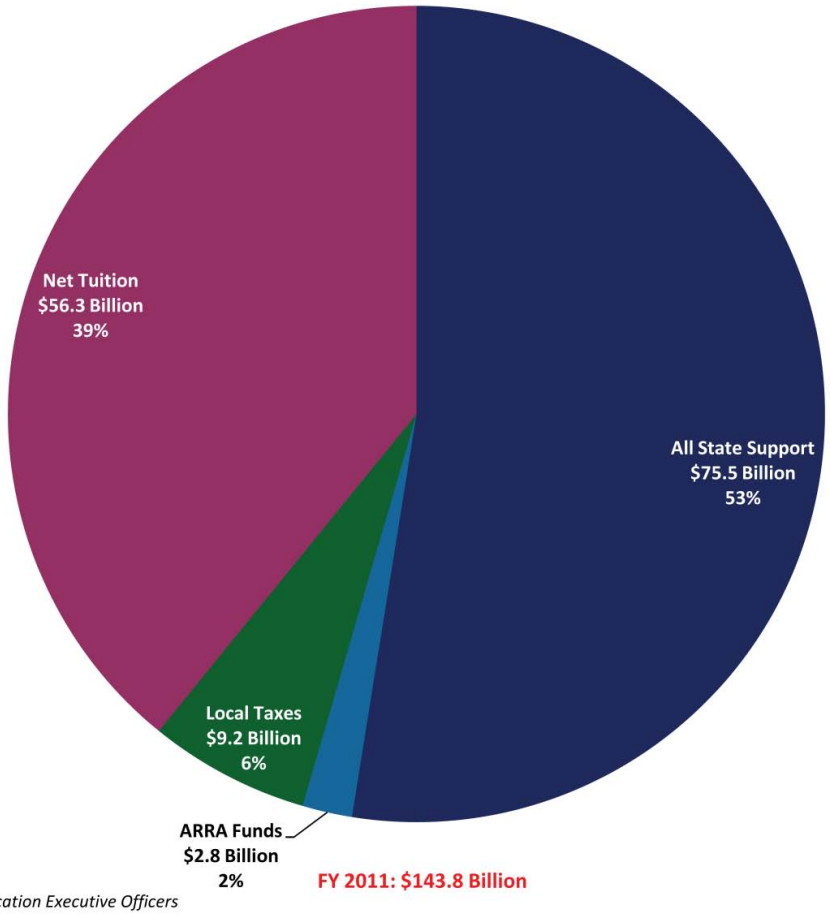
State, Local, and Net Tuition Revenue Supporting General Operating Expenses of Higher Education U.S., Fiscal Year 2010, Current (unadjusted) Dollars



Source: *State Higher Education Executive Officers*

Figure 2

State, Local, and Net Tuition Revenue Supporting General Operating Expenses of Higher Education U.S., Fiscal Year 2011, Current (unadjusted) Dollars



Source: *State Higher Education Executive Officers*

Long-Term Revenue and Enrollment Patterns

1. Since 1986, FTE enrollment at public institutions of higher education has increased from 7.2 million to 11.8 million.

2. Educational appropriations per FTE (defined to include state and local support for general higher education operations) fell to $6,532 in 2010, a 25-year low in inflation-adjusted terms, and fell further to $6,290 in 2011. Annual educational appropriations from 1986 through 2011 are displayed in *Figure 3*.

3. Tuition charges are the other primary source of revenue used to support public higher education (excluding research grants and revenues from independent operations). Net tuition revenue typically grows faster when state and local revenue fails to keep pace with enrollment growth and inflation, both because more students pay tuition and the institutions tend to charge more to compensate for declining public revenues per student.

4. Partially offsetting decreased state and local support, constant (adjusted) dollar net tuition per FTE increased annually at 5.0 percent between 2009 and 2011.

5. Constant dollar total educational revenue (as displayed in *Figure 3*, which includes tuition revenue used for capital or debt service) per FTE declined from the late 1980s to the early 1990s from $10,690 in 1988 to $10,199 in 1993. Thereafter, total educational revenue per FTE grew steadily from 1994 to 2001, reaching $11,767, or about 10 percent higher than it was in 1988. Total revenue per FTE then fell sharply (about 10 percent) from 2001 to 2004 (to $10,630), rebounded to $11,733 by 2008, and then dropped to $11,064 in 2011. Rapid enrollment growth is the most significant factor driving these trends.
6. The student share of total educational revenue to support public higher education operations has grown steadily since the early 1980s (see *Figure 4)*. By FY 2011, net tuition made up over 43 percent of total educational revenue.

Changes Over the Past Five Years in the States

Total public higher education enrollment has increased substantially in recent years. Following dramatic increases nationally from 2002 through 2005, FTE enrollment at public institutions of higher education slowed somewhat, only to increase sharply again between 2007 and 2011. These enrollment trends significantly affected the per student revenue available to support higher education. Across states both enrollment and appropriations growth varied widely from the national average.

7. Nationally, FTE enrollment grew 17 percent in the past five years. All fifty states have experienced increases in FTE enrollment since 2006, and total public FTE enrollment increased by 33 percent from 2001 to 2011. This trend continued in the most recent year, with a national increase of 275,000 students, or 2.4 percent above 2010. In California, however, enrollments fell by 50,000, or 2.8 percent between 2010 and 2011. The enrollment decline in California likely reflects the effects of both higher fees and enrollment caps due to decreases in state appropriations.

8. Per FTE constant dollar educational appropriations increased in seven states between 2006 and 2011. Across all 50 states, the change in educational appropriations per FTE varied from -32 percent to +18 percent.

9. Even after adding revenue from tuition increases, constant dollar educational revenue per FTE (excluding net tuition revenue used for capital or debt service) decreased 2.3 percent on average between 2006 and 2011, with 26 of the states experiencing declines in this measure.

10. Ten states (Alabama, Delaware, Maine, Michigan, Minnesota, North Dakota, Pennsylvania, Rhode Island, Vermont, and Virginia) had above average total educational revenue despite below average educational appropriations, the result of above average net tuition in 2011. The reverse was true in California, Georgia, Hawaii, Idaho, Louisiana, Nebraska, Nevada, and New Mexico. As a result of below average net tuition revenue, these states had below average total educational revenue despite having above average educational appropriations.

Wealth, Taxes, and Allocations for Higher Education

Each state's unique combination of policy choices and fiscal and environmental conditions provides the context within which higher education funding occurs. The national trends outlined below give a sense of general conditions, but individual state contexts vary widely. The available data are from 1999 to 2009, lagging two years behind appropriations data reported elsewhere in this report. The effects of the recession beginning in 2008 on state and local revenues are evident in these data.

11. Total taxable resources per capita, a statistic that captures state income and wealth, decreased from $53,071 to $50,014 in current (not adjusted for inflation) dollars between 2008 and 2009, a one-year decrease of 5.8 percent. Meanwhile, per capita state and local tax revenue decreased $229, or 5.25 percent.

12. Over the ten-year period 1999 to 2009, total taxable resources per capita increased 33.3 percent, while the effective tax rate increased by 6.3 percent.

13. The proportion of state and local tax revenue allocated to higher education declined slightly over the decade from 7.1 percent in 1999 to 6.9 percent in 2009.

Economic Recessions and Higher Education

During periods of economic recession, enrollment demand tends to grow more rapidly at a time when state revenue falls or fails to grow. This tendency exacerbates the effects of a parallel tendency (as noted by Harold Hovey in 1999) for higher education funding to become the "balance wheel" for state finance, declining faster than the rest of the state budget in recessions, and then growing faster when state revenues recover.

14. Over the past 25 years, state and local support for higher education has twice recovered following major economic recessions to levels that exceeded previous support.

15. The pattern of recovery following the 2001 recession began for a third time in 2007, but this recovery was cut short by the onset of the recession that started in 2008. Constant dollar per student state support began another downturn, rather than continuing its return to the levels reached in 1999 through 2001.

16. To counter the impact of the current recession, Congress passed the American Recovery and Reinvestment Act (ARRA). States could use a portion of these funds for operating budget shortfalls in public colleges and universities in order to mitigate tuition increases and faculty and staff layoffs in fiscal years 2009, 2010, and 2011. In FY 2009, 15 states used ARRA funds to cover operational shortfalls, accounting for 3 percent of total state and local support for higher education. In 2010, over 5 percent of total state and local support was from ARRA funds, which were used by 43 states. Finally, in 2011 both the number of states using ARRA funds and the amount of ARRA funding declined from the previous year; 31 states used $2.8 billion in ARRA funds, roughly three percent of the total state and local support.

Looking Ahead

The long-term enrollment growth documented by SHEF reports illustrates the importance of higher education to the American people. That importance is further underscored by the resiliency of state support per student in the economic recoveries following previous recessions. Those recoveries notwithstanding, students and their families have persistently been asked to shoulder a larger share of the cost of public higher education in the United States. The depth and breadth of the 2008 recession and the challenges of financing health care and retirement costs for an aging population leave little room for hope that trend can easily be reversed. While serving continuing enrollment demand is an urgent fiscal priority, health care inflation and retirement expenses are also significant cost drivers in higher education. These broadly recognized pressures on public resources compound the financial challenges facing colleges and universities.

During the past three years, 2009, 2010, and 2011, with the assistance of ARRA funding, total state and local support hovered between $87 and $88 billion, almost as high as the nearly $89 billion provided in 2008. In 2011 state and local funding grew enough to offset a decrease in ARRA funds. But 2012 state appropriations are down by 4.0 percent, and when ARRA funds for 2011 are included for comparison the total is down 7.5%. Total funding (including federal stimulus funds) for 2012 is approximately $5.9 billion less than provided in 2011 as reported by *Grapevine* (online at www.grapevine.ilstu.edu and in Grapevine Tables 1 and 2 in Appendix A of this report). (Local tax support of about $9 billion in 2011 is included in SHEF but these data are not yet available for 2012.)

According to the National Association of State Budget Officers, state revenue has fallen at an unprecedented rate and full recovery will, at best, take several years. This prognosis, combined with the declining availability of ARRA state fiscal stabilization funds, suggests that 2013 is likely to be a very challenging budget year in many states.

As shown in the comparative state statistics, conditions in individual states vary dramatically from the national trends described in this report. Every state, however, faces similar questions in meeting the growing needs of its people and communities for higher education, as well as for other public services. The comparative and trend information in this report can assist policy leaders in every state as they determine their goals for higher education and develop strategies for pursuing them.

Measures, Methods, and Analytical Tools

Primary SHEF Measures

To assemble the annual SHEF report, SHEEO collects data on all state and local revenue used to support higher education, including revenue from taxes, lottery receipts, royalty revenue, and state-funded endowments. It also identifies the major purposes for which these public revenues are provided, including general institutional operating expenses, student financial assistance, and support for centrally-funded research, medical education, and extension programs. The analysis of these data yields the following key indicators:

- **State and Local Support** – consisting of state tax appropriations and local tax support plus additional non-tax funds (e.g., lottery revenue) that support or benefit higher education, and funds appropriated to other state entities for specific higher education expenditures or benefits (e.g., employee fringe benefits disbursed by the state treasurer). As noted above, state and local support for 2011 also includes almost $2.9 billion in federal ARRA revenue provided to stabilize this source of revenue for higher education.
- **Educational Appropriations** – that part of state and local support available for public higher education operating expenses, defined to exclude spending for research, agricultural, and medical education, as well as support for independent institutions or students attending them. Since funding for medical education and other major non-instructional purposes varies substantially across states, excluding these funding components helps to improve the comparability of state-level data on per student funding.
- **Net Tuition Revenue** – the gross amount of tuition and fees, less state and institutional financial aid, tuition waivers or discounts, and medical student tuition and fees. This is a measure of the resources available through tuition and fees to support instruction and related operations at public higher education institutions. Net tuition revenue generally reflects the share of instructional support received from students and their families, although it is not the same and does not take into account many factors that need to be considered in analyzing the "net price" students pay for higher education.[2]
- **Total Educational Revenue** – the sum of educational appropriations and net tuition revenue excluding any tuition revenue used for capital and debt service. It measures the amount of revenue available to public institutions to support instruction (excluding medical students). Very few public institutions have significant non-restricted revenue from gifts and endowments to support instruction. In some states, a portion of the net tuition revenue is used to fund capital debt service and similar non-operational activities. These sums are excluded from calculations used to determine total educational revenue.
- **Full-Time-Equivalent Enrollment (FTE)** – a measure of enrollment equal to one student enrolled full-time for one academic year, calculated from the aggregate number of enrolled credit hours (including summer session enrollments). SHEF excludes most non-credit or non-degree program enrollments; medical school enrollments also are excluded for the reasons mentioned above. The use of FTE enrollment reduces multiple types of enrollment to a single measure in order to compare changes in total enrollments across states and sectors, and to provide a straightforward method for analyzing revenue on a per student basis.

[2] SHEF does not provide a measure of "net price," a term that generally refers to the cost of attending college after deducting assistance provided by federal, state, and institutional grants. SHEF does not deduct federal grant assistance (primarily from Pell Grants) from gross tuition revenue, since these are non-state funds that substitute, at least in part, for non-tuition costs borne by students. Non-tuition costs (room and board, transportation, books, and incidentals) typically total $10,000 or more annually in addition to tuition costs. This requires students with a low expected family contribution (most Pell recipients) to augment federal grants with a substantial contribution from part-time work or loans, even at a comparatively low-tuition public institution. In addition, the availability of federal tuition tax credits since 1999 has helped reduce "net price" for middle- and lower-middle-income students. While these tax credits have no impact on the net tuition revenue received by institutions, they do reduce the "net price" paid by students. SHEF's net tuition revenue statistic is not a measure of "net price," but a measure of the revenues institutions received from tuition. It is a straightforward measure of the proportion of public institution instructional costs borne by students and families. Measures of net price for the student need to include non-tuition costs and all forms of aid.

Adjustments for Comparability

SHEF's analytic methods are designed to make basic data about higher education finance as comparable as possible across states and over time. Toward that end, financial indicators are provided on a per student basis (using FTE enrollment as the denominator), and the State Higher Education Finance (SHEF) report employs three adjustments to the "raw data" provided by states:

- **Cost of Living Adjustment (COLA)** to account for cost of living differences among the states;
- **Enrollment Mix Index (EMI)** to adjust for differences in the mix of enrollment and costs among types of institutions with different costs across the states; and
- **Higher Education Cost Adjustment (HECA)** to adjust for inflation over time.

Technical Papers A, B and C appended to this report describe these adjustments in some detail. Tables provided in these technical papers show the actual effects of the COLA and EMI adjustments on the data provided by individual states, as well as the HECA adjustment from current to constant dollars (inflation-adjusted dollar values that are made annually to reflect inflation). Additional appendices provide a glossary of terms and definitions, a copy of the data collection instructions, and a list of state data providers.

Financial Data in Perspective: Uses and Cautions

Higher education financial analysis is essential, but using financial data can be tricky and even deceptive. This section is intended to help readers and users focus on some of the core purposes of interstate financial analysis, while being cognizant of limitations inherent in the data and methods.

Comparing institutions and states is a difficult task. Consider how different the states are, even after adjusting for population size. They vary in climate, energy costs, housing costs, population densities, growth rates, resource bases, and the mix of industries and enterprises driving their local economies. Some have a relatively homogenous, well-educated population, while others have large numbers of disadvantaged minorities and recent immigrants. Most states have pockets of poverty, but these vary in their extent and concentration. Finally, the extent and rate to which these socio-economic and demographic factors are changing also varies across states.

State higher education systems also differ. Some have many small institutions, others fewer but larger institutions. Some have many independent (privately controlled) institutions; others rely almost entirely on public institutions, with varying combinations of research universities, community colleges, and four-year universities. Across states, tuition policies and rates vary, as do the amounts and types of financial aid, which in turn affect enrollment patterns. Some states have multiple institutions that offer high-cost medical education and engineering programs, while others provide substantially more funding for research or emphasize undergraduate education.

In addition to these differences, technical factors can make interstate comparisons misleading. As one example, states differ in how they finance employee benefits, including retirement. Some pay all retirement costs to employee accounts when the benefits are earned, while others defer part of the costs until the benefits are paid. Some pay benefit costs through a state agency, while others pay from institutional budgets. Many studies of state finance try to account for such factors, but no study, including this one, can assure flawless comparisons.

The SHEF report seeks to provide—to the extent possible—comparable data and reliable methods for examining many of the most fundamental financial issues facing higher education, particularly at the state level. Its purpose is to help educators and policymakers:

- Examine whether or not state funding for colleges and universities has kept pace with enrollment growth and inflationary cost increases;

- Focus on the major purposes for state spending on higher education and how these investments are allocated;
- Assess trends in the proportion or "share" that students and families are paying for higher education;
- See how funding of their state's higher education system compares to other states; and
- Assess the capacity of their state economy and tax policies to generate revenue to support public priorities such as higher education.

While making finance data cleaner, consistent, and more comparable, SHEF's analytic methods also add complexity. All comparisons can claim only to be "valid, more or less," and SHEF is no exception. Analysts with knowledge of particular states probably know of other factors that should be taken into account, or that could mislead comparative analysis. SHEEO continues to welcome all efforts to improve the quality of its data and analytical tools. We urge readers and users to help us improve both methods and understanding.

Many educators and policymakers (and segments of the public) may look to interstate financial analysis to determine "appropriate" or "sufficient" funding for higher education. But sufficiency is meaningful only in the context of a particular state's objectives and circumstances. State leaders, educators, and others must work together to set goals and develop strategies to achieve those goals, and then determine the amount and allocations of funds required for success.

Whether the objective is to sustain competitive advantage or to improve the postsecondary education system, money is always an issue. With additional resources, educators can serve more students at higher levels of quality. But more spending does not necessarily yield proportional increases in quantity or quality.[3] Efficiency is a thorny issue in educational finance; educators always can find good uses for additional resources, and resources always are limited. If educators and policymakers can agree that it is highly desirable to achieve widespread educational attainment more cost-effectively, they can work together to increase educational productivity. Authentic productivity gains require sustained effort, a combination of investing in priorities, and finding efficiencies through incentives, reallocation, and innovation.

The question, "How much funding is enough?" has no easy answer at the state or national level. Educators and policymakers must work together to address such key questions as:

- What kind of higher education system do we want?
- What will it take, given our circumstances, to establish and sustain such a system?
- Are we making effective use of our current investments?
- Where would an incremental or reallocated dollar lead to improved outcomes and help to meet state goals?

Good financial data and analysis are essential for addressing such questions.

[3] Jones, D., and Kelly, P. (2005). *A new look at the institutional component of higher education finance: A guide for evaluating performance relative to financial resources.* Boulder, CO: NCHEMS.

Revenue Sources and Uses

Support for higher education involves a substantial financial commitment by state and local governments. Twenty-five years ago, in 1985, state and local governments invested $29.1 billion (in current dollars) in direct support for the operations of public and independent higher education institutions. By 2011, state and local support for higher education reached $87.5 billion. As shown in *Table 1*, 2011 state and local support was slightly higher than 2010 but lower than state and local support in 2008 and 2009.

This section provides data and analysis on these sources of state and local government support for higher education, focusing on selected years in the period beginning in 1985 and providing greater detail on the most recent five years (2006-2011). It also provides an overview of the major uses of that support, including state support for (1) research, agricultural extension, and medical education; (2) student financial aid; and (3) independent (private, not-for-profit) institutions.[4]

As shown in *Table 1*, sources for the $87.5 billion state and local government support for higher education in 2011 included the following:

- State sources accounted for more than 91 percent, with 83 percent coming from appropriations from state tax revenue.
- Non-tax appropriations, mostly from state lotteries, were a small but rapidly growing portion of state funds, increasing from $2.2 billion in 2006 to $2.9 billion in 2011.
- Local appropriations accounted for 10.5 percent, with some degree of local tax support for higher education in 30 states.
- State-funded endowment earnings, a source for higher education revenue in nine states, accounted for another 0.4 percent.
- Oil and mineral extraction fees or other lease income (generally not appropriated) accounted for 0.1 percent.
- Federal funds allocated to states for higher education operations through the American Recovery and Reinvestment Act (ARRA) totaled $2.8 billion across 31 states, 3.3 percent of the national total.

Major uses of the $87.5 billion in 2011 state and local government funding for higher education included:

- $68 billion (about 78 percent) for general operating expenses of public higher education institutions.
- $10.4 billion (11.9 percent) for special-purpose appropriations—research, agricultural extension, and medical education. In 2008, states devoted to 12.6% of state and local government funding to these programs.
- State-funded student financial aid programs, including state-funded programs for students attending independent as well as public institutions, accounted for about 9.8 percent of the funds used. States spent 7.1 percent of state and local government funding on student financial aid programs at public institutions, up from 5.6% in 2006.
- Direct support of independent institutions was reported in 12 states with such state-funded programs and made up 0.2 percent of the funds used.

[4] *Supplemental SHEF Tables*, which are available at www.sheeo.org, provide more-detailed data and tables on state-by-state sources and uses of higher education funding for 2011. As noted in the examples below, revenue sources vary considerably across states and from the national averages.

Table 1
Major Sources and Uses of State and Local Government Support
Fiscal 2006-2011 (Dollars in Millions)

	2006	2007	2008	2009	2010	2011
State Support						
ARRA Funds	-	-	-	2,268	4,497	2,847
Tax Appropriations	67,265	72,157	77,404	74,535	70,659	72,589
All Non-Tax Support	2,205	2,223	2,260	2,711	2,780	2,855
Non-Appropriated Support	128	100	81	90	89	87
State Funded Endowment Earnings	303	318	347	398	400	387
Other (1)	155	617	684	186	209	439
Funds Not Available for Use (2)	43	38	81	636	394	812
State Total	**70,012**	**75,378**	**80,695**	**79,554**	**78,239**	**78,391**
Local Tax Appropriations	**6,970**	**7,300**	**8,084**	**8,451**	**8,948**	**9,153**
Total	**$ 76,981**	**$ 82,678**	**$ 88,779**	**$ 88,004**	**$ 87,187**	**$ 87,543**
Uses						
Research-Agric-Medical	9,611	10,276	11,160	10,946	10,547	10,439
Public Student Aid (3)	4,294	4,665	5,070	5,488	5,908	6,212
Independent Student Aid (4)	2,290	2,404	2,440	2,496	2,373	2,345
Out-of-State Student Aid	35	37	33	35	38	34
Independent Institutions	263	287	295	255	214	183
Non-Credit and Continuing Education	279	339	327	322	342	360
General Public Operations	60,209	64,671	69,455	68,462	67,765	67,970
Total	**$ 76,981**	**$ 82,678**	**$ 88,779**	**$ 88,004**	**$ 87,187**	**$ 87,543**
(Percentages)						
Source	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
State Support						
ARRA Funds	0.0%	0.0%	0.0%	2.6%	5.2%	3.3%
Tax Appropriations	87.4%	87.3%	87.2%	84.7%	81.0%	82.9%
All Non-Tax Support	2.9%	2.7%	2.5%	3.1%	3.2%	3.3%
Non-Appropriated Support	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
State Funded Endowment Earnings	0.4%	0.4%	0.4%	0.5%	0.5%	0.4%
Other (1)	0.2%	0.7%	0.8%	0.2%	0.2%	0.5%
Funds Not Available for Use (2)	0.1%	0.0%	0.1%	0.7%	0.5%	0.9%
State Total	91.1%	91.3%	91.1%	91.8%	90.6%	91.4%
Local Tax Appropriations	**9.1%**	**8.8%**	**9.1%**	**9.6%**	**10.3%**	**10.5%**
Total	100.1%	100.1%	100.2%	101.4%	100.9%	101.9%
Uses						
Research-Agric-Medical	12.5%	12.4%	12.6%	12.4%	12.1%	11.9%
Public Student Aid (3)	5.6%	5.6%	5.7%	6.2%	6.8%	7.1%
Independent Student Aid (4)	3.0%	2.9%	2.7%	2.8%	2.7%	2.7%
Out-of-State Student Aid	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Independent Institutions	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%
Non-Credit and Continuing Education	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
General Public Operations	78.2%	78.2%	78.2%	77.8%	77.7%	77.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Percentages may not equal 100 due to rounding.

Notes:

1) "Other" includes multi-year appropriations from previous years and funds not classified into one of the other source categories.

2) "Funds Not Available for Use" includes appropriations that were returned to the state, and portions of multi-year appropriations to be spread over other years.

3) "Public Student Aid" is state appropriated student financial aid for public institution tuition and fees. Includes aid appropriated outside the recognized state student aid program(s). Some respondents could not separate tuition aid from aid for living expenses.

4) "Independent Student Aid" is state appropriated student financial aid for students attending independent institutions in the state.

Source: *State Higher Education Executive Officers*

National Trends in Enrollment and Revenue

This section highlights national trends in higher education enrollment and the relationship between these trends and available revenue (and other components of financing). These "national" trends are actually composites of 50 unique and varied state trends. The following section and Supplemental SHEF Tables (on the website www.sheeo.org) provide detailed information on the varied patterns over time and across states.

The historical data in *Figure 3* demonstrate the relationships between higher education enrollment and revenue over time. *Figure 3* also illustrates the longer-term trends. In 2010, state and locally financed educational appropriations for public higher education hit the lowest level ($6,532 per FTE in constant 2011 dollars) in a quarter century, driven by accelerating enrollment growth, modest inflation, and the failure of state and local funding to keep pace with either during the past two years. This downward trend continued in 2011 with state and locally financed educational appropriations at $6,290 per FTE, a decline of 3.7 percent over 2010 in constant dollars.

Figure 3 illustrates the following:

Full-Time-Equivalent Enrollment (FTE)

- Nationally, the long-term enrollment trend for public institutions indicates continued growth with growth of 2.4 percent in 2011 over 2010 and 16.9 percent growth since 2006. Over the last ten years, enrollment grew by about 33 percent.
- Enrollment grew rapidly from 2000 to 2005, and then more modestly in 2006 and 2007 (see the "public FTE enrollment" trend line in *Figure 3*). Growth accelerated again in 2009 (4.2 percent) and 2010 (5.4 percent). 2011 shows more modest growth of 2.4 percent over 2010.
- The rate of enrollment growth varies from year to year and state to state in response to the economy and job market as well as underlying demographic factors. It is likely, however, that enrollments would have been even higher, except for budget driven enrollment caps in some states and reductions in state student financial assistance.

Educational Appropriations

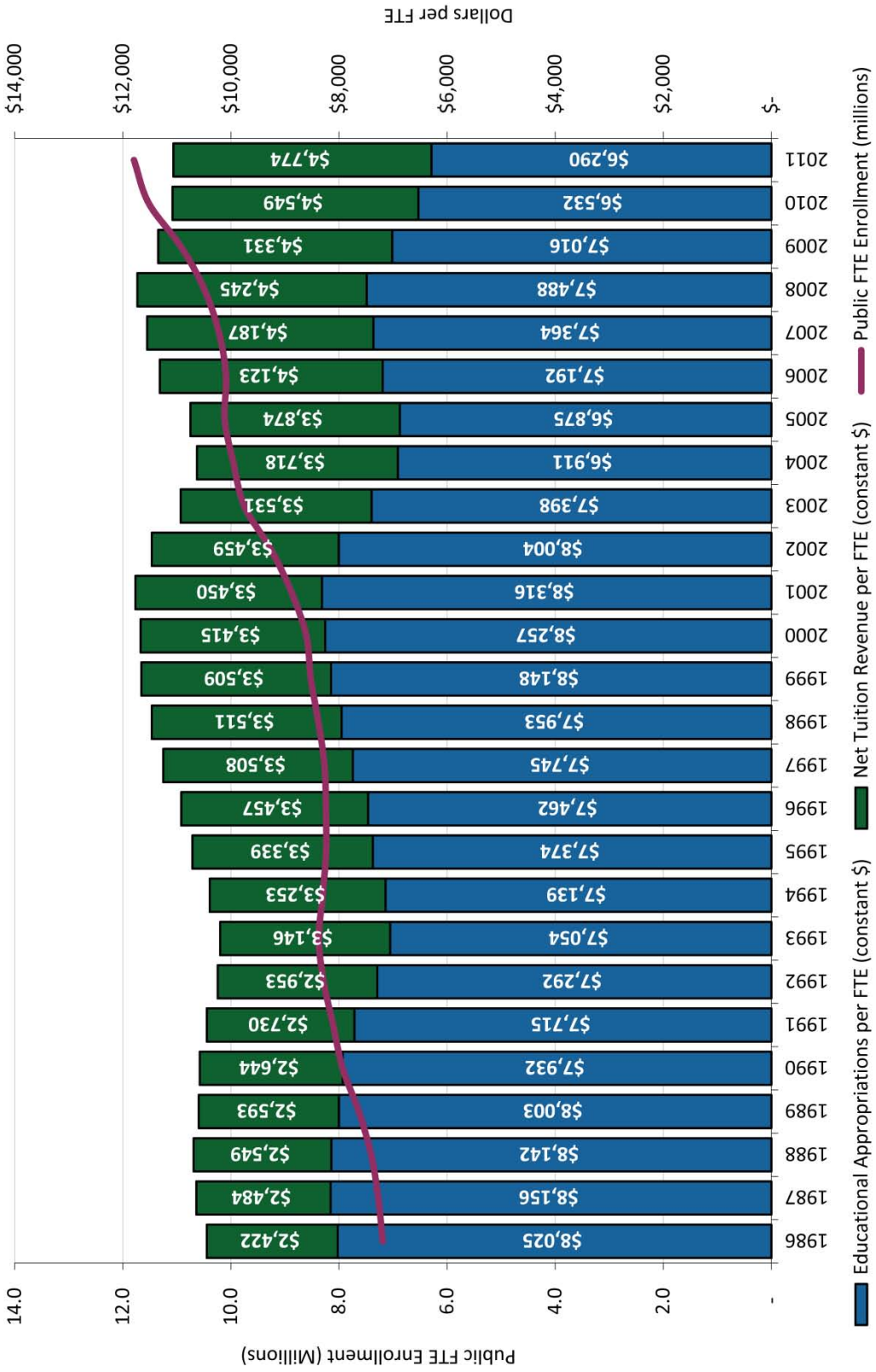
- Constant dollar educational appropriations per FTE (see the blue bars in *Figure 3*) reached a high of $8,316 in 2001.
- Following four years of decline (2002, 2003, 2004, and 2005), per student educational appropriations increased in 2006, 2007, and 2008, recovering to $7,488 and then declining each of the last three years to $6,290 in 2011.
- Appropriations per FTE were lower in 2010 and 2011 (in constant dollars) than in any year since 1980.

Net Tuition Revenue

- The rate of increase in net tuition was slower in 2007 and 2008 than in the previous three years, but in 2010 and 2011 net tuition grew again as a percentage of total educational revenue.
- The rate of growth in net tuition revenue has been particularly steep during periods when state and local support have fallen short of inflation and enrollment growth, typically during and immediately following economic recessions.

Figure 3

Public FTE Enrollment and Educational Appropriations per FTE, U.S., Fiscal 1986-2011



Net Tuition Revenue at Public Institutions–Further Discussion

Among the many policy-relevant financial issues facing policymakers, the increased reliance on tuition revenue to support the services provided by higher education stands out as needing better data and analysis. The SHEF data collection instrument requests that states calculate and report annual estimates for gross tuition and fee revenue based on tuition rates and credit-hour enrollment. Across all states, these gross tuition and fee assessments in public postsecondary institutions totaled $71.4 billion in 2011. After subtracting state-funded public financial aid, institutional discounts and waivers, and tuition and fees paid by medical school students, the net tuition revenue available to support "general operating costs" was $56.3 billion, 79 percent of gross assessments.

The resulting net tuition revenue for selected years between 1986 and 2011 is reported in *Table 2* in current dollars and in *Table 3* in constant dollar values.[5] Some states report that a portion of the public institution tuition and fees is used for capital debt service or retirement. *Tables 2* and *3* show this amount. Tuition and fees used for debt service are included in net tuition, but they are not included in the calculation of total educational revenue. This procedure reflects the fact that these debt service costs are borne by students, but are not available to support general operating and educational costs.

As shown in *Figures 3* and *4*, net tuition revenue has grown most rapidly as a percentage of total educational revenue in public institutions during periods when constant dollar state support per student has declined. Nationally, net tuition accounted for just about 23 percent of educational revenues in 1986, which followed the recession of 1981-82. Net tuition revenue remained near that level through the rest of the 1980s. Following the recession of 1990-91, the net tuition share of educational revenue grew rapidly to 31 percent, where it stayed through the 1990s. In the three years following the recession in 2001, during which enrollment grew rapidly and aggregate state funding remained relatively constant, the net tuition share of total educational revenue grew rapidly to 35%. Following the recession of 2008, net tuition has climbed to its current level of more than 43 percent.

The combination of state government support, local tax appropriations, and tuition revenue constitutes the principal source of support for instructional programs at public institutions. Estimates made on the basis of institutional data reported to the National Center for Education Statistics indicate that the proportion of public institution revenue derived from tuition varies substantially. At public, two-year institutions, on average just over 75 percent of educational operating revenue is derived from state or local sources, with the remaining 25 percent coming from tuition revenue. At public four-year institutions, on average well over 40 percent of educational operating revenue is derived from tuition, with the remainder from state and other sources.

State support remains central to supporting educational services even at public research universities where its importance tends to get lost within the complex budgets of large institutions. The combination of state support and tuition remains the dominant revenue source for instructional programs, and public support generally exceeds that provided through student charges. Multiple other sources of revenue received and used by research universities are associated with sponsored research and contracts, auxiliary enterprises, and hospitals and other medical activities. These activities may complement and enhance instruction, but they are typically expected to be mostly, or entirely, financially self-supporting.

Relationships between state support and tuition revenue receive substantial public attention. Some observers have suggested that states are abandoning their historical commitment to public higher education. National data and more careful attention to variable state conditions strongly suggest that such a broad observation is not justified by the available data. It also is not consistent with the stated intentions of state policymakers. But the steady increase in tuition rates and the growing reliance on this source of revenue have the potential of reducing opportunity and decreasing the educational attainment of the American people.

[5] Detailed state-level information can be found in the *Supplemental SHEF Tables* (www.sheeo.org).

Table 2
Higher Education Finance Indicators (Current Unadjusted Dollars in Millions)

(Current Dollars)	1986	2001	2006	2010	2011	1 Year Change
ARRA Funds	$ -	$ -	$ -	$ 4,497	$ 2,847	-36.7%
State	$ 29,317	$ 59,874	$ 67,145	$ 70,775	$ 72,622	2.6%
Local	$ 2,054	$ 5,392	$ 6,970	$ 8,948	$ 9,153	2.3%
[A] State and Local Support for Public Higher Education	**$ 31,371**	**$ 65,265**	**$ 74,114**	**$ 84,220**	**$ 84,621**	**0.5%**
[B] Research - Agriculture - Medical (RAM)	**$ 5,372**	**$ 9,381**	**$ 9,611**	**$ 10,547**	**$ 10,439**	**-1.0%**
[C] Educational Appropriations [A-B]	**$ 25,999**	**$ 55,884**	**$ 64,504**	**$ 73,673**	**$ 74,182**	**0.7%**
[D] Net Tuition	**$ 7,846**	**$ 23,186**	**$ 36,984**	**$ 51,315**	**$ 56,298**	**9.7%**
[E] Tuition and Fees Used for Debt Service	**$ -**	**$ 112**	**$ 337**	**$ 531**	**$ 560**	**5.4%**
Total Educational Revenue [C+D-E]	**$ 33,845**	**$ 78,958**	**$ 101,151**	**$ 124,457**	**$ 129,921**	**4.4%**
Net Tuition as a % of Total Educational Revenue	**23.2%**	**29.4%**	**36.6%**	**41.2%**	**43.3%**	
Full-Time Equivalent Enrollment (FTE) (1)	**7,189,871**	**8,876,637**	**10,089,181**	**11,518,699**	**11,793,720**	**2.4%**
Educational Appropriations Per FTE	$ 3,616	$ 6,296	$ 6,393	$ 6,396	$ 6,290	-1.7%
Net Tuition Per FTE	$ 1,091	$ 2,612	$ 3,666	$ 4,455	$ 4,774	7.2%
Total Educational Revenue Per FTE	$ 4,707	$ 8,895	$ 10,026	$ 10,805	$ 11,016	2.0%
State support for independent and out of state institutions (2)		**$ 1,960**	**$ 2,588**	**$ 2,625**	**$ 2,562**	**-2.4%**
Aid to Students Attending Independent Institutions	$ -	$ 1,655	$ 2,290	$ 2,373	$ 2,345	-1.2%
Aid to Students Attending Out of State Institutions	$ -	$ 21	$ 35	$ 38	$ 34	-9.7%
Operating Grants	$ -	$ 284	$ 263	$ 214	$ 183	-14.6%

Notes:

1) FTE enrollment excludes medical school enrollments.

2) Data for aid to independent institutions and students attending private institutions not reported in 1986 and may be incomplete in 2001.

Source: *State Higher Education Executive Officers*

Table 3

Higher Education Finance Indicators (Constant Adjusted 2011 Dollars in Millions)

(Constant Dollars)	1986	2001	2006	2010	2011	1 Year Change	5 Year Change	10 Year Change	25 Year Change
ARRA Funds	$ -	$ -	$ -	$ 4,593	$ 2,847	-38.0%	N/A	N/A	N/A
State	$ 65,060	$ 79,091	$ 75,530	$ 72,276	$ 72,622	0.5%	-3.8%	-8.2%	11.6%
Local	$ 4,558	$ 7,122	$ 7,840	$ 9,138	$ 9,153	0.2%	16.7%	28.5%	100.8%
[A] State and Local Support for Public Higher Education	**$ 69,619**	**$ 86,213**	**$ 83,370**	**$ 86,006**	**$ 84,621**	**-1.6%**	**1.5%**	**-1.8%**	**21.6%**
[B] Research - Agriculture - Medical (RAM)	$ 11,922	$ 12,392	$ 10,811	$ 10,771	$ 10,439	**-3.1%**	**-3.4%**	**-15.8%**	**-12.4%**
[C] Educational Appropriations [A-B]	**$ 57,697**	**$ 73,822**	**$ 72,559**	**$ 75,235**	**$ 74,182**	**-1.4%**	**2.2%**	**0.5%**	**28.6%**
[D] Net Tuition	$ 17,413	$ 30,628	$ 41,603	$ 52,403	$ 56,298	**7.4%**	**35.3%**	**83.8%**	**223.3%**
[E] Tuition and Fees Used for Debt Service	**$ -**	**$ 154**	**$ 388**	**$ 539**	**$ 560**	**3.8%**	**44.4%**		
Total Educational Revenue [C+D-E]	**$ 75,110**	**$ 104,296**	**$ 113,774**	**$ 127,099**	**$ 129,921**	**2.2%**	**14.2%**	**24.6%**	**73.0%**
Net Tuition as a % of Total Educational Revenue	**23.2%**	**29.4%**	**36.6%**	**41.2%**	**43.3%**				
Full-Time Equivalent Enrollment (FTE) (1)	7,189,871	8,876,637	10,089,181	11,518,699	11,793,720	**2.4%**	**16.9%**	**32.9%**	**64.0%**
Educational Appropriations Per FTE	$ 8,025	$ 8,316	$ 7,192	$ 6,532	$ 6,290	-3.7%	-12.5%	-24.4%	-21.6%
Net Tuition Per FTE	$ 2,422	$ 3,450	$ 4,123	$ 4,549	$ 4,774	4.9%	15.8%	38.4%	97.1%
Total Educational Revenue Per FTE	$ 10,447	$ 11,750	$ 11,278	$ 11,034	$ 11,016	-0.2%	-2.3%	-6.2%	5.5%
State support for independent and out of state institutions (2)		**$ 2,589**	**$ 2,911**	**$ 2,681**	**$ 2,562**	**-4.4%**	**-12.0%**		
Aid to Students Attending Independent Institutions		$ 2,187	$ 2,576	$ 2,423	$ 2,345	-3.2%	-9.0%		
Aid to Students Attending Out of State Institutions		$ 27	$ 39	$ 39	$ 34	-11.6%	-12.4%		
Operating Grants		$ 375	$ 296	$ 219	$ 183	-16.4%	-38.3%		

Notes:

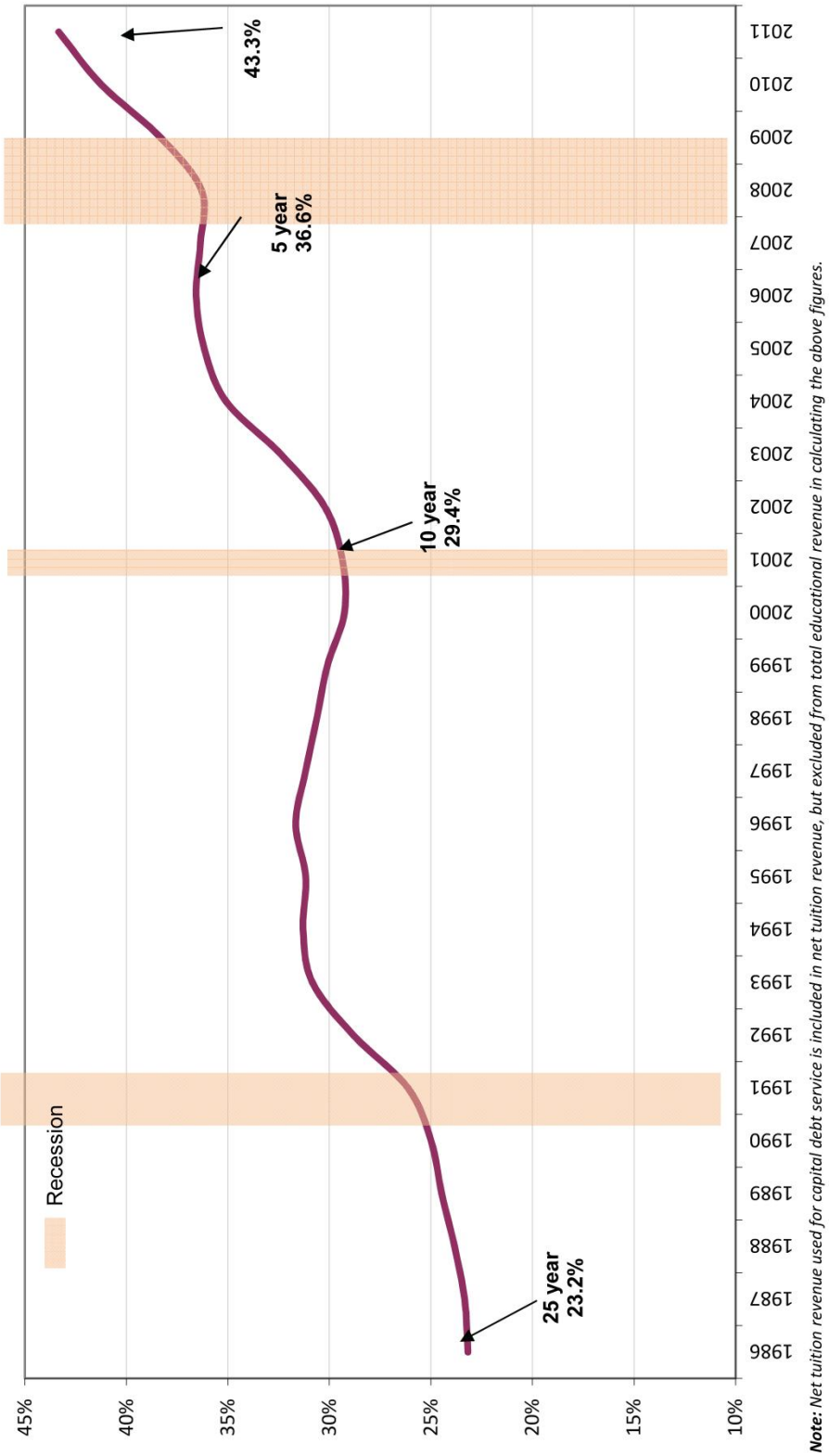
1) FTE enrollment excludes medical school enrollments.

2) Data for aid to independent institutions and students attending private institutions not reported in 1986 and may be incomplete in 2001.

Source: *State Higher Education Executive Officers*

Figure 4

Net Tuition as a Percent of Public Higher Education Total Educational Revenue, U.S. Fiscal 1986-2011



Note: *Net tuition revenue used for capital debt service is included in net tuition revenue, but excluded from total educational revenue in calculating the above figures.*

Source: *State Higher Education Executive Officers*

Interstate Comparisons— Making Sense of Many Variables

National averages and trends often mask substantial variation and important differences across the 50 states. This section provides ways to examine interstate differences more closely. First, it explains in greater detail the adjustments SHEF makes to state-level data. Next, it illustrates differences across single variables or dimensions of higher education financing; for example, rates of enrollment growth or the varying proportions of public versus tuition financing. Third, it compares or "locates" states in relation to one another across two variables or dimensions of higher education finance; for example, taking into account both where a state currently stands in its support for higher education and whether the level of support has been decreasing or increasing relative to other states.

SHEF Adjustments to Facilitate Interstate Comparisons

Many factors affect the decisions and relative positions of states in their funding of higher education. Although no comparative analysis can take all of these into account, SHEF makes two adjustments to reflect the most basic differences—differences in the cost of living across states and in the public postsecondary enrollment mix among different types of institutions.

Technical Paper Table 1 (in Technical Paper B) shows the impact of SHEF cost of living and enrollment mix adjustments on total educational revenue per FTE. These adjustments tend to draw states toward the national average; for example, states with a high cost of living also tend to support higher education at above average levels, in which cases, the SHEF adjustments for living costs reduce the extent of their above average higher education revenues per student. The size and direction of these adjustments vary across states. In brief:

- In states where the cost of living exceeds the national average, dollars per FTE are adjusted downward (e.g., Massachusetts). In states where the cost of living is below the national average, dollars per FTE are adjusted upward (e.g., Mississippi).
- If the proportion of enrollment in higher-cost institutions (e.g., research institutions) exceeds the national average, the dollars per FTE are adjusted downward. In states with a relatively inexpensive enrollment mix (e.g., more community colleges), the dollars per FTE are adjusted upward.
- Dollars per FTE are adjusted upward the most in states with an inexpensive enrollment mix and low cost of living (e.g., Arkansas). The reverse is true for states that possess both a more expensive enrollment mix and a higher cost of living (e.g., Colorado). In some states, the two factors cancel out each other (e.g., Washington).

Comparing States across Single Dimensions or Variables

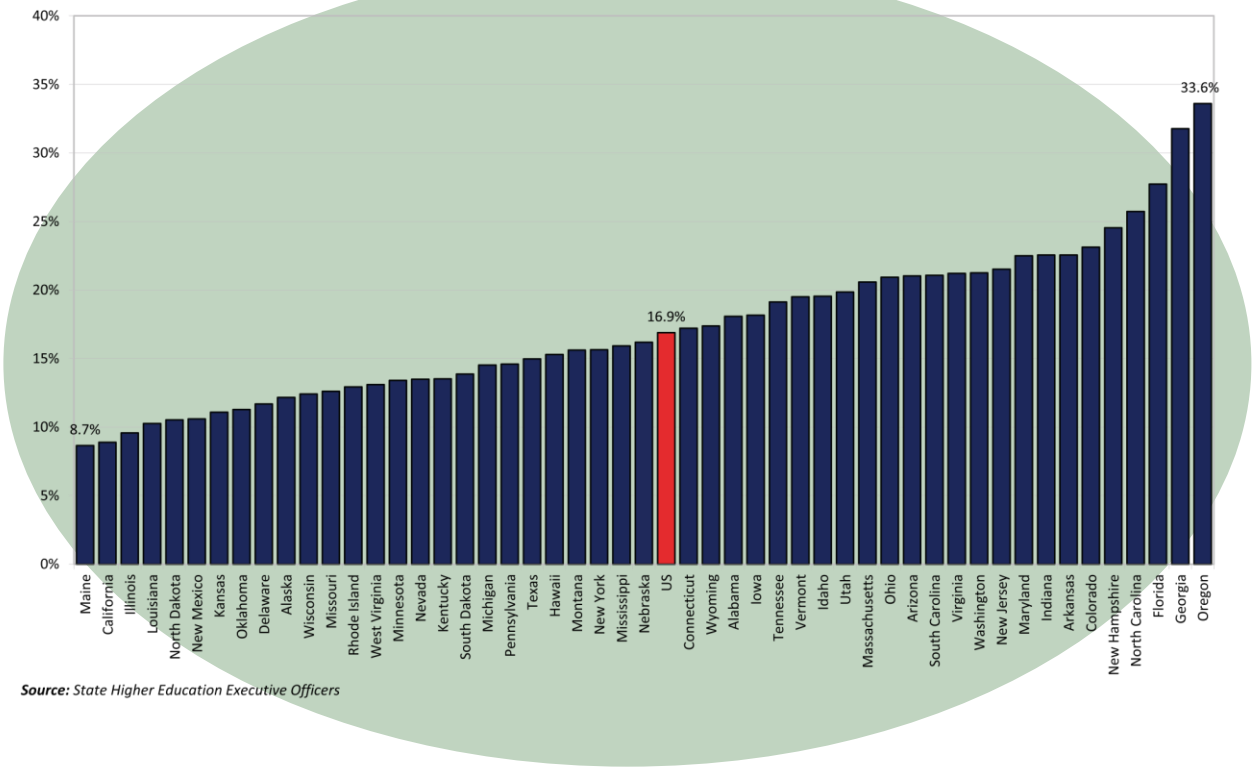
This section illustrates the variability across states and over time with respect to: higher education enrollment growth, total state and local appropriations, the proportion of tuition-derived revenue, total revenue available for public educational programs, and current funding in the context of each state's average national position over the past 25 years.

Figure 5 (and the accompanying data in *Table 4*) shows change in full-time-equivalent enrollment (FTE) in public higher education by state for the five years between 2006 and 2011.

- All fifty states have seen enrollment growth over the last five years, ranging from 8.7 percent in Maine to 33.6% in Oregon.
- The 24 states in which enrollment growth exceeded the national average of 16.9 percent include both large and small states, high and low population growth states, and several states where enrollment increased much faster than overall population changes.
- Sixteen states saw enrollment growth of more than 20 percent.
- Between 2010 and 2011, nearly every state experienced enrollment growth, but California, where substantial tuition increases and enrollment caps were imposed, saw a reduction of 2.8%, or 50,000 students.

Figure 5

Full-Time-Equivalent (FTE) Enrollment in Public Higher Education
Percent Change by State, Fiscal 2006-2011



Source: *State Higher Education Executive Officers*

Table 4
Public Higher Education Full-Time-Equivalent (FTE) Enrollment

	FY 2006	FY 2010	FY 2011	1 Year % Change	5 Year % Change
Alabama	180,985	209,851	213,698	1.8%	18.1%
Alaska	18,785	20,271	21,069	3.9%	12.2%
Arizona	227,283	259,953	275,071	5.8%	21.0%
Arkansas	101,344	121,359	124,204	2.3%	22.6%
California	1,596,282	1,789,013	1,738,294	-2.8%	8.9%
Colorado	158,876	187,231	195,621	4.5%	23.1%
Connecticut	73,608	85,033	86,281	1.5%	17.2%
Delaware	31,269	33,570	34,925	4.0%	11.7%
Florida	507,927	596,008	648,766	8.9%	27.7%
Georgia	292,655	370,732	385,615	4.0%	31.8%
Hawaii	35,337	39,857	40,743	2.2%	15.3%
Idaho	44,504	49,251	53,201	8.0%	19.5%
Illinois	387,964	424,716	425,134	0.1%	9.6%
Indiana	218,051	258,763	267,219	3.3%	22.5%
Iowa	112,341	127,128	132,744	4.4%	18.2%
Kansas	127,645	137,374	141,789	3.2%	11.1%
Kentucky	140,769	154,247	159,805	3.6%	13.5%
Louisiana	166,536	178,931	183,633	2.6%	10.3%
Maine	35,235	37,517	38,284	2.0%	8.7%
Maryland	192,614	232,590	235,945	1.4%	22.5%
Massachusetts	139,874	165,244	168,671	2.1%	20.6%
Michigan	378,034	431,592	432,959	0.3%	14.5%
Minnesota	189,009	215,009	214,342	-0.3%	13.4%
Mississippi	117,731	123,092	136,487	10.9%	15.9%
Missouri	160,918	187,162	181,217	-3.2%	12.6%
Montana	35,429	38,909	40,961	5.3%	15.6%
Nebraska	72,622	83,206	84,384	1.4%	16.2%
Nevada	60,948	68,799	69,169	0.5%	13.5%
New Hampshire	31,720	39,614	39,504	-0.3%	24.5%
New Jersey	228,080	268,066	277,147	3.4%	21.5%
New Mexico	79,645	98,710	88,083	-10.8%	10.6%
New York	500,182	571,414	578,411	1.2%	15.6%
North Carolina	338,644	420,956	425,779	1.1%	25.7%
North Dakota	34,302	37,716	37,915	0.5%	10.5%
Ohio	380,945	447,495	460,672	2.9%	20.9%
Oklahoma	134,940	142,024	150,171	5.7%	11.3%
Oregon	126,443	160,595	168,927	5.2%	33.6%
Pennsylvania	327,235	371,286	374,997	1.0%	14.6%
Rhode Island	28,092	32,071	31,724	-1.1%	12.9%
South Carolina	145,141	166,783	175,722	5.4%	21.1%
South Dakota	29,254	32,323	33,312	3.1%	13.9%
Tennessee	169,042	190,286	201,378	5.8%	19.1%
Texas	820,788	863,475	943,694	9.3%	15.0%
Utah	104,350	118,446	125,073	5.6%	19.9%
Vermont	18,868	21,778	22,548	3.5%	19.5%
Virginia	265,615	312,598	321,965	3.0%	21.2%
Washington	213,055	254,867	258,334	1.4%	21.3%
West Virginia	71,717	78,798	81,116	2.9%	13.1%
Wisconsin	214,065	237,403	240,625	1.4%	12.4%
Wyoming	22,483	25,587	26,392	3.1%	17.4%
US	**10,089,181**	**11,518,699**	**11,793,720**	**2.4%**	**16.9%**

Notes:

1) Full-time-equivalent enrollment equates student credit hours to full time, academic year students, but excludes medical students.

Source: *State Higher Education Executive Officers*

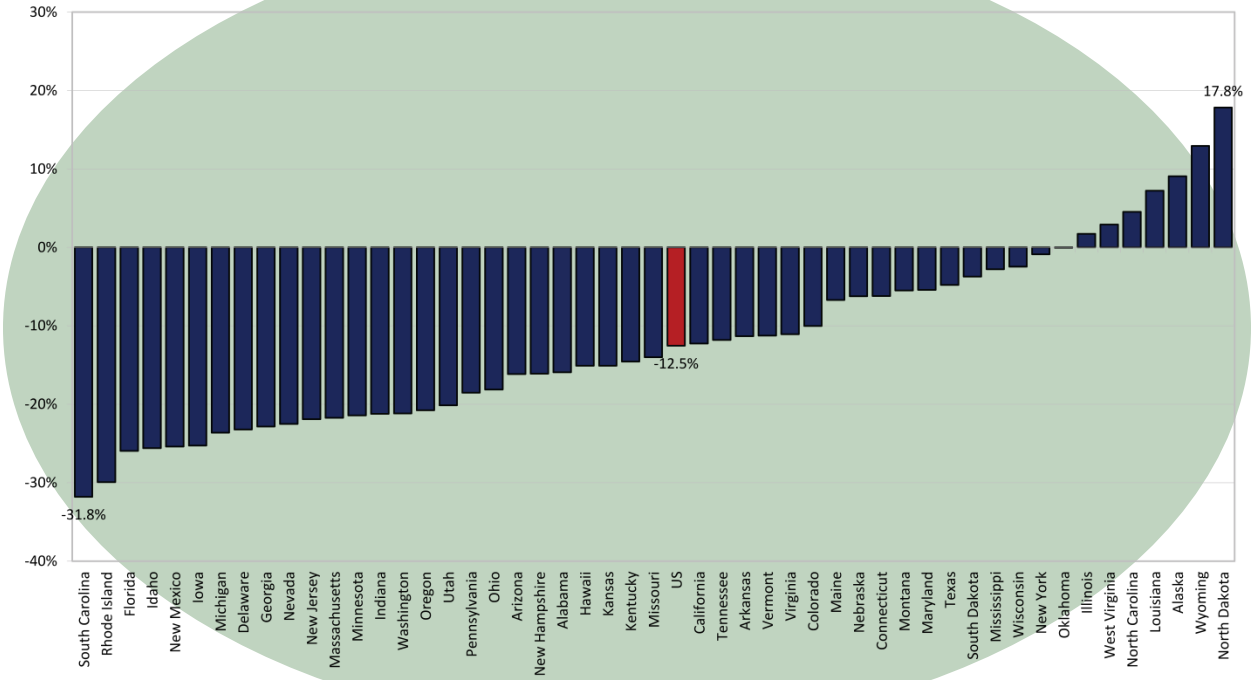
Figure 6 (and the accompanying data in *Table 5*) shows the percent change by state in higher education appropriations per public FTE student between 2006 and 2011. The national average per FTE funding for 2011 is lower than 2010 by 3.7 percent (see *Table 5*), and 12.5 percent lower than 2006.

- Seven states increased constant dollar per student support for public institutions during this five-year period.
- Forty-three states decreased constant dollar per student funding during this five-year period, seventeen by more than 20 percent.
- Thirty-one states utilized federal funds available through the American Recovery and Reinvestment Act to fill shortfalls in state support for general operating expenses at public colleges and universities. ARRA revenues totaled $2.8 billion in 2011.

Figure 6

Educational Appropriations per FTE

Percent Change by State, Fiscal 2006-2011



Note: *Dollars adjusted by 2011 HECA, Cost of Living Adjustment, and Enrollment Mix Index.*

Source: *State Higher Education Executive Officers*

Table 5
Educational Appropriations per FTE (Constant Adjusted 2011 Dollars)

	FY 2006	FY 2010	FY 2011	1 Year % Change	FY 2011 Index to US Average	5 Year % Change	% Educational Appropriations from Stimulus, 2011
Alabama	$ 7,126	$ 6,236	$ 5,991	-3.9%	0.95	-15.9%	10.5%
Alaska	$ 10,881	$ 12,201	$ 11,866	-2.8%	1.89	9.0%	0.0%
Arizona	$ 6,480	$ 6,093	$ 5,433	-10.8%	0.86	-16.2%	0.0%
Arkansas	$ 7,992	$ 7,242	$ 7,086	-2.1%	1.13	-11.3%	1.9%
California	$ 7,559	$ 6,091	$ 6,631	8.9%	1.05	-12.3%	1.9%
Colorado	$ 3,486	$ 3,740	$ 3,136	-16.1%	0.50	-10.0%	12.1%
Connecticut	$ 8,718	$ 8,711	$ 8,176	-6.1%	1.30	-6.2%	0.0%
Delaware	$ 5,952	$ 5,585	$ 4,569	-18.2%	0.73	-23.2%	0.0%
Florida	$ 7,849	$ 6,214	$ 5,810	-6.5%	0.92	-26.0%	9.9%
Georgia	$ 9,315	$ 7,534	$ 7,186	-4.6%	1.14	-22.9%	2.2%
Hawaii	$ 8,141	$ 7,868	$ 6,911	-12.2%	1.10	-15.1%	5.2%
Idaho	$ 8,797	$ 7,669	$ 6,545	-14.7%	1.04	-25.6%	1.4%
Illinois	$ 7,429	$ 8,145	$ 7,556	-7.2%	1.20	1.7%	0.0%
Indiana	$ 5,298	$ 4,522	$ 4,173	-7.7%	0.66	-21.2%	0.0%
Iowa	$ 5,997	$ 5,506	$ 4,481	-18.6%	0.71	-25.3%	0.0%
Kansas	$ 5,841	$ 5,232	$ 4,959	-5.2%	0.79	-15.1%	5.2%
Kentucky	$ 8,434	$ 7,644	$ 7,206	-5.7%	1.15	-14.6%	5.5%
Louisiana	$ 6,817	$ 7,099	$ 7,309	3.0%	1.16	7.2%	22.8%
Maine	$ 6,599	$ 6,212	$ 6,155	-0.9%	0.98	-6.7%	4.4%
Maryland	$ 7,309	$ 7,370	$ 6,913	-6.2%	1.10	-5.4%	0.0%
Massachusetts	$ 7,155	$ 5,821	$ 5,599	-3.8%	0.89	-21.7%	6.7%
Michigan	$ 6,105	$ 4,925	$ 4,663	-5.3%	0.74	-23.6%	0.0%
Minnesota	$ 6,354	$ 5,821	$ 4,993	-14.2%	0.79	-21.4%	0.0%
Mississippi	$ 7,017	$ 8,160	$ 6,820	-16.4%	1.08	-2.8%	11.4%
Missouri	$ 6,629	$ 5,980	$ 5,701	-4.7%	0.91	-14.0%	3.8%
Montana	$ 4,396	$ 4,481	$ 4,153	-7.3%	0.66	-5.5%	19.6%
Nebraska	$ 7,355	$ 6,986	$ 6,896	-1.3%	1.10	-6.2%	0.0%
Nevada	$ 9,496	$ 7,965	$ 7,357	-7.6%	1.17	-22.5%	0.0%
New Hampshire	$ 3,155	$ 2,845	$ 2,646	-7.0%	0.42	-16.1%	0.0%
New Jersey	$ 8,159	$ 6,501	$ 6,372	-2.0%	1.01	-21.9%	0.0%
New Mexico	$ 10,672	$ 7,444	$ 7,960	6.9%	1.27	-25.4%	1.7%
New York	$ 8,154	$ 7,941	$ 8,082	1.8%	1.28	-0.9%	5.6%
North Carolina	$ 9,054	$ 9,193	$ 9,463	2.9%	1.50	4.5%	3.2%
North Dakota	$ 5,316	$ 6,431	$ 6,263	-2.6%	1.00	17.8%	0.0%
Ohio	$ 5,057	$ 4,304	$ 4,139	-3.8%	0.66	-18.1%	13.9%
Oklahoma	$ 7,618	$ 8,481	$ 7,613	-10.2%	1.21	-0.1%	6.3%
Oregon	$ 5,501	$ 4,694	$ 4,359	-7.1%	0.69	-20.8%	3.1%
Pennsylvania	$ 5,649	$ 4,826	$ 4,602	-4.6%	0.73	-18.5%	5.0%
Rhode Island	$ 6,669	$ 4,451	$ 4,674	5.0%	0.74	-29.9%	8.4%
South Carolina	$ 7,054	$ 5,637	$ 4,811	-14.7%	0.76	-31.8%	14.8%
South Dakota	$ 4,831	$ 4,903	$ 4,650	-5.2%	0.74	-3.7%	7.1%
Tennessee	$ 7,741	$ 7,525	$ 6,828	-9.3%	1.09	-11.8%	0.0%
Texas	$ 8,303	$ 9,155	$ 7,904	-13.7%	1.26	-4.8%	0.0%
Utah	$ 6,310	$ 5,473	$ 5,039	-7.9%	0.80	-20.1%	5.7%
Vermont	$ 2,928	$ 2,696	$ 2,599	-3.6%	0.41	-11.3%	0.7%
Virginia	$ 5,879	$ 5,176	$ 5,229	1.0%	0.83	-11.1%	12.0%
Washington	$ 7,111	$ 6,123	$ 5,606	-8.4%	0.89	-21.2%	0.0%
West Virginia	$ 5,371	$ 5,738	$ 5,527	-3.7%	0.88	2.9%	8.8%
Wisconsin	$ 6,401	$ 6,058	$ 6,243	3.0%	0.99	-2.5%	0.0%
Wyoming	$ 14,116	$ 13,610	$ 15,943	17.1%	2.53	12.9%	11.0%
US	**$ 7,192**	**$ 6,532**	**$ 6,290**	**-3.7%**		**-12.5%**	**3.8%**

Notes:

1) Educational appropriations measure state and local support available for public higher education operating expenses including ARRA funds and excludes appropriations for independent institutions, financial aid for students attending independent institutions, research, hospitals, and medical education.

2) Adjustment factors, to arrive at constant dollar figures, include Cost of Living Adjustment (COLA), Enrollment Mix Index (EMI), and Higher Education Cost Adjustment (HECA).The Cost of Living Adjustment (COLA) is not a measure of inflation over time.

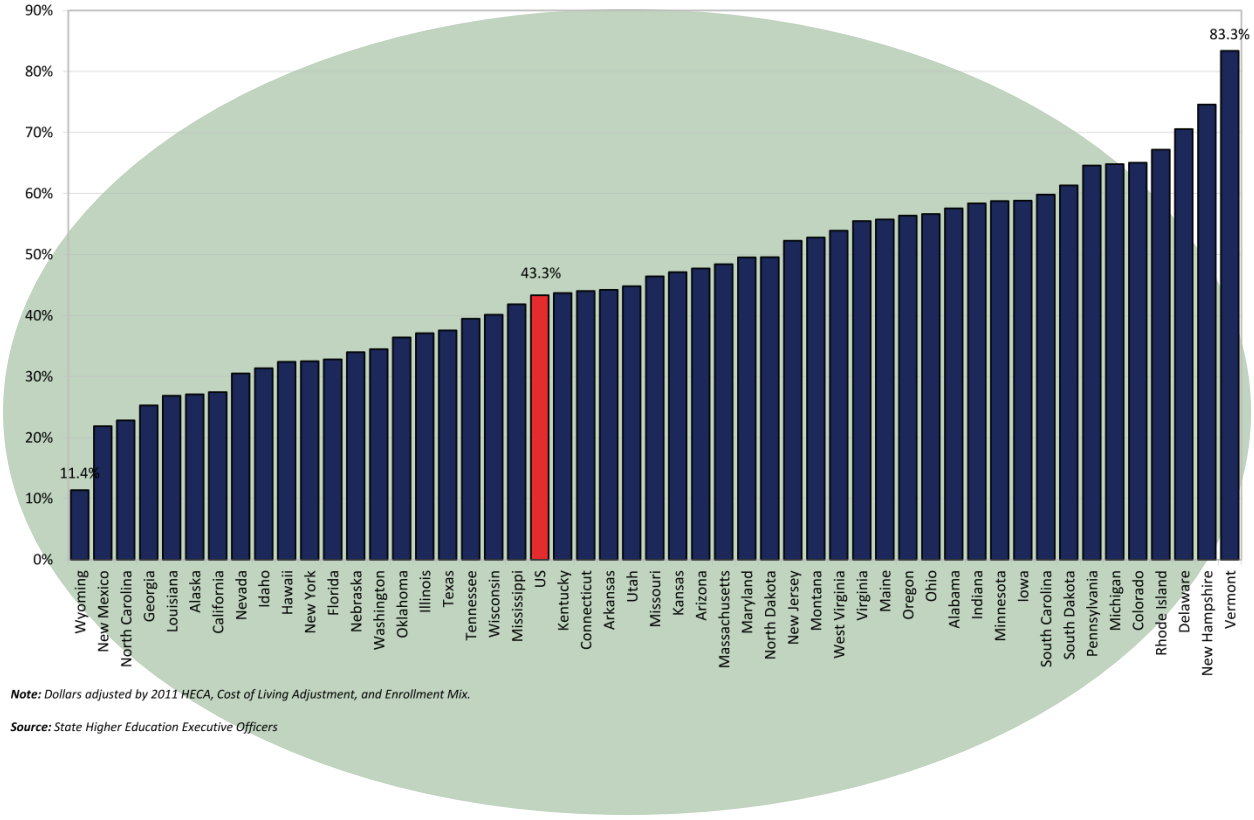
Source: *State Higher Education Executive Officers*

Figure 7 shows net tuition revenue as a percent of total educational revenue for public higher education by state for 2011. The accompanying *Table 6* shows the dollar values of the net tuition per FTE by state. *Table 6* also shows the amount of net tuition per FTE used for debt service, as reported by each state.

- States vary widely in the percent of educational revenue supported by net tuition, from a low of 11.4 percent in Wyoming to a high of 83.3 percent in Vermont.
- Thirty states are above the national average of 43.3 percent in the proportion of educational revenue from tuition sources.
- Twelve states report using some portion of net tuition revenue for debt service. The amount used in 2011 ranges from $810 per FTE to $16 per FTE. Nationally, only about $47 of net tuition per FTE was used for debt service in 2011.

Figure 7

Net Tuition as a Percent of Public Higher Education Total Educational Revenue by State, Fiscal 2011



Note: *Dollars adjusted by 2011 HECA, Cost of Living Adjustment, and Enrollment Mix.*

Source: *State Higher Education Executive Officers*

Table 6

Public Higher Education Net Tuition Revenue per FTE (Constant Adjusted 2011 Dollars)

State	FY 2006	FY 2010	FY 2011	1 Year % Change	FY 2011 Index to US Average	5 Year % Change	Tuition and Fees Used for Debt Service FY 2006	FY 2010	FY 2011
Alabama	$ 6,358	$ 7,574	$ 7,428	-1.9%	1.56	16.8%	$ 383	$ 516	$ 516
Alaska	$ 3,770	$ 4,285	$ 4,407	2.9%	0.92	16.9%	$ -	$ -	$ -
Arizona	$ 3,660	$ 4,469	$ 4,709	5.4%	0.99	28.7%	$ 314	$ 276	$ 273
Arkansas	$ 4,122	$ 4,634	$ 4,977	7.4%	1.04	20.7%	$ 629	$ 757	$ 810
California	$ 1,878	$ 2,221	$ 2,506	12.8%	0.52	33.5%	$ -	$ -	$ -
Colorado	$ 4,777	$ 5,473	$ 5,834	6.6%	1.22	22.1%	$ -	$ -	$ -
Connecticut	$ 5,940	$ 6,064	$ 6,430	6.0%	1.35	8.2%	$ -	$ -	$ -
Delaware	$ 9,044	$ 10,409	$ 10,749	3.3%	2.25	18.9%	$ 41	$ 82	$ 78
Florida	$ 2,467	$ 2,803	$ 2,838	1.2%	0.59	15.0%	$ -	$ -	$ -
Georgia	$ 1,979	$ 2,048	$ 2,423	18.3%	0.51	22.4%	$ 26	$ 17	$ 16
Hawaii	$ 2,046	$ 3,139	$ 3,317	5.7%	0.69	62.1%	$ -	$ -	$ -
Idaho	$ 2,505	$ 2,742	$ 2,992	9.1%	0.63	19.4%	$ -	$ -	$ -
Illinois	$ 3,085	$ 3,974	$ 4,367	9.9%	0.91	41.5%	$ -	$ 178	$ 152
Indiana	$ 5,778	$ 6,160	$ 5,853	-5.0%	1.23	1.3%	$ -	$ -	$ -
Iowa	$ 5,527	$ 6,214	$ 6,396	2.9%	1.34	15.7%	$ -	$ -	$ -
Kansas	$ 3,637	$ 4,274	$ 4,417	3.3%	0.93	21.4%	$ -	$ -	$ -
Kentucky	$ 4,330	$ 5,424	$ 5,591	3.1%	1.17	29.1%	$ -	$ -	$ -
Louisiana	$ 3,273	$ 2,688	$ 2,683	-0.2%	0.56	-18.0%	$ -	$ -	$ -
Maine	$ 6,179	$ 7,741	$ 7,754	0.2%	1.62	25.5%	$ -	$ -	$ -
Maryland	$ 7,018	$ 6,813	$ 6,782	-0.5%	1.42	-3.4%	$ -	$ -	$ -
Massachusetts	$ 4,897	$ 5,076	$ 5,251	3.5%	1.10	7.2%	$ -	$ -	$ -
Michigan	$ 6,877	$ 8,141	$ 8,586	5.5%	1.80	24.8%	$ -	$ -	$ -
Minnesota	$ 5,024	$ 6,306	$ 7,111	12.8%	1.49	41.5%	$ -	$ -	$ -
Mississippi	$ 4,272	$ 5,224	$ 4,910	-6.0%	1.03	14.9%	$ -	$ -	$ -
Missouri	$ 4,605	$ 4,051	$ 4,941	22.0%	1.04	7.3%	$ -	$ -	$ -
Montana	$ 4,534	$ 4,619	$ 4,642	0.5%	0.97	2.4%	$ -	$ -	$ -
Nebraska	$ 3,850	$ 3,430	$ 3,552	3.6%	0.74	-7.7%	$ -	$ -	$ -
Nevada	$ 2,715	$ 2,979	$ 3,231	8.4%	0.68	19.0%	$ -	$ -	$ -
New Hampshire	$ 6,682	$ 7,314	$ 7,755	6.0%	1.62	16.1%	$ 75	$ -	$ -
New Jersey	$ 5,977	$ 6,648	$ 6,971	4.9%	1.46	16.6%	$ -	$ -	$ -
New Mexico	$ 1,806	$ 1,820	$ 2,229	22.5%	0.47	23.4%	$ -	$ -	$ -
New York	$ 3,748	$ 3,941	$ 3,894	-1.2%	0.82	3.9%	$ -	$ -	$ -
North Carolina	$ 3,134	$ 2,563	$ 2,801	9.3%	0.59	-10.6%	$ -	$ -	$ -
North Dakota	$ 6,044	$ 6,136	$ 6,153	0.3%	1.29	1.8%	$ -	$ -	$ -
Ohio	$ 5,567	$ 5,495	$ 5,405	-1.6%	1.13	-2.9%	$ -	$ -	$ -
Oklahoma	$ 3,798	$ 4,247	$ 4,355	2.6%	0.91	14.7%	$ -	$ -	$ -
Oregon	$ 5,120	$ 4,715	$ 5,631	19.4%	1.18	10.0%	$ -	$ -	$ -
Pennsylvania	$ 7,107	$ 8,024	$ 8,391	4.6%	1.76	18.1%	$ -	$ -	$ -
Rhode Island	$ 7,417	$ 9,078	$ 9,563	5.3%	2.00	28.9%	$ -	$ -	$ -
South Carolina	$ 6,483	$ 6,656	$ 6,262	-5.9%	1.31	-3.4%	$ 660	$ 593	$ 602
South Dakota	$ 5,253	$ 6,166	$ 6,377	3.4%	1.34	21.4%	$ 441	$ 566	$ 627
Tennessee	$ 4,259	$ 4,146	$ 4,363	5.2%	0.91	2.4%	$ 121	$ 140	$ 141
Texas	$ 3,950	$ 4,671	$ 4,752	1.7%	1.00	20.3%	$ 5	$ 1	$ -
Utah	$ 3,234	$ 3,780	$ 4,089	8.2%	0.86	26.4%	$ -	$ -	$ -
Vermont	$ 10,453	$ 11,058	$ 10,936	-1.1%	2.29	4.6%	$ 229	$ 405	$ 414
Virginia	$ 5,319	$ 5,977	$ 6,434	7.6%	1.35	21.0%	$ 8	$ 46	$ 66
Washington	$ 2,261	$ 2,419	$ 2,951	22.0%	0.62	30.5%	$ -	$ -	$ -
West Virginia	$ 4,979	$ 5,541	$ 5,664	2.2%	1.19	13.8%	$ 735	$ 716	$ 681
Wisconsin	$ 3,935	$ 4,124	$ 4,182	1.4%	0.88	6.3%	$ -	$ -	$ -
Wyoming	$ 2,928	$ 1,919	$ 2,051	6.9%	0.43	-30.0%	$ -	$ -	$ -
US	**$ 4,123**	**$ 4,549**	**$ 4,774**	**4.9%**		**15.8%**	$ 38	$ 47	$ 47

Notes:

1) Net Tuition Revenue is calculated by taking the gross amount of tuition and fees, less state and institutional financial aid, tuition waivers or discounts, and medical student tuition and fees. Net tuition revenue used for capital debt service is included in the net tuition revenue figures above.

2) Adjustment factors, to arrive at constant dollar figures, include Cost of Living Adjustment (COLA), Enrollment Mix Index (EMI), and Higher Education Cost Adjustment (HECA).The Cost of Living Adjustment (COLA) is not a measure of inflation over time.

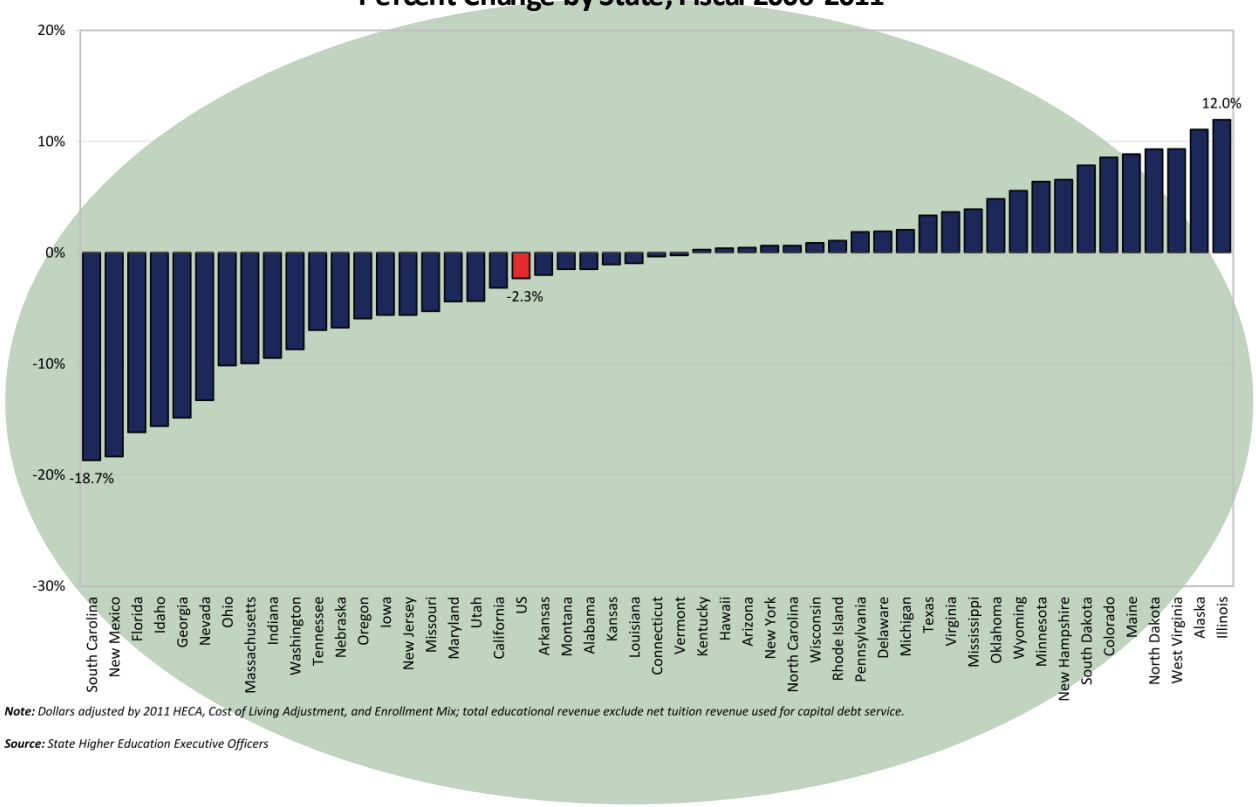
Source: *State Higher Education Executive Officers*

Figure 8 (and the accompanying data in *Table 7*) shows the percent change by state in total educational revenue per FTE in public higher education from 2006 to 2011. Total revenue per FTE in 2011 is slightly lower than in 2010 and 2.3 percent lower than in 2006 (see *Table 7*), which is a reflection of the growing student share of total educational revenue.

- Twenty-four states increased total educational revenue per student between 2006 and 2011.
- In 26 states, total educational revenue per FTE decreased.
- The U.S. average showed a 2.3 percent decrease in educational revenue per FTE from 2006 to 2011.

Figure 8

Total Educational Revenue per FTE
Percent Change by State, Fiscal 2006-2011



Note: *Dollars adjusted by 2011 HECA, Cost of Living Adjustment, and Enrollment Mix; total educational revenue exclude net tuition revenue used for capital debt service.*

Source: *State Higher Education Executive Officers*

Table 7
Total Educational Revenue per FTE (Constant Adjusted 2011 Dollars)

	FY 2006	FY 2010	FY 2011	1 Year % Change	FY 2011 Index to US Average	5 Year % Change	% of Total Educational Revenue from Stimulus, 2011
Alabama	$ 13,101	$ 13,294	$ 12,903	-2.9%	1.17	-1.5%	4.9%
Alaska	$ 14,652	$ 16,486	$ 16,273	-1.3%	1.48	11.1%	0.0%
Arizona	$ 9,826	$ 10,286	$ 9,869	-4.0%	0.90	0.4%	0.0%
Arkansas	$ 11,485	$ 11,118	$ 11,253	1.2%	1.02	-2.0%	1.2%
California	$ 9,436	$ 8,312	$ 9,137	9.9%	0.83	-3.2%	1.4%
Colorado	$ 8,263	$ 9,213	$ 8,970	-2.6%	0.81	8.6%	4.2%
Connecticut	$ 14,658	$ 14,775	$ 14,606	-1.1%	1.33	-0.4%	0.0%
Delaware	$ 14,955	$ 15,912	$ 15,241	-4.2%	1.38	1.9%	0.0%
Florida	$ 10,316	$ 9,017	$ 8,648	-4.1%	0.79	-16.2%	6.6%
Georgia	$ 11,268	$ 9,566	$ 9,594	0.3%	0.87	-14.9%	1.6%
Hawaii	$ 10,187	$ 11,007	$ 10,228	-7.1%	0.93	0.4%	3.5%
Idaho	$ 11,302	$ 10,410	$ 9,537	-8.4%	0.87	-15.6%	1.0%
Illinois	$ 10,515	$ 11,941	$ 11,771	-1.4%	1.07	12.0%	0.0%
Indiana	$ 11,077	$ 10,682	$ 10,026	-6.1%	0.91	-9.5%	0.0%
Iowa	$ 11,524	$ 11,720	$ 10,877	-7.2%	0.99	-5.6%	0.0%
Kansas	$ 9,478	$ 9,507	$ 9,376	-1.4%	0.85	-1.1%	2.7%
Kentucky	$ 12,763	$ 13,068	$ 12,797	-2.1%	1.16	0.3%	3.1%
Louisiana	$ 10,090	$ 9,787	$ 9,992	2.1%	0.91	-1.0%	16.7%
Maine	$ 12,778	$ 13,953	$ 13,910	-0.3%	1.26	8.9%	1.9%
Maryland	$ 14,327	$ 14,183	$ 13,695	-3.4%	1.24	-4.4%	0.0%
Massachusetts	$ 12,051	$ 10,896	$ 10,850	-0.4%	0.98	-10.0%	3.5%
Michigan	$ 12,982	$ 13,066	$ 13,248	1.4%	1.20	2.1%	0.0%
Minnesota	$ 11,378	$ 12,127	$ 12,104	-0.2%	1.10	6.4%	0.0%
Mississippi	$ 11,289	$ 13,383	$ 11,730	-12.4%	1.06	3.9%	6.6%
Missouri	$ 11,234	$ 10,030	$ 10,642	6.1%	0.97	-5.3%	2.0%
Montana	$ 8,930	$ 9,100	$ 8,795	-3.3%	0.80	-1.5%	9.3%
Nebraska	$ 11,205	$ 10,416	$ 10,448	0.3%	0.95	-6.8%	0.0%
Nevada	$ 12,211	$ 10,944	$ 10,588	-3.3%	0.96	-13.3%	0.0%
New Hampshire	$ 9,761	$ 10,159	$ 10,402	2.4%	0.94	6.6%	0.0%
New Jersey	$ 14,136	$ 13,148	$ 13,344	1.5%	1.21	-5.6%	0.0%
New Mexico	$ 12,479	$ 9,264	$ 10,189	10.0%	0.92	-18.3%	1.4%
New York	$ 11,902	$ 11,882	$ 11,976	0.8%	1.09	0.6%	3.8%
North Carolina	$ 12,188	$ 11,756	$ 12,264	4.3%	1.11	0.6%	2.4%
North Dakota	$ 11,360	$ 12,567	$ 12,416	-1.2%	1.13	9.3%	0.0%
Ohio	$ 10,624	$ 9,799	$ 9,545	-2.6%	0.87	-10.2%	6.0%
Oklahoma	$ 11,416	$ 12,728	$ 11,968	-6.0%	1.09	4.8%	4.0%
Oregon	$ 10,621	$ 9,409	$ 9,990	6.2%	0.91	-5.9%	1.4%
Pennsylvania	$ 12,756	$ 12,850	$ 12,993	1.1%	1.18	1.9%	1.8%
Rhode Island	$ 14,086	$ 13,529	$ 14,237	5.2%	1.29	1.1%	2.8%
South Carolina	$ 12,877	$ 11,701	$ 10,471	-10.5%	0.95	-18.7%	6.8%
South Dakota	$ 9,643	$ 10,504	$ 10,400	-1.0%	0.94	7.9%	3.2%
Tennessee	$ 11,880	$ 11,531	$ 11,050	-4.2%	1.00	-7.0%	0.0%
Texas	$ 12,248	$ 13,825	$ 12,657	-8.5%	1.15	3.3%	0.0%
Utah	$ 9,544	$ 9,253	$ 9,127	-1.4%	0.83	-4.4%	3.1%
Vermont	$ 13,152	$ 13,348	$ 13,120	-1.7%	1.19	-0.2%	0.1%
Virginia	$ 11,190	$ 11,107	$ 11,597	4.4%	1.05	3.6%	5.4%
Washington	$ 9,372	$ 8,541	$ 8,557	0.2%	0.78	-8.7%	0.0%
West Virginia	$ 9,615	$ 10,563	$ 10,510	-0.5%	0.95	9.3%	4.6%
Wisconsin	$ 10,335	$ 10,182	$ 10,425	2.4%	0.95	0.9%	0.0%
Wyoming	$ 17,045	$ 15,529	$ 17,994	15.9%	1.63	5.6%	9.8%
US	**$ 11,278**	**$ 11,034**	**$ 11,016**	**-0.2%**		**-2.3%**	**2.2%**

Notes:

1) Total educational revenue is the sum of educational appropriations and net tuition excluding net tuition revenue used for capital debt service.

2) Adjustment factors, to arrive at constant dollar figures, include Cost of Living Adjustment (COLA), Enrollment Mix Index (EMI), and Higher Education Cost Adjustment (HECA).The Cost of Living Adjustment (COLA) is not a measure of inflation over time.

Source: *State Higher Education Executive Officers*

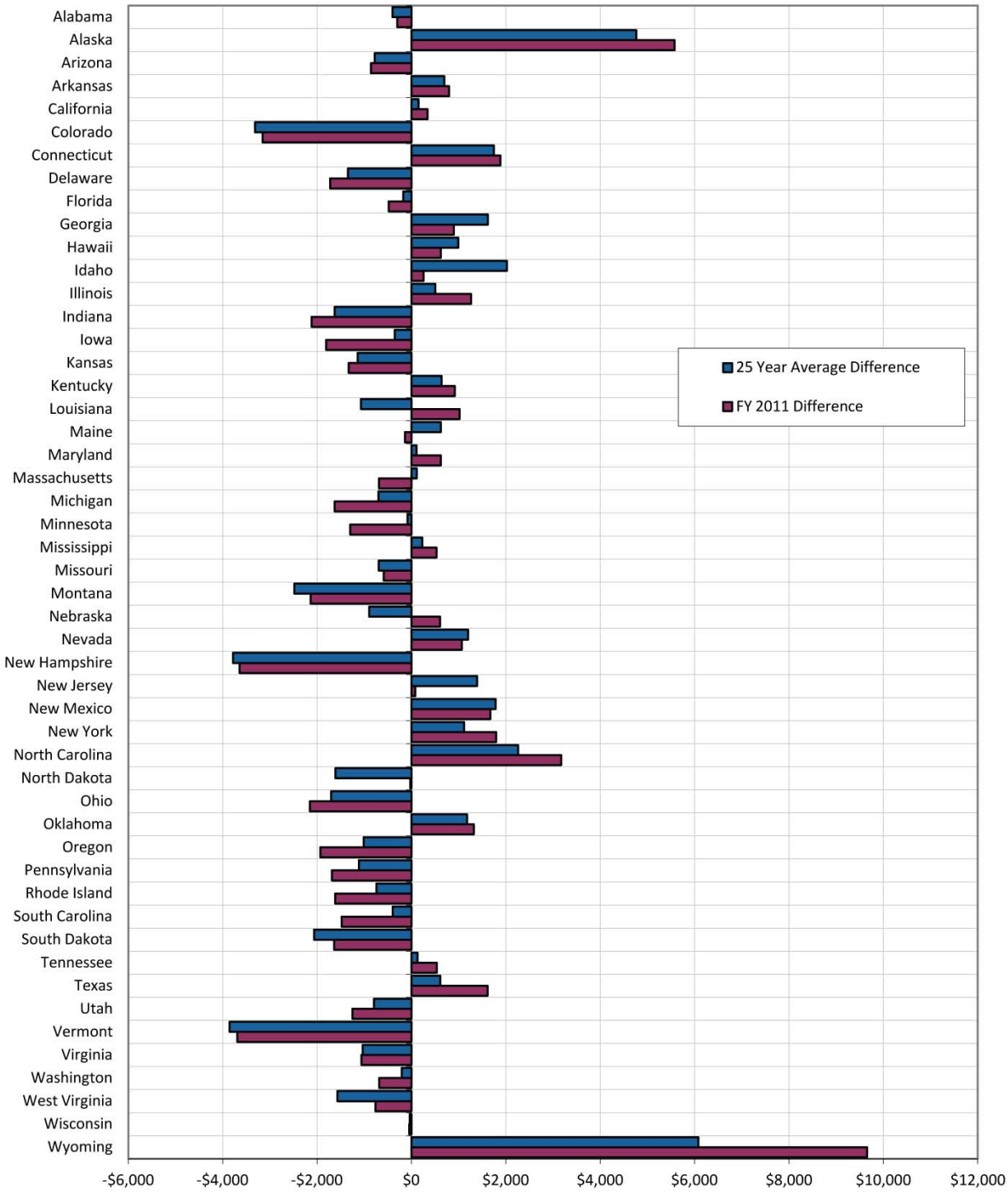
Figure 9 illustrates the variability in per FTE educational appropriations by state. The blue bars display the average of the differences between states' educational appropriations per FTE and the national educational appropriations per FTE across the years 1986-2011. The red bars represent the FY 2011 differences between the states' per FTE educational appropriations and the U.S. per FTE educational appropriations.

- In 22 states, the educational appropriations per FTE have been higher, on average, than the national educational appropriations per FTE over the last 25 years.
- Comparing the red (current difference in per FTE educational appropriations) and blue (historical average difference in per FTE educational appropriations) bars gives a general indication of state support relative to the national average in the current year compared with a state's historical trend.
- Twenty-two states had higher than average educational appropriations per FTE in 2011. Of those, 16 had higher educational appropriations per FTE compared to the U.S. in 2011 than they had, on average, across the years 1986-2011.
- Twenty-eight states had lower than average educational appropriations per FTE in 2011. Nineteen of those had lower educational appropriations per FTE compared to the U.S. in 2011 than they had, on average, across the years 1986-2011.
- The 2011 difference between the state and U.S. educational appropriations per FTE was more than $1000 higher than the historical average difference in five states; it was more than $1000 lower than the historical average difference in five states.

Figure 9

Educational Appropriations per FTE

State Differences from U.S. Average Over 25 Years and in 2011 (Constant Adjusted 2011 Dollars)



Note: *All dollars are adjusted by HECA, Cost of Living Adjustment, and Enrollment Mix.*

Source: *State Higher Education Executive Officers*

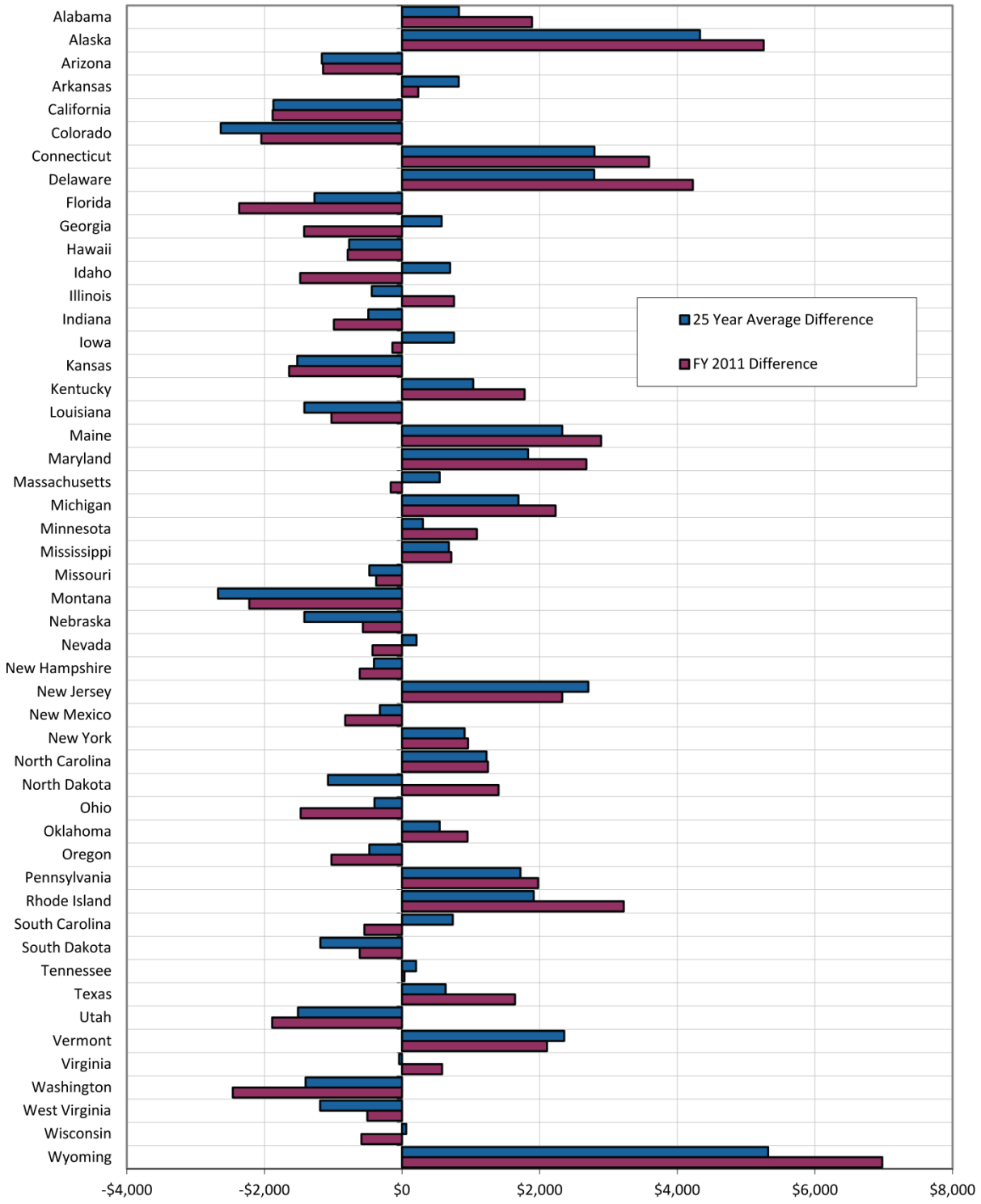
Figure 10 illustrates the variability in per FTE total educational revenue by state. The blue bars display the average of the differences between state total educational revenue per FTE and the national total educational revenue per FTE from 1986-2011. The red bars represent the FY 2011 difference between the state per FTE total educational revenue and the U.S. per FTE total educational revenue.

- In 28 states, the total educational revenue per FTE has been higher, on average, than the national total educational revenue per FTE over the last 25 years.
- Comparing the red (current difference in per FTE total educational revenue) and blue (historical average difference in per FTE total educational revenue) bars gives a general indication of state support relative to the national average in the current year compared with a state's historical trend.
- Twenty-four states had higher than average total educational revenue per FTE in 2011. Of those, 20 had higher total educational revenue per FTE compared to the U.S. in 2011 than they had, on average, across the years 1986-2011.
- Twenty-six states had lower than average total educational revenue per FTE in 2011. Eighteen of those had lower total educational revenue per FTE compared to the U.S. in 2011 than they had, on average, across the years 1986-2011.
- The 2011 difference between the state and U.S. total educational revenue per FTE was more than $1000 higher than the historical average difference in seven states; it was more than $1000 lower than the historical average difference in six states.

Figure 10

Total Educational Revenue per FTE

State Differences from U.S. Average Over 25 Years and in 2011 (Constant Adjusted 2011 Dollars)



Note: *All dollars are adjusted by HECA, Cost of Living Adjustment, and Enrollment Mix. Total educational revenue does not include tuition revenue used for debt service.*

Source: *State Higher Education Executive Officers*

Comparing States on Two Dimensions

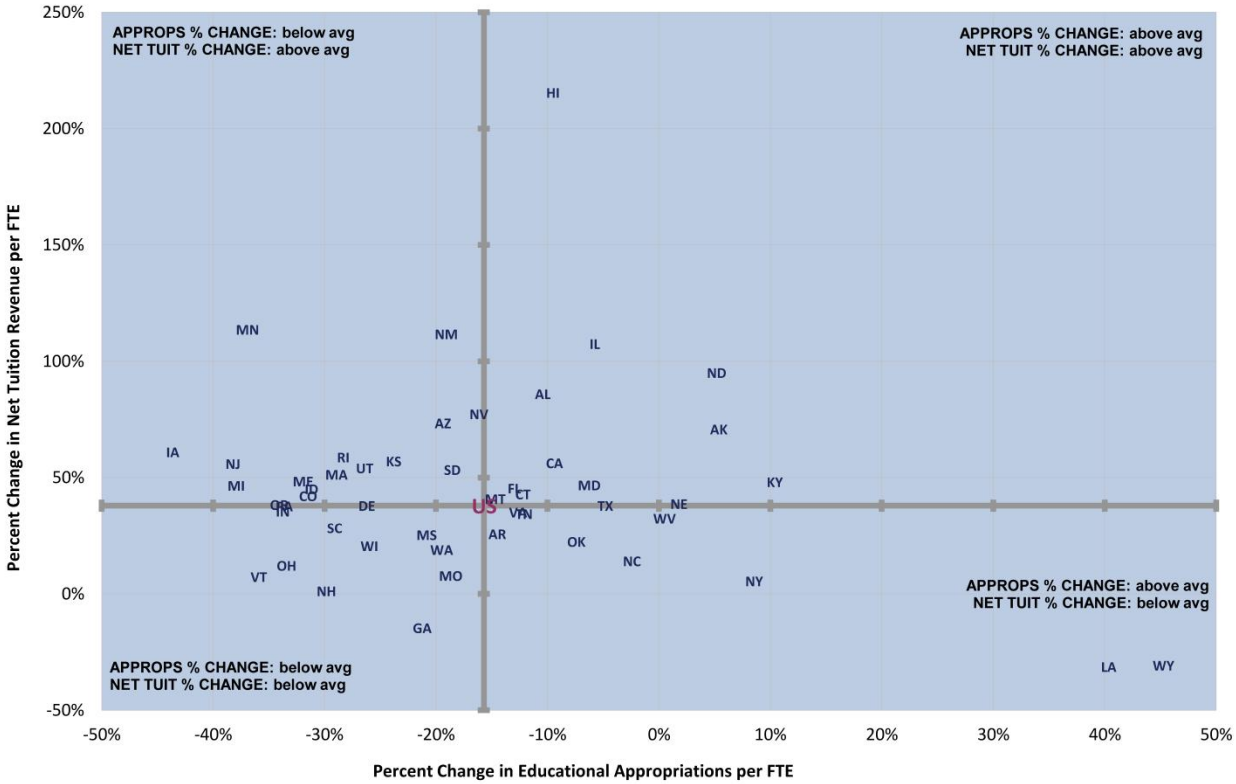
This section provides figures in which SHEF data are plotted along two dimensions in order to compare states with respect to two trends simultaneously. For example, analysts and policymakers might want to know not just where a state stands relative to others in terms of higher education support, but whether the state is gaining or losing over time relative to others.

Figure 11 displays the rate of change in the two primary components of educational revenue per FTE—educational appropriations and net tuition. Data on the horizontal axis indicate the extent to which educational appropriations grew or declined in constant dollars from 1996 to 2011. The vertical axis indicates the percentage change in net tuition revenue over the same period.

- States in the upper right quadrant exceeded the national average in both educational appropriations and net tuition revenue changes.
- States in the lower right quadrant exceeded the national average in educational appropriations changes, but lagged the national average in net tuition revenue changes.
- States in the lower left quadrant lagged the national average in both educational appropriations and tuition revenue changes.
- States in the upper left quadrant lagged the national average in educational appropriations changes, but exceeded the national average in net tuition changes.

Figure 11

Percent Change by State in Educational Appropriations and Net Tuition Revenue per FTE
Fiscal 1996-2011



***Note**: Figures are adjusted for inflation, public system enrollment mix, and state cost of living.*

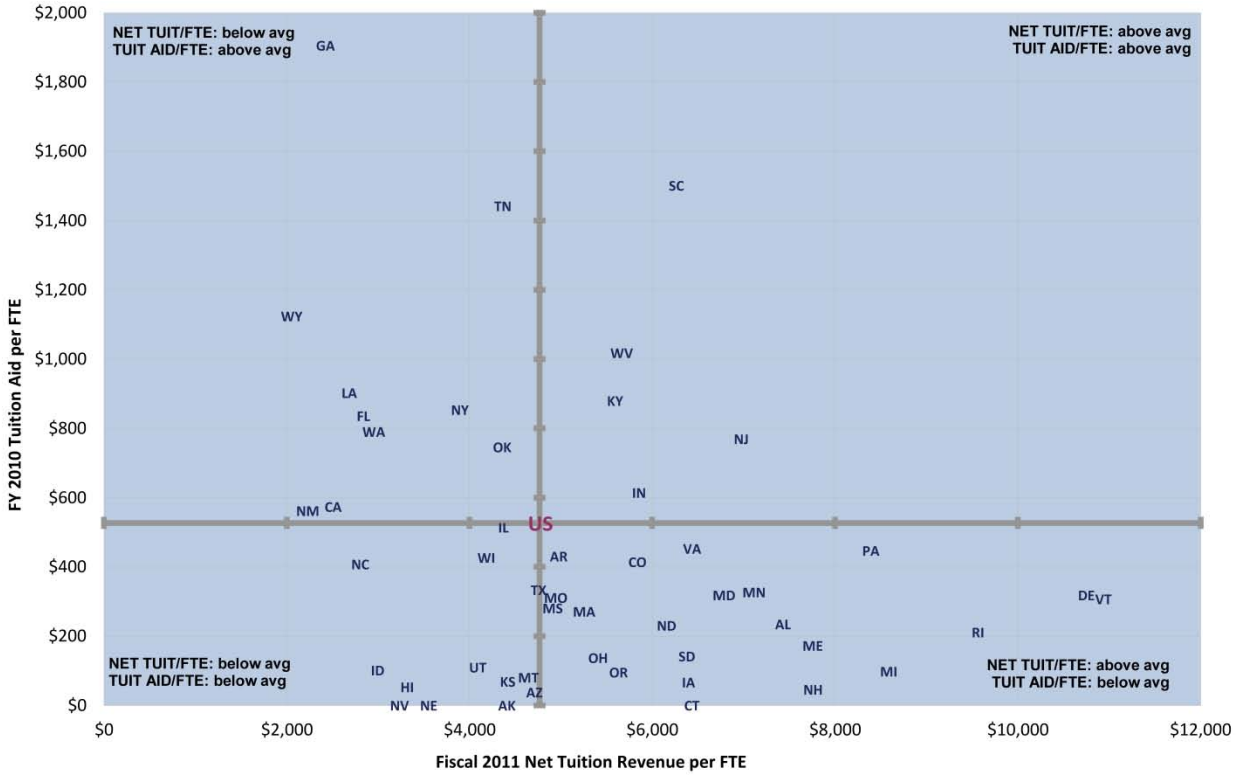
***Source:** State Higher Education Executive Officers*

Many states provide funding for student financial aid programs in order to help offset the cost of tuition. In *Figure 12*, points along the horizontal axis represent 2010 net tuition revenue per FTE for each state. Ordering along the vertical axis reflects per student state funding intended to help students pay public institution tuition during 2011.

- States in the upper right quadrant exceeded the national average in both net tuition revenue and tuition aid.
- States in the lower right quadrant exceeded the national average in net tuition revenue, but fell below the national average in tuition aid.
- States in the lower left quadrant lagged the national average in both net tuition revenue and tuition aid.
- States in the upper left quadrant lagged the national average in net tuition, and exceeded the national average in tuition aid.

Figure 12

Net Tuition Revenue per FTE and State-Funded Tuition Aid per FTE by State, Fiscal 2011 (Public Institutions Only)



***Note**: Figures are adjusted for inflation, public system enrollment mix, and state cost of living.*

***Source:** State Higher Education Executive Officers*

State Wealth, Taxes, and Allocations for Higher Education

Within each state, policies and decisions about the financing of higher education are made in the context of prevailing economic conditions, tax structures, and competing budgetary priorities. Within this context, state policymakers face challenging questions including:

- What revenues are needed to support important public services?
- What level of taxation will generate those revenues without impairing economic productivity or individual opportunities?
- What combination of public services, spending, and tax policy is most likely to enhance economic growth, future assets, and the quality of life?
- What should the spending priorities be for different public services and investments?

Opinions vary widely about a host of issues concerning taxes, public services, and public investments. Differences of opinion and ideology combine with conditions in the economy and demography to affect state taxing and spending decisions. As these conditions change, policymakers reevaluate taxation and spending policies.

No single standard exists to evaluate public policy decisions with respect to funding for higher education. Relevant, comparative information about states can, however, help inform higher education financing decisions. This section explores several types of comparative data and indicators, including relative state and personal wealth, tax capacity and effort, and comparative allocations to higher education.[6]

Nationally, effective state and local tax rates increased slightly over the last decade. As shown in *Table 8*, based on a combination of federal government data sources:

- Aggregate state wealth (total taxable resources) per capita increased 33.3 percent from 1999 to 2009, from $37,528 to $50,014. The effects of the 2008 recession are evident, however, in 2009 numbers. Total taxable resources per capita reached a high of $53,612 in 2007, declining 1.0 percent to $53,071 in 2008 and another 5.8 percent to $50,014 in 2009.
- Total state and local tax revenue per capita increased 41.7 percent from $2,917 in 1999 to $4,133 in 2009, but declined from 2008 to 2009.
- As a result, the national aggregate effective state and local tax rate (tax revenue as a percentage of state wealth) increased from 7.77 percent to 8.26 percent over this period.

Also based on aggregate, national data, the allocation of the available state revenue to higher education fluctuated somewhat between 1999 and 2009. Of total state and local revenue (including lottery proceeds), the allocation to higher education ranged from 6.4 percent to 7.6 percent during this period. In 2009, the most recent year available, the percentage allocation to higher education was 6.9 percent, slightly higher than in 2008 but still lower than the percentages reached from 1999 through 2003.

[6] Part of this section draws on previous work by Kent Halstead to assemble data and develop indicators for higher education support per capita and relative to wealth (personal income), state tax capacity, and tax effort.

Table 8

State Wealth, Tax Revenue, Effective Tax Rates, and Higher Education Allocation U.S., 1999-2009 (Current Unadjusted Dollars)

	Wealth, Revenue, and Tax Rates			Allocation to Higher Education		
	Total Taxable Resources per Capita[1]	State & Local Tax Revenues per Capita[2, 3]	Effective Tax Rate[4]	State & Local Tax Revenues plus Lottery Profits[5] (thousands)	State & Local Higher Education Support[6] (thousands)	(percent)
1999	$ 37,528	$ 2,917	7.77%	$ 824,249,176	$ 58,339,782	7.1%
2000	$ 39,939	$ 3,086	7.73%	$ 881,108,058	$ 63,262,883	7.2%
2001	$ 39,727	$ 3,196	8.05%	$ 921,556,887	$ 67,397,538	7.3%
2002	$ 40,242	$ 3,140	7.80%	$ 915,027,341	$ 69,881,877	7.6%
2003	$ 41,791	$ 3,111	7.44%	$ 915,311,067	$ 69,910,896	7.6%
2004	$ 44,642	$ 3,441	7.71%	$ 1,020,012,078	$ 69,029,250	6.8%
2005	$ 47,747	$ 3,700	7.75%	$ 1,108,355,477	$ 71,986,664	6.5%
2006	$ 50,920	$ 3,996	7.85%	$ 1,207,621,567	$ 76,981,476	6.4%
2007	$ 53,612	$ 4,246	7.92%	$ 1,295,451,648	$ 82,677,919	6.4%
2008	$ 53,071	$ 4,362	8.22%	$ 1,342,709,662	$ 88,778,564	6.6%
2009	$ 50,014	$ 4,133	8.26%	$ 1,283,756,839	$ 88,004,330	6.9%
10 Year Change	**33.3%**	**41.7%**	**6.3%**	**55.7%**	**50.8%**	**-3.1%**

Notes:

1) Total Taxable Resources per Capita: 2002, 2003, 2004 data: U.S. Treasury Department, http://www.treas.gov/offices/economic-policy/resources/estimates.html 1993-2001: Compson, Michael. L (March, 2003)

2) State and Local Tax Revenue per Capita: U.S. Census Bureau, http://www.census.gov/govs/www/estimate.html and http://www.census.gov/popest/states/NST-ann-est.html

*3) Local Tax Revenue in 2001 and 2003 are estimates; the following formula was used: FY2001 Local Tax Revenues = (((FY1998Local/FY1998State)+(FY1999Local/FY1999State)+(FY2000Local/FY2000State))/3)*FY2001State; FY2003 Local Tax Revenues = (((FY1999Local/FY1999State)+(FY2000Local/FY2000State)+(FY2002Local/FY2002State))/3)*FY2003State*

4) Effective Tax Rate = State & Local Tax Revenue per Capita / Total Taxable Resources per Capita.

5) State and local tax revenue data from U.S. Census Bureau; lottery profits data from North American Association of State and Provincial Lotteries.

6) Higher Education Support = State and local tax and nontax support for general operating expenses of public and independent higher education. Includes special purpose appropriations for research-agricultural-medical. Source: State Higher Education Executive Officers

In *Table 9*, state tax revenue per capita, total taxable resources per capita, and the effective tax rates are indexed to the national average in order to indicate the variability across states relative to the national average. Taxable resources per capita vary by more than a factor of two, from a low of $36,070 per capita to a high of $75,256 per capita. Effective tax rates also vary substantially, from a low of 5.4 percent to a high of 13.5 percent.

Table 10, based on federal data sources, shows two measures of state-by-state support for higher education (per capita and per $1,000 in personal income) for 2010. Per capita support for higher education averages $282 nationally and ranges from $110 in New Hampshire to $605 in Wyoming. Support for higher education relative to personal income varies from $2.52 to $14.64 per $1,000 of personal income across the states. Nationally, state and local support for higher education per $1,000 of personal income was $7.08 in 2010.

These comparative statistics reflect interstate differences in wealth, population characteristics and density, participation rates, the relative size of the public and independent higher education sectors, student mobility, and numerous other factors. Poorer states often lag the national average in per capita support, but exceed the national average in support per thousand dollars of personal income. Similarly, sparsely populated states often exceed the national average in both per capita support and per thousand dollars of personal income.

Table 10 also provides an analysis of state support as a percentage of state budgets in 2009. While such statistics show relative investments in higher education, they do not necessarily indicate the relative "priority" or valuation of higher education by each state. They do reflect the different paths states have taken in financing a set of public purposes as they assess need, urgency, and financing options. As previously discussed, tuition revenue frequently (but not universally) has increased when state and local sources of support have not kept pace with enrollment growth and inflation. The data in *Table 8*, indicating an increase in the effective state tax rate combined with the pressures created by growing higher education enrollment, increasing demands for elementary and secondary funding, rising Medicaid costs, and other factors, help explain the stress on state budgets and policymakers.

Pursuing the goals of assuring higher education access, determining appropriate levels of support, and sorting out "who pays, who benefits," in the context of state needs, resources, and other policy objectives, remains a complex task in every state.

Table 9

Tax Revenues, Taxable Resources, and Effective Tax Rates, by State, Fiscal 2009

State	Actual Tax Revenues (ATR) Per Capita		Total Taxable Resources (TTR) Per Capita		Effective Tax Rate (ATR/TTR)	
	Dollars	Index	Dollars	Index	Tax Rate	Index
Alabama	2,835	0.686	39,302	0.786	7.2%	0.873
Alaska	9,104	2.203	67,234	1.344	13.5%	1.639
Arizona	3,130	0.757	41,405	0.828	7.6%	0.915
Arkansas	3,262	0.789	38,676	0.773	8.4%	1.021
California	4,588	1.110	53,385	1.067	8.6%	1.040
Colorado	3,731	0.903	54,077	1.081	6.9%	0.835
Connecticut	5,995	1.451	74,937	1.498	8.0%	0.968
Delaware	4,061	0.982	75,256	1.505	5.4%	0.653
Florida	3,701	0.895	46,477	0.929	8.0%	0.964
Georgia	3,206	0.776	43,057	0.861	7.4%	0.901
Hawaii	4,933	1.194	54,268	1.085	9.1%	1.100
Idaho	2,925	0.708	39,020	0.780	7.5%	0.907
Illinois	4,397	1.064	53,393	1.068	8.2%	0.997
Indiana	3,717	0.899	44,614	0.892	8.3%	1.008
Iowa	3,954	0.957	49,854	0.997	7.9%	0.960
Kansas	4,070	0.985	49,687	0.993	8.2%	0.991
Kentucky	3,213	0.777	39,725	0.794	8.1%	0.979
Louisiana	3,891	0.941	48,621	0.972	8.0%	0.968
Maine	4,287	1.037	42,364	0.847	10.1%	1.225
Maryland	4,733	1.145	60,975	1.219	7.8%	0.939
Massachusetts	4,894	1.184	59,848	1.197	8.2%	0.990
Michigan	3,602	0.872	40,266	0.805	8.9%	1.083
Minnesota	4,562	1.104	52,885	1.057	8.6%	1.044
Mississippi	3,049	0.738	36,070	0.721	8.5%	1.023
Missouri	3,210	0.777	44,187	0.883	7.3%	0.879
Montana	3,577	0.866	40,868	0.817	8.8%	1.059
Nebraska	4,092	0.990	52,375	1.047	7.8%	0.946
Nevada	3,834	0.928	52,390	1.048	7.3%	0.886
New Hampshire	3,765	0.911	53,700	1.074	7.0%	0.849
New Jersey	5,848	1.415	64,277	1.285	9.1%	1.101
New Mexico	3,482	0.843	41,271	0.825	8.4%	1.021
New York	6,934	1.678	61,399	1.228	11.3%	1.367
North Carolina	3,375	0.817	45,815	0.916	7.4%	0.891
North Dakota	5,123	1.240	53,082	1.061	9.7%	1.168
Ohio	3,808	0.921	43,407	0.868	8.8%	1.061
Oklahoma	3,319	0.803	43,000	0.860	7.7%	0.934
Oregon	3,261	0.789	48,028	0.960	6.8%	0.822
Pennsylvania	4,119	0.997	48,535	0.970	8.5%	1.027
Rhode Island	4,525	1.095	52,241	1.045	8.7%	1.048
South Carolina	2,869	0.694	38,795	0.776	7.4%	0.895
South Dakota	3,145	0.761	52,891	1.058	5.9%	0.720
Tennessee	2,841	0.687	41,905	0.838	6.8%	0.820
Texas	3,480	0.842	49,326	0.986	7.1%	0.854
Utah	3,135	0.758	42,701	0.854	7.3%	0.888
Vermont	4,671	1.130	45,603	0.912	10.2%	1.240
Virginia	3,992	0.966	58,641	1.173	6.8%	0.824
Washington	4,049	0.980	54,401	1.088	7.4%	0.901
West Virginia	3,520	0.852	38,599	0.772	9.1%	1.104
Wisconsin	4,266	1.032	46,619	0.932	9.2%	1.107
Wyoming	7,432	1.798	73,652	1.473	10.1%	1.221
U.S.	**$ 4,133**	**1.000**	**50,014**	**1.000**	**8.26%**	**1.000**

Notes:

1) Population and tax revenues data from U.S. Census Bureau: www.census.gov/govs/www/estimate.html

2) Total Taxable Resources per capita from U.S. Treasury Department: www.treas.gov/offices/economic-policy/resources/estimates.html

3) Actual State + Local Tax Revenues by State, Fiscal 2009: www.census.gov/govs/www/estimate.html

Table 10

Perspectives on State and Local Government Higher Education Funding Effort by State

	FISCAL 2010		FISCAL 2010		FISCAL 2009		
State	Higher Education Support[1] Per Capita[2] (FY10)	Indexed to U.S. Average	Higher Education Support[1] Per $1000 of Personal Income[2] (FY10)	Indexed to U.S. Average	Tax Revenues and Lottery Profits[3] (thousands FY09)	Higher Education Support[1] (thousands FY09)	Allocation to Higher Education
Alabama	323	1.14	9.63	1.36	13,349,221	1,583,677	11.9%
Alaska	468	1.66	10.59	1.50	6,358,792	319,523	5.0%
Arizona	293	1.04	8.48	1.20	20,774,511	2,010,718	9.7%
Arkansas	313	1.11	9.58	1.35	9,425,428	907,831	9.6%
California	322	1.14	7.56	1.07	170,642,674	13,129,428	7.7%
Colorado	178	0.63	4.22	0.60	18,868,062	884,401	4.7%
Connecticut	307	1.09	5.59	0.79	21,375,339	1,045,314	4.9%
Delaware	270	0.95	6.80	0.96	3,842,071	243,840	6.3%
Florida	210	0.74	5.50	0.78	69,893,286	4,107,486	5.9%
Georgia	305	1.08	8.77	1.24	32,381,707	2,890,543	8.9%
Hawaii	407	1.44	9.77	1.38	6,389,452	604,879	9.5%
Idaho	249	0.88	7.79	1.10	4,555,747	429,815	9.4%
Illinois	327	1.16	7.76	1.10	57,395,773	3,820,093	6.7%
Indiana	246	0.87	7.22	1.02	24,055,118	1,639,107	6.8%
Iowa	301	1.06	7.90	1.12	11,952,888	964,413	8.1%
Kansas	344	1.22	8.81	1.24	11,539,263	1,010,672	8.8%
Kentucky	299	1.06	9.24	1.31	14,063,899	1,297,076	9.2%
Louisiana	329	1.16	8.88	1.25	17,613,147	1,706,365	9.7%
Maine	203	0.72	5.54	0.78	5,701,265	269,992	4.7%
Maryland	333	1.18	6.79	0.96	27,470,550	1,939,528	7.1%
Massachusetts	184	0.65	3.59	0.51	33,130,116	1,242,601	3.8%
Michigan	250	0.89	7.21	1.02	36,638,355	2,618,034	7.1%
Minnesota	294	1.04	6.87	0.97	24,142,186	1,557,899	6.5%
Mississippi	377	1.34	12.15	1.72	9,000,910	1,026,870	11.4%
Missouri	204	0.72	5.52	0.78	19,475,728	1,246,282	6.4%
Montana	217	0.77	6.18	0.87	3,497,975	211,810	6.1%
Nebraska	416	1.47	10.48	1.48	7,381,292	753,301	10.2%
Nevada	215	0.76	5.82	0.82	10,132,795	623,227	6.2%
New Hampshire	110	0.39	2.52	0.36	5,055,794	138,531	2.7%
New Jersey	261	0.92	5.10	0.72	51,807,132	2,203,130	4.3%
New Mexico	488	1.73	14.64	2.07	7,039,389	1,054,809	15.0%
New York	290	1.03	5.98	0.84	138,038,836	5,691,017	4.1%
North Carolina	453	1.60	12.95	1.83	32,071,744	4,007,925	12.5%
North Dakota	462	1.64	10.81	1.53	3,319,774	253,901	7.6%
Ohio	210	0.74	5.82	0.82	44,651,300	2,617,192	5.9%
Oklahoma	316	1.12	8.92	1.26	12,306,032	1,118,825	9.1%
Oregon	225	0.80	6.17	0.87	13,041,814	873,885	6.7%
Pennsylvania	176	0.62	4.34	0.61	52,828,747	2,340,808	4.4%
Rhode Island	155	0.55	3.68	0.52	5,110,036	165,150	3.2%
South Carolina	235	0.83	7.23	1.02	13,347,550	1,041,739	7.8%
South Dakota	243	0.86	6.15	0.87	2,674,687	199,563	7.5%
Tennessee	260	0.92	7.45	1.05	18,167,043	1,663,596	9.2%
Texas	321	1.14	8.51	1.20	87,275,892	7,326,101	8.4%
Utah	268	0.95	8.26	1.17	8,728,976	777,758	8.9%
Vermont	149	0.53	3.72	0.52	2,925,271	87,189	3.0%
Virginia	228	0.81	5.15	0.73	31,903,327	1,927,797	6.0%
Washington	248	0.88	5.83	0.82	27,092,939	1,809,447	6.7%
West Virginia	283	1.00	8.85	1.25	7,023,112	520,694	7.4%
Wisconsin	299	1.06	7.82	1.10	24,255,130	1,736,433	7.2%
Wyoming	605	2.14	13.49	1.91	4,044,764	364,114	9.0%
United States	**$282**	**1.00**	**$7.08**	**1.00**	**$ 1,283,756,839**	**$ 88,004,330**	**6.9%**

Notes:

1) Higher Education Support = State and local tax and nontax support for public and independent higher education. Includes special purpose appropriations for research-agricultural-medical.

Source: State Higher Education Executive Officers.

2) Population and personal income data from U.S. Census Bureau and Bureau of Economic Analysis.

3) State and local tax revenues data from U.S. Census Bureau; lottery profits data from North American Association of State and Provincial Lotteries.

Conclusion

Since the beginning of the 21st century, higher education enrollments have grown faster than any decade since the 1960s. Simultaneously, state and local funding for higher education stagnated twice due to recessions. From 2002 to 2004, total state and local funding hovered around $70 billion. Then over the four years 2005 to 2008 state and local support for public higher education grew to $88.9 billion, partially restoring the per-student support eroded by the 2001 recession. This four-year recovery abruptly ended when, in 2008, the nation suffered the worst recession since the Great Depression. From 2008 to 2011 enrollments grew by an additional 12.5%; but state and local support, even with the assistance of the federal economic stimulus funds, has stagnated, declining modestly for the nation as a whole, and falling dramatically in some states. As is evident in this report, institutions have stretched to accommodate enrollment demand, students and their families have paid higher tuition, and expenditures per student have fallen in nearly every state.

While no solid data on 2012 enrollments are available, 2012 state appropriations have fallen dramatically (by 4.0%) and ARRA funds are exhausted. Considered together, state appropriations and ARRA funds are down 7.5% from 2011 to 2012. The 2011 enrollment decline of 50,000 students in California, probably due to dramatic tuition increases and enrollment caps, may well presage similar losses of enrollment in other states.

In the past decade these two recessions and the larger macro-economic challenges facing the United States have created what some are calling the "new normal" for state funding for public higher education and other public services. In the "new normal" retirement and health care costs simultaneously drive up the cost of higher education, and compete with education for limited public resources. The "new normal" no longer expects to see a recovery of state support for higher education such as occurred repeatedly in the last half of the 20th century. The "new normal" expects students and their families to continue to make increasingly greater financial sacrifices in order to complete a postsecondary education. The "new normal" expects schools and colleges to find ways of increasing productivity and absorb ever-larger budget cuts, while increasing degree production without, we hope, compromising quality.

One cannot responsibly ignore either the financial realities outlined in this report or the larger economic challenges facing the American people. Somehow the nation and its educators must come to grips with these realities and create effective responses to them. Colleges and universities must find ways to reduce student attrition, the cost of instruction, and time to a degree, while improving instruction and increasing the numbers of students who graduate ready to be productive citizens. Parents, students, institutions, and states must make tough decisions about priorities—what investments are essential for a better future and where can we and should we reduce spending on non-essentials in order to secure what is essential?

But avoiding bad judgments can be difficult when facing tough choices. Institutions may cut too many quality corners or compete with each other to raise revenues from "new" sources (such as out-of-state or international students) rather than make difficult decisions about priorities or the extra effort to implement innovative practices. Policy makers may overestimate how many students can be well-educated within existing resources and underestimate the long-term negative effects of budget cuts or tuition increases on access to higher education and the quality of our workforce. Or the better-off public may be lulled into thinking that the American economy can get by with limited opportunity and 20th century standards for educational attainment, so long as their own families are well-educated.

The educational and economic edge the United States once enjoyed in comparison to other nations is eroding rapidly. Sound judgments about priorities and an extra measure of commitment and creativity are needed in order to regain our educational and economic momentum.

The data and analysis of this and future SHEF reports are intended to help higher education leaders and state policymakers focus on how discrete, year-to-year decisions fit into broader patterns of change over time, and to help them make decisions in the coming years that will meet the longer-term needs of the American people.

Technical Paper A

The Higher Education Cost Adjustment:
A Proposed Tool for Assessing Inflation in Higher Education Costs

Introduction

Prices charged to students, the total cost of higher education, and the effect of inflation are all important issues for the public, state and federal governments, and colleges and universities. This brief Technical Paper discusses two relevant dimensions of inflation in higher education—the consumer and the provider perspectives—and describes a tool to benchmark the inflation experienced by providers, colleges, and universities.

The Consumer Perspective

The student, parent, or student-aid provider most often views higher education prices compared to how much consumers pay for other goods and services. The Consumer Price Index for Urban Consumers (CPI-U) is most often used for such comparisons.

The CPI-U "market basket" consists of: housing (42 percent of the index), transportation (19 percent), food and beverage (18 percent), apparel and upkeep (7 percent), medical care (5 percent), entertainment (4 percent), and other goods and services (5 percent). To calculate the CPI-U, the Bureau of Labor Statistics measures average changes in the prices paid for these goods and services in 27 local areas.

Prices for different goods and services generally change faster or slower than the average rate of increase in the CPI-U. Incomes also grow or decline at different rates. Consumers notice when prices increase and they become concerned when prices for important goods and services grow faster than their incomes. Prices for higher education and health care, for example, have grown faster than overall consumer prices over the past 15 years. While consumer prices, as measured by CPI-U, grew by 43 percent between 1995 and 2010, the cost of medical care grew by 85 percent[7], and enrollment-weighted tuition and fees for four-year public universities grew by 175 percent.[8] U.S. income per capita grew by 85 percent[9] during the same period—more than prices in general, but less than the health care and college tuition price increases.

In view of these facts, it is not surprising that college prices are attracting national attention. Colleges and universities are certainly aware of the issues and of the increase in their prices. At the same time, however, they face growth in the prices that they pay.

The Provider Perspective

The CPI-U is based on goods and services purchased by the typical urban consumer. Colleges and universities spend their funds on different things—mostly (about 75 percent) on salaries and benefits for faculty and staff; and lesser amounts on utilities, supplies, books and library materials, and computing. Trends in the costs of these items don't necessarily run parallel to the average price increases of the goods and services tracked by the CPI-U.

Kent Halstead developed the Higher Education Price Index (HEPI) to track changes in the prices paid by colleges and universities. This index, which tracks price changes since 1961, is based on a 1972 market basket of expenditures for

[7] "Economic Report of the President." February 2007. Appendix B, table B-60: "Consumer Price Indexes for Major Expenditure Classes" (www.gpoaccess.gov/eop/2007/B60.xls).
[8] Source: Washington Higher Education Coordinating Board
[9] Source: Bureau of Economic Analysis

colleges and universities. To estimate price changes for components in this market basket, Halstead used trends in faculty salaries collected by the American Association of University Professors (AAUP), and a number of price indices generated by federal agencies.

Dr. Halstead last updated the HEPI in 2001, using regression analysis to estimate price increases for more recent years. Since 2005, Commonfund Institute has maintained the HEPI project, continuing to provide yearly updates to the data based on a regression analysis.

The HEPI has made an important contribution to understanding the cost increases borne by colleges and universities. Over the past years, the State Higher Education Executive Officers association (SHEEO) and chief fiscal officers of higher education agencies discussed the feasibility and desirability of a fresh analysis of higher education cost inflation and reached the following conclusions:

- While the HEPI has been useful, it has not been universally accepted because it is a privately developed analysis, and one of its main components, average faculty salaries, has been criticized as self-referential.
- The HEPI has not diverged dramatically from other inflation indices over short time periods. Hence, many policymakers reference indices such as the CPI-U in annual budget deliberations, especially in budgeting for projected price increases.
- It would be costly to update, refine, and maintain the HEPI in such a way that would meet professional standards for price indexing. The most labor-intensive work would be in refreshing the data in the higher education market basket.

For these reasons, SHEEO decided not to develop a successor to the HEPI. But, over an extended period of time, differences between the market basket of higher education cost increases and the CPI market basket cost increases are material. The most fundamental problem is that the largest expenditure for higher education is salaries for educated people. In the past 20 years, such people have demanded increasingly higher compensation in both the private and public sectors, including colleges and universities.

SHEEO developed the Higher Education Cost Adjustment (HECA) as an alternative to the CPI-U and the HEPI for estimating inflation in the costs paid by colleges and universities. HECA is constructed from two federally developed and maintained price indices—the Employment Cost Index (ECI) and the Gross Domestic Product Implicit Price Deflator (GDP IPD). The ECI reflects employer compensation costs including wages, salaries, and benefits.[10] The GDP IPD reflects general price inflation in the U.S. economy.[11] The HECA has the following advantages:

1. It is constructed from measures of inflation in the broader U.S. economy;
2. It is simple, straightforward to calculate, and transparent; and
3. The underlying indices are developed and routinely updated by the Bureaus of Labor Statistics and Economic Analysis.

Because the best available data suggest that faculty and staff salaries account for roughly 75 percent of college and university expenditures, the HECA is based on a market basket with two components —personnel costs (75 percent of the index), and non-personnel costs (25 percent). SHEEO constructed the HECA based on the growth of the ECI (for 75 percent of costs) and the growth of the GDP IPD (for 25 percent of costs).

[10] The Employment Cost Index (ECI) for White Collar Workers (excluding sales occupations), which has traditionally been used in SHEF, was discontinued in March 2006. The ECI for management, professional, and related occupations (not seasonally adjusted) is the closest to the discontinued index and is now used in SHEF. This index is available to 2001, and historical SHEF data have been adjusted to represent this new series.

[11] Gross Domestic Product (GDP) is the total market value of all final goods and services produced in the country in a given year. It is equal to total consumer, investment, and government spending, plus the value of exports, minus the value of imports. The GDP Implicit Price Deflator is current dollar GDP divided by constant dollar GDP. This ratio is used to account for the effects of inflation by reflecting the change in the prices of the bundle of goods that make up the GDP as well as changes to the bundle itself.

Technical Paper Table 1 displays three indices—the CPI-U, HEPI, and HECA—for the years 1996 to 2011. For comparison purposes, per capita income growth is shown.

Summary of the Indices

Between 1996 and 2011:

- Consumer prices grew by 43 percent;
- Provider prices for higher education grew 55 percent (as estimated by HECA); and
- Provider prices for higher education grew 67 percent (as estimated by HEPI).

Technical Paper Table 1

CPI-U, HEPI, and HECA Indexed to Fiscal Year 2011

Fiscal Year	CPI-U [1]	HECA [2]	HEPI [3]
1996	70.17	64.69	59.99
1997	71.78	66.12	61.86
1998	72.90	68.35	64.04
1999	74.51	70.26	65.57
2000	77.01	73.00	68.27
2001	79.20	75.70	72.36
2002	80.46	78.01	73.75
2003	82.29	80.56	77.50
2004	84.48	83.30	80.34
2005	87.34	86.10	83.50
2006	90.16	88.90	87.76
2007	92.73	92.13	90.26
2008	96.29	94.90	94.73
2009	95.95	96.49	96.84
2010	97.52	97.92	97.71
2011	100.00	100.00	100.00
% Change 1996-201`	**43%**	**55%**	**67%**

Note: *CPI-U and HEPI are fiscal year (July 1 to June 30). HECA data are Quarter 2 of the calendar year, coinciding with the final quarter of the comparable fiscal year.*

Sources:

1) U.S. Bureau of Labor Statistics.

2) SHEEO, from BLS and BEA data.

3) Kent Halstead, Research Associates of Washington, DC.

Technical Paper B

Adjusting for Interstate Differences in Cost of Living and Enrollment Mix

It is difficult to compare interstate higher education unit costs. The analytical tools available are, at best, blunt instruments for measuring differences. Nevertheless, blunt instruments can be better than no instruments at all. This technical paper briefly describes two approaches for assessing the relative significance of two factors —cost of living and the enrollment mix among institutions.

The cost of living varies greatly across the 50 states. The most significant difference is in median housing values. In the 2005 American Community Survey census, median housing value was $167,500 for the nation, but ranged from $84,400 to $477,000 across different regions and states.

Enrollment mix also poses a challenge for interstate financial comparisons. Each level of higher education, from the lowest undergraduate work through doctoral studies, is progressively more expensive. A state or institution with a large proportion of enrollment in graduate programs will normally have a higher cost per FTE than a state or institution with a larger proportion of enrollment in undergraduate and two-year degree programs.

SHEF Adjustments for Cost of Living and Enrollment Mix

The SHEF report provides separate analytical adjustments for differences among the states in the cost of living (COLA: Cost of Living Adjustment) and the mix in enrollment among categories of institutions (EMI: Enrollment Mix Index). The adjustment for interstate cost of living differences is drawn from the Berry index (a study by Berry et al. that provides a single index for each state).[12] While this index does not solve the problem of differing intrastate costs of living, it offers a way to get a rough estimate of these differences for adjusting interstate unit cost data. The range of values extends from 0.88 to 1.21 among the 48 contiguous states in 2003, the most recent year available for this data.

The Berry index does not provide an estimate of cost of living in Alaska and Hawaii, two states with unique characteristics. Alaska is estimated to have a cost of living consistent with the highest cost of living in the contiguous 48 United States. As a result, in the SHEF analysis, the value of 1.21 (the highest value of the 48 contiguous states) is assigned to Alaska. The cost of living in Hawaii is about 30 percent higher than in the 48 contiguous United States. An examination of city-based cost of living adjustment factors resulted in assigning Hawaii a cost of living adjustment factor of 1.35. This is comparable to Boston's ACCRA cost of living adjustment, but lower than Honolulu's adjustment of 1.64. Honolulu's adjustment factor would not be appropriate because, while most of Hawaii's higher education is concentrated there, it is a disproportionately high value.

SHEEO has developed an adjustment for interstate enrollment mix differences based on the proportion of enrollment in each state compared with the national proportions of enrollment by Carnegie Classification for FY 2009 (the most recent finance data available at the time of data collection and analysis). The essential steps are as follows:

1. Integrated Postsecondary Education Data System (IPEDS) data were used to develop a national average cost per fall FTE for each of the Carnegie Classifications of institutions. This calculation used financial information from FY 2009 and fall 2008 FTE data. In addition, an aggregated national cost per FTE was calculated to be $12,200. The average national cost per FTE reflects the national enrollment mix among

[12] Berry, W.D., R.C. Fording, and R.L. Hanson. *Cost of Living Index for the American States*, 1960-2003. (Available at ICPSR Publication-Related Archive, study # 1275 http://webapp.icpsr.umich.edu/cocoon/ICPSR-STUDY/01275.xml)

sectors, the most common of which are: Doctoral Research Extensive ($19,604); Doctoral Research Intensive ($14,460); Masters Colleges and Universities I ($12,199); and Associate Colleges ($8,829).

2. The proportion of each state's FTE in each of the Carnegie Classifications was calculated for fall 2008, and then multiplied by the national average cost per FTE in FY 2009 for each respective classification. For each state, the products for each Classification were summed, which yields the state's enrollment mix unit cost for the year.

   If the state has relatively more enrollment in higher cost Carnegie Classifications (e.g., research universities) the enrollment mix unit cost will surpass the aggregated national unit cost. If the state has relatively more enrollment in lower cost Carnegie Classifications (e.g., community colleges) the enrollment mix unit cost will be less than the aggregated national unit cost.

3. The ratio of enrollment mix unit cost to aggregated national unit cost constitutes each state's enrollment mix "index." For example, the enrollment mix index for California in FY 2009 equals 0.913 because California has a large community college system. This calculation illustrates that, if unit costs in each sector were at the national average, the statewide cost per FTE would be lower than the aggregated national unit cost by nine percent.

Each SHEF adjustment is expressed in index values where the national average equals 1.00. Hence, actual expenditures per FTE are divided by the SHEF adjustment in order to obtain the adjusted value. For example, presume that State X has an actual expenditure per FTE of $8,000. If the cost of living index for State X equals 1.05, its expenditure per FTE, adjusted for differences in the cost of living, would be $7,619 ($8,000 / 1.05). If State X has an enrollment mix index of 0.98, its expenditure per FTE, adjusted for differences in enrollment mix, would be $8,163 ($8,000 / .98). When both adjustments are made, State X would have an adjusted expenditure per FTE of $7,775 ($8,000 / 1.05 / .98).

Technical Paper Table 2 shows the EMI, COLA, and combined EMI and COLA measures for each state. *Technical Paper Table 3* summarizes results for the SHEF adjustments for interstate cost of living and enrollment mix differences among the states. SHEEO welcomes comments on the utility and limitations of these analytical tools and any suggestions for improvement.

Technical Paper Table 2

Enrollment Mix Index and Cost of Living Adjustments by State

State	EMI[1]	COLA[2]	EMI & COLA Combined
Alabama	0.984	0.902	0.887
Alaska	1.027	1.218	1.250
Arizona	1.119	0.964	1.079
Arkansas	0.924	0.887	0.820
California	0.913	1.090	0.995
Colorado	1.149	1.048	1.203
Connecticut	1.020	1.202	1.226
Delaware	1.255	0.993	1.247
Florida	1.023	0.921	0.942
Georgia	1.011	0.935	0.945
Hawaii	1.109	1.354	1.502
Idaho	1.003	0.957	0.960
Illinois	0.956	1.051	1.004
Indiana	1.142	1.001	1.144
Iowa	1.096	0.995	1.090
Kansas	1.117	0.999	1.115
Kentucky	0.996	0.905	0.901
Louisiana	1.048	0.901	0.945
Maine	0.944	1.091	1.030
Maryland	0.991	0.999	0.989
Massachusetts	0.988	1.218	1.204
Michigan	1.072	1.027	1.101
Minnesota	0.995	1.051	1.046
Mississippi	0.918	0.883	0.810
Missouri	1.055	0.997	1.052
Montana	1.172	0.951	1.115
Nebraska	1.053	1.011	1.065
Nevada	0.949	1.014	0.962
New Hampshire	1.006	1.152	1.159
New Jersey	0.941	1.193	1.123
New Mexico	1.025	0.955	0.979
New York	0.938	1.146	1.075
North Carolina	1.006	0.929	0.935
North Dakota	1.035	1.002	1.037
Ohio	1.073	1.009	1.082
Oklahoma	0.939	0.886	0.833
Oregon	0.995	1.020	1.016
Pennsylvania	1.056	1.068	1.127
Rhode Island	0.969	1.149	1.114
South Carolina	0.991	0.915	0.907
South Dakota	1.029	1.007	1.036
Tennessee	1.029	0.913	0.940
Texas	0.960	0.886	0.850
Utah	1.051	1.007	1.059
Vermont	1.038	1.122	1.164
Virginia	1.038	0.962	0.999
Washington	0.974	1.045	1.018
West Virginia	0.986	0.892	0.879
Wisconsin	1.016	1.031	1.047
Wyoming	0.905	0.966	0.875
U.S.	**1.000**	**1.000**	**1.000**

Notes:

1) Fall 2008 FTE data and FY 2009 financial data from IPEDS are used to produce Enrollment Mix.

2) As of 2003, obtained from Berry, 2003.

Technical Paper Table 3

Impact of Enrollment Mix Index and Cost of Living Adjustments by State

	Total Educational Revenue per FTE UNADJUSTED		ADJUSTED FOR ENROLLMENT MIX		ADJUSTED FOR COST OF LIVING		ADJUSTED FOR ENROLLMENT & COLA	
State	$/FTE	% of U.S. Avg	$/FTE	% of U.S. Avg	$/FTE	% of U.S. Avg	$/FTE	% of U.S. Avg
Alabama	11,448	104%	11,637	106%	12,694	115%	12,903	117%
Alaska	20,348	185%	19,821	180%	16,706	152%	16,273	148%
Arizona	10,651	97%	9,519	86%	11,044	100%	9,869	90%
Arkansas	9,226	84%	9,982	91%	10,401	94%	11,253	102%
California	9,088	83%	9,957	90%	8,340	76%	9,137	83%
Colorado	10,794	98%	9,397	85%	10,303	94%	8,970	81%
Connecticut	17,908	163%	17,554	159%	14,900	135%	14,606	133%
Delaware	19,001	172%	15,137	137%	19,132	174%	15,241	138%
Florida	8,149	74%	7,966	72%	8,846	80%	8,648	79%
Georgia	9,063	82%	8,966	81%	9,697	88%	9,594	87%
Hawaii	15,358	139%	13,848	126%	11,343	103%	10,228	93%
Idaho	9,154	83%	9,123	83%	9,570	87%	9,537	87%
Illinois	11,822	107%	12,367	112%	11,253	102%	11,771	107%
Indiana	11,465	104%	10,040	91%	11,449	104%	10,026	91%
Iowa	11,854	108%	10,819	98%	11,917	108%	10,877	99%
Kansas	10,458	95%	9,363	85%	10,473	95%	9,376	85%
Kentucky	11,527	105%	11,578	105%	12,740	116%	12,797	116%
Louisiana	9,438	86%	9,005	82%	10,473	95%	9,992	91%
Maine	14,325	130%	15,171	138%	13,134	119%	13,910	126%
Maryland	13,547	123%	13,676	124%	13,566	123%	13,695	124%
Massachusetts	13,064	119%	13,216	120%	10,725	97%	10,850	98%
Michigan	14,590	132%	13,611	124%	14,201	129%	13,248	120%
Minnesota	12,657	115%	12,723	115%	12,041	109%	12,104	110%
Mississippi	9,502	86%	10,354	94%	10,765	98%	11,730	106%
Missouri	11,197	102%	10,613	96%	11,227	102%	10,642	97%
Montana	9,806	89%	8,365	76%	10,311	94%	8,795	80%
Nebraska	11,129	101%	10,566	96%	11,005	100%	10,448	95%
Nevada	10,190	93%	10,738	97%	10,048	91%	10,588	96%
New Hampshire	12,053	109%	11,982	109%	10,463	95%	10,402	94%
New Jersey	14,983	136%	15,925	145%	12,554	114%	13,344	121%
New Mexico	9,973	91%	9,728	88%	10,446	95%	10,189	92%
New York	12,871	117%	13,727	125%	11,229	102%	11,976	109%
North Carolina	11,461	104%	11,392	103%	12,338	112%	12,264	111%
North Dakota	12,871	117%	12,440	113%	12,846	117%	12,416	113%
Ohio	10,331	94%	9,631	87%	10,238	93%	9,545	87%
Oklahoma	9,964	90%	10,609	96%	11,241	102%	11,968	109%
Oregon	10,145	92%	10,193	93%	9,943	90%	9,990	91%
Pennsylvania	14,645	133%	13,874	126%	13,715	125%	12,993	118%
Rhode Island	15,854	144%	16,359	148%	13,798	125%	14,237	129%
South Carolina	9,496	86%	9,583	87%	10,376	94%	10,471	95%
South Dakota	10,777	98%	10,471	95%	10,704	97%	10,400	94%
Tennessee	10,384	94%	10,094	92%	11,368	103%	11,050	100%
Texas	10,761	98%	11,213	102%	12,147	110%	12,657	115%
Utah	9,669	88%	9,196	83%	9,597	87%	9,127	83%
Vermont	15,274	139%	14,717	134%	13,617	124%	13,120	119%
Virginia	11,589	105%	11,162	101%	12,041	109%	11,597	105%
Washington	8,712	79%	8,943	81%	8,335	76%	8,557	78%
West Virginia	9,241	84%	9,375	85%	10,359	94%	10,510	95%
Wisconsin	10,920	99%	10,745	98%	10,595	96%	10,425	95%
Wyoming	15,738	143%	17,390	158%	16,286	148%	17,994	163%
U.S.	11,016	**100%**	11,016	**100%**	11,016	**100%**	**$11,016**	**100%**

Source: *State Higher Education Executive Officers*

Technical Paper C

Diverse Perspectives on
State Higher Education Finance Data

Understanding state support for higher education is complicated by the various perspectives of organizations that measure monetary support. Aside from SHEF, two annual studies are national in scope and report different numbers based on unique definitions and data elements—Illinois State University's *Grapevine* survey and the National Association of State Budget Officers (NASBO) State Expenditure Report. Further complicating the issue, states observe different practices in collecting and reporting data. For example, as reported by NASBO, in FY 2010, eleven states exclude all or some of tuition and fees in state expenditures for higher education and nineteen states exclude all or part of student loan programs. Reconciling these differences (both at the data collection and state levels) may be impossible; understanding them, however, is essential for interpreting information on state trends in financing higher education from different sources.

The following summarizes data collected by SHEEO, NASBO, and *Grapevine*.

Grapevine – "State Effort"

Grapevine reports on total "state effort" for higher education, defined as funds from all state sources for universities, colleges, community colleges, and state higher education agencies. The *Grapevine* data collection effort has merged with the SHEF data collection effort to form the new State Support for Higher Education Database (SSDB) data collection. Therefore, Grapevine's "state effort" and SHEF's "state support" are now identical. The SSDB data collection requires that states follow the following guidelines in reporting:

1. Report only appropriations, not actual expenditures.
2. Report only sums appropriated for annual operating expenses.
3. For state tax appropriations in complex universities, separate the sums appropriated for (or allocated to) the main campus, branch campuses, and medical centers (even if on the main campus). Medical center data should include the operations of colleges of medicine, dentistry, pharmacy, and nursing; and teaching hospitals, either lumped as one sum or set out separately, as preferred.

"State effort" for *Grapevine* includes:

- Sums appropriated for state aid to local public community colleges, state-supported community colleges, and vocational-technical two-year colleges or institutions predominantly for high school graduates and adult students.
- Sums appropriated for statewide coordinating or governing boards (for expenses and/or allocation to other institutions).
- Sums appropriated for state scholarships or other student financial aid.
- Sums destined for higher education but appropriated to another state agency.
- Appropriations directed to independent institutions of higher education.
- Funding under state auspices for appropriated non-tax state support (such as monies from lotteries set aside for institutional support or for student assistance).

- Funding under state auspices for non-appropriated state support (such as monies from receipt of lease income and oil/mineral extraction fees on land set aside for public institution benefit).
- Interest or earnings received from state funded endowments set aside for public sector institutions.
- Portions of multi-year appropriations from previous years.
- Any other sources of state funding for higher education operations not listed above.

Excluded items include appropriations for capital outlays and debt service, and appropriations of sums derived from federal sources, student tuition and fee revenues, and auxiliary enterprises.

National Association of State Budget Officers (NASBO) – "State Funds"

NASBO defines state support of higher education as expenditures reflecting support of state university systems, community colleges, and vocational education. "State Funds" are defined as general funds plus other state funds. Fund revenue sources include:

- Sales Tax
- Gaming Tax
- Corporate Income Tax
- Personal Income Tax
- Other taxes and fees (depending on the state, these may include cigarette and tobacco taxes, alcoholic beverage taxes, insurance premiums, severance taxes, licenses and fees for permits, inheritance taxes, and charges for state-provided services)
- Tuition and fees and student loan revenue (in many states)

States are also requested to include capital spending (for some states this can be substantial, and it tends to vary widely from year to year). Exclusions include federal research grants and university endowments.

SHEEO – "Total State and Local Support"

As a result of the combined SSDB effort, the SHEEO definition of Total State Support is the same as the *Grapevine* definition of State Effort. However, SHEEO adds in local tax appropriations for higher education to calculate State and Local Support.

The SHEF report was originally built on Dr. Kent Halstead's *State Profiles: Financing Public Higher Education*, better known as the "Halstead Study." Starting in the 1970s, Research Associates of Washington, headed by Halstead, produced a model of the principal factors governing state support of public higher education. Through the presentation of raw state data, indexed data, weighted state comparisons, and national overviews, Halstead sought to provide states with the capability to assess their support of public higher education. He analyzed state FTE, appropriations, and net tuition data, along with data gathered from the U.S. Census Bureau, the Department of Treasury, and the National Center for Education Statistics, and created tables displaying state support, tax capacity, tax effort, and family share of funding. His results were published in two volumes—the annual *State Profiles: Financing Public Higher Education Rankings*, and the companion trend data, *State Profiles: Financing Public Higher Education Trend Data*. Both were last published in 1998.

In 2001, SHEEO resumed this endeavor.

Like the "Halstead studies," the SHEEO study:

- Analyzes state support for higher education, setting aside support in categories that vary widely among states (research, medical education, and agricultural extension services) so as to focus the analysis on appropriations for instruction and public service in more comparable areas;
- Collects annual student FTE enrollment data to calculate more comparable estimates of state support per student;
- Examines state support for higher education in the context of a state's capacity to raise revenue from taxation;
- Examines the relative contribution of students to the cost of public higher education; and
- Examines interstate differences in the cost of living and in the enrollment mix among different types of institutions.

Additionally, SHEEO's annual survey provides information on:

- State support for the education of students attending independent colleges and universities (direct state grants to institutions, or financial aid to students).
- State support of higher education operations through non-tax revenue, including lottery proceeds, royalties from natural resources, and state-supported endowments.
- Trends in state support for research, medical education, and agricultural extension services.
- State-supported student financial assistance.

APPENDIX A—Grapevine Media Tables

Grapevine Table 1

State Fiscal Support for Higher Education, 2006-07, 2009-10, 2010-11, and 2011-12[a]

State Fiscal Support ($)													
	FY07 (Revised if Necessary)	FY10 (Revised if Necessary)				FY11 (Revised if Necessary)				FY12			
	State Monies[b]	State Monies[b]	Federal Stimulus Monies: Stabilization funds[c]	Federal Stimulus Monies: Government Services Funds[d]	Total Support	State Monies[b]	Federal Stimulus Monies: Stabilization funds[c]	Federal Stimulus Monies: Government Services Funds[d]	Total Support	State Monies[b]	Federal Stimulus Monies: Stabilization funds[c]	Federal Stimulus Monies: Government Services Funds[d]	Total Support
Alabama	1,685,067,489	1,423,842,342	118,743,545	0	1,542,585,887	1,424,917,051	118,743,545	0	1,543,660,596	1,470,951,799	0	0	1,470,951,799
Alaska	286,003,000	333,414,600	0	0	333,414,600	342,153,588	0	0	342,153,588	355,184,600	0	0	355,184,600
Arizona	1,196,750,400	1,088,561,900	71,749,600	0	1,160,311,500	1,087,207,100	0	0	1,087,207,100	814,457,600	0	0	814,457,600
Arkansas	796,303,595	882,692,213	13,641,365	0	896,333,578	901,799,213	13,641,365	0	915,440,578	903,589,798	0	0	903,589,798
California[e]	11,036,612,000	9,993,730,000	35,000,000	0	10,028,730,000	10,952,470,000	217,200,000	0	11,169,670,000	9,663,254,000	0	0	9,663,254,000
Colorado	689,786,249	448,292,740	382,008,249	0	830,300,989	676,318,216	89,194,099	0	765,512,315	647,496,274	0	0	647,496,274
Connecticut	923,951,455	1,064,475,670	0	33,474,626	1,097,950,296	1,076,131,375	0	0	1,076,131,375	944,554,802	0	0	944,554,802
Delaware	233,226,000	226,645,560	15,873,000	0	242,518,560	212,455,800	0	0	212,455,800	213,193,700	0	0	213,193,700
Florida	4,390,185,206	3,665,468,805	258,218,837	34,586,325	3,958,273,967	3,766,832,070	348,196,038	2,267,900	4,117,296,008	3,622,861,769	0	0	3,622,861,769
Georgia	2,774,268,032	2,608,182,991	327,791,300	27,330,575	2,963,304,866	2,915,441,043	0	57,298,847	2,972,739,890	2,631,581,219	0	0	2,631,581,219
Hawaii	503,627,000	523,279,262	32,000,000	0	555,279,262	489,555,677	22,000,000	0	511,555,677	512,327,897	0	0	512,327,897
Idaho	375,281,600	352,038,900	17,683,900	0	369,722,800	343,297,000	4,766,900	0	348,063,900	333,669,600	0	0	333,669,600
Illinois[f]	2,848,129,600	3,291,306,700	40,426,300	53,510,100	3,385,243,100	3,200,025,000	0	0	3,200,025,000	3,585,962,200	0	0	3,585,962,200
Indiana	1,456,514,140	1,561,530,325	33,894,065	0	1,595,424,390	1,564,730,685	0	0	1,564,730,685	1,549,460,261	0	0	1,549,460,261
Iowa	804,448,696	757,896,446	103,380,000	2,500,000	863,776,446	758,711,929	0	0	758,711,929	739,051,670	0	0	739,051,670
Kansas	788,720,641	753,700,801	40,000,000	0	793,700,801	754,758,804	40,423,534	0	795,182,338	739,612,189	0	0	739,612,189
Kentucky	1,253,992,000	1,214,579,944	70,000,000	0	1,284,579,944	1,222,151,212	57,272,600	0	1,279,423,812	1,235,421,786	0	0	1,235,421,786
Louisiana	1,459,847,337	1,303,919,738	189,700,000	0	1,493,619,738	1,292,584,372	289,592,480	0	1,582,176,852	1,290,047,558	0	0	1,290,047,558
Maine	256,024,310	259,466,948	10,556,853	0	270,023,801	266,111,697	10,578,070	0	276,689,767	269,055,422	1,747,417	0	270,802,839
Maryland	1,450,214,753	1,600,560,142	0	0	1,600,560,142	1,596,186,225	0	0	1,596,186,225	1,605,768,781	0	0	1,605,768,781
Massachusetts	1,256,792,868	978,455,022	230,270,707	0	1,208,725,729	1,138,650,196	0	76,053,721	1,214,703,917	1,150,151,325	0	0	1,150,151,325
Michigan	2,035,388,000	1,837,465,800	68,238,000	0	1,905,703,800	1,869,659,000	0	0	1,869,659,000	1,641,658,900	0	0	1,641,658,900
Minnesota	1,400,500,000	1,425,439,000	137,342,000	601,000	1,563,382,000	1,381,065,000	0	0	1,381,065,000	1,283,690,000	0	0	1,283,690,000
Mississippi	879,465,904	1,006,477,155	49,714,662	13,731,362	1,069,923,179	932,494,907	76,367,526	9,831,362	1,018,693,795	954,183,795	0	0	954,183,795
Missouri[g]	978,771,911	980,392,703	104,786,639	0	1,085,179,342	959,555,562	41,442,153	0	1,000,997,715	930,089,844	0	0	930,089,844
Montana	171,368,691	171,513,849	29,762,223	8,220,637	209,496,709	172,375,276	29,762,224	7,404,369	209,541,869	202,105,316	0	0	202,105,316
Nebraska	604,025,649	641,402,181	0	0	641,402,181	653,935,362	0	0	653,935,362	650,437,323	0	0	650,437,323
Nevada	593,775,719	396,485,287	184,778,622	0	581,263,909	550,168,604	0	0	550,168,604	473,255,848	0	0	473,255,848
New Hampshire	123,966,000	138,883,000	3,001,087	2,726,872	144,610,959	137,555,490	0	0	137,555,490	83,299,717	0	0	83,299,717
New Jersey	1,973,721,000	2,009,930,000	70,805,876	2,864,124	2,083,600,000	2,050,400,000	0	0	2,050,400,000	1,998,300,000	0	0	1,998,300,000
New Mexico	954,683,100	887,961,113	15,538,400	0	903,499,513	835,346,314	10,937,500	950,000	847,233,814	798,972,305	0	0	798,972,305
New York	4,568,118,300	4,760,680,440	38,400,000	116,434,665	4,915,515,105	4,750,369,239	89,050,000	192,893,267	5,032,312,506	4,659,422,236	0	14,349,474	4,673,771,710
North Carolina	3,466,352,712	3,768,537,112	137,815,944	0	3,906,353,056	3,936,112,556	119,220,719	0	4,055,333,275	3,906,415,804	0	0	3,906,415,804
North Dakota	215,719,000	311,677,000	0	0	311,677,000	311,678,000	0	0	311,678,000	343,964,303	0	0	343,964,303
Ohio	2,208,183,856	1,996,929,750	279,874,026	1,148,210	2,277,951,986	1,994,908,607	250,802,662	37,000,000	2,282,711,269	2,013,797,074	0	0	2,013,797,074
Oklahoma	1,033,365,199	1,077,227,530	68,792,477	0	1,146,020,007	1,046,029,585	59,794,986	0	1,105,824,571	945,260,277	0	0	945,260,277
Oregon	640,983,571	642,906,470	47,645,677	0	690,552,147	626,985,002	23,177,977	0	650,162,979	598,020,319	0	0	598,020,319
Pennsylvania	2,153,998,000	2,031,695,000	96,403,000	0	2,128,098,000	2,012,002,000	96,379,000	0	2,108,381,000	1,826,879,000	0	0	1,826,879,000
Rhode Island	196,360,781	159,760,890	3,413,554	0	163,174,444	157,433,531	13,841,106	0	171,274,637	163,535,192	30,210,703	0	193,745,895
South Carolina	1,127,265,244	924,156,917	99,922,339	3,364,440	1,027,443,696	814,866,055	110,657,660	3,100,000	928,623,715	859,408,982	0	0	859,408,982
South Dakota	178,777,732	187,178,378	11,474,935	0	198,653,313	185,250,977	11,365,508	0	196,616,485	179,516,376	0	0	179,516,376
Tennessee	1,505,273,700	1,490,255,181	165,092,900	0	1,655,348,081	1,659,586,381	0	0	1,659,586,381	1,414,996,174	0	0	1,414,996,174
Texas	5,709,136,834	6,434,942,116	0	326,907,500	6,761,849,616	6,270,811,568	0	0	6,270,811,568	6,464,046,632	0	0	6,464,046,632
Utah	718,208,600	687,172,600	45,586,200	12,380,600	745,139,400	696,914,700	19,819,622	18,155,478	734,889,800	728,929,400	0	0	728,929,400
Vermont	85,923,033	93,255,052	0	0	93,255,052	93,731,614	0	495,811	94,227,425	87,922,922	0	302,120	88,225,042
Virginia	1,854,731,000	1,727,005,095	75,016,418	0	1,802,021,513	1,702,243,400	201,734,434	0	1,903,977,834	1,624,026,722	0	0	1,624,026,722
Washington	1,631,059,000	1,572,442,000	100,662,000	0	1,673,104,000	1,592,882,000	0	0	1,592,882,000	1,361,376,000	0	0	1,361,376,000
West Virginia	455,444,801	492,834,565	21,944,441	10,518,915	525,297,921	492,800,710	27,655,637	6,939,163	527,395,510	536,224,000	0	158,781	536,382,781
Wisconsin	1,170,359,461	1,247,696,524	0	0	1,247,696,524	1,330,088,284	0	0	1,330,088,284	1,153,558,680	0	0	1,153,558,680
Wyoming	276,929,650	307,863,715	0	0	307,863,715	344,287,021	32,208,405	8,300,000	384,795,426	336,097,525	0	0	336,097,525
Totals (State Support)	75,377,602,819	73,742,207,472	3,846,949,141	650,299,951	78,239,456,564	75,544,024,998	2,425,825,750	420,689,918	78,390,540,666	72,497,044,917	31,958,120	14,810,375	72,543,813,412

[a]FY2012 figures on state support for higher education represent initial allocations and estimates reported by the states and are subject to change. [b]State monies include state tax appropriations and other state funds allocated to higher education. [c]Includes education stabilization funds used to restore the level of state support for public higher education. [d]Excludes government services funds used for modernization, renovation, or repair. [e]California data for fiscal years 2007, 2010, and 2011 do not include bond debt service monies that had been included in earlier Grapevine reports. [f]Illinois data for fiscal year 2012 Include rapidly increasing appropriations made to the State Universities Retirement System (SURS) to address historical underfunding of pension programs. These SURS appropriations do not go to individual institutions or agencies and are not available to be used for educational purposes. [g]FY12 funding for Missouri includes $30 million from MOHELA (the Higher Education Loan Authority of the State of Missouri); these funds were earmarked for need-based financial aid.

Grapevine Table 2

One-, Two-, and Five-Year Percent Changes in State Fiscal Support for Higher Education

	State Support Only			Total State Support (Including Federal ARRA Funds)[a]		
	1-Year % Change (FY11-FY12)	2-Year % Change (FY10-FY12)	5-Year % Change (FY07-FY12)	1-Year % Change (FY11-FY12)	2-Year % Change (FY10-FY12)	5-Year % Change (FY07-FY12)
Alabama	3.2%	3.3%	-12.7%	-4.7%	-4.6%	-12.7%
Alaska	3.8%	6.5%	24.2%	3.8%	6.5%	24.2%
Arizona	-25.1%	-25.2%	-31.9%	-25.1%	-29.8%	-31.9%
Arkansas	0.2%	2.4%	13.5%	-1.3%	0.8%	13.5%
California[b]	-11.8%	-3.3%	-12.4%	-13.5%	-3.6%	-12.4%
Colorado	-4.3%	44.4%	-6.1%	-15.4%	-22.0%	-6.1%
Connecticut	-12.2%	-11.3%	2.2%	-12.2%	-14.0%	2.2%
Delaware	0.3%	-5.9%	-8.6%	0.3%	-12.1%	-8.6%
Florida	-3.8%	-1.2%	-17.5%	-12.0%	-8.5%	-17.5%
Georgia	-9.7%	0.9%	-5.1%	-11.5%	-11.2%	-5.1%
Hawaii	4.7%	-2.1%	1.7%	0.2%	-7.7%	1.7%
Idaho	-2.8%	-5.2%	-11.1%	-4.1%	-9.8%	-11.1%
Illinois[c]	12.1%	9.0%	25.9%	12.1%	5.9%	25.9%
Indiana	-1.0%	-0.8%	6.4%	-1.0%	-2.9%	6.4%
Iowa	-2.6%	-2.5%	-8.1%	-2.6%	-14.4%	-8.1%
Kansas	-2.0%	-1.9%	-6.2%	-7.0%	-6.8%	-6.2%
Kentucky	1.1%	1.7%	-1.5%	-3.4%	-3.8%	-1.5%
Louisiana	-0.2%	-1.1%	-11.6%	-18.5%	-13.6%	-11.6%
Maine	1.1%	3.7%	5.1%	-2.1%	0.3%	5.8%
Maryland	0.6%	0.3%	10.7%	0.6%	0.3%	10.7%
Massachusetts	1.0%	17.5%	-8.5%	-5.3%	-4.8%	-8.5%
Michigan	-12.2%	-10.7%	-19.3%	-12.2%	-13.9%	-19.3%
Minnesota	-7.1%	-9.9%	-8.3%	-7.1%	-17.9%	-8.3%
Mississippi	2.3%	-5.2%	8.5%	-6.3%	-10.8%	8.5%
Missouri[d]	-3.1%	-5.1%	-5.0%	-7.1%	-14.3%	-5.0%
Montana	17.2%	17.8%	17.9%	-3.5%	-3.5%	17.9%
Nebraska	-0.5%	1.4%	7.7%	-0.5%	1.4%	7.7%
Nevada	-14.0%	19.4%	-20.3%	-14.0%	-18.6%	-20.3%
New Hampshire	-39.4%	-40.0%	-32.8%	-39.4%	-42.4%	-32.8%
New Jersey	-2.5%	-0.6%	1.2%	-2.5%	-4.1%	1.2%
New Mexico	-4.4%	-10.0%	-16.3%	-5.7%	-11.6%	-16.3%
New York	-1.9%	-2.1%	2.0%	-7.1%	-4.9%	2.3%
North Carolina	-0.8%	3.7%	12.7%	-3.7%	0.0%	12.7%
North Dakota	10.4%	10.4%	59.5%	10.4%	10.4%	59.5%
Ohio	0.9%	0.8%	-8.8%	-11.8%	-11.6%	-8.8%
Oklahoma	-9.6%	-12.3%	-8.5%	-14.5%	-17.5%	-8.5%
Oregon	-4.6%	-7.0%	-6.7%	-8.0%	-13.4%	-6.7%
Pennsylvania	-9.2%	-10.1%	-15.2%	-13.4%	-14.2%	-15.2%
Rhode Island	3.9%	2.4%	-16.7%	13.1%	18.7%	-1.3%
South Carolina	5.5%	-7.0%	-23.8%	-7.5%	-16.4%	-23.8%
South Dakota	-3.1%	-4.1%	0.4%	-8.7%	-9.6%	0.4%
Tennessee	-14.7%	-5.1%	-6.0%	-14.7%	-14.5%	-6.0%
Texas	3.1%	0.5%	13.2%	3.1%	-4.4%	13.2%
Utah	4.6%	6.1%	1.5%	-0.8%	-2.2%	1.5%
Vermont	-6.2%	-5.7%	2.3%	-6.4%	-5.4%	2.7%
Virginia	-4.6%	-6.0%	-12.4%	-14.7%	-9.9%	-12.4%
Washington	-14.5%	-13.4%	-16.5%	-14.5%	-18.6%	-16.5%
West Virginia	8.8%	8.8%	17.7%	1.7%	2.1%	17.8%
Wisconsin	-13.3%	-7.5%	-1.4%	-13.3%	-7.5%	-1.4%
Wyoming	-2.4%	9.2%	21.4%	-12.7%	9.2%	21.4%
Totals	-4.0%	-1.7%	-3.8%	-7.5%	-7.3%	-3.8%

[a]Includes Government Services funds used for public higher education, excluding funds for modernization, renovation, or repair. [b]California data for fiscal years 2007, 2010, and 2011 do not include bond debt service monies that had been included in earlier *Grapevine* reports. [c]Illinois data for fiscal year 2012 Include rapidly increasing appropriations made to the State Universities Retirement System (SURS) to address historical underfunding of pension programs. These SURS appropriations do not go to individual institutions or agencies and are not available to be used for educational purposes. [d]FY12 funding for Missouri includes $30 million from MOHELA (the Higher Education Loan Authority of the State of Missouri); these funds were earmarked for need-based financial aid.

APPENDIX B—Glossary of Terms

Cost Adjustments

Consumer Price Index (CPI). A measure of the average change over time in the price of a market basket of consumer goods and services. Sources: Bureau of Labor Statistics, U.S. Department of Labor.

Employment Cost Index (ECI). A measure of the change in labor costs, outside the influence of employment shifts, among occupations and industries. The ECI for private industry white-collar occupations (excluding sales) accounts for 75 percent of the State Higher Education Executive Officers (SHEEO) Higher Education Cost Adjustment (HECA). HECA uses the compensation series that includes changes in wages and salaries plus employer costs for employee benefits. Sources: Bureau of Labor Statistics, U.S. Department of Labor.

Gross Domestic Product (GDP). The total market value of all final goods and services produced in the country in a given year—the sum of total consumer spending, investment spending, government spending, and exports, minus imports. Source: Bureau of Economic Analysis, Office of Economic Policy, U.S. Department of Commerce.

Gross Domestic Product Implicit Price Deflator (GDP IPD). Current dollar GDP divided by constant dollar GDP. This ratio is used to account for inflationary effects by reflecting both the change in the price of the bundle of goods comprising the GDP and the change to the bundle itself. The GDP IPD accounts for 25 percent of the SHEEO HECA. Sources: Bureau of Economic Analysis, Office of Economic Policy, U.S. Department of Commerce.

Higher Education Cost Adjustment (HECA). Measures price inflation experienced by colleges and universities. The HECA uses two external indices maintained by the federal government—the ECI (accounts for 75 percent of the index) and the GDP IPD (accounts for the remainder). Source: SSDB.

Higher Education Price Index (HEPI). Developed by Kent Halstead, the HEPI measures the inflationary effect on college and university operations. It measures the average relative level in the price of a fixed market basket of goods and services purchased by colleges and universities through current fund educational and general expenses (excluding those for sponsored research, department sales and services, and auxiliary enterprises). Source: Commonfund (www.commonfund.org; rollover "Investor Services" and choose "Research").

Price Inflation. The percentage increase in the price of a market basket of goods and services over a specific time period.

Enrollment

Full-Time-Equivalent Enrollment (FTE). A measure of enrollment equal to one student enrolled full-time for one academic year, based on all credit hours (including summer sessions). The SHEF data capture FTE enrollment in public institutions of higher education from those credit or contact hours associated with courses that apply to a degree or certificate, excluding non-credit continuing education, adult education, and extension courses.

If courses meet the "formal award potential" criterion, they may include vocational-technical, remedial, and other program enrollment at two-year community colleges and state-approved area vocational-technical centers. Medical school enrollment is reported but set aside from the net FTE used in "funding per FTE" calculations because states vary widely in the extent of medical school funding.

The FTE calculation differs with the type and level of instruction:

- Contact hour courses: One annual FTE is the sum of total contact hours divided by 900.

- Undergraduate credit hour courses: One annual FTE is the sum of total credits divided by 30 (for semester-based calendar systems) or 45 (for quarter systems).
- Graduate and first-professional credit hour courses: One annual FTE is the sum of total credits divided by 24 (for semester systems) or 36 (for quarter systems). Source: SSDB.

Revenue

Appropriations. Money set aside by formal legislative action for a specific use.

Educational Appropriations.[13] Net State Support plus Local Tax Appropriations minus Research, Agricultural, and Medical (RAM) appropriations. Source: SSDB.

Gross State Support. The sum of State Tax Appropriations plus:

- Funding under state auspices for appropriated non-tax state support (e.g., lotteries, casinos, and tobacco settlement funds) set aside for higher education;
- Funding under state auspices for non-appropriated state support (e.g., monies from receipt of lease income, cattle grazing rights, and oil/mineral extraction fees on land) set aside for higher education;
- Sums destined for higher education but appropriated to some other state agency (e.g., administered funds or funds intended for faculty/staff fringe benefits that are appropriated to the state treasurer);
- Interest or earnings received from state-funded endowments pledged to public sector institutions; and
- Portions of multi-year appropriations from previous years. Source: SSDB.

Local Tax Appropriations. Annual appropriations from local government taxes for public higher education institution operating expenses. Source: SSDB.

Net State Support. State support for public higher education annual operating expenses. The difference resulting from Gross State Support less:

- Appropriations returned to the state;
- State-appropriated funds derived from federal sources;
- Portions of multi-year appropriations to be distributed over subsequent years;
- Tuition charges remitted to the state to offset state appropriations;
- Tuition and fees used for capital debt service and capital improvement (other than that paid by students for auxiliary enterprise debt service);
- State funding for students in non-credit continuing or adult education courses and non-credit extension courses;
- Sums appropriated to independent institutions for capital outlay or operating expenses;
- Allocation of appropriations for financial aid grants to students attending in-state independent institutions; and
- Allocation of appropriations for financial aid grants to students attending out-of-state institutions. Source: SSDB.

[13] For FY 2009 through FY 2011, educational appropriations includes funds allocated to states by the federal government through the American Recovery and Reinvestment Act of 2009 (ARRA), specifically those funds from the Education Stabilization Fund and Other Government Services Fund that were to be used to fill shortfalls in state support for general operating expenses at public colleges and universities. In FY 2011, this totaled to $2.8 billion

Personal Income. The income received by all persons from participation in production, from government and business transfer payments, and from government interest. Personal income is the sum of net earnings by place of residence, rental income, personal dividend income, personal interest income, and transfer payments. Net earnings is earnings by place of work (wage and salary disbursements, and proprietors' income) less personal contributions for social insurance, including an adjustment to convert earnings by place of work to earnings by place of residence. Personal income is measured before the deduction of personal income taxes and is reported in current dollars. Sources: Bureau of Economic Analysis, Office of Economic Policy, U.S. Department of Treasury.

Research, Agricultural, and Medical Appropriations (RAM). Special purpose appropriations targeted by legislative budget line-item identification or institutional designation for the direct operation and administrative support of research centers and institutes, agricultural experiment stations, cooperative extension services, teaching hospitals, health care public services, and four types of medical schools—medical, osteopathic, dental, and veterinary. Source: SSDB.

State Tax Appropriations. Appropriations from state government taxes for public and private higher education institution and agency annual operating expenses, excluding capital outlay (for new construction or debt retirement) and revenue from auxiliary enterprises. These sums are largely the same as those reported as part of the annual *Grapevine* survey of the Center for the Study of Higher Education Policy at Illinois State University. Source: *Grapevine*, as reported to SHEEO.

Student Share. The share of Total Educational Revenue from students or their families. Net Tuition Revenue as a percentage of Total Educational Revenue. Source: SSDB.

Total Educational Revenue. The sum of Educational Appropriations and Net Tuition Revenue. Source: SSDB.

State Tax Revenue, Capacity, Effort, and Higher Education Allocation

Actual Tax Revenue (ATR). General revenue derived from taxation by state and local governments. Source: U.S. Census Bureau.

Effective Tax Rate (ETR). Actual Tax Revenue per capita divided by Total Taxable Resources per capita, expressed as a percentage. In 2000, the national average effective tax rate was 7.8 percent, or $3,086 divided by $39,579. An indexed value is derived by dividing the state's effective tax rate by the national average effective tax rate. Sources: Population and Actual Tax Revenue from the U.S. Census Bureau; Total Taxable Resources from the Bureau of Economic Analysis, Office of Economic Policy, U.S. Department of Treasury.

State Higher Education Allocation. Measures total state support and local appropriations to higher education as a percentage of state plus local tax revenue. Source: SHEEO calculation from SHEF and U.S. Census data.

Total Taxable Resources Index (TTR). Total Taxable Resources is the sum of Gross State Product (in-state production) minus components presumed not taxable by the state plus various components of income derived from out-of-state sources. An indexed value for each state is derived by dividing the state's TTR per capita by the national average TTR per capita. Source: Bureau of Economic Analysis, the Office of Economic Policy, and the U.S. Department of Treasury (with the exception of net realized capital gains (from the Internal Revenue Service).

Tuition and Fee Revenue

Gross Tuition and Fees. Gross assessments by public postsecondary institutions for tuition and mandatory education fees. Source: SSDB.

Net Tuition Revenue. The sum of Gross Tuition and Mandatory Fee Assessments minus state-funded student financial aid, institutional discounts and waivers, and medical school student tuition revenue. Enrollment, state appropriations, and medical school tuition revenue are set aside in many SHEF analyses to improve interstate evaluation. Source: SSDB.

APPENDIX C—State Data Providers

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APPENDIX D—SSDB Collection Instructions

State Support for Higher Education Database
Collection for the FY12 Grapevine and the FY11 SHEF reports

Thank you so much for taking the time to complete SHEEO's 2011-2012 State Higher Education Finance data collection. Due to the success of last year's new online collection form, we are using a similar approach this year with a few enhancements that we hope will make data collection and analysis more efficient and easier. Not including this page, there are a total of SIX pages on which we'd like you to enter information.

General Instructions:

- Please fill out the collection form as completely as possible.
- Please complete AT LEAST PAGE 1 October 15, 2011. Page 1 contains information on ARRA Funds and state support for ALL higher education. If you are able to complete the other sections by this time, please do so.
- Complete the entire form by December 1, 2011.
- Enter data for the years that appear on each page. You can also edit any past data that need to be updated.
- Please report appropriations, not actual expenditures.
- If you don't have actual figures, but can provide an estimate, please do so. You can indicate that these are estimates in the comment box. There is a comment box at the bottom of each page.
- Please enter only whole numbers.
- If you place your cursor on a data element name for a few moments, a pop-up tip will appear.
- If you have no data for a particular entry, please enter "0."
- Do not enter information into any GREY shaded cells.
- To navigate between the pages, use buttons at the bottom of each page. To go back you can also use tabs across the top.
- Please let us know your progress by marking the designated check boxes at the bottom of the page when you are finished with each page of data and with the survey as a whole.
- To exit the collection instrument, click on "Save and Exit" button. Please do not close the window before doing this. There is a "Save and Exit" button at the bottom of each page.
- When you click "Save and Exit" you will have the opportunity to have an Excel Report version of your current data emailed to you. Enter your email address into the "EMail Address" Box and click "Email Excel File".

The information that is collected on Pages 1-4 is described in the following pages. Page 5 is a verification page. This is how your data will be reported. Please take a moment to review and make sure they are correct. On Page 6, you are asked to break down State Support for All Higher Education, Net Tuition Revenue, and Public FTE Net of Medical Enrollment by sector. We continually receive data requests for these elements and have tried to make collecting this information as simple as possible.

Thank you for all the work you do to help us publish the Grapevine and SHEF reports!

Page 1:

American Reinvestment and Recovery Act of 2009 (ARRA) Funds

Please report all ARRA funds received in this section. There is a place to report Education Stabilization Funds, Government Services Funds for public higher education operations, and Government Services Funds for capital improvements to higher education institutions, whether they are public or private. Please make sure that these funds are NOT included in your state support figures. In the reports, these funds will be reported separately AND added to state support figures. If you include these funds in the state support figures, they will be double counted

Data Elements collected in this section:

1. Education Stabilization Funds used to restore the level of state support for public higher education
2. Government Services Funds used for public higher education excluding modernization, renovation, or repair.
3. Government Service Funds used for modernization, renovation, or repair of higher education institutions (public and private).

State Support for All Higher Education

The intent of this section is to collect information about how much money the state provides to support higher education (excluding capital and debt service).

Include:

- sums appropriated for state aid to local public community colleges and for operation of state-supported community colleges, and for vocational-technical two-year colleges or institutes that are predominantly for high school graduates and adult students;
- sums appropriated to statewide coordinating boards or governing boards, either for board expenses or for allocation by the board to other institutions or both;
- sums appropriated for state scholarships or other student financial aid;
- sums destined for higher education but **designated to some other state agency** (as in the case of funds intended for faculty fringe benefits that are appropriated to the state treasurer and disbursed by that office); and
- appropriations directed to private institutions of higher education at all levels.

Exclude:

- sums for capital outlays and debt service; and
- sums derived from federal sources, student fees, and auxiliary enterprises.

ALL state funding for higher education (even those sums that are appropriated to other state agencies) should be reported in this section. Please DO NOT include any ARRA funds in this section.

State Support for All Higher Education is calculated by adding state tax support, non-tax support, non-appropriated support, endowment earnings, portions of multi-year appropriations from previous years, and other state support and SUBTRACTING from that sum appropriations that you expect will have to be returned to the state and appropriations in the current year for use in other years (in other words, and appropriated funds that are not usable in the fiscal year in which they are appropriated).

Data elements collected in this section:

1. Appropriations from state government taxes to institutions for operations and other higher education activities.

2. Funding under state auspices for appropriated non-tax state support set aside by the state for higher education. These may include, but are not limited to, monies from lotteries (including lottery scholarships), tobacco settlement, or casinos, or other gaming.
3. Funding under state auspices for non-appropriated state support. These may include, but are not limited to, monies from receipt of lease income, cattle-grazing rights fees, and oil/mineral extraction fees on land set aside by the state for higher education.
4. Interest or earning received from state funded endowments set aside and pledged to public sector institutions.
5. Portions of multi-year appropriations from previous years.
6. Any other state funds not included above. Please explain in the comments box below.
7. Appropriations you expect will have to be returned to the state
8. Portions of multi-year appropriations in the current year which are to be spread over other years.

Page 2:

Adjustments to State Support for Higher Education

In this section, you are asked to identify sums of state support that do not fund directly or through student assistance the degree credit instruction, research, or services of public higher education. Any funds you report in this section should be included in your State Support for Higher Education figure. The sums reported in this section will be subtracted from State Support for Higher Education to calculate State Support for Public Higher Education.

Data elements collected in this section:

1. State funding for students in continuing or adult education courses (non-credit) and non-credit extension courses (non-credit) which are not part of a regular program leading to a degree or certificate.
2. Sums to independent institutions for operating expenses.
3. Allocation of appropriations for student financial aid grants awarded to students attending state independent institutions. Include dollars intended solely for students attending independent institutions and the independent sector's portion of state aid programs. Estimate if needed.
4. Allocation of appropriations for student financial aid grants awarded to students attending out-of-state institutions (estimate if needed).

Additional Funding Sources

The sums collected in this section are for informational purposes only. None of the sums reported in this section should be included in the sums reported in any of the previous sections.

Data elements collected in this section:

1. State appropriated funds derived from federal sources.
2. Tuition charges collected by the institutions and remitted to the state as an offset to the state appropriations.
3. Sums to independent institutions for capital outlay (new construction and debt service/retirement).

Page 3:
Local Appropriations
Appropriations should reflect your best estimate, at the time of reporting, of amounts actually provided to institutions and expected to be provided during the fiscal year.

Data elements collected in this section:

1. Local Appropriations: From local government taxes to institutions for operating expenses.

Research-Agriculture-Medical (RAM) Appropriations to Public Institutions of Higher Education
As a component of total state and local appropriations, report collectively the appropriations intended for the direct operations of research, agriculture and health care public services, and medical schools. Exclude the indirect costs.

Do not include discretionary use by faculty of unrestricted appropriations supplemented by other revenues for short-term research primarily performed as an adjunct component of instruction (departmental research of an unsponsored nature).

When unknown, appropriations for sponsored research should be estimated equal to total research expenditures less state grants and contracts for research and federal and private revenues restricted for research. Assume no tuition revenues are used for research.

These funds SHOULD be included in your State Support for All Higher Education figures.

Data elements collected in this section:

1. Appropriated sums for research centers, laboratories, and institutes, and appropriated sums separately budgeted by institutions for organized research. Generally, these are ongoing programs. Include all health and science research.
2. Appropriated sums for agricultural experiment stations and cooperative extension services.
3. Appropriated sums for teaching or affiliated hospital operations and public service patient care. Include all medical, dental, veterinary, optometry, pharmacy, mental health, nursing, and other health science institutes, clinics, laboratories, dispensaries, etc. primarily serving the public.
4. Appropriated sums for the direct operation and administrative support of the four major types of medical schools (medicine, dentistry, veterinary medicine, and osteopathic medicine) and centers corresponding to the medical enrollments.

Public Institution Tuition Revenue
In this section, you are asked to supply information about tuition revenues. One of the intents of this section is to calculate "Net Tuition Revenue." This is used in the SHEF report as a measure of how much revenue institutions have to spend that is paid by students. "Net Tuition Revenue" is "Gross Tuition and Fees" less state funded student aid, institutional discounts and waivers, and tuition revenue paid by medical students.

Data elements collected in this section:

1. Gross Tuition plus Mandatory "Education and General" Fees* (public institutions).
2. Tuition and Fees waived or discounted by public institutions. (If you enter "0," please provide additional information in the comments box explaining why it is "0" for your state.) (Will be subtracted.)

3. State appropriated student aid for Tuition and Mandatory Fees for public institutions. (Will be subtracted.)
4. Tuition and Mandatory Fees paid by public Medical Students. (Will be subtracted.)
5. Public institution tuition and fees used for capital debt service/retirement and capital improvement other than that paid by user students for auxiliary enterprise debt service.

Page 4:

Annual FTE at Public Institutions

To calculate annual FTE, determine the total number of degree credit hours* (including summer sessions) and apply the following conversion factors:

- 30 semester or 45 quarter undergraduate credit hours/year = 1 annual FTE student
- 24 semester or 36 quarter graduate credit hours/year = 1 annual FTE student

These conversion factors are based on 15 undergraduate and 12 graduate credit hours per semester or quarter.

To calculate annual FTE for non-degree credit* vocational-technical, remedial and other program enrollments at two-year community colleges and state approved area vocational-technical institutes in courses which result in some form of certificate or other formal recognition, determine the total yearly number of contact hours and apply the following conversion factor:

- 900 contact hours/year = 1 annual FTE student

This conversion factor is based on a normal load of 25 contact hours per week for 36 weeks.

* Credits counted in the FTE calculation, for purposes of SHEF, include credits that are state funded and could potentially lead to a degree.

Data elements collected in this section:

1. FTE calculated from course work creditable for a degree (including all health science and medical school enrollment) plus course work in a vocational or technical program normally terminal and results in a certificate or some other formal recognition.
2. Enrollment in schools of medicine, dentistry, veterinary medicine, and osteopathic medicine (hereafter referred to as medical schools).

Page 5:

This page is a verification page. These are the figures you will see in the SHEF report. Please review for accuracy.

Page 6:

On this page, you are asked to break certain data elements down by sector. Please complete this section to the best of your ability.

State Higher Education Finance FY 2011

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