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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 2010, 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 1991 through 2010 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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State Higher Education Executive Officers (SHEEO)

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in financing the costs of publication.



Acknowledgements

We are pleased to present the eighth 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. Allison Bell led the staff efforts in assembling the data and drafting the report with assistance from Chris Ott and Natalie Mischler. Hans L'Orange and Gloria Auer gave the narrative their expert editorial touches.

Finally, we gratefully acknowledge the assistance of the College Board in financing the costs of publishing and distributing the FY 2010 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 increasing completion?
- What 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, graphs, and two-dimensional displays to locate and compare states; 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 (current) calendar year. For example, FY 2010 includes July 2009 through June 2010. 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 several decades. In 1985, state and local governments combined provided \$29.1 billion in direct support for general operating expenses of public and independent higher education institutions. This investment increased to \$42.1 billion in 1995, \$69.2 billion in 2005, and \$88.9 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.

Late in the 2009 fiscal year, 15 states employed ARRA funds totaling \$2.3 billion to replace rapidly declining state revenue. State and local support for 2009, including ARRA replacement funds, totaled \$89.1 billion, virtually no change from the \$88.9 billion provided in 2008. In 2010, 43 states provided ARRA funding to their higher education systems totaling \$4.8 billion. State and local support in 2010, including ARRA funds totaled \$88.5 billion, representing less than a one percent drop in total funding for higher education. 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. While total funding has not increased as rapidly as it has in the past, it also has not significantly decreased since 2008. Additional ARRA funds totaling \$2.8 billion are being allocated to higher education by the states in 2011.¹

In addition to state and local revenue, public institutions collected net tuition revenue of \$50.2 billion in 2010, for a total of about \$138.7 billion available to support the general operating expenses of higher education from these combined sources (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 33.6 percent in 2008 to 36.2 percent in 2010. Tuition revenue collected by independent (private, not-for-profit) and for-profit institutions is not included in this total.

Of the \$88.5 billion in state and local support during 2010, 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 from 6.4 percent in 2009 to 7.0 percent in 2010. The remaining three percent supported students attending independent institutions and independent institutions' operating expenses.

Analysis of the data indicates that constant dollar per student state and local funding for public colleges and universities decreased between 2009 and 2010. State and local support (excluding appropriations for research, agricultural extension, and medical education) per full-time-equivalent student was \$6,454 in 2010, a \$497 constant dollar (or 7 percent) decrease from 2009, and the lowest in the last 25 years. This decrease in per student support, despite relatively stable state support, was driven by an increase in enrollments of more than 6 percent between 2009 and 2010.

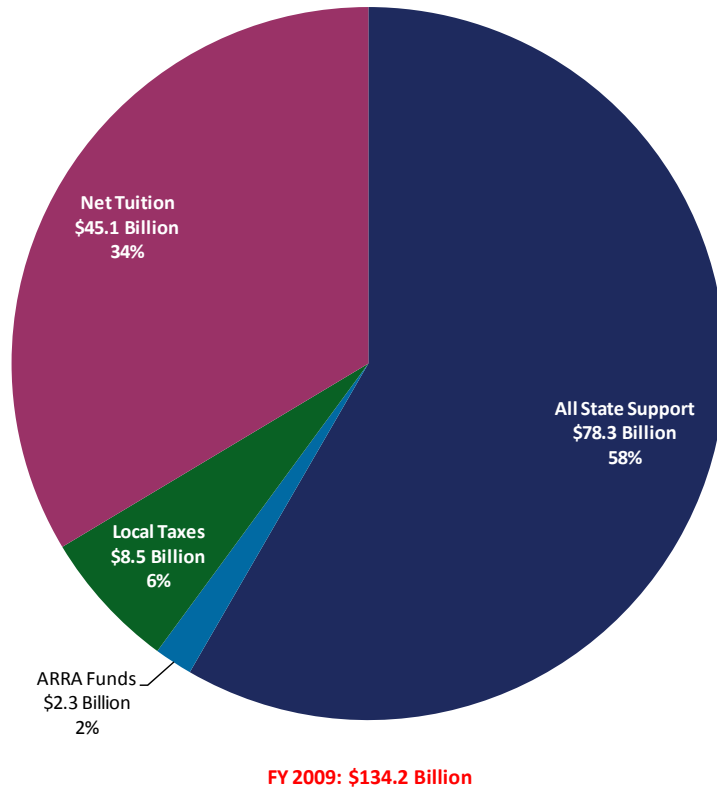
¹ State and local support" in SHEF is generally meant to include funds allocated to states by the federal government through the American Recovery and Reinvestment Act of 2009 (ARRA) and both funds from the Education Stabilization Fund and the Other Government Services Fund used to fill shortfalls in 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 6 percent between 2009 and 2010, 15 percent between 2005 and 2010, and 35 percent between 2000 and 2010.

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 1985 and 2010. These and other factors that shape higher education funding are examined in more detail in the sections of the full report that follow.

Figure 1

State, Local, and Net Tuition Revenue Supporting General Operating Expenses of Higher Education, U.S., Current Dollars

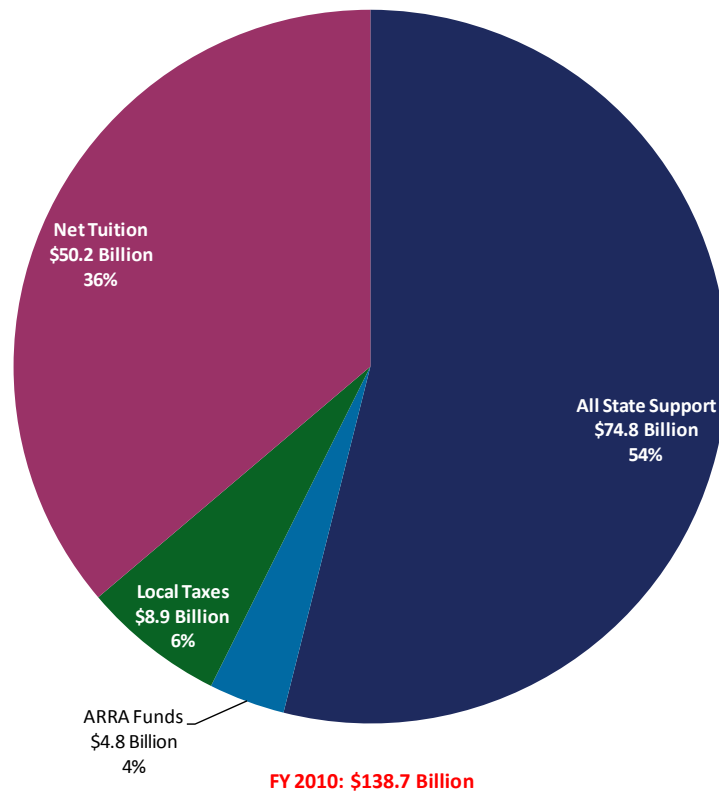


Source: State Higher Education Executive Officers

Figure 2

State, Local, and Net Tuition Revenue Supporting General Operating Expenses of Higher Education, U.S., Current Dollars

State, Local and Net Tuition Revenue Supporting General Operating Expenses of Higher Education, U.S., Current Dollars



Source: State Higher Education Executive Officers

Long-Term Revenue and Enrollment Patterns

1. Since 1985, FTE enrollment at public institutions of higher education has increased from 7.2 million to 11.6 million.
2. Educational appropriations per FTE (defined to include state and local support for general higher education operations) fell to \$6,454 in 2010, a 25-year low in inflation-adjusted terms. Annual educational appropriations from 1985 through 2010 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 has increased faster when state and local revenue fails to keep pace with enrollment growth and inflation.
4. Partially offsetting decreased state and local support, constant dollar net tuition per FTE increased 3.4 percent between 2009 and 2010.
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 \$10,488 in 1988 to \$9,994 in 1993. Thereafter, total educational revenue per FTE grew steadily from 1994 to 2000, reaching \$11,371, or about 14 percent higher than it was in 1988. Total revenue per FTE then fell sharply (about 9 percent) from 2000 to 2004 (to \$10,351), rebounded to \$11,441 by 2008, and then dropped to \$10,734 in 2010. 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 2010, net tuition made up over 40 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 sharp increases nationally from 2002 through 2005, FTE enrollment at public institutions of higher education slowed somewhat, only to increase sharply again between 2007 and 2010. 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 15 percent in the past five years. Forty-nine states have experienced increases in FTE enrollment since 2005, and total public FTE enrollment increased by 35 percent from 2000 to 2010.
8. Per FTE constant dollar educational appropriations increased in twenty states between 2005 and 2010, but the variation is wide. Across all 50 states, the change in educational appropriations per FTE varied from -27 percent to +27 percent.
9. Constant dollar educational revenue per FTE (excluding net tuition revenue used for capital or debt service) increased about 3 percent on average between 2005 and 2010, but 18 of the states experienced declines in this measure.
10. Fourteen states (Alabama, Arizona, Delaware, Iowa, Maine, Massachusetts, Michigan, Minnesota, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West Virginia) had above average total educational revenue despite below average educational appropriations, the result of above average net tuition in 2010. The reverse was true in Georgia, Hawaii, Idaho, Louisiana, Nevada, New Mexico, and Wisconsin. As a result of below average net tuition revenue, these states had below average total educational revenue despite 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 1998 to 2008, lagging two years behind appropriations data reported elsewhere in this report.

11. Total taxable resources per capita, a statistic that captures state income and wealth, decreased from \$53,670 to \$53,134 in current dollars between 2007 and 2008, a one-year decrease of one percent. Meanwhile, per capita state and local tax revenue increased \$115, or 2.7 percent.
12. Over the ten-year period 1998 to 2008, total taxable resources per capita increased 47.6 percent, while the effective tax rate increased by 5.5 percent.
13. The proportion of state and local tax revenue allocated to higher education declined from 6.9 percent in 1998 to 6.6 percent in 2008.

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 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 revenue 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.

Looking Ahead

Long-term trends documented by the SHEF report illustrate the depth of public commitment and the resiliency of state and local support for higher education. Despite the recurring failure of state funding to keep pace with enrollment growth and inflation during periods of recession, states historically have "caught-up" in the economic recovery periods.

Relentless enrollment growth over the past ten years clearly demonstrates the depth of the public's interest in and commitment to public higher education. In view of the economic challenges facing the country, however, only time will tell when full recovery from the current recession will occur and what that recovery will mean for the economy and public investment higher education. As indicated above, ARRA funds provided more than 5 percent of the state and local revenues devoted to higher education in 2010. But the reliance on ARRA funds declined by \$2.0 billion in 2011 appropriations, and most of the decreases in ARRA funds were replaced with increased state revenues.

Total funding (including federal stimulus funds) for 2011 is approximately \$1.4 billion less than states alone provided in 2008 as reported by *Grapevine* (online at www.grapevine.ilstu.edu and in Grapevine Tables 1 and 2 in Appendix A of this report).

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 2012 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 2010 includes \$4.8 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 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 reasons mentioned above. FTE 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 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 to 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 these adjustments on data provided by individual states, including the adjustments from current to constant (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 instrument, 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. 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.

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 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 obtain and sustain such a system?
- Are we making effective use of our current investments?
- Where would an incremental or reallocated dollar help 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 2010, state and local support for higher education reached \$88.5 billion.

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 (2005-2010). 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 \$88.5 billion state and local government support for higher education in 2010 included the following:

- State sources accounted for about 91 percent, with 80.9 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 billion in 2005 to \$2.8 billion in 2010.
- Local appropriations accounted for 10 percent, with some degree of local tax support for higher education in 31 states.
- State-funded endowment earnings, a source for higher education revenue in nine states, accounted for another 0.5 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 \$4.8 billion across 43 states, 5.4 percent of the national total.

Major uses of the \$88.5 billion in 2010 state and local government funding for higher education included:

- \$68.8 billion (about 78 percent) for general operating expenses of public higher education institutions.
- \$10.5 billion (12 percent) for special-purpose appropriations—research, agricultural extension, and medical education.
- State-funded student financial aid programs, including state-funded programs for students attending independent as well as public institutions, accounted for about 9.7 percent of the funds used.
- Direct support of independent institutions in the 16 states with such state-funded programs made up 0.2 percent of the funds used.

These proportional allocations and uses of state and local support for higher education have not changed significantly since 2005.

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 2010. 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 2005-2010 (Dollars in Millions)

Source	2005	2006	2007	2008	2009	2010
State Support						
ARRA Funds	-	-	-	-	2,324	4,786
Tax Appropriations	62,753	67,538	72,440	77,542	75,437	71,620
All Non-Tax Support	2,011	2,205	2,245	2,260	2,736	2,786
Non-Appropriated Support	112	124	97	116	125	127
State Funded Endowment Earnings	292	303	318	347	398	400
Other (1)	140	155	617	684	186	209
Funds Not Available for Use (2)	45	43	38	64	602	394
State Total	65,263	70,281	75,679	80,885	80,604	79,534
Local Tax Appropriations	6,650	6,970	7,307	8,036	8,495	8,945
Total	\$ 71,913	\$ 77,251	\$ 82,986	\$ 88,921	\$ 89,098	\$ 88,479
Uses						
Research-Agric-Medical	9,388	9,597	10,295	11,133	11,008	10,554
Public Student Aid (3)	4,021	4,402	4,339	4,714	5,732	6,189
Independent Student Aid (4)	2,188	2,288	2,404	2,434	2,510	2,374
Out-of-State Student Aid	34	35	37	33	35	38
Independent Institutions	259	264	287	295	255	195
Non-Credit and Continuing Education	251	266	339	327	318	340
General Public Operations	55,772	60,400	65,286	69,986	69,241	68,789
Total	\$ 71,913	\$ 77,251	\$ 82,986	\$ 88,921	\$ 89,098	\$ 88,479
(Percentages)						
Source	2005	2006	2007	2008	2009	2010
State Support						
ARRA Funds	0.0%	0.0%	0.0%	0.0%	2.6%	5.4%
Tax Appropriations	87.3%	87.4%	87.3%	87.2%	84.7%	80.9%
All Non-Tax Support	2.8%	2.9%	2.7%	2.5%	3.1%	3.1%
Non-Appropriated Support	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%
State Funded Endowment Earnings	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%
Other (1)	0.2%	0.2%	0.7%	0.8%	0.2%	0.2%
Funds Not Available for Use (2)	0.1%	0.1%	0.0%	0.1%	0.7%	0.4%
State Total	90.9%	91.1%	91.3%	91.1%	91.8%	90.8%
Local Tax Appropriations	9.2%	9.0%	8.8%	9.0%	9.5%	10.1%
Total	100.1%	100.1%	100.1%	100.1%	101.4%	100.9%
Uses						
Research-Agric-Medical	13.1%	12.4%	12.4%	12.5%	12.4%	11.9%
Public Student Aid (3)	5.6%	5.7%	5.2%	5.3%	6.4%	7.0%
Independent Student Aid (4)	3.0%	3.0%	2.9%	2.7%	2.8%	2.7%
Out-of-State Student Aid	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Independent Institutions	0.4%	0.3%	0.3%	0.3%	0.3%	0.2%
Non-Credit and Continuing Education	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%
General Public Operations	77.6%	78.2%	78.7%	78.7%	77.7%	77.7%
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 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 (\$6,454 per FTE) 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.

Figure 3 illustrates the following:

Full-Time-Equivalent Enrollment (FTE)

- Nationally, the long-term enrollment trend for public institutions indicates continued growth.
- 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 has accelerated again in recent years. In 2010, FTE enrollment increased 6.3 percent over 2008. Over the last ten years, enrollment grew by about 35 percent.
- 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.

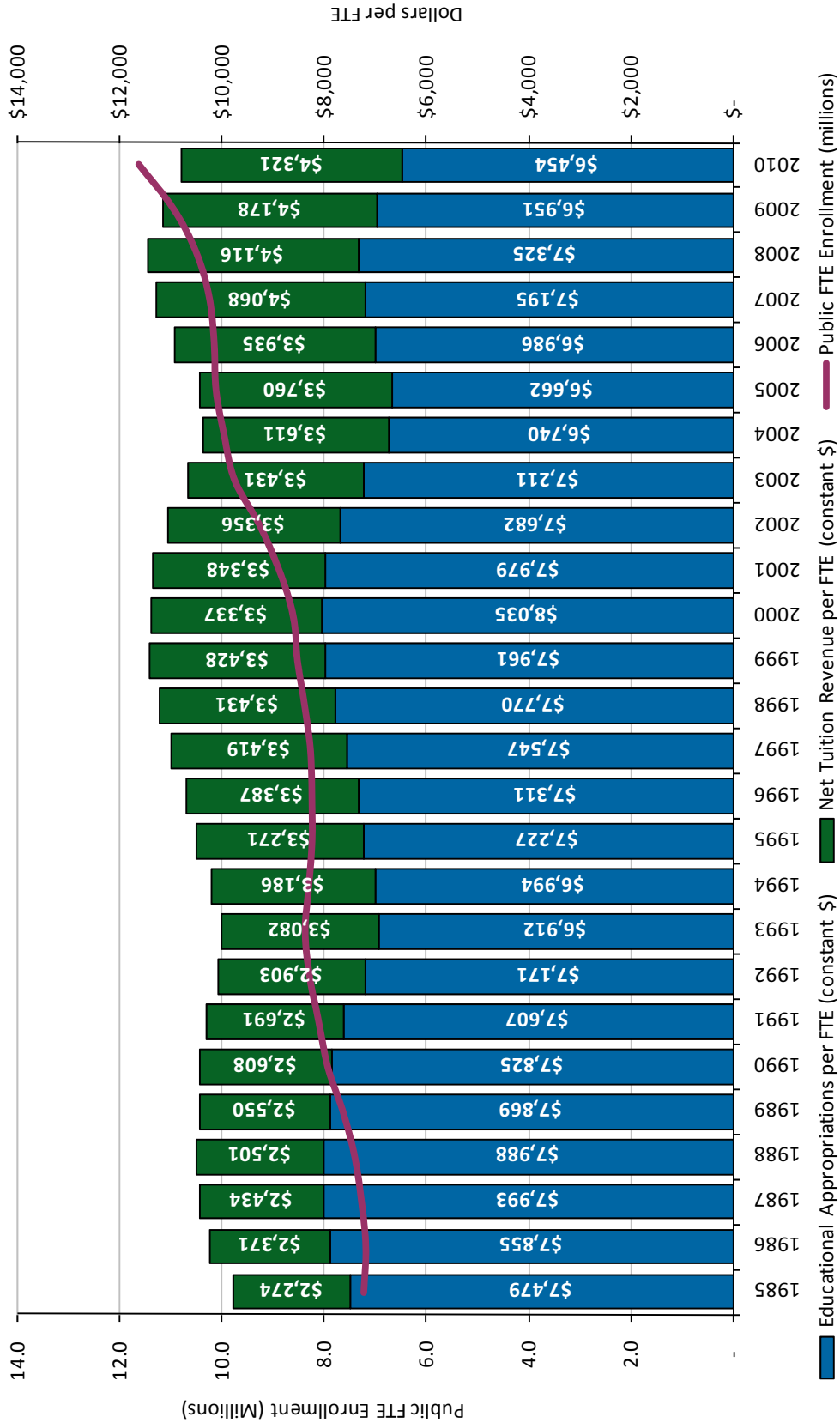
Educational Appropriations

- Educational appropriations per FTE (see the blue bars in *Figure 3*) reached a high of \$8,035 in 2000.
- Following four years of decline (2002, 2003, 2004, and 2005), per student educational appropriations increased in 2006, 2007, and 2008, recovering to \$7,325 and then declining once again by 7.2 percent to \$6,454 in 2010.
- Appropriations per FTE were lower in 2010 (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 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 1985-2010



Note: Net tuition revenue used for capital debt service are included in the above figures.
Constant 2010 dollars adjusted by SHEEO Higher Education Cost Adjustment (HECA).

Source: State Higher Education Executive Officers

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 \$64.7 billion in 2010. 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 \$54.1 billion, 84 percent of gross assessments.

The resulting net tuition revenue for selected years between 1985 and 2010 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 1985, 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 40 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 growing reliance on this source of revenue has 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 Dollars in Millions)

(Current Dollars)	1985 (1)	2000 (1)	2005	2009	2010	1 Year Change
ARRA Funds	\$ -	\$ -	\$ -	\$ 2,324	\$ 4,786	N/A
State	\$ 27,302	\$ 55,620	\$ 62,531	\$ 75,161	\$ 71,801	-4.5%
Local	\$ 1,853	\$ 5,059	\$ 6,650	\$ 8,495	\$ 8,945	5.3%
[A] State and Local Support for Public Higher Education	\$ 29,155	\$ 60,679	\$ 69,181	\$ 85,980	\$ 85,532	-0.5%
[B] Research - Agriculture - Medical (RAM)	\$ 5,066	\$ 9,021	\$ 9,388	\$ 11,008	\$ 10,554	-4.1%
[C] Educational appropriations [A-B]	\$ 24,089	\$ 51,658	\$ 59,793	\$ 74,972	\$ 74,977	0.0%
[D] Net Tuition	\$ 7,324	\$ 21,451	\$ 33,745	\$ 45,066	\$ 50,198	11.4%
[E] Tuition and Fees Used for Debt Service	\$ -	\$ 6	\$ 317	\$ 417	\$ 464	11.3%
Total Educational Revenue [C+D-E]	\$ 31,412	\$ 73,103	\$ 93,221	\$ 119,621	\$ 124,712	4.3%
Net Tuition as a % of Total Educational Revenue	23.3%	29.3%	36.2%	37.7%	40.3%	
Full-Time Equivalent Enrollment (FTE) ⁽¹⁾	7,234,449	8,608,624	10,113,465	10,931,987	11,617,955	6.3%
Educational Appropriations Per FTE	\$ 3,330	\$ 6,001	\$ 5,912	\$ 6,858	\$ 6,454	-5.9%
Net Tuition Per FTE	\$ 1,012	\$ 2,492	\$ 3,337	\$ 4,122	\$ 4,321	4.8%
Total Educational Revenue Per FTE	\$ 4,342	\$ 8,492	\$ 9,218	\$ 10,942	\$ 10,734	-1.9%
State support for independent and out of state institutions ⁽²⁾		\$ 1,741	\$ 2,481	\$ 2,800	\$ 2,607	-6.9%
Aid to Students Attending Independent Institutions	\$ -	\$ 1,464	\$ 2,188	\$ 2,510	\$ 2,374	-5.4%
Aid to Students Attending Out of State Institutions	\$ -	\$ 15	\$ 34	\$ 35	\$ 38	7.6%
Operating Grants	\$ -	\$ 262	\$ 259	\$ 255	\$ 195	-23.4%

Notes:

1) FTE enrollment excludes medical school enrollments.

2) Data for aid to independent institutions and students attending private institutions not reported in 1985 and may be incomplete in 2000.

Source: State Higher Education Executive Officers

Table 3
Higher Education Finance Indicators (Constant 2010 Dollars in Millions)

(Constant Dollars)	1985 (1)	2000 (1)	2005	2009	2010	1 Year Change	5 Year Change	10 Year Change	25 Year Change
ARRA Funds	\$ -	\$ -	\$ -	\$ 2,356	\$ 4,786	N/A	N/A	N/A	N/A
State	\$ 61,325	\$ 74,476	\$ 70,457	\$ 76,180	\$ 71,801	-5.7%	1.9%	-3.6%	17.1%
Local	\$ 4,162	\$ 6,774	\$ 7,493	\$ 8,610	\$ 8,945	3.9%	19.4%	32.0%	114.9%
[A] State and Local Support for Public Higher Education	\$ 65,487	\$ 81,251	\$ 77,950	\$ 87,146	\$ 85,532	-1.9%	9.7%	5.3%	30.6%
[B] Research - Agriculture - Medical (RAM)	\$ 11,380	\$ 12,079	\$ 10,578	\$ 11,157	\$ 10,554	-5.4%	-0.2%	-12.6%	-7.3%
[C] Educational appropriations [A-B]	\$ 54,108	\$ 69,171	\$ 67,372	\$ 75,989	\$ 74,977	-1.3%	11.3%	8.4%	38.6%
[D] Net Tuition	\$ 16,450	\$ 28,724	\$ 38,022	\$ 45,677	\$ 50,198	9.9%	32.0%	74.8%	205.2%
[E] Tuition and Fees Used for Debt Service	\$ -	\$ 9	\$ 365	\$ 423	\$ 464	9.7%	27.2%		
Total Educational Revenue [C+D-E]	\$ 70,558	\$ 97,886	\$ 105,029	\$ 121,243	\$ 124,712	2.9%	18.7%	27.4%	76.8%
Net Tuition as a % of Total Educational Revenue	23.3%	29.3%	36.2%	37.7%	40.3%				
Full-Time Equivalent Enrollment (FTE) (1)	7,234,449	8,608,624	10,113,465	10,931,987	11,617,955	6.3%	14.9%	35.0%	60.6%
<i>Educational Appropriations Per FTE</i>	\$ 7,479	\$ 8,035	\$ 6,662	\$ 6,951	\$ 6,454	-7.2%	-3.1%	-19.7%	-13.7%
<i>Net Tuition Per FTE</i>	\$ 2,274	\$ 3,337	\$ 3,760	\$ 4,178	\$ 4,321	3.4%	14.9%	29.5%	90.0%
<i>Total Educational Revenue Per FTE</i>	\$ 9,753	\$ 11,371	\$ 10,386	\$ 11,091	\$ 10,734	-3.2%	3.4%	-5.6%	10.1%
State support for independent and out of state institutions (2)	\$ 2,332	\$ 2,332	\$ 2,795	\$ 2,838	\$ 2,607	-8.1%	-6.7%		
<i>Aid to Students Attending Independent Institutions</i>	\$ 1,961	\$ 1,961	\$ 2,466	\$ 2,544	\$ 2,374	-6.7%	-3.7%		
<i>Aid to Students Attending Out of State Institutions</i>	\$ 20	\$ 20	\$ 38	\$ 36	\$ 38	6.1%	0.6%		
<i>Operating Grants</i>	\$ 351	\$ 351	\$ 292	\$ 258	\$ 195	-24.4%	-33.1%		

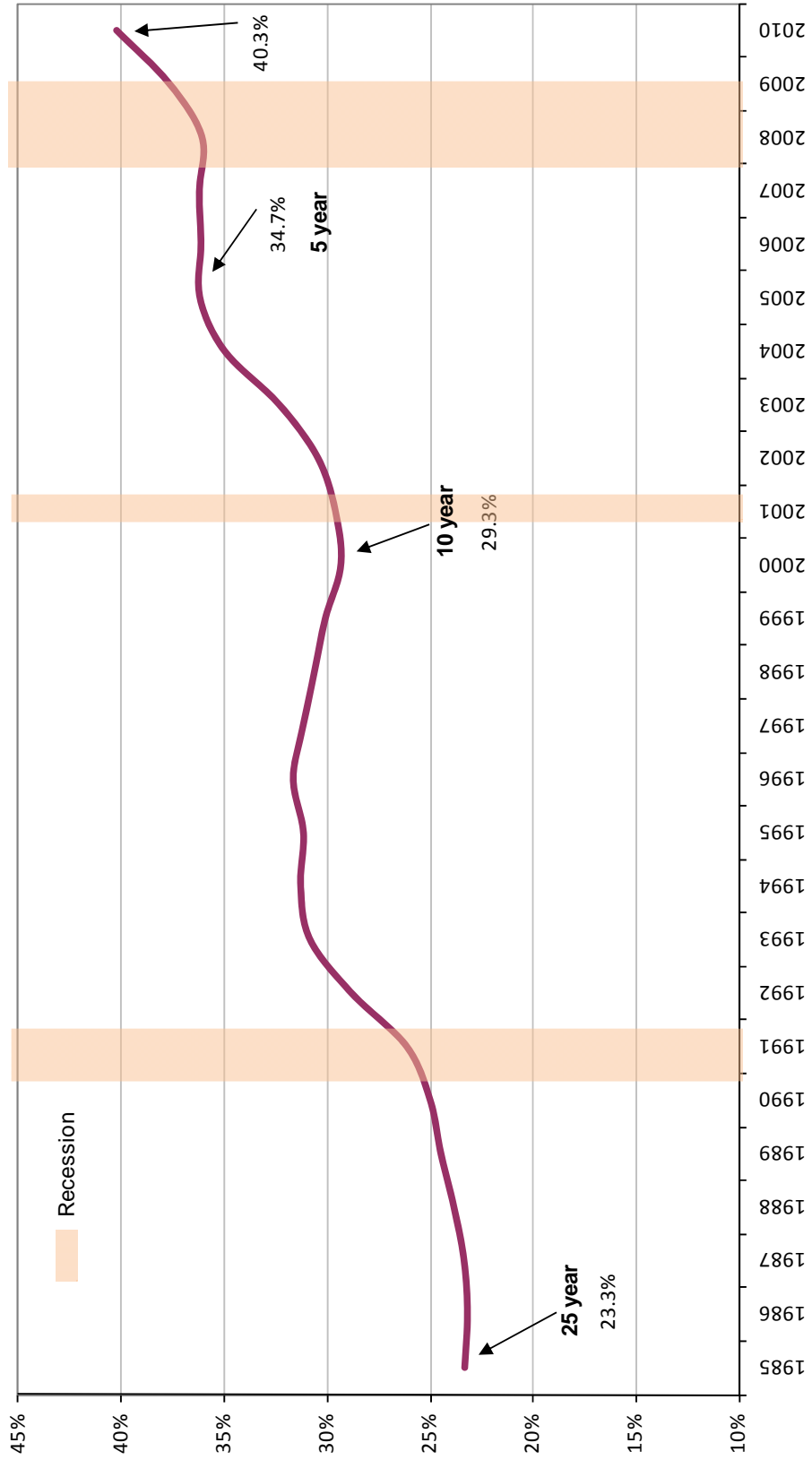
Notes:

1) FTE enrollment excludes medical school enrollments.

2) Data for aid to independent institutions and students attending private institutions not reported in 1985 and may be incomplete in 2000.

Source: State Higher Education Executive Officers

Figure 4
Net Tuition as a Percent of Public Higher Education Total Educational Revenue,
U.S., Fiscal 1985-2010



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 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).

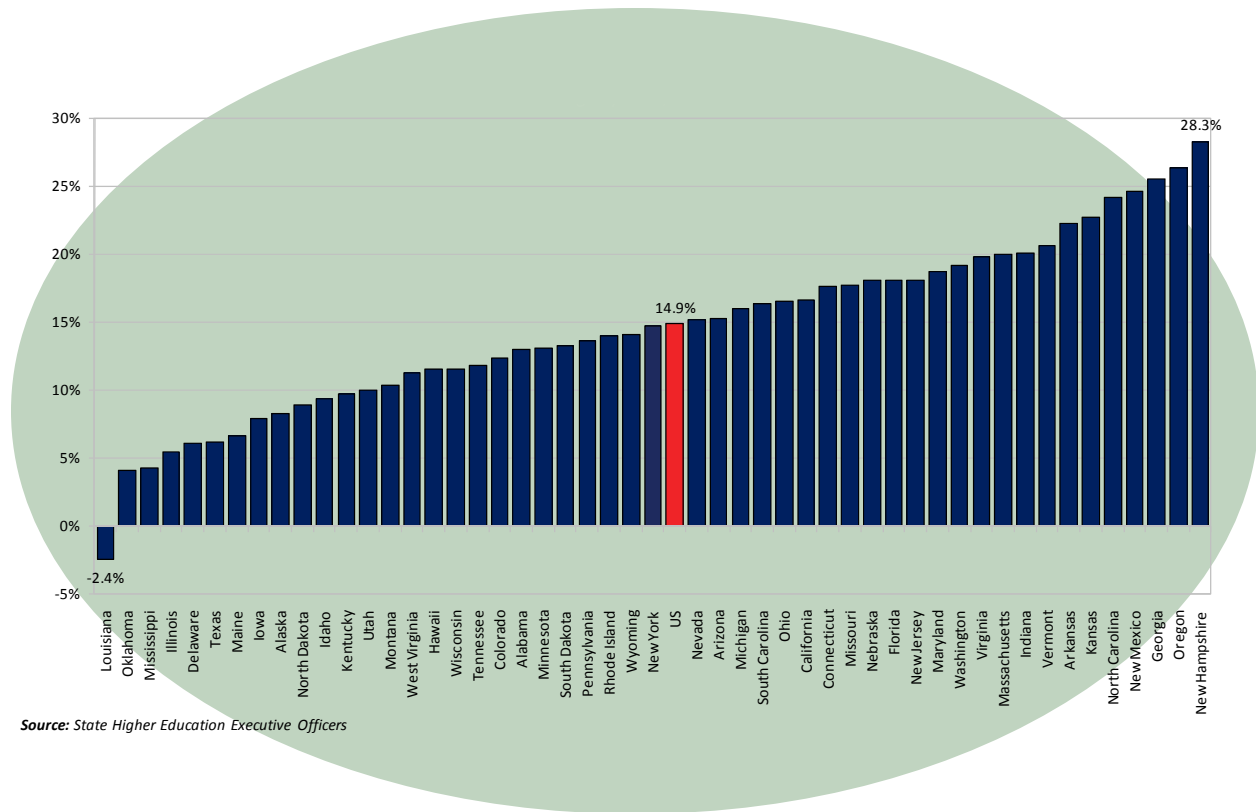
Comparing States across Single Dimensions or Variables

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 2005 and 2010.

- All but one state (Louisiana) have seen enrollment growth over the last five years. Louisiana’s FTE enrollment has undoubtedly been affected by the effects of Hurricanes Katrina and Rita.
- The 25 states in which enrollment growth exceeded the national average of 8.9 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.
- Nine states saw enrollment growth of more than 20 percent.

Figure 5
Full-Time-Equivalent (FTE) Enrollment in Public Higher Education
Percent Change by State, Fiscal 2005-2010



Source: State Higher Education Executive Officers

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

State	FY 2005	FY 2009	FY 2010	1 Year % Change	5 Year % Change
Alabama	180,517	199,153	203,976	2.4%	13.0%
Alaska	18,720	19,010	20,271	6.6%	8.3%
Arizona	218,212	235,831	251,574	6.7%	15.3%
Arkansas	99,231	108,474	121,359	11.9%	22.3%
California	1,651,670	1,841,763	1,926,353	4.6%	16.6%
Colorado	162,711	167,927	182,908	8.9%	12.4%
Connecticut	72,278	80,433	85,033	5.7%	17.6%
Delaware	30,541	32,417	32,417	0.0%	6.1%
Florida	504,657	561,932	596,008	6.1%	18.1%
Georgia	295,356	330,866	370,732	12.0%	25.5%
Hawaii	35,733	37,070	39,857	7.5%	11.5%
Idaho	45,024	44,705	49,251	10.2%	9.4%
Illinois	380,424	397,018	401,303	1.1%	5.5%
Indiana	220,852	238,947	265,277	11.0%	20.1%
Iowa	117,737	117,254	127,128	8.4%	8.0%
Kansas	111,948	129,377	137,374	6.2%	22.7%
Kentucky	140,579	144,641	154,247	6.6%	9.7%
Louisiana	183,409	169,602	178,931	5.5%	-2.4%
Maine	35,167	35,968	37,517	4.3%	6.7%
Maryland	196,626	231,079	233,533	1.1%	18.8%
Massachusetts	137,677	155,387	165,244	6.3%	20.0%
Michigan	371,950	406,073	431,604	6.3%	16.0%
Minnesota	190,087	200,732	215,009	7.1%	13.1%
Mississippi	118,060	120,251	123,092	2.4%	4.3%
Missouri	158,958	174,192	187,162	7.4%	17.7%
Montana	35,259	36,388	38,909	6.9%	10.4%
Nebraska	71,932	77,825	84,922	9.1%	18.1%
Nevada	59,746	65,665	68,799	4.8%	15.2%
New Hampshire	30,885	34,732	39,614	14.1%	28.3%
New Jersey	226,969	246,215	268,066	8.9%	18.1%
New Mexico	79,219	89,450	98,710	10.4%	24.6%
New York	497,971	547,845	571,414	4.3%	14.7%
North Carolina	339,034	385,792	420,956	9.1%	24.2%
North Dakota	34,629	36,408	37,736	3.6%	9.0%
Ohio	380,506	411,641	443,353	7.7%	16.5%
Oklahoma	136,424	127,058	142,024	11.8%	4.1%
Oregon	127,059	142,055	160,595	13.1%	26.4%
Pennsylvania	326,675	353,494	371,286	5.0%	13.7%
Rhode Island	28,117	30,774	32,067	4.2%	14.0%
South Carolina	143,273	153,198	166,783	8.9%	16.4%
South Dakota	28,523	31,027	32,323	4.2%	13.3%
Tennessee	170,084	178,100	190,286	6.8%	11.9%
Texas	812,696	822,131	863,475	5.0%	6.2%
Utah	107,703	107,649	118,446	10.0%	10.0%
Vermont	18,059	20,654	21,778	5.4%	20.6%
Virginia	260,813	294,436	312,598	6.2%	19.9%
Washington	213,801	236,742	254,867	7.7%	19.2%
West Virginia	70,786	74,864	78,798	5.3%	11.3%
Wisconsin	212,752	224,113	237,403	5.9%	11.6%
Wyoming	22,426	23,628	25,587	8.3%	14.1%
US	10,113,465	10,931,987	11,617,955	6.3%	14.9%

Notes:

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

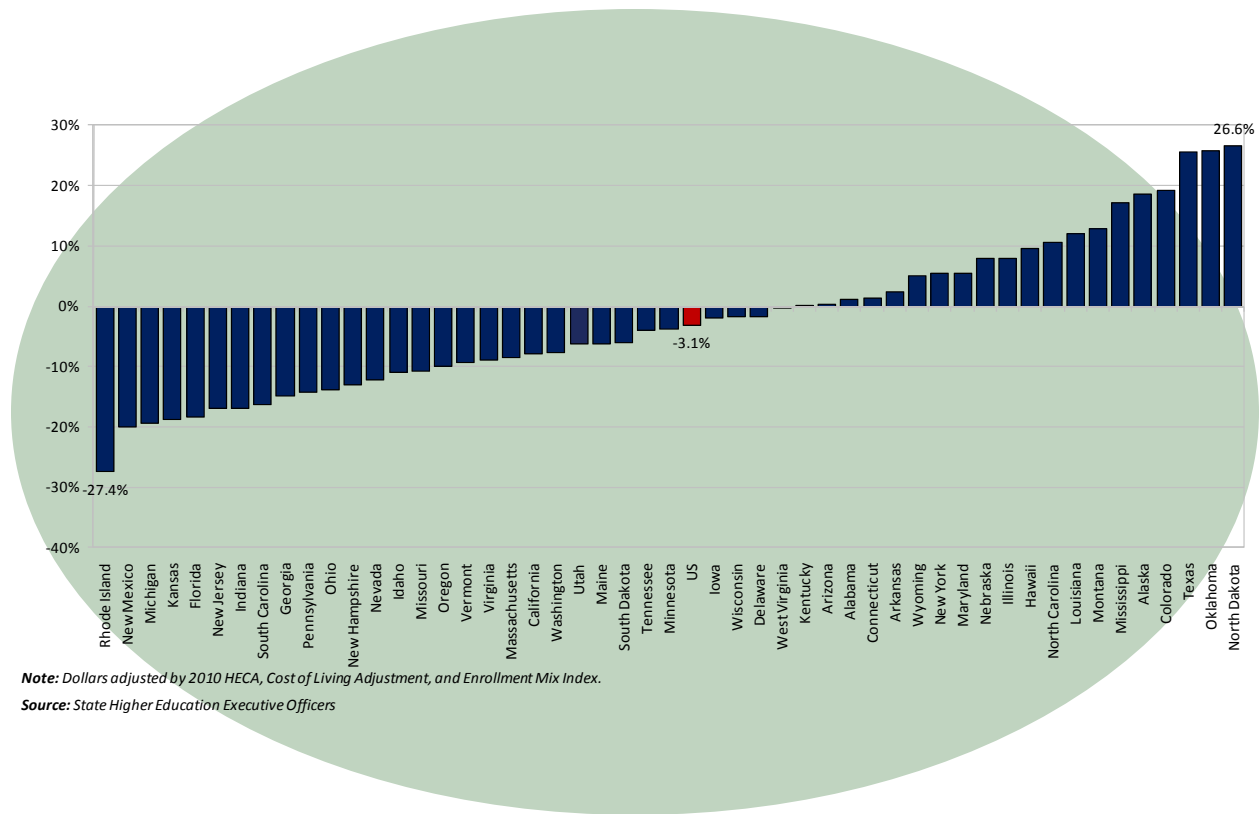
2) DE was unable to provide 2010 data; 2009 data substituted for 2010.

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 2005 and 2010. The national average per FTE funding for 2010 is lower than 2009 by 7 percent (see Table 5), and 3 percent lower than 2005.

- Twenty states increased per student support for public institutions during this five-year period, three by more than 25 percent.
- Thirty states decreased constant dollar per student funding during this five year period, two by more than 20 percent.
- Forty three 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 \$4.8 billion in 2010.

Figure 6
Educational Appropriations per FTE
Percent Change by State, Fiscal 2005-2010



Note: Dollars adjusted by 2010 HECA, Cost of Living Adjustment, and Enrollment Mix Index.
Source: State Higher Education Executive Officers

Table 5
Educational Appropriations per FTE (Constant 2010 Dollars)

State	FY 2005	FY 2009	FY 2010	1 Year % Change	FY2010 Index to US Average	5 Year % Change	% Educational Appropriations from Stimulus, 2010
Alabama	\$ 6,283	\$ 6,603	\$ 6,361	-3.7%	0.99	1.2%	10.4%
Alaska	\$ 10,634	\$ 13,081	\$ 12,606	-3.6%	1.95	18.6%	0.0%
Arizona	\$ 6,299	\$ 7,306	\$ 6,322	-13.5%	0.98	0.4%	4.3%
Arkansas	\$ 6,976	\$ 8,062	\$ 7,144	-11.4%	1.11	2.4%	1.9%
California	\$ 6,450	\$ 6,787	\$ 5,941	-12.5%	0.92	-7.9%	2.7%
Colorado	\$ 3,173	\$ 3,982	\$ 3,781	-5.0%	0.59	19.1%	46.3%
Connecticut	\$ 8,329	\$ 8,430	\$ 8,450	0.2%	1.31	1.4%	3.8%
Delaware	\$ 5,737	\$ 5,781	\$ 5,643	-2.4%	0.87	-1.6%	7.0%
Florida	\$ 7,315	\$ 6,640	\$ 5,968	-10.1%	0.92	-18.4%	8.8%
Georgia	\$ 8,598	\$ 8,917	\$ 7,319	-17.9%	1.13	-14.9%	12.8%
Hawaii	\$ 6,799	\$ 8,830	\$ 7,451	-15.6%	1.15	9.6%	6.9%
Idaho	\$ 8,693	\$ 9,380	\$ 7,746	-17.4%	1.20	-10.9%	5.0%
Illinois	\$ 7,517	\$ 7,489	\$ 8,120	8.4%	1.26	8.0%	2.8%
Indiana	\$ 5,202	\$ 4,864	\$ 4,325	-11.1%	0.67	-16.8%	2.6%
Iowa	\$ 5,380	\$ 5,985	\$ 5,276	-11.8%	0.82	-1.9%	14.3%
Kansas	\$ 6,386	\$ 5,667	\$ 5,191	-8.4%	0.80	-18.7%	5.1%
Kentucky	\$ 7,523	\$ 8,067	\$ 7,532	-6.6%	1.17	0.1%	6.7%
Louisiana	\$ 6,241	\$ 8,202	\$ 6,995	-14.7%	1.08	12.1%	16.1%
Maine	\$ 6,628	\$ 6,586	\$ 6,215	-5.6%	0.96	-6.2%	4.4%
Maryland	\$ 6,796	\$ 7,262	\$ 7,163	-1.4%	1.11	5.4%	0.0%
Massachusetts	\$ 6,564	\$ 6,530	\$ 6,006	-8.0%	0.93	-8.5%	19.2%
Michigan	\$ 5,978	\$ 5,365	\$ 4,822	-10.1%	0.75	-19.3%	3.0%
Minnesota	\$ 5,866	\$ 6,174	\$ 5,645	-8.6%	0.87	-3.8%	10.8%
Mississippi	\$ 6,778	\$ 7,416	\$ 7,942	7.1%	1.23	17.2%	8.0%
Missouri	\$ 6,800	\$ 6,544	\$ 6,074	-7.2%	0.94	-10.7%	11.9%
Montana	\$ 3,803	\$ 4,524	\$ 4,293	-5.1%	0.67	12.9%	20.0%
Nebraska	\$ 6,241	\$ 7,342	\$ 6,731	-8.3%	1.04	7.8%	0.0%
Nevada	\$ 8,882	\$ 8,879	\$ 7,800	-12.2%	1.21	-12.2%	35.8%
New Hampshire	\$ 3,317	\$ 3,173	\$ 2,884	-9.1%	0.45	-13.1%	4.5%
New Jersey	\$ 8,586	\$ 7,582	\$ 7,136	-5.9%	1.11	-16.9%	3.8%
New Mexico	\$ 9,481	\$ 8,472	\$ 7,589	-10.4%	1.18	-20.0%	2.1%
New York	\$ 7,385	\$ 8,369	\$ 7,783	-7.0%	1.21	5.4%	3.2%
North Carolina	\$ 8,142	\$ 8,964	\$ 9,007	0.5%	1.40	10.6%	3.9%
North Dakota	\$ 5,149	\$ 5,551	\$ 6,520	17.5%	1.01	26.6%	0.0%
Ohio	\$ 4,986	\$ 4,874	\$ 4,293	-11.9%	0.67	-13.9%	13.8%
Oklahoma	\$ 6,673	\$ 8,916	\$ 8,400	-5.8%	1.30	25.9%	7.0%
Oregon	\$ 5,037	\$ 5,247	\$ 4,538	-13.5%	0.70	-9.9%	4.0%
Pennsylvania	\$ 6,017	\$ 5,613	\$ 5,159	-8.1%	0.80	-14.3%	4.9%
Rhode Island	\$ 6,633	\$ 4,818	\$ 4,817	0.0%	0.75	-27.4%	9.6%
South Carolina	\$ 6,537	\$ 5,777	\$ 5,477	-5.2%	0.85	-16.2%	12.4%
South Dakota	\$ 5,116	\$ 5,195	\$ 4,809	-7.4%	0.75	-6.0%	7.4%
Tennessee	\$ 7,784	\$ 8,137	\$ 7,477	-8.1%	1.16	-3.9%	12.5%
Texas	\$ 7,081	\$ 8,286	\$ 8,897	7.4%	1.38	25.6%	5.0%
Utah	\$ 5,685	\$ 6,179	\$ 5,328	-13.8%	0.83	-6.3%	8.6%
Vermont	\$ 3,035	\$ 2,690	\$ 2,754	2.4%	0.43	-9.3%	0.0%
Virginia	\$ 5,594	\$ 5,779	\$ 5,096	-11.8%	0.79	-8.9%	4.7%
Washington	\$ 6,321	\$ 6,571	\$ 5,831	-11.3%	0.90	-7.7%	6.5%
West Virginia	\$ 6,169	\$ 6,475	\$ 6,155	-4.9%	0.95	-0.2%	8.4%
Wisconsin	\$ 6,615	\$ 6,553	\$ 6,499	-0.8%	1.01	-1.8%	0.0%
Wyoming	\$ 12,469	\$ 15,572	\$ 13,090	-15.9%	2.03	5.0%	0.0%
US	\$ 6,662	\$ 6,951	\$ 6,454	-7.2%		-3.1%	6.4%

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.

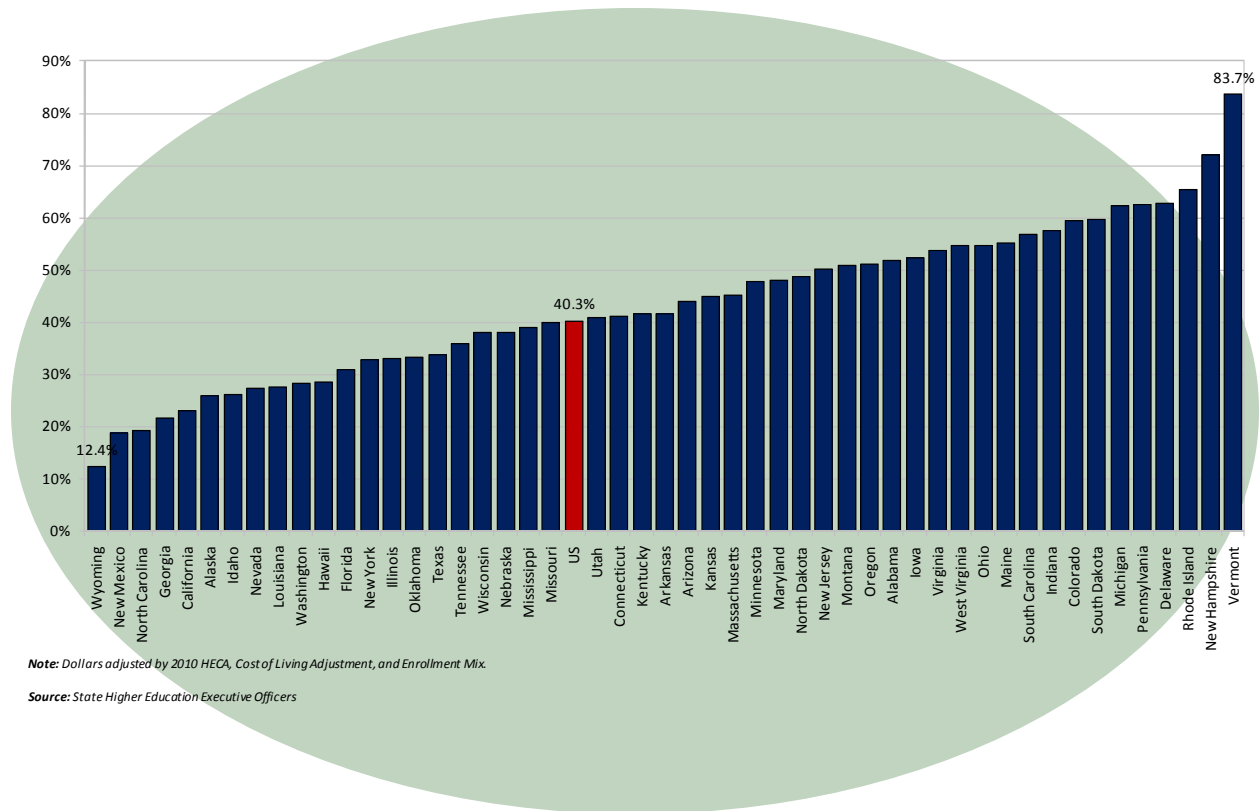
3) DE was unable to provide complete 2010 data; 2009 data substituted for 2010 when necessary.

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 2010. 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 12 percent in Wyoming to a high of about 84 percent in Vermont.
- Twenty-nine states are above the national average of 40.3 percent in the proportion of educational revenue from tuition sources.
- Thirteen states report using some portion of net tuition revenue for debt service. The amount used in 2009 ranges from \$775 per FTE to \$1 per FTE. Nationally, only about \$40 of net tuition per FTE was used for debt service in 2010.

Figure 7
Net Tuition as a Percent of Public Higher Education Total Educational Revenue
By State, Fiscal 2010



Note: Dollars adjusted by 2010 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 2010 Dollars)

State	FY 2005	FY 2009	FY 2010	1 Year % Change	FY2010 Index to US Average	5 Year % Change	Tuition and Fees Used for Debt Service		
							FY 2005	FY 2009	FY 2010
Alabama	\$ 6,202	\$ 6,342	\$ 6,216	-2.0%	1.44	0.2%	\$ -	\$ 511	\$ 567
Alaska	\$ 3,529	\$ 4,414	\$ 4,427	0.3%	1.02	25.4%	\$ -	\$ -	\$ -
Arizona	\$ 3,510	\$ 4,416	\$ 4,737	7.3%	1.10	35.0%	\$ 300	\$ 318	\$ 286
Arkansas	\$ 3,868	\$ 4,691	\$ 4,572	-2.6%	1.06	18.2%	\$ 1,152	\$ 558	\$ 747
California	\$ 1,375	\$ 1,565	\$ 1,777	13.6%	0.41	29.2%	\$ -	\$ -	\$ -
Colorado	\$ 4,334	\$ 5,170	\$ 5,533	7.0%	1.28	27.7%	\$ -	\$ -	\$ -
Connecticut	\$ 5,515	\$ 5,928	\$ 5,882	-0.8%	1.36	6.7%	\$ -	\$ -	\$ -
Delaware	\$ 7,761	\$ 9,520	\$ 9,392	-1.3%	2.17	21.0%	\$ 43	\$ 84	\$ 83
Florida	\$ 2,237	\$ 2,362	\$ 2,678	13.4%	0.62	19.7%	\$ -	\$ -	\$ -
Georgia	\$ 1,448	\$ 2,102	\$ 2,010	-4.4%	0.47	38.8%	\$ 25	\$ 18	\$ 16
Hawaii	\$ 1,822	\$ 2,758	\$ 2,973	7.8%	0.69	63.2%	\$ -	\$ -	\$ -
Idaho	\$ 2,414	\$ 2,471	\$ 2,746	11.1%	0.64	13.7%	\$ -	\$ -	\$ -
Illinois	\$ 3,023	\$ 3,676	\$ 4,023	9.5%	0.93	33.1%	\$ -	\$ -	\$ -
Indiana	\$ 5,222	\$ 5,956	\$ 5,878	-1.3%	1.36	12.6%	\$ -	\$ 30	\$ -
Iowa	\$ 5,086	\$ 5,759	\$ 5,769	0.2%	1.34	13.4%	\$ -	\$ -	\$ -
Kansas	\$ 3,847	\$ 4,141	\$ 4,241	2.4%	0.98	10.2%	\$ -	\$ -	\$ -
Kentucky	\$ 4,082	\$ 5,312	\$ 5,352	0.8%	1.24	31.1%	\$ -	\$ -	\$ -
Louisiana	\$ 2,384	\$ 2,559	\$ 2,649	3.5%	0.61	11.1%	\$ -	\$ -	\$ -
Maine	\$ 5,807	\$ 7,565	\$ 7,663	1.3%	1.77	32.0%	\$ -	\$ -	\$ -
Maryland	\$ 6,496	\$ 6,375	\$ 6,641	4.2%	1.54	2.2%	\$ -	\$ -	\$ -
Massachusetts	\$ 4,713	\$ 4,942	\$ 4,950	0.2%	1.15	5.0%	\$ -	\$ -	\$ -
Michigan	\$ 6,430	\$ 7,667	\$ 7,975	4.0%	1.85	24.0%	\$ -	\$ -	\$ -
Minnesota	\$ 4,740	\$ 5,151	\$ 5,145	-0.1%	1.19	8.5%	\$ -	\$ -	\$ -
Mississippi	\$ 4,237	\$ 4,133	\$ 5,084	23.0%	1.18	20.0%	\$ -	\$ -	\$ -
Missouri	\$ 4,692	\$ 4,659	\$ 4,038	-13.3%	0.93	-13.9%	\$ -	\$ -	\$ -
Montana	\$ 4,140	\$ 4,445	\$ 4,426	-0.4%	1.02	6.9%	\$ -	\$ -	\$ -
Nebraska	\$ 3,509	\$ 3,870	\$ 4,147	7.2%	0.96	18.2%	\$ -	\$ -	\$ -
Nevada	\$ 2,614	\$ 2,866	\$ 2,918	1.8%	0.68	11.6%	\$ -	\$ -	\$ -
New Hampshire	\$ 6,615	\$ 7,722	\$ 7,413	-4.0%	1.72	12.1%	\$ 404	\$ -	\$ -
New Jersey	\$ 6,203	\$ 7,426	\$ 7,194	-3.1%	1.66	16.0%	\$ -	\$ -	\$ -
New Mexico	\$ 1,300	\$ 1,851	\$ 1,749	-5.5%	0.40	34.5%	\$ -	\$ -	\$ -
New York	\$ 3,652	\$ 3,569	\$ 3,785	6.0%	0.88	3.6%	\$ -	\$ -	\$ -
North Carolina	\$ 2,692	\$ 2,428	\$ 2,152	-11.4%	0.50	-20.1%	\$ -	\$ -	\$ -
North Dakota	\$ 5,560	\$ 6,421	\$ 6,221	-3.1%	1.44	11.9%	\$ -	\$ -	\$ -
Ohio	\$ 5,230	\$ 5,370	\$ 5,180	-3.5%	1.20	-0.9%	\$ -	\$ -	\$ -
Oklahoma	\$ 3,420	\$ 4,723	\$ 4,206	-10.9%	0.97	23.0%	\$ -	\$ -	\$ -
Oregon	\$ 4,974	\$ 4,682	\$ 4,730	1.0%	1.09	-4.9%	\$ -	\$ -	\$ -
Pennsylvania	\$ 7,228	\$ 8,247	\$ 8,577	4.0%	1.99	18.7%	\$ -	\$ -	\$ -
Rhode Island	\$ 7,128	\$ 8,764	\$ 9,093	3.7%	2.10	27.6%	\$ -	\$ -	\$ -
South Carolina	\$ 5,935	\$ 5,767	\$ 6,468	12.2%	1.50	9.0%	\$ 665	\$ 597	\$ 576
South Dakota	\$ 5,437	\$ 5,353	\$ 6,261	17.0%	1.45	15.1%	\$ 430	\$ 556	\$ 574
Tennessee	\$ 4,073	\$ 3,983	\$ 4,119	3.4%	0.95	1.1%	\$ 114	\$ 156	\$ 139
Texas	\$ 3,393	\$ 4,214	\$ 4,539	7.7%	1.05	33.8%	\$ 7	\$ 1	\$ 1
Utah	\$ 2,899	\$ 3,289	\$ 3,679	11.9%	0.85	26.9%	\$ -	\$ -	\$ -
Vermont	\$ 10,177	\$ 12,134	\$ 12,046	-0.7%	2.79	18.4%	\$ 142	\$ 352	\$ 402
Virginia	\$ 5,089	\$ 5,743	\$ 5,886	2.5%	1.36	15.7%	\$ 9	\$ 14	\$ 45
Washington	\$ 2,176	\$ 1,979	\$ 2,303	16.4%	0.53	5.8%	\$ -	\$ -	\$ -
West Virginia	\$ 5,283	\$ 6,480	\$ 6,488	0.1%	1.50	22.8%	\$ 809	\$ 805	\$ 775
Wisconsin	\$ 3,675	\$ 3,849	\$ 3,993	3.7%	0.92	8.7%	\$ -	\$ -	\$ -
Wyoming	\$ 2,757	\$ 2,097	\$ 1,846	-12.0%	0.43	-33.1%	\$ -	\$ -	\$ -
US	\$ 3,760	\$ 4,178	\$ 4,321	3.4%		14.9%	\$ 35	\$ 39	\$ 40

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.

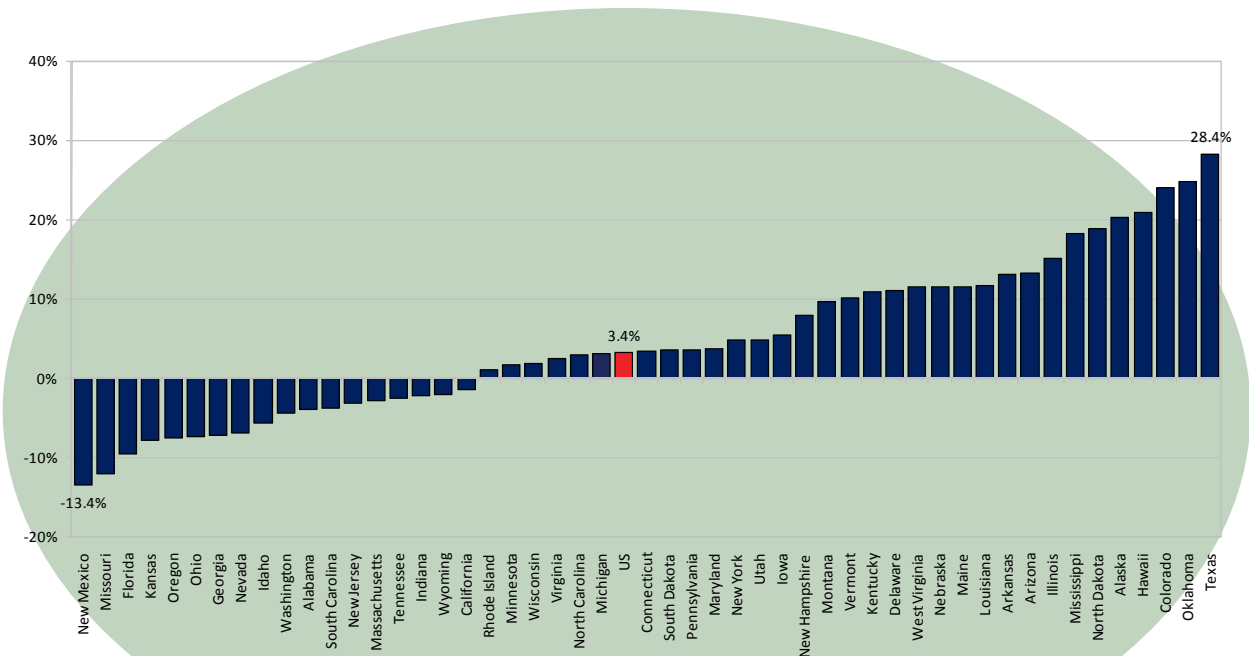
3) DE was unable to provide complete 2010 data; 2009 data substituted for 2010 when necessary.

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 2005 to 2010. Total revenue per FTE in 2010 is lower than in 2009 and higher than in 2005 (see Table 7), which is a reflection of the growing student share of total educational revenue.

- Thirty two states increased total educational revenue per student between 2005 and 2010.
- In 18 states, total educational revenue per FTE decreased.
- The U.S. average showed a 3 percent increase in educational revenue per FTE from 2005 to 2010.

Figure 8
Total Educational Revenue per FTE
Percent Change by State, Fiscal 2005-2010



Note: Dollars adjusted by 2010 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 2010 Dollars)

State	FY 2005	FY 2009	FY 2010	1 Year % Change	FY2009 Index to US Average	5 Year % Change	% of Total Educational Revenue from Stimulus, 2010
Alabama	\$ 12,485	\$ 12,433	\$ 12,009	-3.4%	1.12	-3.8%	5.5%
Alaska	\$ 14,163	\$ 17,495	\$ 17,033	-2.6%	1.59	20.3%	0.0%
Arizona	\$ 9,509	\$ 11,404	\$ 10,773	-5.5%	1.00	13.3%	2.5%
Arkansas	\$ 9,693	\$ 12,196	\$ 10,968	-10.1%	1.02	13.2%	1.3%
California	\$ 7,825	\$ 8,352	\$ 7,718	-7.6%	0.72	-1.4%	2.1%
Colorado	\$ 7,507	\$ 9,151	\$ 9,314	1.8%	0.87	24.1%	18.8%
Connecticut	\$ 13,844	\$ 14,358	\$ 14,332	-0.2%	1.34	3.5%	2.2%
Delaware	\$ 13,455	\$ 15,217	\$ 14,952	-1.7%	1.39	11.1%	2.6%
Florida	\$ 9,552	\$ 9,002	\$ 8,646	-4.0%	0.81	-9.5%	6.0%
Georgia	\$ 10,020	\$ 11,001	\$ 9,312	-15.3%	0.87	-7.1%	10.1%
Hawaii	\$ 8,621	\$ 11,588	\$ 10,424	-10.0%	0.97	20.9%	5.0%
Idaho	\$ 11,107	\$ 11,851	\$ 10,492	-11.5%	0.98	-5.5%	3.7%
Illinois	\$ 10,541	\$ 11,164	\$ 12,144	8.8%	1.13	15.2%	1.9%
Indiana	\$ 10,423	\$ 10,790	\$ 10,203	-5.4%	0.95	-2.1%	1.1%
Iowa	\$ 10,466	\$ 11,744	\$ 11,045	-5.9%	1.03	5.5%	6.8%
Kansas	\$ 10,233	\$ 9,808	\$ 9,432	-3.8%	0.88	-7.8%	2.8%
Kentucky	\$ 11,605	\$ 13,379	\$ 12,884	-3.7%	1.20	11.0%	3.9%
Louisiana	\$ 8,625	\$ 10,760	\$ 9,644	-10.4%	0.90	11.8%	11.7%
Maine	\$ 12,435	\$ 14,152	\$ 13,878	-1.9%	1.29	11.6%	2.0%
Maryland	\$ 13,292	\$ 13,637	\$ 13,803	1.2%	1.29	3.8%	0.0%
Massachusetts	\$ 11,276	\$ 11,472	\$ 10,956	-4.5%	1.02	-2.8%	10.6%
Michigan	\$ 12,408	\$ 13,032	\$ 12,797	-1.8%	1.19	3.1%	1.1%
Minnesota	\$ 10,607	\$ 11,325	\$ 10,789	-4.7%	1.01	1.7%	5.6%
Mississippi	\$ 11,015	\$ 11,548	\$ 13,025	12.8%	1.21	18.2%	4.9%
Missouri	\$ 11,492	\$ 11,203	\$ 10,112	-9.7%	0.94	-12.0%	7.1%
Montana	\$ 7,944	\$ 8,969	\$ 8,719	-2.8%	0.81	9.8%	9.8%
Nebraska	\$ 9,751	\$ 11,212	\$ 10,878	-3.0%	1.01	11.6%	0.0%
Nevada	\$ 11,495	\$ 11,745	\$ 10,718	-8.7%	1.00	-6.8%	26.0%
New Hampshire	\$ 9,529	\$ 10,896	\$ 10,297	-5.5%	0.96	8.1%	1.3%
New Jersey	\$ 14,789	\$ 15,008	\$ 14,330	-4.5%	1.33	-3.1%	1.9%
New Mexico	\$ 10,782	\$ 10,323	\$ 9,338	-9.5%	0.87	-13.4%	1.7%
New York	\$ 11,037	\$ 11,938	\$ 11,567	-3.1%	1.08	4.8%	2.2%
North Carolina	\$ 10,834	\$ 11,392	\$ 11,159	-2.0%	1.04	3.0%	3.1%
North Dakota	\$ 10,709	\$ 11,972	\$ 12,741	6.4%	1.19	19.0%	0.0%
Ohio	\$ 10,216	\$ 10,244	\$ 9,473	-7.5%	0.88	-7.3%	6.2%
Oklahoma	\$ 10,093	\$ 13,640	\$ 12,607	-7.6%	1.17	24.9%	4.7%
Oregon	\$ 10,011	\$ 9,930	\$ 9,268	-6.7%	0.86	-7.4%	2.0%
Pennsylvania	\$ 13,245	\$ 13,860	\$ 13,736	-0.9%	1.28	3.7%	1.8%
Rhode Island	\$ 13,761	\$ 13,582	\$ 13,909	2.4%	1.30	1.1%	3.3%
South Carolina	\$ 11,808	\$ 10,947	\$ 11,369	3.9%	1.06	-3.7%	6.0%
South Dakota	\$ 10,123	\$ 9,992	\$ 10,496	5.0%	0.98	3.7%	3.4%
Tennessee	\$ 11,742	\$ 11,964	\$ 11,457	-4.2%	1.07	-2.4%	8.2%
Texas	\$ 10,467	\$ 12,499	\$ 13,435	7.5%	1.25	28.4%	3.3%
Utah	\$ 8,583	\$ 9,468	\$ 9,007	-4.9%	0.84	4.9%	5.1%
Vermont	\$ 13,070	\$ 14,471	\$ 14,397	-0.5%	1.34	10.2%	0.0%
Virginia	\$ 10,675	\$ 11,509	\$ 10,937	-5.0%	1.02	2.5%	2.2%
Washington	\$ 8,497	\$ 8,550	\$ 8,134	-4.9%	0.76	-4.3%	4.6%
West Virginia	\$ 10,643	\$ 12,149	\$ 11,869	-2.3%	1.11	11.5%	4.4%
Wisconsin	\$ 10,290	\$ 10,402	\$ 10,492	0.9%	0.98	2.0%	0.0%
Wyoming	\$ 15,227	\$ 17,668	\$ 14,936	-15.5%	1.39	-1.9%	0.0%
US	\$ 10,386	\$ 11,091	\$ 10,734	-3.2%		3.4%	3.8%

Notes:

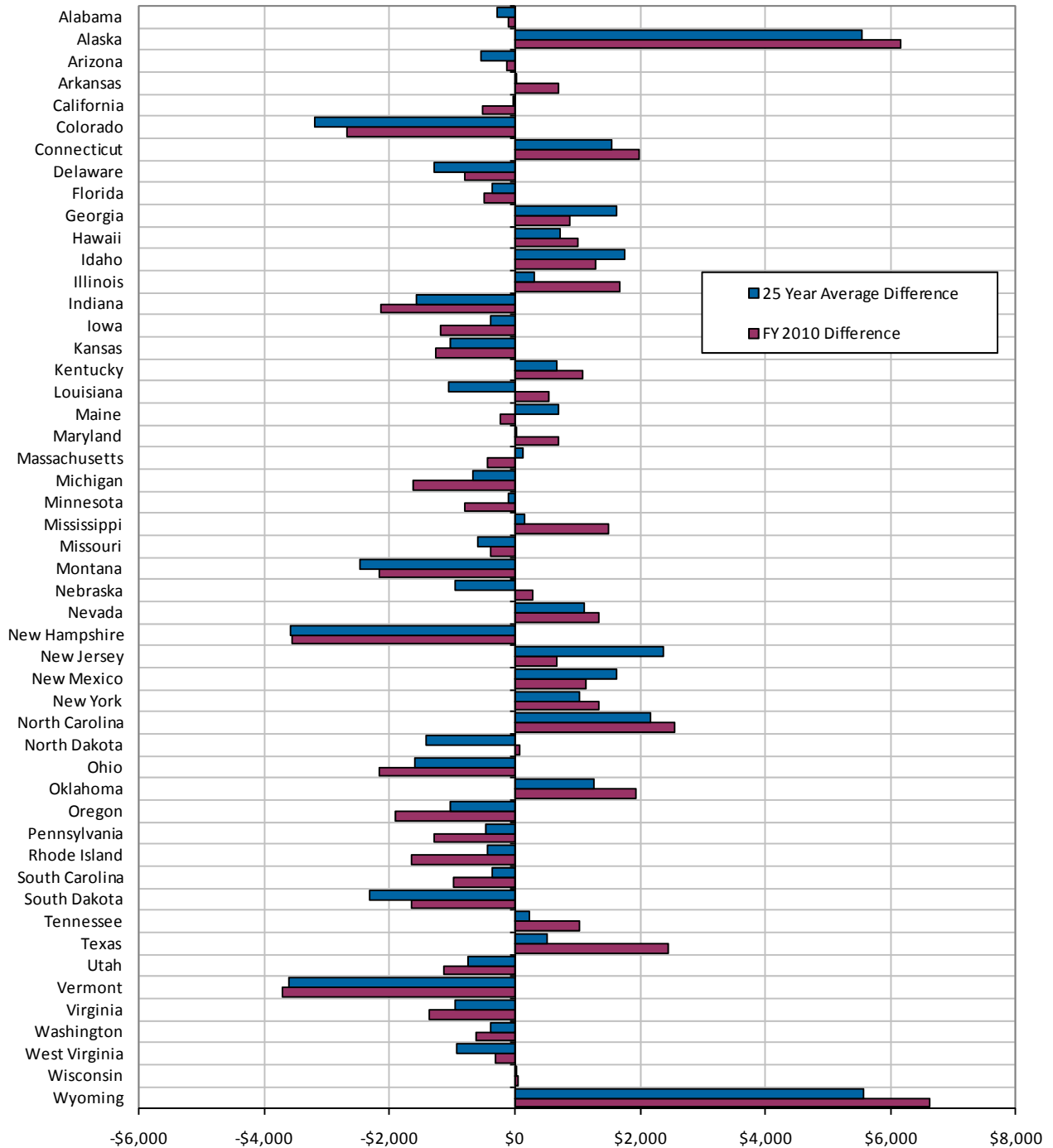
- 1) Total educational revenue is the sum of educational appropriations and net tuition excluding net tuition revenue used for capital debt service.
- 2) Adjustment factors, to arrive at constant dollar figures, include Cost of Living Adjustment (COLA), Enrollment Mix Index (EMI), and Higher Education Cost Adjustment (HECA). The Cost of Living Adjustment (COLA) is not a measure of inflation over time.
- 3) DE was unable to provide complete 2010 data; 2009 data substituted for 2010 when necessary.

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 1985-2010. The red bars represent the FY 2010 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 2010. Of those, 18 had higher educational appropriations per FTE compared to the U.S. in 2009 than they had, on average, across the years 1985-2010.
- Twenty-eight states had lower than average educational appropriations per FTE in 2010. Eighteen of those had lower educational appropriations per FTE compared to the U.S. in 2009 than they had, on average, across the years 1985-2010.
- The 2010 difference between the state and U.S. educational appropriations per FTE was more than \$1000 higher than the historical average difference in 7 states; it was more than \$1000 lower than the historical average difference in 2 states.

Figure 9
Educational Appropriations per FTE
State Differences from U.S. Average Over 25 Years and in 2010 (Constant 2010 Dollars)



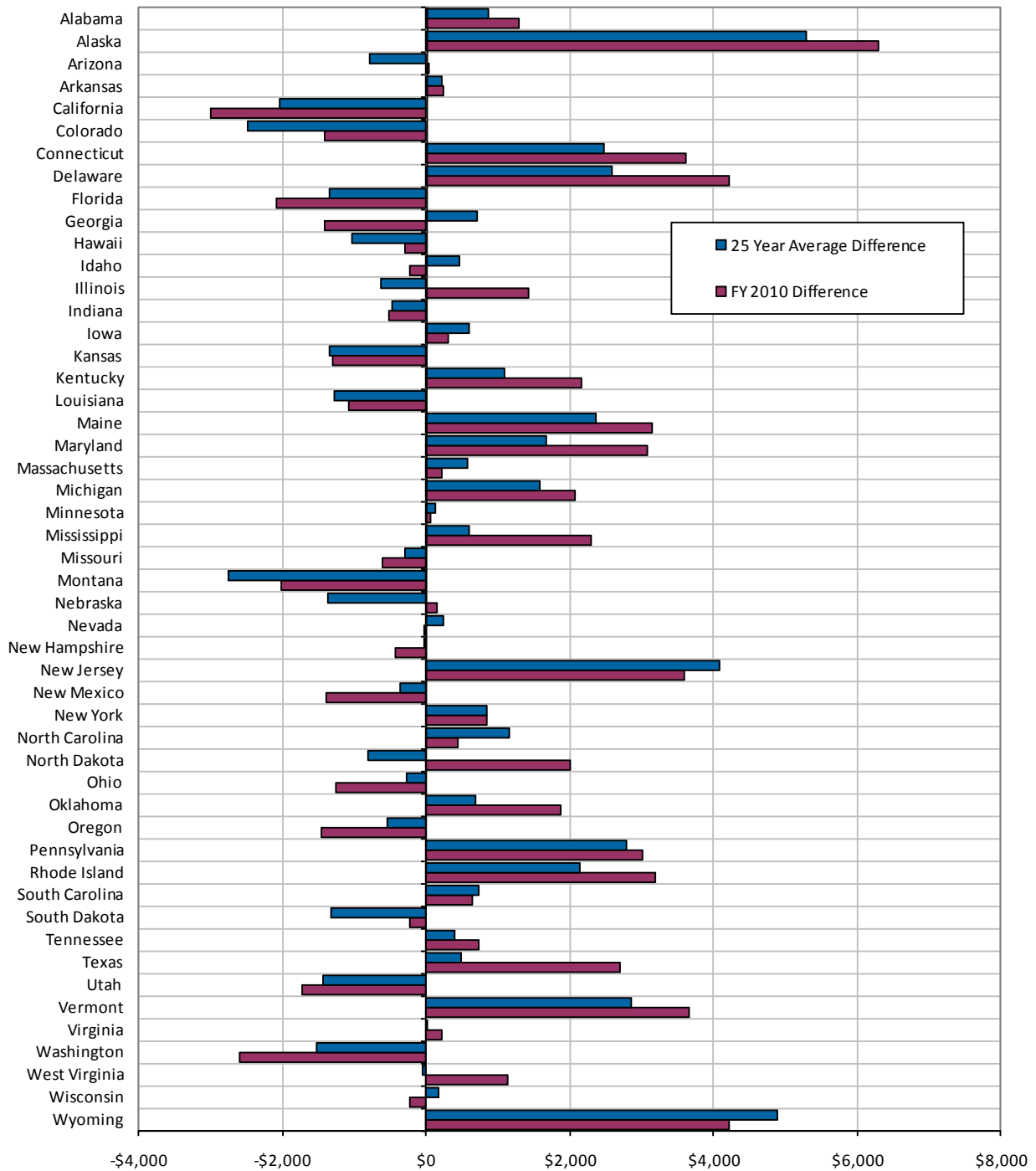
Note: All dollars are adjusted by HECA, Cost of Living Adjustment, and Enrollment Mix.

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 states' total educational revenue per FTE and the national total educational revenue per FTE from 1985-2010. The red bars represent the FY 2010 difference between the states' per FTE total educational revenue and the U.S. per FTE total educational revenue.

- In 29 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.
- Thirty states had higher than average total educational revenue per FTE in 2010. Of those, 22 had higher total educational revenue per FTE compared to the U.S. in 2010 than they had, on average, across the years 1985-2010.
- Twenty states had lower than average total educational revenue per FTE in 2010. Fourteen of those had lower total educational revenue per FTE compared to the U.S. in 2010 than they had, on average, across the years 1985-2010.
- The 2010 difference between the state and U.S. total educational revenue per FTE was more than \$1000 higher than the historical average difference in 15 states; it was more than \$1000 lower than the historical average difference in 3 states.

Figure 10
Total Educational Revenue per FTE
State Differences from U.S. Average Over 25 Years and in 2010 (Constant 2010 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

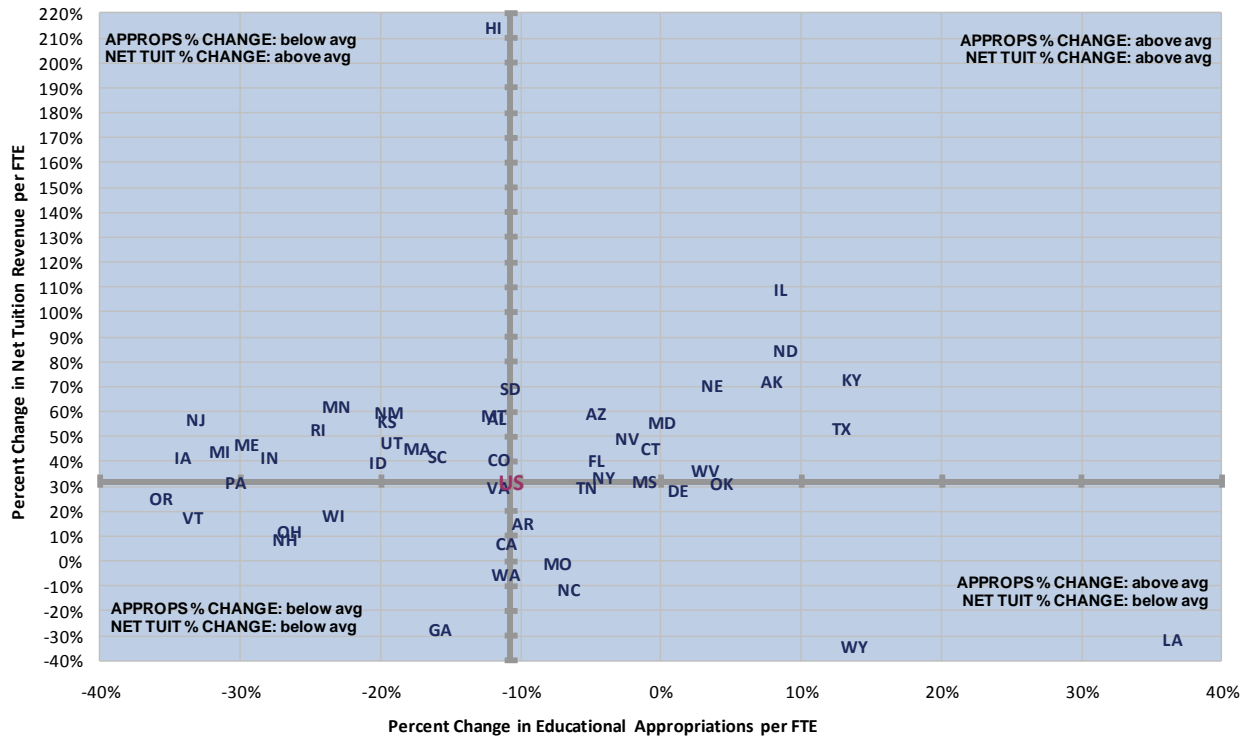
Comparing States on Two Dimensions

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 1995 to 2010. 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 1995-2010



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 2010.

- 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.

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 47.6 percent from 1998 to 2008, from \$36,008 to \$53,134.
- Total state and local tax revenue per capita increased 55.7 percent from \$2,801 in 1998 to \$4,362 in 2008.
- As a result, the national aggregate effective state and local tax rate (tax revenue as a percentage of state wealth) increased from 7.78 percent to 8.21 percent over this period.

Also based on aggregate, national data, the allocation of the available state revenue to higher education fluctuated somewhat between 1998 and 2007. Of total state and local revenue (including lottery proceeds), the allocation to higher education ranged from 6.4 percent to 7.7 percent during this period. In 2008, the most recent year available, the percentage allocation to higher education was 6.6 percent, slightly higher than in 2007 and slightly lower than in 1998.

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., 1998-2008 (Current 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)
1998	\$ 36,008	\$ 2,801	7.78%	\$ 782,987,470	\$ 54,006,965	6.9%
1999	\$ 37,528	\$ 2,917	7.77%	\$ 824,249,176	\$ 58,339,843	7.1%
2000	\$ 39,939	\$ 3,086	7.73%	\$ 881,108,058	\$ 63,263,061	7.2%
2001	\$ 39,727	\$ 3,196	8.05%	\$ 921,556,887	\$ 67,450,332	7.3%
2002	\$ 40,242	\$ 3,140	7.80%	\$ 915,027,341	\$ 69,962,057	7.6%
2003	\$ 41,791	\$ 3,111	7.44%	\$ 915,311,067	\$ 70,098,967	7.7%
2004	\$ 44,642	\$ 3,441	7.71%	\$ 1,020,012,078	\$ 69,290,866	6.8%
2005	\$ 47,747	\$ 3,700	7.75%	\$ 1,108,355,477	\$ 71,912,881	6.5%
2006	\$ 50,920	\$ 3,996	7.85%	\$ 1,207,621,567	\$ 77,250,997	6.4%
2007	\$ 53,670	\$ 4,246	7.91%	\$ 1,295,451,648	\$ 82,986,043	6.4%
2008	\$ 53,134	\$ 4,362	8.21%	\$ 1,342,709,662	\$ 88,920,832	6.6%
10 Year Change	47.6%	55.7%	5.5%	71.5%	64.6%	-4.0%

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, Micheal. 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 \$37,647 per capita to a high of \$83,641 per capita. Effective tax rates also vary substantially, from a low of 5.5 percent (in Delaware) to a high of 19.2 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 2009. Per capita support for higher education varies from \$105 in New Hampshire to \$669 in Wyoming. Support for higher education relative to personal income varies from \$2.46 to \$16.42 per \$1,000 of personal income across the states. Nationally, state and local support for higher education per \$1,000 of personal income was \$7.35 in 2009.

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 2008. 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 2008

State	Actual Tax Revenues (ATR)		Total Taxable Resources (TTR)		Effective Tax Rate (ATR/TTR)	
	Per Capita		Per Capita		Tax Rate	Index
	Dollars	Index	Dollars	Index		
Alabama	3,002	0.688	41,700	0.785	7.2%	0.877
Alaska	14,147	3.244	73,739	1.388	19.2%	2.337
Arizona	3,538	0.811	45,196	0.851	7.8%	0.954
Arkansas	3,280	0.752	40,627	0.765	8.1%	0.983
California	5,085	1.166	57,749	1.087	8.8%	1.073
Colorado	3,979	0.912	57,462	1.081	6.9%	0.844
Connecticut	6,599	1.513	78,797	1.483	8.4%	1.020
Delaware	4,237	0.971	77,262	1.454	5.5%	0.668
Florida	3,981	0.913	50,334	0.947	7.9%	0.964
Georgia	3,468	0.795	45,502	0.856	7.6%	0.928
Hawaii	5,233	1.200	56,200	1.058	9.3%	1.134
Idaho	3,234	0.741	42,323	0.797	7.6%	0.931
Illinois	4,503	1.032	56,580	1.065	8.0%	0.970
Indiana	3,593	0.824	46,929	0.883	7.7%	0.933
Iowa	3,855	0.884	53,138	1.000	7.3%	0.884
Kansas	4,246	0.973	52,580	0.990	8.1%	0.984
Kentucky	3,302	0.757	41,204	0.775	8.0%	0.976
Louisiana	4,032	0.925	51,588	0.971	7.8%	0.952
Maine	4,496	1.031	43,923	0.827	10.2%	1.247
Maryland	4,887	1.120	62,159	1.170	7.9%	0.958
Massachusetts	5,196	1.191	62,728	1.181	8.3%	1.009
Michigan	3,764	0.863	42,313	0.796	8.9%	1.084
Minnesota	4,727	1.084	56,035	1.055	8.4%	1.028
Mississippi	3,133	0.718	37,647	0.709	8.3%	1.014
Missouri	3,336	0.765	46,310	0.872	7.2%	0.878
Montana	3,562	0.817	43,526	0.819	8.2%	0.997
Nebraska	4,213	0.966	54,015	1.017	7.8%	0.950
Nevada	4,048	0.928	57,680	1.086	7.0%	0.855
New Hampshire	3,754	0.861	55,720	1.049	6.7%	0.821
New Jersey	6,209	1.424	68,625	1.292	9.0%	1.102
New Mexico	3,899	0.894	43,391	0.817	9.0%	1.095
New York	7,103	1.629	64,961	1.223	10.9%	1.332
North Carolina	3,591	0.823	47,862	0.901	7.5%	0.914
North Dakota	4,948	1.135	54,525	1.026	9.1%	1.106
Ohio	4,048	0.928	45,903	0.864	8.8%	1.074
Oklahoma	3,379	0.775	47,056	0.886	7.2%	0.875
Oregon	3,313	0.759	50,421	0.949	6.6%	0.800
Pennsylvania	4,306	0.987	50,199	0.945	8.6%	1.045
Rhode Island	4,626	1.061	53,986	1.016	8.6%	1.044
South Carolina	2,923	0.670	40,789	0.768	7.2%	0.873
South Dakota	3,107	0.712	54,556	1.027	5.7%	0.694
Tennessee	3,045	0.698	43,816	0.825	6.9%	0.846
Texas	3,554	0.815	54,127	1.019	6.6%	0.800
Utah	3,436	0.788	45,273	0.852	7.6%	0.925
Vermont	4,727	1.084	47,673	0.897	9.9%	1.208
Virginia	4,196	0.962	59,936	1.128	7.0%	0.853
Washington	4,354	0.998	58,187	1.095	7.5%	0.912
West Virginia	3,542	0.812	39,542	0.744	9.0%	1.091
Wisconsin	4,331	0.993	49,330	0.928	8.8%	1.070
Wyoming	6,930	1.589	83,641	1.574	8.3%	1.009
U.S.	\$ 4,362	1.000	53,134	1.000	8.21%	1.000

Notes:1) Population and tax revenues data from U.S. Census Bureau: www.census.gov/govs/www/estimate.html2) Total Taxable Resources per capita from U.S. Treasury Department: www.treas.gov/offices/economic-policy/resources/estimates.html3) Actual State + Local Tax Revenues by State, Fiscal 2008: www.census.gov/govs/www/estimate.html

Table 10
Perspectives on State and Local Government Higher Education Funding Effort by State

State	FISCAL 2009		FISCAL 2009		FISCAL 2008		
	Higher Education Support ¹ Per Capita ² (FY09)	Indexed to U.S. Average	Higher Education Support ¹ Per \$1000 of Personal Income ² (FY09)	Indexed to U.S. Average	Tax Revenues and Lottery Profits ³ (thousands FY08)	Higher Education Support ¹ (thousands FY08)	Allocation to Higher Education
Alabama	336	1.16	10.08	1.37	14,040,755	1,964,218	14.0%
Alaska	457	1.57	10.59	1.44	9,735,074	299,332	3.1%
Arizona	305	1.05	9.17	1.25	23,136,977	1,975,860	8.5%
Arkansas	314	1.08	9.69	1.32	9,405,740	899,171	9.6%
California	375	1.29	8.82	1.20	187,084,284	13,825,112	7.4%
Colorado	176	0.61	4.21	0.57	19,758,543	794,718	4.0%
Connecticut	297	1.02	5.40	0.73	23,400,425	1,034,481	4.4%
Delaware	275	0.95	6.90	0.94	3,964,921	243,130	6.1%
Florida	222	0.76	5.70	0.78	74,631,398	4,448,930	6.0%
Georgia	322	1.11	9.47	1.29	34,500,201	2,953,508	8.6%
Hawaii	467	1.61	11.10	1.51	6,736,782	554,292	8.2%
Idaho	278	0.96	8.78	1.20	4,975,922	423,002	8.5%
Illinois	294	1.01	7.02	0.96	58,491,014	3,699,067	6.3%
Indiana	252	0.87	7.44	1.01	23,171,500	1,528,494	6.6%
Iowa	321	1.10	8.52	1.16	11,598,176	921,022	7.9%
Kansas	359	1.23	9.13	1.24	11,948,315	1,010,692	8.5%
Kentucky	301	1.03	9.31	1.27	14,348,797	1,334,960	9.3%
Louisiana	380	1.31	10.12	1.38	18,082,301	1,707,668	9.4%
Maine	207	0.71	5.67	0.77	5,982,262	273,617	4.6%
Maryland	340	1.17	7.05	0.96	28,180,453	1,867,268	6.6%
Massachusetts	196	0.67	3.94	0.54	34,910,340	1,329,382	3.8%
Michigan	263	0.90	7.65	1.04	38,390,571	2,592,602	6.8%
Minnesota	296	1.02	7.07	0.96	24,840,158	1,560,644	6.3%
Mississippi	348	1.20	11.43	1.56	9,212,798	1,095,347	11.9%
Missouri	208	0.72	5.79	0.79	20,139,142	1,154,709	5.7%
Montana	217	0.75	6.24	0.85	3,459,016	200,739	5.8%
Nebraska	419	1.44	10.68	1.45	7,539,072	740,054	9.8%
Nevada	236	0.81	6.26	0.85	10,587,743	620,033	5.9%
New Hampshire	105	0.36	2.46	0.33	5,038,454	133,093	2.6%
New Jersey	252	0.87	5.05	0.69	54,672,997	2,255,163	4.1%
New Mexico	545	1.88	16.42	2.23	7,787,540	1,153,348	14.8%
New York	294	1.01	6.32	0.86	140,844,041	5,517,333	3.9%
North Carolina	427	1.47	12.31	1.67	33,557,949	4,023,229	12.0%
North Dakota	393	1.35	9.64	1.31	3,180,077	253,901	8.0%
Ohio	227	0.78	6.37	0.87	47,332,385	2,425,207	5.1%
Oklahoma	303	1.04	8.47	1.15	12,386,152	1,134,926	9.2%
Oregon	228	0.79	6.32	0.86	13,210,250	849,602	6.4%
Pennsylvania	186	0.64	4.62	0.63	55,037,666	2,304,415	4.2%
Rhode Island	157	0.54	3.79	0.52	5,229,358	191,330	3.7%
South Carolina	227	0.78	7.03	0.96	13,426,605	1,267,031	9.4%
South Dakota	246	0.84	6.43	0.87	2,622,461	198,949	7.6%
Tennessee	264	0.91	7.72	1.05	19,285,727	1,639,551	8.5%
Texas	296	1.02	7.67	1.04	87,420,692	7,410,482	8.5%
Utah	279	0.96	8.84	1.20	9,371,460	812,338	8.7%
Vermont	140	0.48	3.59	0.49	2,958,201	90,801	3.1%
Virginia	245	0.84	5.54	0.75	33,161,899	1,902,952	5.7%
Washington	272	0.93	6.32	0.86	28,719,871	1,768,291	6.2%
West Virginia	286	0.98	8.92	1.21	7,007,072	562,253	8.0%
Wisconsin	304	1.05	8.14	1.11	24,512,341	1,647,134	6.7%
Wyoming	669	2.30	13.89	1.89	3,693,784	327,452	8.9%
United States	\$291	1.00	\$7.35	1.00	\$ 1,342,709,662	\$ 88,920,832	6.6%

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

States and the nation as a whole face challenging higher education financing and policy decisions. The pattern during the past three decades includes cyclical downturns in per student funding resulting from economic recessions, followed by recovery and growth. State and local revenue for higher education per student has declined and then recovered, often exceeding previous levels.

The SHEF studies for 2006, 2007, and 2008 indicate a three-year increase in state and local support for public higher education relative to inflation and student demand, following a period of declining public investment in higher education between 2001 and 2005. The three-year recovery abruptly ended when, in 2008, the nation suffered the worst recession since the Great Depression. Past experience and current indicators suggest that state revenue will recover slowly in the next few years. Despite the success of ARRA funding in cushioning the recession's impact, the continuing fiscal crisis beginning in 2008 clearly poses a severe threat to the strength of higher education in the United States.

Such recurring budgeting cycles can be challenging and discouraging. The resiliency of state support for higher education, however, suggests its importance to our future is widely recognized. But there is no question that the fiscal challenges facing the nation will require both creativity and commitment from policymakers and educators. 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 how each step contributes—or not—to meeting longer-term objectives.

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 percent⁷, and enrollment-weighted tuition and fees for four-year public universities grew by 175 percent.⁸ U.S. income per capita grew by 85 percent⁹ 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 tracked by the CPI-U.

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

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 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 1) it is a privately developed analysis, and 2) 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

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.

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).

Technical Paper Table 1 displays three indices—the CPI-U, HEPI, and HECA—for the years 1994 to 2009. For comparison purposes, per capita income growth is shown.

Summary of the Indices

Between 1995 and 2010:

- 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 68 percent (as estimated by HEPI).

Technical Paper Table 1
CPI-U, HEPI, and HECA Indexed to Fiscal Year 2010

Fiscal Year	CPI-U ¹	HECA ²	HEPI ³
1995	69.89	64.33	59.65
1996	71.95	66.03	61.39
1997	73.60	67.83	63.31
1998	74.75	69.92	65.54
1999	76.40	71.87	67.10
2000	78.97	74.68	69.87
2001	81.22	77.99	74.06
2002	82.50	80.42	75.48
2003	84.38	82.92	79.31
2004	86.63	85.80	82.22
2005	89.56	88.75	85.45
2006	92.45	91.42	89.82
2007	95.09	94.55	92.37
2008	98.74	97.31	96.95
2009	98.39	98.66	99.11
2010	100.00	100.00	100.00
% Change			
1995-	43%	55%	68%

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, these were \$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 2007 (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 2007 and fall 2006 FTE data. In addition, an aggregated national cost per FTE was calculated to be \$10,893. 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 (\$17,140); Doctoral Research Intensive (\$12,136); Masters Colleges and Universities I (\$10,370); and Associate Colleges (\$8,651).

2. The proportion of each state's FTE in each of the Carnegie Classifications was calculated for fall 2006, and then multiplied by the national average cost per FTE in 2006 (FY 2007) for each respective classification. The sum of these products (the total state FTE for classification multiplied by the national average unit cost for classification) 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 2006 equals 0.94 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

	EMI ¹	COLA ²	EMI & COLA Combined
State			
Alabama	0.972	0.902	0.876
Alaska	0.973	1.218	1.185
Arizona	1.091	0.964	1.052
Arkansas	0.918	0.887	0.814
California	0.937	1.090	1.021
Colorado	1.139	1.048	1.193
Connecticut	1.030	1.202	1.238
Delaware	1.256	0.993	1.247
Florida	1.048	0.921	0.966
Georgia	1.009	0.935	0.943
Hawaii	1.147	1.354	1.553
Idaho	0.973	0.957	0.931
Illinois	0.971	1.051	1.021
Indiana	1.143	1.001	1.145
Iowa	1.112	0.995	1.106
Kansas	1.103	0.999	1.101
Kentucky	0.989	0.905	0.895
Louisiana	1.042	0.901	0.939
Maine	0.934	1.091	1.019
Maryland	0.993	0.999	0.991
Massachusetts	0.990	1.218	1.206
Michigan	1.072	1.027	1.101
Minnesota	1.004	1.051	1.055
Mississippi	0.923	0.883	0.815
Missouri	1.036	0.997	1.034
Montana	1.198	0.951	1.139
Nebraska	1.050	1.011	1.062
Nevada	0.949	1.014	0.962
New Hampshire	0.972	1.152	1.120
New Jersey	0.845	1.193	1.009
New Mexico	1.045	0.955	0.997
New York	0.945	1.146	1.083
North Carolina	1.006	0.929	0.934
North Dakota	0.999	1.002	1.001
Ohio	1.063	1.009	1.072
Oklahoma	0.929	0.886	0.823
Oregon	1.010	1.020	1.030
Pennsylvania	0.967	1.068	1.032
Rhode Island	0.949	1.149	1.090
South Carolina	0.999	0.915	0.914
South Dakota	0.993	1.007	0.999
Tennessee	1.014	0.913	0.926
Texas	0.967	0.886	0.857
Utah	1.058	1.007	1.066
Vermont	0.995	1.122	1.116
Virginia	1.032	0.962	0.994
Washington	1.002	1.045	1.047
West Virginia	0.892	0.892	0.796
Wisconsin	1.011	1.031	1.042
Wyoming	0.921	0.966	0.890
U.S.	1.000	1.000	1.000

Notes:

1) Fall 2006 FTE data and FY2007 financial data from IPEDS are used to produce Enrollment Mix

2) As of 2003, obtained from Berry, 2003

Technical Paper Table 3
Enrollment Mix Index and Cost of Living Adjustments by State

State	Total Educational Revenue per FTE UNADJUSTED		ADJUSTED FOR ENROLLMENT MIX		ADJUSTED FOR COST OF LIVING		ADJUSTED FOR ENROLLMENT & COLA	
	\$/FTE	% of U.S. Avg	\$/FTE	% of U.S. Avg	\$/FTE	% of U.S. Avg	\$/FTE	% of U.S. Avg
Alabama	10,524	98%	10,831	101%	11,670	109%	12,009	112%
Alaska	20,187	188%	20,747	193%	16,573	154%	17,033	159%
Arizona	11,338	106%	10,390	97%	11,755	110%	10,773	100%
Arkansas	8,927	83%	9,729	91%	10,063	94%	10,968	102%
California	7,879	73%	8,411	78%	7,230	67%	7,718	72%
Colorado	11,112	104%	9,757	91%	10,607	99%	9,314	87%
Connecticut	17,739	165%	17,225	160%	14,760	137%	14,332	134%
Delaware	18,650	174%	14,850	138%	18,778	175%	14,952	139%
Florida	8,350	78%	7,964	74%	9,065	84%	8,646	81%
Georgia	8,781	82%	8,703	81%	9,395	88%	9,312	87%
Hawaii	16,185	151%	14,114	131%	11,954	111%	10,424	97%
Idaho	9,763	91%	10,037	93%	10,207	95%	10,492	98%
Illinois	12,394	115%	12,758	119%	11,797	110%	12,144	113%
Indiana	11,678	109%	10,218	95%	11,662	109%	10,203	95%
Iowa	12,215	114%	10,987	102%	12,280	114%	11,045	103%
Kansas	10,384	97%	9,418	88%	10,399	97%	9,432	88%
Kentucky	11,534	107%	11,658	109%	12,748	119%	12,884	120%
Louisiana	9,053	84%	8,692	81%	10,046	94%	9,644	90%
Maine	14,138	132%	15,136	141%	12,963	121%	13,878	129%
Maryland	13,684	127%	13,784	128%	13,704	128%	13,803	129%
Massachusetts	13,208	123%	13,345	124%	10,843	101%	10,956	102%
Michigan	14,092	131%	13,147	122%	13,717	128%	12,797	119%
Minnesota	11,387	106%	11,341	106%	10,832	101%	10,789	101%
Mississippi	10,616	99%	11,497	107%	12,027	112%	13,025	121%
Missouri	10,451	97%	10,085	94%	10,479	98%	10,112	94%
Montana	9,935	93%	8,293	77%	10,446	97%	8,719	81%
Nebraska	11,554	108%	11,001	102%	11,425	106%	10,878	101%
Nevada	10,315	96%	10,870	101%	10,170	95%	10,718	100%
New Hampshire	11,527	107%	11,861	110%	10,007	93%	10,297	96%
New Jersey	14,455	135%	17,103	159%	12,112	113%	14,330	133%
New Mexico	9,314	87%	8,916	83%	9,755	91%	9,338	87%
New York	12,530	117%	13,259	124%	10,932	102%	11,567	108%
North Carolina	10,423	97%	10,366	97%	11,221	105%	11,159	104%
North Dakota	12,750	119%	12,766	119%	12,725	119%	12,741	119%
Ohio	10,159	95%	9,559	89%	10,068	94%	9,473	88%
Oklahoma	10,376	97%	11,175	104%	11,706	109%	12,607	117%
Oregon	9,550	89%	9,457	88%	9,359	87%	9,268	86%
Pennsylvania	14,182	132%	14,667	137%	13,282	124%	13,736	128%
Rhode Island	15,161	141%	15,982	149%	13,194	123%	13,909	130%
South Carolina	10,391	97%	10,405	97%	11,353	106%	11,369	106%
South Dakota	10,489	98%	10,567	98%	10,418	97%	10,496	98%
Tennessee	10,610	99%	10,465	97%	11,616	108%	11,457	107%
Texas	11,511	107%	11,902	111%	12,993	121%	13,435	125%
Utah	9,599	89%	9,074	85%	9,527	89%	9,007	84%
Vermont	16,070	150%	16,149	150%	14,326	133%	14,397	134%
Virginia	10,869	101%	10,527	98%	11,293	105%	10,937	102%
Washington	8,516	79%	8,502	79%	8,148	76%	8,134	76%
West Virginia	9,446	88%	10,587	99%	10,590	99%	11,869	111%
Wisconsin	10,935	102%	10,814	101%	10,610	99%	10,492	98%
Wyoming	13,300	124%	14,434	134%	13,763	128%	14,936	139%
U.S.	\$10,734	100%	\$10,734	100%	\$10,734	100%	\$10,734	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 2008, twelve 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 institutes 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 fees, 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 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 Table 1
State Support for Higher Education, Fiscal Years 2006, 2009, 2010, and 2011^a

State Support (\$)										
	FY06	FY09			FY10			FY11		
	State Monies ^b	State Monies ^b	ARRA Funds	Total Support	State Monies ^b	ARRA Funds	Total Support	State Monies ^b	ARRA Funds	Total Support
Alabama	1,407,875,152	1,581,208,946	0	1,581,208,946	1,424,278,941	118,743,545	1,543,022,486	1,455,273,417	118,743,545	1,574,016,962
Alaska	251,175,300	318,806,500	0	318,806,500	333,414,600	0	333,414,600	342,798,500	0	342,798,500
Arizona	1,073,220,600	1,154,957,900	153,367,600	1,308,325,500	1,088,561,900	71,749,600	1,160,311,500	1,025,534,200	0	1,025,534,200
Arkansas	752,020,512	887,321,221	0	887,321,221	882,692,213	13,641,365	896,333,578	901,799,213	13,641,365	915,440,578
California	10,380,926,000	10,426,638,200	1,489,000,000	11,915,638,200	10,841,918,000	313,000,000	11,154,918,000	11,757,885,000	217,000,000	11,974,885,000
Colorado	635,454,358	682,248,254	150,964,055	833,212,309	448,292,740	382,008,249	830,300,989	676,318,216	89,194,099	765,512,315
Connecticut	831,729,276	1,045,313,922	0	1,045,313,922	1,064,475,670	33,474,626	1,097,950,296	1,066,961,253	0	1,066,961,253
Delaware	216,419,000	243,840,165	0	243,840,165	226,645,560	15,873,000	242,518,560	212,455,800	0	212,455,800
Florida	3,843,695,215	4,107,485,788	0	4,107,485,788	3,665,468,615	300,666,162	3,966,134,777	3,738,916,518	355,871,602	4,094,788,120
Georgia	2,637,670,133	3,144,002,253	19,304,452	3,163,306,705	2,608,182,991	327,791,300	2,935,974,291	2,984,188,158	0	2,984,188,158
Hawaii	461,171,000	604,878,507	0	604,878,507	523,279,262	32,000,000	555,279,262	491,020,000	22,000,000	513,020,000
Idaho	363,077,200	416,493,100	0	416,493,100	352,038,900	17,683,900	369,722,800	343,297,000	4,766,900	348,063,900
Illinois	2,640,436,585	2,995,461,935	0	2,995,461,935	3,225,632,700	93,936,400	3,319,569,100	3,185,176,200	0	3,185,176,200
Indiana	1,430,424,000	1,575,568,000	44,260,193	1,619,828,193	1,564,352,025	33,894,065	1,598,246,090	1,567,194,065	0	1,567,194,065
Iowa	779,847,282	914,194,605	0	914,194,605	757,896,446	105,880,000	863,776,446	758,772,875	0	758,772,875
Kansas	773,953,552	806,010,141	9,599,299	815,609,440	753,700,801	40,000,000	793,700,801	754,758,804	40,423,534	795,182,338
Kentucky	1,207,616,000	1,282,618,255	0	1,282,618,255	1,214,692,752	70,000,000	1,284,692,752	1,215,584,100	57,272,600	1,272,856,700
Louisiana	1,285,481,337	1,706,364,806	0	1,706,364,806	1,303,919,738	189,700,000	1,493,619,738	1,213,247,863	289,592,480	1,502,840,343
Maine	246,470,644	265,926,271	6,566,113	272,492,384	261,966,948	10,556,853	272,523,801	268,113,275	10,909,236	279,022,511
Maryland	1,272,254,989	1,613,101,952	0	1,613,101,952	1,600,560,142	0	1,600,560,142	1,596,129,339	0	1,596,129,339
Massachusetts	1,147,151,288	1,235,984,139	53,759,414	1,289,743,553	1,041,008,269	230,270,707	1,271,278,976	1,169,672,476	75,302,970	1,244,975,446
Michigan	2,012,271,300	2,051,065,300	0	2,051,065,300	1,837,465,800	68,238,000	1,905,703,800	1,869,659,000	0	1,869,659,000
Minnesota	1,365,500,000	1,527,353,000	30,546,000	1,557,899,000	1,425,439,000	137,943,000	1,563,382,000	1,381,065,000	0	1,381,065,000
Mississippi	772,365,105	978,760,459	0	978,760,459	1,006,477,155	63,446,024	1,069,923,179	932,494,907	86,198,888	1,018,693,795
Missouri	926,756,453	1,108,021,377	0	1,108,021,377	980,013,415	139,784,912	1,119,798,327	928,982,622	39,952,504	968,935,126
Montana	172,767,000	207,471,410	0	207,471,410	171,513,849	37,982,860	209,496,709	172,375,276	37,166,593	209,541,869
Nebraska	564,842,378	651,703,765	0	651,703,765	641,402,181	0	641,402,181	653,935,362	0	653,935,362
Nevada	555,541,162	623,227,269	0	623,227,269	396,485,287	184,778,622	581,263,909	558,866,922	0	558,866,922
New Hampshire	117,172,000	138,531,000	0	138,531,000	138,883,000	5,727,959	144,610,959	141,870,000	0	141,870,000
New Jersey	2,029,443,000	1,984,924,000	0	1,984,924,000	2,009,930,000	73,670,000	2,083,600,000	1,956,300,000	0	1,956,300,000
New Mexico	837,112,827	994,039,650	0	994,039,650	931,271,614	15,538,400	946,810,014	874,736,332	11,887,500	886,623,832
New York	4,148,095,000	4,993,847,034	0	4,993,847,034	4,739,848,840	154,834,665	4,894,683,505	4,530,802,900	281,943,267	4,812,746,167
North Carolina	3,062,511,308	3,658,785,872	126,962,971	3,785,748,843	3,768,537,112	137,815,944	3,906,353,056	4,022,438,686	119,220,719	4,141,659,405
North Dakota	215,031,000	253,901,000	0	253,901,000	311,677,000	0	311,677,000	311,678,000	0	311,678,000
Ohio	2,142,242,026	2,474,062,613	0	2,474,062,613	1,996,929,750	281,022,236	2,277,951,986	1,846,474,128	308,802,662	2,155,276,790
Oklahoma	890,540,061	1,078,158,766	0	1,078,158,766	1,077,227,530	68,792,477	1,146,020,007	1,015,017,746	59,794,986	1,074,812,732
Oregon	621,273,625	687,421,772	55,636,352	743,058,124	660,552,147	30,000,000	690,552,147	577,319,676	38,951,615	616,271,291
Pennsylvania	2,047,114,000	2,165,882,000	62,852,000	2,228,734,000	2,031,695,000	96,403,000	2,128,098,000	2,012,002,000	96,379,000	2,108,381,000
Rhode Island	192,854,763	165,149,649	0	165,149,649	159,760,890	16,106,895	175,867,785	161,968,445	11,344,886	173,313,331
South Carolina	1,050,223,497	980,754,273	0	980,754,273	924,156,917	103,286,779	1,027,443,696	817,634,079	113,757,660	931,391,739
South Dakota	165,577,963	189,301,229	10,262,056	199,563,285	187,178,378	11,474,935	198,653,313	185,250,977	11,365,508	196,616,485
Tennessee	1,371,036,300	1,581,260,700	82,334,800	1,663,595,500	1,490,255,181	165,092,900	1,655,348,081	1,659,586,381	0	1,659,586,381
Texas	5,700,130,286	6,107,243,700	0	6,107,243,700	6,434,942,116	326,907,500	6,761,849,616	6,476,380,455	0	6,476,380,455
Utah	690,228,000	748,957,500	28,800,000	777,757,500	687,172,600	57,966,800	745,139,400	714,802,000	19,837,800	734,639,800
Vermont	82,067,786	87,189,483	0	87,189,483	93,255,052	0	93,255,052	91,927,401	540,640	92,468,041
Virginia	1,594,605,000	1,899,464,085	0	1,899,464,085	1,727,005,095	75,016,418	1,802,021,513	1,692,395,252	201,734,434	1,894,129,686
Washington	1,536,329,000	1,809,447,000	0	1,809,447,000	1,572,442,000	100,662,000	1,673,104,000	1,541,794,000	0	1,541,794,000
West Virginia	416,660,839	520,693,910	0	520,693,910	492,834,565	32,463,356	525,297,921	492,800,710	34,594,800	527,395,510
Wisconsin	1,111,870,725	1,276,923,830	0	1,276,923,830	1,363,029,136	0	1,363,029,136	1,420,721,709	0	1,420,721,709
Wyoming	251,244,326	327,329,344	0	327,329,344	307,863,715	0	307,863,715	343,389,743	40,500,000	383,889,743
Totals	70,281,476,153	78,279,295,850	2,324,215,305	80,603,511,155	74,748,223,538	4,785,825,454	79,534,048,992	76,109,765,981	2,808,691,793	78,918,457,774

^aFY2011 figures represent initial allocations or estimates as of December 2010 and are subject to change.

^bState monies include state tax appropriations and other state funds allocated to higher education.

ARRA funds includes education stabilization funds used to restore the level of state support for public higher education. Excludes government services funds used for modernization, renovation, or repair.

Source: www.grapevine.ilstu.edu

Grapevine Table 2
One-, Two-, and Five-Year Percent Changes in State Fiscal Support for
Higher Education

	One-, Two-, and Five-Year Percent Changes in State Support					
	State Monies Only			With Federal Stimulus Monies included as Part of Total State Support		
	1-Year % Change, FY09-FY10	2-Year % Change, FY08-FY10	5-Year % Change, FY05-FY10	1-Year % Change, FY09-FY10	2-Year % Change, FY08-FY10	5-Year % Change, FY05-FY10
Alabama	2.2%	-8.0%	3.4%	2.0%	-0.5%	11.8%
Alaska	2.8%	7.5%	36.5%	2.8%	7.5%	36.5%
Arizona	-5.8%	-11.2%	-4.4%	-11.6%	-21.6%	-4.4%
Arkansas	2.2%	1.6%	19.9%	2.1%	3.2%	21.7%
California	8.4%	12.8%	13.3%	7.4%	0.5%	15.4%
Colorado	50.9%	-0.9%	6.4%	-7.8%	-8.1%	20.5%
Connecticut	0.2%	2.1%	28.3%	-2.8%	2.1%	28.3%
Delaware	-6.3%	-12.9%	-1.8%	-12.4%	-12.9%	-1.8%
Florida	2.0%	-9.0%	-2.7%	3.2%	-0.3%	6.5%
Georgia	14.4%	-5.1%	13.1%	1.6%	-5.7%	13.1%
Hawaii	-6.2%	-18.8%	6.5%	-7.6%	-15.2%	11.2%
Idaho	-2.5%	-17.6%	-5.4%	-5.9%	-16.4%	-4.1%
Illinois	-1.3%	6.3%	20.6%	-4.0%	6.3%	20.6%
Indiana	0.2%	-0.5%	9.6%	-1.9%	-3.2%	9.6%
Iowa	0.1%	-17.0%	-2.7%	-12.2%	-17.0%	-2.7%
Kansas	0.1%	-6.4%	-2.5%	0.2%	-2.5%	2.7%
Kentucky	0.1%	-5.2%	0.7%	-0.9%	-0.8%	5.4%
Louisiana	-7.0%	-28.9%	-5.6%	0.6%	-11.9%	16.9%
Maine	2.3%	0.8%	8.8%	2.4%	2.4%	13.2%
Maryland	-0.3%	-1.1%	25.5%	-0.3%	-1.1%	25.5%
Massachusetts	12.4%	-5.4%	2.0%	-2.1%	-3.5%	8.5%
Michigan	1.8%	-8.8%	-7.1%	-1.9%	-8.8%	-7.1%
Minnesota	-3.1%	-9.6%	1.1%	-11.7%	-11.4%	1.1%
Mississippi	-7.4%	-4.7%	20.7%	-4.8%	4.1%	31.9%
Missouri	-5.2%	-16.2%	0.2%	-13.5%	-12.6%	4.6%
Montana	0.5%	-16.9%	-0.2%	0.0%	1.0%	21.3%
Nebraska	2.0%	0.3%	15.8%	2.0%	0.3%	15.8%
Nevada	41.0%	-10.3%	0.6%	-3.9%	-10.3%	0.6%
New Hampshire	2.2%	2.4%	21.1%	-1.9%	2.4%	21.1%
New Jersey	-2.7%	-1.4%	-3.6%	-6.1%	-1.4%	-3.6%
New Mexico	-6.1%	-12.0%	4.5%	-6.4%	-10.8%	5.9%
New York	-4.4%	-9.3%	9.2%	-1.7%	-3.6%	16.0%
North Carolina	6.7%	9.9%	31.3%	6.0%	9.4%	35.2%
North Dakota	0.0%	22.8%	44.9%	0.0%	22.8%	44.9%
Ohio	-7.5%	-25.4%	-13.8%	-5.4%	-12.9%	0.6%
Oklahoma	-5.8%	-5.9%	14.0%	-6.2%	-0.3%	20.7%
Oregon	-12.6%	-16.0%	-7.1%	-10.8%	-17.1%	-0.8%
Pennsylvania	-1.0%	-7.1%	-1.7%	-0.9%	-5.4%	3.0%
Rhode Island	1.4%	-1.9%	-16.0%	-1.5%	4.9%	-10.1%
South Carolina	-11.5%	-16.6%	-22.1%	-9.3%	-5.0%	-11.3%
South Dakota	-1.0%	-2.1%	11.9%	-1.0%	-1.5%	18.7%
Tennessee	11.4%	5.0%	21.0%	0.3%	-0.2%	21.0%
Texas	0.6%	6.0%	13.6%	-4.2%	6.0%	13.6%
Utah	4.0%	-4.6%	3.6%	-1.4%	-5.5%	6.4%
Vermont	-1.4%	5.4%	12.0%	-0.8%	6.1%	12.7%
Virginia	-2.0%	-10.9%	6.1%	5.1%	-0.3%	18.8%
Washington	-1.9%	-14.8%	0.4%	-7.8%	-14.8%	0.4%
West Virginia	0.0%	-5.4%	18.3%	0.4%	1.3%	26.6%
Wisconsin	4.2%	11.3%	27.8%	4.2%	11.3%	27.8%
Wyoming	11.5%	4.9%	36.7%	24.7%	17.3%	52.8%
Totals	1.8%	-2.8%	8.3%	-0.8%	-2.1%	12.3%

Source: www.grapevine.ilstu.edu

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 in 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, 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 2009, this totaled to \$2.4 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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