



STATE

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FY 2009

SHEEO



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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 2009, and numerous supplementary tables containing extensive state-level data are available at [www.sheeo.org](http://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 2009 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](http://www.higheredinfo.org).



# **S**TATE **H**IGHER **E**DUICATION **F**INANCE



**FY 2009**

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

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## ACKNOWLEDGEMENTS

We are pleased to present the seventh 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 inform 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. Beginning with this FY 2009 collection cycle, SHEEO and Illinois State University aligned the *Grapevine* and SHEF data collections into one, resulting in the State Support for Higher Education Database (SSDB). This helped to simplify and align data collection procedures, limit the burden placed on state offices, and create 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 Natalie Mischler. Jeff Stanley updated the text and provided counsel. Charlie Lenth, Hans L'Orange, and Gloria Auer gave the narrative their expert editorial touches. Chris Ott provided desktop publishing.

Finally, we gratefully acknowledge the assistance of the College Board in financing the costs of publishing and distributing the FY 2009 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.

While the main body of the SHEF report reviews financial and enrollment trends in American higher education without editorial commentary, the data clearly indicate the adverse effects of the most recent two recessions. Following the conclusion of the main study, State Higher Education Finance, FY 2009 includes appropriations data for FY 2010 from *Grapevine* and an essay, “What Next?” which considers the implications of these enrollment and financial trends for the United States

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 2009 includes July 2008 through June 2009. 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 governments' financial commitments to higher education have increased substantially over the past several decades. In 1984, state and local governments combined provided \$25.7 billion in direct support for general operating expenses of public and independent higher education institutions. This investment increased to \$39.9 billion in 1994, \$69.4 billion in 2004, and \$88.7 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 \$88.8 billion, virtually no change from the \$88.7 billion provided in 2008. Additional ARRA funds are being allocated to higher education by the states during 2010 and 2011.<sup>1</sup>

In addition to state and local revenue, public institutions collected net tuition revenue of \$44.5 billion in 2009, for a total of about \$133.3 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 31.9 percent in 2008 to 33.4 percent in 2009. Tuition revenue collected by independent (private, not-for-profit) and for-profit institutions is not included in this total.

Of the \$88.8 billion in state and local support during 2009, 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 12.1 percent of the total. The percent of total support allocated for financial aid to students attending public institutions increased from 5.8 percent in 2008 to 6.3 percent in 2009.

Analysis of the data indicates that constant dollar per student state and local funding for public colleges and universities decreased between 2008 and 2009. State and local support (excluding appropriations for research, agricultural extension, and medical education) per full-time-equivalent student was \$6,928 in 2009, a \$289 constant dollar decrease from 2008, but higher than the 25-year constant dollar low of \$6,573 in 2005.

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 1984 and 2009. These and other factors that shape higher education funding are examined in more detail in the sections of the full report that follow.

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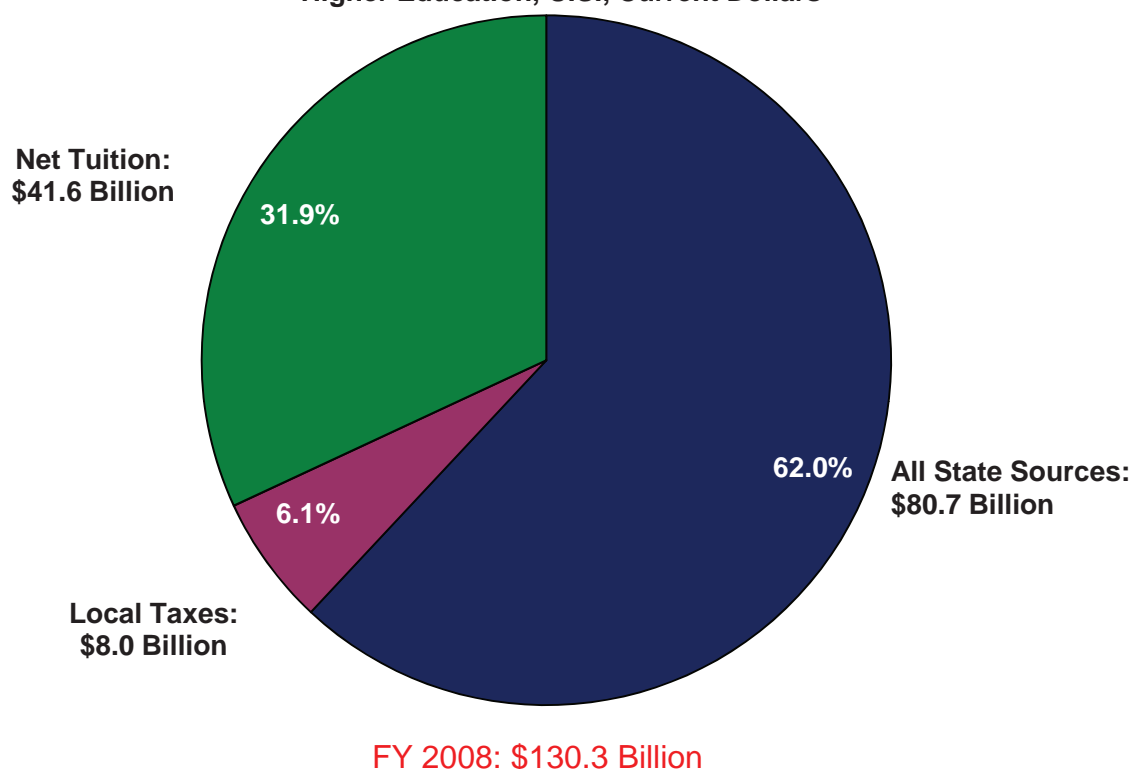
<sup>1</sup> "State and local support" in SHEF is generally meant to include funds allocated to states by the federal government through the American Recovery and Reinvestment Act of 2009 (ARRA) and both funds from the Education Stabilization Fund and the Other Government Services Fund used to fill shortfalls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

## Long-Term Revenue and Enrollment Patterns

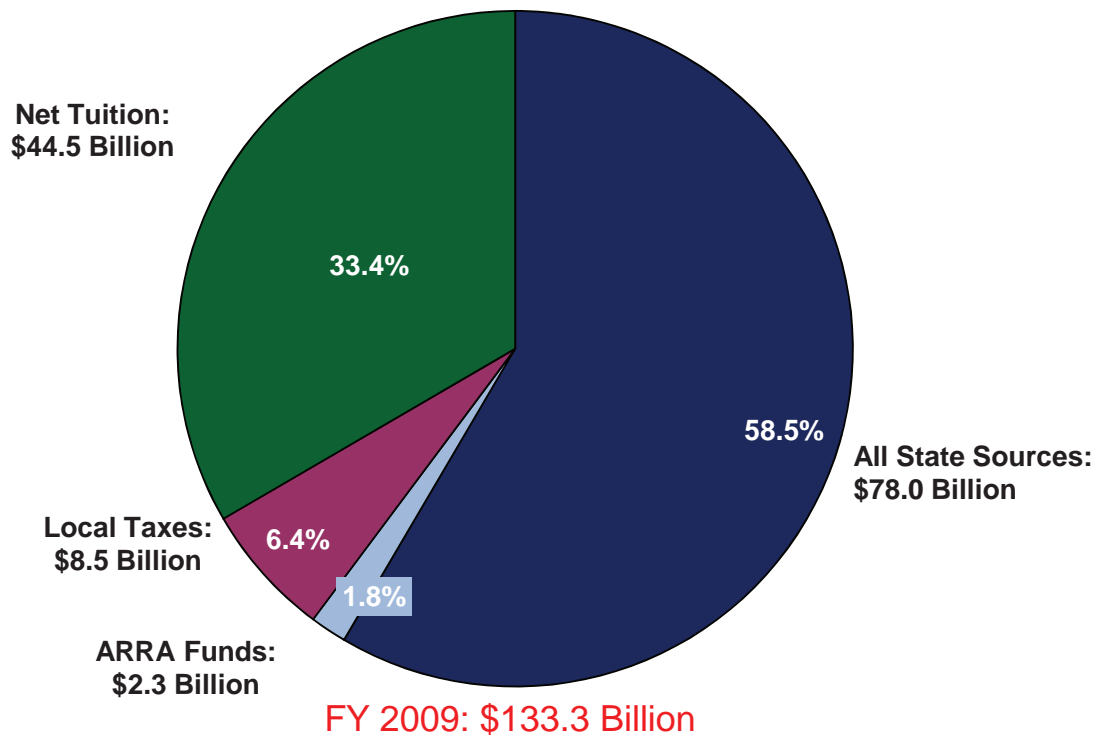
1. Since 1984, FTE enrollment at public institutions of higher education has increased from 7.4 million to 10.8 million.
2. Educational appropriations per FTE (defined to include state and local support for general higher education operations) fell to \$6,573 in 2005 (2009 dollars), a 25-year low in inflation-adjusted terms. Between 2005 and 2008, educational appropriations per FTE recovered, growing to \$7,220 in 2008, but dropped 4.0% to \$6,928 in 2009. Annual educational appropriations from 1984 through 2009 are displayed in *Figure 3*.
3. Tuition charges are the other primary source of revenue used to support public higher education (excluding research and 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 2.0 percent between 2008 and 2009.
5. Constant dollar total educational revenue (as displayed in *Figure 3*, which includes tuition revenue used for capital or debt service) per FTE declined in the early 1990s from \$10,300 in 1990 to \$9,867 in 1993. Thereafter, total educational revenue per FTE grew steadily from 1994 to 2001, reaching \$11,239, or about 9.1 percent higher than it was in 1990. Total revenue per FTE then fell sharply (9.4 percent) from 2001 to 2004 (to \$10,185), rebounded to \$11,247 by 2008, and then dropped to \$11,036 in 2009.
6. Over the last 25 years, the share of total educational revenue derived from tuition increased over 10 percentage points from approximately 24.5 percent in 1984 to a high of 37.3 percent in 2009.

**Figure 1**

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



**Source:** State Support for Higher Education Database (SSDB)

**Figure 2****State, Local and Net Tuition Revenue Supporting General Operating Expenses of Higher Education, U.S., Current Dollars**

Source: State Support for Higher Education Database (SSDB)

### 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 2009. 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 8.9 percent in the past five years. Forty-four states have experienced increases in FTE enrollment.
8. Per FTE constant dollar educational appropriations increased in more than half of the states between 2004 and 2009, but the variation is wide. Across all 50 states, the change in educational appropriations per FTE varied from -29.1 percent to +31.9 percent.
9. Constant dollar educational revenue per FTE (excluding net tuition revenue used for capital or debt service) increased 8.3 percent on average between 2004 and 2009, but ten of the states experienced declines in this measure.
10. Eleven states (Delaware, Iowa, Maine, Michigan, Minnesota, North Dakota, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia) had above average total educational revenue despite below average educational appropriations, the result of above average net tuition in 2009. The reverse was true in Georgia, Louisiana, Nebraska, and New Mexico. 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 1997 to 2007, 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, increased from \$50,227 to \$52,573 in current dollars between 2006 and 2007, a one-year increase of \$2,346, or 4.7 percent. Per capita state and local tax revenue increased \$225, or 5.6 percent.
12. Over the ten-year period 1997 to 2007, total taxable resources per capita increased 54.9 percent, while the effective tax rate increased 2.2 percent.
13. The proportion of state and local tax revenue allocated to higher education declined from 6.8 percent in 1997 to 6.4 percent in 2007.

## 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. As noted by Harold Hovey in 1999, higher education often becomes the "balance wheel" for state finance, declining faster than the rest of the state budget in recessions, and then growing faster when state revenue recovers.

14. Over the past 25 years, state and local support for higher education has twice "recovered" following major economic recessions, recovering nationally 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 of 2009 (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% of total state and local support for higher education.

## 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.

Will such public commitment return following the recession that began in 2008, and if so, to what level?

Only time will tell when full recovery from the current recession will occur and what that recovery will mean for the economy and higher education. As outlined below, the *Grapevine* survey of 2010 appropriations conducted by Illinois State University in collaboration with SHEEO, found further reductions in state support and greater reliance on ARRA funds.

- Total funding (including federal stimulus funds) for 2010 is approximately \$1.4 billion less than states alone provided in 2008 as reported by *Grapevine* ([www.grapevine.ilstu.edu](http://www.grapevine.ilstu.edu)).
- About 5% of 2010 appropriations are underwritten with federal stabilization funds, which for many states will be exhausted or nearly exhausted by the end of 2010.
- Enrollment demand continues with 31 states already indicating growth in 2010, ranging from 1.5 percent to 13 percent.

According to the National Association of State Budget Officers, state revenue has fallen at an unprecedented rate and full recovery will, at best, take many years. This prognosis, combined with the depletion of ARRA state fiscal stabilization funds, suggests that 2011 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 a 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 this public revenue is 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 2009 includes \$2.4 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.<sup>2</sup>
- **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.

<sup>2</sup> 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 costs otherwise borne by students.

In addition, many other factors complicate the calculation of net price to 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 measure is a simpler and more direct indicator of the proportion of public higher education costs borne by students and families.

- **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.

## Adjustments for Comparability

SHEF's analytic methods are designed to make basic data about higher education finance as comparable as possible in order to make comparisons across states and over time as reasonable and credible as possible. To accomplish this, financial indicators are provided on a per student basis (using FTE enrollment as the denominator). In addition, 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 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 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 using reasonably comparable measures is a difficult task, even for the most basic components of finance such as expenditures per student. As a starting point, 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, and 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, and 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 see it for what it is, and help us work together to improve both methods and understanding.

Many educators and policymakers (and segments of the public) may look to interstate financial analysis to learn what “appropriate” or “sufficient” funding for higher education would be. 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.<sup>3</sup> 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?
- What can we afford to invest in order to meet our goals?

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

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<sup>3</sup> 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 1984, state and local governments invested \$25.7 billion (in current dollars) in direct support for the operations of public and independent higher education institutions. By 2009, state and local support for higher education reached \$88.8 billion, including an increase of 0.1 percent during the past year.

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 1984 and providing greater detail on the most recent five years (2004-2009). 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.<sup>4</sup>

As shown in *Table 1*, sources for the \$88.8 billion state and local government support for higher education in 2009 included the following:

- State sources accounted for about 92 percent, with 84.5 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 \$1.6 billion in 2004 to \$2.4 billion in 2009.
- Local appropriations accounted for 9.6 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 0.4 percent.
- Oil and mineral extraction fees or other lease income (generally not appropriated) accounted for 0.1 percent.
- Federal funds allocated to states through the American Recovery and Reinvestment Act of 2009 (ARRA), totaled \$2.3 billion across 15 states.

Major uses of the \$88.8 billion in 2009 state and local government funding for higher education included:

- \$69.5 billion (about 78 percent) for general operating expenses of public higher education institutions.
- \$10.7 billion (12.1 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 percent of the funds used.
- Direct support of independent institutions in the 16 states with such state-funded programs made up 0.3 percent of the funds used.

These proportional allocations and uses of state and local support for higher education have not changed significantly since 2004.

<sup>4</sup> *Supplemental SHEF Tables*, which are available at [www.shceo.org](http://www.shceo.org), provide more detailed data and tables on state-by-state sources and uses of higher education funding for 2009. 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 2004-2009 (Current Dollars in Millions)**

Source	2004	2005	2006	2007	2008	2009
State Support						
ARRA Funds	-	-	-	-	-	2,334
Tax Appropriations	60,473	62,436	67,184	72,072	77,112	75,062
All Non-Tax Support	1,587	1,957	2,136	2,529	2,565	2,285
Non-Appropriated Support	83	112	124	97	112	128
State Funded Endowment Earnings	276	292	303	318	347	399
Other (1)	350	388	474	604	643	666
Funds Not Available for Use (2)	52	45	43	38	35	601
<b>State Total</b>	<b>62,717</b>	<b>65,140</b>	<b>70,178</b>	<b>75,583</b>	<b>80,745</b>	<b>80,274</b>
<b>Local Tax Appropriations</b>	<b>6,657</b>	<b>6,650</b>	<b>6,954</b>	<b>7,294</b>	<b>7,957</b>	<b>8,526</b>
<b>Total</b>	<b>\$ 69,374</b>	<b>\$ 71,790</b>	<b>\$ 77,131</b>	<b>\$ 82,877</b>	<b>\$ 88,702</b>	<b>\$ 88,799</b>
Uses						
Research-Agric-Medical	9,271	9,388	9,604	10,312	11,140	10,718
Public Student Aid (3)	3,600	4,002	4,423	4,777	5,179	5,633
Independent Student Aid (4)	1,970	2,030	2,112	2,266	2,308	2,357
Out-of-State Student Aid	32	33	35	37	33	35
Independent Institutions	267	259	264	287	295	259
Non-Credit and Continuing Education	189	254	269	341	329	332
General Public Operations	54,044	55,824	60,425	64,857	69,419	69,466
<b>Total</b>	<b>\$ 69,374</b>	<b>\$ 71,790</b>	<b>\$ 77,131</b>	<b>\$ 82,877</b>	<b>\$ 88,702</b>	<b>\$ 88,799</b>
<b>(Percentages)</b>						
Source	2004	2005	2006	2007	2008	2009
State Support						
ARRA Funds	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%
Tax Appropriations	87.2%	87.0%	87.1%	87.0%	86.9%	84.5%
All Non-Tax Support	2.3%	2.7%	2.8%	3.1%	2.9%	2.6%
Non-Appropriated Support	0.1%	0.2%	0.2%	0.1%	0.1%	0.1%
State Funded Endowment Earnings	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Other (1)	0.5%	0.5%	0.6%	0.7%	0.7%	0.7%
Funds Not Available for Use (2)	0.1%	0.1%	0.1%	0.0%	0.0%	0.7%
<b>State Total</b>	<b>90.6%</b>	<b>90.9%</b>	<b>91.1%</b>	<b>91.3%</b>	<b>91.1%</b>	<b>91.8%</b>
<b>Local Tax Appropriations</b>	<b>9.6%</b>	<b>9.3%</b>	<b>9.0%</b>	<b>8.8%</b>	<b>9.0%</b>	<b>9.6%</b>
<b>Total</b>	<b>100.2%</b>	<b>100.1%</b>	<b>100.1%</b>	<b>100.1%</b>	<b>100.1%</b>	<b>101.4%</b>
Uses						
Research-Agric-Medical	13.4%	13.1%	12.5%	12.4%	12.6%	12.1%
Public Student Aid (3)	5.2%	5.6%	5.7%	5.8%	5.8%	6.3%
Independent Student Aid (4)	2.8%	2.8%	2.7%	2.7%	2.6%	2.7%
Out-of-State Student Aid	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Independent Institutions	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%
Non-Credit and Continuing Education	0.3%	0.4%	0.3%	0.4%	0.4%	0.4%
General Public Operations	77.9%	77.8%	78.3%	78.3%	78.3%	78.2%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

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:** SSDB

## 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](http://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 2005, state and locally financed educational appropriations for public higher education hit the lowest level (\$6,573 per FTE) in a quarter century, driven by accelerating enrollment growth, inflation, and the failure of state and local funding to keep pace in the immediately preceding 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*). In 2009, FTE enrollment increased 3.4 percent over 2008.
- The rate of growth varies from year to year and state to state in response to the economy and job market as well as underlying demographic factors.

### **Educational Appropriations**

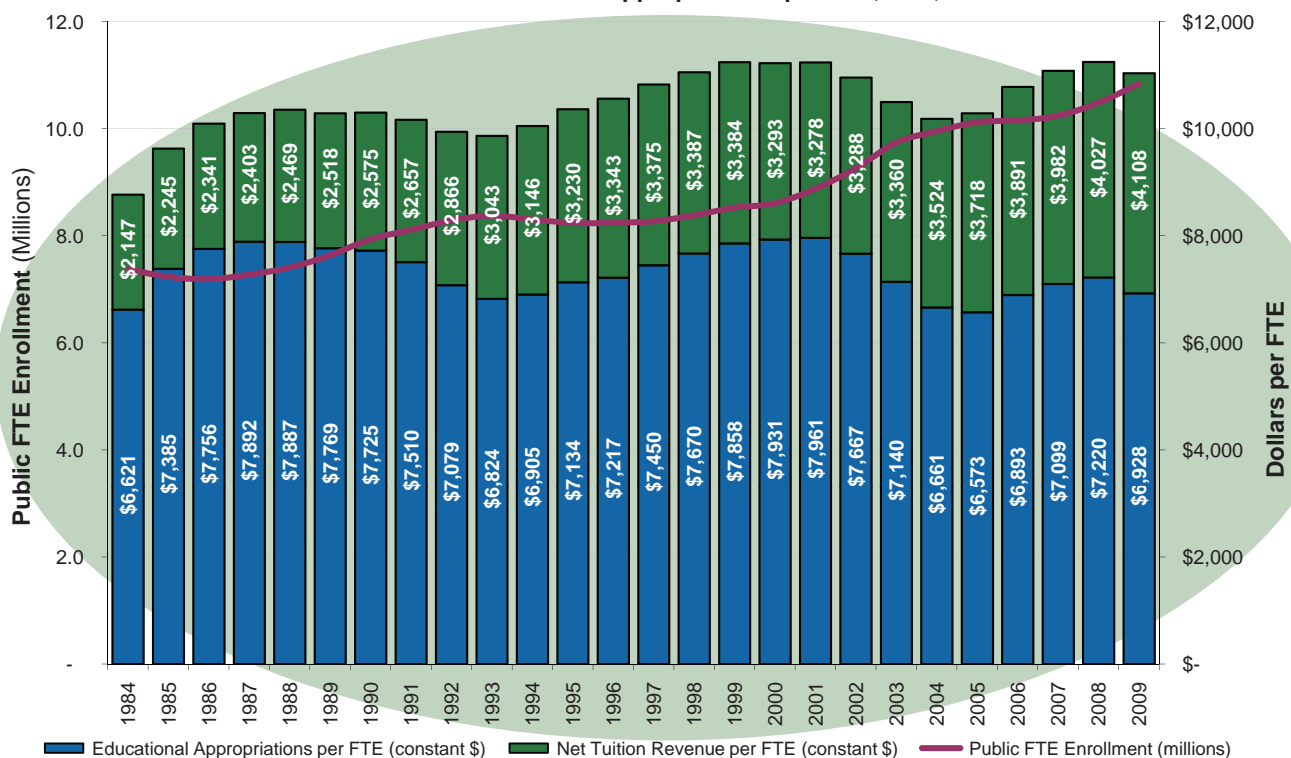
- Educational appropriations per FTE (see the blue bars in *Figure 3*) reached a high of \$7,961 in 2001.
- Following four years of decline (2002, 2003, 2004, and 2005), per student educational appropriations increased in 2006, 2007, and 2008, recovering to \$7,220 and then declining once again to \$6,928 in 2009.
- Appropriations per FTE remained lower in 2009 (in constant dollars) than in most years since 1980.
- In FY 2009, appropriations per FTE fell by 4.0 percent due to the onset of the 2008 recession.

### **Net Tuition Revenue**

- The rate of increase in net tuition was slower in 2007 and 2008 than in the previous three years, but in 2009 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 1984-2009**



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

**Source:** SSDB



## 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 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 \$57.6 billion in 2009. 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 \$44.5 billion, 77.3 percent of gross assessments.

The resulting net tuition revenue for selected years between 1984 and 2009 is reported in *Table 2* in current dollars and in *Table 3* in constant dollar values.<sup>5</sup> 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 25 percent in 1984, 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 climbed to its current level of more than 37 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.

<sup>5</sup> Detailed state-level information can be found in the *Supplemental SHEF Tables* ([www.sheeo.org](http://www.sheeo.org)).

Table 2

## Higher Education Finance Indicators (Current Dollars in Millions)

(Current Dollars)	1984 (1)	1999 (1)	2004	2008	2009	1 Year Change
<b>[A] State and Local Support for Public Higher Education</b>	<b>\$ 25,686</b>	<b>\$ 57,370</b>	<b>\$ 66,916</b>	<b>\$ 85,738</b>	<b>\$ 85,817</b>	<b>0.1%</b>
<i>ARRA Funds</i>	\$ -	\$ -	\$ -	\$ -	\$ 2,334	N/A
<i>State</i>	\$ 23,973	\$ 52,546	\$ 60,258	\$ 77,781	\$ 74,957	-3.6%
<i>Local</i>	\$ 1,714	\$ 4,824	\$ 6,657	\$ 7,957	\$ 8,526	7.1%
<b>[B] Research - Agriculture - Medical (RAM)</b>	<b>\$ 4,542</b>	<b>\$ 8,588</b>	<b>\$ 9,271</b>	<b>\$ 11,140</b>	<b>\$ 10,718</b>	<b>-3.8%</b>
<b>[C] Educational appropriations [A-B]</b>	<b>\$ 21,144</b>	<b>\$ 48,782</b>	<b>\$ 57,645</b>	<b>\$ 74,598</b>	<b>\$ 75,099</b>	<b>0.7%</b>
<b>[D] Net Tuition</b>	<b>\$ 6,856</b>	<b>\$ 21,007</b>	<b>\$ 30,499</b>	<b>\$ 41,609</b>	<b>\$ 44,527</b>	<b>7.0%</b>
<b>[E] Tuition and Fees Used for Debt Service</b>	<b>\$ -</b>	<b>\$ 6</b>	<b>\$ 260</b>	<b>\$ 381</b>	<b>\$ 408</b>	<b>7.1%</b>
<b>Total Educational Revenue [C+D-E]</b>	<b>\$ 28,001</b>	<b>\$ 69,783</b>	<b>\$ 87,885</b>	<b>\$ 115,826</b>	<b>\$ 119,219</b>	<b>2.9%</b>
<b>Net Tuition as a % of Total Educational Revenue</b>	<b>24.5%</b>	<b>30.1%</b>	<b>34.7%</b>	<b>35.9%</b>	<b>37.3%</b>	
<b>Full-Time Equivalent Enrollment (FTE) <sup>(1)</sup></b>	<b>7,374,779</b>	<b>8,525,540</b>	<b>9,954,415</b>	<b>10,484,952</b>	<b>10,839,907</b>	<b>3.4%</b>
<i>Educational Appropriations Per FTE</i>	\$ 2,867	\$ 5,722	\$ 5,791	\$ 7,115	\$ 6,928	-2.6%
<i>Net Tuition Per FTE</i>	\$ 930	\$ 2,464	\$ 3,064	\$ 3,968	\$ 4,108	3.5%
<i>Total Educational Revenue Per FTE</i>	\$ 3,797	\$ 8,185	\$ 8,829	\$ 11,047	\$ 10,998	-0.4%
<b>State support for independent and out of state institutions <sup>(2)</sup></b>		<b>\$ 540.54</b>	<b>\$ 2,269.60</b>	<b>\$ 2,635.40</b>	<b>\$ 2,650.88</b>	<b>0.6%</b>
<i>Operating Grants</i>	\$ -	\$ 96.15	\$ 267.31	\$ 294.52	\$ 258.96	-12.1%
<i>Aid to Students Attending Independent Institutions</i>	\$ -	\$ 442.89	\$ 1,970.47	\$ 2,307.67	\$ 2,356.75	2.1%
<i>Aid to Students Attending Out of State Institutions</i>	\$ -	\$ 1.50	\$ 31.81	\$ 33.21	\$ 35.17	5.9%

Percentages may not equal 100 due to rounding.

## Notes:

1) FTE enrollment excludes medical school enrollments.

2) Data for aid to independent institutions and students attending private institutions were not reported in 1984 and may be incomplete in 1999.

Source: SSDB

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

(Constant Dollars)	1984 (1)	1999 (1)	2004	2008	2009	1 Year Change	5 Year Change	10 Year Change	25 Year Change
<b>[A] State and Local Support for Public Higher Education</b>									
ARRA Funds	\$ 59,322	\$ 78,783	\$ 76,976	\$ 86,999	\$ 85,817	-1.4%	11.5%	8.9%	44.7%
State	\$ -	\$ -	\$ -	\$ -	\$ 2,334	N/A	N/A	N/A	N/A
Local	\$ 55,364	\$ 72,159	\$ 69,318	\$ 78,925	\$ 74,957	-5.0%	8.1%	3.9%	35.4%
	\$ 3,958	\$ 6,624	\$ 7,658	\$ 8,074	\$ 8,526	5.6%	11.3%	28.7%	115.4%
<b>[B] Research - Agriculture - Medical (RAM)</b>	\$ 10,490	\$ 11,794	\$ 10,665	\$ 11,304	\$ 10,718	-5.2%	0.5%	-9.1%	2.2%
<b>[C] Educational appropriations [A-B]</b>	\$ 48,832	\$ 66,989	\$ 66,312	\$ 75,696	\$ 75,099	-0.8%	13.3%	12.1%	53.8%
<b>[D] Net Tuition</b>	\$ 15,835	\$ 28,848	\$ 35,085	\$ 42,221	\$ 44,527	5.5%	26.9%	54.4%	181.2%
<b>[E] Tuition and Fees Used for Debt Service</b>	\$ -	\$ 9	\$ 299	\$ 386	\$ 408	5.6%	36.6%		
<b>Total Educational Revenue [C+D-E]</b>	\$ 64,667	\$ 95,829	\$ 101,098	\$ 117,530	\$ 119,219	1.4%	17.9%	24.4%	84.4%
<b>Net Tuition as a % of Total Educational Revenue</b>	24.5%	30.1%	34.7%	35.9%	37.3%				
<b>Full-Time Equivalent Enrollment (FTE) (1)</b>									
Educational Appropriations Per FTE	7,374,779	8,525,540	9,954,415	10,484,952	10,839,907	3.4%	8.9%	27.1%	47.0%
Net Tuition Per FTE	\$ 6,622	\$ 7,857	\$ 6,661	\$ 7,220	\$ 6,928	-4.0%	4.0%	-11.8%	4.6%
Total Educational Revenue Per FTE	\$ 2,147	\$ 3,384	\$ 3,525	\$ 4,027	\$ 4,108	2.0%	16.5%	21.4%	91.3%
	\$ 8,769	\$ 11,240	\$ 10,156	\$ 11,209	\$ 10,998	-1.9%	8.3%	-2.2%	25.4%
<b>State support for independent and out of state institutions (2)</b>									
Operating Grants	\$ 742.29	\$ 2,610.83	\$ 2,674.17	\$ 2,650.88	\$ 2,650.88	-0.9%	1.5%		
Aid to Students Attending Independent Institutions	\$ 132.03	\$ 307.50	\$ 298.86	\$ 258.96	\$ 258.96	-13.4%	-15.8%		
Aid to Students Attending Out of State Institutions	\$ 608.20	\$ 2,266.74	\$ 2,341.62	\$ 2,356.75	\$ 2,356.75	0.6%	4.0%		
	\$ 2.06	\$ 36.59	\$ 33.70	\$ 35.17	\$ 35.17	4.4%	-3.9%		

Percentages may not equal 100 due to rounding.

**Notes:**

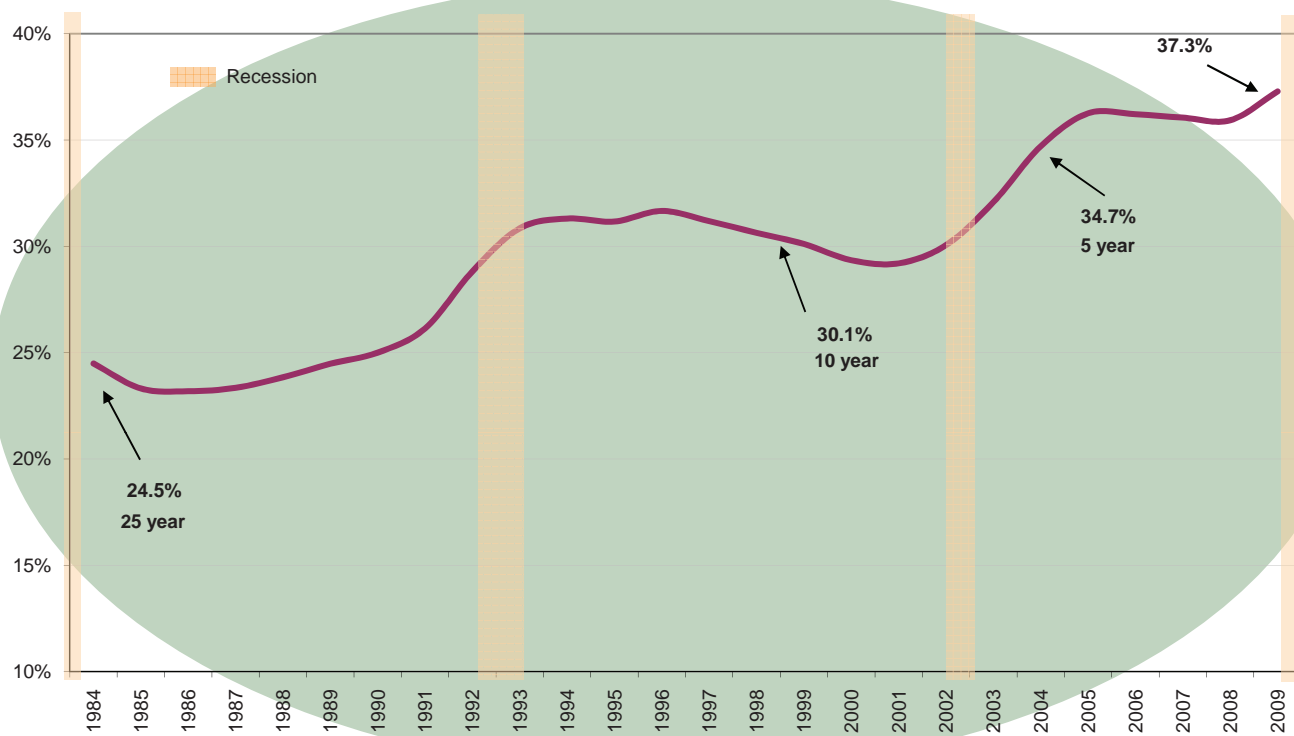
1) FTE enrollment excludes medical school enrollment.

2) Data for aid to independent institutions and students attending private institutions were not reported in 1984 and may be incomplete in 1999.

**Source:** SSDB

**Figure 4**

**Net Tuition as a Percent of Public Higher Education Total Educational Revenue,  
U.S., Fiscal 1984-2009**



**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:** SSDB

## 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 case, the SHEF adjustments reduce this difference. 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

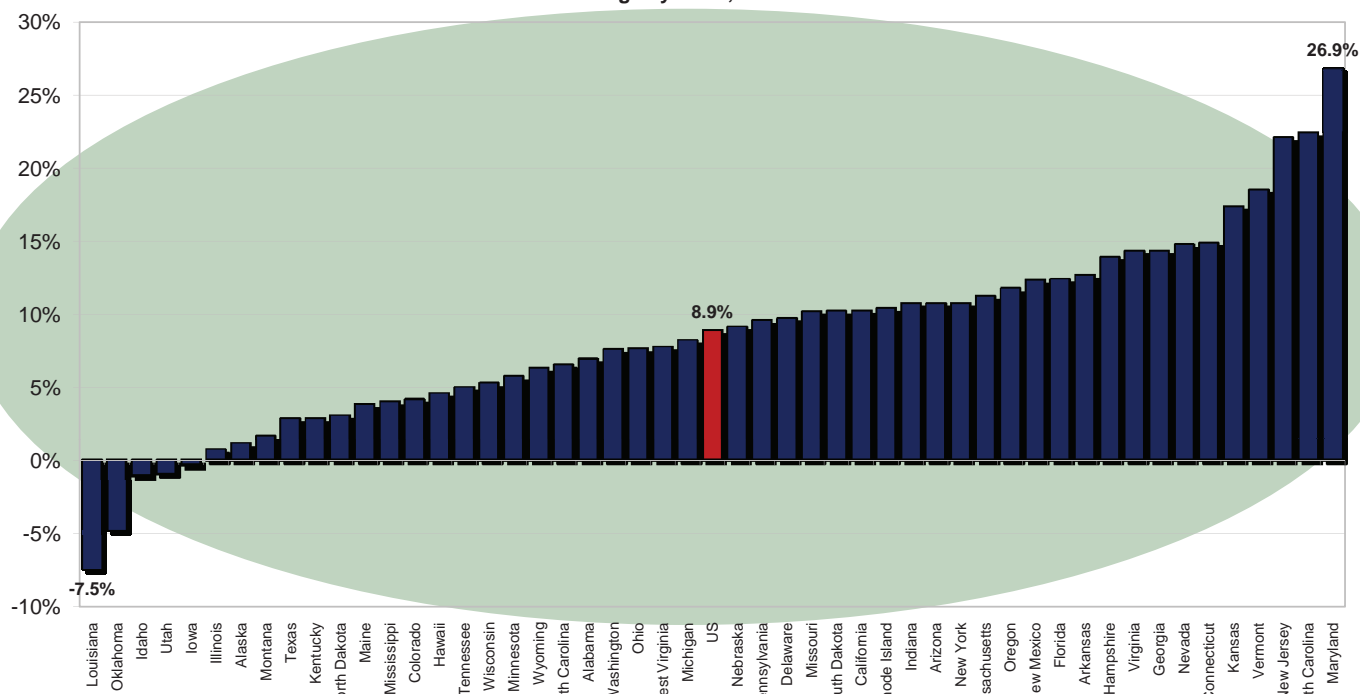
This section illustrates the variability across states and over time with respect to: higher education enrollment growth, total state and local appropriations, the proportion of tuition-derived revenue, total revenue available for public educational programs, and current funding in the context of each 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 2004 and 2009.

- All but five states (Louisiana, Utah, Oklahoma, Idaho, and Iowa) 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.
- Data improvements and corrections occasionally affect comparisons. For instance, the rapid enrollment growth in Kansas and New Jersey is partially due to the inclusion of Summer FTE for the first time in 2006.

**Figure 5**

**Full-Time-Equivalent (FTE) Enrollment in Public Higher Education  
Percent Change by State, Fiscal 2004-2009**



Source: SSDB

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

State	FY 2004	FY 2008	FY 2009	1 Year % Chng	5 Year % Change
Alabama	183,167	187,086	195,894	4.7%	6.9%
Alaska	18,802	18,703	19,010	1.6%	1.1%
Arizona	212,980	224,176	235,831	5.2%	10.7%
Arkansas	96,292	107,428	108,474	1.0%	12.7%
California	1,623,478	1,731,754	1,789,781	3.4%	10.2%
Colorado	161,181	161,283	167,927	4.1%	4.2%
Connecticut	70,030	77,088	80,433	4.3%	14.9%
Delaware	29,546	31,619	32,417	2.5%	9.7%
Florida	499,972	537,898	561,916	4.5%	12.4%
Georgia	289,382	310,759	330,866	6.5%	14.3%
Hawaii	35,441	35,469	37,070	4.5%	4.6%
Idaho	45,184	43,968	44,705	1.7%	-1.1%
Illinois	385,517	391,386	388,195	-0.8%	0.7%
Indiana	218,388	229,345	241,818	5.4%	10.7%
Iowa	117,664	115,011	117,254	2.0%	-0.3%
Kansas	110,243	127,117	129,377	1.8%	17.4%
Kentucky	140,056	142,382	144,086	1.2%	2.9%
Louisiana	183,276	165,781	169,602	2.3%	-7.5%
Maine	34,516	35,533	35,847	0.9%	3.9%
Maryland	165,502	207,255	209,979	1.3%	26.9%
Massachusetts	137,509	144,578	152,933	5.8%	11.2%
Michigan	368,600	388,725	398,930	2.6%	8.2%
Minnesota	189,848	196,014	200,732	2.4%	5.7%
Mississippi	115,613	117,556	120,251	2.3%	4.0%
Missouri	167,742	179,364	184,843	3.1%	10.2%
Montana	35,785	35,556	36,375	2.3%	1.6%
Nebraska	71,310	75,451	77,825	3.1%	9.1%
Nevada	57,219	63,324	65,665	3.7%	14.8%
New Hampshire	30,495	33,416	34,732	3.9%	13.9%
New Jersey	201,756	238,040	246,215	3.4%	22.0%
New Mexico	79,634	85,203	89,450	5.0%	12.3%
New York	489,692	526,538	542,320	3.0%	10.7%
North Carolina	315,159	357,601	385,792	7.9%	22.4%
North Dakota	35,322	34,955	36,408	4.2%	3.1%
Ohio	378,497	393,469	407,419	3.5%	7.6%
Oklahoma	133,393	131,191	127,058	-3.2%	-4.7%
Oregon	126,825	129,309	141,731	9.6%	11.8%
Pennsylvania	322,665	343,043	353,494	3.0%	9.6%
Rhode Island	27,815	30,120	30,709	2.0%	10.4%
South Carolina	143,800	150,333	153,198	1.9%	6.5%
South Dakota	28,154	29,595	31,027	4.8%	10.2%
Tennessee	169,613	173,706	178,100	2.5%	5.0%
Texas	799,142	804,918	822,131	2.1%	2.9%
Utah	108,636	103,320	107,649	4.2%	-0.9%
Vermont	17,429	19,797	20,654	4.3%	18.5%
Virginia	257,534	281,940	294,436	4.4%	14.3%
Washington	220,041	221,264	236,742	7.0%	7.6%
West Virginia	69,466	73,525	74,864	1.8%	7.8%
Wisconsin	212,880	219,006	224,113	2.3%	5.3%
Wyoming	22,225	23,054	23,628	2.5%	6.3%
<b>US</b>	<b>9,954,415</b>	<b>10,484,952</b>	<b>10,839,907</b>	<b>3.4%</b>	<b>8.9%</b>

**Note:** Full-time-equivalent enrollment equates student credit hours to full time, academic year students, but excludes medical students.

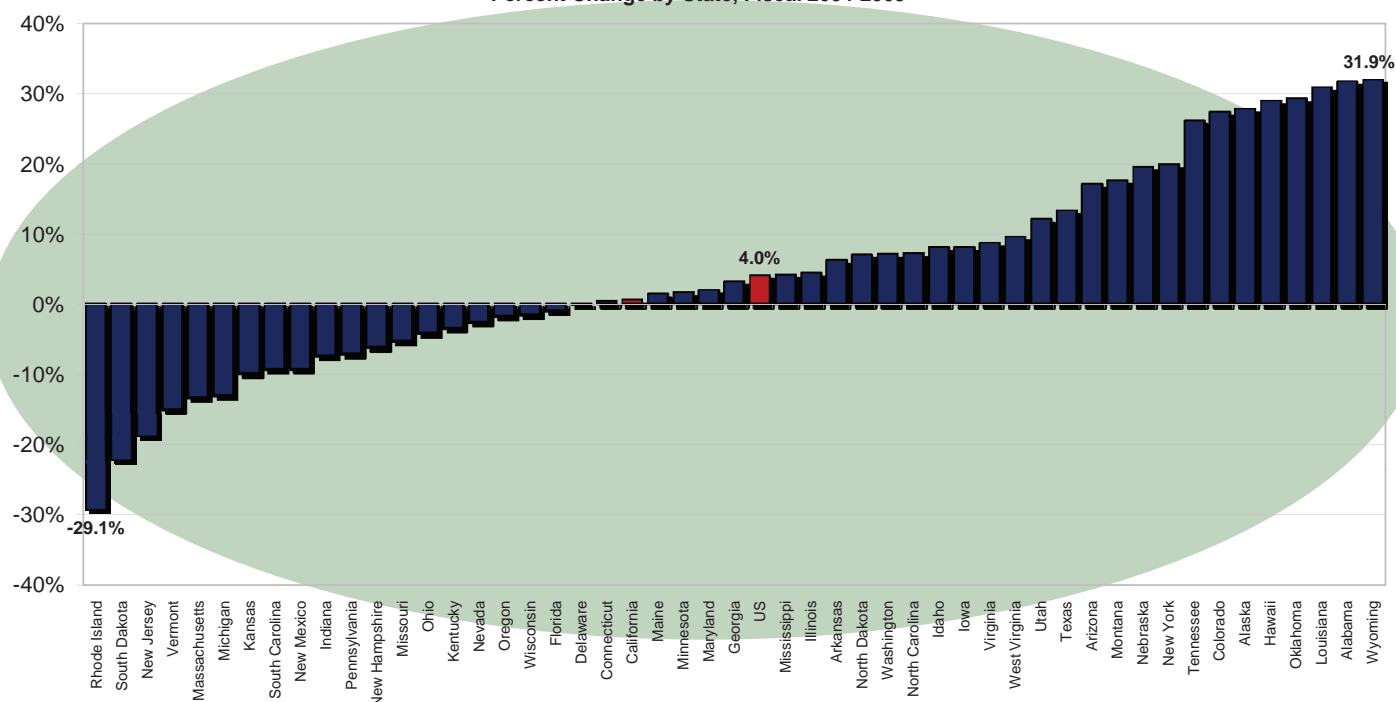
**Source:** SSDB

Figure 6 (and the accompanying data in Table 5) shows the percent change by state in higher education appropriations per public FTE student between 2004 and 2009. The national average per FTE funding for 2009 is lower than 2008 by 4% (see Table 5), but still 4% higher than 2004, due to the recovery of state and local funding between 2004 and 2008.

- Thirty states increased per student support for public institutions during this five-year period.
- Twenty states decreased constant dollar funding during this five year period, two by more than 20%
- Fifteen states utilized federal funds available through the American Recovery and Reinvestment Act of 2009, specifically those funds to be used to fill shortfalls in state support for general operating expenses at public colleges and universities. This totaled \$2.3 billion.

**Figure 6**

**Educational Appropriations per FTE  
Percent Change by State, Fiscal 2004-2009**



**Note:** Dollars adjusted by 2009 HECA, Cost of Living Adjustment, and Enrollment Mix.

**Source:** SSDB



**Table 5**  
**Public Higher Education Appropriations per FTE**  
 Constant Dollars

State	FY 2004	FY 2008	FY 2009	1 Year % Chng	FY2009 Index to US Average	5 Year % Change	Educational Appropriations from Stimulus
Alabama	\$ 6,156	\$ 8,765	\$ 8,102	-7.6%	1.17	31.6%	0.0%
Alaska	\$ 10,149	\$ 12,502	\$ 12,962	3.7%	1.87	27.7%	0.0%
Arizona	\$ 6,240	\$ 7,371	\$ 7,301	-0.9%	1.05	17.0%	10.1%
Arkansas	\$ 7,486	\$ 8,080	\$ 7,955	-1.6%	1.15	6.3%	0.0%
California	\$ 6,859	\$ 7,134	\$ 6,899	-3.3%	1.00	0.6%	11.8%
Colorado	\$ 3,087	\$ 3,624	\$ 3,929	8.4%	0.57	27.3%	19.2%
Connecticut	\$ 8,287	\$ 8,823	\$ 8,317	-5.7%	1.20	0.4%	0.0%
Delaware	\$ 5,699	\$ 5,878	\$ 5,695	-3.1%	0.82	-0.1%	0.0%
Florida	\$ 6,624	\$ 7,600	\$ 6,564	-13.6%	0.95	-0.9%	0.0%
Georgia	\$ 8,496	\$ 8,823	\$ 8,765	-0.6%	1.27	3.2%	0.7%
Hawaii	\$ 6,866	\$ 8,594	\$ 8,849	3.0%	1.28	28.9%	0.0%
Idaho	\$ 8,567	\$ 9,472	\$ 9,255	-2.3%	1.34	8.0%	0.0%
Illinois	\$ 7,450	\$ 7,393	\$ 7,777	5.2%	1.12	4.4%	0.0%
Indiana	\$ 5,129	\$ 4,814	\$ 4,752	-1.3%	0.69	-7.3%	3.4%
Iowa	\$ 5,464	\$ 5,847	\$ 5,905	1.0%	0.85	8.1%	0.0%
Kansas	\$ 6,206	\$ 5,762	\$ 5,591	-3.0%	0.81	-9.9%	1.2%
Kentucky	\$ 8,252	\$ 8,511	\$ 7,969	-6.4%	1.15	-3.4%	0.0%
Louisiana	\$ 6,188	\$ 8,376	\$ 8,092	-3.4%	1.17	30.8%	0.0%
Maine	\$ 6,662	\$ 6,787	\$ 6,756	-0.5%	0.98	1.4%	5.3%
Maryland	\$ 7,948	\$ 7,785	\$ 8,100	4.0%	1.17	1.9%	0.0%
Massachusetts	\$ 6,447	\$ 7,328	\$ 5,591	-23.7%	0.81	-13.3%	2.5%
Michigan	\$ 6,167	\$ 5,521	\$ 5,365	-2.8%	0.77	-13.0%	0.0%
Minnesota	\$ 6,064	\$ 6,445	\$ 6,161	-4.4%	0.89	1.6%	2.3%
Mississippi	\$ 7,025	\$ 8,135	\$ 7,316	-10.1%	1.06	4.1%	0.0%
Missouri	\$ 6,421	\$ 5,923	\$ 6,084	2.7%	0.88	-5.2%	0.0%
Montana	\$ 3,798	\$ 4,399	\$ 4,465	1.5%	0.64	17.6%	0.0%
Nebraska	\$ 5,899	\$ 7,528	\$ 7,048	-6.4%	1.02	19.5%	0.0%
Nevada	\$ 9,012	\$ 9,167	\$ 8,781	-4.2%	1.27	-2.6%	0.0%
New Hampshire	\$ 3,338	\$ 3,172	\$ 3,131	-1.3%	0.45	-6.2%	0.0%
New Jersey	\$ 9,198	\$ 8,007	\$ 7,481	-6.6%	1.08	-18.7%	0.0%
New Mexico	\$ 9,210	\$ 9,765	\$ 8,359	-14.4%	1.21	-9.2%	0.0%
New York	\$ 6,875	\$ 8,266	\$ 8,238	-0.3%	1.19	19.8%	0.0%
North Carolina	\$ 8,250	\$ 9,723	\$ 8,844	-9.0%	1.28	7.2%	4.0%
North Dakota	\$ 5,119	\$ 5,789	\$ 5,476	-5.4%	0.79	7.0%	0.0%
Ohio	\$ 5,068	\$ 4,708	\$ 4,858	3.2%	0.70	-4.2%	0.0%
Oklahoma	\$ 6,809	\$ 8,833	\$ 8,797	-0.4%	1.27	29.2%	0.0%
Oregon	\$ 5,107	\$ 5,561	\$ 5,020	-9.7%	0.72	-1.7%	7.6%
Pennsylvania	\$ 5,966	\$ 5,718	\$ 5,542	-3.1%	0.80	-7.1%	3.2%
Rhode Island	\$ 6,720	\$ 5,669	\$ 4,763	-16.0%	0.69	-29.1%	0.0%
South Carolina	\$ 6,284	\$ 6,987	\$ 5,700	-18.4%	0.82	-9.3%	0.0%
South Dakota	\$ 5,042	\$ 5,402	\$ 3,927	-27.3%	0.57	-22.1%	8.4%
Tennessee	\$ 6,269	\$ 7,901	\$ 7,901	0.0%	1.14	26.0%	6.3%
Texas	\$ 7,215	\$ 8,664	\$ 8,171	-5.7%	1.18	13.2%	0.0%
Utah	\$ 5,448	\$ 6,783	\$ 6,103	-10.0%	0.88	12.0%	4.1%
Vermont	\$ 3,122	\$ 2,904	\$ 2,654	-8.6%	0.38	-15.0%	0.0%
Virginia	\$ 5,249	\$ 5,928	\$ 5,702	-3.8%	0.82	8.6%	0.0%
Washington	\$ 6,053	\$ 6,868	\$ 6,483	-5.6%	0.94	7.1%	0.0%
West Virginia	\$ 5,872	\$ 7,507	\$ 6,433	-14.3%	0.93	9.5%	0.0%
Wisconsin	\$ 6,637	\$ 6,443	\$ 6,534	1.4%	0.94	-1.5%	0.0%
Wyoming	\$ 11,668	\$ 14,721	\$ 15,391	4.5%	2.22	31.9%	0.0%
<b>US</b>	<b>\$ 6,661</b>	<b>\$ 7,220</b>	<b>\$ 6,928</b>	<b>-4.0%</b>		<b>4.0%</b>	<b>3.1%</b>

**Notes:** Educational appropriations measures state and local support available for public higher education operating expenses including ARRA funds and exclude appropriations for independent institutions, financial aid for students attending independent institutions, research, hospitals, and medical education.

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

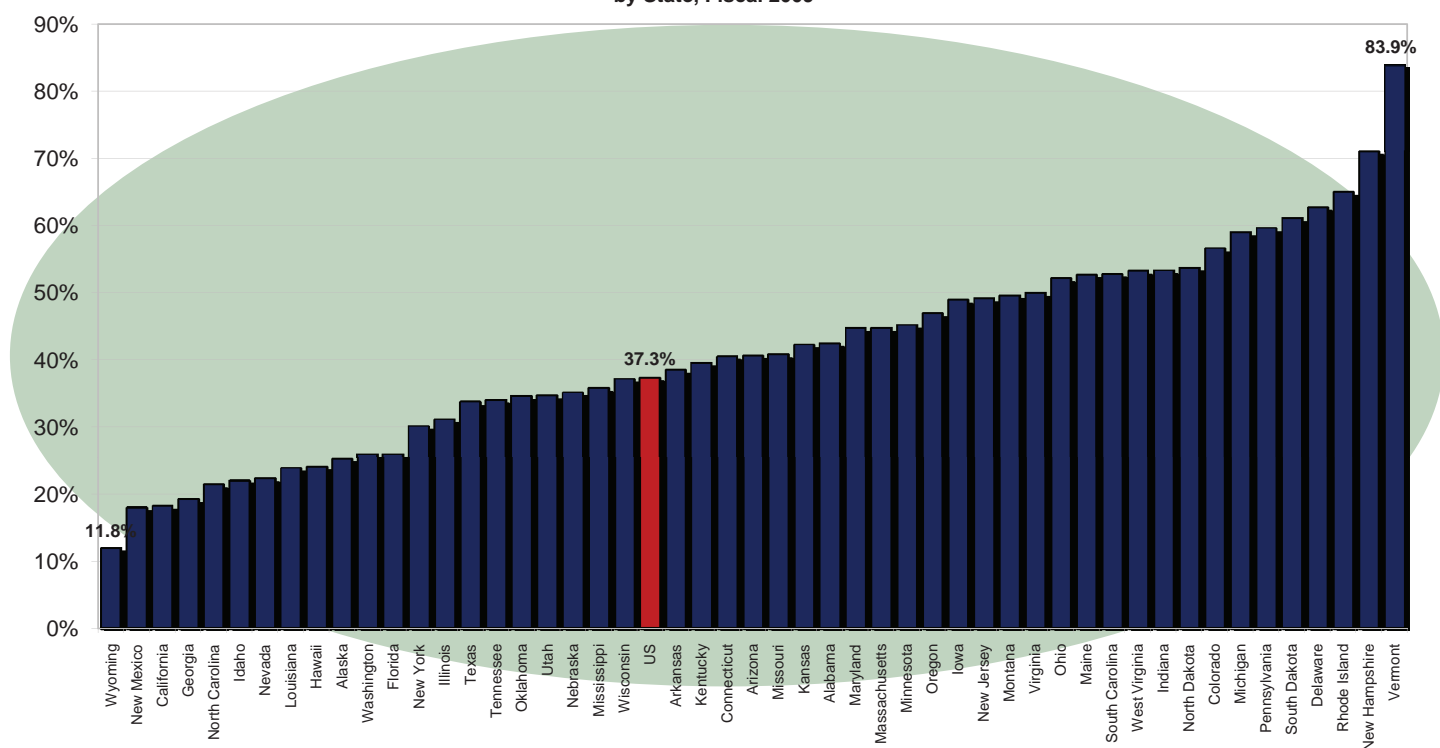
**Source:** SSDB

Figure 7 shows net tuition revenue as a percent of total educational revenue for public higher education by state for 2009. 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 each state reports is used for debt service.

- States vary widely in the percent of educational revenue supported by net tuition, from a low of 11.8 percent in Wyoming to a high of about 84 percent in Vermont.
- Twenty-nine states are above the national average of 37.3 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 \$794 per FTE to \$1 per FTE. Nationally, only about \$38 of net tuition per FTE was used for debt service in 2009.

**Figure 7**

**Net Tuition as a Percent of Public Higher Education Total Educational Revenue by State, Fiscal 2009**



**Note:** Dollars adjusted by 2009 HECA, Cost of Living Adjustment, and Enrollment Mix.

**Source:** SSDB

**Table 6**  
**Public Higher Education Net Tuition Revenue per FTE**  
 Constant Dollars

State							Tuition and Fees Used for Debt Service		
	FY 2004	FY 2008	FY 2009	1 Year % Chng	FY2009 Index to US Average	5 Year % Change	FY 2004	FY 2008	FY 2009
Alabama	\$ 5,647	\$ 5,963	\$ 5,622	-5.7%	1.37	-0.5%	\$ -	\$ 483	\$ 468
Alaska	\$ 3,113	\$ 4,214	\$ 4,355	3.3%	1.06	39.9%	\$ -	\$ -	\$ -
Arizona	\$ 3,288	\$ 4,564	\$ 4,772	4.5%	1.16	45.1%	\$ 282	\$ 318	\$ 314
Arkansas	\$ 3,646	\$ 4,136	\$ 4,629	11.9%	1.13	26.9%	\$ 583	\$ 645	\$ 550
California	\$ 1,189	\$ 1,398	\$ 1,528	9.3%	0.37	28.5%	\$ -	\$ -	\$ -
Colorado	\$ 4,486	\$ 4,802	\$ 5,100	6.2%	1.24	13.7%	\$ -	\$ -	\$ -
Connecticut	\$ 5,219	\$ 5,734	\$ 5,657	-1.3%	1.38	8.4%	\$ -	\$ -	\$ -
Delaware	\$ 7,762	\$ 9,002	\$ 9,392	4.3%	2.29	21.0%	\$ -	\$ 42	\$ 83
Florida	\$ 2,113	\$ 2,203	\$ 2,308	4.7%	0.56	9.2%	\$ -	\$ -	\$ -
Georgia	\$ 1,480	\$ 2,197	\$ 2,074	-5.6%	0.50	40.1%	\$ 26	\$ 20	\$ 18
Hawaii	\$ 1,745	\$ 2,387	\$ 2,970	24.4%	0.72	70.2%	\$ -	\$ -	\$ -
Idaho	\$ 2,278	\$ 2,368	\$ 2,603	9.9%	0.63	14.2%	\$ -	\$ -	\$ -
Illinois	\$ 2,653	\$ 3,176	\$ 3,520	10.8%	0.86	32.7%	\$ -	\$ -	\$ -
Indiana	\$ 5,015	\$ 5,449	\$ 5,379	-1.3%	1.31	7.2%	\$ -	\$ 25	\$ 29
Iowa	\$ 4,888	\$ 5,452	\$ 5,641	3.5%	1.37	15.4%	\$ -	\$ -	\$ -
Kansas	\$ 3,473	\$ 4,071	\$ 4,086	0.4%	0.99	17.7%	\$ -	\$ -	\$ -
Kentucky	\$ 3,336	\$ 4,974	\$ 5,215	4.9%	1.27	56.3%	\$ -	\$ -	\$ -
Louisiana	\$ 2,389	\$ 2,679	\$ 2,524	-5.8%	0.61	5.6%	\$ -	\$ -	\$ -
Maine	\$ 5,538	\$ 6,628	\$ 7,496	13.1%	1.82	35.3%	\$ -	\$ -	\$ -
Maryland	\$ 6,692	\$ 6,320	\$ 6,540	3.5%	1.59	-2.3%	\$ -	\$ -	\$ -
Massachusetts	\$ 3,836	\$ 4,888	\$ 4,522	-7.5%	1.10	17.9%	\$ -	\$ -	\$ -
Michigan	\$ 6,233	\$ 7,280	\$ 7,694	5.7%	1.87	23.4%	\$ -	\$ -	\$ -
Minnesota	\$ 4,341	\$ 4,973	\$ 5,082	2.2%	1.24	17.1%	\$ -	\$ -	\$ -
Mississippi	\$ 3,918	\$ 4,433	\$ 4,077	-8.0%	0.99	4.1%	\$ -	\$ -	\$ -
Missouri	\$ 3,802	\$ 3,872	\$ 4,188	8.2%	1.02	10.1%	\$ -	\$ -	\$ -
Montana	\$ 3,815	\$ 4,325	\$ 4,387	1.4%	1.07	15.0%	\$ -	\$ -	\$ -
Nebraska	\$ 3,642	\$ 3,703	\$ 3,818	3.1%	0.93	4.8%	\$ -	\$ -	\$ -
Nevada	\$ 2,332	\$ 2,509	\$ 2,509	0.0%	0.61	7.6%	\$ -	\$ -	\$ -
New Hampshire	\$ 5,377	\$ 7,597	\$ 7,619	0.3%	1.85	41.7%	\$ -	\$ -	\$ -
New Jersey	\$ 6,612	\$ 6,766	\$ 7,215	6.6%	1.76	9.1%	\$ -	\$ -	\$ -
New Mexico	\$ 1,280	\$ 1,040	\$ 1,827	75.6%	0.44	42.7%	\$ -	\$ -	\$ -
New York	\$ 3,780	\$ 3,437	\$ 3,557	3.5%	0.87	-5.9%	\$ -	\$ -	\$ -
North Carolina	\$ 2,719	\$ 2,559	\$ 2,396	-6.4%	0.58	-11.9%	\$ -	\$ -	\$ -
North Dakota	\$ 4,640	\$ 6,170	\$ 6,335	2.7%	1.54	36.5%	\$ -	\$ -	\$ -
Ohio	\$ 4,874	\$ 5,458	\$ 5,275	-3.4%	1.28	8.2%	\$ -	\$ -	\$ -
Oklahoma	\$ 3,034	\$ 4,068	\$ 4,660	14.6%	1.13	53.6%	\$ -	\$ -	\$ -
Oregon	\$ 4,595	\$ 4,913	\$ 4,427	-9.9%	1.08	-3.7%	\$ -	\$ -	\$ -
Pennsylvania	\$ 6,814	\$ 7,603	\$ 8,137	7.0%	1.98	19.4%	\$ -	\$ -	\$ -
Rhode Island	\$ 6,524	\$ 8,057	\$ 8,798	9.2%	2.14	34.9%	\$ -	\$ -	\$ -
South Carolina	\$ 5,280	\$ 6,011	\$ 5,690	-5.3%	1.39	7.8%	\$ 717	\$ 508	\$ 589
South Dakota	\$ 5,243	\$ 5,230	\$ 5,282	1.0%	1.29	0.7%	\$ 643	\$ 498	\$ 549
Tennessee	\$ 4,345	\$ 3,953	\$ 4,000	1.2%	0.97	-8.0%	\$ 116	\$ 139	\$ 144
Texas	\$ 3,098	\$ 4,502	\$ 4,158	-7.6%	1.01	34.2%	\$ 7	\$ 4	\$ 1
Utah	\$ 2,759	\$ 3,414	\$ 3,245	-4.9%	0.79	17.6%	\$ -	\$ -	\$ -
Vermont	\$ 9,812	\$ 11,392	\$ 12,025	5.6%	2.93	22.6%	\$ 153	\$ 293	\$ 353
Virginia	\$ 4,545	\$ 5,435	\$ 5,666	4.3%	1.38	24.7%	\$ 9	\$ -	\$ 14
Washington	\$ 1,942	\$ 2,371	\$ 2,274	-4.1%	0.55	17.1%	\$ -	\$ -	\$ -
West Virginia	\$ 4,772	\$ 5,817	\$ 6,393	9.9%	1.56	34.0%	\$ 754	\$ 779	\$ 794
Wisconsin	\$ 3,306	\$ 3,887	\$ 3,863	-0.6%	0.94	16.8%	\$ -	\$ -	\$ -
Wyoming	\$ 2,664	\$ 2,583	\$ 2,069	-19.9%	0.50	-22.3%	\$ -	\$ -	\$ -
<b>US</b>	<b>\$ 3,524</b>	<b>\$ 4,027</b>	<b>\$ 4,108</b>	<b>2.0%</b>		<b>16.6%</b>	<b>\$ 30</b>	<b>\$ 37</b>	<b>\$ 38</b>

**Notes:** 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.

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

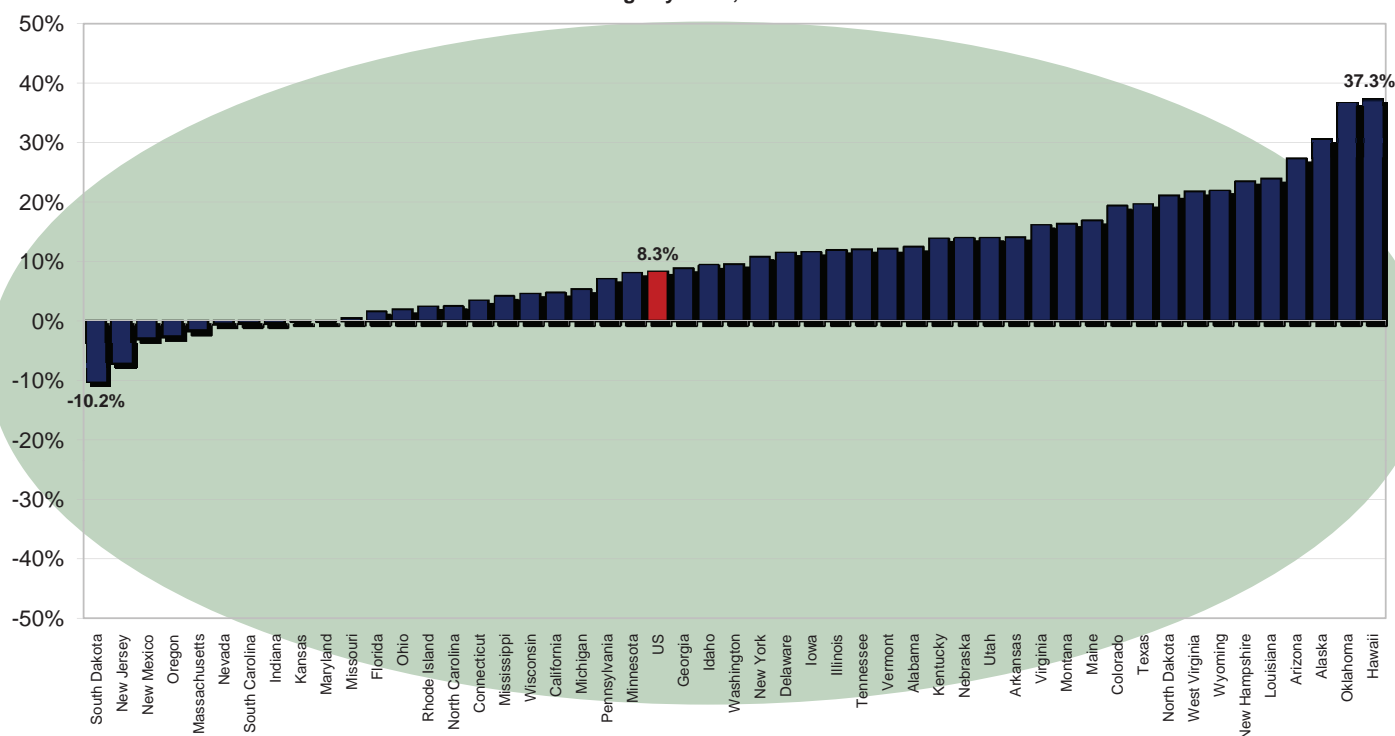
**Source:** SSDB

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 2004 to 2009. While total revenue per FTE for 2009 is lower than for 2008 (see Table 7), the data still reflect the recovery in state support which occurred between 2004 and 2008

- Forty states increased total educational revenue per student between 2004 and 2009.
- In eight states, total educational revenue per FTE decreased.
- The U.S. average showed an 8.3 percent increase in educational revenue per FTE.

**Figure 8**

**Total Educational Revenue per FTE  
Percent Change by State, Fiscal 2004-2009**



**Note:** Dollars adjusted by 2009 HECA, Cost of Living Adjustment, and Enrollment Mix; total educational revenue exclude net tuition revenue used for capital debt service.

**Source:** SSDB

**Table 7**  
**Public Higher Education Total Educational Revenue per FTE**  
**Constant Dollars**

State	FY 2004	FY 2008	FY 2009	1 Year % Chng	FY2009 Index to US Average	5 Year % Change	% of Total Educational Revenue from Stimulus
Alabama	\$ 11,803	\$ 14,244	\$ 13,255	-6.9%	1.21	12.3%	0.0%
Alaska	\$ 13,263	\$ 16,716	\$ 17,317	3.6%	1.57	30.6%	0.0%
Arizona	\$ 9,246	\$ 11,617	\$ 11,759	1.2%	1.07	27.2%	6.3%
Arkansas	\$ 10,550	\$ 11,571	\$ 12,033	4.0%	1.09	14.1%	0.0%
California	\$ 8,048	\$ 8,532	\$ 8,426	-1.2%	0.77	4.7%	9.7%
Colorado	\$ 7,573	\$ 8,426	\$ 9,029	7.2%	0.82	19.2%	8.3%
Connecticut	\$ 13,505	\$ 14,557	\$ 13,974	-4.0%	1.27	3.5%	0.0%
Delaware	\$ 13,461	\$ 14,839	\$ 15,004	1.1%	1.36	11.5%	0.0%
Florida	\$ 8,737	\$ 9,803	\$ 8,872	-9.5%	0.81	1.5%	0.0%
Georgia	\$ 9,950	\$ 11,000	\$ 10,821	-1.6%	0.98	8.8%	0.6%
Hawaii	\$ 8,611	\$ 10,982	\$ 11,819	7.6%	1.07	37.3%	0.0%
Idaho	\$ 10,845	\$ 11,840	\$ 11,857	0.1%	1.08	9.3%	0.0%
Illinois	\$ 10,103	\$ 10,569	\$ 11,297	6.9%	1.03	11.8%	0.0%
Indiana	\$ 10,144	\$ 10,238	\$ 10,102	-1.3%	0.92	-0.4%	1.6%
Iowa	\$ 10,352	\$ 11,299	\$ 11,546	2.2%	1.05	11.5%	0.0%
Kansas	\$ 9,678	\$ 9,833	\$ 9,677	-1.6%	0.88	0.0%	0.7%
Kentucky	\$ 11,588	\$ 13,484	\$ 13,184	-2.2%	1.20	13.8%	0.0%
Louisiana	\$ 8,577	\$ 11,055	\$ 10,616	-4.0%	0.97	23.8%	0.0%
Maine	\$ 12,200	\$ 13,415	\$ 14,252	6.2%	1.30	16.8%	2.5%
Maryland	\$ 14,640	\$ 14,105	\$ 14,640	3.8%	1.33	0.0%	0.0%
Massachusetts	\$ 10,283	\$ 12,215	\$ 10,113	-17.2%	0.92	-1.7%	1.4%
Michigan	\$ 12,400	\$ 12,801	\$ 13,059	2.0%	1.19	5.3%	0.0%
Minnesota	\$ 10,405	\$ 11,418	\$ 11,243	-1.5%	1.02	8.1%	1.3%
Mississippi	\$ 10,943	\$ 12,568	\$ 11,394	-9.3%	1.04	4.1%	0.0%
Missouri	\$ 10,223	\$ 9,794	\$ 10,272	4.9%	0.93	0.5%	0.0%
Montana	\$ 7,613	\$ 8,724	\$ 8,852	1.5%	0.80	16.3%	0.0%
Nebraska	\$ 9,542	\$ 11,231	\$ 10,866	-3.3%	0.99	13.9%	0.0%
Nevada	\$ 11,344	\$ 11,676	\$ 11,290	-3.3%	1.03	-0.5%	0.0%
New Hampshire	\$ 8,715	\$ 10,769	\$ 10,750	-0.2%	0.98	23.4%	0.0%
New Jersey	\$ 15,810	\$ 14,773	\$ 14,696	-0.5%	1.34	-7.1%	0.0%
New Mexico	\$ 10,490	\$ 10,805	\$ 10,185	-5.7%	0.93	-2.9%	0.0%
New York	\$ 10,655	\$ 11,703	\$ 11,795	0.8%	1.07	10.7%	0.0%
North Carolina	\$ 10,969	\$ 12,282	\$ 11,239	-8.5%	1.02	2.5%	3.1%
North Dakota	\$ 9,759	\$ 11,959	\$ 11,812	-1.2%	1.07	21.0%	0.0%
Ohio	\$ 9,942	\$ 10,167	\$ 10,133	-0.3%	0.92	1.9%	0.0%
Oklahoma	\$ 9,843	\$ 12,901	\$ 13,457	4.3%	1.22	36.7%	0.0%
Oregon	\$ 9,703	\$ 10,474	\$ 9,447	-9.8%	0.86	-2.6%	4.0%
Pennsylvania	\$ 12,781	\$ 13,320	\$ 13,679	2.7%	1.24	7.0%	1.3%
Rhode Island	\$ 13,244	\$ 13,725	\$ 13,562	-1.2%	1.23	2.4%	0.0%
South Carolina	\$ 10,847	\$ 12,490	\$ 10,801	-13.5%	0.98	-0.4%	0.0%
South Dakota	\$ 9,641	\$ 10,134	\$ 8,660	-14.6%	0.79	-10.2%	3.8%
Tennessee	\$ 10,498	\$ 11,715	\$ 11,756	0.3%	1.07	12.0%	4.2%
Texas	\$ 10,306	\$ 13,161	\$ 12,327	-6.3%	1.12	19.6%	0.0%
Utah	\$ 8,208	\$ 10,197	\$ 9,348	-8.3%	0.85	13.9%	2.7%
Vermont	\$ 12,781	\$ 14,003	\$ 14,326	2.3%	1.30	12.1%	0.0%
Virginia	\$ 9,784	\$ 11,362	\$ 11,355	-0.1%	1.03	16.1%	0.0%
Washington	\$ 7,995	\$ 9,239	\$ 8,757	-5.2%	0.80	9.5%	0.0%
West Virginia	\$ 9,890	\$ 12,545	\$ 12,032	-4.1%	1.09	21.7%	0.0%
Wisconsin	\$ 9,943	\$ 10,331	\$ 10,397	0.6%	0.95	4.6%	0.0%
Wyoming	\$ 14,332	\$ 17,304	\$ 17,460	0.9%	1.59	21.8%	0.0%
<b>US</b>	<b>\$ 10,156</b>	<b>\$ 11,210</b>	<b>\$ 10,998</b>	<b>-1.9%</b>		<b>8.3%</b>	<b>2.0%</b>

**Notes:** Total educational revenue is the sum of educational appropriations and net tuition excluding net tuition revenue used for capital debt service.

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

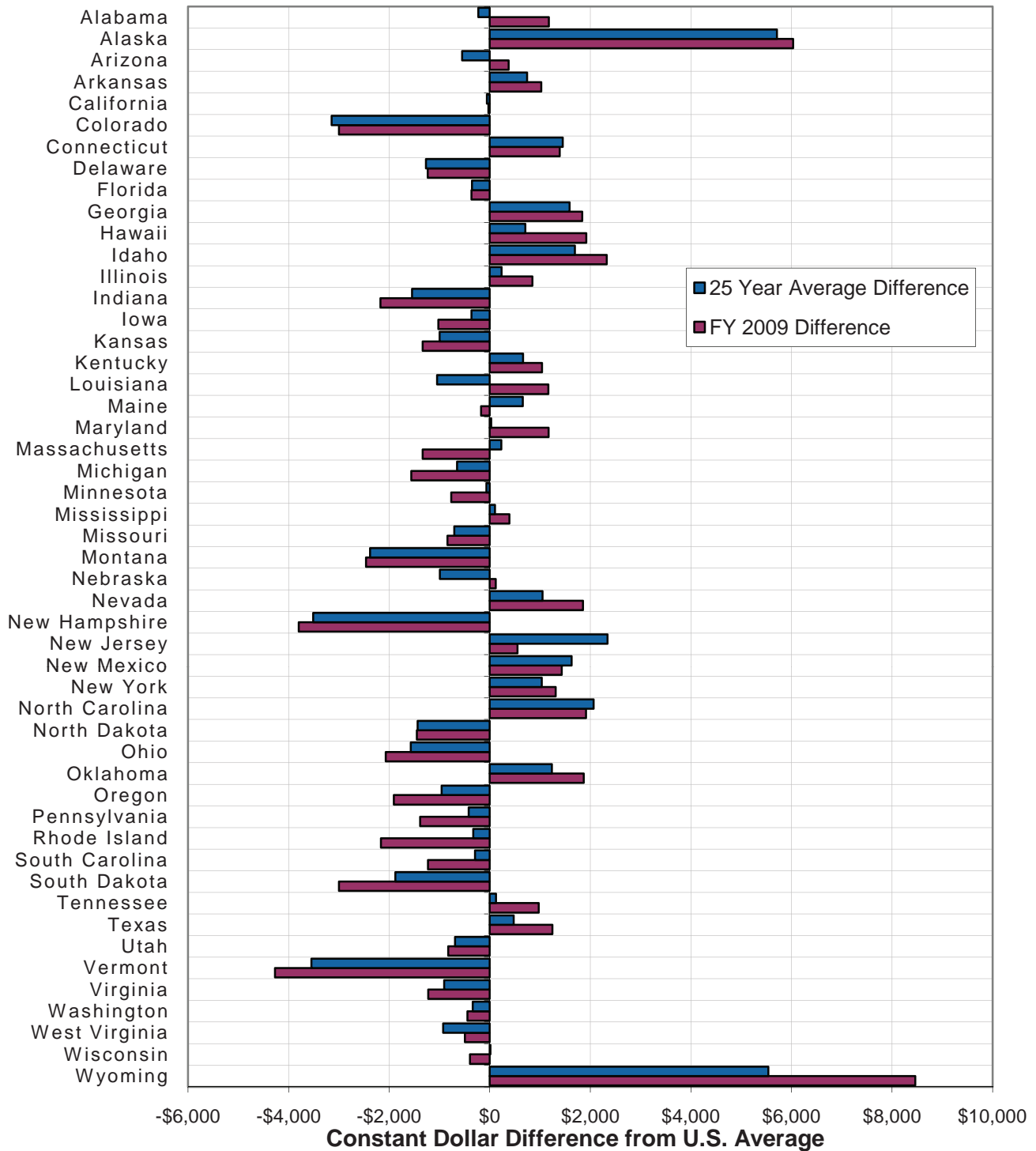
**Source:** SSDB

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 1984-2009. The red bars represent the FY 2009 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-three states had higher than average educational appropriations per FTE in 2009. Of those, 19 had higher educational appropriations per FTE compared to the U.S. in 2009 than they had, on average, across the years 1984-2009.
- Twenty-seven states had lower than average educational appropriations per FTE in 2009. Twenty-three of those had lower educational appropriations per FTE compared to the U.S. in 2009 than they had, on average, across the years 1984-2009.
- The 2009 difference between the state and U.S. educational appropriations per FTE was more than \$1000 higher than the historical average difference in 6 states; it was more than \$1000 lower than the historical average difference in 4 states.

**Figure 9**

**Educational Appropriations per FTE:  
State Differences from U.S. Average Over 25 Years and in 2009**



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

**Source:** SSDB

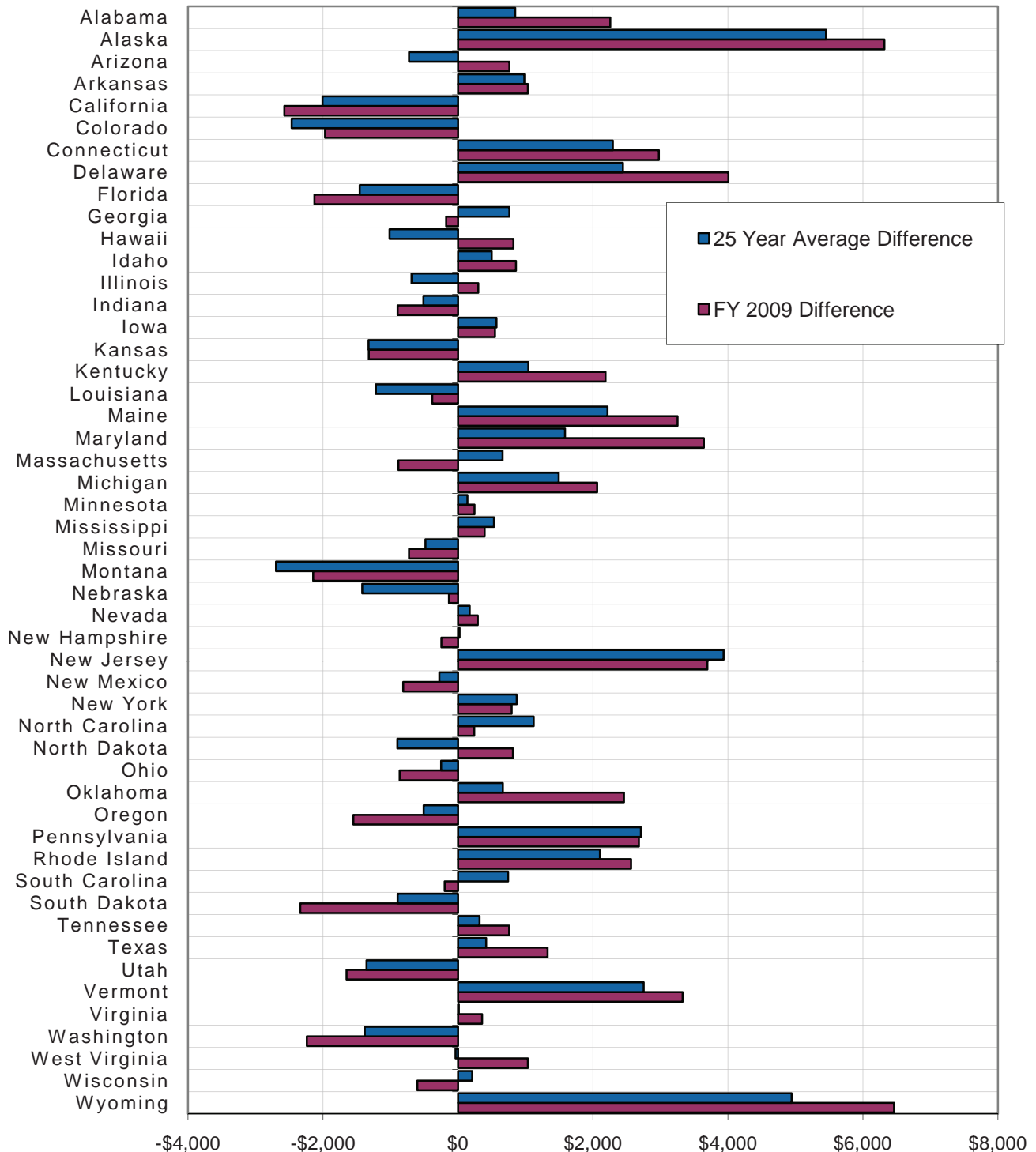
Figure 10 illustrates the variability in per FTE total educational revenue by state. The blue bars display the average of the differences between states' total educational revenue per FTE and the national total educational revenue per FTE from 1984-2009. The red bars represent the FY 2009 difference between the states' per FTE total educational revenue and the U.S. per FTE total educational revenue.

- In 30 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 2009. Of those, 24 had higher total educational revenue per FTE compared to the U.S. in 2009 than they had, on average, across the years 1984-2009.
- Twenty states had lower than average total educational revenue per FTE in 2009. Fifteen of those had lower total educational revenue per FTE compared to the U.S. in 2009 than they had, on average, across the years 1984-2009.
- The 2009 difference between the state and U.S. total educational revenue per FTE was more than \$1000 higher than the historical average difference in 12 states; it was more than \$1000 lower than the historical average difference in 4 states.



**Figure 10**

**Total Educational Revenue per FTE:  
State Differences from U.S. Average Over 25 Years and in 2009**



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

**Source:** SSDB

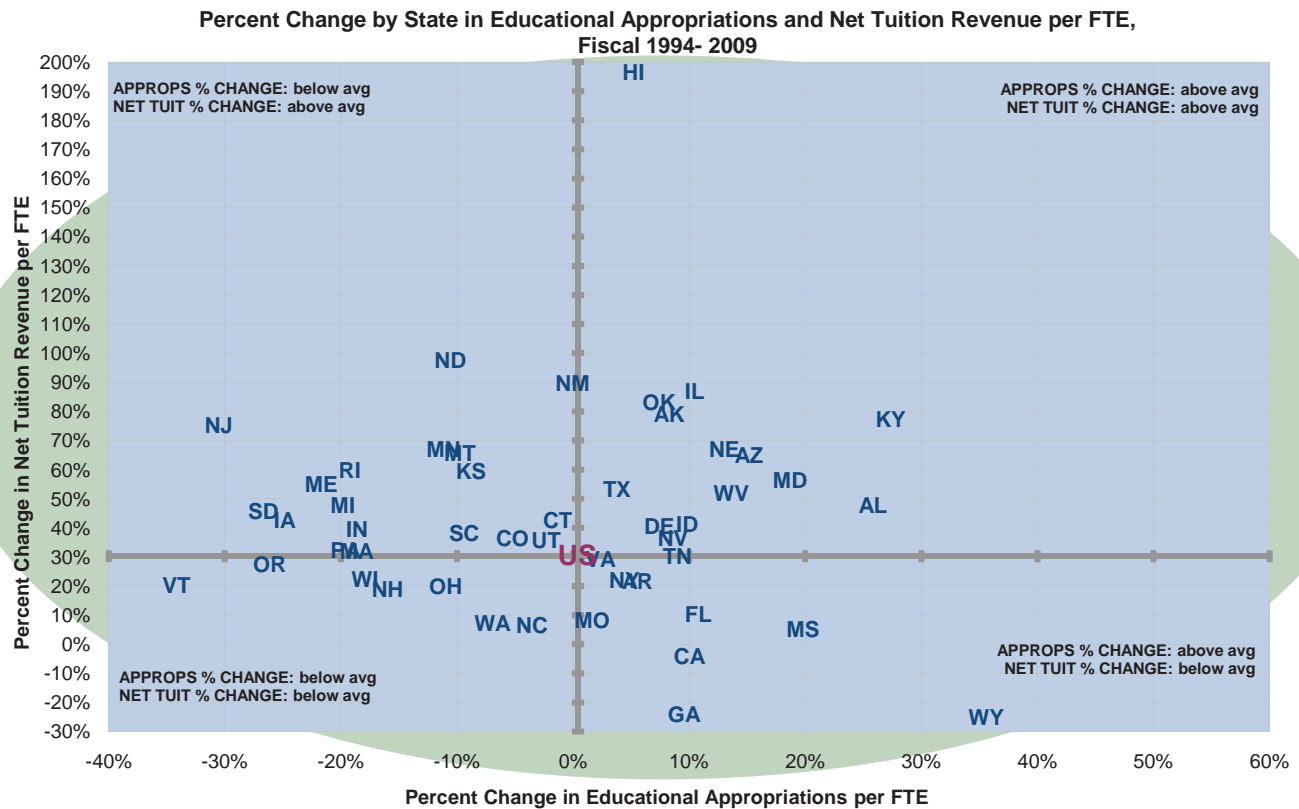
## Comparing States on Two Dimensions

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 1994 to 2009. 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**



**Note:** Figures are adjusted for inflation, public system enrollment mix, and state cost of living. Funding and FTE data are for public non-medical students only.

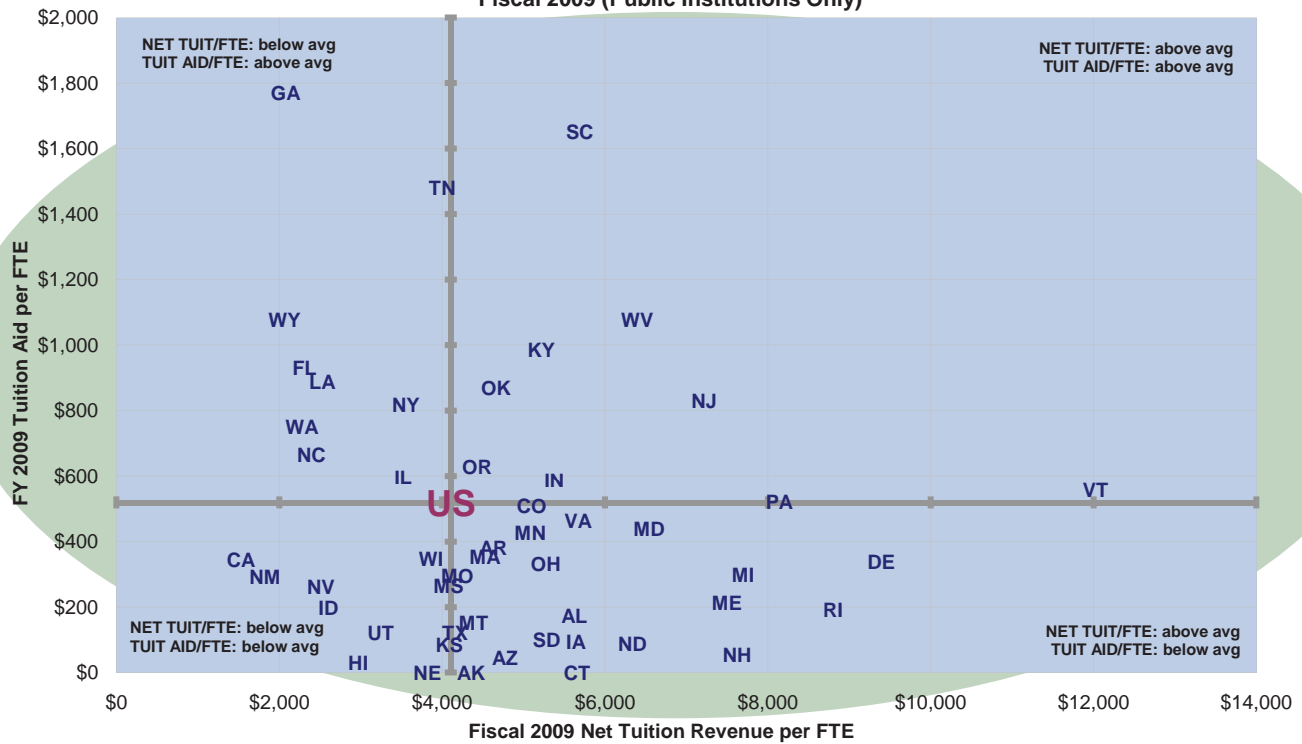
**Source:** SSDB

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 2009 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 2009.

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

**Figure 12**

Net Tuition Revenue per FTE and State-Funded Tuition Aid per FTE by State,  
Fiscal 2009 (Public Institutions Only)



**Note:** Figures are adjusted for inflation, public system enrollment mix, and state cost of living. Funding and FTE data are for public non-medical students only.

**Source:** SSDB



## 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 revenue are needed to support important public services?
- What level of taxation will generate those revenue 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.<sup>6</sup>

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 54.9 percent from 1997 to 2007, from \$33,932 to \$52,573.
- Total state and local tax revenue per capita increased 58.3 percent from \$2,668 in 1997 to \$4,224 in 2007.
- As a result, the national aggregate effective state and local tax rate (tax revenue as a percentage of state wealth) increased from 7.86 percent to 8.04 percent over this period.

Also based on aggregate, national data, the allocation of the available state revenue to higher education fluctuated somewhat between 1997 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, and decreased 5.6 percent nationally between 1997 and 2007, the most recent year available. The 2007 allocation to higher education remained at the same rate as the previous year.

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<sup>6</sup> 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. Averages, 1997-2007**

	Wealth, Revenues and Tax Rates			Allocation to Higher Education		
	Total Taxable Resources per Capita <sup>1</sup>	State & Local Tax Revenues per Capita <sup>2, 3</sup>	Effective Tax Rate <sup>4</sup>	State & Local Tax Revenues plus Lottery Profits <sup>5</sup> (thousands)	State & Local Higher Education Support <sup>6</sup> (thousands)	(percent)
1997	\$ 33,932	\$ 2,668	7.86%	\$ 737,767,519	\$ 50,307,924	6.8%
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	\$ 39,987	\$ 3,086	7.72%	\$ 881,108,058	\$ 63,201,358	7.2%
2001	\$ 39,203	\$ 3,197	8.15%	\$ 921,556,887	\$ 67,367,153	7.3%
2002	\$ 39,691	\$ 3,141	7.91%	\$ 915,156,773	\$ 69,873,796	7.6%
2003	\$ 41,164	\$ 3,112	7.56%	\$ 915,311,067	\$ 70,208,647	7.7%
2004	\$ 44,030	\$ 3,444	7.82%	\$ 1,020,282,951	\$ 69,373,923	6.8%
2005	\$ 47,236	\$ 3,712	7.86%	\$ 1,111,232,278	\$ 71,790,219	6.5%
2006	\$ 50,277	\$ 3,999	7.95%	\$ 1,207,621,567	\$ 77,131,378	6.4%
2007	\$ 52,573	\$ 4,224	8.04%	\$ 1,287,670,074	\$ 82,877,250	6.4%
<b>10 Year Change</b>	<b>54.9%</b>	<b>58.3%</b>	<b>2.2%</b>	<b>74.5%</b>	<b>64.7%</b>	<b>-5.6%</b>

**Notes:** All dollars nominal.

1) Total Taxable Resources per Capita:

2002, 2003, 2004 data: U.S. Treasury Department, <http://www.treas.gov/offices/economic-policy/resources/estimates.html>

1993-2001: Compson, Michael. L (March, 2003)

2) State and Local Tax Revenue per Capita: U.S. Census Bureau, <http://www.census.gov/govs/www/estimate.html> and

<http://www.census.gov/popest/states/NST-ann-est.html>

3) Local Tax Revenue in 2001 and 2003 are estimates; the following formula was used

$FY2001 \text{ Local Tax Revenue} = (((FY1998Local/FY1998State) + (FY1999Local/FY1999State) + (FY2000Local/FY2000State))/3) * FY2001State$

$FY2003 \text{ Local Tax Revenue} = (((FY1999Local/FY1999State) + (FY2000Local/FY2000State) + (FY2002Local/FY2002State))/3) * FY2003State$

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 non-tax support for general operating expenses of public and independent higher education. Includes special purpose appropriations for research-agricultural-medical. Source: SSDB



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 \$35,066 per capita to a high of \$81,024 per capita. Effective tax rates also vary substantially, from a low of 5.2 percent (in Delaware, which is an outlier on both measures) to a high of 10.5 percent.

*Table 10*, based on federal data sources, shows two measures of state-by-state support for higher education (per capita and per \$1,000 in personal income) for 2009. Per capita support for higher education varies from \$101 in New Hampshire to \$614 in Wyoming. Support for higher education relative to personal income varies from \$2.32 to \$17.39 per \$1,000 of personal income across the states. Nationally, state and local support for higher education per \$1,000 of personal income was \$7.28 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 2007. While such statistics show relative investments in higher education, they do not necessarily indicate the relative "priority" or value of higher education to 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.

Given the range of cross-state variability, 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 goals, remain complex tasks in every state.

**Table 9**  
**Tax Revenue, Taxable Resources, and Effective Tax Rates, by State**  
**Fiscal 2007**

State	Actual Tax Revenues (ATR) Per Capita		Total Taxable Resources (TTR) Per Capita		Effective Tax Rate (ATR/TTR)	
	Dollars	Index	Dollars	Index	Tax Rate	Index
Alabama	2,909	0.686	41,174	0.780	7.1%	0.879
Alaska	7,268	1.713	69,365	1.315	10.5%	1.303
Arizona	3,673	0.866	44,725	0.848	8.2%	1.021
Arkansas	3,243	0.765	38,965	0.739	8.3%	1.035
California	4,754	1.121	56,512	1.071	8.4%	1.046
Colorado	3,848	0.907	55,977	1.061	6.9%	0.855
Connecticut	6,045	1.425	77,146	1.462	7.8%	0.974
Delaware	4,245	1.001	81,024	1.536	5.2%	0.652
Florida	4,009	0.945	52,411	0.994	7.6%	0.951
Georgia	3,481	0.821	45,949	0.871	7.6%	0.942
Hawaii	5,139	1.212	54,248	1.028	9.5%	1.178
Idaho	3,184	0.751	42,090	0.798	7.6%	0.941
Illinois	4,294	1.012	55,728	1.056	7.7%	0.958
Indiana	3,332	0.786	45,213	0.857	7.4%	0.917
Iowa	3,665	0.864	49,305	0.935	7.4%	0.924
Kansas	4,088	0.964	49,963	0.947	8.2%	1.018
Kentucky	3,235	0.763	40,901	0.775	7.9%	0.984
Louisiana	4,023	0.948	51,124	0.969	7.9%	0.979
Maine	4,279	1.009	42,968	0.814	10.0%	1.238
Maryland	4,817	1.136	61,094	1.158	7.9%	0.981
Massachusetts	4,966	1.171	63,916	1.212	7.8%	0.966
Michigan	3,691	0.870	42,606	0.808	8.7%	1.077
Minnesota	4,566	1.077	55,241	1.047	8.3%	1.028
Mississippi	2,990	0.705	35,066	0.665	8.5%	1.060
Missouri	3,265	0.770	45,068	0.854	7.2%	0.901
Montana	3,420	0.806	43,161	0.818	7.9%	0.985
Nebraska	4,036	0.952	51,637	0.979	7.8%	0.972
Nevada	4,089	0.964	60,736	1.151	6.7%	0.837
New Hampshire	3,614	0.852	56,323	1.068	6.4%	0.798
New Jersey	5,944	1.401	66,722	1.265	8.9%	1.108
New Mexico	3,796	0.895	43,221	0.819	8.8%	1.092
New York	6,898	1.626	66,157	1.254	10.4%	1.297
North Carolina	3,586	0.845	48,121	0.912	7.5%	0.927
North Dakota	4,084	0.963	50,112	0.950	8.2%	1.014
Ohio	4,012	0.946	45,515	0.863	8.8%	1.096
Oklahoma	3,312	0.781	44,191	0.838	7.5%	0.932
Oregon	3,413	0.805	49,365	0.936	6.9%	0.860
Pennsylvania	4,208	0.992	49,981	0.947	8.4%	1.047
Rhode Island	4,545	1.072	54,792	1.039	8.3%	1.032
South Carolina	3,134	0.739	40,406	0.766	7.8%	0.965
South Dakota	3,006	0.709	52,455	0.994	5.7%	0.713
Tennessee	2,986	0.704	44,505	0.844	6.7%	0.835
Texas	3,441	0.811	52,454	0.994	6.6%	0.816
Utah	3,337	0.787	43,675	0.828	7.6%	0.950
Vermont	4,722	1.113	48,252	0.915	9.8%	1.217
Virginia	4,205	0.991	59,001	1.118	7.1%	0.886
Washington	4,269	1.006	56,507	1.071	7.6%	0.940
West Virginia	3,372	0.795	37,608	0.713	9.0%	1.115
Wisconsin	4,169	0.983	48,220	0.914	8.6%	1.075
Wyoming	6,205	1.463	75,846	1.438	8.2%	1.017
U.S.	\$ 4,242	1.000	52,754	1.000	8.04%	1.000

**Sources:**

- 1) Population and tax revenue data from U.S. Census Bureau: [www.census.gov/govs/www/estimate.html](http://www.census.gov/govs/www/estimate.html)
- 2) Total Taxable Resources per capita from U.S. Treasury Department: [www.treas.gov/offices/economic-policy/resources/estimates.html](http://www.treas.gov/offices/economic-policy/resources/estimates.html)
- 3) Actual State + Local Tax Revenue by State, Fiscal 2006: [www.census.gov/govs/www/estimate.html](http://www.census.gov/govs/www/estimate.html)

Table 10

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

State	FISCAL 2008		FISCAL 2008		FISCAL 2007		
	Higher Education Support <sup>1</sup> Per Capita <sup>2</sup> (FY 08)	Indexed to U.S. Average	Higher Education Support <sup>1</sup> Per \$1000 of Personal Income <sup>2</sup> (FY 08)	Indexed to U.S. Average	Tax Revenues and Lottery Profits <sup>3</sup> (thousands FY07)	Higher Education Support <sup>1</sup> (thousands FY07)	Allocation to Higher Education
Alabama	420	1.44	12.48	1.71	13,457,018	1,687,710	12.5%
Alaska	436	1.49	9.92	1.36	4,950,170	287,441	5.8%
Arizona	300	1.03	8.74	1.20	23,474,711	1,783,271	7.6%
Arkansas	314	1.07	9.72	1.34	9,179,610	813,802	8.9%
California	377	1.29	8.60	1.18	174,103,246	13,197,218	7.6%
Colorado	161	0.55	3.74	0.51	18,751,752	733,095	3.9%
Connecticut	295	1.01	5.25	0.72	21,375,131	923,951	4.3%
Delaware	277	0.95	6.87	0.94	3,915,385	233,226	6.0%
Florida	241	0.83	6.18	0.85	74,223,487	4,390,185	5.9%
Georgia	305	1.04	8.74	1.20	34,006,573	2,775,308	8.2%
Hawaii	431	1.47	10.23	1.41	6,564,657	503,627	7.7%
Idaho	277	0.95	8.39	1.15	4,795,428	386,719	8.1%
Illinois	288	0.99	6.77	0.93	55,697,465	3,569,205	6.4%
Indiana	239	0.82	6.93	0.95	21,327,365	1,457,164	6.8%
Iowa	308	1.05	8.20	1.13	10,991,498	852,803	7.8%
Kansas	361	1.24	9.29	1.28	11,424,429	964,818	8.4%
Kentucky	311	1.07	9.75	1.34	13,901,897	1,267,630	9.1%
Louisiana	384	1.31	10.63	1.46	17,722,103	1,459,847	8.2%
Maine	209	0.72	5.75	0.79	5,678,855	260,150	4.6%
Maryland	330	1.13	6.85	0.94	27,558,903	1,734,547	6.3%
Massachusetts	204	0.70	4.01	0.55	33,012,073	1,286,564	3.9%
Michigan	258	0.88	7.39	1.02	37,843,669	2,569,879	6.8%
Minnesota	301	1.03	7.01	0.96	23,777,338	1,400,500	5.9%
Mississippi	373	1.28	12.26	1.68	8,732,575	927,299	10.6%
Missouri	194	0.66	5.33	0.73	19,450,545	1,106,623	5.7%
Montana	207	0.71	5.99	0.82	3,282,930	175,210	5.3%
Nebraska	415	1.42	10.60	1.46	7,171,039	685,536	9.6%
Nevada	237	0.81	5.79	0.80	10,443,909	593,776	5.7%
New Hampshire	101	0.34	2.32	0.32	4,821,761	123,966	2.6%
New Jersey	260	0.89	5.06	0.69	52,260,254	2,176,440	4.2%
New Mexico	581	1.99	17.39	2.39	7,491,163	1,027,270	13.7%
New York	277	0.95	5.67	0.78	136,376,841	5,088,054	3.7%
North Carolina	435	1.49	12.34	1.70	32,737,841	3,638,165	11.1%
North Dakota	396	1.36	9.93	1.36	2,612,098	215,719	8.3%
Ohio	210	0.72	5.86	0.81	46,712,215	2,344,937	5.0%
Oklahoma	311	1.07	8.66	1.19	12,019,635	1,066,811	8.9%
Oregon	225	0.77	6.18	0.85	13,405,135	758,205	5.7%
Pennsylvania	183	0.63	4.61	0.63	53,206,425	2,260,408	4.2%
Rhode Island	182	0.62	4.40	0.60	5,107,793	196,361	3.8%
South Carolina	281	0.96	8.66	1.19	14,080,822	1,179,808	8.4%
South Dakota	244	0.83	6.31	0.87	2,512,678	178,778	7.1%
Tennessee	256	0.88	7.35	1.01	18,648,284	1,492,477	8.0%
Texas	305	1.04	8.06	1.11	83,120,789	6,479,870	7.8%
Utah	298	1.02	9.29	1.28	8,907,029	718,174	8.1%
Vermont	146	0.50	3.78	0.52	2,954,881	85,923	2.9%
Virginia	244	0.84	5.54	0.76	32,812,217	1,868,724	5.7%
Washington	269	0.92	6.30	0.87	27,647,477	1,631,059	5.9%
West Virginia	310	1.06	9.79	1.35	6,695,322	455,445	6.8%
Wisconsin	293	1.00	7.75	1.06	23,478,793	1,549,896	6.6%
Wyoming	614	2.10	12.65	1.74	3,246,860	313,654	9.7%
United States	\$292	1.00	\$7.28	1.00	\$ 1,287,670,074	\$ 82,877,250	6.4%

## Sources:

- 1) Higher Education Support = State and local tax and non-tax support for public and independent higher education. Includes special purpose appropriations for research-agricultural-medical. Source: SSDB
- 2) Population and personal income data from U.S. Census Bureau and Bureau of Economic Analysis.
- 3) State and local tax revenue 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 have 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 the autumn of 2008 the nation suffered the worst recession since the Great Depression. Current indicators suggest that state revenue will recover slowly in the foreseeable future. Despite the success of ARRA funding in cushioning the recession's impact, the continued fiscal crisis beginning in 2009 clearly poses a severe threat to the strength of higher education in the United States.

Such recurring budgeting cycles can be challenging and sometimes discouraging. The resiliency of state support for higher education, however, suggests its importance to our future is widely recognized. 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.

## WHAT NEXT?

**Paul E. Lingenfelter**

(Note: State Higher Education Finance is an annual study of state appropriations for all of higher education and state support, net tuition revenue, and full-time-equivalent enrollment in public institutions. With the enormous assistance and cooperation of data providers in the states, the SHEEO staff works to provide accurate and consistent information on these data, without editorial comment or judgment of any kind. This essay of editorial comment, separate from the main study, is a departure from that practice due to the urgency of the current situation in American higher education.)

The enrollment and finance data from State Higher Education Finance FY 2009 and the recently released *Grapevine* survey of appropriations for FY 2010 make it clear: Higher education in the United States is at a critical juncture.

Enrollment demand has grown relentlessly for more than a quarter century, from 7.0 million in 1980 to 10.8 million in 2009, with no signs of stopping. Even with substantial increases in state and federal funding for higher education, public financial support has not generally kept pace with enrollment growth and inflation. These trends have contributed to increases in tuition and fees in virtually every state. In some states, they are also responsible for less visible, but material reductions in opportunity, quality, and student success.

While state support for higher education has been resilient, state policymakers have struggled with increasingly severe economic recessions. In every recession over the past 35 years, enrollment has grown, while state funding has not kept up with enrollment and inflation. During economic recoveries, states historically have “caught up” by providing more support. The historical pattern provides reassurance and clear evidence of enduring public commitment, but the current recession and a convergence of other pressures on states and the American economy have eroded the ability of states to rebuild their financial support for higher education. As a result, the resiliency of public financial support for American higher education is threatened, putting quality, capacity, and the underlying ability to meet student and societal needs at risk.

The decline of state funding per student was particularly severe following the recession of 2001-2002. A reasonably strong recovery followed from FY 2005 to FY 2008, but ended abruptly with the recession of 2009. In FY 2009 state support fell \$2.8 billion to \$77.9 billion, but \$2.3 billion in federal funds to stabilize state higher education budgets offset the loss. FTE enrollment growth (3.4%) and inflation (1.5%) were partially absorbed by institutions and partially financed by tuition and fee revenue.

FY 2010 state funding (as reported by *Grapevine* and summarized on the following pages) has fallen another \$2.7 billion to \$75.2 billion. Federal stabilization funds raise the FY 2010 total to \$79.4 billion, about \$1.3 billion less than states alone provided in FY 2008. Enrollment meanwhile continued to grow even faster, in some states by more than 10%. Per student costs are falling, due to the unrelenting growth of enrollment without commensurate growth in financial support.

These national trends illustrate the fundamental dynamics of the situation, which affect every state. In some states, the situation is much worse than the national view—severe budget shortfalls and unmet educational needs are reaching crisis proportions, and budget reductions are continuing. Looking ahead, the dimensions of the current financial and enrollment crisis are:

- About 5% of FY 2010 appropriations are underwritten with federal stabilization funds that in many states are exhausted, or nearly so;
- Federal funds targeted on education helped cushion the effects of the recession on *all* state services, not just education. But the federal focus on education and the normal inertia of incremental budgetary practices could inappropriately put education at greater risk when the stabilization funds are exhausted;

- State revenue has fallen at an unprecedented rate and a recovery will, at best, take several years according to the National Association of State Budget Officers; and
- Even with recent dramatic enrollment growth, current enrollment almost surely understates student demand. Many students who would otherwise enroll instead find themselves deterred by tuition increases, budget-driven enrollment caps, and course cancellations.

These trends are significant, but the issues at stake are deeper than money and enrollment demand. Public higher education, and education at every level, must help the United States meet the challenges posed by the aging of America's best-educated cohort and by a global economy where other nations are gaining on or passing the U.S. in educational attainment. Our future depends on educating many more American citizens to a higher level of knowledge and skill than required in the 20th century. It is inconceivable that this can be achieved without sustained and growing state support for higher education.

While the United States still enjoys a reputation for the world's finest system of higher education, we are in great danger of complacency. Our reputation is based disproportionately on the achievements of students and faculty at our most prestigious, selective, and most generously financed institutions—which enroll fewer than 10% of our students. Our country is rich in expertise and intelligence, as well as economic power. With our financial and intellectual wealth, we have no excuse for failing to achieve the critical national priority of educational excellence at scale.

Money is deeply relevant in two ways, both how we use it and the adequacy of the amount we devote to education. Taken as a whole, our educational system does not function at the level required for national success in the 21st century. Higher education is an indispensable national resource in helping public schools overcome a shortage of highly qualified teachers, in providing an adequate supply to business leaders of employees with the higher levels of knowledge and skill demanded in the global economy, and in helping all our people realize their potential as well-educated workers and citizens.

We can and must solve these serious, complicated problems, not by throwing money at them or by wishful thinking, but by confronting the fundamental issues of growing educational needs and limited resources. No country has ever improved the quality and scope of its educational system by persistently reducing its budget. While some may wish this were possible, it is not. Nor can colleges and universities improve their scope and quality without focusing on essential priorities and increasing productivity and efficiency, most especially when resources are limited. Both renewed, sustainable public support and a more productive and effective educational system are needed.

State support plays an irreplaceable role in financing higher education in the United States, but higher education is far from the largest component of state budgets. A relatively modest increase in the percentage of state revenue devoted to higher education (gradually increasing over several years the average state budget allocation to higher education by one percentage point—from 6.5% to 7.5%, for example) would generate a 15% increase in average state support for higher education. The critical questions are not whether changes on such a scale are feasible (a one percentage point change is a matter of priority, not feasibility), but questions of strategy, potential impact, and the trade-offs and benefits among different revenue and spending policies.

Focusing on priorities is a shared responsibility, not just the job of colleges and universities but also of state and federal governments, businesses, and families. We all must re-examine the ways we spend, save, and invest in light of priorities and the future well-being of our nation and our children.

Public support for higher education is not optional, not in the United States nor in any nation intending to be competitive in the global, knowledge economy. Complacency about the adequacy and quality of public higher education puts the future of the American people in jeopardy. America needs a reinvigorated partnership between the states and higher education, more effective and productive educational systems, and an unwavering commitment to educational excellence and widespread student success.

What will we do next?

## Grapevine Table 1

State Support for Higher Education, Fiscal Years 2005, 2008, 2009, and 2010<sup>a</sup>

	FY05	FY08	FY09				FY10			
				Federal Stimulus Monies: Stabilization funds <sup>c</sup>	Federal Stimulus Monies: Government Services Funds <sup>d</sup>	Total Support		Federal Stimulus Monies: Stabilization funds <sup>c</sup>	Federal Stimulus Monies: Government Services Funds <sup>d</sup>	Total Support
	State Monies <sup>b</sup>	State Monies <sup>b</sup>	State Monies <sup>b</sup>				State Monies <sup>b</sup>			
Alabama	1,214,819,772	1,961,808,342	1,581,762,667	0	0	1,581,762,667	1,449,111,433	118,743,545	0	1,567,854,978
Alaska	235,022,000	299,228,000	320,079,200	0	0	320,079,200	332,535,400	0	0	332,535,400
Arizona	987,367,600	1,315,406,400	1,154,957,900	182,808,000	0	1,337,765,900	1,103,840,000	84,192,000	0	1,188,032,000 <sup>f</sup>
Arkansas	655,270,998	879,882,230	887,321,221	0	0	887,321,221	905,301,021	13,641,365	0	918,942,386
California	9,067,072,000	11,814,421,000	10,433,297,200	1,489,000,000	0	11,922,297,200	10,792,625,750	313,000,000	0	11,105,625,750
Colorado	597,921,311	747,481,054	682,248,254	150,676,055	288,000	833,212,309	679,624,934	150,676,055	0	830,300,989
Connecticut	787,966,647	1,034,480,989	1,045,313,922	0	0	1,045,313,922	1,031,930,508	0	19,262,063	1,051,192,571
Delaware	203,478,000	243,130,000	243,840,165	0	0	243,840,165	226,645,560	15,873,000	0	242,518,560
Florida	3,581,416,362	4,448,930,438	4,112,453,565	0	0	4,112,453,565	3,713,526,788	217,868,090	34,586,325	3,965,981,203
Georgia	2,466,928,208	2,953,507,623	3,144,002,253	19,304,452	0	3,163,306,705	2,977,189,312	108,024,135	0	3,085,213,447
Hawaii	409,727,000	554,292,000	612,780,000	0	0	612,780,000	575,366,000	32,000,000	0	607,366,000
Idaho	350,952,700	410,595,600	416,493,100	0	0	416,493,100	389,144,700	17,683,900	0	406,828,600
Illinois	2,685,920,700	2,948,632,100	2,997,136,935	0	0	2,997,136,935	3,039,940,000	40,426,300	53,510,100	3,133,876,400
Indiana	1,417,478,385	1,528,494,000	1,575,568,000	44,260,192	0	1,619,828,192	1,564,352,025	75,491,326	0	1,639,843,351
Iowa	743,121,766	873,709,364	914,197,000	0	0	914,197,000	721,515,000	103,380,000	2,500,000	827,395,000
Kansas	727,534,311	825,697,884	806,010,141	9,599,299	0	815,609,440	753,700,801	40,000,000	0	793,700,801
Kentucky	1,076,740,400	1,320,540,000	1,270,507,000	0	0	1,270,507,000	1,203,786,000	70,000,000	0	1,273,786,000
Louisiana	1,287,848,788	1,707,668,337	1,706,364,806	0	0	1,706,364,806	1,410,621,395	189,700,000	0	1,600,321,395
Maine	240,691,333	275,867,961	267,980,820	13,123,287	0	281,104,107	263,679,427	8,162,583	0	271,842,010
Maryland	1,185,321,898	1,555,048,366	1,651,765,103	0	0	1,651,765,103	1,668,917,365	3,969,128	0	1,672,886,493
Massachusetts	1,131,092,793	1,335,981,876	1,032,129,048	25,997,534	0	1,058,126,582	842,009,308	227,730,463	0	1,069,739,771
Michigan	1,947,744,600	2,033,709,000	2,051,065,300	0	0	2,051,065,300	1,837,465,800	68,238,000	0	1,905,703,800
Minnesota	1,273,328,000	1,574,499,000	1,542,056,000	0	30,546,000	1,572,602,000	1,427,469,000	137,342,000	601,000	1,565,412,000
Mississippi	761,417,563	1,045,937,317	978,760,459	0	0	978,760,459	1,006,477,155	0	0	1,006,477,155
Missouri	925,045,604	1,021,705,137	1,108,021,377	0	0	1,108,021,377	1,036,350,818	106,212,100	33,572,812	1,176,135,730
Montana	152,582,000	196,547,880	207,471,410	0	0	207,471,410	179,045,306	29,762,223	8,220,637	217,028,166
Nebraska	519,741,659	657,011,774	651,703,765	0	0	651,703,765	622,962,181	0	0	622,962,181
Nevada	502,023,883	620,032,581	623,227,269	0	0	623,227,269	501,051,371	92,389,311	0	593,440,682
New Hampshire	115,367,000	133,093,000	138,531,000	0	0	138,531,000	137,770,000	4,087,000	0	141,857,000
New Jersey	1,890,323,000	2,044,508,000	1,984,924,000	0	0	1,984,924,000	2,009,930,000	70,805,876	2,864,124	2,083,600,000
New Mexico	762,379,374	1,058,394,058	994,039,650	0	0	994,039,650	877,411,145	15,538,400	0	892,949,545
New York	3,641,640,500	4,748,469,680	4,875,336,234	0	0	4,875,336,234	4,878,684,434	45,954,666	118,098,991	5,042,738,091
North Carolina	2,780,767,364	3,837,233,489	3,658,785,872	126,962,971	0	3,785,748,843	3,847,511,480	137,815,944	0	3,985,327,424
North Dakota	201,545,000	253,901,000	253,901,000	0	0	253,901,000	300,891,000	0	0	300,891,000
Ohio	2,102,153,594	2,288,294,736	2,474,062,613	0	0	2,474,062,613	1,968,410,935	309,874,026	0	2,278,284,961
Oklahoma	787,076,396	1,098,881,179	1,078,158,766	0	0	1,078,158,766	1,017,923,491	68,792,477	0	1,086,715,968
Oregon	585,749,933	725,761,919	663,145,428	55,636,352	0	718,781,780	662,600,919	30,000,000	0	692,600,919
Pennsylvania	2,015,637,000	2,193,274,000	2,165,882,000	64,652,000	0	2,230,534,000	2,038,948,000	96,403,000	0	2,135,351,000
Rhode Island	188,033,394	191,329,662	165,149,649	0	0	165,149,649	162,721,156	16,106,895	0	178,828,051
South Carolina	976,616,957	1,211,068,342	980,754,273	0	0	980,754,273	924,156,917	99,922,339	3,364,440	1,027,443,696
South Dakota	162,783,467	196,133,172	152,130,082	10,262,056	0	162,392,138	151,646,853	11,474,935	0	163,121,788
Tennessee	1,301,578,400	1,598,765,500	1,560,274,800	82,334,800	0	1,642,609,600	1,474,163,400	165,092,900	0	1,639,256,300
Texas	5,110,262,835	6,343,669,747	6,104,326,402	0	0	6,104,326,402	6,542,926,661	0	326,907,500	6,869,834,161
Utah	646,914,100	812,337,500	749,737,500	28,800,000	0	778,537,500	687,315,900	58,466,800	0	745,782,700
Vermont	78,008,810	90,801,444	87,189,483	0	0	87,189,483	91,223,426	0	0	91,223,426
Virginia	1,480,522,000	1,885,553,314	1,899,464,085	0	0	1,899,464,085	1,575,576,980	126,744,967	0	1,702,321,947
Washington	1,411,664,000	1,767,760,000	1,809,447,000	0	0	1,809,447,000	1,576,199,000	81,421,000	0	1,657,620,000
West Virginia	426,408,695	562,253,000	520,693,910	0	0	520,693,910	503,089,382	9,863,806	4,883,915	517,837,103
Wisconsin	1,121,729,480	1,228,373,932	1,276,923,830	0	0	1,276,923,830	1,191,512,368	0	0	1,191,512,368
Wyoming	217,638,250	290,504,588	327,917,291	0	0	327,917,291	305,457,760	8,400,000	0	313,857,760
Totals	65,140,375,830	80,744,607,515	77,939,288,748	2,303,416,998	30,834,000	80,273,539,746	75,182,255,565	3,621,270,555	608,371,907	79,411,898,027 <sup>f</sup>

<sup>a</sup>FY 2010 figures represent initial allocations or estimates as of February 10, 2010 and are subject to change.<sup>b</sup>State monies include state tax appropriations and other state funds allocated to higher education.<sup>c</sup>Includes education stabilization funds used to restore the level of state support for public higher education.<sup>d</sup>Excludes government services funds used for modernization, renovation, or repair.

Source: SSDB



## Grapevine Table 2

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

	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	-8.4%	-26.1%	19.3%	-0.9%	-20.1%	29.1%
Alaska	3.9%	11.1%	41.5%	3.9%	11.1%	41.5%
Arizona	-4.4%	-16.1%	11.8%	-11.2%	-9.7%	20.3%
Arkansas	2.0%	2.9%	38.2%	3.6%	4.4%	40.2%
California	3.4%	-8.6%	19.0%	-6.8%	-6.0%	22.5%
Colorado	-0.4%	-9.1%	13.7%	-0.3%	11.1%	38.9%
Connecticut	-1.3%	-0.2%	31.0%	0.6%	1.6%	33.4%
Delaware	-7.1%	-6.8%	11.4%	-0.5%	-0.3%	19.2%
Florida	-9.7%	-16.5%	3.7%	-3.6%	-10.9%	10.7%
Georgia	-5.3%	0.8%	20.7%	-2.5%	4.5%	25.1%
Hawaii	-6.1%	3.8%	40.4%	-0.9%	9.6%	48.2%
Idaho	-6.6%	-5.2%	10.9%	-2.3%	-0.9%	15.9%
Illinois	1.4%	3.1%	13.2%	4.6%	6.3%	16.7%
Indiana	-0.7%	2.3%	10.4%	1.2%	7.3%	15.7%
Iowa	-21.1%	-17.4%	-2.9%	-9.5%	-5.3%	11.3%
Kansas	-6.5%	-8.7%	3.6%	-2.7%	-3.9%	9.1%
Kentucky	-5.3%	-8.8%	11.8%	0.3%	-3.5%	18.3%
Louisiana	-17.3%	-17.4%	9.5%	-6.2%	-6.3%	24.3%
Maine	-1.6%	-4.4%	9.6%	-3.3%	-1.5%	12.9%
Maryland	1.0%	7.3%	40.8%	1.3%	7.6%	41.1%
Massachusetts	-18.4%	-37.0%	-25.6%	1.1%	-19.9%	-5.4%
Michigan	-10.4%	-9.6%	-5.7%	-7.1%	-6.3%	-2.2%
Minnesota	-7.4%	-9.3%	12.1%	-0.5%	-0.6%	22.9%
Mississippi	2.8%	-3.8%	32.2%	2.8%	-3.8%	32.2%
Missouri	-6.5%	1.4%	12.0%	6.1%	15.1%	27.1%
Montana	-13.7%	-8.9%	17.3%	4.6%	10.4%	42.2%
Nebraska	-4.4%	-5.2%	19.9%	-4.4%	-5.2%	19.9%
Nevada	-19.6%	-19.2%	-0.2%	-4.8%	-4.3%	18.2%
New Hampshire	-0.5%	3.5%	19.4%	2.4%	6.6%	23.0%
New Jersey	1.3%	-1.7%	6.3%	5.0%	1.9%	10.2%
New Mexico	-11.7%	-17.1%	15.1%	-10.2%	-15.6%	17.1%
New York	0.1%	2.7%	34.0%	3.4%	6.2%	38.5%
North Carolina	5.2%	0.3%	38.4%	5.3%	3.9%	43.3%
North Dakota	18.5%	18.5%	49.3%	18.5%	18.5%	49.3%
Ohio	-20.4%	-14.0%	-6.4%	-7.9%	-0.4%	8.4%
Oklahoma	-5.6%	-7.4%	29.3%	0.8%	-1.1%	38.1%
Oregon	-0.1%	-8.7%	13.1%	-3.6%	-4.6%	18.2%
Pennsylvania	-5.9%	-7.0%	1.2%	-4.3%	-2.6%	5.9%
Rhode Island	-1.5%	-15.0%	-13.5%	8.3%	-6.5%	-4.9%
South Carolina	-5.8%	-23.7%	-5.4%	4.8%	-15.2%	5.2%
South Dakota	-0.3%	-22.7%	-6.8%	0.4%	-16.8%	0.2%
Tennessee	-5.5%	-7.8%	13.3%	-0.2%	2.5%	25.9%
Texas	7.2%	3.1%	28.0%	12.5%	8.3%	34.4%
Utah	-8.3%	-15.4%	6.2%	-4.2%	-8.2%	15.3%
Vermont	4.6%	0.5%	16.9%	4.6%	0.5%	16.9%
Virginia	-17.1%	-16.4%	6.4%	-10.4%	-9.7%	15.0%
Washington	-12.9%	-10.8%	11.7%	-8.4%	-6.2%	17.4%
West Virginia	-3.4%	-10.5%	18.0%	-0.5%	-7.9%	21.4%
Wisconsin	-6.7%	-3.0%	6.2%	-6.7%	-3.0%	6.2%
Wyoming	-6.8%	5.1%	40.4%	-4.3%	8.0%	44.2%
<b>Totals</b>	<b>-3.5%</b>	<b>-6.9%</b>	<b>15.4%</b>	<b>-1.1%</b>	<b>-1.7%</b>	<b>21.9%</b>

Source: SSDB



# 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 45 percent between 1994 and 2009, the cost of medical care grew by 85 percent<sup>1</sup>, and enrollment-weighted tuition and fees for four-year public universities grew by 175 percent<sup>2</sup>. U.S. income per capita grew by 85 percent<sup>3</sup> 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.

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<sup>1</sup> "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](http://www.gpoaccess.gov/eop/2007/B60.xls)).

<sup>2</sup> Source: Washington Higher Education Coordinating Board

<sup>3</sup> 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.<sup>4</sup> The GDP IPD reflects general price inflation in the U.S. economy.<sup>5</sup> The HECA has the following advantages:

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

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

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<sup>4</sup> 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.

<sup>5</sup> Gross Domestic Product (GDP) is the total market value of all final goods and services produced in the country in a given year. It is equal to total consumer, investment, and government spending, plus the value of exports, minus the value of imports. The GDP Implicit Price Deflator is current dollar GDP divided by constant dollar GDP. This ratio is used to account for the effects of inflation by reflecting the change in the prices of the bundle of goods that make up the GDP as well as changes to the bundle itself.

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

## Summary of the Indices

Between 1994 and 2009:

- Consumer prices grew by 45 percent;
- Provider prices for higher education grew 58 percent (as estimated by HECA); and
- Provider prices for higher education grew 71 percent (as estimated by HEPI);

**Technical Paper Table 1**  
**CPI-U, HEPI, and HECA Indexed to Fiscal Year 2009**

Fiscal Year	CPI-U <sup>1</sup>	HECA <sup>2</sup>	HEPI <sup>3</sup>
1994	69.08	63.42	58.47
1995	71.04	65.17	60.19
1996	73.13	66.88	61.94
1997	74.81	68.71	63.87
1998	75.98	70.83	66.13
1999	77.66	72.82	67.70
2000	80.27	75.66	70.50
2001	82.55	79.02	74.72
2002	83.85	81.48	76.15
2003	85.77	84.02	80.02
2004	88.05	86.93	82.96
2005	91.03	89.93	86.22
2006	93.97	92.63	90.62
2007	96.65	95.77	93.20
2008	100.36	98.55	97.82
2009	100.00	100.00	100.00
<b>% Change</b>			
<b>1994-2009</b>	<b>45%</b>	<b>58%</b>	<b>71%</b>

**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. Personal income data are calendar 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).<sup>1</sup> 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 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).

<sup>1</sup> 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>)

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 (EMI) and Cost of Living Adjustments (COLA) by State

	EMI <sup>1</sup>	COLA <sup>2</sup>	EMI & COLA Combined
<b>State</b>			
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
<b>U.S.</b>	<b>1.000</b>	<b>1.000</b>	<b>1.000</b>

**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

#### Impact of Enrollment Mix and Cost of Living Adjustments on Interstate Comparison of Total Educational Funding per FTE, Fiscal 2009

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	11,616	106%	11,954	109%	12,880	117%	13,255	121%
Alaska	20,523	187%	21,093	192%	16,849	153%	17,317	157%
Arizona	12,376	113%	11,341	103%	12,831	117%	11,759	107%
Arkansas	9,793	89%	10,674	97%	11,040	100%	12,033	109%
California	8,602	78%	9,183	83%	7,894	72%	8,426	77%
Colorado	10,772	98%	9,459	86%	10,283	93%	9,029	82%
Connecticut	17,295	157%	16,794	153%	14,391	131%	13,974	127%
Delaware	18,715	170%	14,902	135%	18,844	171%	15,004	136%
Florida	8,568	78%	8,172	74%	9,302	85%	8,872	81%
Georgia	10,203	93%	10,113	92%	10,917	99%	10,821	98%
Hawaii	18,350	167%	16,003	146%	13,553	123%	11,819	107%
Idaho	11,033	100%	11,342	103%	11,534	105%	11,857	108%
Illinois	11,530	105%	11,869	108%	10,975	100%	11,297	103%
Indiana	11,562	105%	10,116	92%	11,546	105%	10,102	92%
Iowa	12,768	116%	11,485	104%	12,836	117%	11,546	105%
Kansas	10,654	97%	9,664	88%	10,669	97%	9,677	88%
Kentucky	11,803	107%	11,929	108%	13,045	119%	13,184	120%
Louisiana	9,966	91%	9,567	87%	11,058	101%	10,616	97%
Maine	14,519	132%	15,544	141%	13,312	121%	14,252	130%
Maryland	14,514	132%	14,620	133%	14,534	132%	14,640	133%
Massachusetts	12,191	111%	12,318	112%	10,009	91%	10,113	92%
Michigan	14,380	131%	13,416	122%	13,998	127%	13,059	119%
Minnesota	11,866	108%	11,818	107%	11,288	103%	11,243	102%
Mississippi	9,286	84%	10,057	91%	10,521	96%	11,394	104%
Missouri	10,617	97%	10,245	93%	10,645	97%	10,272	93%
Montana	10,086	92%	8,418	77%	10,605	96%	8,852	80%
Nebraska	11,541	105%	10,989	100%	11,412	104%	10,866	99%
Nevada	10,865	99%	11,450	104%	10,713	97%	11,290	103%
New Hampshire	12,035	109%	12,383	113%	10,447	95%	10,750	98%
New Jersey	14,824	135%	17,539	159%	12,421	113%	14,696	134%
New Mexico	10,159	92%	9,725	88%	10,640	97%	10,185	93%
New York	12,776	116%	13,519	123%	11,147	101%	11,795	107%
North Carolina	10,498	95%	10,440	95%	11,301	103%	11,239	102%
North Dakota	11,820	107%	11,835	108%	11,797	107%	11,812	107%
Ohio	10,867	99%	10,225	93%	10,770	98%	10,133	92%
Oklahoma	11,076	101%	11,929	108%	12,495	114%	13,457	122%
Oregon	9,734	89%	9,640	88%	9,540	87%	9,447	86%
Pennsylvania	14,124	128%	14,607	133%	13,227	120%	13,679	124%
Rhode Island	14,781	134%	15,583	142%	12,864	117%	13,562	123%
South Carolina	9,871	90%	9,885	90%	10,785	98%	10,801	98%
South Dakota	8,654	79%	8,719	79%	8,595	78%	8,660	79%
Tennessee	10,888	99%	10,738	98%	11,920	108%	11,756	107%
Texas	10,562	96%	10,921	99%	11,922	108%	12,327	112%
Utah	9,962	91%	9,418	86%	9,888	90%	9,348	85%
Vermont	15,990	145%	16,069	146%	14,255	130%	14,326	130%
Virginia	11,284	103%	10,929	99%	11,724	107%	11,355	103%
Washington	9,168	83%	9,152	83%	8,771	80%	8,757	80%
West Virginia	9,576	87%	10,732	98%	10,735	98%	12,032	109%
Wisconsin	10,836	99%	10,716	97%	10,514	96%	10,397	95%
Wyoming	15,548	141%	16,873	153%	16,089	146%	17,460	159%
U.S.	\$10,998	100%	\$10,998	100%	\$10,998	100%	\$10,998	100%

Source: SSDB



## 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 getting a clear picture of state trends in financing higher education.

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. 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 most 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 – 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](http://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.**<sup>1</sup> 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

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<sup>1</sup> 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.

- Allocation of appropriations for financial aid grants to students attending out-of-state institutions. Source: SSDB.

**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 B – DATA COLLECTION FORM

State Support for Higher Education Database Collection, 2010 Collection Year											
	Data Element Number	Description	Please review and revise Data Element #1 and enter data in remaining non-shaded cells  Please fill in data for the Special Section, Section 1, and Section 2 by September 25, 2009				Please enter numbers in all non-shaded cells  Please fill in data for the Special Section, Section 1, and Section 2 by September 25, 2009				
			2009				2010				Items Included
			2-year sector	4-year sector	Other	Total	2-year sector	4-year sector	Other	Total	
<b>Special Section: American Reinvestment and Recovery Act of 2009 (ARRA) Funds</b>  Please do NOT include these sums in you Section 1, 2, 3, or 4 data		<b>Education Stabilization Funds</b> used to restore the level of state support for public higher education									
		<b>Government Services Funds</b> used for public higher education excluding modernization, renovation, or repair.									
		<b>Government Service Funds</b> used for modernization, renovation, or repair of higher education institutions (public and private).									
Section 1:  State Tax Support for Higher Education	1	<b>Appropriations from state government taxes to institutions for operations and other higher education activities.</b> See instructions for what should and should not be included in this figure.									
Section 2:  <b>Additional State Support for Higher Education</b>  <i>Note: None of these funds should be included in your Section 1 figure. If they are, please delete them from that number and include them in the appropriate row in this section</i>	2	<b>Funding under state auspices for appropriated non-tax state support set aside by the state for higher education.</b> These may include, but are not limited to, monies from lotteries (including lottery scholarships), tobacco settlement, or casinos, or other gaming. These funds should not be included in Data Element #1.									
	3	<b>Funding under state auspices for non-appropriated state support.</b> These may include, but are not limited to, monies from receipt of lease income, cattle-grazing rights fees, and oil/mineral extraction fees on land set aside by the state for higher education. These funds should not be included in Data Element #1.									
	4	<b>Non-tax sums destined for higher education but appropriated to some other state agency.</b> These may include any non-tax sums that are appropriated for higher education, but to some other state agency. Please note that these sums should be derived from non-tax sources and are not the same as those reported in Data Element #1.									
	5	<b>Interest or earning received from state funded endowments set aside and pledged to public sector institutions.</b> These funds should not be included in Data Element #1.									
	6	<b>Portions of multi-year appropriations from previous years.</b> These funds should not be included in Data Element #1.									
	7	<b>Any other state funds not included above.</b> Please explain in the comments box). These funds should not be included in Data Element #1.									
	<b>State Support for All Higher Education (Sum of State Tax Support for Higher Education and Additional State Support for Higher Education (Data Elements 1-7))</b>										
Section 3:  <b>Adjustments to State Support for Higher Education</b>  <i>Note: Each of the following data elements should be included in your State Support for Higher Education figure. Please make sure they are included in Data Elements 1-7. If none of Data Elements 1-6 is an appropriate definition, please include in Data Element 7 with an explanation.</i>	8	<b>Appropriations you expect will have to be returned to the state.</b> Please make sure these funds are included somewhere in Data Elements 1-6.									
	9	<b>Portions of multi-year appropriations in the current year which are to be spread over other years.</b> Please make sure these funds are included somewhere in Data Elements 1-6.									
	10	<b>State funding for students in non-credit continuing or adult education courses and non-credit extension courses which are not part of a regular program leading to a degree or certificate.</b> Please make sure these funds are included somewhere in Data Elements 1-6.									
	11	<b>Sums to independent institutions for operating expenses.</b> Please make sure these funds are included somewhere in Data Elements 1-6.									
	12	<b>Allocation of appropriations for student financial aid grants awarded to students attending state independent institutions.</b> Include dollars intended solely for students attending independent institutions and the independent sector's portion of state aid programs. Estimate if needed. Please make sure these funds are included somewhere in Data Elements 1-6.									
	13	<b>Allocation of appropriations for student financial aid grants awarded to students attending out-of-state institutions</b> (estimate if needed). Please make sure these funds are included somewhere in Data Elements 1-6.									
<b>State Support for Public Higher Education (State Support for All Higher Education minus Data Elements 8-13)</b>											

Section 4: Additional Funding Sources (For Information Purposes)  <i>Note: These funds should not be included in Sections 1, 2, or 3.</i>	14	State appropriated funds derived from federal sources. <b>Please do NOT include funds derived from ARRA.</b>						
	15	Tuition charges collected by the institutions and remitted to the state as an offset to the state appropriations.						
	16	Sums to independent institutions for capital outlay (new construction and debt service/retirement).						
Section 5: Local Appropriations for Public Higher Education	17	<b>Local Appropriations:</b> From local government taxes to institutions for operating expenses.						
Section 6: Research, Agricultural, and Medical Appropriations	18	Appropriated sums for research centers, laboratories, and institutes, and appropriated sums separately budgeted by institutions for organized research. Generally, these are ongoing programs. Include all health and science research.						
	19	Appropriated sums for agricultural experiment stations and cooperative extension services.						
	20	Appropriated sums for teaching or affiliated hospital operations and public service patient care. Include all medical, dental, veterinary, optometry, pharmacy, mental health, nursing, and other health science institutes, clinics, laboratories, dispensaries, etc. primarily serving the public.						
	21	Appropriated sums for the direct operation and administrative support of the four major types of medical schools (medicine, dentistry, veterinary medicine, and osteopathic medicine) and centers corresponding to the medical enrollments.						
Research-Ag-Med Total (public)								
Section 7: Public Institution Tuition Revenue	22	Gross Tuition plus Mandatory "Education and General" Fees * (public institutions).						
	23	Tuition and Fees waived or discounted by public institutions. If you enter "0," please provide additional information in the comments box explaining why it is "0" for your state. (Will be subtracted.)						
	24	State appropriated student aid for tuition and mandatory fees for public institutions. (Will be subtracted.)						
	25	Tuition and Mandatory Fees paid by public medical students. (Will be subtracted.)						
	26	Public institution tuition and fees used for capital debt service/retirement and capital improvement other than that paid by user students for auxiliary enterprise debt service. Will NOT be subtracted here.						
Public Tuition Revenue Net of Discounts and Waivers, Student Aid, and Medical Tuition								
Section 8: Annual FTE Enrollment at Public Institutions	27	FTE calculated from course work creditable toward an associate, bachelor, or higher degree (including all health science and medical school enrollments) plus from course work in a vocational or technical program that is normally terminal and results in a certificate or some other formal recognition.						
	28	Enrollment in schools of medicine, dentistry, veterinary medicine, and osteopathic medicine. This will be subtracted.						
Public FTE Net of Medical Enrollment								

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