State Higher Education Finance

FY 2008

SHEEO

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

An electronic version of this report, State Higher Education Finance FY 2008, and numerous supplementary tables containing extensive state-level data are available at www.sheeo.org. These may be freely used with appropriate attribution and citation. In addition, core data and derived variables used in the SHEF study for fiscal years 1991 through 2008 are available on the SHEEO website and also through the NCHEMS-sponsored Information Center for State Higher Education Policymaking and Analysis website at www.higheredinfo.org.

State Higher Education Finance

FY 2008

CollegeBoard
connect to college success®

SHEEO

Preface and Acknowledgements

We are pleased to present the sixth 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. Their work helps make this project possible and gives it important reference points for cross-validation.

Paul E. Lingenfelter
President
State Higher Education Executive Officers

Table of Contents

List of tables and Figures

Figures:

Tables:

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?

- 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. What the SHEF report does provide, however, is information to help inform decisions in these areas. Toward that end, this report includes:

- An **Overview and Highlights** of national trends and the current status of state funding for higher education;

- An explanation of the **Analytical Tools and Measures** used in the report;

- An analysis of **National Trends in Higher Education Revenue and Enrollment**, in particular, changes over time in the public resources available for general operating support;

- A description of the **Sources and Uses of State-Level Funding** 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;

- **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. All the leading indicators, however, indicate that fiscal year 2008 is the last year of a short recovery. As a result, it is important to consider the upward trends in this report within the current economic context in the United States. The current recession will most certainly impact state financing of higher education in the year ahead.

Please note: All 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 2008 includes July 2007 through June 2008. 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 1982, state and local governments combined provided $23.5 billion in direct support for general operating expenses of public and independent higher education institutions. This investment increased to $42.1 billion in 1991, $67.8 billion in 2001, and $89.1 billion by 2008.

The $89.1 billion in current support represents about a $5 billion (5.8 percent) increase from the prior year. In addition to state and local revenue, public institutions collected net tuition revenue of $41.9 billion in 2008, for a total of $131 billion available to support the general operating expenses of higher education from these combined sources (see *Figures 1 and 2* for a summary).

The share of total revenue for general operating expenses for higher education originating from net tuition revenue showed a slight increase from 31.8 percent in 2007 to 32.0 percent in 2008. Tuition revenue collected by independent (private, not-for-profit) and for-profit institutions are not included in this total.

Of the $89.1 billion in state and local support during 2008, 79 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 13 percent of the total. The percent of total support allocated for financial aid to students attending public institutions increased slightly from 5.7 percent in 2007 to 5.8 percent in 2008, while aid to students attending independent institutions decreased slightly from 2.7 percent in 2007 to 2.6 percent of the total in 2008.

Analysis of the data indicates that constant dollar per student state and local funding for public colleges and universities held steady between 2007 and 2008. State and local support per full-time-equivalent student was $7,059 in 2008, a $41 constant dollar increase over 2007 and substantially higher than the 25-year constant dollar low of $6,445 in 2005.

Highlights of the SHEF report provided below are intended to illustrate the long-term patterns, shorter-term changes, and state-level variables affecting the resources available to support higher education between 1983 and 2008 These and other factors that shape higher education funding are examined in more detail in the sections of the full report that follow.

Long-Term Revenue and Enrollment Patterns

1. Since 1983, FTE enrollment at public institutions of higher education has increased from 7.5 million to 10.5 million.

2. Educational appropriations per FTE (defined to include state and local support for general higher education operations) fell to $6,445 in 2005 (2008 dollars), a 25-year low in inflation-adjusted terms. Educational appropriations in FTE grew to $7,018 by 2007 and $7,059 in 2008, 9.2 percent higher than 2005 in constant dollars. Annual educational appropriations from 1983 through 2008 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. In 2008, tuition revenue grew more than state support and FTE enrollment.

4. Despite increased state and local support, constant dollar net tuition per FTE increased by 1.7 percent between 2007 and 2008, which is about the same rate of growth between 2006 and 2007.

5. Constant dollar total educational revenue (state/local support plus net tuition excluding tuition revenue used for capital debt service) per FTE declined in the early 1990s from $10,144 in 1990 to $9,717 in 1993. Thereafter, total educational revenue per FTE grew steadily from 1994 to 1999, reaching $11,079, or about 9.0 percent higher than it was in 1990. Total revenue per FTE then fell sharply (10.7 percent) from 2001 to 2004 (to $10,002) and rebounded to $11,026 by 2008.

6. Over the last 25 years, the share of total educational revenue derived from tuition increased over 10 percentage points from approximately 24 percent to a high of 36.6 percent in 2006. In 2008, it was at about 36.3 percent.

Figure 1

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

Net Tuition Revenues:
$39.2 Billion — 31.8%

All State Sources:
$77.0 Billion — 62.3%

Local Taxes:
$7.3 Billion — 5.9%

FY 2007: $123.5 Billion

Source: SHEEO State Higher Education Finance (SHEF)

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

Net Tuition Revenue:
$41.9 Billion

32.0%

All State Sources:
$81.1 Billion

61.9%

Local Taxes:
$8.0 Billion

6.1%

FY 2008: $131 Billion
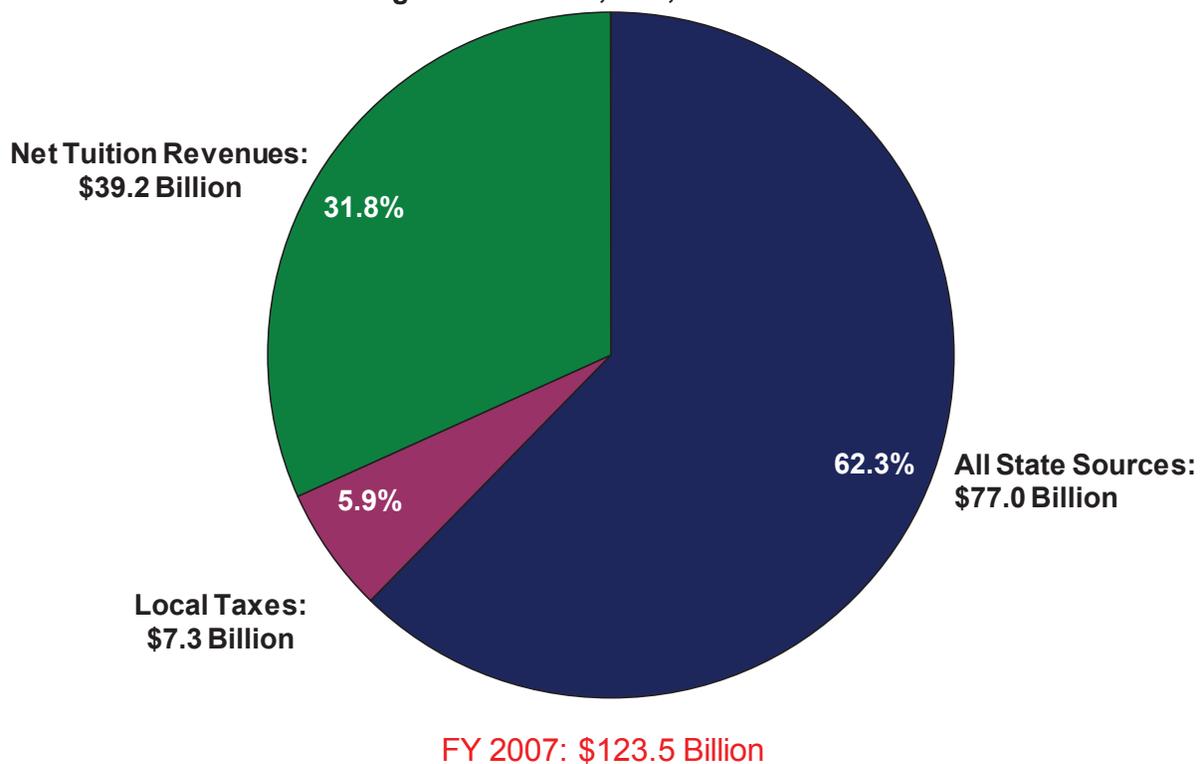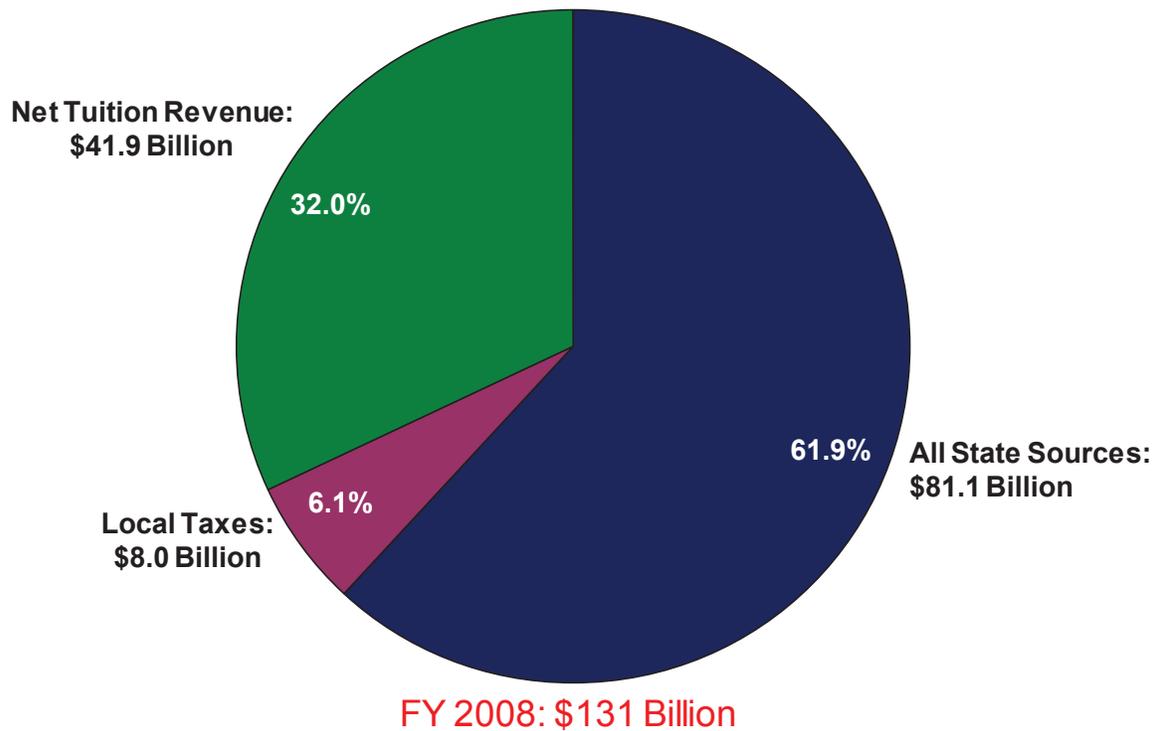
Source: SHEEO State Higher Education Finance (SHEF)

Changes Over the Past Five Years in the States

Total public higher education enrollment and participation rates have increased substantially in recent years. Following sharp increases nationally from 2002 through 2005, FTE enrollment at public institutions of higher education slowed somewhat, but there are no signs of a decline in the demand for higher education. 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 7.5 percent in the past five years. Every state except Louisiana, Utah, and Oregon has seen increases in FTE enrollment.

8. Per FTE total educational appropriations increased in more than half of the states between 2003 and 2008. Across all 50 states, the change in educational appropriations per FTE varied from -22.7 percent to +37.0 percent.

9. Total educational revenue per FTE (which excludes net tuition revenue used for capital debt service) increased 7.2 percent on average between 2003 and 2008. Most states experienced growth in this measure, led by Hawaii with 32.1 percent growth in total educational revenue per FTE.

10. Nine states (Delaware, Iowa, Maine, Michigan, Minnesota, Pennsylvania, Rhode Island, South Carolina, and Vermont) had above average total educational revenue despite below average educational appropriations, the result of above average net tuition. The reverse was true in Arkansas, California, Idaho, Illinois, Louisiana, Nevada, 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 1996 to 2006, 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 $47,236 to $50,277 in current dollars between 2005 and 2006, a one-year increase of $3,041, or 6.4 percent. Per capita state and local tax revenue increased $287, or 7.7 percent over the same period. The effective tax rate increased slightly—from 7.86 percent to 7.95 percent.

12. Over a ten-year period, total taxable resources per capita increased 57.2 percent, while the effective tax rate declined 0.4 percent. On average, the nation's taxpayers have become wealthier and they are paying a smaller share of their wealth in state and local taxes.

13. The proportion of state and local tax revenue allocated to higher education declined from 6.8 percent in 1996 to 6.5 percent in 2006.

Looking Ahead

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. The pattern of recovery following recession began for a third time in 2006 and continued through 2008, but constant dollar per student state support has not yet returned to the levels reached in 1999 through 2001.

As shown in the comparative state statistics, conditions in individual states can 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 study should be helpful to policy leaders in every state as they determine their goals for higher education and develop a strategy for pursuing them.

What will happen in future years given the current economic condition in the United States? Only time will tell when real recovery from the current recession will occur and what that eventual recovery will mean for the economy and higher education. State higher education appropriations grew by only 1 percent nationally in FY 2009, as reported to Grapevine for FY 2009 (www.grapevine.ilstu.edu). Fifteen of 23 states (65 percent) responding to a recent survey have reported mid-year budget reductions below appropriations reported in the Grapevine report, with some reductions as high as 9 percent. When all mid-year reductions are known, FY 2009 appropriations are likely to be lower than FY 2008 appropriations.

Enrollment demand continues. Enrollments grew by 2.2 percent in FY 2008, and 87 percent of 23 states responding to a recent survey have indicated continued growth in FY 2009, ranging from 1.2 percent to 6.5 percent.

While the process of developing FY 2010 budgets is just beginning, the recession that began in the last half of the 2008 calendar year is clearly affecting budgets for the next fiscal year. Early indications are that state budgets for higher education will be stable at best, with many states projecting significant budget decreases.

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).

- **Educational Appropriations** – that part of state and local support available for public higher education operating expenses, defined to exclude spending for research, agriculture, 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.[1]

- **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.

---

[1] 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 Notes 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 on 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 and risk of error. The truth is that 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 think that interstate financial analysis should specify 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[2]. 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 rather than across-the-board cuts, using both incentives 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 clearly essential for addressing such questions.

---

[2] 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 1983, state and local governments invested $24.4 billion (in current dollars) in direct support for the operations of public and independent higher education institutions. By 2008, state and local support for higher education reached $89.2 billion, including an increase of 5.8 percent during the past year alone (Table 1).

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 1982 and providing greater detail on the most recent five years (2003-2008). It also provides an overview of the major uses of that support, including state support for (1) research, agriculture extension, and medical education; (2) student financial aid; and (3) independent (private, not-for-profit) institutions.[3]

As shown in *Table 1*, sources for the $89.2 billion state and local government support for higher education in 2008 included the following:

- State sources accounted for 91 percent, with 88 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 $1.3 billion in 2003 to $2.1 billion in 2008.

- Local appropriations accounted for 9.0 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 0.2 percent. Wyoming reported the greatest reliance on these sources, at 16.3 percent of state and local revenue.

Major uses of the $89.2 billion in 2008 state and local government funding for higher education included:

- $70 billion (79 percent) for general operating expenses of public higher education institutions.

- $11.2 billion (13 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 8.4 percent of the funds used.

- The remaining 0.3 percent was for direct support of independent institutions in the 16 states with such state-funded programs.

These proportional allocations and uses of state and local support for higher education have not changed significantly since 2003.

---

[3] *Supplemental SHEF Tables*, which are available at www.sheeo.org, provide more detailed data and tables on state-by-state sources and uses of higher education funding for 2008. As noted, revenue sources vary considerably across states and from the national averages.

Table 1

**Major Sources and Uses of State and Local Government Support,
Fiscal 2003-2008 (current dollars in millions)**

Source	2003	2004	2005	2006	2007	2008
State Support						
Tax Appropriations (1)	62,714	61,639	63,665	68,494	74,077	78,324
Appropriated Non-Tax Support	1,256	1,407	1,731	1,886	2,229	2,137
Non-Appropriated Support	129	137	170	181	155	170
State Funded Endowment Earnings	260	276	292	303	316	340
Other	69	93	114	128	185	167
State Total	**64,427**	**63,552**	**65,972**	**70,992**	**76,961**	**81,138**
Local Tax Appropriations	**6,374**	**6,675**	**6,656**	**6,969**	**7,313**	**8,043**
Total	**$ 70,801**	**$ 70,227**	**$ 72,628**	**$ 77,961**	**$ 84,274**	**$ 89,181**
Uses						
Research-Agric-Medical	9,462	9,324	9,456	9,670	10,406	11,234
Public Student Aid (2)	3,252	3,631	4,029	4,471	4,827	5,186
Out-of-State Student Aid	31	33	35	36	38	35
Independent Student Aid (3)	1,925	1,969	2,026	2,105	2,260	2,308
Independent Institutions	266	267	259	264	287	295
General Public Operations (4)	55,864	55,003	56,823	61,415	66,456	70,124
Total	**$ 70,801**	**$ 70,227**	**$ 72,628**	**$ 77,961**	**$ 84,274**	**$ 89,181**

(Percentages)

Source	2003	2004	2005	2006	2007	2008
State Support						
Tax Appropriations (1)	89%	88%	88%	88%	88%	87.8%
Appropriated Non-Tax Support	2%	2%	2%	2%	3%	2%
Non-Appropriated Support	0%	0%	0%	0%	0%	0%
State Funded Endowment Earnings	0%	0%	0%	0%	0%	0%
State Total	**91%**	**90%**	**91%**	**91%**	**91%**	**91%**
Local Tax Appropriations	**9%**	**10%**	**9%**	**9%**	**9%**	**9.0%**
Total	99.9%	99.9%	99.8%	99.8%	99.8%	99.8%
Uses	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Research-Agric-Medical	13%	13%	13%	12%	12%	13%
Public Student Aid (2)	5%	5%	6%	6%	6%	6%
Out-of-State Student Aid	0%	0%	0%	0%	0%	0%
Independent Student Aid (3)	3%	3%	3%	3%	3%	3%
Independent Institutions	0%	0%	0%	0%	0%	0%
General Public Operations (4)	79%	78%	78%	79%	79%	79%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Notes:

1) "State Tax Appropriations" include administered funds and prior multi-year appropriations.

2) "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.

3) "Independent Student Aid" is state appropriated student financial aid for students attending inpendent institutions in the state. Includes the independent sector's portion of state aid program(s).

4) "General Public Operations" may include sums for non-credit and continuing education, appropriations that might have to be returned to the state, and portions of multi-year appropriations to be spread over other years.

Source: SHEEO SHEF

National Trends in Enrollment and Revenue

This section highlights national trends in higher education enrollments 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 Appendix A (on the website www.sheeo.org) provide detailed information on the varied patterns across states.

The historical data in *Figure 3* demonstrate the relationship 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 ($6,445 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. Public funding per FTE rebounded in 2006 to $6,759 per FTE as a result of increased appropriations and slower enrollment growth, and grew to $7,059 per FTE in 2008, a 4.4 percent increase since 2006 although less than a 1 percent increase over 2007 (all in constant dollars).

Figure 3 illustrates the following:

Full-Time-Equivalent Enrollment (FTE)

- Nationally, the long-term enrollment trend for public institutions indicates continued growth.

- 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 2008, FTE enrollment increased 2.2 percent over 2007.

- The rate of growth varies from year to year 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 $7,814 in 2000.

- Following four years of decline (2002, 2003, 2004, and 2005), per student educational appropriations increased in 2006, 2007, and 2008, recovering to $7,059.

- Despite two years of growth, appropriations per FTE remained lower in 2008 (in constant dollars) than in most years since 1980.

Net Tuition Revenue

- The rate of increase in net tuition was slower in 2007 and 2008 than in the previous three years, but net tuition has not declined significantly as a percentage of total educational revenue.

- The rate of growth in net tuition revenue was particularly steep during periods when state and local support fell 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 1983-2008
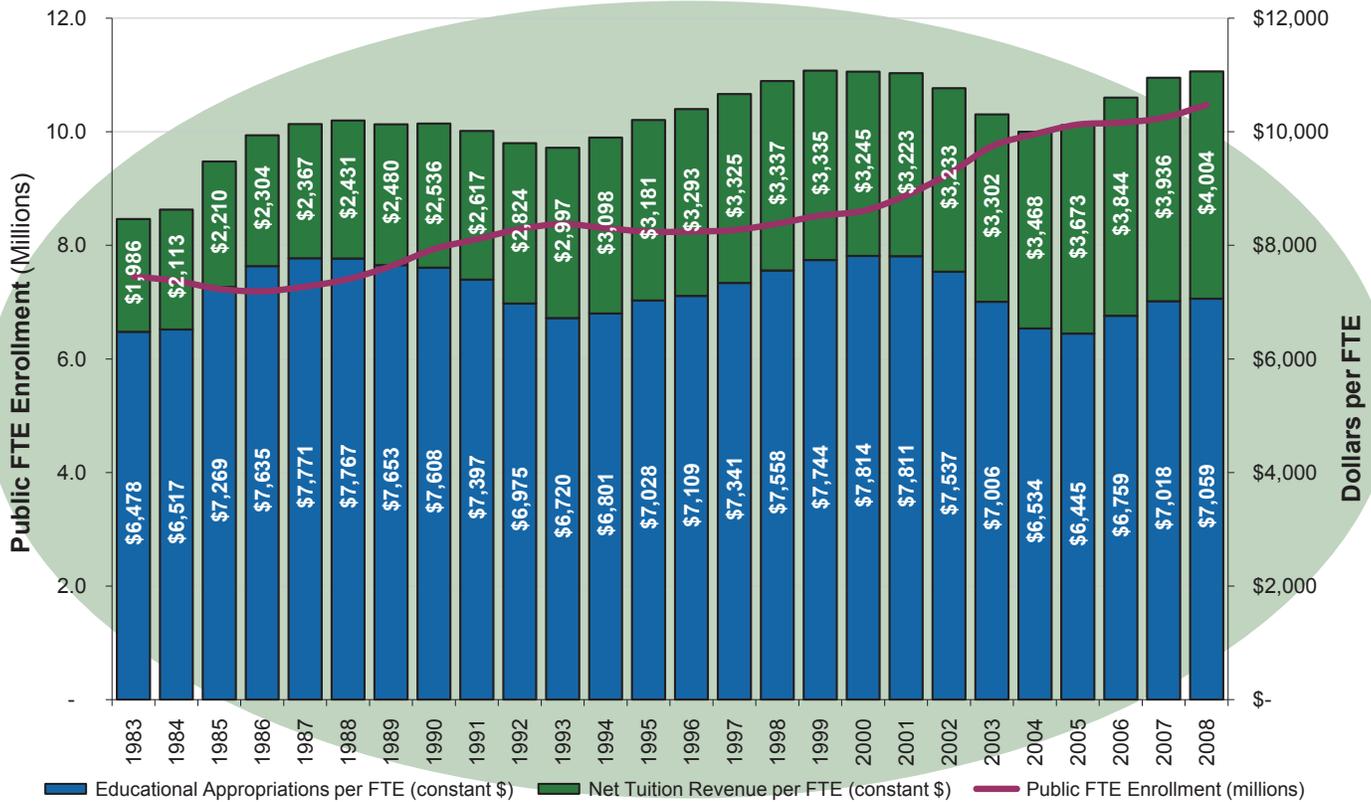
Note: Net tuition revenue used for captial debt service are included in the above figures.
  Constant 2008 dollars adjusted by SHEEO Higher Education Cost Adjustment (HECA).

Source: SHEEO SHEF

Net Tuition Revenue at Public Institutions – Further Discussion

Among the many policy-relevant financial issues facing policymakers, the increased reliance on tuition revenue to support the services provided by higher education stands out as needing better data and analysis. The SHEF data collection instrument requests that states calculate and report annual estimates for gross tuition and fee revenue based on tuition rates and credit-hour enrollment. Across all states, these gross tuition and fee assessments in public postsecondary institutions totaled $53.1 billion in 2008. 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 $41.9 billion, 79.0 percent of gross assessments.

The resulting net tuition revenue for selected years between 1983 and 2008 is reported in *Table 2* in current dollars and in *Table 3* in constant dollar values.[4] 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 cost are borne by students, but are not available to support general operating and educational costs.

As shown in *Figure 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 over 20 percent of total educational revenue in 1980, increasing to 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 education revenue climbed to its current level of more than 36 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 are 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.

---

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

Table 2

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

(Current Dollars)	1983 (1)	1998 (1)	2003	2007	2008	1 Year Change
[A] State and Local Support for Public Higher Education	$ 24,403	$ 53,903	$ 67,720	$ 80,301	$ 85,175	6.1%
State	$ 22,846	$ 49,369	$ 61,347	$ 72,987	$ 77,131	*5.7%*
Local	$ 1,557	$ 4,533	$ 6,374	$ 7,313	$ 8,043	*10.0%*
[B] Research - Agriculture - Medical (RAM)	$ 4,274	$ 8,358	$ 9,462	$ 10,406	$ 11,234	8.0%
[C] Educational appropriations [A-B]	$ 20,129	$ 45,544	$ 58,258	$ 69,895	$ 73,941	5.8%
[D] Net Tuition	$ 6,172	$ 20,110	$ 27,452	$ 39,205	$ 41,941	7.0%
[E] Tuition and Fees Used for Debt Service	$ -	$ -	$ 217	$ 326	$ 381	16.9%
Total Educational Revenue [C+D-E]	$ 26,302	$ 65,655	$ 85,494	$ 108,774	$ 115,501	6.2%
Net Tuition as a % of Total Educational Revenue	23.5%	30.6%	32.1%	36.0%	36.3%	0.3%
Full-Time Equivalent Enrollment (FTE) [1]	7,456,322	8,383,736	9,745,412	10,248,958	10,475,066	2.2%
Educational Appropriations Per FTE	$ 2,700	$ 5,432	$ 5,978	$ 6,820	$ 7,059	3.5%
Net Tuition Per FTE	$ 828	$ 2,399	$ 2,817	$ 3,825	$ 4,004	4.7%
Total Educational Revenue Per FTE	$ 3,527	$ 7,831	$ 8,773	$ 10,613	$ 11,026	3.9%
State support for independent and out of state institutions [2]		$ 116.90	$ 2,190.64	$ 2,547.44	$ 2,602.14	2.1%
Operating Grants	$ -	$ 20.85	$ 265.54	$ 287.41	$ 294.52	2.5%
Aid to Students Attending Independent Institutions	$ -	$ 96.05	$ 1,925.10	$ 2,260.03	$ 2,307.61	2.1%
Aid to Students Attending Out of State Institutions	$ -	$ -	$ 31.38	$ 38.31	$ 34.80	-9.2%

Notes:

1) FTE enrollment excludes medical school enrollments.

2) Data for aid to independent institutions and students attending private institutions not reported in 1983 and may be incomplete in 1998.

Source: *SHEEO SHEF*

Table 3

Higher Education Finance Indicators (Constant 2008 Dollars in Millions)

| (Constant Dollars)	1983 (1)	1998 (1)	2003	2007	2008	1 Year Change	5 Year Change	10 Year Change	25 Year Change
[A] State and Local Support for Public Higher Education	$ 58,549	$ 74,990	$ 79,372	$ 82,631	$ 85,175	3.1%	7.3%	13.6%	45.5%
State	$ 54,813	$ 68,683	$ 71,902	$ 75,105	$ 77,131	2.7%	7.3%	12.3%	40.7%
Local	$ 3,736	$ 6,307	$ 7,470	$ 7,526	$ 8,043	6.9%	7.7%	27.5%	115.3%
[B] Research - Agriculture - Medical (RAM)	$ 10,254	$ 11,628	$ 11,090	$ 10,708	$ 11,234	4.9%	1.3%	-3.4%	9.6%
[C] Educational appropriations [A-B]	$ 48,295	$ 63,362	$ 68,282	$ 71,923	$ 73,941	2.8%	8.3%	16.7%	53.1%
[D] Net Tuition	$ 14,809	$ 27,977	$ 32,176	$ 40,342	$ 41,941	4.0%	30.3%	49.9%	183.2%
[E] Tuition and Fees Used for Debt Service	$ -	$ -	$ 254	$ 335	$ 381	13.6%	49.9%		
Total Educational Revenue [C+D-E]	$ 63,104	$ 91,339	$ 100,204	$ 111,930	$ 115,501	3.2%	15.3%	26.5%	83.0%
Net Tuition as a % of Total Educational Revenue	23.5%	30.6%	32.1%	36.0%	36.3%	0.3%	4.2%	5.7%	54.7%
Full-Time Equivalent Enrollment (FTE) (1)	7,456,322	8,383,736	9,745,412	10,248,958	10,475,066	2.2%	7.5%	24.9%	40.5%
Educational Appropriations Per FTE	$ 6,477	$ 7,558	$ 7,007	$ 7,018	$ 7,059	0.6%	0.7%	-6.6%	9.0%
Net Tuition Per FTE	$ 1,986	$ 3,337	$ 3,302	$ 3,936	$ 4,004	1.7%	21.3%	20.0%	101.6%
Total Educational Revenue Per FTE	$ 8,463	$ 10,895	$ 10,282	$ 10,921	$ 11,026	1.0%	7.2%	1.2%	30.3%
State support for independent and out of state institutions (2)		$ 162.63	$ 2,567.56	$ 2,621.37	$ 2,602.14	-0.7%	1.3%		
Operating Grants		$ 133.63	$ 2,256.33	$ 2,325.62	$ 2,307.61	-0.8%	2.3%		
Aid to Students Attending Independent Institutions		$ 29.00	$ 311.23	$ 295.75	$ 294.52	-0.4%	-5.4%		
Aid to Students Attending Out of State Institutions		$ -	$ 36.78	$ 39.42	$ 34.80	-11.7%	-5.4%		

Notes:

1) FTE enrollment excludes medical school enrollments.

2) Data for aid to independent institutions and students attending private institutions not reported in 1983 and may be incomplete in 1998.

Figure 4

**Net Tuition as a Percent of Public Higher Education Total Educational Revenue,
U.S., Fiscal 1983-2008**
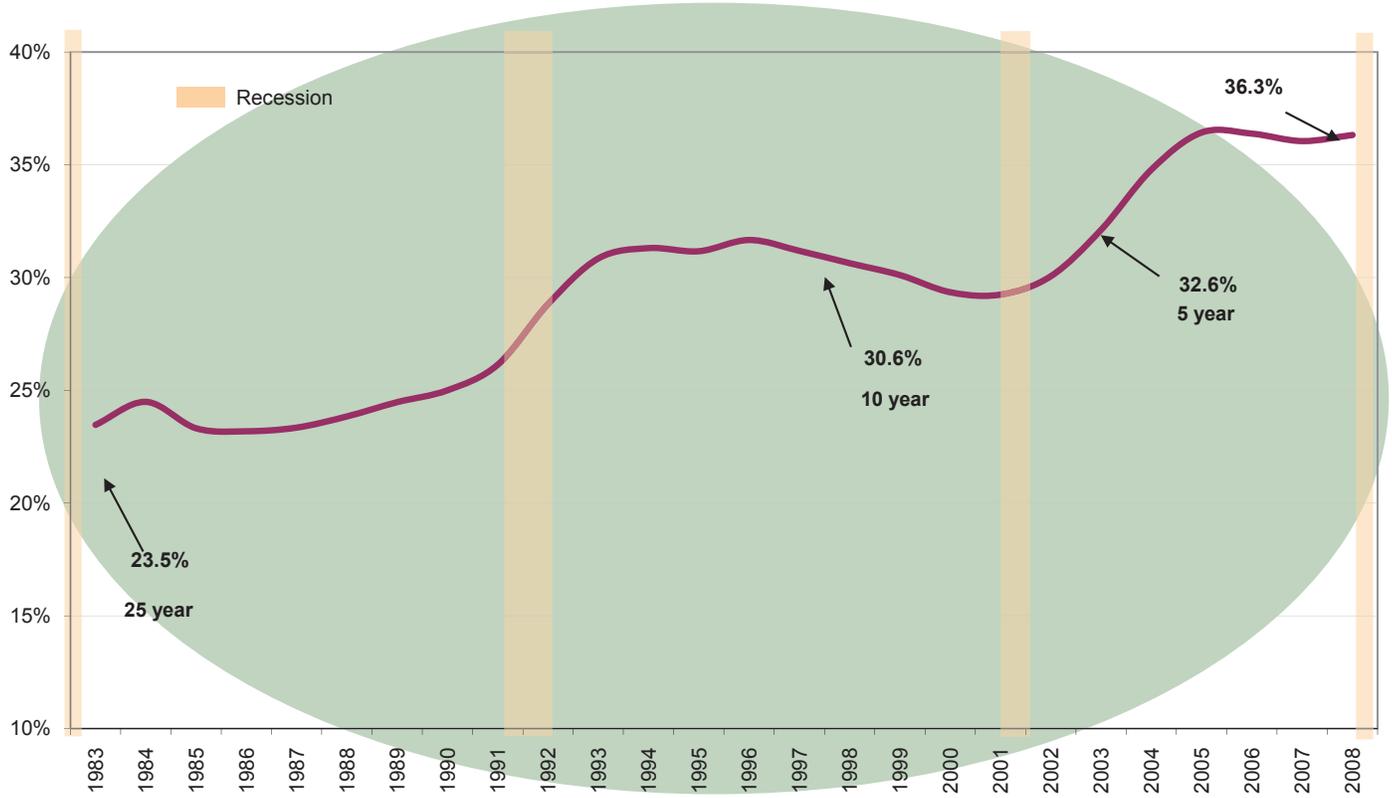
Note: *Net tuition revenue used for capital debt service is included in net tuition revenue, but excluded from total educational revenue in calculating the above figures.*

Source: *SHEEO SHEF*

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.

Table 13 (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 mean; 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 enrollments 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 provides figures and tables to illustrate 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 2003 and 2008.

- All but three states (Louisiana, Utah, and Oregon) have seen enrollment growth over the last five years. Louisiana's decline in FTE enrollment is due to the effects of Hurricanes Katrina and Rita.

- The 23 states in which enrollment growth exceeded the national average of 7.5 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 2003-2008
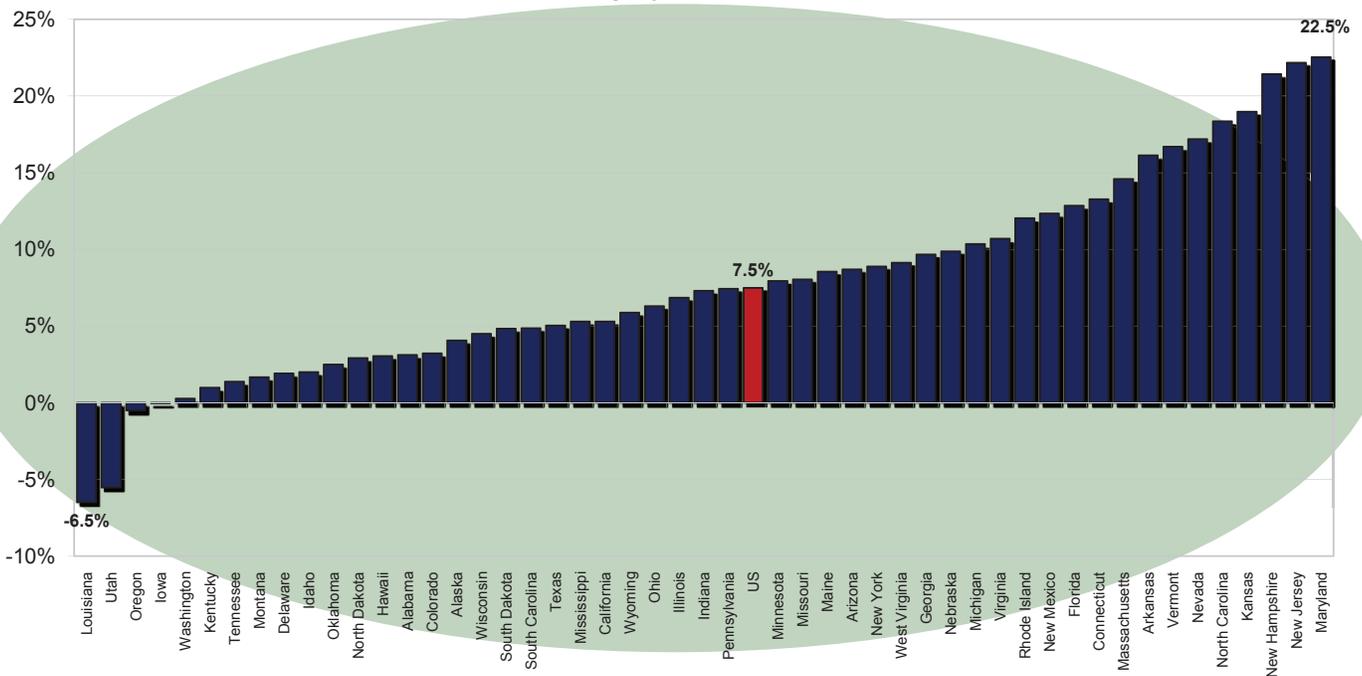
Source: SHEEO SHEF

<div align="center">*Table 4*</div>

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

State	FY 2003	FY 2007	FY 2008	1 Year % Chng	1 Year Rank	5 Year % Change
Alabama	180,654	182,504	186,280	2.1%	25	3.1%
Alaska	17,974	18,656	18,703	0.3%	43	4.1%
Arizona	205,959	221,180	223,852	1.2%	35	8.7%
Arkansas	92,508	103,369	107,428	3.9%	7	16.1%
California	1,644,627	1,686,828	1,731,754	2.7%	18	5.3%
Colorado	156,258	157,382	161,283	2.5%	21	3.2%
Connecticut	68,062	74,951	77,088	2.9%	16	13.3%
Delaware	31,028	31,269	31,619	1.1%	38	1.9%
Florida	476,654	518,086	537,898	3.8%	8	12.8%
Georgia	283,391	297,755	310,759	4.4%	3	9.7%
Hawaii	34,420	35,010	35,469	1.3%	33	3.0%
Idaho	43,104	43,378	43,968	1.4%	31	2.0%
Illinois	366,296	390,359	391,386	0.3%	42	6.8%
Indiana	213,761	223,602	229,345	2.6%	20	7.3%
Iowa	115,060	112,934	115,011	1.8%	28	0.0%
Kansas	109,045	127,245	129,737	2.0%	27	19.0%
Kentucky	141,005	145,605	142,382	-2.2%	50	1.0%
Louisiana	177,275	166,671	165,781	-0.5%	46	-6.5%
Maine	32,736	35,514	35,533	0.1%	44	8.5%
Maryland	168,261	197,966	206,162	4.1%	4	22.5%
Massachusetts	126,174	139,688	144,578	3.5%	11	14.6%
Michigan	352,290	384,225	388,725	1.2%	36	10.3%
Minnesota	185,452	191,456	200,160	4.5%	2	7.9%
Mississippi	111,650	115,739	117,556	1.6%	30	5.3%
Missouri	166,014	174,650	179,364	2.7%	17	8.0%
Montana	34,975	35,293	35,556	0.7%	40	1.7%
Nebraska	68,672	73,940	75,451	2.0%	26	9.9%
Nevada	54,037	61,323	63,324	3.3%	13	17.2%
New Hampshire	28,068	32,093	34,081	6.2%	1	21.4%
New Jersey	194,846	229,968	238,040	3.5%	10	22.2%
New Mexico	75,847	83,224	85,203	2.4%	22	12.3%
New York	483,616	508,909	526,538	3.5%	12	8.9%
North Carolina	302,159	344,056	357,601	3.9%	6	18.3%
North Dakota	34,756	35,429	35,767	1.0%	39	2.9%
Ohio	368,523	383,492	391,725	2.1%	24	6.3%
Oklahoma	128,005	132,093	131,191	-0.7%	47	2.5%
Oregon	129,965	124,794	129,309	3.6%	9	-0.5%
Pennsylvania	315,591	337,425	339,043	0.5%	41	7.4%
Rhode Island	26,887	28,925	30,120	4.1%	5	12.0%
South Carolina	137,983	146,624	144,696	-1.3%	49	4.9%
South Dakota	28,232	29,231	29,595	1.2%	34	4.8%
Tennessee	167,634	171,845	169,924	-1.1%	48	1.4%
Texas	766,342	794,211	804,918	1.3%	32	5.0%
Utah	108,386	102,372	102,406	0.0%	45	-5.5%
Vermont	17,112	19,457	19,968	2.6%	19	16.7%
Virginia	254,694	273,039	281,940	3.3%	14	10.7%
Washington	220,677	214,847	221,264	3.0%	15	0.3%
West Virginia	67,374	72,679	73,525	1.2%	37	9.1%
Wisconsin	209,599	215,098	219,006	1.8%	29	4.5%
Wyoming	21,774	22,569	23,054	2.1%	23	5.9%
US	**9,745,412**	**10,248,958**	**10,475,066**	**2.2%**		**7.5%**

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

Source: *SHEEO SHEF*

Figure 6 (and the accompanying data in *Table 5*) shows the percent change by state in higher education appropriations per public FTE student between 2003 and 2008.

- Twenty-nine states increased per student support for public institutions during this five-year period, and one state (Alabama) by more than 35 percent.

- On average, per student appropriations to public higher education decreased by 0.7 percent during this period.

- Two states decreased per student educational appropriations by 20 percent or more. Michigan trailed all states with a 22.7 percent decline.

Figure 6

**Educational Appropriations per FTE
Percent Change by State, Fiscal 2003-2008**
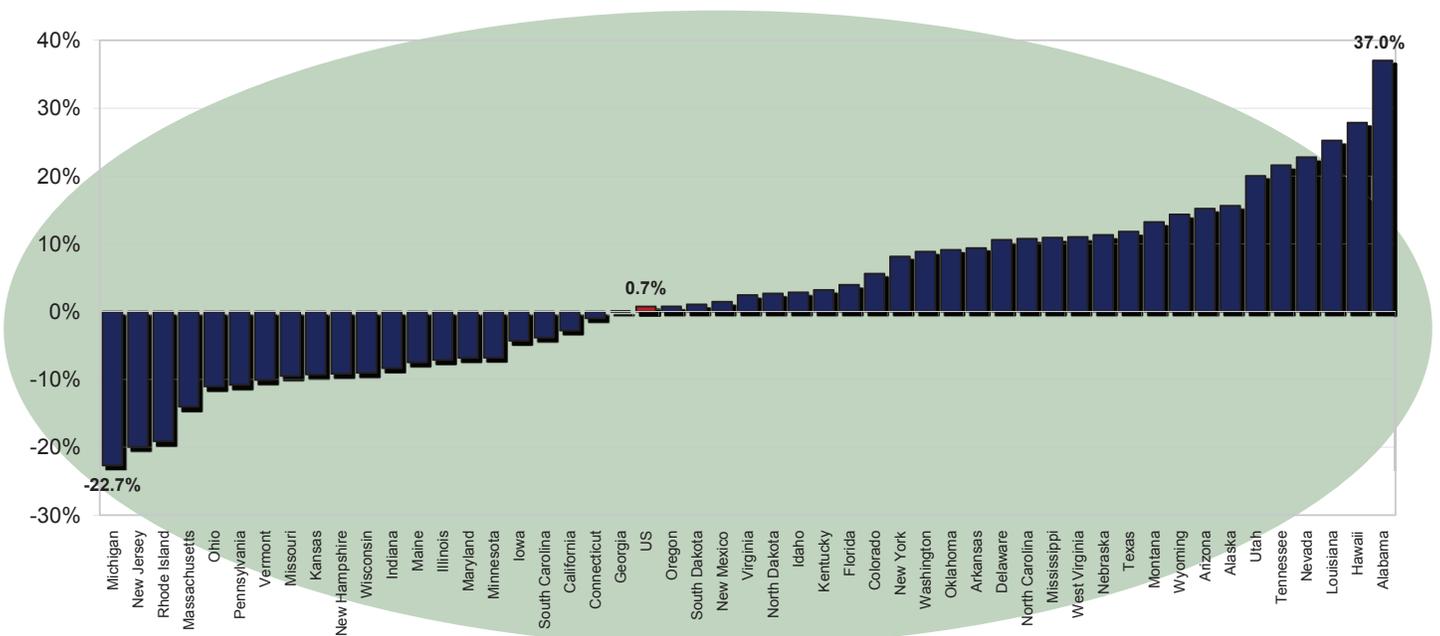
Note: Dollars adjusted by 2008 HECA, Cost of Living Adjustment, and Enrollment Mix; Educational Appropriations.
Source: SHEEO SHEF

Table 5

Public Higher Education Educational Appropriations per FTE

Constant Dollars

| State	FY 2003	FY 2007	FY 2008	1 Year % Chng	FY2008 Index to US Average	5 Year % Change
Alabama	$ 5,848	$ 7,213	$ 8,012	11.1%	1.14	37.0%
Alaska	$ 10,531	$ 11,931	$ 12,173	2.0%	1.72	15.6%
Arizona	$ 6,549	$ 7,149	$ 7,543	5.5%	1.07	15.2%
Arkansas	$ 7,006	$ 7,400	$ 7,663	3.5%	1.09	9.4%
California	$ 7,469	$ 7,289	$ 7,262	-0.4%	1.03	-2.8%
Colorado	$ 3,600	$ 3,676	$ 3,801	3.4%	0.54	5.6%
Connecticut	$ 8,852	$ 8,445	$ 8,766	3.8%	1.24	-1.0%
Delaware	$ 5,544	$ 6,196	$ 6,130	-1.1%	0.87	10.6%
Florida	$ 6,608	$ 7,159	$ 6,868	-4.1%	0.97	3.9%
Georgia	$ 8,849	$ 8,974	$ 8,853	-1.4%	1.25	0.0%
Hawaii	$ 6,953	$ 8,484	$ 8,890	4.8%	1.26	27.9%
Idaho	$ 8,393	$ 8,202	$ 8,631	5.2%	1.22	2.8%
Illinois	$ 7,943	$ 7,128	$ 7,377	3.5%	1.05	-7.1%
Indiana	$ 5,340	$ 4,941	$ 4,894	-0.9%	0.69	-8.3%
Iowa	$ 6,344	$ 5,889	$ 6,071	3.1%	0.86	-4.3%
Kansas	$ 6,387	$ 5,791	$ 5,796	0.1%	0.82	-9.3%
Kentucky	$ 8,170	$ 7,884	$ 8,431	6.9%	1.19	3.2%
Louisiana	$ 6,584	$ 7,271	$ 8,245	13.4%	1.17	25.2%
Maine	$ 6,642	$ 5,957	$ 6,146	3.2%	0.87	-7.5%
Maryland	$ 8,349	$ 7,789	$ 7,779	-0.1%	1.10	-6.8%
Massachusetts	$ 8,585	$ 7,561	$ 7,381	-2.4%	1.05	-14.0%
Michigan	$ 6,869	$ 5,509	$ 5,310	-3.6%	0.75	-22.7%
Minnesota	$ 6,578	$ 6,045	$ 6,132	1.4%	0.87	-6.8%
Mississippi	$ 6,460	$ 6,411	$ 7,164	11.7%	1.01	10.9%
Missouri	$ 6,876	$ 6,434	$ 6,225	-3.3%	0.88	-9.5%
Montana	$ 4,454	$ 4,513	$ 5,042	11.7%	0.71	13.2%
Nebraska	$ 6,715	$ 7,539	$ 7,473	-0.9%	1.06	11.3%
Nevada	$ 7,196	$ 8,992	$ 8,834	-1.8%	1.25	22.8%
New Hampshire	$ 3,105	$ 2,763	$ 2,821	2.1%	0.40	-9.1%
New Jersey	$ 8,959	$ 7,362	$ 7,170	-2.6%	1.02	-20.0%
New Mexico	$ 9,314	$ 8,631	$ 9,448	9.5%	1.34	1.4%
New York	$ 7,702	$ 8,363	$ 8,328	-0.4%	1.18	8.1%
North Carolina	$ 9,046	$ 9,726	$ 10,019	3.0%	1.42	10.8%
North Dakota	$ 5,389	$ 4,863	$ 5,533	13.8%	0.78	2.7%
Ohio	$ 5,129	$ 4,602	$ 4,563	-0.9%	0.65	-11.0%
Oklahoma	$ 7,231	$ 7,583	$ 7,890	4.0%	1.12	9.1%
Oregon	$ 5,270	$ 5,050	$ 5,311	5.2%	0.75	0.8%
Pennsylvania	$ 5,960	$ 5,379	$ 5,315	-1.2%	0.75	-10.8%
Rhode Island	$ 6,012	$ 5,381	$ 4,863	-9.6%	0.69	-19.1%
South Carolina	$ 7,410	$ 6,698	$ 7,126	6.4%	1.01	-3.8%
South Dakota	$ 4,973	$ 4,708	$ 5,025	6.7%	0.71	1.0%
Tennessee	$ 6,315	$ 7,347	$ 7,677	4.5%	1.09	21.6%
Texas	$ 7,096	$ 8,532	$ 7,934	-7.0%	1.12	11.8%
Utah	$ 5,459	$ 5,942	$ 6,552	10.3%	0.93	20.0%
Vermont	$ 2,650	$ 2,413	$ 2,383	-1.2%	0.34	-10.1%
Virginia	$ 5,544	$ 5,923	$ 5,679	-4.1%	0.80	2.4%
Washington	$ 6,478	$ 6,931	$ 7,051	1.7%	1.00	8.8%
West Virginia	$ 5,758	$ 5,133	$ 6,392	24.5%	0.91	11.0%
Wisconsin	$ 7,108	$ 6,232	$ 6,466	3.8%	0.92	-9.0%
Wyoming	$ 12,864	$ 15,136	$ 14,705	-2.8%	2.08	14.3%
US	**$ 7,006**	**$ 7,018**	**$ 7,059**	**0.6%**		**0.7%**

Note: *Educational appropriations measure state and local support available for public higher education operating expenses and excludes appropriations for independent institutions, financial aid for students attending independent institutions, and research.*

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: *SHEEO SHEF*

Figure 7 shows net tuition revenue as a percent of total educational revenue for public higher education by state for 2008. 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 13 percent in Wyoming to a high of about 70 percent in New Hampshire.

- Twenty-eight states are above the national average of 36.3 percent in the proportion of educational revenue from tuition sources.

- Twelve states report using some portion of net tuition revenue for debt service. The amount used in 2008 ranges from $662 per FTE to $4 per FTE. Nationally, only about $36 of net tuition per FTE was used for debt service in 2008.

Figure 7

Net Tuition as a Percent of Public Higher Education Total Educational Revenue by State, Fiscal 2008
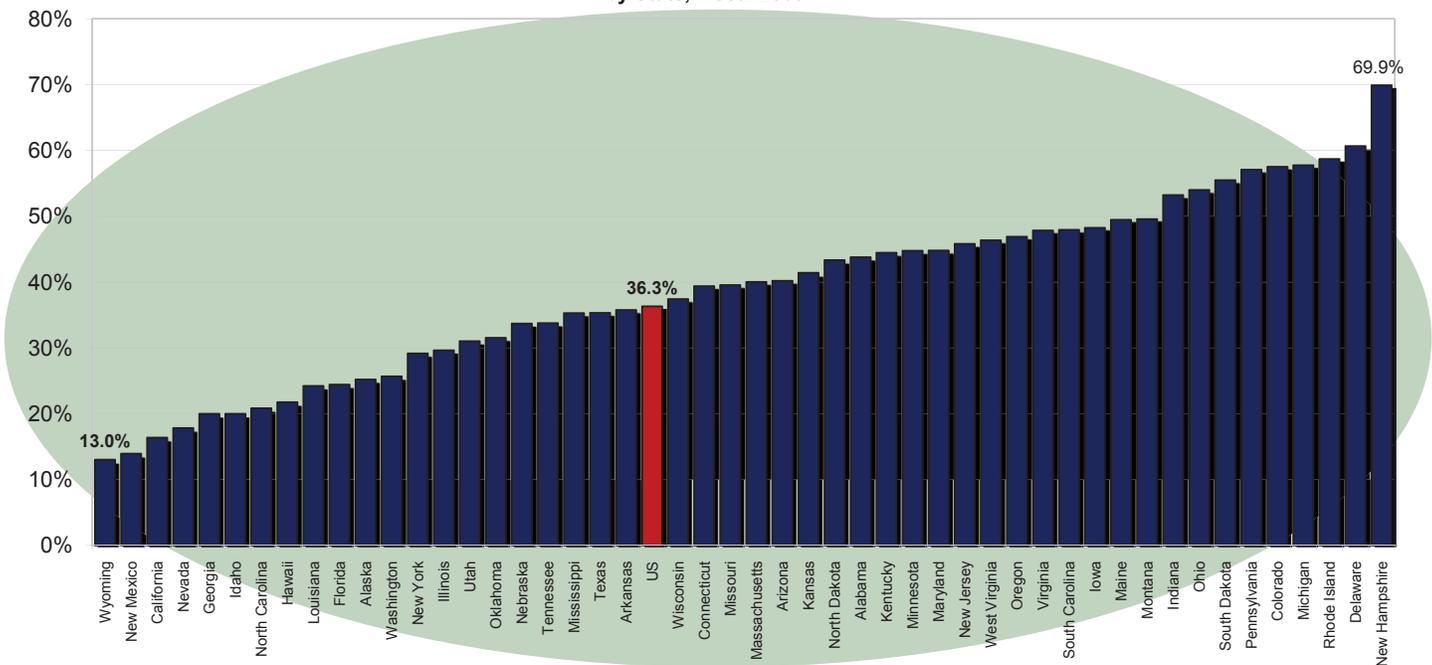
Note: Dollars adjusted by 2008 HECA, Cost of Living Adjustment, and Enrollment Mix; Net Tuition
Source: SHEEO SHEF

Table 6

State	Net Tuition Revenue per FTE Constant Dollars						Tuition and Fees Used for Debt Service		
	FY 2003	FY 2007	FY 2008	1 Year % Chng	FY2008 Index to US Average	5 Year % Change	FY 2003	FY 2007	FY 2008
Alabama	$ 4,604	$ 5,631	$ 5,895	4.7%	1.47	28.1%	$ -	$ 365	$ 443
Alaska	$ 2,915	$ 3,884	$ 4,103	5.6%	1.02	40.7%	$ -	$ -	$ -
Arizona	$ 3,009	$ 4,591	$ 4,847	5.6%	1.21	61.1%	$ 266	$ 322	$ 327
Arkansas	$ 3,260	$ 3,896	$ 3,922	0.7%	0.98	20.3%	$ 551	$ 449	$ 611
California	$ 884	$ 1,483	$ 1,423	-4.1%	0.36	60.9%	$ -	$ -	$ -
Colorado	$ 4,189	$ 4,650	$ 5,145	10.6%	1.28	22.8%	$ -	$ -	$ -
Connecticut	$ 4,692	$ 5,572	$ 5,697	2.2%	1.42	21.4%	$ -	$ -	$ -
Delaware	$ 7,735	$ 9,400	$ 9,388	-0.1%	2.34	21.4%	$ -	$ 87	$ 44
Florida	$ 2,594	$ 2,313	$ 2,221	-4.0%	0.55	-14.4%	$ -	$ -	$ -
Georgia	$ 1,493	$ 2,072	$ 2,205	6.4%	0.55	47.7%	$ 28	$ 21	$ 20
Hawaii	$ 1,645	$ 2,288	$ 2,469	7.9%	0.62	50.1%	$ -	$ -	$ -
Idaho	$ 1,881	$ 2,421	$ 2,158	-10.9%	0.54	14.7%	$ -	$ -	$ -
Illinois	$ 2,470	$ 2,992	$ 3,107	3.8%	0.78	25.8%	$ -	$ -	$ -
Indiana	$ 4,936	$ 5,536	$ 5,540	0.1%	1.38	12.2%	$ -	$ 20	$ 25
Iowa	$ 4,955	$ 5,618	$ 5,661	0.8%	1.41	14.2%	$ -	$ -	$ -
Kansas	$ 3,192	$ 3,968	$ 4,095	3.2%	1.02	28.3%	$ -	$ -	$ -
Kentucky	$ 3,731	$ 6,078	$ 6,749	11.0%	1.69	80.9%	$ -	$ -	$ -
Louisiana	$ 2,238	$ 2,884	$ 2,637	-8.6%	0.66	17.8%	$ -	$ -	$ -
Maine	$ 4,455	$ 5,649	$ 6,014	6.5%	1.50	35.0%	$ -	$ -	$ -
Maryland	$ 5,947	$ 6,488	$ 6,315	-2.7%	1.58	6.2%	$ -	$ -	$ -
Massachusetts	$ 4,307	$ 5,079	$ 4,923	-3.1%	1.23	14.3%	$ -	$ -	$ -
Michigan	$ 6,035	$ 6,831	$ 7,261	6.3%	1.81	20.3%	$ -	$ -	$ -
Minnesota	$ 3,975	$ 4,974	$ 4,971	-0.1%	1.24	25.1%	$ -	$ -	$ -
Mississippi	$ 3,601	$ 3,739	$ 3,904	4.4%	0.98	8.4%	$ -	$ -	$ -
Missouri	$ 3,721	$ 4,022	$ 4,069	1.2%	1.02	9.3%	$ -	$ -	$ -
Montana	$ 4,388	$ 5,069	$ 4,956	-2.2%	1.24	13.0%	$ -	$ -	$ -
Nebraska	$ 3,382	$ 3,406	$ 3,800	11.6%	0.95	12.4%	$ -	$ -	$ -
Nevada	$ 1,502	$ 1,796	$ 1,916	6.7%	0.48	27.5%	$ -	$ -	$ -
New Hampshire	$ 5,558	$ 6,570	$ 6,548	-0.3%	1.64	17.8%	$ -	$ -	$ -
New Jersey	$ 5,712	$ 5,886	$ 6,059	2.9%	1.51	6.1%	$ -	$ -	$ -
New Mexico	$ 908	$ 1,276	$ 1,531	20.0%	0.38	68.5%	$ -	$ -	$ -
New York	$ 3,153	$ 3,536	$ 3,426	-3.1%	0.86	8.7%	$ -	$ -	$ -
North Carolina	$ 2,534	$ 2,700	$ 2,637	-2.3%	0.66	4.1%	$ -	$ -	$ -
North Dakota	$ 2,909	$ 4,048	$ 4,231	4.5%	1.06	45.5%	$ -	$ -	$ -
Ohio	$ 4,531	$ 5,461	$ 5,355	-1.9%	1.34	18.2%	$ -	$ -	$ -
Oklahoma	$ 2,307	$ 3,426	$ 3,634	6.1%	0.91	57.5%	$ -	$ -	$ -
Oregon	$ 3,929	$ 4,748	$ 4,691	-1.2%	1.17	19.4%	$ -	$ -	$ -
Pennsylvania	$ 5,746	$ 6,770	$ 7,068	4.4%	1.77	23.0%	$ -	$ -	$ -
Rhode Island	$ 5,357	$ 6,547	$ 6,911	5.6%	1.73	29.0%	$ -	$ -	$ -
South Carolina	$ 4,550	$ 5,939	$ 6,086	2.5%	1.52	33.7%	$ 546	$ 434	$ 514
South Dakota	$ 4,759	$ 5,414	$ 5,648	4.3%	1.41	18.7%	$ 604	$ 459	$ 491
Tennessee	$ 3,820	$ 3,707	$ 3,841	3.6%	0.96	0.5%	$ 111	$ 117	$ 135
Texas	$ 3,966	$ 4,164	$ 4,332	4.0%	1.08	9.2%	$ -	$ 5	$ 4
Utah	$ 2,485	$ 3,073	$ 2,945	-4.2%	0.74	18.5%	$ -	$ -	$ -
Vermont	$ 7,746	$ 8,972	$ 9,349	4.2%	2.34	20.7%	$ 120	$ 195	$ 241
Virginia	$ 4,121	$ 4,941	$ 5,206	5.4%	1.30	26.3%	$ -	$ -	$ -
Washington	$ 1,943	$ 2,268	$ 2,434	7.3%	0.61	25.2%	$ -	$ -	$ -
West Virginia	$ 3,889	$ 4,801	$ 4,949	3.1%	1.24	27.3%	$ 660	$ 703	$ 662
Wisconsin	$ 3,036	$ 3,932	$ 3,863	-1.8%	0.96	27.2%	$ -	$ -	$ -
Wyoming	$ 2,554	$ 2,250	$ 2,200	-2.2%	0.55	-13.9%	$ -	$ -	$ -
US	$ 3,302	$ 3,936	$ 4,004	1.5%		21.3%	$ 26	$ 33	$ 36

Note: *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: *SHEEO SHEF*

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 2003 to 2008.

- Forty-four states increased total educational revenue per student, led by Hawaii with a 32.1 percent increase.

- In six states, total educational revenue per FTE decreased. New Jersey has the greatest decrease in this time period at 9.8 percent.

- The U.S. average was a 7.2 percent increase in educational revenue per FTE.

Figure 8

**Total Educational Revenue per FTE
Percent Change by State, Fiscal 2003-2008**
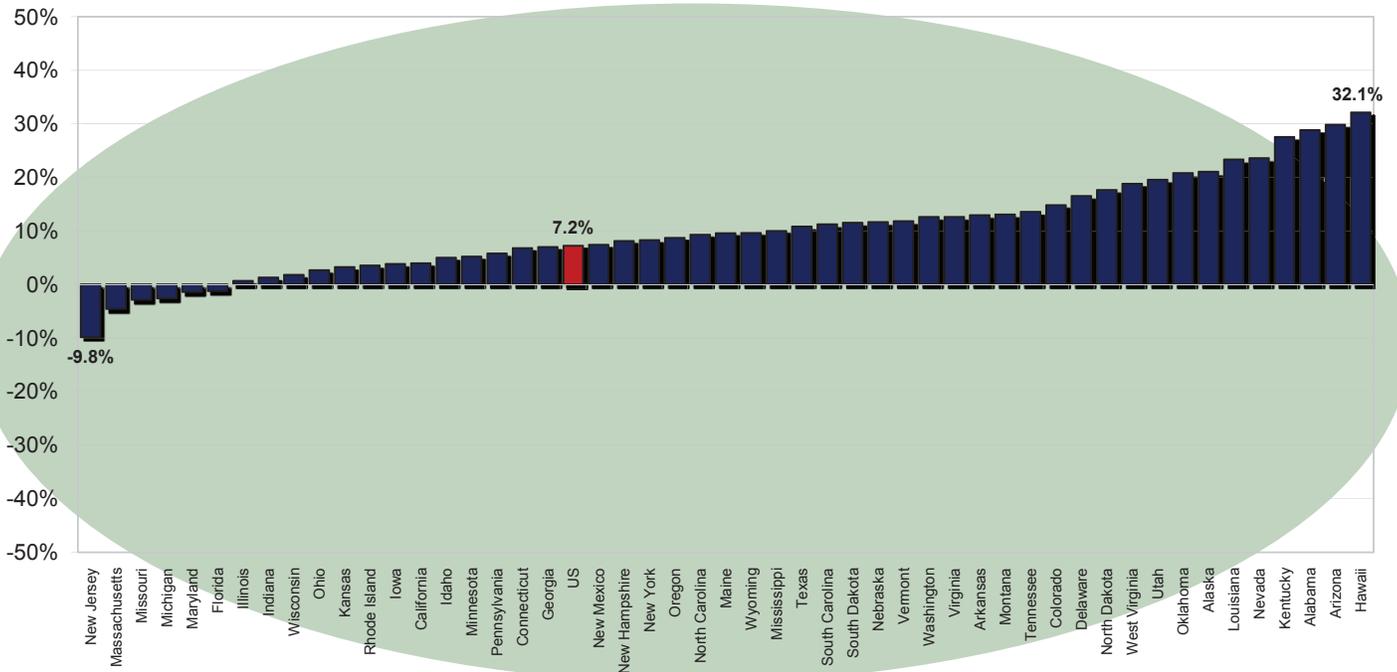
Note: Dollars adjusted by 2008 HECA, Cost of Living Adjustment, and Enrollment Mix; total educational revenue exclude net tuition revenue used for capital debt service.
Source: SHEEO SHEF

Table 7
Total Educational Revenue per FTE
Constant Dollars

State	FY 2003		FY 2007		FY 2008		1 Year % Chng	FY2008 Index to US Average	5 Year % Change
Alabama	$	10,452	$	12,479	$	13,465	7.9%	1.22	28.8%
Alaska	$	13,447	$	15,815	$	16,276	2.9%	1.48	21.0%
Arizona	$	9,292	$	11,418	$	12,063	5.6%	1.09	29.8%
Arkansas	$	9,715	$	10,847	$	10,973	1.2%	1.00	13.0%
California	$	8,353	$	8,772	$	8,684	-1.0%	0.79	4.0%
Colorado	$	7,789	$	8,326	$	8,946	7.4%	0.81	14.8%
Connecticut	$	13,544	$	14,016	$	14,463	3.2%	1.31	6.8%
Delaware	$	13,279	$	15,509	$	15,474	-0.2%	1.40	16.5%
Florida	$	9,202	$	9,472	$	9,089	-4.0%	0.82	-1.2%
Georgia	$	10,315	$	11,025	$	11,037	0.1%	1.00	7.0%
Hawaii	$	8,597	$	10,772	$	11,359	5.5%	1.03	32.1%
Idaho	$	10,274	$	10,623	$	10,789	1.6%	0.98	5.0%
Illinois	$	10,414	$	10,120	$	10,484	3.6%	0.95	0.7%
Indiana	$	10,276	$	10,457	$	10,409	-0.5%	0.94	1.3%
Iowa	$	11,299	$	11,508	$	11,732	1.9%	1.06	3.8%
Kansas	$	9,579	$	9,759	$	9,891	1.3%	0.90	3.3%
Kentucky	$	11,901	$	13,962	$	15,180	8.7%	1.38	27.6%
Louisiana	$	8,822	$	10,155	$	10,882	7.2%	0.99	23.4%
Maine	$	11,097	$	11,606	$	12,160	4.8%	1.10	9.6%
Maryland	$	14,296	$	14,277	$	14,094	-1.3%	1.28	-1.4%
Massachusetts	$	12,892	$	12,640	$	12,304	-2.7%	1.12	-4.6%
Michigan	$	12,904	$	12,340	$	12,570	1.9%	1.14	-2.6%
Minnesota	$	10,553	$	11,020	$	11,103	0.8%	1.01	5.2%
Mississippi	$	10,061	$	10,150	$	11,068	9.0%	1.00	10.0%
Missouri	$	10,598	$	10,456	$	10,294	-1.6%	0.93	-2.9%
Montana	$	8,842	$	9,582	$	9,998	4.3%	0.91	13.1%
Nebraska	$	10,096	$	10,944	$	11,273	3.0%	1.02	11.7%
Nevada	$	8,698	$	10,787	$	10,750	-0.3%	0.97	23.6%
New Hampshire	$	8,664	$	9,333	$	9,369	0.4%	0.85	8.1%
New Jersey	$	14,671	$	13,247	$	13,229	-0.1%	1.20	-9.8%
New Mexico	$	10,222	$	9,907	$	10,979	10.8%	1.00	7.4%
New York	$	10,855	$	11,899	$	11,754	-1.2%	1.07	8.3%
North Carolina	$	11,580	$	12,426	$	12,656	1.8%	1.15	9.3%
North Dakota	$	8,298	$	8,911	$	9,764	9.6%	0.89	17.7%
Ohio	$	9,660	$	10,063	$	9,918	-1.4%	0.90	2.7%
Oklahoma	$	9,538	$	11,009	$	11,523	4.7%	1.05	20.8%
Oregon	$	9,199	$	9,799	$	10,002	2.1%	0.91	8.7%
Pennsylvania	$	11,707	$	12,148	$	12,383	1.9%	1.12	5.8%
Rhode Island	$	11,369	$	11,928	$	11,774	-1.3%	1.07	3.6%
South Carolina	$	11,415	$	12,204	$	12,697	4.0%	1.15	11.2%
South Dakota	$	9,128	$	9,664	$	10,183	5.4%	0.92	11.6%
Tennessee	$	10,024	$	10,936	$	11,383	4.1%	1.03	13.6%
Texas	$	11,062	$	12,691	$	12,262	-3.4%	1.11	10.8%
Utah	$	7,944	$	9,015	$	9,497	5.3%	0.86	19.6%
Vermont	$	10,276	$	11,190	$	11,492	2.7%	1.04	11.8%
Virginia	$	9,665	$	10,864	$	10,885	0.2%	0.99	12.6%
Washington	$	8,421	$	9,200	$	9,485	3.1%	0.86	12.6%
West Virginia	$	8,987	$	9,231	$	10,678	15.7%	0.97	18.8%
Wisconsin	$	10,144	$	10,164	$	10,329	1.6%	0.94	1.8%
Wyoming	$	15,418	$	17,386	$	16,904	-2.8%	1.53	9.6%
US	**$**	**10,282**	**$**	**10,921**	**$**	**11,026**	**1.0%**		**7.2%**

Note: *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: *SHEEO SHEF*

Figure 9 illustrates the wide variability per FTE state educational appropriations compared to the U.S. average; first, over the long-term (1983-2008) and second, with the most recent year (2008).

- Twenty-two states have had, on average, higher educational appropriations per FTE than the national average over the past 25 years.

- Compared to the national average, Wyoming's 2008 educational appropriations per FTE were highest, while Vermont's were lowest. 2008 appropriations levels in Vermont were comparatively close to its long-term position relative to the national average. Wyoming's 2007 appropriations per FTE are higher than its long-term position above the national average, reflecting recent growth in state support.

Figure 9

**Educational Appropriations per FTE:
State Differences from U.S. Average over 25 years and in 2008**

Legend:
- ■ 25 Year Average Difference
- ■ FY 2008 Difference

X-axis: **Constant Dollar Difference from U.S. Average**
(-$6,000, -$4,000, -$2,000, $0, $2,000, $4,000, $6,000, $8,000, $10,000)

States (top to bottom): Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

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

Source: SHEEO SHEF

Figure 10 compares the mean differences in total educational revenue per FTE between individual states and the U.S. average over the long-term (1983-2008), with those from the most recent year (2008).

- Twenty-three states have had, on average, higher total educational revenue per FTE than the national average over the past 25 years.

- Compared to the national mean, Wyoming's and Alaska's 2008 total educational revenue per FTE were highest, while California's and Colorado's were lowest. Wyoming's 2008 revenue reflects substantial growth above its long-term position, and California's 2008 revenue reflects a substantial decrease from its long-term position.

Figure 10

Total Educational Revenue per FTE:
Differences from US: 25-year Average and FY08, Constant Dollars
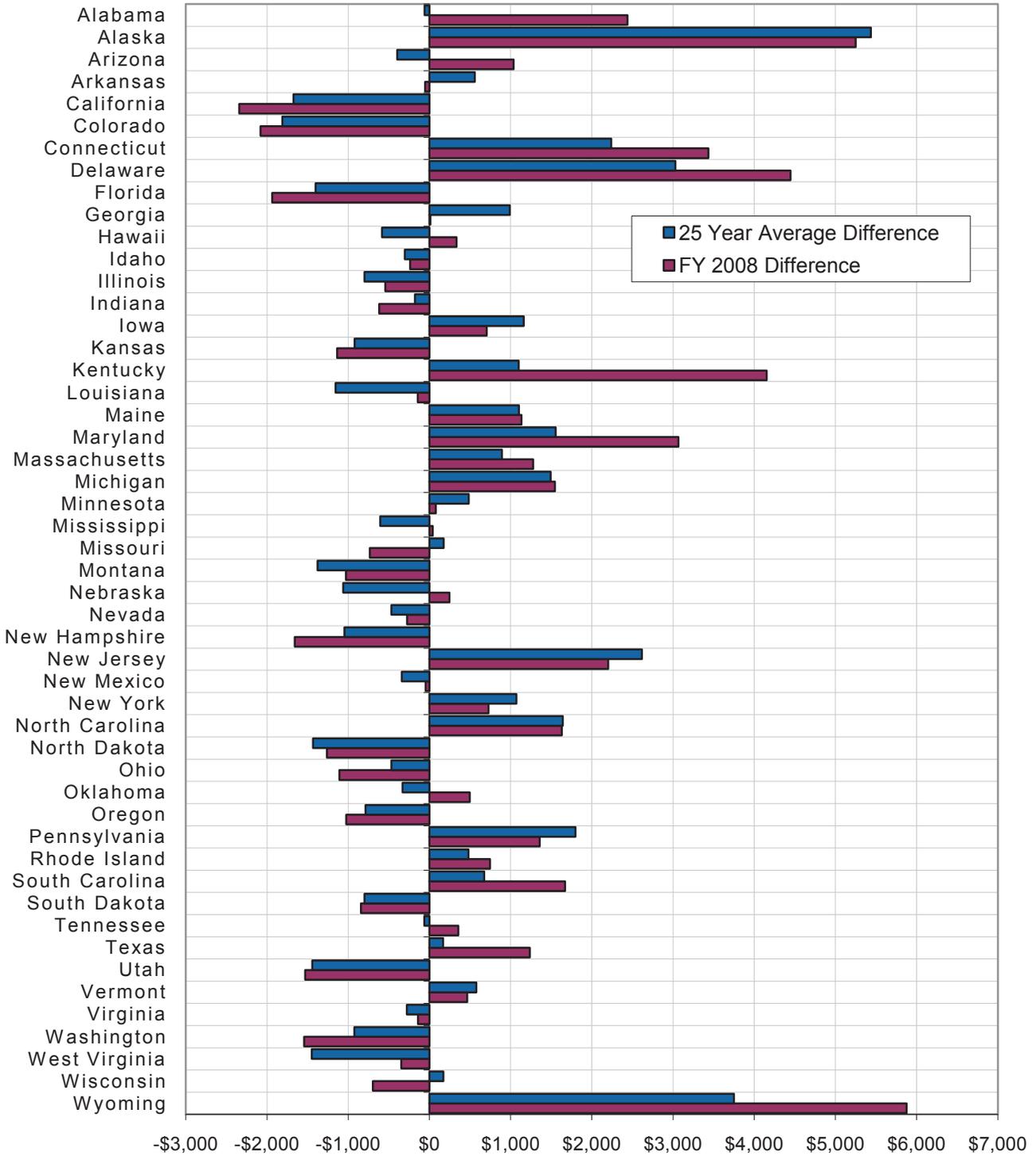
Note: All dollars are adjusted by HECA, Cost of Living Adjustment, and Enrollment Mix. Total educational revenue does not include net tuition revenue used for debt service.

Source: SHEEO SHEF

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. 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 1993 to 2008. 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.

**Percent Change by State in Educational Appropriations and Net Tuition Revenue per FTE,
Fiscal 1993- 2008**
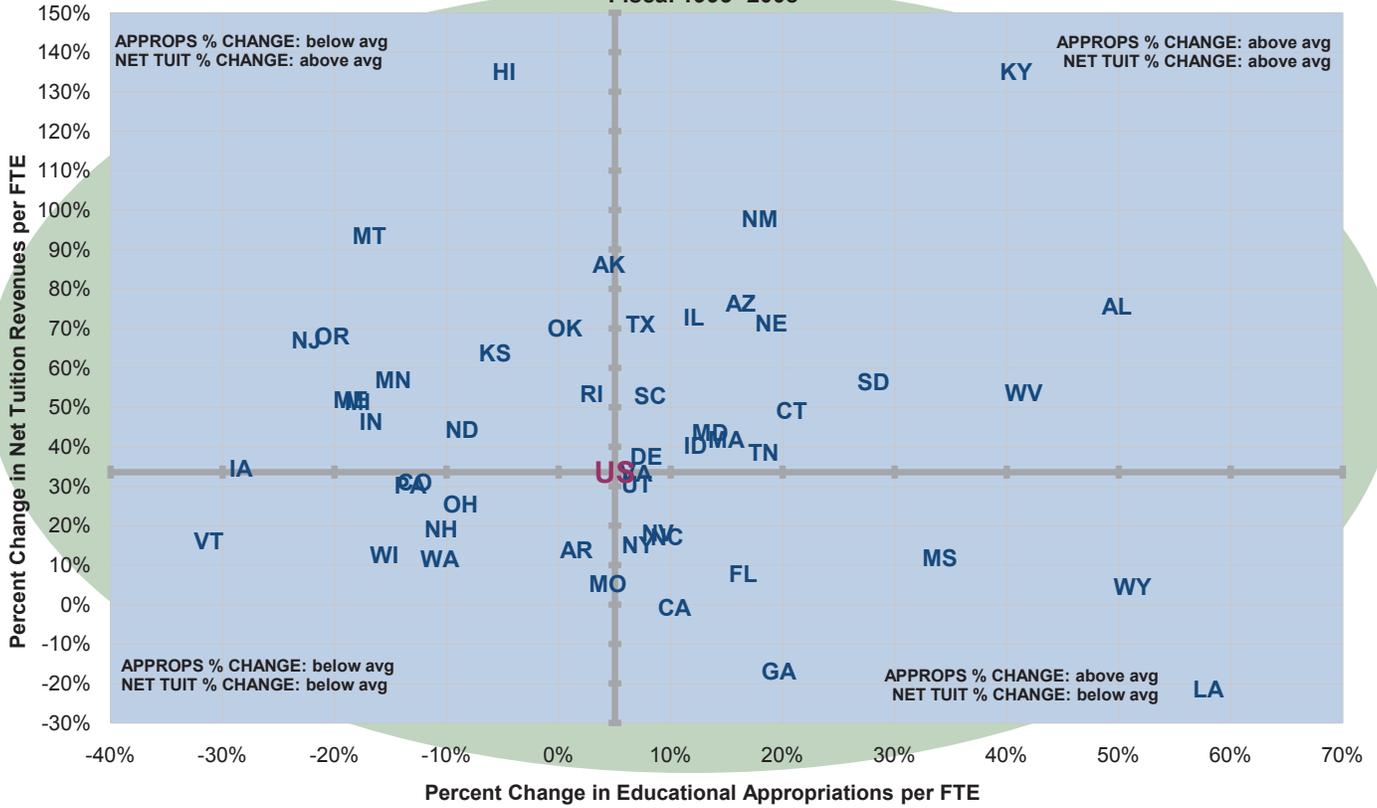
Note: *Figures are adjusted for inflation, public system enrollment mix, and state cost of living.*
Funding and FTE data are for public non-medical students only.

Source: *SHEEO SHEF*

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 2008 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 2008.

- The seven 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 net tuition, and exceeded the national average in tuition aid.

Figure 12

Net Tuition Revenues per FTE and State-Funded Tuition Aid per FTE by State, Fiscal 2008 (Public Institutions Only)
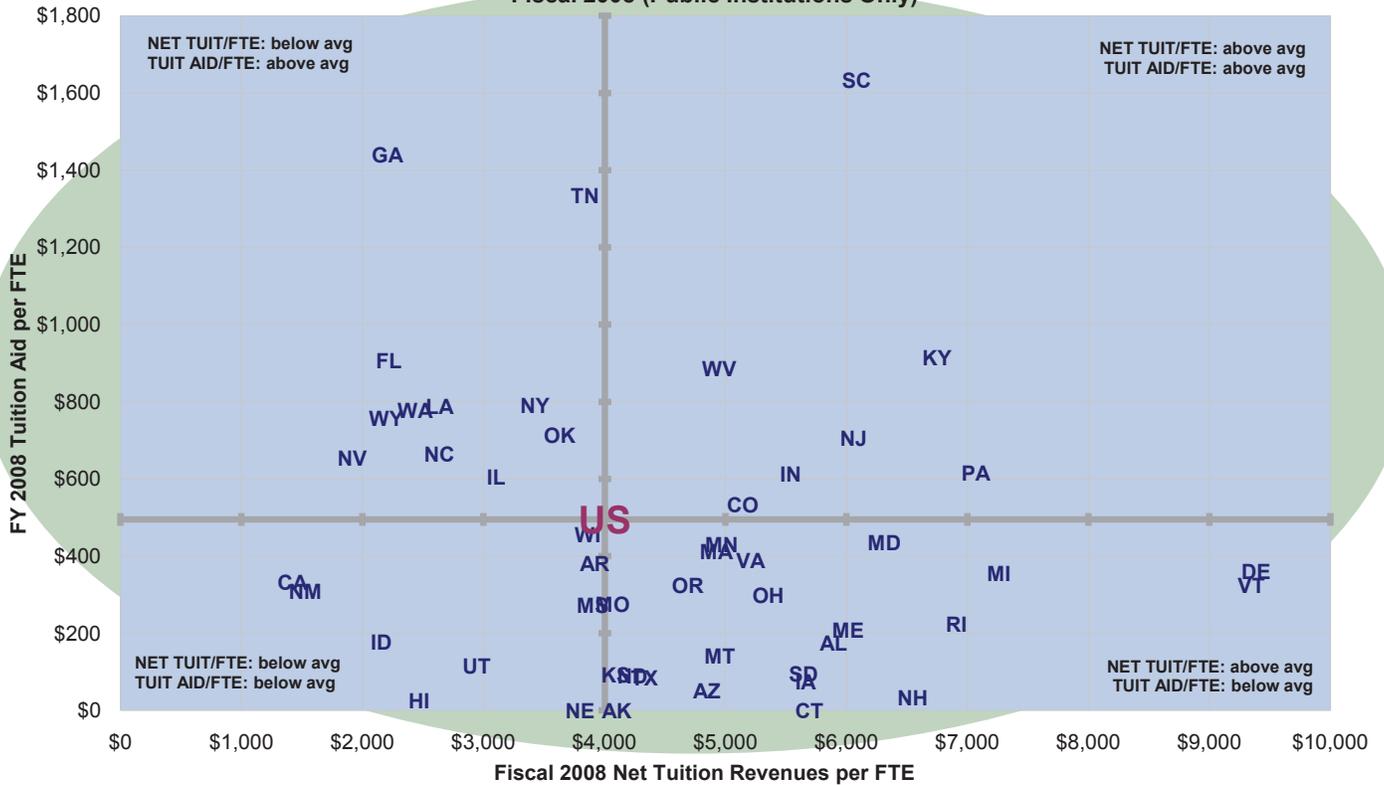
Note: *Figures are adjusted for inflation, public system enrollment mix, and state cost of living.*
Funding and FTE data are for public non-medical students only.

Source: *SHEEO SHEF*

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 is needed to support important public services?

- What level of taxation will generate this 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 decision 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.[5]

Nationally, effective state and local tax rates decreased 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 57.2 percent from 1996 to 2006, from $31,984 to $50,277.

- Total state and local tax revenue per capita increased slightly slower, a 56.6 percent increase from $2,554 in 1996 to $3,999 in 2006.

- As a result, the national aggregate effective state and local tax rate (tax revenue as a percentage of state wealth) decreased slightly slower from 7.99 percent to 7.95 percent over this period.

Also based on aggregate, national data, the allocation of the available state revenue to higher education fluctuated somewhat between 1996 and 2006. Of total state and local revenue (including lottery proceeds), the allocation to higher education ranged from 6.5 percent to 7.7 percent during this period, and was 6.5 percent nationally in 2006, the most recent year available. The 2006 allocation to higher education was the lowest percentage since 1996.

---

[5] 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, 1996-2006

	Wealth, Revenues and Tax Rates			**Allocation to Higher Education**		
	Total Taxable Resources per Capita[1]	State & Local Tax Revenues per Capita[2]	Effective Tax Rate[3]	State & Local Tax Revenues plus Lottery Profits[4] (thousands)	State & Local Higher Education Support[5] (thousands)	(percent)
1996	$ 31,984	$ 2,554	7.99%	$ 698,007,032	$ 47,798,564	6.8%
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	$ 63,263,061	7.2%
2001	$ 39,203	$ 3,197	8.15%	$ 921,556,887	$ 67,734,903	7.4%
2002	$ 39,691	$ 3,141	7.91%	$ 915,156,773	$ 70,629,399	7.7%
2003	$ 41,164	$ 3,112	7.56%	$ 915,311,067	$ 70,800,911	7.7%
2004	$ 44,030	$ 3,444	7.82%	$ 1,020,282,951	$ 70,227,013	6.9%
2005	$ 47,236	$ 3,712	7.86%	$ 1,111,232,278	$ 72,627,895	6.5%
2006	$ 50,277	$ 3,999	7.95%	$ 1,207,621,567	$ 77,960,805	6.5%
10 Year Change	**57.2%**	**56.6%**	**-0.4%**	**73.0%**	**63.1%**	**-5.7%**

Source 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, Micheal. L (March, 2003)

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

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

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

   *FY2001 Local Tax Revenues = (((FY1998Local/FY1998State)+(FY1999Local/FY1999State)+(FY2000Local/FY2000State))/3)*FY2001State*

   *FY2003 Local Tax Revenues = (((FY1999Local/FY1999State)+(FY2000Local/FY2000State)+(FY2002Local/FY2002State))/3)*FY2003State*

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

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

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

Source: SHEEO SHEF

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 $34,258 per capita to a high of over $78,000 per capita. Effective tax rates also vary substantially, from a low of 5.4 percent (in Delaware, which is an outlier on both measures) to a high of 10.8 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 2008. Per capita support for higher education varies from less than $104 in New Hampshire to more than $710 in Wyoming. Support for higher education relative to personal income varies from $2.43 to more than $14.00 per $1,000 of personal income across the states. Nationally, state and local support for higher education per $1,000 of personal income was $7.40 in 2008.

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 2006. 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 pur-poses 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 a decrease 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 Revenues, Taxable Resources, and Effective Tax Rates
by State, Fiscal 2006**

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	2,783	0.696	39,516	0.786	7.0%	0.886
Alaska	5,419	1.355	67,105	1.335	8.1%	1.015
Arizona	3,228	0.807	44,282	0.881	7.3%	0.916
Arkansas	3,119	0.780	37,111	0.738	8.4%	1.057
California	4,533	1.134	54,402	1.082	8.3%	1.048
Colorado	3,625	0.907	54,168	1.077	6.7%	0.841
Connecticut	5,697	1.425	72,233	1.437	7.9%	0.992
Delaware	4,255	1.064	78,796	1.567	5.4%	0.679
Florida	3,701	0.926	50,652	1.007	7.3%	0.919
Georgia	3,329	0.833	44,905	0.893	7.4%	0.932
Hawaii	4,861	1.216	51,395	1.022	9.5%	1.189
Idaho	3,081	0.771	40,066	0.797	7.7%	0.967
Illinois	4,087	1.022	52,301	1.040	7.8%	0.982
Indiana	3,646	0.912	43,157	0.858	8.4%	1.062
Iowa	3,457	0.864	46,165	0.918	7.5%	0.941
Kansas	3,792	0.948	47,222	0.939	8.0%	1.010
Kentucky	3,229	0.807	39,383	0.783	8.2%	1.031
Louisiana	3,705	0.927	51,727	1.029	7.2%	0.901
Maine	4,420	1.105	41,072	0.817	10.8%	1.353
Maryland	4,603	1.151	58,580	1.165	7.9%	0.988
Massachusetts	4,755	1.189	60,299	1.199	7.9%	0.991
Michigan	3,572	0.893	41,287	0.821	8.7%	1.088
Minnesota	4,373	1.094	52,705	1.048	8.3%	1.043
Mississippi	2,824	0.706	34,258	0.681	8.2%	1.036
Missouri	3,139	0.785	43,148	0.858	7.3%	0.915
Montana	3,194	0.799	40,389	0.803	7.9%	0.994
Nebraska	3,906	0.977	47,932	0.953	8.2%	1.025
Nevada	3,930	0.983	59,592	1.185	6.6%	0.829
New Hampshire	3,451	0.863	53,695	1.068	6.4%	0.808
New Jersey	5,475	1.369	63,531	1.264	8.6%	1.084
New Mexico	3,599	0.900	41,594	0.827	8.7%	1.088
New York	6,385	1.597	60,973	1.213	10.5%	1.317
North Carolina	3,393	0.849	47,415	0.943	7.2%	0.900
North Dakota	3,720	0.930	45,599	0.907	8.2%	1.026
Ohio	3,774	0.944	44,097	0.877	8.6%	1.076
Oklahoma	3,155	0.789	42,064	0.837	7.5%	0.943
Oregon	3,369	0.843	47,337	0.942	7.1%	0.895
Pennsylvania	3,960	0.990	47,327	0.941	8.4%	1.052
Rhode Island	4,419	1.105	52,546	1.045	8.4%	1.057
South Carolina	2,877	0.720	39,311	0.782	7.3%	0.920
South Dakota	2,846	0.712	48,244	0.960	5.9%	0.742
Tennessee	2,841	0.711	42,935	0.854	6.6%	0.832
Texas	3,241	0.811	49,854	0.992	6.5%	0.817
Utah	3,204	0.801	42,080	0.837	7.6%	0.957
Vermont	4,439	1.110	45,510	0.905	9.8%	1.226
Virginia	3,940	0.985	57,002	1.134	6.9%	0.869
Washington	3,957	0.990	52,875	1.052	7.5%	0.941
West Virginia	3,256	0.814	36,064	0.717	9.0%	1.135
Wisconsin	4,005	1.001	45,921	0.913	8.7%	1.096
Wyoming	6,118	1.530	71,624	1.425	8.5%	1.074
U.S.	$ 3,999	1.000	50,277	1.000	7.95%	1.000

Sources:

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

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

3) Actual State + Local Tax Revenues by State, Fiscal 2006: 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 2006		
	Higher Education Support[1] Per Capita[2] (FY 08)	Indexed to U.S. Average	Higher Education Support[1] Per $1000 of Personal Income[2] (FY 08)	Indexed to U.S. Average	Tax Revenues and Lottery Profits[3] (thousands FY06)	Higher Education Support[1] (thousands FY06)	Allocation to Higher Education
Alabama	421	1.43	12.51	1.69	12,768,354	1,408,458	11.0%
Alaska	437	1.49	10.09	1.36	3,664,728	252,857	6.9%
Arizona	301	1.02	9.13	1.23	20,081,474	1,605,068	8.0%
Arkansas	315	1.07	10.07	1.36	8,747,018	768,293	8.8%
California	375	1.28	8.79	1.19	164,989,573	12,198,805	7.4%
Colorado	159	0.54	3.76	0.51	17,349,140	678,763	3.9%
Connecticut	295	1.01	5.25	0.71	20,156,837	831,729	4.1%
Delaware	278	0.95	6.82	0.92	3,867,236	216,419	5.6%
Florida	221	0.75	5.65	0.76	67,925,224	3,491,754	5.1%
Georgia	303	1.03	8.93	1.21	31,847,857	2,626,307	8.2%
Hawaii	430	1.46	10.63	1.44	6,199,404	461,171	7.4%
Idaho	278	0.94	8.64	1.17	4,535,606	372,577	8.2%
Illinois	290	0.99	6.85	0.93	52,782,004	3,316,268	6.3%
Indiana	240	0.82	7.03	0.95	23,168,381	1,430,424	6.2%
Iowa	307	1.04	8.36	1.13	10,337,336	825,447	8.0%
Kansas	361	1.23	9.50	1.28	10,518,955	939,550	8.9%
Kentucky	311	1.06	9.77	1.32	13,762,752	1,207,616	8.8%
Louisiana	387	1.32	10.67	1.44	15,842,725	1,285,481	8.1%
Maine	209	0.71	5.92	0.80	5,857,260	246,337	4.2%
Maryland	331	1.13	6.89	0.93	26,289,779	1,525,818	5.8%
Massachusetts	206	0.70	4.05	0.55	31,586,891	1,232,289	3.9%
Michigan	258	0.88	7.32	0.99	36,704,914	2,521,968	6.9%
Minnesota	289	0.99	6.77	0.91	22,611,883	1,365,500	6.0%
Mississippi	373	1.27	12.61	1.70	8,180,449	817,597	10.0%
Missouri	200	0.68	5.67	0.77	18,572,406	1,074,237	5.8%
Montana	208	0.71	6.06	0.82	3,028,785	176,484	5.8%
Nebraska	404	1.37	10.71	1.45	6,904,894	645,143	9.3%
Nevada	248	0.85	6.16	0.83	9,763,849	606,172	6.2%
New Hampshire	104	0.35	2.43	0.33	4,597,337	115,367	2.5%
New Jersey	260	0.88	5.10	0.69	48,156,927	2,226,802	4.6%
New Mexico	581	1.98	18.11	2.45	7,011,316	905,328	12.9%
New York	332	1.13	6.90	0.93	125,863,934	5,604,733	4.5%
North Carolina	436	1.48	12.67	1.71	30,077,354	3,230,055	10.7%
North Dakota	396	1.35	10.07	1.36	2,374,571	215,031	9.1%
Ohio	211	0.72	5.95	0.80	43,893,172	2,269,956	5.2%
Oklahoma	312	1.06	8.44	1.14	11,326,220	922,517	8.1%
Oregon	224	0.76	6.23	0.84	12,885,985	732,026	5.7%
Pennsylvania	185	0.63	4.60	0.62	50,038,485	2,147,680	4.3%
Rhode Island	182	0.62	4.44	0.60	5,003,880	194,298	3.9%
South Carolina	284	0.97	8.92	1.21	12,763,552	1,106,085	8.7%
South Dakota	246	0.84	6.58	0.89	2,359,766	167,567	7.1%
Tennessee	257	0.88	7.49	1.01	17,517,979	1,339,254	7.6%
Texas	293	1.00	7.59	1.03	76,768,160	6,499,797	8.5%
Utah	296	1.01	9.79	1.32	8,283,153	690,228	8.3%
Vermont	146	0.50	3.76	0.51	2,775,877	82,068	3.0%
Virginia	245	0.83	5.71	0.77	30,513,720	1,608,159	5.3%
Washington	270	0.92	6.37	0.86	25,285,757	1,536,329	6.1%
West Virginia	310	1.05	10.05	1.36	6,492,442	416,661	6.4%
Wisconsin	300	1.02	8.03	1.08	22,450,146	1,498,412	6.7%
Wyoming	710	2.42	14.28	1.93	3,136,120	323,920	10.3%
United States	**$294**	**1.00**	**$7.40**	**1.00**	**$ 1,207,621,567**	**$ 77,960,805**	**6.5%**

Sources:

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

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

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

Conclusion

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

The SHEF studies for 2006, 2007 and 2008 indicate a three-year increase in state and local support for public higher education relative to inflation and student demand, following a period of declining public investment in higher education between 2001 and 2005. Budget conditions for 2009, however, seem less favorable in many states, and this national trend may not be sustained in the coming year.

Such recurring budgeting cycles can be challenging and sometimes discouraging. The resiliency of the commitment in the United States to higher education, however, suggests a growing recognition of the importance of higher education in our future. The data and analysis of this and future SHEF reports are intended to help higher education leaders and state policymakers focus on how discrete, year-to-year decisions fit into broader patterns of change over time, and how each step contributes—or not—to meeting longer-term objectives.

Technical Paper A

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

Introduction

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

The Consumer Perspective

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

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

Prices for different goods and services generally change faster or slower than the average rate of increase in the CPI-U. Incomes also grow or decline at different rates. Consumers notice when prices increase; and they become concerned when prices for important goods and services grow faster than their incomes. Prices for higher education and health care, for example, have grown faster than overall consumer prices over the past 15 years. While consumer prices, as measured by CPI-U, grew by 49 percent between 1993 and 2008, the cost of medical care grew by 85 percent,[1] and enrollment-weighted tuition and fees for four-year public universities grew by 175 percent.[2] U.S. income per capita grew by 85 percent [3] 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.

---

[1] "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).

[2] Source: Washington Higher Education Coordinating Board

[3] 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 market basket of higher education cost increases and 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.[4] The GDP IPD reflects general price inflation in the U.S. economy.[5] 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.

---

[4] 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 was adjusted to represent this new series.

[5] 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.

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).

Table 11 displays three indices—the CPI-U, HEPI, and HECA—for the years 1993 to 2008. For comparison purposes, per capita income growth is shown.

Summary of the Indices

Between 1993 and 2008:

- Consumer prices grew by 49 percent;

- Provider prices for higher education grew 60 percent (as estimated by HECA);

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

- Per capita income grew 86 percent.

Table 11

CPI-U, HEPI, HECA, and Per Capita Personal Income, Indexed to Fiscal Year 2008

Fiscal Year	CPI-U [1]	HECA [2]	HEPI [3]	Per Capita Personal Income [4]
1993	67.12	62.51	58.55	53.72
1994	68.83	64.39	60.55	55.80
1995	70.78	66.15	62.33	58.08
1996	72.88	67.90	64.15	60.84
1997	74.55	69.73	66.15	63.76
1998	75.71	71.88	68.48	67.66
1999	77.38	73.89	70.11	70.33
2000	79.98	76.79	73.01	75.13
2001	82.26	80.20	76.57	76.96
2002	83.56	82.75	79.72	77.61
2003	85.46	85.32	82.02	79.34
2004	87.74	88.30	85.84	83.43
2005	90.71	91.29	88.91	87.55
2006	93.64	94.04	93.36	92.49
2007	96.30	97.18	96.51	97.25
2008	100.00	100.00	100.00	100.00
% Change 1993-2008	**49%**	**60%**	**71%**	**86%**

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.

4) U.S. Dept. of Commerce, Bureau of Economic Analysis: State Personal Income.

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 student 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 of enrollments 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).[1] 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 2006 (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 2006 and fall 2005 FTE data. In addition, an aggregated national cost per FTE was calculated to be $10,253. The average national cost per FTE reflects the national enrollment mix among sectors, the most common of which are: Doctoral Research Extensive ($16,065); Doctoral Research Intensive ($11,423); Masters Colleges and Universities ($9,922); and Associate Colleges ($8,171).

---

[1] 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 fall 2005, and then multiplied by the national average cost per FTE in 2005 (FY 2006) 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 0.91 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).

Table 12 shows the EMI, COLA, and combined EMI and COLA measures for each state. *Table 13* 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.

Table 12

Enrollment Mix Index and Cost of Living Adjustments by State, Fiscal 2008

State	EMI[1]	COLA[2]	EMI & COLA Combined
Alabama	1.050	0.902	0.947
Alaska	0.985	1.218	1.199
Arizona	1.047	0.964	1.009
Arkansas	0.953	0.887	0.846
California	0.907	1.090	0.988
Colorado	1.058	1.048	1.109
Connecticut	1.021	1.202	1.228
Delaware	1.187	0.993	1.179
Florida	1.025	0.921	0.944
Georgia	0.991	0.935	0.926
Hawaii	1.092	1.354	1.479
Idaho	1.052	0.957	1.006
Illinois	0.979	1.051	1.028
Indiana	1.108	1.001	1.109
Iowa	1.055	0.995	1.050
Kansas	1.058	0.999	1.057
Kentucky	1.002	0.905	0.907
Louisiana	1.043	0.901	0.940
Maine	1.015	1.091	1.107
Maryland	0.984	0.999	0.983
Massachusetts	0.968	1.218	1.179
Michigan	1.059	1.027	1.088
Minnesota	0.969	1.051	1.019
Mississippi	1.033	0.883	0.912
Missouri	0.972	0.997	0.969
Montana	1.030	0.951	0.980
Nebraska	1.009	1.011	1.020
Nevada	1.016	1.014	1.030
New Hampshire	1.090	1.152	1.255
New Jersey	0.930	1.193	1.110
New Mexico	1.064	0.955	1.016
New York	0.929	1.146	1.065
North Carolina	0.962	0.929	0.893
North Dakota	1.006	1.002	1.008
Ohio	1.086	1.009	1.095
Oklahoma	1.024	0.886	0.908
Oregon	1.042	1.020	1.063
Pennsylvania	1.037	1.068	1.107
Rhode Island	1.090	1.149	1.252
South Carolina	1.010	0.915	0.924
South Dakota	0.992	1.007	0.999
Tennessee	1.051	0.913	0.960
Texas	0.990	0.886	0.877
Utah	1.078	1.007	1.086
Vermont	1.185	1.122	1.329
Virginia	1.062	0.962	1.022
Washington	0.961	1.045	1.005
West Virginia	1.034	0.892	0.922
Wisconsin	1.022	1.031	1.053
Wyoming	1.066	0.966	1.030
U.S.	**1.000**	**1.000**	**1.000**

Source: SHEEO SHEF

Notes: 1) Fall 2004 FTE data and FY2005 finanancial data from IPEDS are used to produce
Enrollment Mix

2) As of 2003

Table 13

**Impact of Enrollment Mix and Cost of Living Adjustments on Interstate Comparison
of Total Educational Funding per FTE, Fiscal 2008**

2006-07 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	12,749	116%	12,143	110%	14,137	128%	13,465	122%
Alaska	19,523	177%	19,825	180%	16,028	145%	16,276	148%
Arizona	12,176	110%	11,635	106%	12,625	114%	12,063	109%
Arkansas	9,280	84%	9,734	88%	10,462	95%	10,973	100%
California	8,583	78%	9,464	86%	7,876	71%	8,684	79%
Colorado	9,917	90%	9,372	85%	9,466	86%	8,946	81%
Connecticut	17,755	161%	17,382	158%	14,773	134%	14,463	131%
Delaware	18,239	165%	15,368	139%	18,365	167%	15,474	140%
Florida	8,580	78%	8,373	76%	9,315	84%	9,089	82%
Georgia	10,221	93%	10,316	94%	10,937	99%	11,037	100%
Hawaii	16,802	152%	15,380	139%	12,409	113%	11,359	103%
Idaho	10,857	98%	10,320	94%	11,350	103%	10,789	98%
Illinois	10,779	98%	11,014	100%	10,260	93%	10,484	95%
Indiana	11,547	105%	10,423	95%	11,531	105%	10,409	94%
Iowa	12,314	112%	11,670	106%	12,379	112%	11,732	106%
Kansas	10,453	95%	9,877	90%	10,468	95%	9,891	90%
Kentucky	13,761	125%	13,735	125%	15,209	138%	15,180	138%
Louisiana	10,226	93%	9,807	89%	11,347	103%	10,882	99%
Maine	13,463	122%	13,263	120%	12,343	112%	12,160	110%
Maryland	13,853	126%	14,074	128%	13,873	126%	14,094	128%
Massachusetts	14,511	132%	14,987	136%	11,914	108%	12,304	112%
Michigan	13,678	124%	12,914	117%	13,314	121%	12,570	114%
Minnesota	11,313	103%	11,672	106%	10,762	98%	11,103	101%
Mississippi	10,094	92%	9,769	89%	11,436	104%	11,068	100%
Missouri	9,976	90%	10,266	93%	10,002	91%	10,294	93%
Montana	9,796	89%	9,509	86%	10,300	93%	9,998	91%
Nebraska	11,498	104%	11,401	103%	11,369	103%	11,273	102%
Nevada	11,076	100%	10,902	99%	10,921	99%	10,750	97%
New Hampshire	11,759	107%	10,793	98%	10,208	93%	9,369	85%
New Jersey	14,685	133%	15,789	143%	12,304	112%	13,229	120%
New Mexico	11,154	101%	10,483	95%	11,682	106%	10,979	100%
New York	12,521	114%	13,473	122%	10,924	99%	11,754	107%
North Carolina	11,305	103%	11,756	107%	12,171	110%	12,656	115%
North Dakota	9,845	89%	9,783	89%	9,826	89%	9,764	89%
Ohio	10,865	99%	10,008	91%	10,768	98%	9,918	90%
Oklahoma	10,464	95%	10,215	93%	11,805	107%	11,523	105%
Oregon	10,636	96%	10,206	93%	10,423	95%	10,002	91%
Pennsylvania	13,713	124%	13,223	120%	12,842	116%	12,383	112%
Rhode Island	14,742	134%	13,528	123%	12,830	116%	11,774	107%
South Carolina	11,735	106%	11,621	105%	12,821	116%	12,697	115%
South Dakota	10,169	92%	10,252	93%	10,100	92%	10,183	92%
Tennessee	10,930	99%	10,398	94%	11,966	109%	11,383	103%
Texas	10,759	98%	10,863	99%	12,144	110%	12,262	111%
Utah	10,314	94%	9,569	87%	10,237	93%	9,497	86%
Vermont	15,270	138%	12,890	117%	13,613	123%	11,492	104%
Virginia	11,127	101%	10,477	95%	11,561	105%	10,885	99%
Washington	9,531	86%	9,913	90%	9,119	83%	9,485	86%
West Virginia	9,844	89%	9,525	86%	11,036	100%	10,678	97%
Wisconsin	10,878	99%	10,646	97%	10,554	96%	10,329	94%
Wyoming	17,417	158%	16,336	148%	18,023	163%	16,904	153%
U.S.	**$11,026**	**100%**	**$11,026**	**100%**	**$11,026**	**100%**	**$11,026**	**100%**

Source: SHEEO SHEF

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) Fiscal Survey of States. Further complicating the issue, states observe different practices in collecting and reporting data. For example, as reported by NASBO, forty-two states include only part of tuition and fees in state expenditures for higher education and thirty-nine states include only 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 appropriations *from tax funds* for universities, colleges, community colleges, and state higher education agencies. *Grapevine* requests that states follow three 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.

*   Local tax support for higher education.

*   Sums appropriated for statewide coordinating or governing boards (for expenses and/or for 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.

Excluded items include appropriations for capital outlays and debt service, and appropriations of sums derived from federal sources, student fees, auxiliary enterprises, and other non-tax sources, including lotteries and royalty income.

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"

The SHEEO survey uses the state's *Grapevine* appropriations number and then adds the following data elements not included in *Grapevine*:

- 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.

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 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 agriculture 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; and

- 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: SHEEO SHEF.

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

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

Enrollment

Full-Time-Equivalent Enrollment (FTE). A measure of enrollment equal to one student enrolled full-time for one academic year, based on all credit hours (including summer sessions). The SHEF data capture FTE enrollments 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 enrollments are 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: SHEEO SHEF.

Revenue

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

Educational Appropriations. Net State Support plus Local Tax Appropriations minus Research, Agricultural, and Medical (RAM) appropriations. Source: SHEEO SHEF.

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: SHEEO SHEF.

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

Net State Support. State support for public higher education annual operating expenses. The difference resulting from Gross State Support less:
- Appropriations returned to the state;

- State-appropriated funds derived from federal sources;

- Portions of multi-year appropriations to be distributed over subsequent years;

- Tuition charges remitted to the state to offset state appropriations;

- Tuition and fees used for capital debt service and capital improvement (other than that paid by students for auxiliary enterprise debt service);

- State funding for students in non-credit continuing or adult education courses and non-credit extension courses;

- Sums appropriated to independent institutions for capital outlay or operating expenses;

- Allocation of appropriations for financial aid grants to students attending in-state independent institutions; and

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

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: SHEEO SHEF.

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: SHEEO SHEF.

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

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 are 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: SHEEO SHEF.

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: SHEEO SHEF.

APPENDIX B – Data Collection Form

SHEF Data Collection and Review FY 2008			
SHEF Survey	**Data Element**	**2008**	**Comments**
Section 1: FTE	1 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.		
	2 Enrollment in schools of medicine, dentistry, veterinary medicine, and osteopathic medicine (hereafter referred to as medical schools). This will be subtracted.		
	Public FTE Net of Medical Enrollment	-	
Section 2: State Appropriations (Subsection 1)	3 State Grapevine data: Appropriations from state government taxes to institutions for operations and other higher education activities. Include student financial aid from state tax appropriations.		
	4a Funding under state auspices for appropriated non-tax state support (e.g. monies from lotteries – including lottery scholarships, tobacco settlement, or casinos, or other gaming) set aside by the state for higher education.		
	4b *Included in Grapevine? (If no, this will be added to Grapevine)*		◄ Click to activate drop-down menu
	5a Funding under state auspices for non-appropriated state support (e.g. 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).		
	5b *Included in Grapevine? (If no, this will be added to Grapevine)*		◄ Click to activate drop-down menu
	6a Sums destined for higher education but appropriated to some other state agency (e.g. administered funds or funds intended for faculty fringe benefits that are appropriated to the state treasurer and disbursed by that office).		
	6b *Included in Grapevine? (If no, this will be added to Grapevine)*		◄ Click to activate drop-down menu
	7a Interest or earning received from state funded endowments set aside and pledged to public sector institutions.		
	7b *Included in Grapevine? (If no, this will be added to Grapevine)*		◄ Click to activate drop-down menu
	8a Portions of multi-year appropriations from previous years.		
	8b *Included in Grapevine? (If no, this will be added to Grapevine)*		◄ Click to activate drop-down menu
	9a Any other state funds not included above. (Please explain in the comments box below). (a)		
	9b *Included in Grapevine? (If no, this will be added to Grapevine)*		◄ Click to activate drop-down menu
	Gross State Support for Public and Independent Higher Education	-	
	10a Appropriations you expect will have to be returned to the state.		
	10b *Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu
	11a State appropriated funds derived from federal sources.		
	11b *Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu
	12a Portions of multi-year appropriations in the current year which are to be spread over other years.		
	12b *Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu

Section 2: State Appropriations (Subsection 2)	13a	Tuition charges collected by the institutions and remitted to the state as an offset to the state appropriations.		
	13b	*Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu
		Auxiliary enterprise revenues (b)		
		Included in Gross State Support? (If yes, this will be subtracted)		
	14a	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.		
	14b	*Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu
	15a	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.		
	15b	*Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu
		Capital outlay for public institutions (b)		
		Included in Gross State Support? (If yes, this will be subtracted)		
	16a	Sums to independent institutions for capital outlay (new construction and debt service/retirement).		
	16b	*Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu
	17a	Sums to independent institutions for operating expenses.		
	17b	*Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu
	18a	Allocation of appropriations for student financial aid grants awarded to students attending state independent institutions (Include dollars intended solely for students attending independent institutions and the independent sector's portion of state aid programs) estimate if needed.		
	18b	*Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu
	19a	Allocation of appropriations for student financial aid grants awarded to students attending out-of-state institutions (estimate if needed).		
	19b	*Included in Gross State Support? (If yes, this will be subtracted)*		◄ Click to activate drop-down menu
		Net State Support for Public Higher Education	-	
Section 3 (Local)	20	Local Appropriations: From local government taxes to institutions for operating expenses.		
Section 4: Research/ Agriculture/ Medical	21	Appropriated sums for research centers, laboratories, and institutes, and appropriated sums separately budgeted by institutions for organized research. General, these are ongoing programs. Include all health and science research.		
	22	Appropriated sums for agricultural experiment stations and cooperative extension services.		
	23	Appropriated sums for teaching or affiliated hospital operations and public service patient care. Include all medical, dental, veterinary, optometry, pharmacy, mental heath, nursing, and other health science institutes, clinics, laboratories, dispensaries, etc. primarily serving the public.		
	24	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 5: Net Tuition	25	Gross Tuition plus Mandatory "Education and General" Fees* (public institutions).		
	26	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.)		
	27	State appropriated student aid for tuition and mandatory fees for public institutions. (Will be subtracted.)		
	28	Tuition and Mandatory Fees paid by public Medical Students. (Will be subtracted.)		
		Net Tuition Revenue (public)	-	
(a) This question was changed (broadened to "all other") in 2007 and is automatically added to your Grapevine amount.				
(b) Questions had previously been collected for information purposes only and were deleted in 2007				

APPENDIX C – State Data Providers

Alabama

Susan Cagle
Director, Institutional Finance and Facilities
Alabama Commission on Higher Education
P. O. Box 3020000
Montgomery AL 36130
(334) 242-2105
susan.cagle@ache.alabama.gov

Alaska

Joe Trubacz
Director, Institutional Finance & Facilities
University of Alaska
P.O. Box 75500
Fairbanks, AK 99775
(907) 450-8022
joe.trubacz@alaska.edu

Arizona

Gale Tebeau
Assistant Executive Director for Business and Finance
Arizona Board of Regents
2020 North Central Ave., Suite 230
Phoenix, AZ 85004
(602) 229-2522
gale.tebeau@azregents.edu

Arkansas

Ashley Pettingill
Institutional Finance Manager
Arkansas Department of Higher Education
114 East Capitol
Little Rock, AR 72201
(501) 371-2025
ashleyp@adhe.edu

California

Kevin Woolfork
Budget Policy Coordinator
California Postsecondary Education Commission
770 L Street, Suite 1160
Sacramento, California 95814-3396
(916) 445-1000
kwoolfork@cpec.ca.gov

Colorado

Andrew Carlson
Budget and Financial Aid Director
Colorado Department of Higher Education
1560 Broadway, Suite 1600
Denver, CO 80202
(303) 866-2723
andrew.carlson@cche.state.co.us

Connecticut

Nancy Brady
Director, Finance & Administration
Connecticut Department of Higher Education
61 Woodland Street
Hartford, CT 06105-2326
(860) 947-1848
nbrady@ctdhe.org

Delaware

Alan Phillips
Data Analyst
Delaware Higher Education Commission
820 N. French Street
Wilmington, DE 19801
(302) 577-5240
aphillips@doe.k12.de.us

Florida

Kristie Harris
Senior Budget Analyst
Florida Board of Governors of the State University System of Florida
325 W. Gaines Street
Tallahassee, Florida 32399-0400
(850) 245-9757
kristie.harris@flbog.org

Alisa Golden
Director of Business Services
Florida Department of Education
325 W. Gaines Street, Suite 1224
Tallahassee, Florida 32399-0400
(850) 245-9994
alisa.golden@fldoe.org

Shruti Graf
Program Specialist
Florida Department of Education
325 West Gaines Street
Tallahassee, Florida 32399-0400
(850) 245-7820
shruti.graf@fldoe.org

Georgia

Kenneth Kincaid
Chief Financial Officer
Technical College System of Georgia
1800 Century Place, Suite 550
Atlanta, GA 30345-4304
(404) 679-1706
kkincaid@tcsg.edu

Robin Wade
Budget Policy Analyst
Budget Office
Board of Regents of the University System of Georgia
270 Washington Street
Atlanta, GA 30334
(404) 656-2234
Robin.wade@usg.edu

Hawaii

Dennis H. Nishino
Program and Budget Manager
University of Hawaii Budget Office
Administrative Services Building 1, Room 101
Honolulu, Hawaii 92822
(808) 956-8513
nishino@Hawaii.edu

Idaho

Scott Christie
Financial Manager
Office of the State Board of Education
650 W. State Street
Boise, ID 83720
(208) 332-1581
scott.christie@osbe.idaho.gov

Illinois

Michael Baumgartner
Executive Deputy Director
Illinois Board of Higher Education
431 East Adams, 2nd Floor
Springfield, IL 62701
(217) 557-7382
baumgartner@ibhe.org

Indiana

Bernard M. Hannon
Associate Commissioner for Facilities and Financial Affairs
Indiana Commission for Higher Education
101 W. Ohio St., Suite 550
Indianapolis, IN 46204
(317) 464-4400
bernieh@che.state.in.gov

Iowa

Patrice Sayre
Chief Business Officer
Board of Regents, State of Iowa
11260 Aurora Avenue
Urbandale, IA 50322
(515) 281-6421
psayre@iastate.edu

Kansas

Diane Duffy
Vice President for Finance and Administration
Kansas Board of Regents
1000 SW Jackson St., Suite 520
Topeka, KS 66612
(785) 296-3421
dduffy@ksbor.org

Kentucky

John Hayek
Vice President, Finance
Council on Postsecondary Education
1024 Capital Center Drive, Suite 320
Frankfort, Kentucky 40601
(502) 573-1555 ext. 280
john.hayek@ky.gov

Louisiana

Donald J. Vandal
Deputy Commissioner for Finance and Administration
Louisiana Board of Regents
P.O. Box 3677
Baton Rouge, La 70821-3677
(225) 342-4253
donnie.vandal@la.gov

Maine

Rebecca Wyke
Vice Chancellor for Finance and Administration
University of Maine System
16 Central St.
Bangor, ME 04401
(207) 973-3350
wyke@maine.edu

Maryland

Andrea E. Mansfield
Assistant Secretary for Finance Policy
Maryland Higher Education Commission
839 Bestgate Road, Suite 400
Annapolis, MD 21401
(410) 260-4537
amansfie@mhec.state.md.us

Massachusetts

Deborah Hattery
Director of Fiscal and Administrative Policy
Massachusetts Department of Higher Education
One Ashburton Place
Boston, MA 02108
(617) 994-6915
dhattery@bhe.mass.edu

Michigan

Glen Preston
Budget Analyst
Office of the State Budget
Romney Building, 111 South Capitol, 6th Floor
Lansing, MI 48909
(517) 335-1539
prestong@michigan.gov

Minnesota

Jack Rayburn
Research and Program Services
Minnesota Office of Higher Education
1350 Energy Park Drive, Suite 350
St. Paul, MN 55108
(651) 259-3967
jack.rayburn@state.mn.us

Mississippi

Linda McFall
Assistant Commissioner of Finance & Administration
MS Institutions of Higher Learning
3825 Ridgewood Road
Jackson, MS 39211
(601) 432-6147
lmcfall@mississippi.edu

Missouri

Paul Wagner
Deputy Commissioner
Missouri Department of Higher Education
3515 Amazonas Drive
Jefferson City, MO 65109
(573) 751-2361
paul.wagner@dhe.mo.gov

Montana

Frieda Houser
Director of Budgeting and Accounting
Montana University System
46 North Last Chance Gulch
Helena, MT 59620-3201
(406) 444-0320
fhouser@montana.edu

Nebraska

Carna Pfeil
Associate Director
Coordinating Commission for Postsecondary Education
P.O. Box 95005
Lincoln, Nebraska 68509-5005
(402) 471-0029
carna.pfeil@ccpe.ne.gov

Nevada

Mike Reed
Vice Chancellor for Finance
Nevada System of Higher Education
2601 Enterprise Road
Reno, NV 89512
(702) 889-8426
mike_reed@nshe.nevada.edu

New Hampshire

Melanie DeZenzo
Budget Director
University System of New Hampshire
Dunlap Center
25 Concord Road
Durham, NH 03824-3545
(603) 862-0968
melanie.dezenzo@usnh.edu

Kathryn Dodge
Executive Director
NH Postsecondary Education Commission
3 Barrell Court, Suite 300
Concord, NH 03301-8543
(603) 271-2555
kdodge@pec.state.nh.us

New Jersey

Betsy Garlatti
Director, Finance and Research
NJ Commission on Higher Education
20 West State St., PO Box 542
Trenton, NJ 08625-0542
(609) 292-3235
betsy.garlatti@che.state.nj.us

New Mexico

Martin "Tino" Pestalozzi
Director of Budget and Finance
New Mexico Higher Education Department
2048 Galisteo Street
Santa Fe, NM 87505
(505) 476-6538
tino.pestalozzi@state.nm.us

New York

Cathy Abata
Acting Deputy Budget Director
City University of New York System
State University of New York, State University Plaza
Albany, New York 12246
catherine.abata@mail.cuny.edu

Peggy O'Day
Assistant University Controller
State University of New York System
State University of New York, State University Plaza
Albany, New York 12246
(518) 443-5467
peggy.oday@SUNY.edu

North Carolina

Ginger Burks
Associate Vice President for Finance
University of North Carolina-General Administration
910 Raleigh Road
Chapel Hill, NC 27515-2688
(919) 962-4604
ginger@northcarolina.edu

Kimberly L. Van Metre
Systems Accounting & Special Projects Manager
North Carolina Community College System
5013 Mail Service Center
Raleigh, NC 27699-5013
(919) 807-7071
vanmetrek@nccommunitycolleges.edu

North Dakota

Laura Glatt
Vice Chancellor for Administrative Affairs
North Dakota University System
600 E Boulevard, Dept 215
Bismarck, ND 58505-0230
(701) 328-4116
laura.glatt@ndus.nodak.edu

Ohio

Kathleen Hensel
Director, Finance
Ohio Board of Regents
30 East Broad Street, 36th Floor
Columbus, Ohio 43215
(614) 466-6675
khensel@regents.state.oh.us

Oklahoma

Amanda Paliotta
Vice Chancellor for Budget and Finance
Oklahoma State Regents for Higher Education
655 Research Parkway, Suite 200
Oklahoma City, OK 73107
(405) 225-9126
apaliotta@osrhe.edu

Oregon

Jay Kenton
Vice Chancellor for Finance & Administration
Oregon University System
P. O. Box 488
Corvallis, Oregon 97339-0488
(541) 737-3646
jay_kenton@ous.edu

Paul Schroeder
Institutional Researcher
Department of Community Colleges and Workforce
Development
255 Capitol St NE
Salem, OR 97310
(503) 378-8648
paul.schroeder@state.or.us

Susan Degen
Opportunity Grant Administrator
Oregon Student Asssistance Commission
1500 Valley River Drive, Suite 100
Eugene, OR 97401
(541) 687-7451
susan.r.degan@state.or.us

Pennsylvania

Barbara Nelson
Acting Director, Bureau of Budget & Fiscal
Management
Pennsylvania Department of Education
333 Market Street, 4th Floor
Harrisburg, PA 17126-0333
(717) 787-7808
bnelson@state.pa.us

Rhode Island

Robin Beaupre
Acting Chief Financial Officer & Budget Administrator
Rhode Island Board of Governors for Higher Education
The Hazard Building
74 West Road
Cranston, RI 02920
(401) 455-9326
rbeaupre@ribghe.org

South Carolina

Gary S. Glenn
Director for Finance, Facilities & MIS
South Carolina Commission on Higher Education
1333 Main St., Suite 200
Columbia, SC 29201
(803) 737-2155
gglenn@che.sc.gov

South Dakota

Monte R. Kramer
Vice President for Administrative Services
South Dakota Board of Regents
306 E. Capitol, Suite 200
Pierre, South Dakota 57501-2545
(605) 773-3455
montek@sdbor.edu

Tennessee

Jim Vaden
Chief Fiscal Officer
Tennessee Higher Education Commission
404 James Robertson Pkwy; Suite 1900
Nashville, TN 37243-0830
(615) 741-7575
jim.vaden@state.tn.us

Texas

Susan Brown
Assistant Commissioner, Planning and Accountability
Texas Higher Education Coordinating Board
PO Box 12788
Austin, TX 78711
(512) 427-6132
susan.brown@thecb.state.tx.us

Utah

Gregory Stauffer
Associate Commissioner of Finance and Facilities
Utah System of Higher Education
The Board of Regents Building, The Gateway
60 S. 400 W.
Salt Lake City, Utah 84101
(801) 321-7131
gstauffer@utahsbr.edu

Vermont

Gabrielle Sealy
Research Analyst
Vermont Student Assistance Corporation
P.O. Box 2000, 10 East Allen Street
Winooski, VT 05404
(802) 654-3770 x 396
sealy@vsac.org

Thomas A. Robbins
VP Finance, CFO
Vermont State Colleges
PO Box 359
Waterbury, VT 05676
(802) 241-2531
robbinst@vsc.edu

Richard Cate
Interim Vice President for Finance and Administration
University of Vermont
Waterman Building
Burlington, VT 05405
(802) 656-0219
richard.cate@uvm.edu

Virginia

Dan Hix
Finance Policy Director
State Council of Higher Education for Virginia
101 North 14th Street, 9th Floor
Richmond, VA 23219
(804) 225-3188
danhix@schev.edu

Washington

Jim Reed
Interim Director, Fiscal Policy
Washington State Higher Education Coordinating Board
917 Lakeridge Way / PO Box 43430
Olympia WA 98504-3430
(360) 753-7865
jimr@hecb.wa.gov

West Virginia

Patty Miller
Budget Officer
West Virginia Higher Education Policy Commission
1018 Kanawha Boulevard
Charleston, WV 25301
(304) 558-0281
miller@hepc.wvnet.edu

Wisconsin

Deborah Durcan
Vice President for Finance
University of Wisconsin System Administration
1220 Linden Drive; 1752 Van Hise Hall
Madison, WI 53706
(608) 262-1311
ddurcan@uwsa.edu

Wyoming

Phillip B. Harris
Vice President for Administration
University of Wyoming, Dept # 3982
1000 E. University Ave.
Laramie, WY 82071
(307) 766-5768
pharris@uwyo.edu

Matt Petry
Director of Budget and Finance
Wyoming Community College Commission
2020 Carey Avenue, 8th Floor
Cheyenne, WY 82002
(307) 777-5859
mpetry@commission.wcc.edu

SHEEO

State Higher Education Executive Officers
3035 Center Green Drive, Suite 100, Boulder, Colorado, 80301
(303) 541-1600
www.sheeo.org