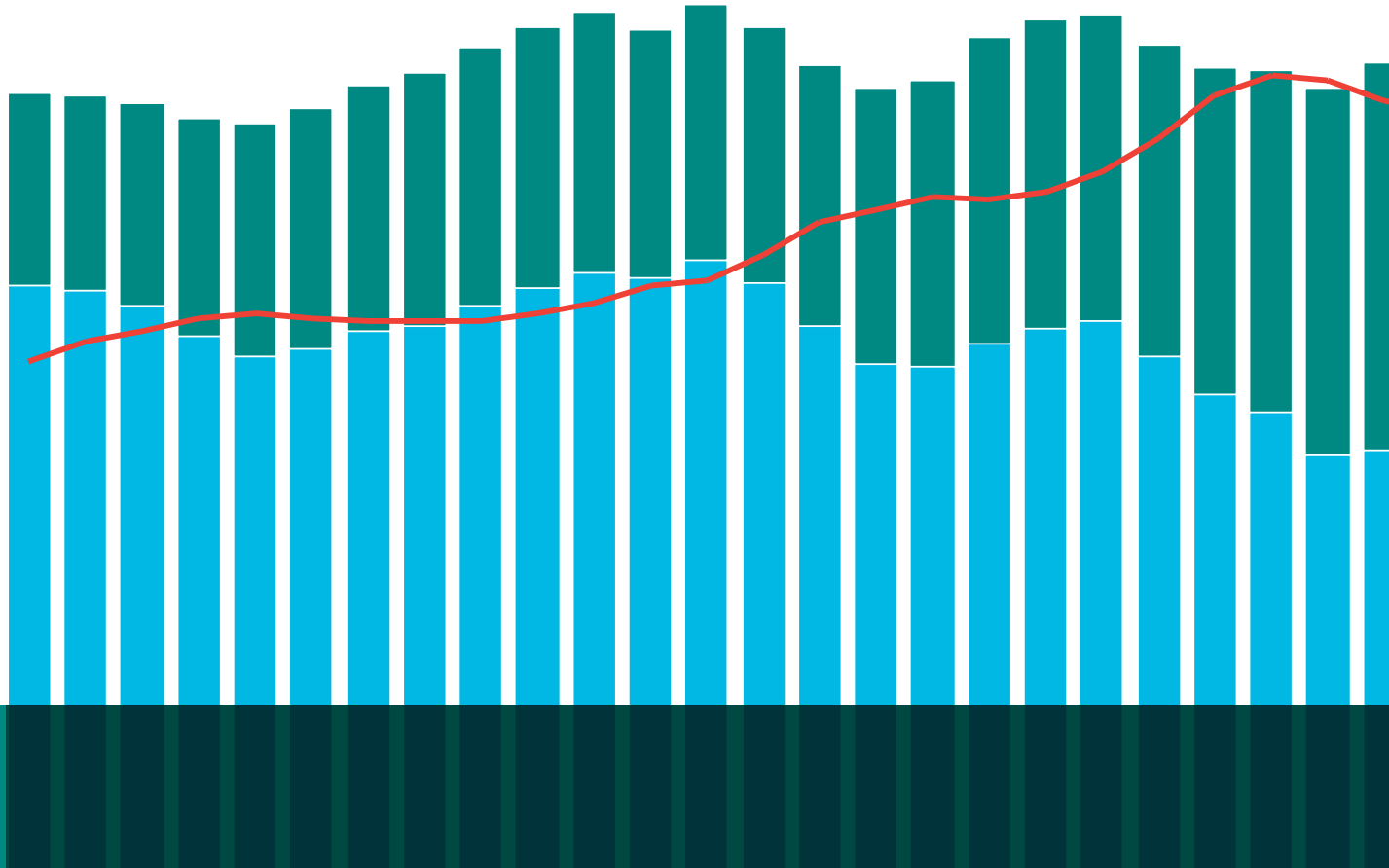
SHEEO

STATE HIGHER EDUCATION EXECUTIVE OFFICERS ASSOCIATION

SHEF: FY 2015

STATE HIGHER EDUCATION FINANCE



The State Higher Education Executive Officers (SHEEO) is the national association of the chief executives of statewide governing, policy, and coordinating boards of postsecondary education. Founded in 1954, SHEEO serves its members as an advocate for state policy leadership, as a liaison between states and the federal government, as a vehicle for learning from and collaborating with peers, and as a source of information and analysis on educational and public policy issues. SHEEO seeks to advance public policies and educational practices to achieve more widespread access and successful participation in higher education, more new discoveries through research, and more applications of knowledge that improve the quality of human lives.

An electronic version of this report, State Higher Education Finance FY 2015, 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 1993 through 2015 are available on the SHEEO website and also through the National Center for Higher Education Management Systems (NCHEMS) sponsored Information Center for State Higher Education Policymaking and Analysis website at *www.higheredinfo.org*.

ACKNOWLEDGEMENTS

We are pleased to present the thirteenth annual SHEEO State Higher Education Finance Survey (SHEF) study of state support for higher education. For the second consecutive year, we continue to make improvements to the look, feel, and presentation of the SHEF report and through additional features on the SHEF webpage (*www.sheeo.org/shef*). We hope these changes provide additional utility as SHEF becomes a resource used year round by staff at our member agencies, policymakers, researchers, and the media who report on higher education issues. Of course, SHEF's underlying data provide the real strength of this project and no changes were made to the data or its basic presentation in the report. SHEEO developed the SHEF study building directly on a twenty-five-year effort by Kent Halstead, an analyst and scholar of state policy for higher education, and the SHEF dataset now extends from 1980 to 2015.

SHEEO is deeply indebted to the staff of state higher education agencies who annually provide the state-level data essential for the preparation of this report. Without their diligence and commitment, this project would not be possible. We also acknowledge and greatly appreciate the input and suggestions from many state higher education finance officers (SHEFOs); Dr. James Palmer at Illinois State University, who heads up the *Grapevine* survey; and the broader higher education community who utilize SHEF.

Sophia Laderman, a new data analyst at SHEEO, managed the data collection process along with the quality control and analysis of data in order to assemble the SHEF report while Andrew Carlson was on family leave. She contributed greatly to this year's project and provided a fresh perspective on the process we go through each year to prepare the report. After welcoming twins into his family, Andrew Carlson returned to SHEEO and was the principal author along with Sophia on this year's report.

We are also appreciative and acknowledge the dedication and professionalism of John Armstrong, who contributed to the presentation of the interactive data components on our SHEF webpage (*www.sheeo.org/shef*), and Gloria Auer, who provided editorial support during the writing of this report. Finally, Andy Sherman, with Can of Creative (*www.canofcreative.com*), provided the graphics and design for the FY 2015 SHEF report and we appreciate his efforts and the final product.

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INTRODUCTION

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

- What level of state funding for colleges and universities is necessary to maintain the economic and social well-being of its citizenry and ensure the United States remains globally competitive?
- How do state funding levels and the correlation between state funding and reliance on tuition revenue at public institutions of higher education influence the implementation of state and national completion/attainment goals?
- How should state funding be distributed? What is the impact of implementing and allocating outcomes-based funding models on institutional behavior and performance?
- How can states balance the need for higher education support with the needs of other major state programs given limited resources and budgetary pressures, especially as the demands and obligations of other major budget drivers increase faster than overall state revenues?
- What tuition levels are appropriate given the costs of higher education, its benefits to individuals and to the general public, and the desirability of encouraging participation and improving degree and certificate attainment? How do changes to tuition policy, rates, and the impact of student financial aid on tuition pricing impact participation, access, and ultimately attainment?
- What level of student financial assistance is necessary to provide meaningful educational opportunities for traditionally underserved students and students from low- and moderate-income families?
- How might colleges and universities use available resources to increase productivity without impairing the quality of student services and student learning? What levels of productivity and efficiency should we expect from an industry whose costs are primarily driven by personnel needs?

As the cost of college rises for students and families along with the potential economic benefit of earning a quality credential or degree, the economic risk of attempting postsecondary education also increases. Greater attention to these costs and benefits influences the environment in which political leaders, policymakers, and educators must address the issues and questions listed above.

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

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

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

NOTE: Generally, years referenced in the body of this publication refer to state fiscal years (FY), which commonly start July 1 and run through June 30 of the following calendar year. For example, FY 2015 includes July 2014 through June 2015. 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

In 2015, states invested $81.8 billion in higher education, a 6 percent increase over the prior year in unadjusted terms (*see Table 1*). Total state funding for higher education increased for the third straight year from a low of $71.9 billion in 2012. Local governments invested $9.1 billion from property tax revenue in 2015 primarily for local district community colleges. Although down from the prior year's level, this investment is above that of 2012, the low point of the Great Recession. Initial estimates of 2016 state appropriations for higher education from the *Grapevine* survey show another increase of 4.1 percent. These data all point to continued economic recovery and reinvestment in higher education by state and local governments on the whole, although they mask wide variation among the states.

Of the $90.9 billion that state and local governments invested in higher education, the majority ($88 billion) went to support **public** higher education (*see Table 2*). This was an increase of 5 percent from the prior year in unadjusted terms. In addition, public institutions collected net tuition revenue of $66.9 billion in 2015, up 3 percent from the prior year. Adjusting for inflation, state and local support grew 3 percent between 2014 and 2015, while net tuition revenue grew slightly at 1 percent.

To fully understand the revenue picture for higher education in the United States, both inflation and enrollment must be considered. For the fourth year in a row, FTE enrollment declined and is now 11,136,560 student FTE (*see Table 4*). This enrollment decline may be further evidence of continued economic recovery as more potential students are able to find employment. Despite these four years of declines, FTE enrollment remains 8.6 percent higher than in 2008, right before the Great Recession began.

The 1.1 percent decline in FTE enrollment combined with a 4.1 percent increase in appropriations means that constant dollar educational appropriations from state and local governments per student increased 5.2 percent to a current level of $6,966 (*see Figure 1*). This is the third year in a row of increased educational appropriations per student, after four years of declines in 2009 through 2012. Continued increases are more evidence that economic recovery following the Great Recession continues, but educational appropriations per student remain 15.3 percent below the 2008 pre-recession high.

Reliance on net tuition revenue reached its peak of 47.8 percent in 2013 (*see Figure 2*). Since that time, net tuition revenue as a share of total educational revenue declined to 47.2 percent in 2013 and 46.5 percent in 2015. Although this recent trend is positive, reliance on tuition remains significantly higher than it was before the Great Recession. In 2008, the share was 35.8 percent.

The total educational revenue per FTE available from educational appropriations and net tuition revenue is now above pre-recession levels, reaching $12,907 in 2015 (*see Table 7*). In other words, three years of increases in per student appropriations—along with increases in tuition revenue—has returned funding to the levels prevailing before the Great Recession began. While this is true for the national numbers, there is wide variance among the states. In fact, 19 states remain below their 2008 pre-recession levels.

The data presented throughout the SHEF report largely indicate economic recovery and reinvestment in higher education by state and local governments and decreasing reliance on tuition revenue as a share of total educational revenue. This report illustrates the long-term patterns, shorter-term changes, and state-level variables affecting the resources available to support higher education between 1990 and 2015.

MEASURES, METHODS, AND ANALYTICAL TOOLS

PRIMARY SHEF MEASURES

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

- **State and Local Support** consists of state tax appropriations and local tax support plus additional nontax 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). State and local support for 2009–2012 also includes federal American Reinvestment and Recovery Act (ARRA) revenue provided to stabilize these sources of revenue for higher education.

- **Educational Appropriations** are that part of state and local support available for public higher education operating expenses. They are defined to exclude spending for research, agricultural, and medical education, as well as support for independent institutions or students attending them. Since funding for medical education and other major non-instructional purposes varies substantially across states, excluding these funding components helps to improve the comparability of state-level data on a per student basis.

- **Net Tuition Revenue** is 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 from tuition and fees to support instruction and related operations at public higher education institutions and includes revenue from in-state and out-of-state students as well as undergraduates and graduate students. Net tuition revenue generally reflects the share of instructional support received from students and their families, although it is not the same as and does not take into account many factors that need to be considered in analyzing the "net price" students pay for higher education.[1]

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 non-tuition costs borne by students. Non-tuition costs (room and board, transportation, books, and incidentals) typically total $10,000 or more annually in addition to tuition costs. This requires students with a low expected family contribution (most Pell recipients) to augment federal grants with a substantial contribution from part-time work or loans, even at a comparatively low-tuition public institution. In addition, the availability of federal tuition tax credits since 1999 has helped reduce "net price" for middle- and lower-middle-income students. While these tax credits have no impact on the net tuition revenue received by institutions, they do reduce the "net price" paid by students. SHEF's net tuition revenue statistic is not a measure of "net price," but a measure of the revenue that institutions receive from tuition. It is a straightforward measure of the proportion of public institution instructional costs borne by students and families. Measures of net price for the student need to include non-tuition costs and all forms of aid.

- **Total Educational Revenue** is the sum of educational appropriations and net tuition revenue excluding any tuition revenue used for capital and debt service. It measures the amount of revenue available to public institutions to support instruction (excluding medical students). Very few public institutions have significant non-restricted revenue from gifts and endowments to support instruction. In some states, a portion of the net tuition revenue is used to fund capital debt service and similar non-operational activities. These sums are excluded from calculations used to determine total educational revenue.

- **Full-Time Equivalent Enrollment (FTE)** is a measure of enrollment equal to one student enrolled full time for one academic year, calculated from the aggregate number of enrolled credit hours (including summer session enrollments). SHEF excludes most non-credit or non-degree program enrollments; medical school enrollments also are excluded for the reasons mentioned above. The use of FTE enrollment reduces multiple types of enrollment to a single measure in order to compare changes in total enrollment 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 across states and over time. Toward that end, financial indicators are provided on a per student basis (using FTE enrollment as the denominator), and the State Higher Education Finance (SHEF) report employs three adjustments to the "raw data" provided by states:

- **Cost of Living Adjustment (COLA)**—to account for cost of living differences among the states;

- **Enrollment Mix Index (EMI)**—to adjust for differences in the mix of enrollment and costs among types of institutions with different costs across the states; and

- **Higher Education Cost Adjustment (HECA)**—to adjust for inflation over time.

Technical Papers A and B on the SHEF webpage (*www.sheeo.org/shef-projectInformation*) describe these adjustments in some detail. Tables provided in these technical papers show the actual effects of the COLA and EMI adjustments on the data provided by individual states, as well as the HECA adjustment from current to constant dollars (inflation-adjusted dollar values that are made annually to reflect inflation).

FINANCIAL DATA IN PERSPECTIVE: USES AND CAUTIONS

Higher education financial analysis is essential, but using financial data can be tricky and even deceptive. Data providers often adjust their state data from prior years as more accurate information becomes available. This section is intended to help readers and users focus on some of the core purposes of interstate financial analysis, while being cognizant of limitations inherent in the data and methods.

Comparing institutions and states is a difficult task. Consider how different the states are, even after adjusting for population size. They vary in climate, energy costs, housing costs, population

densities, growth rates, resource bases, and the mix of industries and enterprises driving their local economies. Some have a relatively homogeneous, well-educated population, while others have large numbers of traditionally underserved populations and recent immigrants. Most states have pockets of poverty, but these vary in their extent and concentration. Finally, the extent and rate at which these socioeconomic and demographic factors are changing also varies across states.

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

In addition to these differences, technical factors can distort interstate comparisons. 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 of state spending on higher education and how these investments are allocated;
- Assess trends in the proportion or "share" that students and families are paying for higher education;
- See how funding of their state's higher education system compares to that in other states; and
- Assess the capacity of a state's economy and tax policies to generate revenue to support public priorities such as higher education.

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

Many educators and policymakers (and segments of the public) may look to interstate financial analysis to determine "appropriate" or "sufficient" funding for higher education, but sufficiency is meaningful only in the context of a particular state's objectives and circumstances. State leaders, educators, and others must work together to set goals and develop strategies to achieve those goals, and then determine the amount and allocation 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 additional spending does not necessarily yield proportional increases in quantity or quality.[2] Efficiency is a thorny issue in education finance; educators can always find good uses for additional resources, and resources are always 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. Making authentic productivity gains requires sustained effort and a combination of investing in priorities and finding efficiencies through incentives, reallocation, and innovation. And such an effort cannot focus solely on the numbers of degrees but must also consider measures (direct and indirect) of student learning and achievement.

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

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

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

2 Kelly, P. and Jones, D. (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 represents the third largest major budget area of state spending from state and local tax sources. According to the National Association of State Budget Officers (NASBO), 13.3 percent of state funds are allocated to higher education.[3] It is generally understood that state funding for higher education acts as the "balance wheel" during economic downturns with funding reductions typically greater than reductions in other budget areas. Historically, this has been due, in part, to the fact that higher education funding reductions can be offset (in whole or in part) with money from tuition increases.

Table 1 below presents state and local support in current unadjusted dollars for fiscal years 2010 through 2015. It shows the lingering impacts of the Great Recession that began in 2009 and evidence of continued recovery of state and local funding sources provided to higher education. As shown in the table, state funding grew 6 percent in 2015 to $81.8 billion from $77.2 billion in 2014. Local funding fell 3.2 percent over the same time period with total funding from both sources up 5 percent to $90.9 billion. These funding amounts are not adjusted for inflation or for enrollment. Later sections of the report will show the impact of these two factors on state and local funding for higher education. In total, these are the largest funding levels over the five-year time frame presented in *Table 1* and indicate the third consecutive year of continued economic recovery after the Great Recession.

This section provides data and analysis of the sources of state and local government support for higher education, focusing on the most recent five-year trend (2010-2015). It also provides an overview of the major uses of that support including state support for:

1. Research, agricultural extension, and medical education;
2. Student financial aid;
3. Funding for independent private, nonprofit institutions of higher education;
4. Non-credit and continuing education; and
5. General operations support at public institutions of higher education.

As shown in *Table 1*, sources for the $90.9 billion in state and local government support for higher education in 2015 included the following:

- State sources accounted for $81.8 billion (90.2 percent) with $78 billion of that amount from tax appropriations in 2015. Tax appropriations accounted for 85.8 percent of the total state and local funding provided to higher education, and grew by 6.4 percent over 2014 levels.
- Nontax appropriations, mostly from state lotteries, continued to grow and exceeded $3.1 billion (3.4 percent) in 2015.

3 Sigritz, B. (2015). *State Expenditure Report Summary: Examining Fiscal 2013-2015 State Spending*. Washington, DC: NASBO.

- Local appropriations to support community colleges were provided in 29 states and made up 10 percent of the total support in 2015. At $9.1 billion, local appropriations fell in 2015 from a high of $9.4 billion in 2014. Local funding actually grew during the Great Recession and through 2014, and may now be leveling off.[4]
- State-funded endowment earnings accounted for another 0.5 percent.
- Non-appropriated support, often from oil and mineral extraction fees or royalties, accounted for 0.1 percent of the total funding provided by state and local governments.

Major uses of the $90.9 billion in 2015 state and local government funding for higher education included the following:

- $70.6 billion (77.7 percent) for general operating expenses of **public** institutions of higher education.
- $10.5 billion (11.5 percent) went to special purpose appropriations for research, agricultural extension programs, and medical education.
- $9.3 billion (10.2 percent) was allocated to state-funded student financial aid programs. The bulk of this aid goes to students attending public institutions within a state. In fact, state funding for financial aid programs at public institutions increased 5.6 percent in 2015 to $6.9 billion and now represents 7.6 percent of the total funding provided by state and local government sources. In the pre-recession high point of 2008, states allocated $5 billion to financial aid at public institutions. Throughout the downturn, states largely protected these investments and overall funding in this area has grown in each of the last three years.
- Fourteen states provided funding for operations at independent institutions and this amount totaled $2.3 billion in 2015.
- $3.3 billion (0.4 percent) was spent on non-credit and continuing education programs in the states.

4 A reduction of $466 million in local funds to the Wisconsin Technical College System caused a decrease from 2014-2015 (state appropriations increased in Wisconsin to substitute for this loss of local funding). Without this change in Wisconsin, local funding would continue to increase for 2015.

TABLE 1

STATE AND LOCAL SUPPORT: DISTRIBUTION OF SOURCES AND USES, U.S., FY 2010-2015 (CURRENT DOLLARS, IN MILLIONS)

SOURCE	2010	2011	2012	2013	2014	2015	2015 % DISTRIBUTION
STATE SUPPORT							
ARRA FUNDS	$4,495	$2,840	$117	-	-	-	-
TAX APPROPRIATIONS	$70,692	$72,170	$68,155	$68,598	$73,331	$78,019	85.8%
ALL NON-TAX SUPPORT	$2,818	$2,989	$2,949	$2,922	$3,021	$3,127	3.4%
NON-APPROPRIATED SUPPORT	$79	$79	$89	$82	$88	$93	0.1%
STATE FUNDED ENDOWMENT EARNINGS	$401	$387	$471	$498	$530	$483	0.5%
OTHER[1]	$254	$539	$257	$266	$312	$201	0.2%
FUNDS NOT AVAILABLE FOR USE[2]	$394	$833	$104	$72	$81	$76	0.1%
STATE SUPPORT TOTAL	$78,344	$78,170	$71,934	$ 72,295	$77,202	$81,847	90.2%
LOCAL TAX APPROPRIATIONS	$8,697	$8,821	$8,743	$9,208	$9,368	$9,074	10.0%
TOTAL	**$87,041**	**$86,991**	**$80,676**	**$81,503**	**$86,570**	**$90,921**	**100.2%**
USES							
RESEARCH-AGRICULTURE-MEDICAL (RAM)	$10,263	$10,183	$9,853	$10,077	$10,422	$10,472	11.5%
PUBLIC STUDENT AID[3]	$5,706	$6,479	$6,372	$6,588	$6,572	$6,940	7.6%
INDEPENDENT STUDENT AID[4]	$2,369	$2,342	$2,305	$2,256	$2,282	$2,303	2.5%
OUT-OF-STATE STUDENT AID	$38	$36	$35	$35	$34	$34	0.0%
INDEPENDENT INSTITUTIONS	$214	$183	$182	$178	$190	$211	0.2%
NON-CREDIT AND CONTINUING EDUCATION	$340	$354	$330	$335	$327	$328	0.4%
GENERAL PUBLIC OPERATIONS	$68,111	$67,414	$61,599	$62,034	$66,743	$70,634	77.7%
TOTAL	**$87,041**	**$86,991**	**$80,676**	**$81,503**	**$86,570**	**$90,921**	**100.0%**

Percentages may not equal 100 due to rounding.

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

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

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

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

SOURCE: State Higher Education Executive Officers

NATIONAL TRENDS IN ENROLLMENT AND REVENUE

This section highlights national trends in higher education enrollment and the relationship between these trends and available revenues (and other components of financing). These "national" trends are actually composites of 50 unique and varied state trends, which are shown in the following section, **Interstate Comparisons–Making Sense of Many Variables**. For example, "national educational appropriations per FTE" is the sum of all educational appropriations divided by the sum of all net FTE across the 50 states. It is not the average of each of the 50 states' individual per-FTE calculations. Please refer to the **Methods, Measures, and Analytical Tools** section for more information on the metrics presented here and the adjustment factors utilized.

Table 2 presents a 25-year look at the SHEF Higher Education Finance Indicators and shows the impact of inflation and enrollment over time on higher education support for **public institutions**. It is a starting point for understanding the national story of public higher education funding from state and local sources, tuition revenue from students and families, and enrollment over time. The years 1990, 2005, 2010, 2014, and 2015 are shown, allowing for 25-year, 10-year, 5-year, and 1-year comparisons. The first section of the table shows unadjusted current dollars. Section two shows the impact of inflation by presenting the data in constant 2015 terms, while the third section presents the impact of both inflation and enrollment growth over time on these measures.

TABLE 2

IMPACT OF INFLATION AND ENROLLMENT ON HIGHER EDUCATION FINANCE, U.S., FY 1990-2015

	1990	2005	2010	2014	2015	1 YEAR CHANGE	5 YEAR CHANGE	10 YEAR CHANGE	25 YEAR CHANGE
CURRENT *UNADJUSTED* DOLLARS (*MILLIONS*)									
ARRA FUNDS	-	-	$4,495	-	-	N/A	N/A	N/A	N/A
STATE	$38,006	$62,605	$70,889	$74,368	$78,971	6%	11%	26%	108%
LOCAL	$2,791	$6,616	$8,697	$9,368	$9,074	-3%	4%	37%	225%
[A] STATE AND LOCAL SUPPORT FOR PUBLIC HIGHER EDUCATION	**$40,797**	**$69,221**	**$84,080**	**$83,737**	**$88,046**	**5%**	**5%**	**27%**	**116%**
[B] RESEARCH-AGRICULTURE-MEDICAL (RAM)	$7,026	$9,388	$10,263	$10,422	$10,472	0%	2%	12%	49%
[C] EDUCATIONAL APPROPRIATIONS [A-B]	$33,771	$59,833	$73,817	$73,315	$77,573	6%	5%	30%	130%
[D] NET TUITION	$11,257	$33,896	$50,472	$64,897	$66,890	3%	33%	97%	494%
[E] TUITION AND FEES USED FOR DEBT SERVICE[1]	-	$317	$529	$701	$723	3%	37%	128%	N/A
TOTAL EDUCATIONAL REVENUE [C+D-E]	**$45,028**	**$93,412**	**$123,760**	**$137,511**	**$143,740**	**5%**	**16%**	**54%**	**219%**
CONSTANT *ADJUSTED* DOLLARS (*MILLIONS*)									
ARRA FUNDS	-	-	$4,935	-	-	N/A	N/A	N/A	N/A
STATE	$75,953	$77,964	$77,834	$75,602	$78,971	4%	1%	1%	4%
LOCAL	$5,578	$8,239	$9,549	$9,524	$9,074	-5%	-5%	10%	63%
[A] STATE AND LOCAL SUPPORT FOR PUBLIC HIGHER EDUCATION	**$81,531**	**$86,203**	**$92,318**	**$85,125**	**$88,046**	**3%**	**-5%**	**2%**	**8%**
[B] RESEARCH-AGRICULTURE-MEDICAL (RAM)	$14,041	$11,691	$11,268	$10,595	$10,472	-1%	-7%	-10%	-25%
[C] EDUCATIONAL APPROPRIATIONS [A-B]	$67,490	$74,512	$81,049	$74,531	$77,573	4%	-4%	4%	15%
[D] NET TUITION	$22,496	$42,212	$55,417	$65,973	$66,890	1%	21%	58%	197%
[E] TUITION AND FEES USED FOR DEBT SERVICE[1]	-	$395	$580	$713	$723	1%	25%	83%	N/A
TOTAL EDUCATIONAL REVENUE [C+D-E]	**$89,986**	**$116,329**	**$135,886**	**$139,791**	**$143,740**	**3%**	**6%**	**24%**	**60%**
CONSTANT *ADJUSTED* DOLLARS (*MILLIONS, PER FTE*)									
FULL-TIME EQUIVALENT ENROLLMENT (FTE)[2]	**7,768,621**	**9,895,854**	**11,358,769**	**11,258,230**	**11,136,560**	**-1%**	**-2%**	**13%**	**43%**
EDUCATIONAL APPROPRIATIONS PER FTE	$8,688	$7,530	$7,135	$6,620	$6,966	5%	-2%	-7%	-20%
NET TUITION PER FTE	$2,896	$4,266	$4,879	$5,860	$6,006	2%	23%	41%	107%
TOTAL EDUCATIONAL REVENUE PER FTE	**$11,583**	**$11,755**	**$11,963**	**$12,417**	**$12,907**	**4%**	**8%**	**10%**	**11%**

NOTES: 1) Tuition and fees used for debt service were not reported in 1990.
2) FTE enrollment excludes medical school enrollments.

SOURCE: State Higher Education Executive Officers

Over the last 25 years, total state and local support for public higher education grew 116 percent in unadjusted terms from $40.8 billion in 1990 to $88 billion in 2015. Adjusting for inflation and presenting each year in 2015 terms takes 1990 state and local funding to $81.5 billion, meaning that in constant dollars, funding increased 8 percent over this time frame. Between 2014 and 2015, state and local funding grew 5 percent to $88 billion. When inflation is considered, growth in real terms declines to 3 percent, still a substantial year-over-year increase in total support.

General operations at public institutions of higher education are funded from state and local support **and tuition revenue**. The SHEF report tracks net tuition revenue over time and shows that overall net tuition revenue has grown 197 percent in constant dollars since 1990. This growth is due in large part to enrollment growth of 43 percent from 7.8 million to 11.1 million student FTE between 1990 and 2015. Put simply, significantly more students are paying tuition charges. In addition to enrollment growth, net tuition revenue will also increase due to increases in tuition rates and changes in enrollment mix (e.g., more non-resident students or more graduate students paying higher rates).

The third section of *Table 2* summarizes the impact of inflation and enrollment of higher education funding. Since 1990, student FTE enrollment has increased 43 percent, while educational appropriations per FTE have declined 20 percent, meaning state and local funding has not kept up with either inflation or enrollment growth over time. Net tuition revenue per FTE has increased 107 percent since 1990 in constant dollars. Taken together, the sum of educational appropriations and net tuition revenue per FTE has increased 11 percent. In other words, net tuition revenue has now more than made up for the declines in state and local funding per student over the most recent 25-year period. However, as noted later, this is only true in half of all states.

Figures 1 and 2 explore this relationship further. The historical data in *Figure 1* (the Wave Chart) demonstrate the relationships between higher education enrollment and revenue over time, especially the impact of the economic cycle on these measures over the last 25 years. *Figure 2* (the Tuition Trend Line Chart) tracks the share of total educational revenues from net tuition revenue over time. *Figures 1 and 2* also illustrate the longer-term trends.

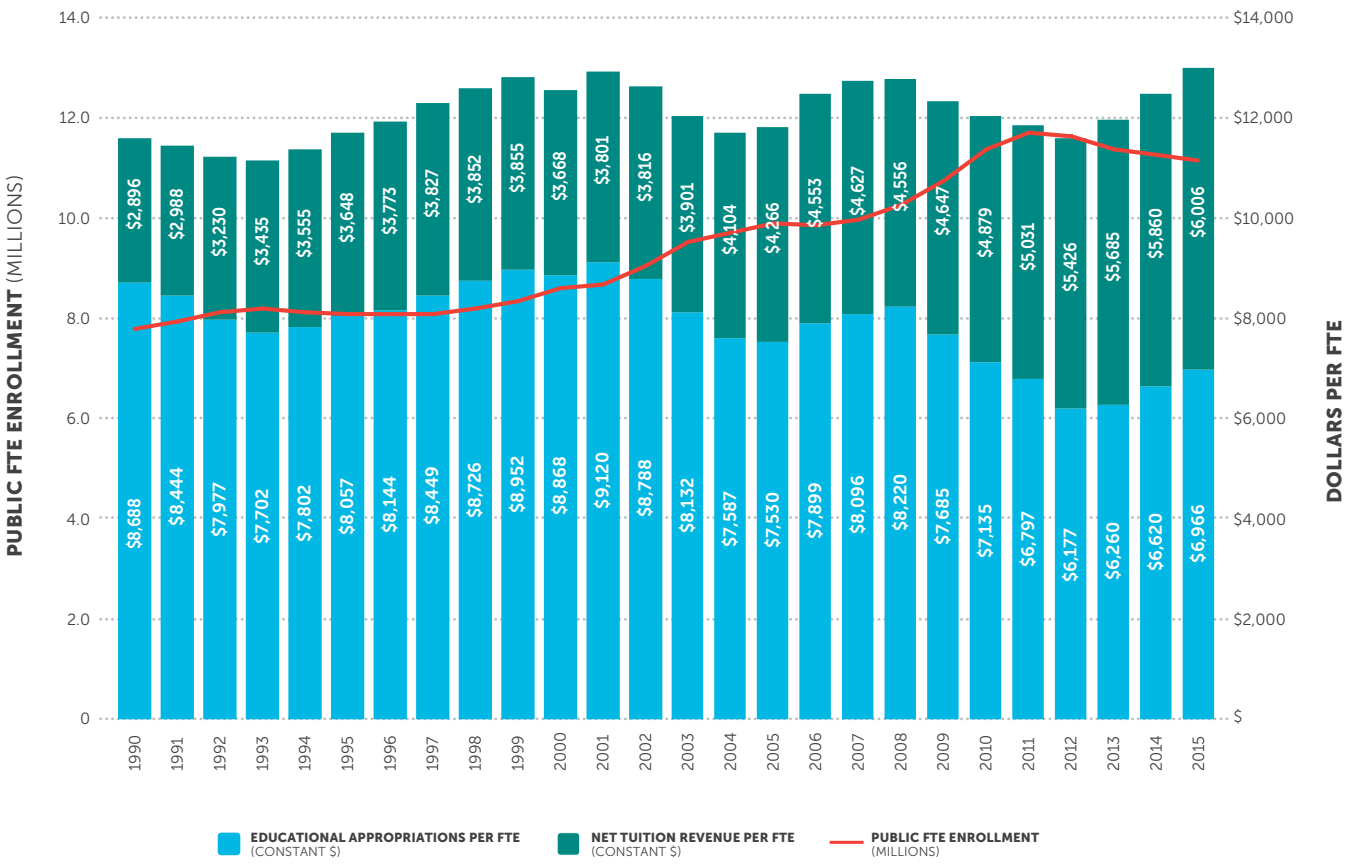
In the 2010 SHEF report, state and locally financed educational appropriations for public higher education hit the lowest level ($7,135 per FTE in constant 2015 dollars) in a quarter century, driven by accelerating enrollment growth and modest inflation, and the failure of state and local funding to keep pace with either during the previous two years. This downward trend continued in 2011 and 2012 with state and locally financed educational appropriations falling to $6,797 and $6,177 per FTE, respectively. Reversing the annual decline that began in 2009, 2013 educational appropriations per FTE rose to $6,260, a constant dollar increase of $83 (1.3 percent) over 2012, indicating the beginnings of economic recovery. However, this increase was due entirely to enrollment decline. This trend has continued. In 2014, educational appropriations per FTE grew more rapidly to $6,620 (5.8 percent) due in part to an enrollment decline of 1.0 percent over 2013. 2015 shows a second year of steady improvement with educational appropriations per FTE increasing 5.2 percent to $6,966, and enrollment declining another 1 percent, further emphasizing the effects of declining enrollment on the measure of educational appropriations per FTE. Nationwide, state and local support per student remain well below the levels that prevailed prior to the recession.

The *Figure 1* Wave Chart provides a 25-year look at each of the four SHEF metrics and *Figure 2* provides additional information on net tuition revenue, specifically, the growing reliance on this revenue source:

- Full-time equivalent enrollment (FTE)—the red trend line in the Wave Chart
- Educational appropriations per FTE—the blue bars in the Wave Chart
- Net tuition revenue per FTE—the green bars in the Wave Chart and the trend line in *Figure 2*
- Total educational revenue per FTE—the total shown by the blue and green bars in the Wave Chart each year

FIGURE 1

PUBLIC FTE ENROLLMENT AND EDUCATIONAL APPROPRIATIONS PER FTE, U.S., FY 1990-2015



NOTE: Net tuition revenue used for capital debt service included in the above figures. Constant 2015 dollars adjusted by SHEEO Higher Education Cost Adjustment (HECA).

SOURCE: State Higher Education Executive Officers

FULL-TIME EQUIVALENT ENROLLMENT (FTE)

- Nationally, the explosive enrollment growth during the Great Recession continues to level off as economic recovery continues. After one-year increases of 4.6 percent, 5.9 percent, and 2.9 percent in 2009, 2010, and 2011, respectively, FTE enrollment has now declined slightly in each of the last four years. Most of the decline in FTE enrollment is concentrated in community colleges.
- Due to these declines, 2015 enrollment of 11,136,560 FTE is 2 percent lower than 2010 enrollment, but is slightly higher than in 2008, right before the Great Recession began.
- Enrollment is up 12.5 percent over the last 10 years and 43.4 percent since 1990.
- The rate of enrollment growth normally varies from year to year and state to state in response to the economy and job market as well as underlying demographic factors. During the Great Recession, enrollment growth was more pronounced than during prior downturns. Budget conditions in 2012 and 2013, however, may also have had adverse effects on higher education enrollments. Budget-driven enrollment caps, rapid increases in tuition and fees, and the beginnings of economic recovery may have driven enrollments in 2012 and 2013. The reductions in 2014 and 2015 may be due to the recovering economy.

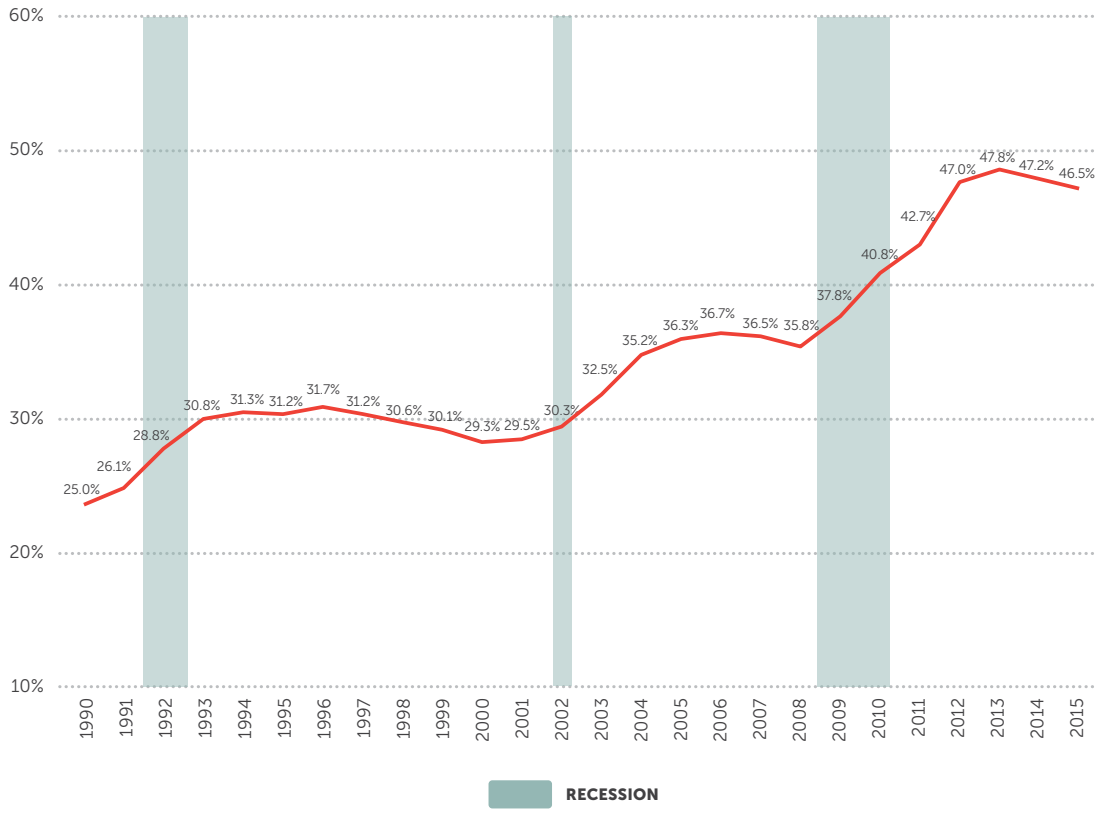
EDUCATIONAL APPROPRIATIONS

- Constant dollar educational appropriations per FTE (*the blue bars in Figure 1*) reached a high of $9,120 in 2001.
- Following four years of declines (2002, 2003, 2004, and 2005), per student educational appropriations increased in 2006 and 2007, reaching $8,220 in 2008. Year-over-year declines occurred in each of the next four years with a low of $6,177 in 2012.
- Beginning in 2013, educational appropriations per FTE began to recover, increasing 1.3 percent, 5.8 percent, and 5.2 percent to reach the current level of $6,966 in 2015.

In constant dollars per student, educational appropriations remain below historic levels. Funding is 15.3 percent lower than in 2008 and 20 percent lower than in 1990.

FIGURE 2

NET TUITION AS A PERCENT OF PUBLIC HIGHER EDUCATION TOTAL EDUCATIONAL REVENUE, U.S., FY 1990-2015



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

SOURCE: State Higher Education Executive Officers

NET TUITION REVENUE

- Net tuition revenue per student tends to increase most rapidly during periods of recession, shifting more of the cost of higher education to students and families (*see Figure 2*). Net tuition as a share of total educational revenues grew rapidly during the Great Recession, increasing from 35.8 percent in 2008 to 47.8 percent in 2013. Since then the share from tuition has declined slightly in each of the last two years and stood at 46.5 percent in 2015.

- During economic recessions, student share increases quickly and a new level is established during periods of recovery. Traditionally, the student share has not declined significantly as state and local funding has been restored. It is likely that student share will surpass 50 percent during the next economic downturn.

- 2015 net tuition revenue per student increased to $6,006, up 2.5 percent from 2014. Over the last 25 years, net tuition revenue per student has declined twice and has posted average annual increases of 3.1 percent in real terms.
- The substantial shift of responsibility for financing public higher education toward net tuition (from around 25 percent to nearly 50 percent) since 1990 is a significant change for American higher education.

TOTAL EDUCATIONAL REVENUE

- Total educational revenue per student (the sum of educational appropriations and net tuition revenue) was $12,972 in 2015 and has now reached previous highs. This is due to increases in net tuition revenue and the partial restoration of educational appropriations over the last three years.[5] The share of this total from net tuition revenue is 46.5 percent. During the previous high in 2001, this share was 29.5 percent. A significant portion of the growth in educational appropriations is due to the funding situation in Illinois (*see Case Study — Illinois*).
- Nationwide, increases in net tuition revenue now have more than offset reductions in state and local funding per student. However, the states exhibit wide variance and reductions have been offset in only half of all states.

5 In 2015, Illinois dedicated 44.3% of total educational appropriations ($1.5 billion) to fund their historically underfunded State Universities Retirement System. The situation in Illinois is explained in the Illinois case study (follows later in this report), and adds significantly to the recent increase in educational appropriations.

CASE STUDY — IMPACT OF RECESSIONS

THE ECONOMIC CYCLE'S IMPACT ON HIGHER EDUCATION FUNDING

It is largely understood that higher education funding[6] from state government is more impacted by economic changes than other state budget areas. Higher education funding is reduced more significantly during budget shortfalls, and larger increases are seen during periods of economic recovery and growth. This relationship is illustrated clearly in Figures 1 and 2, which show the impact of the economic cycle on educational appropriations, the reliance on tuition revenue sources to cover general operations at public institutions, and enrollment.

Even with the support from the federal government through the American Recovery and Reinvestment Act (ARRA) in 2009-2012, which is included in the SHEF data, educational appropriations per student FTE fell each year during the Great Recession from a high of $8,220 in 2008 to a low of $6,177 in 2012. 2015 represents the third year of increases in per student educational appropriations, reaching the current level of $6,966. Despite these three years of increases, educational appropriations per student remain 15.3 percent below pre-recession levels. The impact of the Great Recession on state and local funding per student was more significant than past recessions, and thus far recovery is proceeding more slowly—at least in terms of returning to pre-recession funding levels.

This case study provides additional context for understanding the Great Recession and subsequent recovery compared to the two prior recessions of the early 1990s and the early 2000s. Table 3 shows the percent change in educational appropriations per FTE since 1990, while Figure 3 shows the number of states that saw reductions in constant dollar per student educational appropriations each year, compared to those states that saw increases.

6 National Association of State Budget Officers. (2015). *A Guidebook on State Budgeting for Higher Education*. Washington, DC: NASBO.

TABLE 3

CASE STUDY–IMPACT OF RECESSIONS
CHANGE IN U.S. EDUCATIONAL APPROPRIATIONS PER FTE, FY 1990-2015

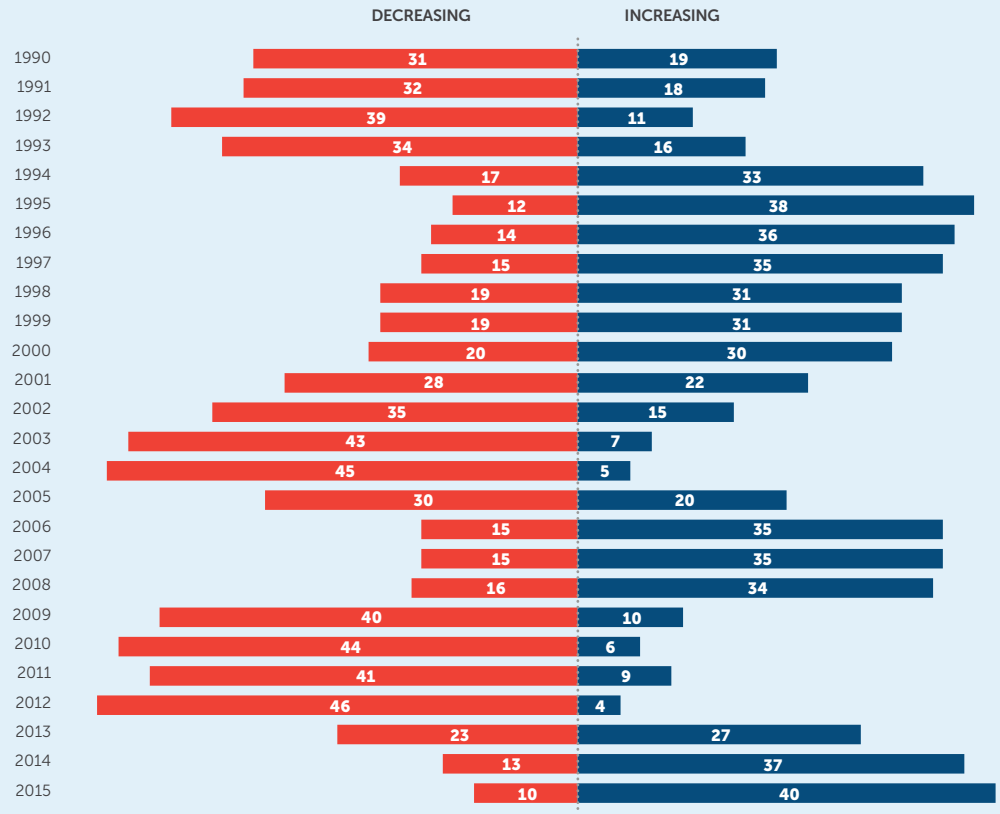
YEAR	U.S. AVERAGE EDUCATIONAL APPROPRIATIONS PER FTE	PERCENT CHANGE FROM PRIOR YEAR
1990	$8,688	-0.9%
1991	$8,444	-2.8%
1992	$7,977	-5.5%
1993	$7,702	-3.4%
1994	$7,802	1.3%
1995	$8,057	3.3%
1996	$8,144	1.1%
1997	$8,449	3.7%
1998	$8,726	3.3%
1999	$8,952	2.6%
2000	$8,868	-0.9%
2001	$9,120	2.8%
2002	$8,788	-3.6%
2003	$8,132	-7.5%
2004	$7,587	-6.7%
2005	$7,530	-0.8%
2006	$7,899	4.9%
2007	$8,096	2.5%
2008	$8,220	1.5%
2009	$7,685	-6.5%
2010	$7,135	-7.2%
2011	$6,797	-4.7%
2012	$6,177	-9.1%
2013	$6,260	1.3%
2014	$6,620	5.8%
2015	$6,966	5.2%

NOTE: Educational appropriations are a measure of state and local support available for public higher education operating expenses including ARRA funds, and exclude appropriations for independent institutions, financial aid for students attending independent institutions, research, hospitals, and medical education.

SOURCE: State Higher Education Executive Officers

FIGURE 3

CASE STUDY–IMPACT OF RECESSIONS
COUNT OF STATES INCREASING OR DECREASING APPROPRIATIONS IN CONSTANT DOLLARS PER FTE, FY 1990-2015



NOTE: Educational appropriations are a measure of state and local support available for public higher education operating expenses including ARRA funds, and exclude appropriations for independent institutions, financial aid for students attending independent institutions, research, hospitals, and medical education.

Data is adjusted for Inflation using the Higher Education Cost Adjustment (HECA)

SOURCE: State Higher Education Executive Officers

In 1992, the worst year of the early '90s recession, 39 states experienced reductions in per student educational appropriations, and nationally, appropriations fell 5.5 percent. It took five years for funding per student to return to pre-recession levels, hitting $8,726 in 1998. The recession of the early 2000s was more pronounced with 35, then 43, then 45, then 30 states experiencing year-over-year reductions in funding in 2002, 2003, 2004, and 2005, respectively. Over this time frame, educational appropriations per student fell 17.4 percent in total. The recovery from this recession lasted just three years, and appropriations had not returned to their previous levels when the Great Recession took effect in 2009, reducing appropriations even further.

In 2008, when the Great Recession began, educational appropriations per student were $8,221 and 9.9 percent below the 2001 levels. With respect to higher education funding, the last two recessions, therefore, compounded upon one another. Even with

the ARRA stimulus funds, 2009 through 2012 saw at least 40 states experience reductions in educational appropriations per student each year. Funding fell 6.5 percent, 7.2 percent, and 4.7 percent in 2009, 2010, and 2011, respectively. In 2012, after the ARRA funds had largely been encumbered, educational appropriations fell 9.1 percent—the largest year-over-year decline since 1990—to $6,177. That year saw 46 states reduce appropriations for public higher education. As shown earlier in this report, educational appropriations per FTE have recovered to $6,966 in 2015, but this is 15.6 percent below the 2008 level and 23.9 percent below the first of these two compounding, back-to-back recessions in 2001 and 2009. However, the 40 states that increased funding were the most that did so in any year of our data series.

CERTIFICATE AND DEGREE COMPLETION

Many states have adopted completion and attainment goals that are often tied to statewide strategic plans. These goals build upon the efforts of foundations, such as Lumina Foundation, and President Obama's call to improve educational attainment.[7] Using data from the Integrated Postsecondary Education Data System (IPEDS) for 2004-2014 (the most recent years available) for certificate and degree completion[8] at public institutions and SHEF FTE enrollment data, it is possible to compare and track progress toward these attainment goals. *Figure 4* shows the 10-year trend in certificate and degree completion (stacked bars) and SHEF FTE enrollment (trend line) from 2004-2014. *Figure 5* provides certificate and degrees per 100 SHEF FTE over the same time period, a standard way to normalize the data.

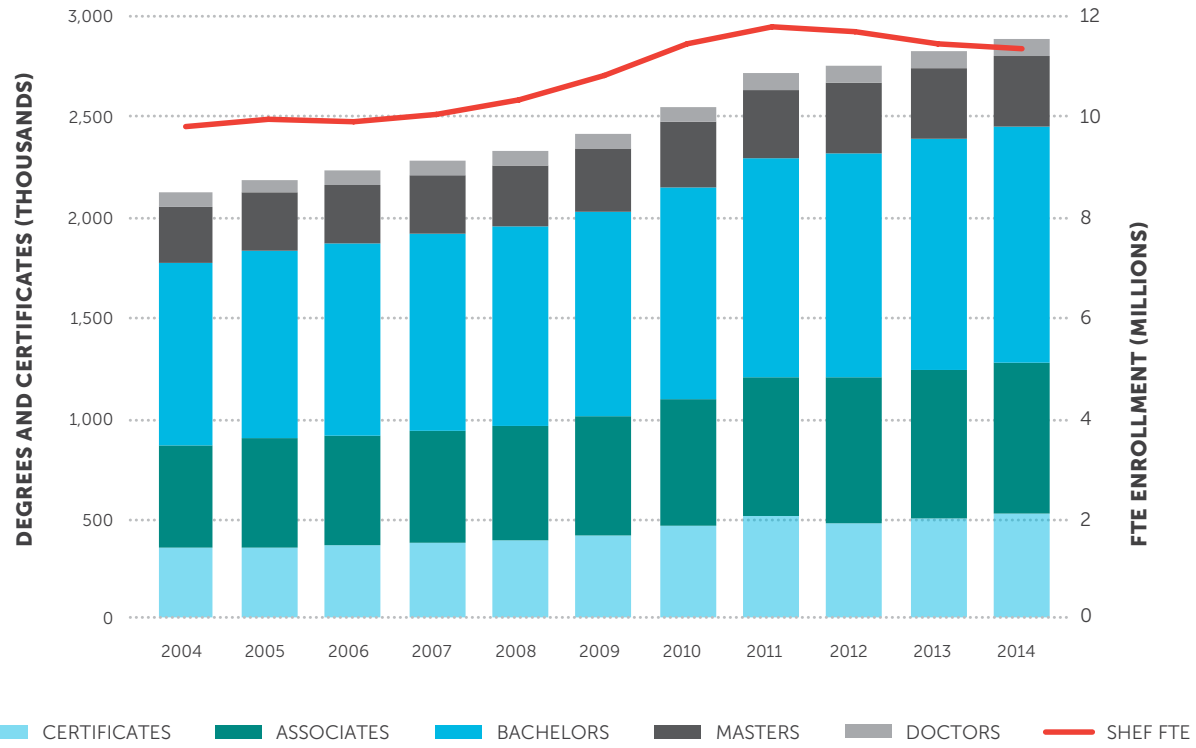
- Over 10 years, from 2004-2014, SHEF FTE enrollment grew 15.9 percent to 11,258,230, and certificate and degree production grew 36.3 percent to 2,866,375.
- SHEF FTE peaked in 2011 and had fallen 3.7 percent by 2014. From 2011 to 2014, certificate and degree completions grew 6.3 percent, indicating a correlation between enrollment growth and greater degree production in following years.
- Certificate, associate, and doctoral completions saw the largest increases from 2004 to 2014 (50.2, 46.4, and 41.3 percent, respectively). Bachelor's and master's degrees saw lesser increases; 29.5 and 21.9 percent, in this same time frame. However, bachelor's degrees remain the most common degree, accounting for a 10-year average of 38.9 percent of all completions and reaching a high of 1,167,493 in 2014.
- Completions per FTE grew 17.6 percent from 2004 to 2014. The greatest growth (10.3 percent) occurred from 2011 to 2014, the same years during which SHEF FTE fell 3.7 percent and all certificates and completions grew only 6.3 percent.
- Greater focus on student success at the state and institution levels may be correlated with the increased rate of completions per FTE. However, because reductions in FTE include all students, these reductions may not be represented in completion rates for several years.

7 *www.whitehouse.gov/issues/education/higher-education*

8 SHEEO's calculations come from the Completions Survey of the Integrated Postsecondary Data Systems (IPEDS). Includes certificates greater than 1 year and less than 4 years, and all degrees awarded at public institutions.

FIGURE 4

TOTAL DEGREE AND CERTIFICATE COMPLETIONS BY LEVEL AND SHEF FTE, CY 2004-2014

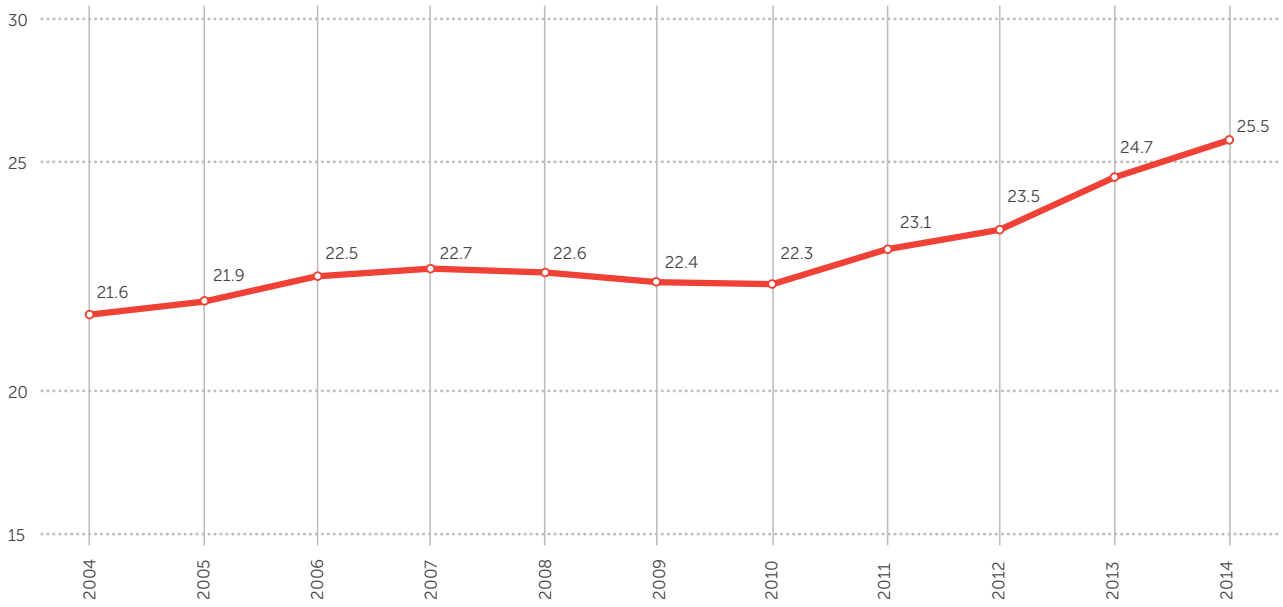


NOTE: Certificates includes certificates of greater than one and less than four years.

SOURCE: Integrated Postsecondary Education Data System (IPEDS) and State Higher Education Executive Officers

FIGURE 5

DEGREE AND CERTIFICATE COMPLETIONS PER 100 SHEF FTE, CY 2004-2014



NOTE: Certificates includes certificates of greater than one and less than four years.

SOURCE: Integrated Postsecondary Education Data System (IPEDS) and State Higher Education Executive Officers

INTERSTATE COMPARISONS—MAKING SENSE OF MANY VARIABLES

National averages and trends often mask substantial variations and important differences across the 50 states. This section examines these interstate differences more closely. First, it explains in greater detail the adjustments SHEF makes to state-level data. Next, it illustrates differences and trends across each of the SHEF metrics of higher education financing, for example, rates of enrollment growth or the varying proportions of public versus tuition financing.

SHEF ADJUSTMENTS TO FACILITATE INTERSTATE COMPARISONS

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

Technical Paper Table 1 (in Technical Paper B on the SHEF webpage *www.sheeo.org/shef-techpapers-dataproviders*) shows the impact of SHEF cost of living and enrollment mix adjustments on total educational revenue per FTE. These adjustments tend to draw states toward the national average; for example, states with a high cost of living also often tend to support higher education at above average levels, in which cases, the SHEF adjustment for living costs reduces the extent of their above average higher education revenues per student. The size and direction of these adjustments vary across states.

In brief:

- In states where the cost of living exceeds the national average, dollars per FTE are adjusted downward (e.g., Massachusetts). In states where the cost of living is below the national average, dollars per FTE are adjusted upward (e.g., Arkansas).
- If the proportion of enrollment in higher-cost institutions (e.g., research institutions) exceeds the national average, the dollars per FTE are adjusted downward. In states with a relatively inexpensive enrollment mix (e.g., more enrollment in community colleges), the dollars per FTE are adjusted upward.[9]
- Dollars per FTE are adjusted upward most significantly in states with an inexpensive enrollment mix and low cost of living (e.g., Wyoming). 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).

9 SHEEO's Enrollment Mix Index adjusts state metrics based on the distribution of enrollment across institution type in a state. The adjustment does not account for distribution of students across educational level or the discipline mix offered across a state's institutions.

COMPARING STATES ACROSS SINGLE DIMENSIONS OR VARIABLES

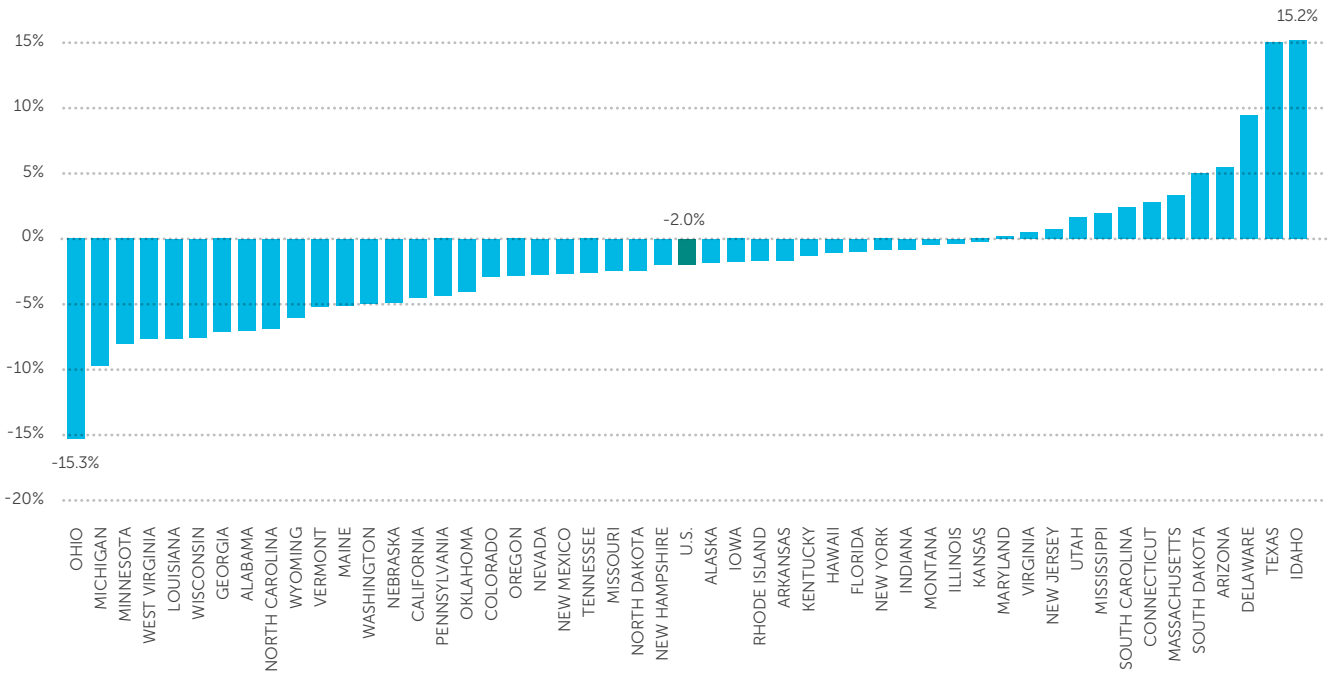
This section illustrates the variability across states and over time with respect to higher education enrollment growth, total state and local appropriations, the proportion of tuition-derived revenue, total revenue available for public educational programs, and current funding in the context of each state's average national position over the last five years and since the pre-recession high funding level of 2008.

Figure 6 (*and the accompanying data in Table 4*) shows changes in full-time equivalent enrollment (FTE) in public higher education by state for the five years between 2010 and 2015, and also since the Great Recession (2008).

- Enrollment continues to decline and, nationally, enrollment is down 1.0 percent since 2014 and 2 percent since 2010.
- Thirty-eight states have seen enrollment declines since 2010, ranging from 0.2 percent in Kansas to 15.3 percent in Ohio. Twenty-five of those states saw enrollment declines greater than the U.S. average of 2 percent.
- Twelve states show enrollment increases since 2010. These increases range from 0.2 percent in Maryland to 15.2 percent in Idaho.
- Since the Great Recession, enrollment growth is up 8.6 percent nationally, with 47 states higher than they were in 2008 and three states (Louisiana, Michigan, and West Virginia) slightly down from 2008. The fact that most states are down from 2010, but remain higher than pre-recession enrollment levels, shows how much an impact the Great Recession may have had on college participation.

FIGURE 6

PUBLIC HIGHER EDUCATION FULL-TIME EQUIVALENT (FTE) ENROLLMENT: PERCENT CHANGE, FY 2010-2015



NOTE: Dollars adjusted by 2015 HECA, Cost of Living Adjustment, and Enrollment Index.

SOURCE: State Higher Education Executive Officers

TABLE 4

PUBLIC HIGHER EDUCATION FULL-TIME EQUIVALENT (FTE) ENROLLMENT

	FY 2008 (PRE-RECESSION)	FY 2010	FY 2014	FY 2015	1 YEAR % CHANGE	5 YEAR % CHANGE	% CHANGE SINCE RECESSION
ALABAMA	187,086	210,067	194,439	195,411	0.5%	-7.0%	4.4%
ALASKA	18,703	20,271	20,464	19,904	-2.7%	-1.8%	6.4%
ARIZONA	233,255	259,953	270,127	274,235	1.5%	5.5%	17.6%
ARKANSAS	107,428	118,884	119,608	116,948	-2.2%	-1.6%	8.9%
CALIFORNIA	1,507,467	1,612,044	1,517,902	1,539,822	1.4%	-4.5%	2.1%
COLORADO	164,638	187,231	184,836	181,867	-1.6%	-2.9%	10.5%
CONNECTICUT	77,088	85,033	88,681	87,403	-1.4%	2.8%	13.4%
DELAWARE	31,619	33,570	35,657	36,742	3.0%	9.4%	16.2%
FLORIDA	540,823	607,246	608,221	601,292	-1.1%	-1.0%	11.2%
GEORGIA	310,759	370,732	347,733	344,325	-1.0%	-7.1%	10.8%
HAWAII	35,469	39,857	40,417	39,432	-2.4%	-1.1%	11.2%
IDAHO	43,968	49,251	56,177	56,726	1.0%	15.2%	29.0%
ILLINOIS	391,386	424,716	436,794	423,146	-3.1%	-0.4%	8.1%
INDIANA	230,323	251,213	249,019	249,218	0.1%	-0.8%	8.2%
IOWA	115,011	127,128	127,407	124,883	-2.0%	-1.8%	8.6%
KANSAS	127,117	137,374	138,310	137,036	-0.9%	-0.2%	7.8%
KENTUCKY	142,382	154,247	154,782	152,317	-1.6%	-1.3%	7.0%
LOUISIANA	165,781	178,931	168,001	165,329	-1.6%	-7.6%	-0.3%
MAINE	35,533	37,517	36,577	35,608	-2.6%	-5.1%	0.2%
MARYLAND	207,255	231,189	232,630	231,570	-0.5%	0.2%	11.7%
MASSACHUSETTS	148,288	165,244	172,574	170,703	-1.1%	3.3%	15.1%
MICHIGAN	395,019	434,490	400,859	392,275	-2.1%	-9.7%	-0.7%
MINNESOTA	196,014	215,009	203,754	197,724	-3.0%	-8.0%	0.9%
MISSISSIPPI	118,871	127,025	130,436	129,481	-0.7%	1.9%	8.9%
MISSOURI	164,160	191,608	196,831	186,936	-5.0%	-2.4%	13.9%
MONTANA	35,556	38,909	39,484	38,732	-1.9%	-0.5%	8.9%
NEBRASKA	75,451	83,206	79,704	79,182	-0.7%	-4.8%	4.9%
NEVADA	63,324	68,799	64,497	66,924	3.8%	-2.7%	5.7%
NEW HAMPSHIRE	32,982	39,171	36,988	38,398	3.8%	-2.0%	16.4%
NEW JERSEY	238,040	268,066	274,341	270,053	-1.6%	0.7%	13.4%
NEW MEXICO	85,203	98,709	98,630	96,110	-2.6%	-2.6%	12.8%
NEW YORK	526,538	572,355	565,719	567,465	-0.3%	-0.9%	7.8%
NORTH CAROLINA	357,601	420,956	402,199	391,990	-2.5%	-6.9%	9.6%
NORTH DAKOTA	34,955	37,716	36,927	36,801	-0.3%	-2.4%	5.3%
OHIO	375,932	447,494	401,874	379,032	-5.7%	-15.3%	0.8%
OKLAHOMA	131,191	142,024	145,401	136,311	-6.3%	-4.0%	3.9%
OREGON	129,626	160,037	165,480	155,505	-6.0%	-2.8%	20.0%
PENNSYLVANIA	343,043	371,286	358,820	355,062	-1.0%	-4.4%	3.5%
RHODE ISLAND	30,120	32,071	31,506	31,547	0.1%	-1.6%	4.7%
SOUTH CAROLINA	150,333	172,579	176,746	176,789	0.0%	2.4%	17.6%
SOUTH DAKOTA	29,595	32,324	33,659	33,938	0.8%	5.0%	14.7%
TENNESSEE	173,706	190,286	190,485	185,316	-2.7%	-2.6%	6.7%
TEXAS	804,918	863,475	994,745	993,485	-0.1%	15.1%	23.4%
UTAH	103,320	118,446	119,692	120,352	-0.6%	1.6%	16.5%
VERMONT	19,797	21,778	20,955	20,652	-1.4%	-5.2%	4.3%
VIRGINIA	281,940	312,598	318,166	314,066	-1.3%	0.5%	11.4%
WASHINGTON	221,264	254,867	245,011	242,211	-1.1%	-5.0%	9.5%
WEST VIRGINIA	73,525	78,798	76,202	72,765	-4.5%	-7.7%	-1.0%
WISCONSIN	219,006	237,403	223,777	219,490	-1.9%	-7.5%	0.2%
WYOMING	23,054	25,587	24,986	24,041	-3.8%	-6.0%	4.2%
U.S.	**10,255,463**	**11,358,769**	**11,258,230**	**11,136,560**	**-1.1%**	**-2.0%**	**8.6%**

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

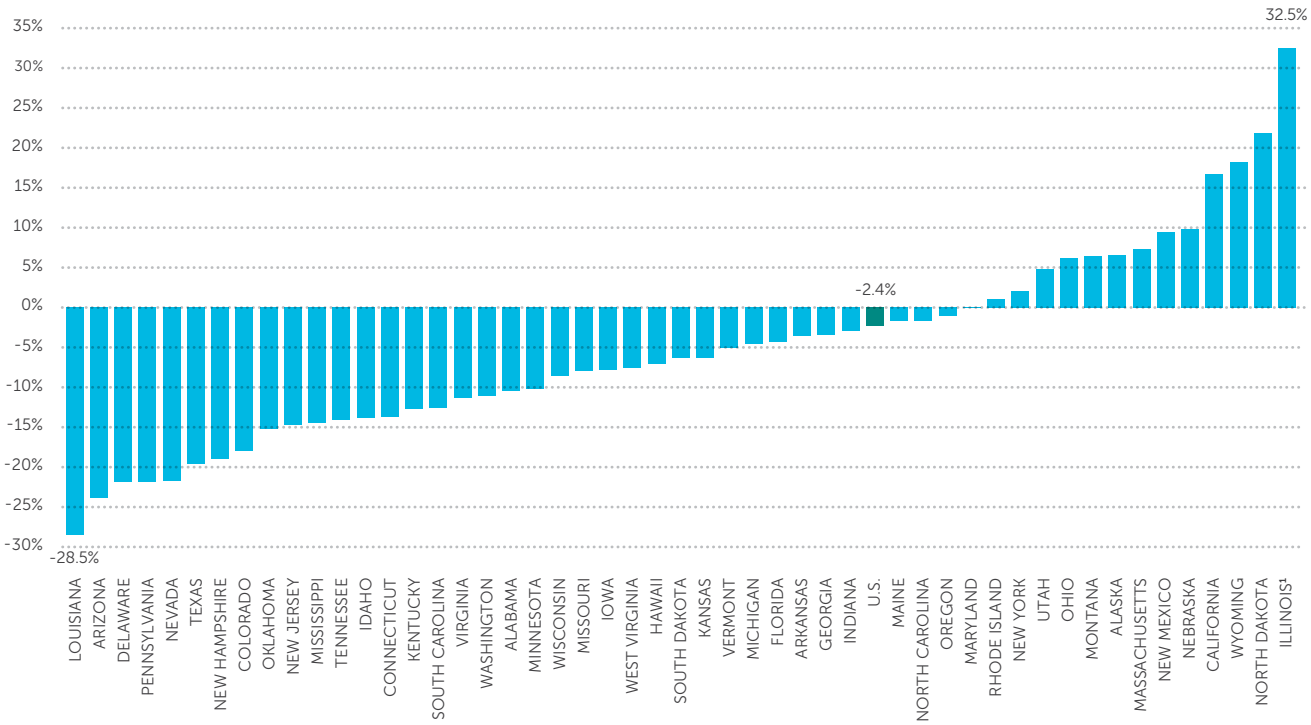
SOURCE: State Higher Education Executive Officers

Figure 7 (*and the accompanying data in Table 5*) shows the percent change by state in higher educational appropriations per public FTE student between 2008 and 2015. The national average per-FTE funding for 2015 increased 5.2 percent in constant dollars over 2014 to $6,966 (*see Table 5*). This is the third consecutive year of per student funding growth; however, educational appropriations per FTE remain 15.3 percent lower than they were in 2008 (the most recent high point for funding prior to the Great Recession), and 2.4 percent lower than in 2010.

- Thirteen states increased constant dollar per student support for public institutions during the five-year period from 2010 to 2015. These increases range from 1.1 percent in Rhode Island to 32.5 percent in Illinois, where the increases primarily cover historical underfunding of pension programs. Excluding Illinois, the largest increase was 21.8 percent in North Dakota.
- A large increase in funding for the Illinois State Universities Retirement System accounts for 21 percent of the 2014-2015 nationwide increase in educational appropriations per FTE. Without Illinois, educational appropriations per FTE would have increased 4.2 percent instead of 5.2 percent in the past year.
- Since the pre-recession high in 2008, educational appropriations per FTE have decreased 15.3 percent. Without Illinois in the data, that decrease from 2008-2015 is 17.4 percent.
- Due to the additional funding flowing to the Illinois pension system, nationwide increases in educational appropriations have been exaggerated, while decreases have been minimized. See the case study on Illinois below for more detail detail on the funding situation in Illinois.
- Thirty-seven states decreased constant dollar per student funding during this five-year period, five by more than 20 percent and twenty by more than 10 percent.
- Federal funds available through the American Recovery and Reinvestment Act were used to help fill shortfalls in state support for general operating expenses at public colleges and universities in 2009, 2010, and 2011, and are included in the state educational appropriations data. These funds were largely spent by 2012 and have not been used since that time.

FIGURE 7

PUBLIC HIGHER EDUCATION EDUCATIONAL APPROPRIATIONS PER FTE: PERCENT CHANGE, FY 2010-2015



NOTE: 1) For Illinois, a $1.08 billion back payment in FY 2015 to their historically underfunded higher education pension program resulted in past legacy pension funds accounting for 37% of all educational appropriations.

Dollars adjusted by 2015 HECA, Cost of Living Adjustment, and Enrollment Index.

SOURCE: State Higher Education Executive Officers

TABLE 5

EDUCATIONAL APPROPRIATIONS PER FTE (CONSTANT ADJUSTED 2015 DOLLARS)

	FY 2008 (PRE-RECESSION)	FY 2010	FY 2014	FY 2015	INDEX TO U.S. AVERAGE	1 YEAR % CHANGE	5 YEAR % CHANGE	% CHANGE SINCE RECESSION
ALABAMA	$9,300	$6,450	$5,732	$5,774	0.83	0.7%	-10.5%	-37.9%
ALASKA	$13,314	$13,238	$14,123	$14,112	2.03	-0.1%	6.6%	6.0%
ARIZONA	$8,325	$7,023	$5,404	$5,350	0.77	-1.0%	-23.8%	-35.7%
ARKANSAS	$8,150	$7,909	$7,571	$7,626	1.09	0.7%	-3.6%	-6.4%
CALIFORNIA	$9,024	$7,303	$7,837	$8,522	1.22	8.7%	16.7%	-5.6%
COLORADO	$4,215	$4,304	$3,050	$3,529	0.51	15.7%	-18.0%	-16.3%
CONNECTICUT	$9,945	$9,374	$7,319	$8,090	1.161	10.5%	-13.7%	-18.6%
DELAWARE	$6,714	$6,145	$5,072	$4,804	0.69	-5.3%	-21.8%	-28.4%
FLORIDA	$8,622	$6,552	$5,881	$6,271	0.90	6.6%	-4.3%	-27.3%
GEORGIA	$9,428	$7,755	$7,239	$7,490	1.08	3.5%	-3.4%	-20.6%
HAWAII	$10,320	$9,049	$7,755	$8,405	1.21	8.4%	-7.1%	-18.6%
IDAHO	$10,647	$8,570	$7,083	$7,379	1.06	4.2%	-13.9%	-30.7%
ILLINOIS[1]	$8,332	$8,695	$9,339	$11,518	1.65	23.3%	32.5%	38.2%
INDIANA	$5,592	$5,296	$5,319	$5,142	0.74	-3.3%	-2.9%	-8.0%
IOWA	$6,692	$5,985	$5,294	$5,515	0.80	4.2%	-7.9%	-17.6%
KANSAS	$7,025	$6,229	$5,725	$5,837	0.84	1.9%	-6.3%	-16.9%
KENTUCKY	$9,076	$7,905	$6,848	$6,898	0.99	0.7%	-12.7%	-24.0%
LOUISIANA	$9,470	$7,784	$5,521	$5,564	0.80	0.8%	-28.5%	-41.2%
MAINE	$7,323	$6,661	$6,380	$6,546	0.94	2.6%	-1.7%	-10.6%
MARYLAND	$8,721	$8,025	$7,666	$8,024	1.15	4.7%	0.0%	-8.0%
MASSACHUSETTS	$8,028	$6,268	$6,167	$6,728	0.97	9.1%	7.3%	-16.2%
MICHIGAN	$6,201	$5,339	$4,768	$5,097	0.73	6.9%	-4.5%	-17.8%
MINNESOTA	$7,141	$6,345	$5,379	$5,695	0.82	5.9%	-10.2%	-20.3%
MISSISSIPPI	$8,559	$8,059	$6,634	$6,896	0.99	3.5%	-14.4%	-19.4%
MISSOURI	$7,484	$6,628	$5,399	$6,102	0.88	13.0%	-7.9%	-18.5%
MONTANA	$5,169	$4,931	$4,901	$5,248	0.75	7.1%	6.4%	1.5%
NEBRASKA	$8,323	$7,465	$7,855	$8,202	1.18	4.4%	9.9%	-1.5%
NEVADA	$10,1941	$8,538	$7,023	$6,682	0.96	-4.9%	-21.7%	-34.5%
NEW HAMPSHIRE	$3,581	$3,198	$2,387.	$2,591	0.37	8.5%	-19.0%	-27.6%
NEW JERSEY	$7,758	$6,757	$5,813	$5,766	0.83	-0.8%	-14.7%	-25.7%
NEW MEXICO	$10,696	$8,036	$8,245	$8,799	1.26	6.8%	9.5%	-17.7%
NEW YORK	$9,065	$8,651	$8,577	$8,830	1.27	3.0%	2.1%	-2.6%
NORTH CAROLINA	$11,112	$9,049	$8,695	$8,894	1.28	2.3%	-1.7%	-20.0%
NORTH DAKOTA	$5,748	$6,375	$7,861	$7,766	1.11	-1.2%	21.8%	35.1%
OHIO	$5,627	$4,780	$4,302	$5,078	0.73	18.0%	6.2%	-9.8%
OKLAHOMA	$9,077	$8,874	$7,136	$7,521	1.08	5.4%	-15.3%	-17.1%
OREGON	$5,991	$4,840	$4,241	$4,788	0.69	12.9%	-1.1%	-20.1%
PENNSYLVANIA	$5,888	$4,806	$3,683	$3,758	0.54	2.0%	-21.8%	-36.2%
RHODE ISLAND	$6,226	$4,735	$4,665	$4,785	0.69	2.6%	1.1%	-23.2%
SOUTH CAROLINA	$7,792	$5,807	$4,813	$5,077	0.73	5.5%	-12.6%	-34.8%
SOUTH DAKOTA	$6,063	$5,403	$4,916	$5,062	0.73	3.0%	-6.3%	-16.5%
TENNESSEE	$9,101	$8,212	$7,008	$7,051	1.01	0.6%	-14.1%	-22.5%
TEXAS	$9,548	$9,643	$8,132	$7,748	1.11	-4.7%	-19.6%	-18.8%
UTAH	$7,478	$5,780	$5,554	$6,062	0.87	9.2%	4.88%	-18.9%
VERMONT	$3,180	$2,968	$2,827	$2,818	0.40	-0.3%	-5.0%	-11.4%
VIRGINIA	$6,547	$5,540	$4,832	$4,911	0.71	1.6%	-11.3%	-25.0%
WASHINGTON	$7,757	$6,480	$5,801	$5,764	0.83	-0.6%	-11.0%	-25.7%
WEST VIRGINIA	$7,490	$5,999	$5,489	$5,542	0.80	1.0%	-7.6%	-26.0%
WISCONSIN	$7,162	$6,552	$5,888	$5,991	0.86	1.8%	-8.6%	-16.3%
WYOMING	$16,716	$1,4629	$15,820	$17,300	2.48	9.4%	18.3%	3.5%
U.S.	**$8,220**	**$7,135**	**$6,620**	**$6,966**	**1.00**	**5.2%**	**-2.4%**	**-15.3%**

NOTES: 1) For Illinois, a $1.08 billion back payment in FY 2015 to their historically underfunded higher education pension program resulted in past legacy pension funds accounting for 37% of all educational appropriations.

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

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

SOURCE: State Higher Education Executive Officers

CASE STUDY — KENTUCKY

HIGHER EDUCATION EXPENDITURES IN KENTUCKY

This report focuses on the revenue available to higher education institutions, tracking appropriations from state and local government, tuition revenue, and enrollment over time. On the revenue side, educational appropriations per student have fallen 15.3 percent nationally since 2008 to $6,966 in 2015. Over the same time period, the U.S. average net tuition revenue per student increased 31.8 percent to $6,006. The total educational revenue from these two funding sources is now up slightly from $12,734 in 2008 to $12,907 in 2015; therefore, from a national perspective, the revenue available for the general operations of public institutions is back to pre-recession levels with increased reliance on tuition revenue.

Of course, revenue is only one half of the broad financial picture for higher education. Just as SHEF tracks changes in revenue over time, it is important to consider changes in expenditures as well. For context, this case study shows how the obligations and expenditures have changed since the pre-recession high point of 2008 in one state, Kentucky. This is intended as an example and does not imply that other states have had the same changes in obligations and expenditures over the same period.

Between 2008 and 2015, Kentucky experienced:

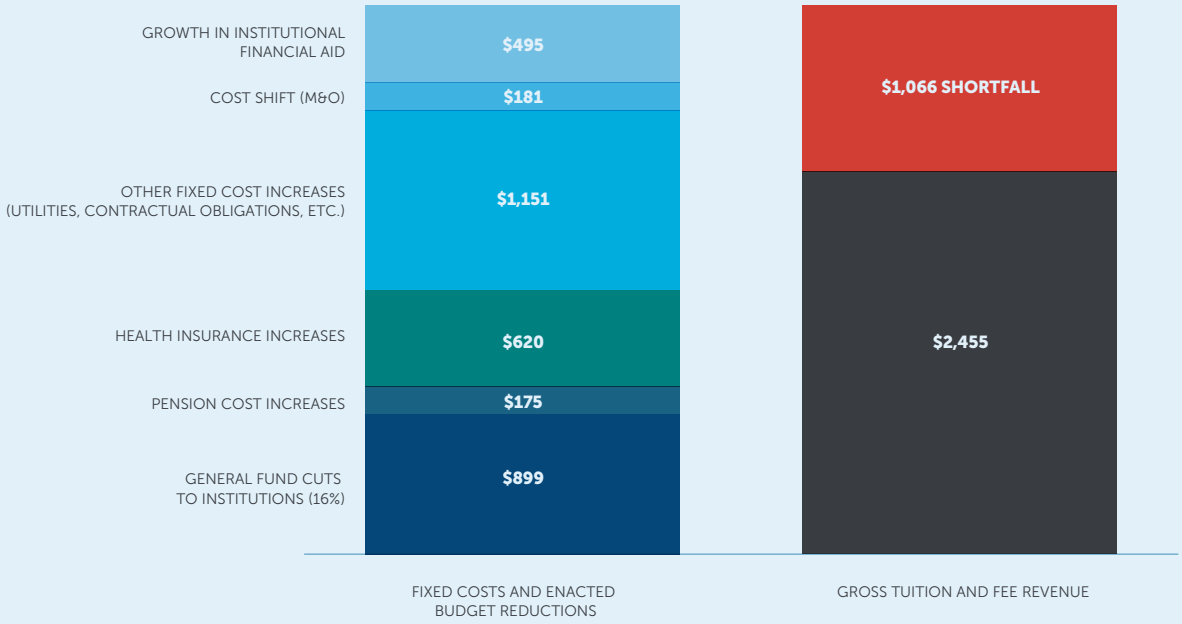
- *A 24 percent reduction in educational appropriations per student from $9,076 to $6,898, and*
- *A 27 percent increase in net tuition revenue per student from $5,293 to $6,722.*

In total, the revenue per student from these two sources is 5.2 percent down from 2008, meaning Kentucky public institutions have 5.2 percent less revenue to spend per student than they did in 2008.

Figure 8, provided by the Kentucky Council on Postsecondary Education, summarizes the impact of budget cuts and mandatory obligations on Kentucky institutions between 2008 and 2015. These data are shown in millions and are not presented on a per student basis (as are most of the revenue data throughout the rest of the SHEF report).

FIGURE 8

CASE STUDY–KENTUCKY
BUDGET CHALLENGES FOR POSTSECONDARY INSTITUTIONS
CUMULATIVE IMPACT 2008-2015 (DOLLARS IN MILLIONS)



NOTE: Some numbers are estimates, due to changes in data collection over the time period

SOURCE: Council on Postsecondary Education (CPE) Kentucky Postsecondary Education Data System (KPEDS)

Kentucky institutions received a 16 percent reduction in General Fund support that totaled $899 million over the time frame. At the same time, pension obligations increased $175 million, health insurance expenses grew $620 million, and other fixed costs (unemployment insurance, workers compensation, utilities, computing contracts, etc.) grew $1.2 billion. These represent mandatory obligations and expenditures that are largely out of the control of institutional management. At the same time, Kentucky institutions took on $181 million in maintenance and operations that was formerly covered directly by the state, and increased institution-funded financial aid to students by almost $500 million. Increased tuition and fee revenue between 2008 and 2015 covered $2.5 billion, or 70 percent, of these obligations; however, an approximate $1 billion shortfall has been absorbed by higher education institutions.

CASE STUDY — ILLINOIS

HIGHER EDUCATION FUNDING IN ILLINOIS

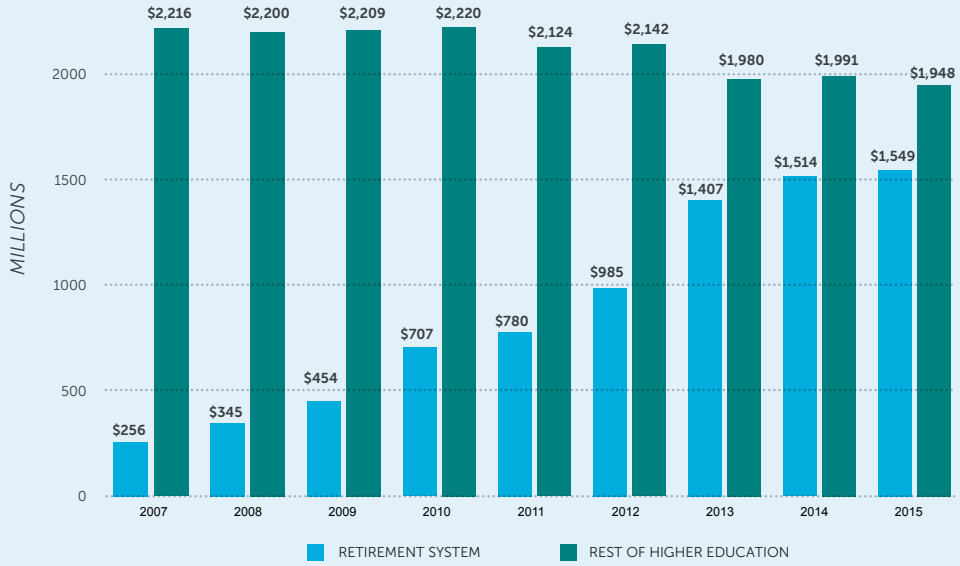
Throughout the SHEF report, the State of Illinois stands out from the other 49 states. Since 2010, educational appropriations per student have grown 32.5 percent. The next largest increase (in North Dakota) was 21.8 percent, while, nationally, educational appropriations per student were down 2.4 percent. However, the total dollar funding provided for general operations at Illinois institutions declined 12.3 percent over the time frame (see Figure 9). The growth in educational appropriations per student is driven primarily by state action to address previous underfunding of state pension programs.

State pension and retirement systems require major expenditure outlays, especially as the states' workforce ages and the baby boom generation retires in large numbers. These obligations must be covered by the general operating revenues available to public institutions of higher education in the states and should be considered an expenditure that is covered by the state, local, and tuition revenues described throughout the SHEF report.

According to data provided by the Illinois Board of Higher Education, Illinois historically underfunded its higher education pension system until 2008, when the legislature was required to make significant increases in its funding. Since 2007 (the year before Illinois began mandating increases), funding to the State Universities Retirement System (SURS) increased from $255.8 million to $1.55 billion in fiscal year 2015. Of the $1.55 billion paid in fiscal year 2015, $1.08 billion addressed the previous underfunding of the retirement system, while $462.3 million provided current year costs. Retirement appropriations in FY 2015 make up 44.3 percent of the total funding provided for higher education, while in 2007 they comprised just 10.3 percent (see Figure 10). The majority of this revenue is making up for previously underfunding these obligations.

FIGURE 9

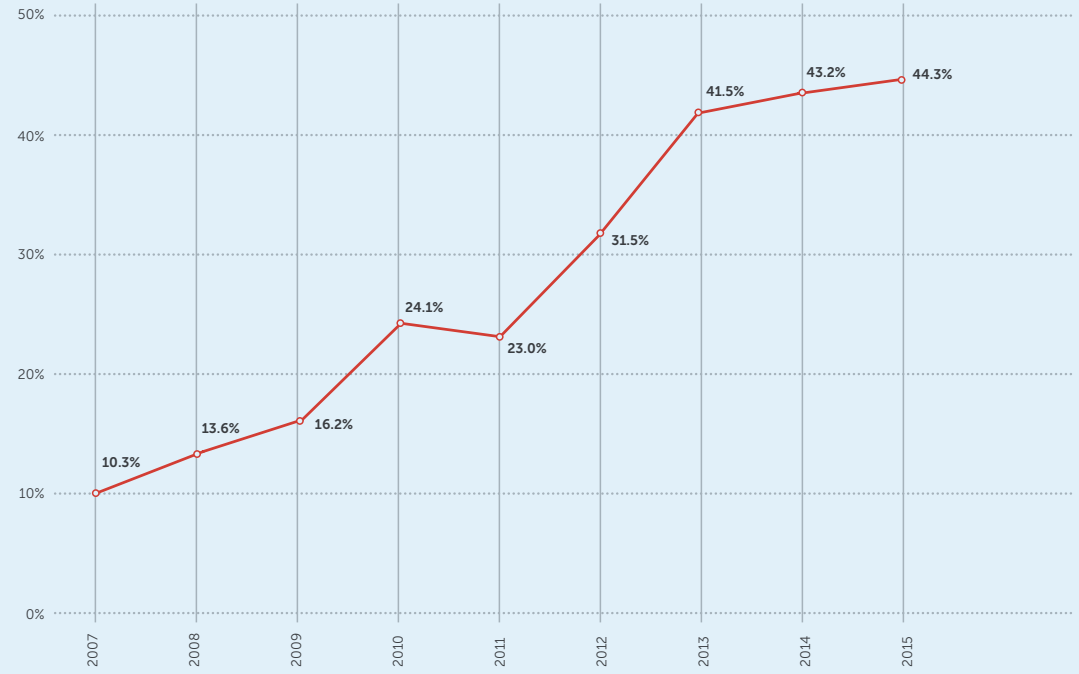
CASE STUDY–ILLINOIS
STATE FUNDING FOR HIGHER EDUCATION, FY 2007-2015



SOURCE: Records from the Illinois Board of Higher Education (IBHE) and the Illinois State Universities Retirement Systems (SURS)

FIGURE 10

CASE STUDY–ILLINOIS
PERCENT OF TOTAL HIGHER EDUCATION FUNDING ALLOCATED TO RETIREMENT SYSTEM, FY 2007-2015



SOURCE: Records from the Illinois Board of Higher Education (IBHE) and the Illinois State Universities Retirement Systems (SURS)

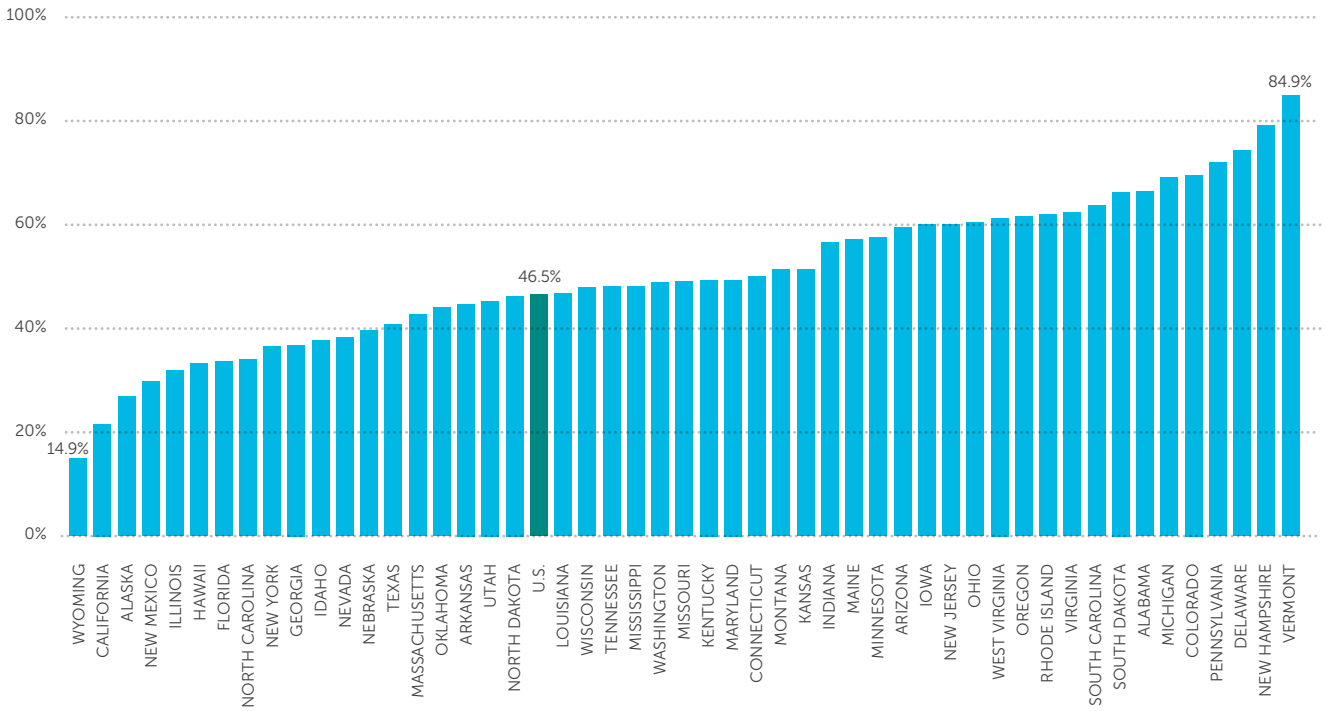
While the pension shortfall in Illinois is extreme, the state has been taking actions to address it. However, to date, Illinois has yet to enact a state budget for fiscal year 2016 (July 1, 2015 to June 30, 2016) meaning higher education institutions have not received any state funding in the current year. Nor has the state funded its large need-based financial aid grant program, an obligation that institutions have self-funded and covered in lieu of assumed state support for these grants. Illinois will likely appear very different in next year's SHEF report when the 2016 year is accounted for. However, more importantly, the lack of a state budget in Illinois and subsequent state funding for higher education is likely to impact enrollment, especially for low-income students, institutional solvency and viability, and will severely limit Illinois in its ability to increase educational attainment.

Figure 11 shows net tuition revenue as a percentage of total educational revenue for public higher education by state for 2014. The accompanying *Table 6* shows the dollar values of net tuition per FTE by state.

- States vary widely in the percentage of educational revenue supported by net tuition, from a low of 14.9 percent in Wyoming to a high of 84.9 percent in Vermont. Over time, state positions in *Figure 6* are relatively consistent. While most states have seen increases in the share of total revenue from tuition over time, they are not changing positions relative to one another.
- Reliance on net tuition revenue fell slightly in 2015 from 47.2 percent to 46.5 percent in 2015. This was the second consecutive year of a decline in this measure after reaching a high of 47.8 percent in 2013.
- Two states saw more than a 10 percent increase in net tuition revenue from 2014 to 2015; Arizona had a 12.2 percent increase and Connecticut had a 21.3 percent increase.
- Thirty-one states are above the national average of 46.5 percent in the proportion of educational revenue from tuition sources, while 15 states are above 60 percent.
- Since 2008, increased tuition revenue per FTE has entirely offset the reductions in educational appropriations per FTE in twenty-five states. This is not the case in twenty states, in which tuition has not yet increased enough to make up for reductions in educational appropriations. The final five states did not have a net reduction in educational appropriations per FTE from 2008-2015.

FIGURE 11

NET TUITION AS A PERCENT OF TOTAL EDUCATIONAL REVENUE, FY 2015



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.

Dollars adjusted by 2015 HECA, Cost of Living Adjustment, and Enrollment Index.

SOURCE: State Higher Education Executive Officers

TABLE 6

PUBLIC HIGHER EDUCATION NET TUITION REVENUE PER FTE (CONSTANT ADJUSTED 2015 DOLLARS)

	FY 2008 (PRE-RECESSION)	FY 2010	FY 2014	FY 2015	INDEX TO U.S. AVERAGE	1 YEAR % CHANGE	5 YEAR % CHANGE	% CHANGE SINCE RECESSION
ALABAMA	$6,327	$7,834	$10,444	$10,098	1.68	-3.3%	28.9%	59.6%
ALASKA	$4,496	$4,649	$5,016	$5,181	0.86	3.3%	11.4%	15.2%
ARIZONA	$4,563	$5,116	$6,533	$7,331	1.22	12.2%	43.3%	60.6%
ARKANSAS	$4,171	$4,418	$5,072	$5,349	0.89	5.5%	21.1%	28.2%
CALIFORNIA	$1,452	$1,882	$2,422	$2,349	0.39	-3.0%	24.8%	61.7%
COLORADO	$5,585	$6,316	$8,190	$8,083	1.35	-1.3%	28.0%	44.7%
CONNECTICUT	$6,463	$6,525	$6,660	$8,077	1.34	21.3%	23.8%	25.0%
DELAWARE	$10,281	$11,452	$13,889	$13,763	2.29	-0.9%	20.2%	33.9%
FLORIDA	$2,480	$2,625	$3,245	$3,188	0.53	-1.7%	21.5%	28.6%
GEORGIA	$2,342	$2,662	$4,178	$4,365	0.73	4.5%	64.0%	86.3%
HAWAII	$2,867	$3,513	$4,003	$4,175	0.70	4.3%	18.8%	45.6%
IDAHO	$2,562	$3,064	$4,266	$4,472	0.74	4.8%	46.0%	74.6%
ILLINOIS	$3,582	$4,251	$5,061	$5,237	0.87	3.5%	23.2%	46.2%
INDIANA	$6,001	$6,673	$6,864	$6,696	1.11	-2.4%	33.6%	11.6%
IOWA	$6,240	$6,755	$7,904	$8,267	1.38	4.6%	22.4%	32.5%
KANSAS	$4,964	$5,089	$5,966	$6,174	1.03	3.5%	21.3%	24.4%
KENTUCKY	$5,293	$5,598	$6,352	$6,722	1.12	5.8%	20.1%	27.0%
LOUISIANA	$3,029	$2,948	$4,585	$4,881	0.81	6.5%	65.6%	61.2%
MAINE	$7,295	$8,300	$8,572	$8,728	1.45	1.8%	5.2%	19.7%
MARYLAND	$7,113	$7,418	$7,753	$7,819	1.30	0.8%	5.4%	9.9%
MASSACHUSETTS	$5,421	$5,465	$5,006	$5,028	0.84	0.5%	-8.0%	-7.2%
MICHIGAN	$8,248	$8,934	$10,968	$11,413	1.90	4.1%	27.8%	38.4%
MINNESOTA	$5,569	$7,067	$7,790	$7,740	1.29	-0.6%	9.5%	39.0%
MISSISSIPPI	$4,990	$5,329	$6,241	$6,391	1.06	2.4%	19.9%	28.1%
MISSOURI	$5,150	$4,451	$5,667	$5,896	0.98	4.0%	32.4%	14.5%
MONTANA	$5,082	$5,118	$5,463	$5,535	0.92	1.3%	8.1%	8.9%
NEBRASKA	$4,093	$3,665	$5,411	$5,372	0.89	-0.7%	46.6%	31.2%
NEVADA	$2,968	$3,193	$4,013	$4,150	0.69	3.4%	29.9%	39.8%
NEW HAMPSHIRE	$8,577	$8,221	$9,972	$9,843	1.64	-1.3%	19.7%	14.8%
NEW JERSEY	$6,556	$6,910	$8,104	$8,680	1.45	7.1%	25.6%	32.4%
NEW MEXICO	$1,201	$1,988	$3,719	$3,725	0.62	0.2%	87.4%	210.2%
NEW YORK	$3,890	$4,173	$4,864	$5,073	0.84	4.3%	21.6%	30.4%
NORTH CAROLINA	$3,331	$3,015	$4,383	$4,583	0.76	4.5%	52.0%	37.6%
NORTH DAKOTA	$6,126	$6,083	$6,655	$6,688	1.11	0.5%	10.0%	9.2%
OHIO	$6,523	$6,103	$7,323	$7,779	1.30	6.2%	27.5%	19.3%
OKLAHOMA	$4,180	$4,254	$5,394	$5,904	0.98	9.5%	38.8%	41.2%
OREGON	$5,301	$4,854	$7,444	$7,693	1.28	3.3%	58.5%	45.1%
PENNSYLVANIA	$7,829	$8,693	$9,311	$9,637	1.60	3.5%	10.9%	23.1%
RHODE ISLAND	$6,583	$7,361	$7,667	$7,812	1.30	1.9%	6.1%	18.7%
SOUTH CAROLINA	$6,703	$6,867	$8,294	$7,812	1.30	-5.8%	13.8%	16.5%
SOUTH DAKOTA	$5,767	$6,795	$8,209	$8,290	1.38	1.0%	22.0%	43.7%
TENNESSEE	$4,410	$4,522	$6,083	$6,352	1.06	4.4%	40.5%	44.0%
TEXAS	$4,957	$4,920	$5,177	$5,340	0.89	3.2%	8.5%	7.7%
UTAH	$3,763	$3,992	$4,912	$5,021	0.84	2.2%	25.8%	33.4%
VERMONT	$12,279	$12,172	$1,2999	$13,496	2.25	3.8%	10.9%	9.9%
VIRGINIA	$5,947	$6,398	$7,794	$8,007	1.33	2.7%	25.2%	34.6%
WASHINGTON	$3,306	$3,388	$5,349	$5,503	0.92	2.9%	62.4%	66.5%
WEST VIRGINIA	$5,589	$5,959	$7,236	$7,455	1.24	3.0%	25.1%	33.4%
WISCONSIN	$4,232	$4,460	$5,485	$5,498	0.92	0.2%	23.3%	29.9%
WYOMING	$2,933	$2,140	$2,807	$3,033	0.50	8.0%	41.7%	3.4%
U.S.	**$4,556**	**$4,879**	**$5,860**	**$6,006**	**1.00**	**2.5%**	**23.1%**	**31.8%**

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

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

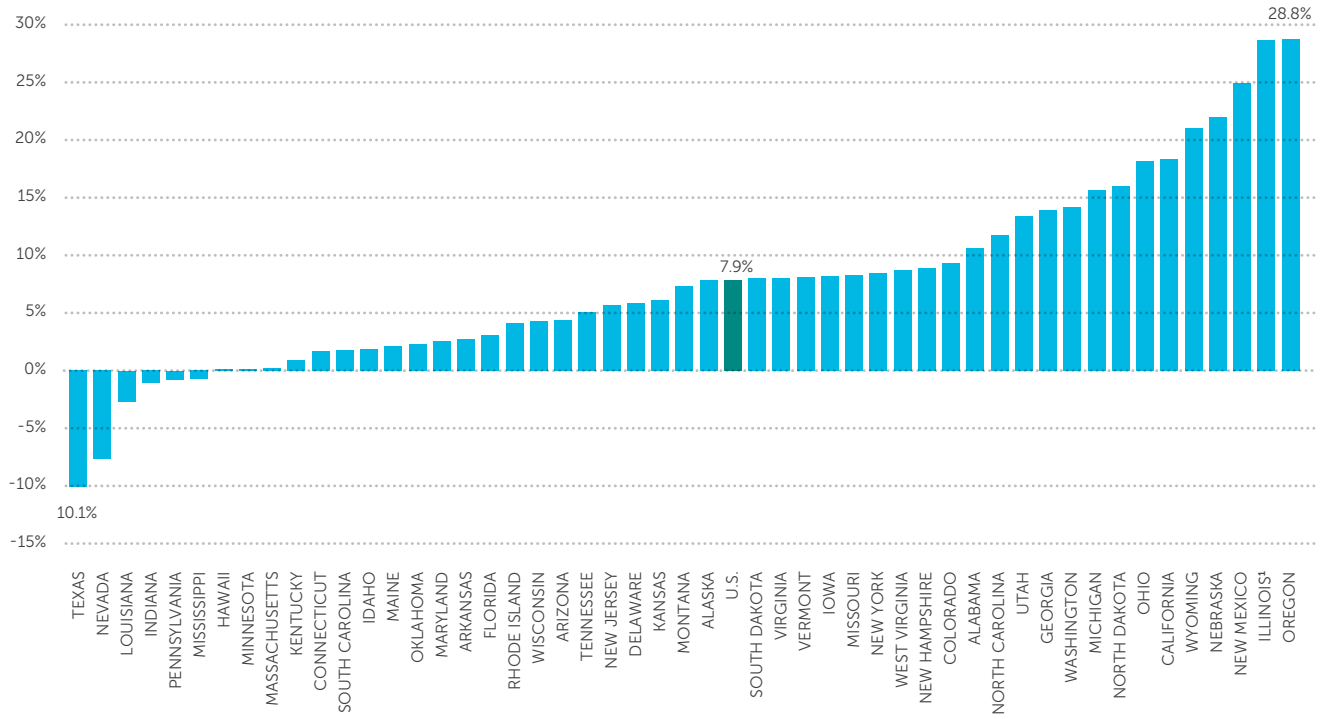
SOURCE: State Higher Education Executive Officers

Figure 12 (*and the accompanying data in Table 7*) shows the percentage change by state in total educational revenue per FTE in public higher education from 2008 to 2015. Total revenue per FTE in 2015 is 3.9 percent higher than in 2014 and 7.9 percent higher than 2010 (*see Table 7*).

- Forty-five states increased total educational revenue per student between 2010 and 2015, ranging from 0.1 percent in Hawaii to 28.8 percent in Oregon.
- Six states are below 2010 total education revenue per student levels, led by Texas with 10.1 percent lower educational revenue than in 2010.
- Nationally, total educational revenue per FTE (inclusive of the Illinois pension payment) is up slightly by 1.4 percent since 2008 (the start of the Great Recession), meaning that, nationwide, tuition revenue growth has offset state funding reductions made during the Great Recession; however, 19 states are still below their pre-recession levels despite increases in tuition.

FIGURE 12

TOTAL EDUCATIONAL REVENUE PER FTE: PERCENT CHANGE, FY 2010-2015



NOTES: 1) For Illinois, a $1.08 billion back payment in FY 2015 to their historically underfunded higher education pension program resulted in past legacy pension funds accounting for 37% of all educational appropriations.

Dollars adjusted by 2015 HECA, Cost of Living Adjustment, and Enrollment Index.

Total educational revenue excludes net tuition revenue used for capital debt service.

SOURCE: State Higher Education Executive Officers

TABLE 7

TOTAL EDUCATIONAL REVENUE PER FTE (CONSTANT ADJUSTED 2015 DOLLARS)

	FY 2008 (PRE-RECESSION)	FY 2010	FY 2014	FY 2015	INDEX TO U.S. AVERAGE	1 YEAR % CHANGE	5 YEAR % CHANGE	% CHANGE SINCE RECESSION
ALABAMA	$1,5115	$13,751	$15,513	15,208	1.18	-2.0%	10.6%	0.6%
ALASKA	$17,811	$17,887	$19,139	19,293	1.49	0.8%	7.9%	8.3%
ARIZONA	$12,535	$11,822	$11,575	12,341	0.96	6.6%	4.4%	-1.5%
ARKANSAS	$11,671	$11,635	$11,766	11,955	0.93	1.6%	2.8%	2.4%
CALIFORNIA	$10,476	$9,185	$10,259	10,870	0.84	6.0%	18.4%	3.8%
COLORADO	$9,801	$10,620	$11,241	11,611	0.90	3.3%	9.3%	18.5%
CONNECTICUT	$16,408	$15,899	$13,980	16,167	1.25	15.6%	1.7%	-1.5%
DELAWARE	$16,947	$17,507	$18,925	18,533	1.44	-2.1%	5.9%	9.4%
FLORIDA	$11,102	$9,177	$9,125	9,460	0.73	3.7%	3.1%	-14.8%
GEORGIA	$11,750	$10,400	$11,410	11,846	0.92	3.8%	13.9%	0.8%
HAWAII	$13,187	$12,562	$11,758	12,580	0.97	7.0%	0.1%	-4.6%
IDAHO	$13,209	$11,634	$11,349	11,852	0.92	4.4%	1.9%	-10.3%
ILLINOIS[1]	$11,914	$12,756	$14,080	16,415	1.27	16.6%	28.7%	37.8%
INDIANA	$11,564	$11,970	$12,183	11,838	0.92	-2.8%	-1.1%	2.4%
IOWA	$12,932	$12,740	$13,198	13,782	1.07	4.4%	8.2%	6.6%
KANSAS	$11,989	$11,318	$11,691	12,011	0.93	2.7%	6.1%	0.2%
KENTUCKY	$14,369	$13,502	$13,200	13,620	1.06	3.2%	0.9%	-5.2%
LOUISIANA	$12,499	$10,732	$10,106	10,445	0.81	3.4%	-2.7%	-16.4%
MAINE	$14,617	$14,960	$14,952	15,275	1.18	2.2%	2.1%	4.5%
MARYLAND	$15,834	$15,443	$15,419	15,843	1.23	2.7%	2.6%	0.1%
MASSACHUSETTS	$13,449	$11,733	$11,173	11,756	0.91	5.2%	0.2%	-12.6%
MICHIGAN	$14,449	$14,273	$15,736	16,511	1.28	4.9%	15.7%	14.3%
MINNESOTA	$12,710	$13,412	$13,169	13,435	1.04	2.0%	0.2%	5.7%
MISSISSIPPI	$13,550	$13,387	$12,875	13,287	1.03	3.2%	-0.8%	-1.9%
MISSOURI	$12,634	$11,079	$11,066	11,998	0.93	8.4%	8.3%	-5.0%
MONTANA	$10,251	$10,049	$10,363	10,783	0.84	4.1%	7.3%	5.2%
NEBRASKA	$12,416	$11,130	$13,266	13,574	1.05	2.3%	22.0%	9.3%
NEVADA	$13,163	$11,731	$11,036	10,831	0.84	-1.9%	-7.7%	-17.7%
NEW HAMPSHIRE	$12,157	$11,419	$12,360	12,434	0.96	0.6%	8.9%	2.3%
NEW JERSEY	$14,314	$13,668	$13,917	14,447	1.12	3.8%	5.7%	0.9%
NEW MEXICO	$11,897	$10,024	$11,964	12,525	0.97	4.9%	25.0%	5.3%
NEW YORK	$12,955	$12,823	$13,440	13,903	1.08	3.4%	8.4%	7.3%
NORTH CAROLINA	$14,443	$12,063	$13,078	13,477	1.04	3.1%	11.7%	-6.7%
NORTH DAKOTA	$11,874	$12,458	$14,516	14,454	1.12	-0.4%	16.0%	21.7%
OHIO	$12,151	$10,883	$11,626	12,857	1.00	0.6%	18.1%	5.8%
OKLAHOMA	$13,257	$13,129	$12,530	13,425	1.04	7.1%	2.3%	1.3%
OREGON	$11,293	$9,694	$11,686	12,481	0.97	6.8%	28.8%	10.5%
PENNSYLVANIA	$13,717	$13,498	$12,994	13,394	1.04	3.2%	-0.8%	-2.3%
RHODE ISLAND	$12,809	$12,096	$12,332	12,596	0.98	2.1%	4.1%	-1.7%
SOUTH CAROLINA	$13,929	$12,038	$12,432	12,256	0.95	-1.4%	1.8%	-12.0%
SOUTH DAKOTA	$11,282	$11,575	$12,321	12,501	0.97	1.5%	8.0%	10.8%
TENNESSEE	$13,357	$12,581	$12,939	13,219	1.02	2.2%	5.1%	-1.0%
TEXAS	$14,501	$14,562	$13,308	13,089	1.01	-1.7%	-10.1%	-9.7%
UTAH	$11,241	$9,772	$10,465	11,083	0.86	5.9%	13.4%	-1.4%
VERMONT	$15,148	$14,696	$15,376	15,893	1.23	3.4%	8.1%	4.9%
VIRGINIA	$12,478	$11,888	$12,547	12,839	1.00	2.3%	8.0%	2.9%
WASHINGTON	$11,063	$9,868	$11,150	11,267	0.87	1.1%	14.2%	1.8%
WEST VIRGINIA	$12,292	$11,188	$11,906	12,160	0.94	2.1%	8.7%	-1.1%
WISCONSIN	$11,394	$11,012	$11,373	11,489	0.89	1.0%	4.3%	0.8%
WYOMING	$19,649	$16,769	$18,589	20,294	1.57	9.2%	21.0%	3.3%
U.S.	**$12,734**	**$11,963**	**$12,417**	**$12,907**	**1.00**	**3.9%**	**7.9%**	**1.4%**

NOTES: 1) For Illinois, a $1.08 billion back-payment in FY 2015 to their historically underfunded higher education pension program resulted in past legacy pension funds accounting for 37% of all educational appropriations.

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

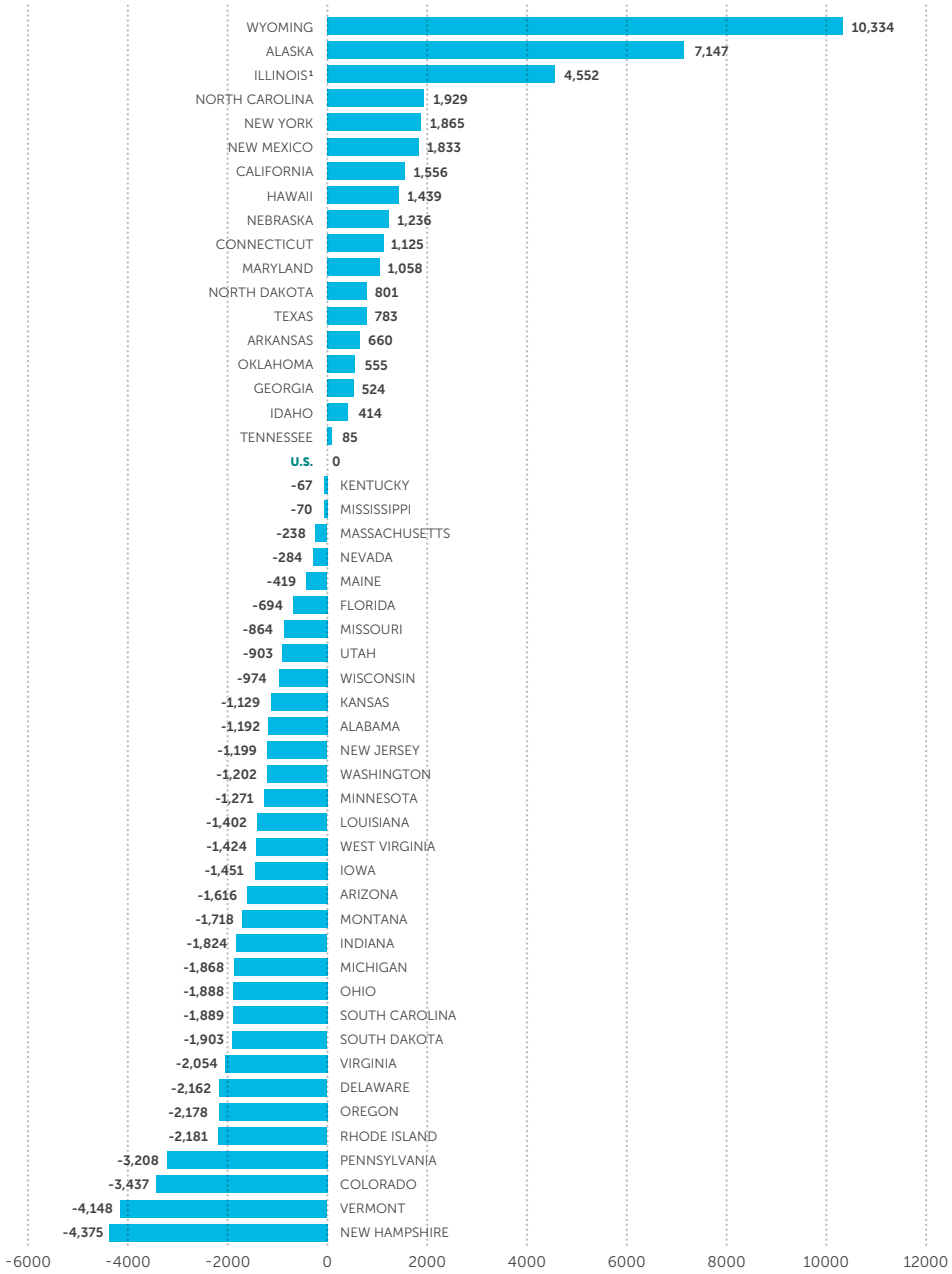
Adjustment factors, to arrive at constant dollar figures, include Cost of Living Adjustment (COLA), Enrollment Mix Index (EMI), and Higher Education Cost Adjustment (HECA). The Cost of Living Adjustment (COLA) is not a measure of inflation over time.

SOURCE: State Higher Education Executive Officers

Figures 13 and 14 compare states to the national average on 2015 educational appropriations per FTE and total educational revenue per FTE, respectively. In 16 states, educational appropriations per FTE are within $1,000 of the U.S. average and a majority of states are within $2,000. In total educational revenue per FTE, 26 states are within $1,000 of the U.S. average, and 38 are within $2,000. Comparing states across both charts, traditionally high-tuition states like New Hampshire and Vermont are well below the national average for educational appropriations (*Figure 13*) but are just below and far above average, respectively, on total revenue (*Figure 4*).

FIGURE 13

EDUCATIONAL APPROPRIATIONS PER FTE (ADJUSTED) – DIFFERENCE FROM U.S. AVERAGE, FY 2015



NOTE: 1) For Illinois, a $1.08 billion back payment in FY 2015 to their historically underfunded higher education pension program resulted in past legacy pension funds accounting for 37% of all educational appropriations

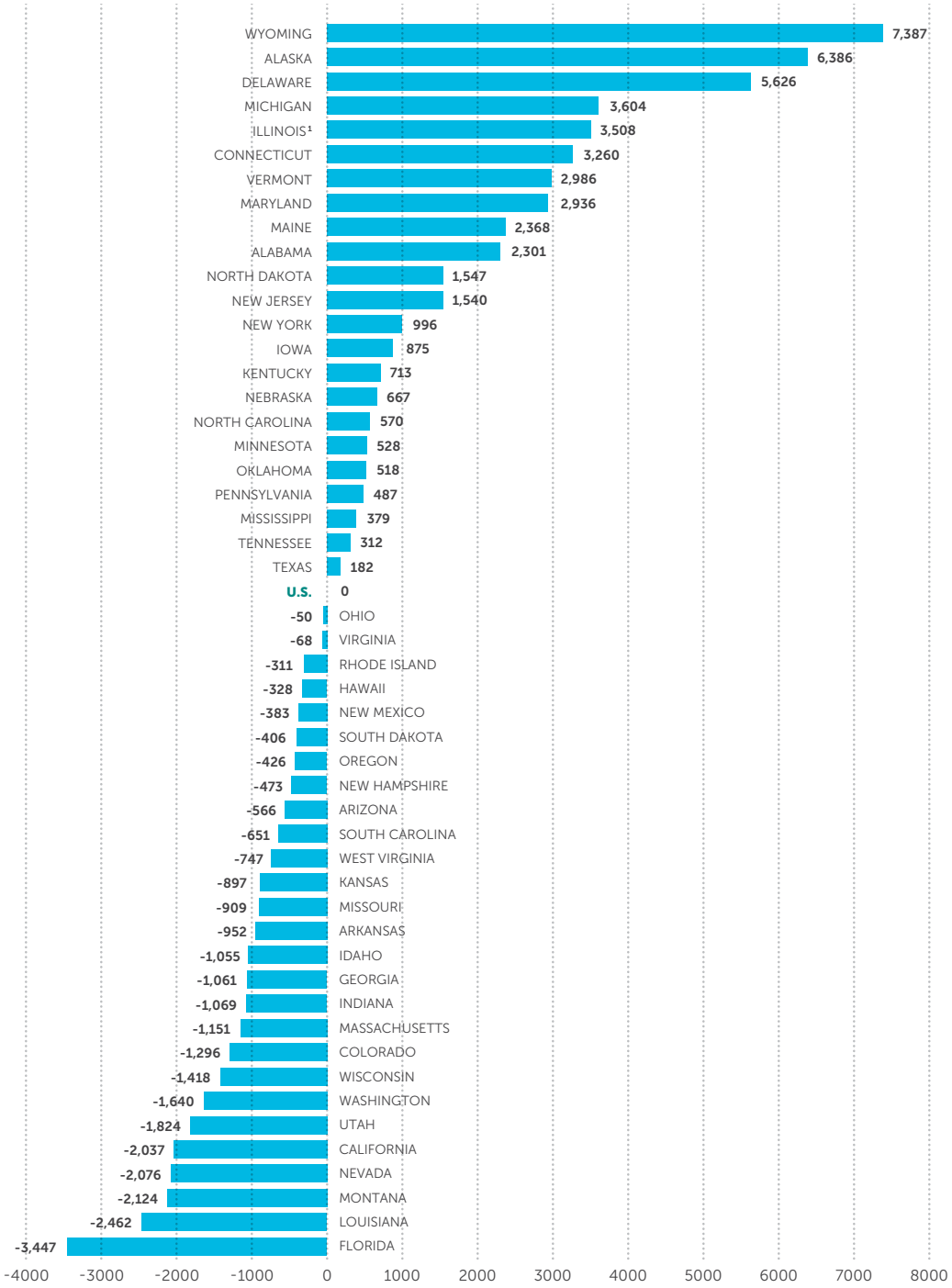
Dollars adjusted by Cost of Living Adjustment and Enrollment Index

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

SOURCE: State Higher Education Executive Officers

FIGURE 14

TOTAL EDUCATIONAL REVENUE PER FTE (ADJUSTED) – DIFFERENCE FROM U.S. AVERAGE, FY 2015



NOTE: 1) For Illinois, a $1.08 billion back-payment in FY 2015 to their historically underfunded higher education pension program resulted in past legacy pension funds accounting for 37% of all educational appropriations.

Dollars adjusted by Cost of Living Adjustment and Enrollment Index

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

SOURCE: State Higher Education Executive Officers

CASE STUDY — WASHINGTON, D.C., AND PUERTO RICO

HIGHER EDUCATION FUNDING IN WASHINGTON, D.C. AND PUERTO RICO

For the first time, the 2015 SHEF report includes higher education financial data for Washington, D.C. and Puerto Rico. These data are not included in the national totals and per student metrics presented throughout the report. Further, these data have not been adjusted for enrollment mix and cost of living differences.

- *Washington, D.C. has one public postsecondary institution serving 3,723 FTE (Table 8). In addition, more than 5,000 D.C. residents (FTE) attend out-of-state institutions. Washington D.C. offers need-based financial aid to students attending institutions within the District. In addition, the federally-funded D.C. Tuition Assistance Grant provides public aid to residents attending public institutions outside of the District and private institutions inside of the District.*[10]

- *Table 8 also shows that D.C.'s educational appropriations per FTE and net tuition per FTE have been above the U.S. average since 2011 (the earliest data we have for D.C.). The 2015 index to U.S. average for educational appropriations per FTE is 1.65, and is 1.33 for tuition revenue per FTE.*

- *In Puerto Rico, 2015 educational appropriations per FTE are also well above the U.S. average with an index of 2.2, but tuition revenue per FTE has the lowest index to the U.S. average of any state or territory at 0.15. Educational appropriations per FTE may be so high because 9.6 percent of the general budget of the government of Puerto Rico is statutorily assigned to the University of Puerto Rico (UPR).*[11] *UPR is the only public university in Puerto Rico, educating 55,005 FTE in 2015 (Table 8).*

In future years, we aim to include additional historical data for Washington, D.C. and Puerto Rico and integrate them into the full report.

10 *osse.dc.gov/dctag*

11 *www.bgfpr.com/documents/CommonwealthReport-October302014.pdf*

TABLE 8

CASE STUDY–WASHINGTON, D.C. AND PUERTO RICO COMPONENTS OF EDUCATION REVENUE, FY 2011-2015

	2011	2012	2013	2014	2015	2015 INDEX TO U.S. AVERAGE	1-YEAR % CHANGE	4-YEAR % CHANGE
PUBLIC HIGHER EDUCATION FULL-TIME EQUIVALENT (FTE) ENROLLMENT[1]								
PUERTO RICO	52,295	52,936	53,082	53,305	55,005	-	3%	5%
WASHINGTON, D.C.	3,659	4,034	3,945	3,895	3,723	-	-4%	2%
EDUCATIONAL APPROPRIATIONS PER FTE[3,4]								
U.S. AVERAGE[2]	$6,797	$6,177	$6,260	$6,620	$6,966	1.00	5%	2%
PUERTO RICO	$18,181	$15,357	$15,855	$16,067	$15,353	2.20	-4%	-16%
WASHINGTON, D.C.	$8,962	$9,549	$12,122	$9,366	$11,469	1.65	22%	28%
PUBLIC HIGHER EDUCATION NET TUITION REVENUE PER FTE[3,5]								
U.S. AVERAGE[2]	$5,031	$5,426	$5,685	$5,860	$6,006	1.00	2%	19%
PUERTO RICO	$1,510	$1,446	$1,325	$915	$875	0.15	-4%	-42%
WASHINGTON, D.C.	$8,273	$6,662	$7,068	$7,513	$7,970	1.33	6%	-4%
TOTAL EDUCATIONAL REVENUE PER FTE[3,6]								
U.S. AVERAGE[2]	$11,775	$11,549	$11,884	$12,417	$12,907	1.00	4%	10%
PUERTO RICO	$19,691	$16,803	$17,179	$16,982	$16,228	1.26	-4%	-18%
WASHINGTON, D.C.	$17,235	$16,211	$19,190	$16,879	$19,439	1.51	15%	13%

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

2) Throughout the report (including here), U.S. totals and averages do not include D.C. and Puerto Rico.

3) Data adjusted for inflation using the Higher Education Cost Adjustment (HECA).

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

5) 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.

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

SOURCE: State Higher Education Executive Officers

STATE WEALTH, TAXES, AND ALLOCATIONS FOR HIGHER EDUCATION

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

- What revenue is needed to support important public services?
- What level of taxation will generate that 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. That reevaluation may be less likely to lead to changes in those states where tax and/or spending policies are dictated or influenced by provisions of the state constitution rather than by state statute.

No single standard exists to evaluate public policy decisions with respect to funding for higher education. Relevant, comparative information about states can, however, help inform higher education financing decisions. This section explores several types of comparative data and indicators, including population, relative state and personal wealth, tax capacity and effort, and comparative allocations to higher education.[12] The data presented here are in nominal terms and are not adjusted for inflation. In all cases, the most recent available data are presented. In some cases, this means a one- to two-year lag from 2015.

Nationally, effective state and local tax rates were nearly unchanged over the last decade. As shown in Table 9, based on a combination of federal government data sources:

- Aggregate state wealth (total taxable resources) per capita increased 56 percent from $41,791 in 2003 to $65,208 in 2013. The effects of the 2008 recession are evident in the total taxable resource decreases in 2009 and 2010. Between 2011 and 2013, total taxable resources increased 23 percent, suggesting a strong rebound from the recession.
- Total state and local tax revenues per capita increased 48.3 percent from $3,111 in 2003 to $4,614 in 2013, which is 5.8 percent higher than the pre-recession high of $4,362.
- As a result of total taxable resources and revenues increasing at different rates, the national aggregate effective state and local tax rate (calculated by tax revenue as a percentage of state wealth) fell for a second year, to a 10-year low of 7.1 percent.

12 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.

The national aggregate data also show that the proportion of available state and local revenue allocated to higher education has dropped to 5.5 percent, the lowest since the SHEF dataset began in 1990. These data show that despite an economic recovery from the recession, budget challenges remain, and funding levels continue to lag—perhaps due to changes in tax policy or to structural deficits.

TABLE 9

STATE WEALTH, TAX REVENUE, EFFECTIVE TAX RATES, AND HIGHER EDUCATION ALLOCATION; U.S., 2003-2013 (CURRENT UNADJUSTED DOLLARS)

	WEALTH, REVENUE, AND TAX RATES			ALLOCATION TO HIGHER EDUCATION		
	ACTUAL TAX REVENUES (ATR) PER CAPITA	TOTAL TAXABLE RESOURCES (*TTR*) PER CAPITA	EFFECTIVE TAX RATE (*ATR/TTR*)	STATE & LOCAL[1] TAX REVENUES PLUS LOTTERY PROFITS (THOUSANDS)	STATE & LOCAL HIGHER EDUCATION SUPPORT[2]	
FY					(THOUSANDS)	(PERCENT)
2003	$3,111	$41,791	7.4%	$915,311,067	$69,881,979	7.6%
2004	$3,441	$44,642	7.7%	$1,020,012,078	$68,996,335	6.8%
2005	$3,700	$47,747	7.7%	$1,108,355,477	$71,952,639	6.5%
2006	$3,996	$50,920	7.8%	$1,207,621,567	$76,945,020	6.4%
2007	$4,246	$53,612	7.9%	$1,295,451,648	$82,640,978	6.4%
2008	$4,362	$53,071	8.2%	$1,342,709,662	$88,724,236	6.6%
2009	$4,136	$50,051	8.3%	$1,283,756,839	$87,841,621	6.8%
2010	$4,096	$50,974	8.0%	$1,282,430,818	$87,040,985	6.8%
2011	$4,287	$53,017	8.1%	$1,351,397,114	$86,991,144	6.4%
2012	$4,412	$58,163	7.6%	$1,401,564,615	$80,676,430	5.8%
2013	$4,614	$65,208	7.1%	$1,468,834,343	$81,502,527	5.5%
10 YEAR CHANGE	**48.3%**	**56.0%**	**-5.0%**	**60.5%**	**16.6%**	**-27.3%**

NOTES: 1) Local tax revenues in 2003 are estimates; the following formula was used: FY1999(local/state)+FY2000(local/state)+FY2002(local/state)*FY2003(state).

2) Higher education support is state and local tax and nontax support for general operating expenses of public and independent higher education, including special purpose appropriations for research-agricultural-medical.

SOURCE: Actual tax revenues are state and local tax revenue per capita from U.S. Census Bureau, 2013 Annual Surveys of State and Local Government Finances.

Total taxable resources per capita is from U.S. Treasury Department

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

In Table 10, the state tax revenue per capita, total taxable resources per capita, and 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 a factor of 2.03, from a low of $44,420 in Mississippi to a high of $90,240 in Connecticut. The U.S. average is $65,208. Effective tax rates vary similarly, from a low of 5.5 percent in South Dakota to a high of 11.2 percent in Alaska, while the U.S. average is 7.1 percent.

TABLE 10

TAX REVENUES, TAXABLE RESOURCES, AND EFFECTIVE TAX RATES BY STATE, FY 2013

	ACTUAL TAX REVENUES (ATR) PER CAPITA		TOTAL TAXABLE RESOURCES (TTR) PER CAPITA		EFFECTIVE TAX RATE (ATR/TTR)	
STATE	DOLLARS	INDEX	DOLLARS	INDEX	TAX RATE	INDEX
ALABAMA	$3,046	0.66	$49,528	0.76	6.2%	0.87
ALASKA	$9,240	2.00	$82,781	1.27	11.2%	1.58
ARIZONA	$3,419	0.74	$46,153	0.71	7.4%	1.05
ARKANSAS	$3,637	0.79	$49,574	0.76	7.3%	1.04
CALIFORNIA	$5,339	1.16	$68,441	1.05	7.8%	1.10
COLORADO	$4,341	0.94	$70,406	1.08	6.2%	0.87
CONNECTICUT	$7,2645	1.57	$90,240	1.38	8.1%	1.14
DELAWARE	$4,609	1.00	$75,258	1.15	6.1%	0.87
FLORIDA	$3,386	0.73	$53,671	0.82	6.3%	0.89
GEORGIA	$3,324	0.72	$59,202	0.91	5.6%	0.79
HAWAII	$5,727	1.24	$55,354	0.85	10.3%	1.46
IDAHO	$3,167	0.69	$46,253	0.71	6.8%	0.97
ILLINOIS	$5,377	1.17	$69,894	1.07	7.7%	1.09
INDIANA	$3,792	0.82	$59,184	0.91	6.4%	0.91
IOWA	$4,461	0.97	$64,469	0.99	6.9%	0.98
KANSAS	$4,458	0.97	$60,909	0.93	7.3%	1.03
KENTUCKY	$3,511	0.76	$51,281	0.79	6.8%	0.97
LOUISIANA	$3,798	0.82	$63,720	0.98	6.0%	0.84
MAINE	$4,820	1.04	$50,638	0.78	9.5%	1.35
MARYLAND	$5,477	1.19	$78,521	1.20	7.0%	0.99
MASSACHUSETTS	$5,737	1.24	$87,039	1.33	6.6%	0.93
MICHIGAN	$3,751	0.81	$55,683	0.85	6.7%	0.95
MINNESOTA	$5,549	1.20	$72,277	1.11	7.7%	1.09
MISSISSIPPI	$3,431	0.74	$44,420	0.68	7.7%	1.09
MISSOURI	$3,460	0.75	$58,513	0.90	5.9%	0.84
MONTANA	$3,795	0.82	$49,480	0.76	7.7%	1.08
NEBRASKA	$4,655	1.01	$68,838	1.06	6.8%	0.96
NEVADA	$3,877	0.84	$53,689	0.82	7.2%	1.02
NEW HAMPSHIRE	$4,194	0.91	$69,803	1.07	6.0%	0.85
NEW JERSEY	$6,315	1.37	$84,184	1.29	7.5%	1.06
NEW MEXICO	$3,676	0.80	$49,505	0.76	7.4%	1.05
NEW YORK	$8,065	1.75	$87,289	1.34	9.2%	1.31
NORTH CAROLINA	$3,609	0.78	$56,617	0.87	6.4%	0.90
NORTH DAKOTA	$8,826	1.91	$79,763	1.22	11.1%	1.56
OHIO	$4,275	0.93	$60,223	0.92	7.1%	1.00
OKLAHOMA	$3,495	0.76	$55,691	0.85	6.3%	0.89
OREGON	$3,907	0.85	$62,129	0.95	6.3%	0.89
PENNSYLVANIA	$4,629	1.00	$64,056	0.98	7.2%	1.02
RHODE ISLAND	$5,138	1.11	$66,800	1.02	7.7%	1.09
SOUTH CAROLINA	$3,192	0.69	$47,776	0.73	6.7%	0.94
SOUTH DAKOTA	$3,510	0.76	$63,916	0.98	5.5%	0.78
TENNESSEE	$3,106	0.67	$53,823	0.83	5.8%	0.82
TEXAS	$3,871	0.84	$69,628	1.07	5.6%	0.79
UTAH	$3,512	0.76	$54,426	0.83	6.5%	0.91
VERMONT	$5,425	1.18	$56,869	0.87	9.5%	1.35
VIRGINIA	$4,243	0.92	$74,787	1.15	5.7%	0.80
WASHINGTON	$4,417	0.96	$68,956	1.06	6.4%	0.91
WEST VIRGINIA	$3,896	0.84	$47,908	0.73	8.1%	1.15
WISCONSIN	$4,804	1.04	$62,082	0.95	7.7%	1.09
WYOMING	$5,800	1.26	$84,151	1.29	6.9%	0.97
U.S.	**$4,614**	**1.00**	**$65,208**	**1.00**	**7.1%**	**1.00**

NOTE: Actual tax revenues are state and local tax revenue per capita.

SOURCE: Actual tax revenues are from the U.S. Census Bureau, 2013 Annual Surveys of State and Local Government Finances.
Total taxable resources per capita is from U.S. Treasury Department

Based on federal data sources, *Table 11* and *Figures 15 and 16* show two measures of state support for higher education (per capita and per $1,000 in personal income) for 2014, by state. Per capita support for higher education averages $272 nationally and ranges from $82 in New Hampshire to $662 in Wyoming. When measured relative to personal income, support for higher education per $1,000 of personal income varies from $1.56 in New Hampshire to $12.71 in New Mexico. Nationally, state and local support for higher education per $1,000 of personal income was $5.90 in 2014.

These comparative statistics reflect interstate differences in wealth, population characteristics and density, postsecondary enrollment rates, the relative size of the public and independent higher education sectors, student mobility, and numerous other factors. Poorer states may lag the national average in per capita support, but exceed the national average in support per $1,000 of personal income. Similarly, sparsely populated states sometimes exceed the national average in both per capita support and per $1,000 of personal income.

Table 11 and *Figure 17* also provide an analysis of state support as a percentage of state budgets in 2013. While such statistics show relative investments in higher education, they do not necessarily indicate the relative "priority" or valuation of higher education by each state. They do reflect the different paths states have taken in financing a set of public purposes as they assess need, urgency, and financing options. As previously discussed, tuition revenue frequently (but not universally) has increased when state and local sources of support have not kept pace with enrollment growth and inflation. The data in Table 7, 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. Starting with California's Proposition 13 in 1978, many states saw limits on taxation and, sometimes, mandatory spending for programs such as K-12 education and correction placed in their constitutions. These factors are unique to each state and affect what states are able to devote to supporting higher education. States that rely heavily on revenue from retail sales taxes may not yet have adjusted to changes wrought by online shopping and a shift from purchase of goods to purchase of services.

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

TABLE 11

PERSPECTIVES ON STATE AND LOCAL GOVERNMENT HIGHER EDUCATION FUNDING EFFORT BY STATE, FY 2014 AND FY 2013

	FISCAL 2014		FISCAL 2014		FISCAL 2013		
STATE	HIGHER EDUCATION SUPPORT PER CAPITA (FY14)	INDEXED TO U.S. AVERAGE	HIGHER EDUCATION SUPPORT PER $1000 OF PERSONAL INCOME (FY14)	INDEXED TO U.S. AVERAGE	TAX REVENUES AND LOTTERY PROFITS (THOUSANDS FY13)	HIGHER EDUCATION SUPPORT (THOUSANDS FY13)	ALLOCATION TO HIGHER EDUCATION
ALABAMA	$298	1.10	$7.96	1.35	14,724,783	$1,408,357	9.6%
ALASKA	$527	1.94	$9.756	1.66	6,792,745	$373,454	5.5%
ARIZONA	$249	0.92	$6.57	1.12	22,832,910	$1,605,117	7.0%
ARKANSAS	$349	1.28	$9.22	1.56	10,854,596	$1,045,760	9.6%
CALIFORNIA	$334	1.23	$6.68	1.13	205,938,383	$11,641,914	5.7%
COLORADO	$1378	0.51	$2.82	0.48	23,006,173	$692,521	3.0%
CONNECTICUT	$283	1.04	$4.37	0.74	26,437,581	$887,708	3.4%
DELAWARE	$243	0.90	$5.245	0.89	4,503,853	$216,493	4.8%
FLORIDA	$197	0.73	$4.62	0.78	67,623,988	$3,338,709	4.9%
GEORGIA	$276	1.02	$7.09	1.20	34,142,510	$2,624,294	7.7%
HAWAII	$374	1.38	$8.12	1.38	8,041,176	$526,180	6.5%
IDAHO	$245	0.90	$6.66	1.13	5,153,176	$384,659	7.5%
ILLINOIS	$382	1.41	$8.01	1.36	70,061,959	$4,401,290	6.3%
INDIANA	$257	0.95	$6.49	1.10	25,144,302	$1,550,124	6.2%
IOWA	$288	1.06	$6.42	1.09	13,872,227	$851,199	6.1%
KANSAS	$337	1.24	$7.50	1.27	12,977,077	$989,284	7.6%
KENTUCKY	$275	1.01	$7.36	1.25	15,655,380	$1,206,977	7.7%
LOUISIANA	$242	0.89	$5.758	0.98	17,727,185	$11,740,612	6.6%
MAINE	$204	0.75	$5.02	0.85	6,456,209	$265,872	4.1%
MARYLAND	$343	1.26	$6.33	1.07	33,391,828	$1,935,107	5.8%
MASSACHUSETTS	$199	0.73	$3.39	0.57	39,293,258	$1,255,182	3.2%
MICHIGAN	$220	0.81	$5.40	0.92	37,856,443	$2,111,894	5.6%
MINNESOTA	$256	0.94	$5.22	0.88	30,211,002	$1,285,247	4.3%
MISSISSIPPI	$343	1.26	$9.96	1.69	10,262,494	$978,132	9.5%
MISSOURI	$181	0.67	$4.35	0.74	21,198,657	$1,071,105	5.1%
MONTANA	$228	0.84	$5.72	0.97	3,865,684	$208,308	5.4%
NEBRASKA	$438	1.61	$9.21	1.56	8,737,829	$792,027	9.1%
NEVADA	$171	0.63	$4.20	0.71	10,817,783	$472,368	4.4%
NEW HAMPSHIRE	$82	0.30	$1.56	0.26	5,625,496	$85,622	1.5%
NEW JERSEY	$244	0.90	$4.24	0.72	57,164,438	$2,082,478	3.6%
NEW MEXICO	$471	1.74	$12.71	2.16	7,709,840	$951,690	12.3%
NEW YORK	$306	1.13	$5.51	0.93	161,537,934	$5,843,669	3.6%
NORTH CAROLINA	$386	1.42	$9.85	1.67	36,017,149	$3,962,250	11.0%
NORTH DAKOTA	$554	2.04	$9.93	1.68	6,392,230	$343,806	5.4%
OHIO	$196	0.72	$4.64	0.79	50,267,784	$2,202,969	4.4%
OKLAHOMA	$284	1.04	$6.50	1.10	13,526,032	$1,086,611	8.0%
OREGON	$210	0.77	$5.10	0.86	15,883,818	$771,156	4.9%
PENNSYLVANIA	$137	0.51	$2.88	0.49	60,202,806	$1,741,590	2.9%
RHODE ISLAND	$158	0.58	$3.26	0.55	5,781,358	$163,711	2.8%
SOUTH CAROLINA	$202	0.74	$5.50	0.93	15,542,439	$972,623	6.3%
SOUTH DAKOTA	$244	0.90	$5.38	0.91	3,073,425	$196,230	6.4%
TENNESSEE	$242	0.89	$5.99	1.02	20,517,358	$1,455,169	7.1%
TEXAS	$315	1.16	$6.90	1.17	103,587,006	$7,817,460	7.5%
UTAH	$271	1.00	$7.20	1.22	10,188,214	$748,759	7.3%
VERMONT	$148	0.54	$3.19	0.54	3,422,112	$89,341	2.6%
VIRGINIA	$217	0.80	$4.30	0.73	35,533,290	$1,735,056	4.9%
WASHINGTON	$222	0.82	$4.48	0.76	30,932,152	$1,372,858	4.4%
WEST VIRGINIA	$277	1.02	$7.66	1.30	7,224,929	$546,189	7.6%
WISCONSIN	$275	1.01	$6.21	1.05	27,744,184	$1,622,394	5.8%
WYOMING	$662	2.44	$12.13	2.06	3,379,158	$417,550	12.4%
U.S.	**$272**	**1.00**	**$5.90**	**1.00**	**1,468,834,343**	**$81,502,527**	**5.5%**

NOTE: Higher education support is state and local tax and nontax support for public and independent higher education, including special purpose appropriations for research-agricultural-medical.

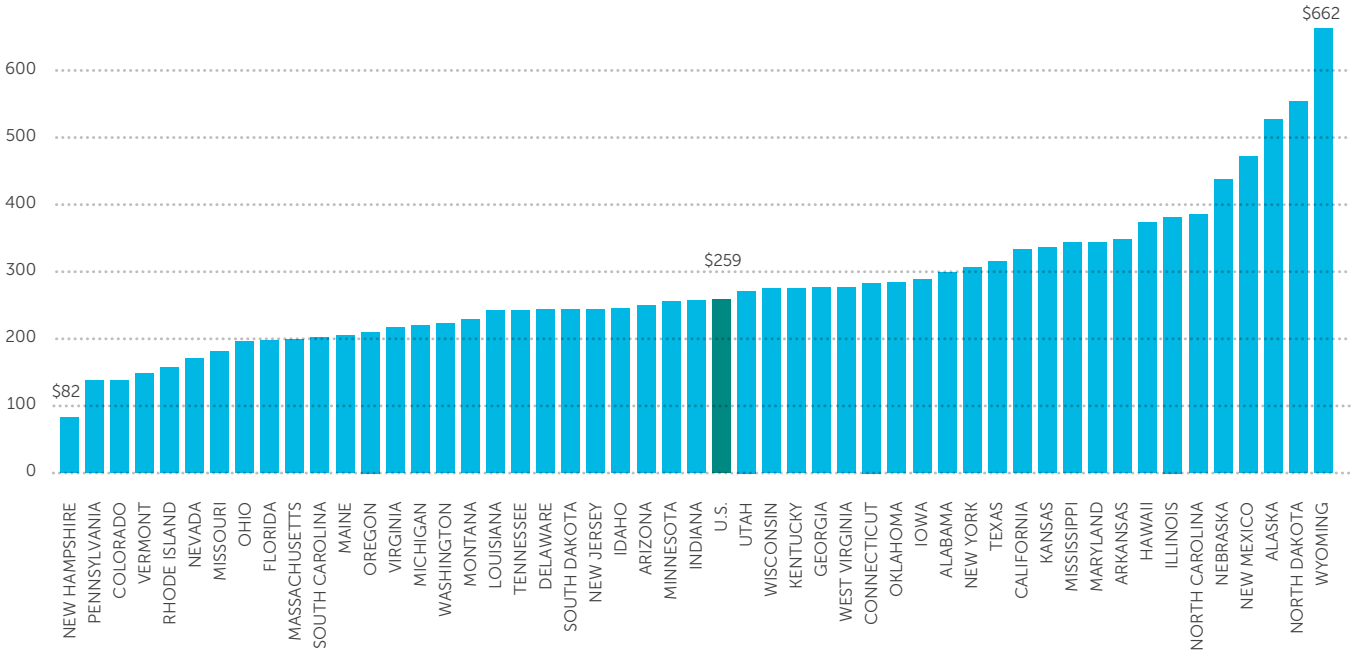
SOURCE: State Higher Education Executive Officers

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

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

FIGURE 15

HIGHER EDUCATION SUPPORT PER CAPITA BY STATE, FY 2014



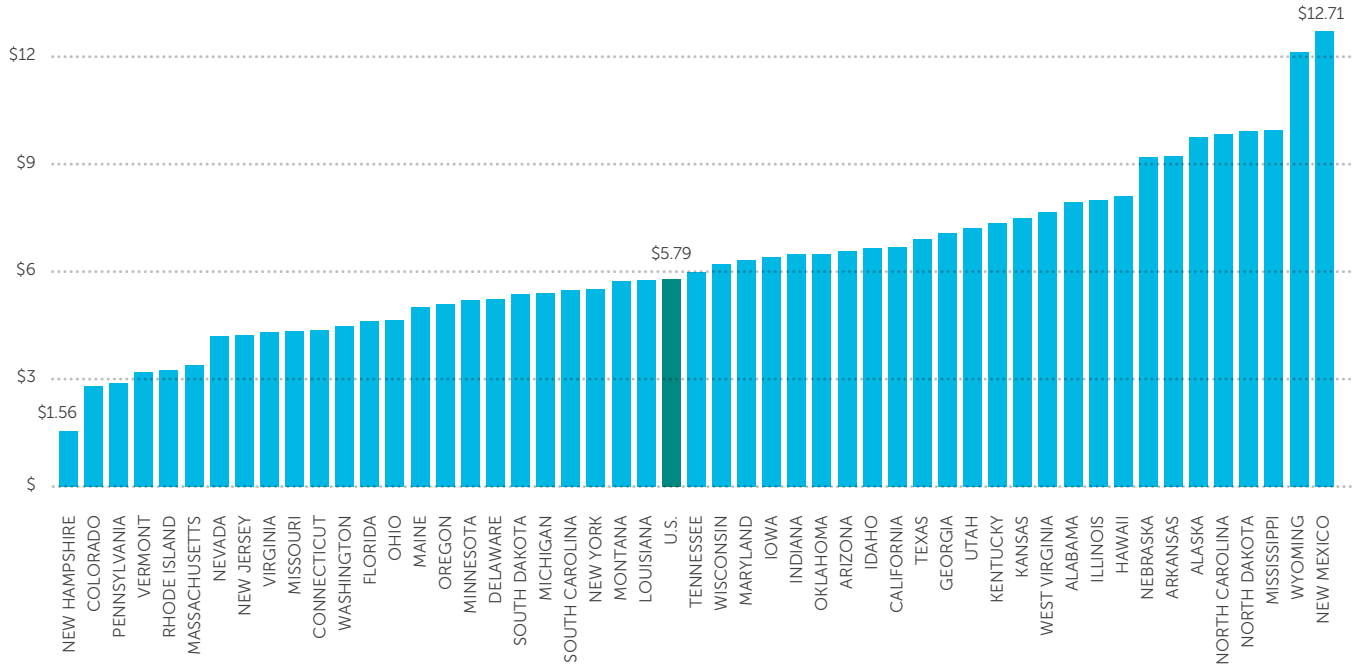
NOTE: Higher education support is state and local tax and nontax support for public and independent higher education,including special purpose appropriations for research-agricultural-medical.

SOURCE: State Higher Education Executive Officers

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

FIGURE 16

HIGHER EDUCATION SUPPORT PER $1,000 OF PERSONAL INCOME BY STATE, FY 2014



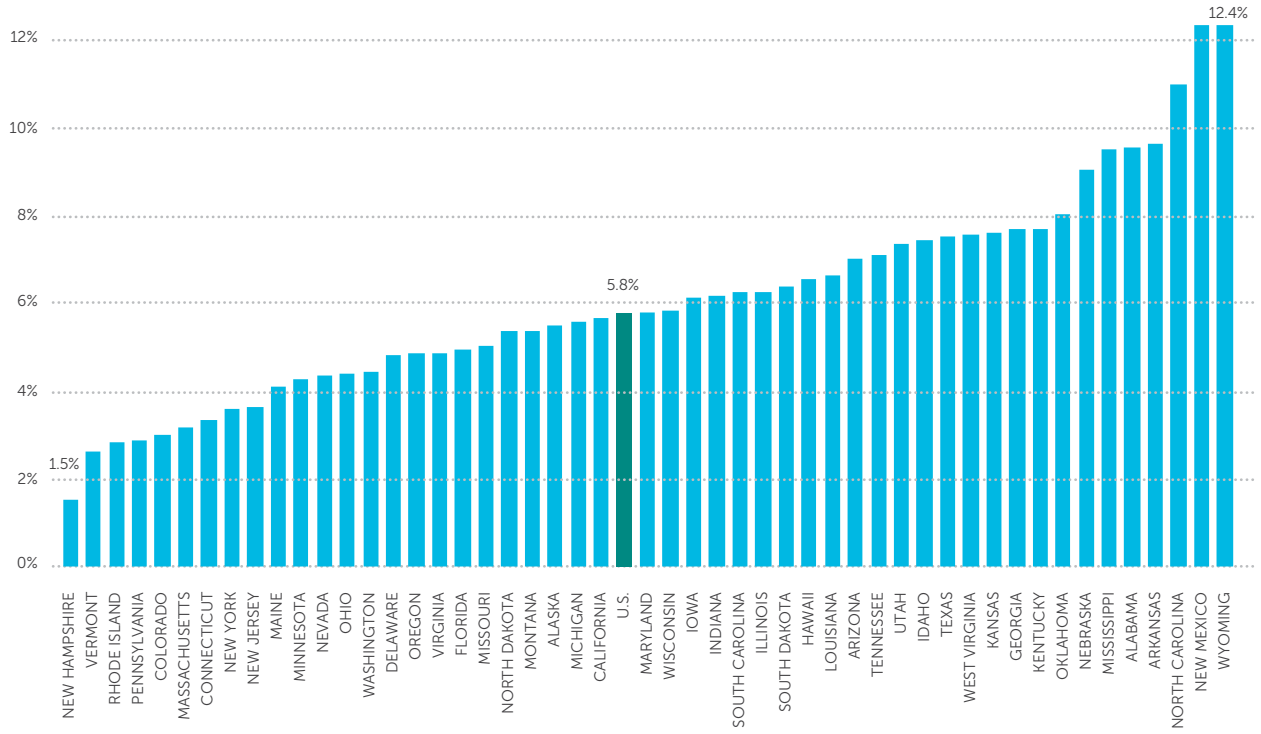
NOTE: Higher education support is state and local tax and nontax support for public and independent higher education, including special purpose appropriations for research-agricultural-medical.

SOURCE: State Higher Education Executive Officers

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

FIGURE 17

PERCENT TO TAX REVENUES ALLOCATED TO HIGHER EDUCATION, FY 2013



NOTE: Higher education support is state and local tax and nontax support for public and independent higher education, including special purpose appropriations for research-agricultural-medical.

SOURCE: State Higher Education Executive Officers

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

CONCLUSION

This report has summarized higher education enrollment and funding data for 2015. For the third consecutive year, state and local support grew—this time, more significantly to $6,966 in constant dollars. Further, the share of total revenue per student coming from net tuition revenue declined for the second straight year to 46.5 percent in 2015. These two measures clearly indicate continued economic recovery; however, as it is for many American families, higher education's economic recovery remains precarious. Despite two years of per student funding increases, educational appropriations per student are 15.3 percent below 2008 pre-recession levels. Only four states have increased per student funding over this time period. Coupling the rapid tuition increases that occurred to offset cuts in state and local support and recent reinvestment by state and local governments, total educational revenues per student is above pre-recession levels, up 1.4 percent from 2008. However, 19 states remain below pre-recession levels in total educational revenue. While, on the whole, the total revenue per student has been restored, a much larger share of this revenue is paid by students and families through tuition. Many of these tuition charges are financed through student loans, which along with the shifting demography of American students to include more from lower-income groups, underscores why affordability concerns have become much more prevalent since 2008.

Initial estimates from the FY 2016 *Grapevine* survey appropriations for higher education show continued growth overall of 4.1 percent in nominal terms, with most states appropriating more for higher education than in the prior year. However, some states are reducing budgets this spring and there is evidence that other states will make cuts in 2017 due to revenue shortfalls.

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

At the same time, more and more states are adopting daring completion and attainment goals which will only be met by better serving those students that have typically been underserved—first generation, low-income, and minority students—students who are less likely to understand how to navigate the higher education environment and may require additional services and supports to succeed. To do so with restrained resources from appropriations will be challenging. Somehow, the nation and its educators must come to grips with these realities and create effective responses to them. Colleges and universities must find ways to reduce the cost of instruction, improve student progress and reduce the time to a degree, while improving student learning and increasing the number of students who graduate ready to be productive citizens. Parents, students, institutions, and states must make tough decisions about priorities—what investments are essential for a better future and where can we and should we reduce spending on non-essentials in order to secure what is essential?

But avoiding bad judgments can be difficult when facing tough choices. Institutions may cut too many quality corners or compete with each other to raise revenue from "new" sources (such as out-of-state or international students) rather than make difficult decisions about priorities or the extra effort required to create and effectively implement innovative practices. Policymakers may overestimate how many students can be well educated within existing resources, or make unrealistic assumptions about the potential for technology and new delivery methods to rapidly become a panacea offsetting the long-term negative effects of budget cuts or tuition increases on access to higher education and the quality of our workforce. Or the better-off public may be lulled into thinking that the American economy can get by with limited opportunities and 20th century standards for educational attainment, so long as their own families are well educated. The educational and economic edge the United States once enjoyed in comparison to other nations has been eroding. Sound judgment about priorities and extra measures of commitment and creativity are needed in order to regain our educational and economic momentum.

The data and analysis of this and future SHEF reports are intended to help higher education leaders and state policymakers focus on how discrete, year-to-year decisions fit into broader patterns of change over time, and to help them make decisions in the coming years that will meet the long-term needs of the American people to educate more Americans to higher standards than at any other time in our nation's history.

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