



Office of Missouri State Auditor  
**Nicole Galloway, CPA**

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**Public Higher Education Funding  
and Affordability**



## Findings in the audit of Public Higher Education Funding And Affordability

### Background

Higher education provides important private and public benefits, and multiple parties are involved in financing higher education costs. The Coordinating Board for Higher Education with support from the Missouri Department of Higher Education (MDHE), provides oversight of public higher education institutions in the state. In 2007, the Missouri General Assembly established the Higher Education Student Funding Act (HESFA), which gives the Coordinating Board and the Commissioner of Higher Education a role in reviewing the tuition setting process. The HESFA limits the amount a public institution may increase in-state undergraduate tuition to the increase in the Consumer Price Index. The MDHE and Coordinating Board are charged with ensuring the 13 Missouri public 4-year institutions and the State Technical College of Missouri are in compliance with the HESFA.

### Trends in Public Higher Education Funding

Combined net tuition and fees to attend Missouri's 4-year public institutions have continued to increase at rates faster than inflation since the implementation of the HESFA, while in-state undergraduate tuition alone has grown at rates slower than inflation. To grow overall net tuition, some school officials indicated they have pursued non-resident, graduate, and international students, for whom HESFA doesn't limit tuition increases. National data show in-state undergraduate tuition at Missouri's public 4-year institutions has had the lowest rate of increase of any state in the nation since 2008, and ranked below the national average for in-state undergraduate tuition per full-time student for the 2015-2016 school year. However, institutions have consistently increased supplemental fees as a way to generate additional revenue. Since the implementation of HESFA, supplemental fees at Missouri's 4-year public institutions increased, both overall and per full-time student. From fiscal year 2009 to 2015, supplemental fees have increased 138 percent overall and 112 percent per full time equivalent student.

State appropriations for Missouri's 4-year public institutions decreased 9 percent from 2009 to 2015, even as enrollment has grown by 12 percent. Missouri ranked 43rd nationally in state higher education funding per \$1,000 of personal income for the 2014-2015 school year, and state appropriations per full time equivalent student declined a total of almost 28 percent from 2008 to 2014. To compensate, schools have utilized several strategies to contain spending and improve efficiency, holding the growth in expenditures below the rate of inflation. These measures include administrative savings by not filling vacant positions, freezing merit and cost of living raises, and reducing operating budgets; deferring some capital maintenance needs; and saving on educational services by increasing class sizes and eliminating or combining some departments and programs. The state has approved approximately \$200 million in additional funding during fiscal years 2016 and 2017 to address infrastructure maintenance and improvements at campuses statewide.

### Affordability of Public Higher Education

Reductions in state appropriations have resulted in a greater portion of public higher education costs being passed along to students and families. In addition, reductions in overall state grant aid, and specifically reductions in

the amount of need-based aid, have also had a negative impact on the affordability of higher education for students in the state.

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Higher Education Student  
Funding Act

The MDHE has not formally defined the term "required fees." How this term is defined will have a significant impact on implementation and evaluation of the HESFA, and the affordability of higher education in Missouri. While the MDHE has generally ensured tuition increases follow the HESFA restrictions, procedures to calculate allowable tuition levels are not adequate, tuition and fee information provided by the institutions is not verified, and documentation of the tuition review process is not always maintained.

Because of the nature of this report, no overall rating is provided.

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# Public Higher Education Funding and Affordability

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### Abbreviations

MDHE	Missouri Department of Higher Education
CBHE	Coordinating Board for Higher Education
CPI	Consumer Price Index
FTE	Full Time Equivalent
HESFA	Higher Education Student Funding Act
IPEDS	Integrated Postsecondary Education Data System
SAO	State Auditor's Office
SHEEO	State Higher Education Executive Officers



## **NICOLE GALLOWAY, CPA**

### **Missouri State Auditor**

Honorable Jeremiah W. (Jay) Nixon, Governor  
and  
Coordinating Board for Higher Education  
and  
Zora Mulligan, Commissioner  
Department of Higher Education  
Jefferson City, Missouri

We have audited certain operations of the Department of Higher Education related to public higher education funding and affordability for Missouri's 4-year public institutions, in fulfillment of our duties under Chapter 29, RSMo. Due to the importance of higher education to Missouri's economy, the affordability and accessibility of higher education is a significant issue. The Higher Education Student Funding Act (HESFA) was implemented to limit tuition growth at the state's 4-year public institutions and ensure the affordability of public higher education. The scope of the audit included, but was not limited to, the 7 years ended June 30, 2015. The objectives of our audit were to:

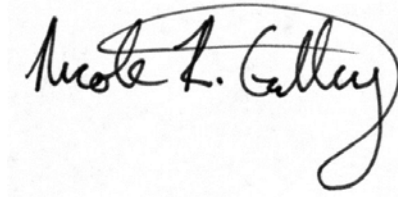
1. Evaluate the internal controls over significant management and financial functions related to the HESFA.
2. Evaluate compliance with certain legal requirements related to the HESFA.
3. Evaluate the impact of the HESFA on public higher education funding for the state's 4-year public institutions, and assess the potential impact of the HESFA on affordability at the state's 4-year public institutions.

We conducted our audit in accordance with the standards applicable to performance audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform our audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides such a basis.

For the areas audited, we identified (1) internal controls over management functions related to higher education funding and affordability need improvement, (2) no significant non-compliance with legal requirements related to higher education funding and affordability, and (3) various impacts of the HESFA on higher education funding and affordability.

The accompanying Organization and Statistical Information is presented for informational purposes. This information was obtained from the department's management and was not subjected to the procedures applied in our audit.

The accompanying Management Advisory Report presents our findings arising from our audit of Public Higher Education Funding and Affordability.

A handwritten signature in black ink that reads "Nicole R. Galloway". The signature is written in a cursive style with a large loop at the end of the last name.

Nicole R. Galloway, CPA  
State Auditor

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# Public Higher Education Funding and Affordability

## Introduction

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### Background

Higher education provides important private and public benefits, and multiple parties are involved in financing higher education costs. In terms of private benefit, students may seek a postsecondary degree as a key to a better economic future. However, investments in public higher education are important to the development of Missouri's economy and provide a significant public benefit. State funding, students, and institutions all play important roles in financing higher education costs, thereby influencing affordability. Affordability is an important factor affecting whether students access and complete degrees, and is relative to student or family income. Controlling the growth in tuition and fees can significantly impact the affordability of higher education for students and their families.

#### State government

State funding is a significant source of revenue for public institutions through state appropriations. Public institutions also receive additional grants or contracts for activities such as research projects and programs that provide financial aid directly to students. State grant aid can be allocated based on financial need or merit (such as grades or test scores). The Missouri Department of Higher Education (MDHE), headed by the Coordinating Board for Higher Education (CBHE), provides oversight of public higher education institutions in the state, evaluates institutions' performance, and carries out other goals and administrative duties. The Missouri General Assembly established the Higher Education Student Funding Act (HESFA) in 2007 under sections 173.1000 to 173.1006, RSMo, to provide the CBHE and the Commissioner of Higher Education a role in reviewing the tuition setting process and to set a limit on the amount by which a public institution may increase in-state undergraduate tuition based on the increase in the Consumer Price Index (CPI). The MDHE administers the HESFA and is charged with ensuring all 13 Missouri public 4-year institutions<sup>1</sup> and the State Technical College of Missouri are in compliance with the provisions of the HESFA.

#### Public institutions

Public institutions charge tuition and fees, and may also provide aid to students depending on the institution's financial aid programs. These institutions are generally administered by appointed officials and are supported primarily by funding from federal, state, and local sources in addition to revenue from tuition and fees. See Figure 1 for a graph of total revenue sources. While some public institutions may offer 2-year associate's degree programs, others offer 4-year bachelor's degree programs or beyond. As of the 2014-2015 school year, there were 13 public 4-year institutions that enrolled 119,925 full time equivalent (FTE<sup>2</sup>) students, and there were 14 public 2-year institutions that enrolled 64,381 FTE students for a total of

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<sup>1</sup>A list of the public institutions is at Appendix A.

<sup>2</sup>FTE student is a measure of instructional workload for budgeting and planning purposes. It converts the total number of students served into an equivalent number of full-time students, based on the amount of hours typically designated for full-time enrollment.



## Higher Education Funding and Affordability Introduction

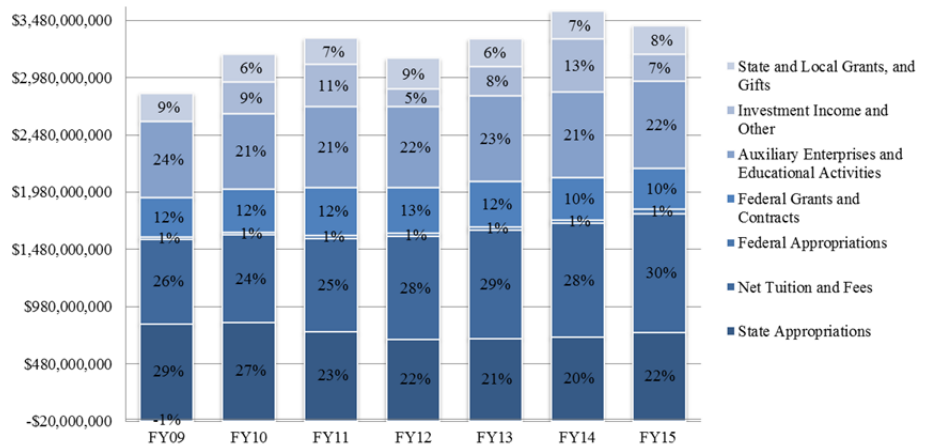
184,306 FTE students. In terms of total students served, the public 4-year and 2-year institutions enrolled approximately 253,000 full and part-time students, or approximately 56 percent of total college enrollment across all college types, including public, private nonprofit, and for-profit colleges.

### Students and families

Aside from federal, state, and local funding, institutions generate revenue through tuition and fees paid by students. Students also pay for room and board, textbooks, and school supplies. These services are provided by auxiliary enterprises. To help with higher education costs students may receive grant aid from the state, the federal government, or the institution they are attending, and scholarships from private and public sources. There are different types of students that attend public institutions including resident, non-resident, undergraduate, graduate, and professional students. The level of tuition and fees paid varies for each student type.

Figure 1 depicts total revenues, by source, combined for the public four-year institutions, and the percentage of total revenues for each revenue type, for fiscal years 2009 to 2015.

Figure 1: Revenue by source, fiscal years 2009 to 2015



Source: Integrated Postsecondary Education Data Systems

Additional details on total revenues and total revenues per FTE from fiscal year 2009 through fiscal year 2015 are included at Appendixes B and C.





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## Higher Education Funding and Affordability Introduction

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### Scope and Methodology

We obtained data from the MDHE, the Integrated Postsecondary Education Data System (IPEDS),<sup>3</sup> the National Association of State Student Grant and Aid Programs and directly from all of Missouri's 4-year public institutions to gain an understanding of trends in higher education funding for the state's 4-year public institutions. Our review of higher education trends focused on identifying trends in annual tuition and fees, state appropriations, state grants and contracts, federal grants and contracts, local gifts and grants, enrollment and expenditures for the 7 years ending June 30, 2015.

We assessed the reliability of the data by comparing the data posted on IPEDS<sup>4</sup> to the audited financial statements for a sample of four institutions. We determined this information was sufficiently reliable for the purposes of this report.

To provide context for tuition levels at Missouri 4-year public institutions, we obtained tuition data,<sup>5</sup> state appropriations, and grant aid for other states. We obtained this data from the College Board and the State Higher Education Executive Officers Association (SHEEO). In addition, to determine the factors affecting tuition levels, we interviewed officials at five public 4-year institutions; the University of Central Missouri in Warrensburg, Missouri State University in Springfield, University of Missouri System, Southeast Missouri State University in Cape Girardeau, and Lincoln University in Jefferson City. We also interviewed MDHE officials involved in the evaluation and oversight of tuition and fee increases.

We reviewed and recalculated the tuition and fee increases during each of the 8 years ending June 30, 2016, and interviewed MDHE staff involved in the review of tuition and fee increases, to evaluate internal controls and compliance related to the HESFA.

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<sup>3</sup> The IPEDS is a system of interrelated surveys conducted annually by the U.S. Department of Education's National Center for Education Statistics. IPEDS gathers information from every college, university, and technical and vocational institution that participates in federal student financial aid programs. The Higher Education Act of 1965, as amended, requires that institutions that participate in federal student aid programs report data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, and student financial aid.

<sup>4</sup> The IPEDS refers to the institutional fiscal year, and therefore, may vary across institutions. Each survey year institutions report data from the last fiscal year that ended on or before October 31.

<sup>5</sup> Tuition data presented in this report are adjusted for inflation and presented in constant 2014 dollars unless otherwise noted.

# Public Higher Education Funding and Affordability

## Management Advisory Report

### State Auditor's Findings

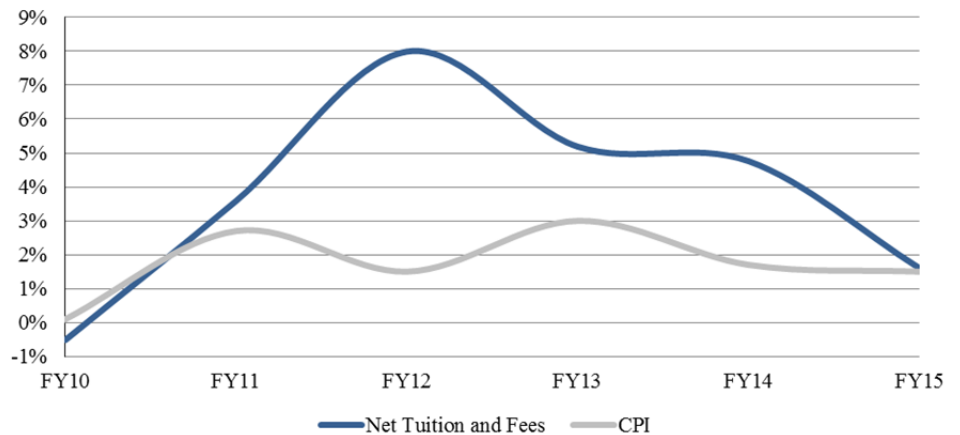
## 1. Trends in Public Higher Education Funding

Net tuition and fees<sup>6</sup> to attend Missouri's 4-year public institutions have continued to increase at rates faster than inflation since the implementation of the Higher Education Student Funding Act (HESFA), while in-state undergraduate tuition has grown at rates slower than inflation. State appropriations and state aid to students have decreased from 2009 to 2015, while enrollment at 4-year institutions have increased steadily. Institution expenditures have only increased slightly more than the change in the Consumer Price Index (CPI) over the same timeframe.

### Net Tuition and Fees

Net tuition and fees per FTE student for Missouri's 4-year public institutions for the audit period continued to increase at rates higher than the change in the CPI from fiscal year 2009 to 2015. On average, net tuition and fees per FTE student increased by 3.8 percent per year from fiscal year 2009 to 2015, while the CPI increased by an average of 1.8 percent during the same timeframe.

Figure 1.1: Percent change in net tuition and fees per FTE student versus the CPI, fiscal year 2010 to 2015



Source: Prepared by the State Auditor's Office (SAO) using Integrated Postsecondary Education Data Systems (IPEDS) tuition data and CPI data from the United States Department of Labor, Bureau of Labor Statistics

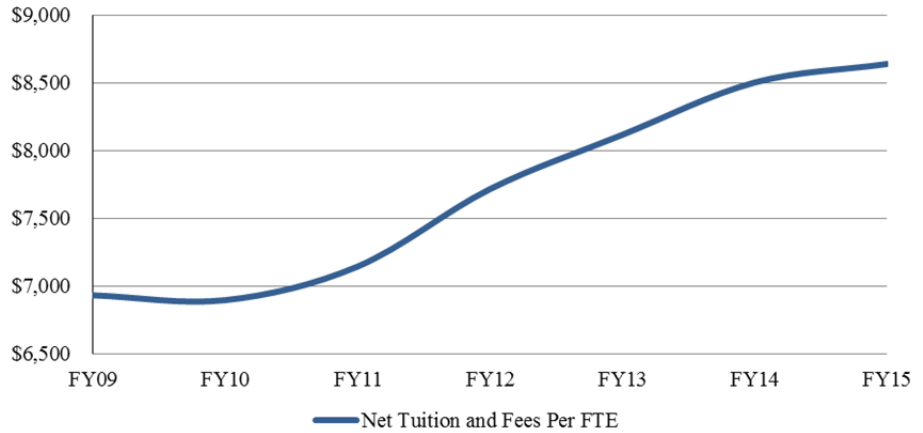
Revenues generated from net tuition and fees in total and per FTE student from fiscal year 2009 through fiscal year 2015 are included at Appendixes E and F. Figure 1.2 shows net tuition and fees per FTE student to attend a Missouri 4-year public institution from fiscal year 2009 to 2015. Net tuition and fees per FTE student increased from \$6,932 in fiscal year 2009 to \$8,638 in fiscal year 2015, or by approximately 25 percent.

<sup>6</sup>The term "net tuition and fees," when used in this section, is defined as the average net tuition and all fees charged to all student types attending a Missouri public institution, including in-state, out-of-state, undergraduate, and graduate students, after deducting aid, discounts and allowances. Amounts presented include required fees charged to students such as technology fees, and all supplemental fees.



Public Higher Education Funding and Affordability  
Management Advisory Report - State Auditor's Findings

Figure 1.2: Net tuition and fees per FTE student, in dollars, fiscal year 2009 to 2015



Source: Prepared by the SAO using IPEDS tuition data and enrollment information from MDHE

Increases in net tuition and fees are a result of several factors. First, the Coordinating Board of Higher Education (CBHE) granted HESFA penalty waiver requests to 10 of the 13 4-year institutions and the State Technical College of Missouri for increasing tuition above the change in the CPI for fiscal year 2012. The CBHE approved the penalty waivers due to significant cuts to state appropriations in fiscal years 2011 and 2012. Second, institutions have increased and added new supplemental fees charged to students. Also, since the implementation of the HESFA placed limits on tuition increases on undergraduate resident tuition, schools interviewed by auditors pursued additional revenue from certain types of students who pay higher rates of tuition. Officials at two public schools said they actively pursue out-of-state and, in a few cases, international students to keep enrollment levels high and boost tuition revenues because these students typically pay higher tuition. For example, the University of Missouri System's data shows that non-resident undergraduate students attending all four system institutions increased by approximately 50 percent and international undergraduate students attending all four campuses increased by approximately 120 percent during the 7 year period ending June 30, 2015. These students are not subject to the tuition limits of the HESFA since it applies only to in-state undergraduate tuition.

### In-State Tuition

National data<sup>7</sup> shows in-state undergraduate tuition at Missouri's public 4-year institutions have had the lowest rate of increase of any state in the nation since 2008. Compared to other states, Missouri's in-state undergraduate tuition per FTE student for the 2015-2016 school year ranked 22nd lowest in the nation, and slightly lower than the national average.

<sup>7</sup>Trends in College Pricing 2015, The College Board, 2015, <<http://trends.collegeboard.org/sites/default/files/2015-trends-college-pricing-final-508.pdf>>, accessed on April 19, 2016.



## Public Higher Education Funding and Affordability Management Advisory Report - State Auditor's Findings

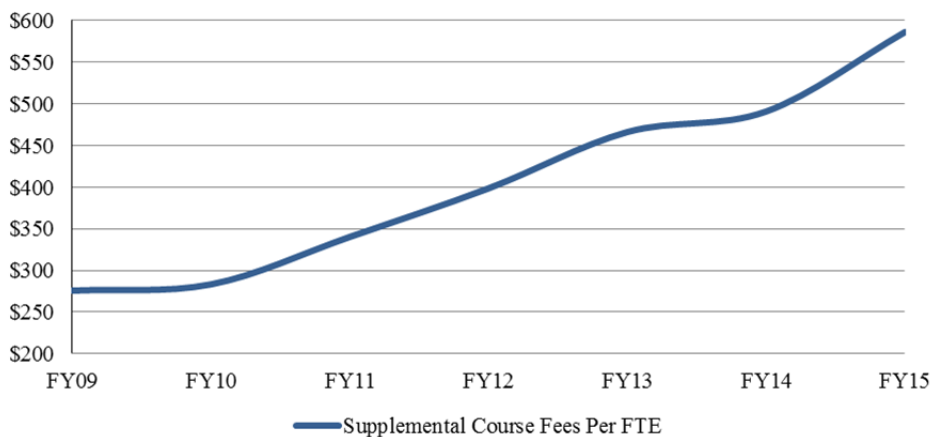
Additional details on in-state undergraduate tuition per FTE, by state, from fiscal year 2008 through fiscal year 2015 are included at Appendix D.

Based on data provided by the Missouri Department of Higher Education (MDHE), average in-state undergraduate tuition rates increased by less than the average change in the CPI since the implementation of the HESFA, increasing 1.6 percent per year from fiscal year 2009 to 2015, versus an average increase in the CPI of 1.8 percent during the same timeframe. While the HESFA has effectively limited increases to in-state undergraduate tuition, it has not limited increases to supplemental fees charged to in-state students.

### Supplemental Fees

Based on interviews with officials from public 4-year institutions, institutions are increasingly adding supplemental fees as a way to generate additional revenues. Since the implementation of the HESFA, supplemental fees charged by Missouri's 4-year public institutions increased, both overall and when measured per FTE student. Specifically, supplemental fees for these institutions increased by 138 percent, from \$29.5 million in fiscal year 2009 to \$70.3 million in fiscal year 2015, and by approximately 112 percent per FTE student, from \$276 in fiscal year 2009 to \$586 in fiscal year 2015. While supplemental fees make up approximately 7 percent of net tuition and fees for fiscal year 2015, this percentage has increased from 4 percent in fiscal year 2009. Figure 1.3 shows the increase in supplemental fees per FTE student during the period of fiscal year 2009 through fiscal year 2015. Additional supplemental fees data is included at Appendixes E and F.

Figure 1.3: Supplemental fees per FTE student, in dollars, fiscal years 2009 to 2015



Source: Prepared by the SAO using IPEDS data and enrollment figures from MDHE

Supplemental fees are made up of both course and program fees. Course fees are additional charges, usually authorized by the institutions' Board of Regents for specific courses that have demonstrably higher costs of delivering instruction because of the need for special equipment, supplies, or technology. Program fees are additional amounts charged to students not



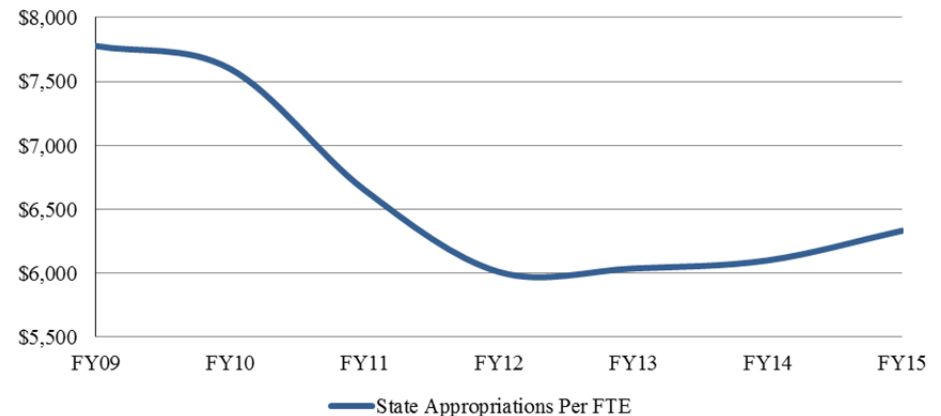
## Public Higher Education Funding and Affordability Management Advisory Report - State Auditor's Findings

related to course materials or equipment, including instruction and other expenses not covered by the program's primary funding allocation.

### State Appropriations

Since the implementation of the HESFA, state appropriations<sup>8</sup> provided to 4-year public institutions decreased, both overall and when measured per FTE student. Specifically, state appropriations for these institutions decreased by 9 percent from fiscal year 2009 to fiscal year 2015, from \$832 million to \$759 million. The reductions in state appropriations are more significant when enrollment levels are taken into account. The number of FTE students enrolled in 4-year public institutions rose by approximately 12 percent from school year 2008-2009 to school year 2014-2015. Additional enrollment information is included at Appendix G. Average state appropriations per FTE student<sup>9</sup> declined from \$7,778 per student in fiscal year 2009 to \$6,332 per student in fiscal year 2015, with an average annual decrease of 3.2 percent. Figure 1.4 shows the change in state appropriations per FTE student during the period of fiscal year 2009 through fiscal year 2015. Additional state appropriations data is included at Appendixes B and C.

Figure 1.4: State appropriations per FTE student, in dollars, fiscal years 2009 to 2015



Source: Prepared by the SAO using IPEDS data and enrollment figures from MDHE

When compared to other states, Missouri ranked 43rd in the nation in state funding for higher education per \$1,000 in personal income. State funding per \$1,000 in personal income was \$4.09 in fiscal year 2015, which ranks below the national average of \$5.55. Additional information about state funding per \$1,000 in personal income and state funding per FTE student by state is available at Appendixes H and I.

<sup>8</sup> State appropriations include all amounts received by public institutions through acts of a state legislative body, except grants and contracts, and separate capital appropriations. State appropriations also include funds distributed through the performance funding process.

<sup>9</sup> To calculate state appropriation per FTE student, we divided total state funding to 4-year public institutions by total FTE students for all of these institutions.



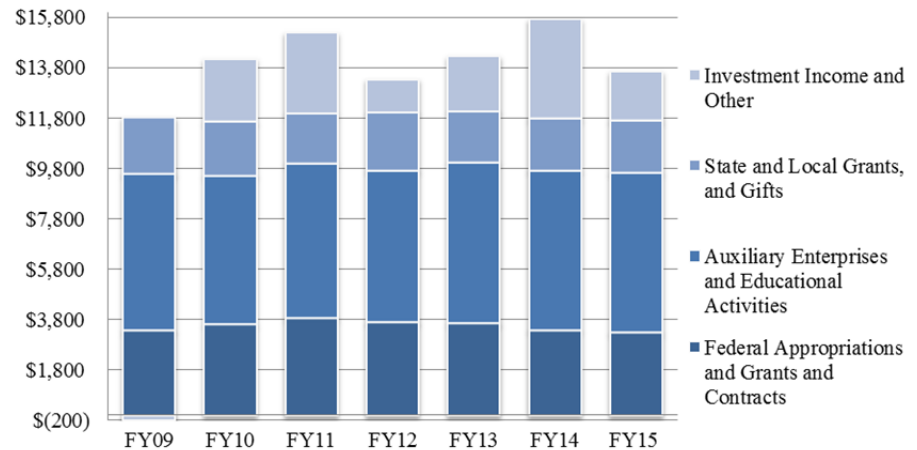
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Other Sources of Revenue

In addition to net tuition and fees and state appropriations, public 4-year institutions receive additional funding in the form of state and federal grants and contracts, sales and services of educational activities, investment income, and auxiliary enterprises, including residence halls, food services, and book stores. Other income from these sources totaled approximately \$1.6 billion in fiscal year 2015.

Other revenue from auxiliary enterprises and government sources have remained relatively consistent over the audit period, increasing an average of 1.7 percent per year from fiscal year 2009 to 2015, and decreasing an average of .2 percent per year per FTE student. The investment income portion of other income has been very volatile, from posting a loss of \$18 million in fiscal year 2009 to \$464 million gain in fiscal year 2014. Figure 1.5 depicts changes in other sources of revenue per FTE student from fiscal year 2009 to 2015. Detail of total other sources of revenues and other sources of revenue per FTE student are available at Appendixes B and C.

Figure 1.5: Other sources of revenue, per FTE student, fiscal year 2009 to 2015



Source: Prepared by the SAO using IPEDS data and enrollment information from MDHE

Expenditures

Expenditures per FTE student at Missouri's 4-year public institutions have increased at rates lower than the change in the CPI. While the change in the CPI for the 6 years ended June 30, 2015 averaged 1.8 percent per year, overall expenses by the institutions per FTE student over the same timeframe increased an average of 1.4 percent per year. Figure 1.6 shows the percent change in Missouri's 4-year public institutions' expenditures per FTE student for the 6 years ending June 30, 2015, compared to the change in the CPI.

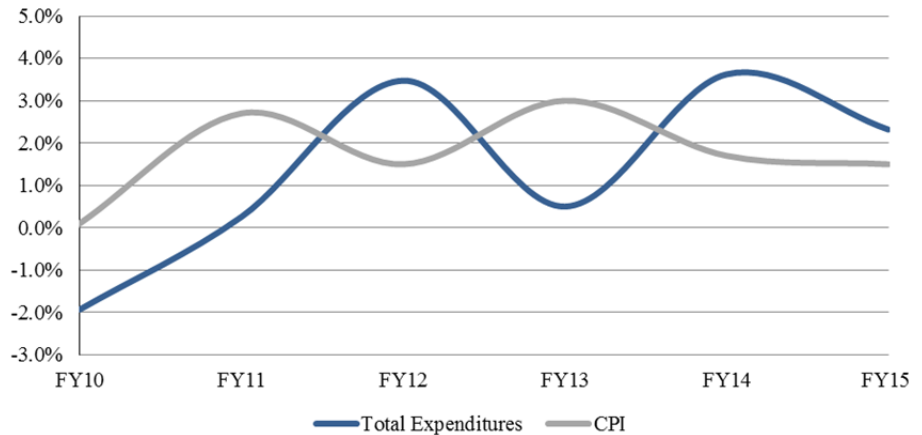
In fiscal year 2015, Missouri's 4-year public institutions spent approximately \$3.4 billion on instructional and non-instructional expenditures. Overall spending per FTE student increased from \$26,248 in fiscal year 2009 to \$28,456 in fiscal year 2015, or by 8.4 percent.



## Public Higher Education Funding and Affordability Management Advisory Report - State Auditor's Findings

Figure 1.6: Percent change in expenditures per FTE student versus the change in the CPI, fiscal year 2010 to 2015

Instructional spending<sup>10</sup> made up the largest share of total expenditures at public 4-year institutions, representing approximately 35 percent of total expenditures in fiscal years 2009 through 2015. Instructional expenditures per FTE student increased to \$10,125 in fiscal year 2015, or by approximately 11 percent from fiscal year 2009 through fiscal year 2015.



Source: Prepared by the SAO using IPEDS expenditure data and CPI data from the United States Department of Labor, Bureau of Labor Statistics

The greatest proportion of non-instructional<sup>11</sup> spending was devoted to auxiliary enterprises, encompassing approximately 23 percent of total expenditures in fiscal years 2009 through 2015. Other non-instructional expenditures include research and public service expenditures. Research and public service expenditures per FTE student decreased by approximately 19 and 16 percent, respectively from fiscal year 2009 through fiscal year 2015.

Expenditures per FTE student for academic support, which includes expenses for museums, libraries, galleries, audio/visual services, ancillary support, and course and curriculum development, grew at less than 1 percent per year from fiscal year 2009 through fiscal year 2015. Institutional support and student service expenditures per FTE student also increased by an average of 3.4 and 5.7 percent per year, respectively. Institutional support expenditures include expenses for general administrative services, executive direction and planning, as well as legal and fiscal operations. Student services expenditures include expenses for admissions, registrar activities, and activities whose primary purpose is to contribute to students' emotional and physical well-being and to their cultural, and social development outside the context of the formal instructional program.

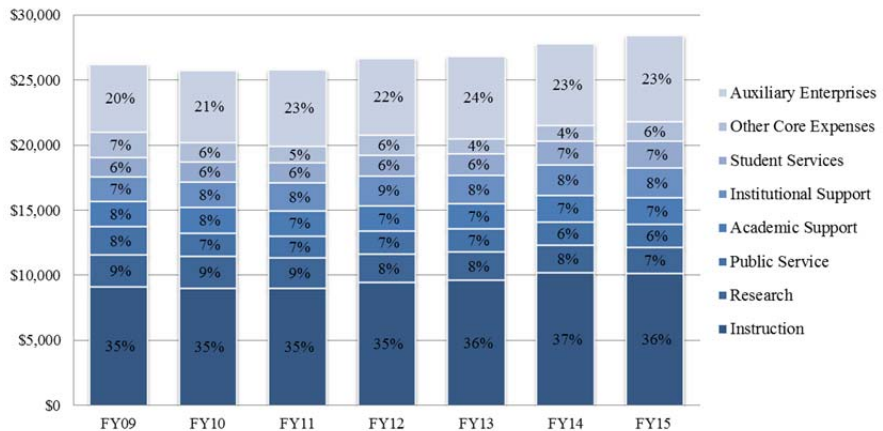
<sup>10</sup>Instructional expenditures include faculty compensation and other expenses associated with general academic instruction.

<sup>11</sup>Non-instructional expenditures include auxiliary enterprises, research, public service, academic support, student services, and institutional support.



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Figure 1.7: Institutional expenditures per FTE, by category, fiscal year 2009 to 2015



Source: Prepared by the SAO using IPEDS expenditure data and enrollment information from MDHE

Cost Controls

Institutions visited by the SAO have adopted a variety of strategies to contain spending and improve the efficiency of their operations. While school officials we spoke with emphasized the importance of maintaining academic quality in spite of fiscal pressures, all five institutions had reduced some courses and class sections. Cost controls include the following:

- **Administrative savings:** Officials from four institutions told us they did not fill vacant positions or add new positions despite enrollment increases. Three institutions also stated merit and cost of living raises were frozen for 3 years. Missouri State University reduced all operating budgets and renegotiated the institution's health care contract. Officials from Missouri State University also indicated the institution falls below the 50th percentile for faculty compensation.
- **Deferred maintenance:** Officials from each institution visited told us spending for capital projects and maintenance had been reduced below desired levels due to declining state appropriations. For example, deferred maintenance at the University of Missouri System has resulted in backlogs of projects totaling approximately \$1.6 billion. In addition, the University of Central Missouri delayed planned projects including new roofing and flooring at some of its facilities. To help address deferred maintenance needs, legislation enacted in 2015 provides approximately \$200 million for infrastructure maintenance and improvements on higher education campuses throughout the state. Distribution of these funds is outside the normal higher education appropriation process during fiscal year 2016 and 2017.





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## Public Higher Education Funding and Affordability Management Advisory Report - State Auditor's Findings

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- Educational services savings: As enrollments rise, institution officials stated they face capacity issues. For example, University of Missouri System officials stated they increased class sizes and increased the students-to-faculty ratio in order to meet student demand. In addition, Southeast Missouri State University officials stated they have undergone several program reviews, and cut academic and non-academic budgets by 10 and 12 percent, respectively, by eliminating and/or combining departments and programs.

Officials from at least 2 of the 5 institutions interviewed indicated additional cost reduction efforts would not be possible without negatively impacting the quality of education programs.

### Conclusion

Net tuition and fees have increased at a rate of more than twice the change in the CPI since the HESFA went into effect. This condition has occurred due to the majority of public 4-year institutions increasing tuition well above the change in CPI in fiscal year 2012 in response to reduced state appropriations; increases in supplemental fees; and increases in non-resident, graduate and foreign student tuition. However, in-state undergraduate tuition at Missouri's public 4-year institutions has had the lowest growth rate in the nation since the implementation of the HESFA, and overall in-state undergraduate tuition levels are slightly lower than the national average. On a per FTE student basis, state appropriations have declined since the implementation of the HESFA and have consistently remained below the national average. Expenditures per FTE student by 4-year public institutions has grown at a rate lower than the change in the CPI, even while institutions increased expenditures for instruction, student services and institutional support. However, cost reductions have resulted in deferred maintenance on facilities and increased student-to-teacher ratios.

### Auditee's Response

*The MDHE provided the following response:*

*The discussion of "net tuition and fees" in this section, while informative, is far more expansive than the relatively narrow focus of Missouri's HESFA. As a result, this section has little bearing on the effects of HESFA and institutions' compliance with its requirements. HESFA's limits on "tuition and required fees" excludes the following elements of the Auditor's "net tuition and fees":*

- *Tuition and fees for out-of-state, international, and graduate students*
- *Study abroad fees*
- *Tuition and fees for internet courses*
- *Fees approved by a vote of the student body through student-initiated referenda*



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- *Supplemental and differential fees charged for courses and programs that have unique expenses (e.g. supplies, equipment, enhanced facilities, etc.)*

*Moreover, the report observes that supplemental fees are for specific courses that have demonstrably higher costs of delivering instruction because of the need for special equipment, supplies, or technology, or for programs with higher instructional or other costs. Supplemental fees appear to occupy an increasing share of universities' total revenue streams. The report, however, does not substantiate the claim that institutions are "adding supplemental fees as a way to generate additional revenues," rather than, say, to cover new course offerings, new program offerings, evolving delivery costs or upgrades, or simply reflecting enrollment increases over the audit period.*

## Auditor's Comment

The statement that institutions are adding supplemental fees as a way to generate additional revenues is substantiated by discussions with institution personnel and with supplemental fee data presented in the report. The significant growth rate of supplemental fees as compared to the moderate growth rate of instructional costs would suggest the increase in fees is not simply a result of an increase in course or program offerings. Additionally, the significant growth rate of supplemental fees, as presented on a per FTE basis, would suggest the increase in fees is also not a result simply of enrollment increases over the audit period.

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## 2. Affordability of Public Higher Education

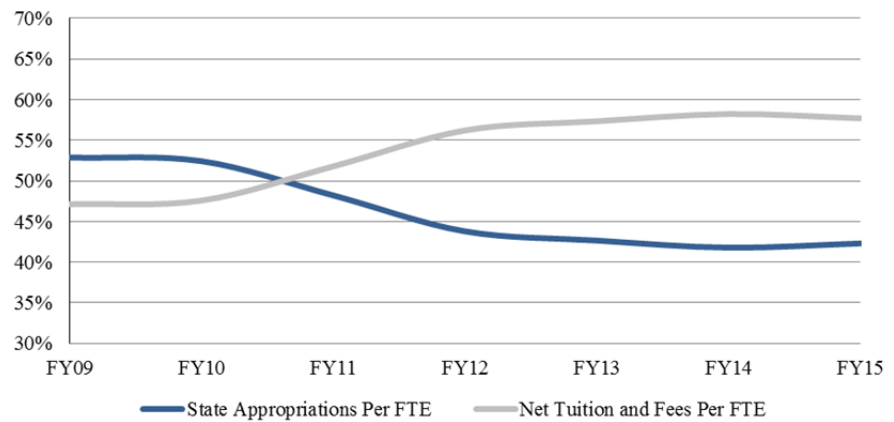
Significant reductions in state appropriations have resulted in a greater portion of public higher education costs being passed along to students and families. In addition, reductions in overall state grant aid, and specifically reductions in the amount of need-based aid, have also had a negative impact on the affordability of higher education for students in the state.

**Reduced State Appropriations** Significant reductions in state appropriations have resulted in students and families being responsible for a larger share of public higher education costs. When considering total revenues from state appropriations and net tuition and fees, from fiscal year 2009 to fiscal year 2015, the portion contributed by state appropriations decreased from 53 percent in fiscal year 2009 to 42 percent in fiscal year 2015 and the portion contributed by net tuition and fees rose from 47 percent to 58 percent. Figure 2.1 illustrates these changes. Detailed total revenue and revenue per FTE student figures are included at Appendixes B and C.



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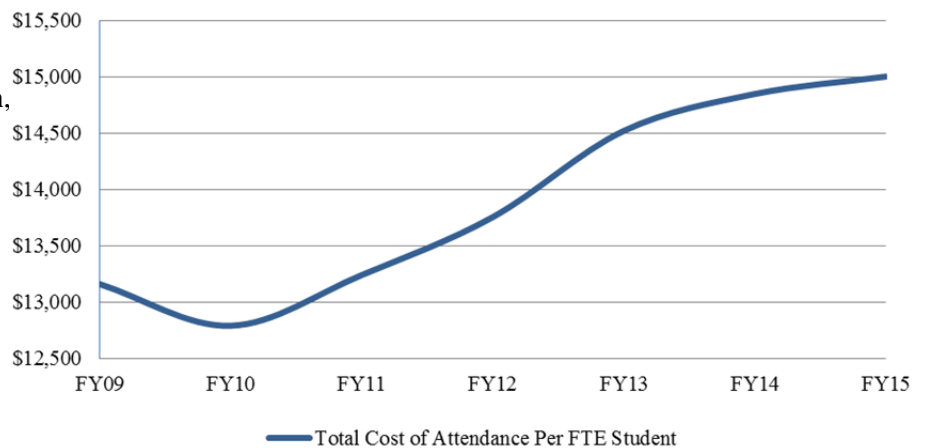
Figure 2.1: Net tuition and fees per FTE student versus state appropriations per FTE student, as percentage of total, fiscal years 2009 to 2015



Source: Prepared by the SAO using IPEDS data and enrollment information from MDHE

While the proportion of higher education costs being passed along to students and families is increasing, the actual dollar amount passed on to students and families is also increasing. The true price of attending one of Missouri's 4-year public institutions is much more than net tuition and fees. Students also pay for room and board, textbooks, and school supplies. The sum of all these expenses is known as the total cost of attendance. Figure 2.2 shows the total cost of attendance per FTE student to attend a 4-year public institution. Total average cost per FTE student increased from \$13,164 per year in fiscal year 2009 to \$15,004 per year in fiscal year 2015, or by an average of 2 percent per year.

Figure 2.2: Total cost of attendance per FTE student to attend a 4-year public institution, in dollars, fiscal year 2009 to 2015



Source: Prepared by the SAO using IPEDS data and enrollment information from MDHE

Officials from 5 institutions indicated the level of state appropriations has a direct impact on the affordability of public higher education. If state appropriations are decreased, tuition and fees must increase. While cost containment efforts have been made, they have not been enough to cover the reduction in state appropriations. As discussed in more detail in MAR



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finding number 1, state appropriations for higher education have decreased from \$831.8 million in fiscal year 2009, to \$759.4 million in fiscal year 2015, or by approximately 9 percent. On a per FTE student basis the decrease is even more significant, decreasing by 3.2 percent per year, or a total of almost 19 percent over the same 7 year period.

### State Grant Aid Reductions

The affordability of public higher education has also been negatively impacted by reductions in state grant aid, and more specifically by the state transitioning away from an emphasis on need-based aid to more merit-based aid. Missouri's grant aid programs can be applied to both 4-year and 2-year institutions, with the exception of the A+ Scholarship Program, which can only be used at 2-year institutions (public, private, vocational, or technical).

National data<sup>12</sup> shows total state grant aid in Missouri has decreased at a significantly higher rate than other states. Missouri state grant aid decreased by 17 percent from school year 2008-2009 to school year 2013-2014, while the national median<sup>13</sup> change in state aid increased by 12 percent during that period. In total, Missouri's total state grant aid per FTE student of \$380 is 46 percent less than the national average of \$710 per student.

While state aid has been declining in total, the portion of state aid based on need has also declined. For the 2008-2009 school year approximately 72 percent of Missouri's state aid was need-based. However, for the 2013-2014 school year the need-based portion of state aid dropped to 56 percent, which is well below the national average of 76 percent. The Access Missouri Financial Assistance Program is the state's primary need-based program for undergraduate students who are Missouri residents. The program is designed to provide a simplified financial aid process, provide predictable, portable awards, and increase the number of schools available to Missouri students. Additional information about need-based grant aid by state is included at Appendix L.

The remaining 44 percent of state grant aid is merit-based aid. Examples of merit-based state grants include the A+ Scholarship Program, Advanced Placement Incentive Grant, and the Bright Flight Program. Merit-based aid programs all require some form of performance requirements, such as achieving a certain grade point average or test score. Since the A+ Scholarship Program makes up approximately 65 percent of the state's merit-based aid, the majority of merit-based aid goes to 2-year institutions.

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<sup>12</sup> *45th Annual Survey Report on State-Sponsored Student Financial Aid*, National Association of State Student Grant and Aid Program, 2015, <<http://www.nassgap.org/viewrepository.aspx?categoryID=3>>, accessed on April 28, 2016.

<sup>13</sup> We used the national median rather than the average because significant increases in some states skewed the national average. For example, total aid in Wyoming increased by 1,000 percent during this period.



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Conclusions

Public higher education institutions have implemented cost containment measures, resulting in limited growth in public higher education costs per FTE student, all while servicing an increasing student population and focusing on maintaining an acceptable level of educational quality. With minimal growth in education costs and reductions in state appropriations, public higher education institutions have passed an increased share of costs on to students through tuition and fees. In addition, reductions in overall state grant aid, and specifically reductions to need-based state aid programs have had a negative impact on the affordability of public higher education in the state.

Recommendation

The MDHE should continue to monitor the affordability of higher education in the state, and work with the General Assembly to ensure appropriations for higher education and student aid programs are sufficient to maintain the affordability of higher education for students and families without negatively impacting the quality of educational programs.

Auditee's Response

*In a challenging fiscal landscape, Missouri's public universities have streamlined operations while continuing to equip students with the knowledge and skills they need for the future. Students falling outside the scope of HESFA—out-of-state, international, and graduate students—have necessarily borne a greater share of cost increases, which has enabled universities to provide quality education to all.*

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**3. Higher Education  
Student Funding  
Act**

Improvements in the MDHE's oversight of the HESFA are needed. The MDHE has not promulgated an official rule to define a key term in the HESFA, has not verified tuition data provided by the institutions, and has not maintained documentation of communications with institutions.

The HESFA was established in 2007 under Chapter 173, RSMo, and defined a role in the tuition setting process for the CBHE and the Commissioner of Higher Education. Per the HESFA, institutions that increase tuition and "required fees" at rates in excess of the change in the CPI must either return a portion of their state appropriations to the state or ask the Commissioner to waive the financial penalty in whole or in part.

3.1 Rulemaking Procedures

The MDHE has not formally promulgated a state rule to define the term "required fees." How "required fees" is defined has a significant impact on the implementation of the HESFA, tuition levels, and the affordability of higher education.

After the HESFA became law, the MDHE, along with input from the institutions, created an implementation guide that includes a general description and intent of the HESFA, the statutory language, definitions and acronyms, tuition policy, and procedures relating to tuition. Section 173.1003, RSMo, defines the term "tuition" as the amount of "tuition and



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required fees, excluding any fee established by the student body of the institution." The statute does not further define "required fees." The MDHE's implementation guideline defined "tuition" as "the amount an institution charges per semester for each of two semesters. Per semester tuition shall be the average dollar amount an institution charges each Missouri resident undergraduate student enrolled in 15 credit hours plus each student's required fees; provided, however, that tuition shall include only the fees required of all undergraduate students and shall not include course-specific or program fees." Based on this definition, the MDHE only considers tuition and any fees charged to all undergraduate students evenly when determining compliance with the HESFA. As a result, increases in supplemental fees have not been considered part of that calculation. This definition has allowed institutions to increase supplemental fees at a rate significantly higher than the increase allowed for tuition in an effort to supplement reduced revenues from state appropriations.

The MDHE interpretation of the term "required fees" to include "only the fees required of all undergraduate students" appears to be inconsistent with the common definition of the word "required." While supplemental fees vary among degree programs, some level of supplemental fees are associated with the majority of degree programs and must be paid in order to obtain a degree, and would therefore be "required." In addition, the statute clearly excludes any fee established by the student body, but does not specifically exclude supplemental fees.

Section 173.081, RSMo, gives the CBHE specific rulemaking authority for Chapter 173. Due to the potential impact of the interpretation of "required fees" and its importance to the public, formally promulgating a rule to clarify the issue appears appropriate. Section 536.024, RSMo, provides an open and transparent method for agencies to set forth rules of general applicability that impact the public. This process would subject any proposed rules to a legislative review prior to any rule taking effect.

### 3.2 Oversight

The MDHE's oversight process to ensure institutions comply with HESFA tuition requirements is in need of improvement. While the MDHE has generally ensured that tuition increases follow the HESFA restrictions, MDHE procedures to calculate allowable tuition levels are not adequate. Tuition and fee information provided by the institutions is not verified, and documentation of the tuition review process is not always maintained.

#### Verification of Data Reported by the Institutions

The MDHE does not verify the accuracy of tuition and fees information provided by the institutions on the annual comprehensive fee survey. The information provided on the fee survey is used to calculate the average state tuition, calculate the tuition rate increase percentages, and ensure compliance with the HESFA.



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We reviewed the comprehensive fee surveys for all public 4-year institutions and the State Technical College of Missouri and compared the data reported by the institutions to the state average tuition calculated by the MDHE for fiscal year 2009 to fiscal year 2016. Our review identified three instances where the MDHE failed to adequately identify student approved fees, resulting in the state average tuition calculation being incorrect. The state average tuition calculation is required as part of the HESFA, and can impact the amount of allowable tuition increases at institutions which fall below the state average. These errors resulted in the state average tuition for multiple years being incorrect. While the errors noted did not result in significant errors in the state average tuition calculation, oversight and monitoring of this calculation is necessary for the MDHE to accurately implement state law.

Our review also identified other differences between the comprehensive fee survey and MDHE compliance calculations. MDHE personnel indicated the differences were due to changes to tuition and fees made by the institutions after the initial survey filing. However, the MDHE did not require the institutions to file an amended comprehensive fee survey or verify the changes.

The MDHE provides the only oversight of state institutions for compliance with the HESFA and tuition rates. Sufficient oversight is necessary to help ensure the accuracy of the information reported by the institutions and ensure compliance with the HESFA.

#### Letters and Notices

The MDHE has not always maintained copies of signed letters and notices sent to institutions related to the HESFA in accordance with the state's general record retention policy.

According to MDHE officials, written notice is provided to all institutions indicating the average tuition for the current academic year by December first of each year, and the change in the CPI for the prior year by January 15. The MDHE also receives a notice of tuition changes from institutions and notifies each institution in writing that its notice of tuition change has been received, and whether the institution is in compliance with the HESFA.

For the 3 years ending June 30, 2016, we selected three institutions from each year and requested copies of the letters and notices related to tuition and fees increases. The MDHE was unable to provide 4 of the 30 letters and notices requested, an error rate of 13 percent. State record retention policies established by the Secretary of State require the MDHE maintain such general correspondence for a minimum of 3 years.

The MDHE is responsible for providing oversight of the institutions and ensuring compliance with the HESFA. Maintaining adequate documentation



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of communications with the institutions is necessary to ensure the MDHE's efforts are verifiable and transparent.

## Recommendations

The MDHE:

- 3.1 Use its rulemaking authority to promulgate rules related to the HESFA, including a definition of "required fees."
- 3.2 Verify tuition data reported on the comprehensive fee surveys and ensure amended comprehensive fee surveys, along with copies of correspondence, are maintained.

## Auditee's Response

- 3.1 *HESFA's application is limited by statute to full-time in-state undergraduates' "tuition and required fees," and specifically excludes a subset of required fees that are student-approved. As interpreted by MDHE and the higher education community since the inception of HESFA, "required fees" are those that are actually required (i.e. not optional) for students. An institution's study abroad fee, for example, which is designed to cover the unique expenses of that program, is not required. Indeed, participation in such programs is, without exception, optional.*

*The same may be said for a number of program and course options, chemistry labs for example, that entail unique materials, equipment, instructional costs, and therefore fees, to deliver. A student's choice of degree program will certainly have implications for which courses are desirable or even necessary. But most courses (and any associated fees) are, at least as an initial matter, a choice—choice of program, choice of elective, choice to study abroad—and stand in contrast with truly required fees like technology and athletic facilities, which all students must pay regardless of their distinctive academic paths. HESFA was not intended to cover every potential cost a student may encounter along his or her path toward a college degree. Due in large part to HESFA, obtaining a postsecondary credential remains a high value proposition, whether a student charts a path through sophisticated scientific equipment, old copies of literary classics, or anything in between.*

*MDHE agrees to reassess its legal authority to promulgate administrative rules for HESFA, and to ensure that its application of HESFA is faithful to the statutory language.*

- 3.2 *MDHE will, as permitted by limited resources, develop and implement additional verification measures for tuition and fee data provided by institutions. MDHE is committed to improving accuracy, and is pleased with the Auditor's confirmation of no*





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*significant errors in the department's state average tuition calculations. MDHE has maintained complete documentation, including correspondence and surveys, for the most recent annual compliance cycles, and reaffirms its commitment to maintain complete documentation going forward.*

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# Public Higher Education Funding and Affordability Organization and Statistical Information

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The Missouri Department of Higher Education (MDHE) is headed by a nine-member Coordinating Board for Higher Education (CBHE). The commissioner of higher education is appointed by the CBHE and serves as its chief executive officer in carrying out the goals and administrative responsibilities for the state system of higher education, with 13 public 4-year universities, 14 public 2-year community colleges, 26 independent colleges and universities, and more than 150 proprietary and private career schools serving more than 450,000 students.

As of June 30, 2015, the CBHE consisted of the following members:

Member	Term Expires	Party Affiliation
Betty Sims, Chair (1)	June 2016	Republican
Brian Fogle, Vice Chair	June 2012	Democrat
Carolyn Mahoney, Secretary	June 2018	Democrat
Dalton Wright, Member	June 2014	Republican
Doug Kennedy, Member	June 2020	Democrat
Vacant (2)		
Vacant (3)		
Vacant (4)		
Vacant (5)		

(1) Betty Sims passed away August 22, 2016

(2) Samuel Murphey, Democrat, was appointed to a term beginning May 5, 2016

(3) Michael Thomson, Republican, was appointed to a term beginning May 5, 2016

(4) John Siscel III, Republican, was appointed to a term beginning June 3, 2016

(5) District 5 position has been vacant since April 2011

The CBHE members serve without compensation but are reimbursed for expenses. The nine members of the CBHE, one from each congressional district and one at-large, are appointed to 6-year terms by the Governor and confirmed by the Senate. In addition, no more than five of the nine members may be affiliated with the same political party. Dr. David Russell served as the commissioner of higher education from July 2010 until his retirement effective March 1, 2016. Leroy Wade served as interim commissioner of higher education from March 1, 2016 until August 28, 2016. Zora Mulligan was appointed commissioner of higher education effective August 29, 2016.

The MDHE's functions include identification of statewide needs for higher education, statewide planning for higher education, evaluation of student and institutional performance, review of institutional missions, development of effective and economical specialization among institutions, and administration of a performance funding program awarded to public community colleges and universities based on meeting established objectives. The functions also include submission of a unified budget request for public higher education to the Governor and the Missouri



## Public Higher Education Funding and Affordability Organization and Statistical Information

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General Assembly, administration of a statewide postsecondary technical education program, approval of new degree programs offered at public colleges and universities, setting policy for student financial assistance programs, and administration of the Proprietary School Certification Program. The MDHE's planning activities include the state's independent institutions as well as the public institutions. In addition, the MDHE has statutory responsibility for the administration of several state student financial assistance programs and is the state's designated guaranty agency for the Missouri Student Loan Program, which administers the Federal Family Education Loan Program.

At June 30, 2015, the MDHE had 57 employees.

## Net Tuition and Fees Per FTE Student, by Institution

The following table lists Missouri's public 4-year institutions and the net tuition and fees per FTE student for fiscal years 2009 through 2015. Net tuition and fees includes revenues from all tuition and fees, including supplemental course fees, supplemental program fees, student approved fees, and required fees, and tuition, net of discounts and allowances for educational purposes. The data presented represents all student types, including in-state, out of state, undergraduate, and graduate students.

Institution	Year Ended June 30,							% Change 2009-2015
	2009	2010	2011	2012	2013	2014	2015	
Harris-Stowe State University	\$3,320	2,362	2,292	2,266	2,633	3,334	4,005	21%
Missouri Southern State University	3,065	3,295	3,517	3,982	3,860	3,359	3,221	5%
Missouri Western State University	3,730	3,197	4,682	4,960	5,304	5,570	5,641	51%
University of Central Missouri	6,326	6,163	6,268	6,622	6,503	7,268	7,430	17%
Northwest Missouri State University	5,572	5,472	5,572	6,018	6,379	6,679	6,676	20%
Southeast Missouri State University	6,466	6,532	7,014	7,324	7,630	7,753	8,009	24%
Missouri State University	5,282	5,881	5,914	6,159	6,378	6,604	6,676	26%
Truman State University	4,133	3,892	4,114	4,725	4,989	4,935	4,859	18%
Lincoln University	4,105	3,383	3,115	3,359	3,509	3,384	3,134	-24%
University of Missouri - Columbia	8,605	8,538	8,862	9,600	10,430	10,848	11,253	31%
University of Missouri - Kansas City	10,758	10,610	10,718	11,092	11,519	12,017	12,056	12%
University of Missouri - St. Louis	7,924	7,720	7,676	8,014	8,296	8,888	8,574	8%
Missouri University of Science and Technology	8,403	8,155	8,453	9,462	10,312	11,291	11,432	36%

Source: Prepared by the SAO using tuition data obtained from IPEDS

# Total Revenues

The following table lists total sources of revenue generated by Missouri's public 4-year institutions for fiscal years 2009 through 2015. Total sources of revenue include state appropriations, net tuition and fees, federal appropriations and grants and contracts, auxiliary enterprises and educational activities, investment income and other, and state and local government grants and contracts.

	Year Ended June 30,							% Change 2009-2015
	2009	2010	2011	2012	2013	2014	2015	
State Appropriations	\$831,787,535	843,350,934	761,432,774	698,117,833	704,155,584	715,077,056	759,424,057	-8.7%
Net Tuition and Fees	741,237,895	765,117,657	817,568,429	896,033,839	946,471,917	996,558,545	1,035,865,356	39.7%
Federal Appropriations	14,858,357	21,455,460	28,416,220	28,222,000	29,154,166	27,675,151	34,807,775	134.3%
Federal Grants and Contracts	343,323,850	380,713,363	414,754,193	401,084,277	395,537,724	368,589,169	357,570,501	4.1%
Auxiliary Enterprises and Educational Activities	666,480,610	654,411,399	701,913,289	701,913,289	747,450,984	744,239,019	763,569,405	14.6%
Investment Income and Other	(18,004,125)	278,622,249	368,584,395	152,218,275	255,230,653	463,734,280	234,862,206	1404.5%
State and Local Grants, and Gifts	243,126,713	237,356,567	228,581,800	268,993,361	237,567,710	241,935,677	248,382,738	2.2%
<b>Total Revenues</b>	<b>\$2,822,810,835</b>	<b>3,181,027,629</b>	<b>3,321,251,100</b>	<b>3,146,582,874</b>	<b>3,315,568,738</b>	<b>3,557,808,897</b>	<b>3,434,482,038</b>	<b>21.7%</b>

Source: IPEDS

## Total Revenues Per FTE Student

The following table lists total sources of revenue per FTE student generated by Missouri's public 4-year institutions for fiscal years 2009 through 2015. Total sources of revenue include state appropriations, federal appropriations and grants and contracts, auxiliary enterprises and educational activities, other income including investment income, and state and local government grants and contracts. FTE student data is presented at Appendix G.

	Year Ended June 30,							% Change 2009-2015
	2009	2010	2011	2012	2013	2014	2015	
State Appropriations	\$7,778	7,601	6,653	6,011	6,037	6,100	6,332	-19%
Net Tuition and Fees	6,932	6,896	7,144	7,715	8,115	8,501	8,638	25%
Federal Appropriations	139	193	248	243	250	236	290	109%
Federal Grants and Contracts	3,211	3,431	3,624	3,453	3,391	3,144	2,982	-7%
Auxiliary Enterprises and Educational Activities	6,233	5,898	6,133	6,043	6,409	6,349	6,367	2%
Investment Income and Other	(168)	2,511	3,221	1,311	2,188	3,956	1,958	1265%
State and Local Grants, and Gifts	2,273	2,139	1,997	2,316	2,037	2,064	2,071	-9%
<b>Total Revenues</b>	<b>\$26,398</b>	<b>28,669</b>	<b>29,020</b>	<b>27,092</b>	<b>28,427</b>	<b>30,350</b>	<b>28,638</b>	<b>8%</b>

Source: Prepared by the SAO using IPEDS data and enrollment information from MDHE

# In-State Undergraduate Tuition Per FTE Student, by State

The following table lists in-state undergraduate tuition per FTE student, by state. Amounts represent tuition charged, and do not include any supplemental fees.

Rank	State	Year Ended June 30,								% Change 2008-2015
		2008	2009	2010	2011	2012	2013	2014	2015	
1	Wyoming	\$3,929	4,129	4,299	4,357	4,456	4,499	4,654	4,891	24.50%
2	Montana	5,789	6,079	6,143	6,212	6,412	6,360	6,301	6,351	9.70%
3	New Mexico	4,904	5,304	5,614	5,741	5,915	6,089	6,166	6,355	29.58%
4	Florida	4,150	4,783	5,511	5,941	6,495	6,452	6,345	6,360	53.26%
5	Utah	4,638	5,068	5,381	5,599	5,846	6,042	6,171	6,363	37.18%
6	Alaska	5,075	5,455	5,759	5,762	6,026	6,012	6,149	6,571	29.47%
7	Nevada	4,771	5,035	5,822	6,384	6,656	6,525	6,438	6,667	39.76%
8	Idaho	5,004	5,415	5,835	6,002	6,239	6,462	6,610	6,818	36.26%
9	North Carolina	4,764	5,030	5,827	6,010	6,459	6,657	6,685	6,973	46.37%
10	Mississippi	5,367	5,488	5,795	5,993	6,416	6,707	6,870	7,147	33.16%
11	West Virginia	5,107	5,519	5,721	5,848	6,130	6,388	6,698	7,171	40.43%
12	Oklahoma	6,120	6,008	6,294	6,413	6,670	6,726	7,094	7,450	21.72%
13	Nebraska	6,462	6,909	7,225	7,295	7,483	7,473	7,348	7,608	17.73%
14	New York	5,556	6,361	6,342	6,554	6,836	7,076	7,306	7,644	37.57%
15	North Dakota	6,626	7,021	7,191	7,248	7,298	7,431	7,527	7,688	16.02%
16	Arkansas	6,417	6,627	6,901	7,029	7,287	7,408	7,606	7,867	22.61%
17	Louisiana	4,419	4,745	5,181	5,542	6,120	6,748	7,337	7,871	78.11%
18	Iowa	6,980	7,438	7,832	7,988	8,157	8,007	7,868	7,877	12.86%
19	South Dakota	6,182	6,684	6,916	7,176	7,696	7,809	7,713	8,055	30.29%
20	Georgia	4,831	5,550	6,428	7,709	7,853	7,992	8,063	8,447	74.84%
21	Kansas	6,521	6,995	7,254	7,310	7,583	7,896	8,270	8,530	30.82%
22	<b>Missouri</b>	<b>7,842</b>	<b>7,996</b>	<b>7,959</b>	<b>8,118</b>	<b>8,276</b>	<b>8,268</b>	<b>8,409</b>	<b>8,564</b>	<b>9.21%</b>
23	Wisconsin	7,373	7,945	8,441	8,659	9,052	8,931	8,785	8,815	19.55%
24	Texas	7,507	8,121	8,477	8,507	8,692	8,705	8,852	9,117	21.44%
25	Indiana	7,836	8,470	8,744	8,813	9,078	9,119	9,049	9,120	16.39%
26	Maryland	8,020	8,285	8,470	8,410	8,552	8,663	8,697	9,163	14.25%
	<b>National Average</b>	<b>6,996</b>	<b>7,630</b>	<b>8,115</b>	<b>8,461</b>	<b>8,732</b>	<b>8,862</b>	<b>8,948</b>	<b>9,234</b>	<b>32.00%</b>
27	Tennessee	6,169	6,758	7,140	7,574	7,996	8,210	8,941	9,263	50.16%
28	California	5,898	7,259	8,194	9,436	9,361	9,274	9,187	9,270	57.17%
29	Oregon	6,769	7,653	8,138	8,445	8,658	8,786	8,949	9,371	38.44%
30	Kentucky	7,388	7,886	8,231	8,423	8,815	8,889	9,223	9,567	29.50%
31	Maine	8,764	9,469	9,792	9,894	9,753	9,594	9,560	9,573	9.23%
32	Colorado	6,284	6,948	7,748	8,316	8,793	9,293	9,299	9,748	55.12%
33	Alabama	6,475	7,189	8,071	8,452	9,098	9,359	9,496	9,751	50.59%
34	Hawaii	6,318	7,356	8,164	8,840	8,972	9,270	9,713	10,175	61.05%
35	Ohio	9,194	9,425	9,913	9,980	10,175	10,157	10,104	10,196	10.90%
36	Washington	6,980	8,113	8,973	10,029	11,037	11,045	10,703	10,288	47.41%
37	Arizona	6,058	7,263	8,840	9,967	10,134	10,296	10,414	10,646	75.73%
38	Minnesota	9,024	9,739	10,276	10,583	10,793	10,691	10,582	10,831	20.03%
39	Rhode Island	8,384	9,423	10,201	10,578	11,376	11,132	10,977	11,390	35.86%
40	Connecticut	8,721	9,371	9,827	9,736	10,037	10,453	10,664	11,397	30.69%
41	Massachusetts	8,939	10,239	10,386	10,738	11,093	10,981	10,987	11,588	29.63%
42	Delaware	8,995	9,987	10,534	11,026	11,363	11,503	11,515	11,676	29.80%
43	South Carolina	9,908	10,550	11,016	10,940	11,192	11,407	11,470	11,816	19.26%
44	Virginia	8,225	8,795	9,643	10,072	10,314	10,590	11,202	11,819	43.69%
45	Michigan	9,906	10,817	11,095	11,452	11,660	11,851	11,618	11,991	21.05%
46	Illinois	10,872	11,536	12,008	12,285	12,675	12,853	12,813	13,189	21.31%
47	New Jersey	11,661	12,338	12,752	12,708	12,935	12,998	13,027	13,303	14.08%
48	Pennsylvania	11,233	11,929	12,404	12,766	12,893	13,079	13,157	13,395	19.25%
49	Vermont	12,305	13,316	13,655	13,833	14,089	14,267	14,501	14,993	21.85%
50	New Hampshire	11,168	12,273	13,077	14,263	15,224	14,969	14,756	15,160	35.75%

Source: Collegeboard.org

## Total Net Tuition and Fees

The following table lists net tuition and fees at Missouri's public 4-year institutions for fiscal years 2009 through 2015. Net tuition and fees includes revenues from all tuition and fees assessed against students, net of discounts and allowances for educational purposes.

	Year Ended June 30,						% Change 2009-2015	
	2009	2010	2011	2012	2013	2014		2015
Tuition	\$860,738,960	897,182,783	945,769,589	1,012,365,080	1,069,411,060	1,120,859,725	1,160,870,971	35%
Required Fees	63,725,630	67,896,788	70,842,790	83,295,933	74,411,974	71,929,329	78,310,212	23%
Supplemental Course Fees	29,497,244	31,439,910	38,959,604	46,302,189	54,385,065	57,550,360	70,309,956	138%
Other Miscellaneous Fees	54,180,267	57,397,004	63,977,285	71,359,729	73,882,572	80,758,337	84,392,828	56%
<b>Total Tuition and Fees</b>	<b>1,008,142,101</b>	<b>1,053,916,485</b>	<b>1,119,549,268</b>	<b>1,213,322,931</b>	<b>1,272,090,671</b>	<b>1,331,097,751</b>	<b>1,393,883,967</b>	<b>38%</b>
Discounts and Allowances	(266,904,206)	(288,798,829)	(301,980,838)	(317,289,092)	(325,618,753)	(334,539,206)	(358,018,610)	34%
<b>Net Tuition and Fees</b>	<b>\$741,237,895</b>	<b>765,117,656</b>	<b>817,568,430</b>	<b>896,033,839</b>	<b>946,471,918</b>	<b>996,558,545</b>	<b>1,035,865,357</b>	<b>40%</b>

Source: IPEDS and tuition and fee data provided by the institutions



## Net Tuition and Fees Per FTE Student

The following table lists net tuition and fees generated by Missouri's public 4-year institutions for fiscal years 2009 through 2015 per FTE student. Net tuition and fees per FTE student includes revenues from all tuition and fees assessed against students, net of discounts and allowances for educational purposes. FTE student data is presented at Appendix G.

	Year Ended June 30,							% Change 2009-2015
	2009	2010	2011	2012	2013	2014	2015	
Tuition	\$8,049	8,086	8,264	8,716	9,169	9,562	9,680	20%
Required Fees	596	612	619	717	638	614	653	10%
Supplemental Course fees	276	283	340	399	466	491	586	112%
Other Miscellaneous Fees	507	517	559	614	633	689	704	39%
Total Tuition and Fees	9,428	9,498	9,782	10,446	10,906	11,356	11,623	23%
Discounts and Allowances	(2,496)	(2,603)	(2,639)	(2,732)	(2,792)	(2,854)	(2,985)	20%
Net Tuition and Fees	\$6,932	6,895	7,143	7,714	8,114	8,502	8,638	25%

Source: Prepared by the SAO using IPEDS, tuition and fee data provided by the institutions, and enrollment information from MDHE

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## Enrollment Data

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The following table lists the number of FTE students enrolled at Missouri's public 4-year institutions, including graduate, undergraduate, and professional students for fiscal years 2008 through 2015.

Fiscal Year	Undergraduate	Graduate	Professional	Total	% Change
2008	89,624	11,920	2,800	104,344	
2009	91,709	12,385	2,842	106,936	2.5%
2010	94,967	13,077	2,907	110,951	3.8%
2011	97,930	13,562	2,964	114,456	3.2%
2012	99,482	13,637	3,025	116,144	1.5%
2013	100,031	13,474	3,129	116,634	0.4%
2014	100,223	13,692	3,311	117,226	0.5%
2015	101,666	15,089	3,170	119,925	2.3%

Source: MDHE

## State Funding Per \$1,000 in Personal Income

The following table lists state funding per \$1,000 in personal income, by state, for the 2014-2015 school year.

Rank	State	State Funding Per \$1,000 in Personal Income	Rank	State	State Funding Per \$1,000 in Personal Income
1	Wyoming	\$11.68		<b>United States</b>	<b>\$5.55</b>
2	New Mexico	\$11.60	27	Minnesota	\$5.47
3	North Dakota	\$10.08	28	South Dakota	\$5.46
4	Alaska	\$9.79	29	South Carolina	\$5.45
5	Mississippi	\$9.78	30	Delaware	\$5.28
6	North Carolina	\$9.49	31	Florida	\$5.00
7	Arkansas	\$8.87	32	Connecticut	\$4.97
8	Hawaii	\$8.65	33	New York	\$4.95
9	Alabama	\$8.09	34	Maine	\$4.86
10	Nebraska	\$8.05	35	Wisconsin	\$4.66
11	Utah	\$8.02	36	Washington	\$4.54
12	Illinois	\$7.99	37	Michigan	\$4.45
13	West Virginia	\$7.47	38	Virginia	\$4.38
14	Georgia	\$7.37	39	Nevada	\$4.36
15	Kentucky	\$7.10	40	Ohio	\$4.35
16	Idaho	\$6.53	41	Oregon	\$4.24
17	Indiana	\$6.48	42	New Jersey	\$4.10
18	Oklahoma	\$6.29	43	<b>Missouri</b>	<b>\$4.09</b>
19	Kansas	\$6.08	44	Massachusetts	\$3.70
20	California	\$6.05	45	Arizona	\$3.62
21	Iowa	\$6.01	46	Rhode Island	\$3.45
22	Tennessee	\$5.95	47	Vermont	\$3.11
23	Montana	\$5.80	48	Colorado	\$3.00
24	Louisiana	\$5.76	49	Pennsylvania	\$2.73
25	Texas	\$5.60	50	New Hampshire	\$1.75
26	Maryland	\$5.58			

Source: Collegeboard.org

# State Appropriations Per FTE Student, by State

The following table shows state appropriations per FTE student, by state, for fiscal years 2008, 2009, 2013, and 2014.

Rank	State	Year Ended June 30,				% Change 2008-2014
		2008	2009	2013	2014	
1	Illinois	\$8,187	8,223	9,626	12,293	50.2%
2	North Dakota	5,736	5,420	6,688	7,888	37.5%
3	Alaska	13,214	13,650	13,188	13,978	5.8%
4	Indiana	5,236	5,321	4,501	5,005	-4.4%
5	New York	8,868	8,659	8,129	8,454	-4.7%
6	Montana	5,205	5,274	4,379	4,939	-5.1%
7	Wyoming	16,428	17,123	16,800	15,561	-5.3%
8	Nebraska	8,300	7,976	7,503	7,840	-5.5%
9	Arkansas	8,123	7,987	7,731	7,653	-5.8%
10	Vermont	3,166	2,889	2,708	2,816	-11.0%
11	Maryland	8,583	7,926	7,022	7,512	-12.5%
12	Maine	7,170	6,920	6,096	6,252	-12.8%
13	Texas	9,444	8,895	7,366	8,050	-14.8%
14	California	8,825	7,938	7,252	7,509	-14.9%
15	Wisconsin	2,071	7,100	5,990	5,786	-18.2%
16	Kansas	6,924	6,711	5,745	5,648	-18.4%
	<b>National Average</b>	<b>8,081</b>	<b>7,553</b>	<b>6,215</b>	<b>6,552</b>	<b>-18.9%</b>
17	South Dakota	6,034	5,618	4,872	4,878	-19.2%
18	Iowa	6,739	6,810	5,112	5,335	-20.8%
19	Oklahoma	8,998	8,951	7,193	7,080	-21.3%
20	North Carolina	10,933	9,619	8,851	8,562	-21.7%
21	Tennessee	9,029	8,875	6,266	6,959	-22.9%
22	Michigan	6,179	5,905	4,564	4,765	-22.9%
23	Massachusetts	7,898	6,805	5,785	6,073	-23.1%
24	Georgia	9,496	8,497	6,836	7,297	-23.2%
25	Ohio	5,638	5,777	4,249	4,314	-23.5%
26	New Mexico	10,530	8,985	8,269	8,029	-23.7%
27	Mississippi	8,534	7,775	6,274	6,514	-23.7%
28	Minnesota	7,007	6,680	4,814	5,327	-24.0%
29	Rhode Island	6,172	5,169	4,547	4,690	-24.0%
30	Delaware	6,682	6,476	4,954	5,052	-24.4%
31	Kentucky	9,034	8,428	6,884	6,824	-24.5%
32	Hawaii	10,129	10,255	7,532	2,618	-24.8%
33	Washington	7,616	7,178	4,945	5,700	-25.2%
34	Utah	7,406	6,648	5,106	5,506	-25.7%
35	West Virginia	7,463	6,319	5,887	5,530	-25.9%
36	Virginia	6,469	6,215	4,635	4,779	-26.1%
37	Connecticut	9,763	9,192	6,509	7,192	-26.3%
38	Colorado	4,173	4,514	2,822	3,022	-27.6%
39	<b>Missouri</b>	<b>7,335</b>	<b>7,172</b>	<b>5,311</b>	<b>5,297</b>	<b>-27.8%</b>
40	New Jersey	7,698	7,206	5,658	5,520	-28.3%
41	Oregon	5,972	5,587	3,952	4,214	-29.4%
42	Nevada	10,140	9,678	6,826	7,016	-30.8%
43	Florida	8,494	7,320	4,879	5,798	-31.7%
44	New Hampshire	3,536	3,483	1,724	2,360	-33.3%
45	Idaho	10,520	10,266	6,676	2,004	-33.4%
46	Arizona	8,046	7,736	5,056	5,171	-35.7%
47	South Carolina	7,705	6,092	4,891	4,894	-36.5%
48	Pennsylvania	5,836	5,645	3,633	3,654	-37.4%
49	Alabama	9,278	6,888	5,694	5,673	-38.9%
50	Louisiana	9,426	9,096	5,625	5,606	-40.5%

Source: SHEEO

# Total Expenditures

The following table lists total combined expenditures for the Missouri's public 4-year institutions for fiscal years 2009 through 2015.

	Year Ended June 30,						% Change 2009-2015	
	2009	2010	2011	2012	2013	2014		2015
Instruction	\$975,392,962	999,816,692	1,030,761,905	1,096,453,809	1,123,000,480	1,195,633,948	1,214,216,598	24%
Research	264,839,256	269,127,992	265,609,836	254,675,925	252,199,489	247,615,698	240,141,718	-9%
Public Service	227,462,153	200,362,645	193,735,588	204,009,209	204,715,214	211,089,729	214,642,775	-6%
Academic Support	211,563,740	219,123,271	220,834,901	227,535,057	228,643,769	239,534,875	246,925,595	17%
Institutional Support	200,518,818	219,488,199	247,519,747	268,155,592	253,621,745	274,249,966	271,915,388	36%
Student Services	160,092,891	170,192,740	176,702,080	185,146,741	194,117,237	215,040,772	248,237,933	55%
Other Core Expenses	205,318,620	164,314,340	146,026,553	176,815,816	137,774,744	140,401,074	178,117,011	-13%
Auxiliary Enterprises	561,783,335	613,713,222	672,493,861	688,886,727	736,245,599	736,593,670	798,456,758	42%
<b>Total Expenditures</b>	<b>\$2,806,971,775</b>	<b>2,856,139,101</b>	<b>2,953,684,471</b>	<b>3,101,678,876</b>	<b>3,130,318,277</b>	<b>3,260,159,732</b>	<b>3,412,653,776</b>	<b>23%</b>

Source: IPEDS

## Expenditures Per FTE Student

The following table lists total expenditures per FTE student for Missouri's public 4-year institutions for fiscal years 2009 through 2015.

	2009	2010	2011	2012	2013	2014	2015	2009 - 2015
Instruction	\$9,121	9,011	9,007	9,440	9,628	10,199	10,125	11%
Research	2,477	2,426	2,321	2,193	2,162	2,112	2,002	-19%
Public Service	2,127	1,806	1,693	1,756	1,755	1,801	1,790	-16%
Academic Support	1,978	1,975	1,930	1,959	1,960	2,043	2,059	4%
Institutional Support	1,875	1,978	2,163	2,309	2,175	2,339	2,267	21%
Student Services	1,497	1,534	1,544	1,594	1,664	1,834	2,070	38%
Other Core Expenses	1,920	1,481	1,276	1,522	1,181	1,198	1,485	-23%
Auxiliary Enterprises	5,253	5,531	5,876	5,931	6,312	6,284	6,658	27%
<b>Total</b>	<b>\$26,248</b>	<b>25,742</b>	<b>25,810</b>	<b>26,704</b>	<b>26,837</b>	<b>27,810</b>	<b>28,456</b>	<b>8%</b>

Source: Prepared by the SAO using IPEDS data and enrollment information from MDHE

## Need-Based Aid, by State

The following table lists the percentage of state aid based on need, by state for the 2013-2014 school year.

Rank		Percentage of State Grants Based on Financial Need	Rank		Percentage of State Grants Based on Financial Need
1	Arizona	100%	27	Oklahoma	89%
2	Hawaii	100%		<b>United States</b>	<b>76%</b>
3	Kansas	100%	28	Alabama	74%
4	Maine	100%	29	Montana	73%
5	Nebraska	100%	30	Virginia	69%
6	Oregon	100%	31	Ohio	68%
7	Rhode Island	100%	32	Delaware	65%
8	Texas	100%	33	North Dakota	60%
9	Wyoming	100%	34	<b>Missouri</b>	<b>56%</b>
10	Minnesota	100%	35	Kentucky	46%
11	California	100%	36	West Virginia	43%
12	Washington	100%	37	Alaska	33%
13	Illinois	100%	38	Florida	32%
14	Pennsylvania	100%	39	Utah	31%
15	Colorado	99%	40	Mississippi	30%
16	Vermont	99%	41	Nevada	29%
17	Connecticut	99%	42	Idaho	29%
18	Michigan	99%	43	New Mexico	27%
19	New Jersey	98%	44	Tennessee	24%
20	North Carolina	98%	45	South Carolina	17%
21	Indiana	98%	46	Louisiana	10%
22	Wisconsin	98%	47	Arkansas	6%
23	Maryland	97%	48	South Dakota	4%
24	New York	97%	49	Georgia	0%
25	Massachusetts	96%	50	New Hampshire	0%
26	Iowa	93%			

Source: Collegeboard.org