State Funding and Its Impact On University Funding

Andrew Wolfgang Doppstadt
University of New Hampshire, Durham, awk36@wildcats.unh.edu

Follow this and additional works at: http://scholars.unh.edu/honors
Part of the Accounting Commons, and the Finance and Financial Management Commons

Recommended Citation
http://scholars.unh.edu/honors/355

This Senior Honors Thesis is brought to you for free and open access by the Student Scholarship at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Honors Theses and Capstones by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact nicole.hentz@unh.edu.
State Funding and Its Impact On University Funding

Subject Categories
Accounting | Finance and Financial Management

This senior honors thesis is available at University of New Hampshire Scholars' Repository: http://scholars.unh.edu/honors/355
State Funding and Its Impact on University Funding

An Honors Thesis by Andrew Wolfgang Doppstadt, Finance

A special thanks to Faculty Advisor John Hasseldine for his guidance and assistance.
Table of Contents

INTRODUCTION ................................................................................................................................. 3

INTERPRETING THE DATA .................................................................................................................. 6

PROBLEMS FACING HIGHER EDUCATION

REVERSAL OF FUNDING CUTS NOT ENOUGH.................................................................................. 6

RISE IN TUITION ................................................................................................................................. 13

CUTTING OF STAFF AND ELIMINATION OF PROGRAMS................................................................. 16

SHIFTING COSTS FROM STATE TO STUDENT .................................................................................. 18

FEDERAL AID UNABLE TO COMPENSATE FOR STATE AID............................................................. 20

CUTS AND THEIR IMPACT ON ECONOMIC FUTURE ..................................................................... 21

WHAT CAN STATES DO TO REVERSE THE DAMAGE? ................................................................. 23

CONCLUSION ....................................................................................................................................... 25

APPENDIX ........................................................................................................................................... 26
Introduction

Years of cuts in state funding for public colleges and universities have skyrocketed tuition and damaged student’s educational experiences by forcing faculty reductions, fewer course offerings, and campus closings. Because of this, colleges have become less affordable and less accessible to students who need degrees to succeed in today’s economy.

Although some states have begun to restore some of the major cuts in financial support for public two- and four-year colleges since the recession, their support remains far below previous levels. Overall, taking inflation into account, funding for public two- and four- year colleges is almost $10 billion below its pre-recession levels.

As states make these cuts to higher education funding, the price of attending a public college or university has increased faster than the growth in median income. For most students, increases to federal student aid and the availability of tax credits have not kept pace, jeopardizing their ability to afford the higher education that is key to their long-term financial success. States that choose to commit to high quality, affordable systems of public higher education will not only increase the revenue these schools receive, but also build a stronger middle class and develop the skilled workers that are needed in the future.

Of the states that have that have submitted their higher education budgets for 2015-2016, after adjusting for inflation:

- 38 states increased funding per student. Per-student funding rose $199
• In 12 states, per-student funding fell over the last year. Of these, four states – Arkansas, Illinois, Kentucky, and Vermont – have cut per-student higher education funding for the last two consecutive years.

• Per-student funding in nine states – Alabama, Arizona, Idaho, Illinois, Kentucky, Louisiana, New Hampshire, Pennsylvania, and South Carolina – is down by more than 30 percent since the start of the recession.

• States cut funding deeply after the recession hit. The average state is spending $1,598, or 18 percent, less per student than before the recession.

• Forty-six states – all except Montana, North Dakota, Wisconsin, and Wyoming – are spending less per student in the 2015-2016 school year than they did before the recession.¹

These deep state funding cuts have had substantial consequences for public colleges and universities. States provide roughly 54 percent of the costs of teaching and instruction at these schools. ² Schools have been forced to make up the difference with tuition increases, cuts to educational services, or a combination of both. Since the recession took place, higher education institutions have:


• **Increased tuition** – Public colleges and universities across the country have increased their tuition to compensate for the decline in state funding and the rise in operating costs. Annual published tuition at four-year public colleges has risen by $2,333, or 33 percent, since the 2007-08 school year.\(^3\) In Arizona, published tuition at four-year colleges and universities has risen nearly 90 percent, while in six other states – Alabama, California, Florida, Georgia, Hawaii, and Louisiana – published tuition is up more than 60 percent. The harsh tuition increases have fast-tracked longer-term trends of college becoming less affordable and costs shifting from states to students. As mentioned above, the price of attending a four-year public college or university has amplified significantly faster than the median income.\(^4\) Although federal student aid and tax credits have grown, on average they have fallen short of covering the tuition increases.

• **Diminished academic opportunities and student services** – College and University tuition increases have only compensated for part of the loss in revenue that resulted for state funding cuts. Over the past few years, public colleges and universities have cut faculty positions, eliminated course offerings, closed campuses, and reduced student services, among other cuts.\(^5\)

---

\(^3\) Calculated from College Board, “Trends in College Pricing 2015: Average Tuition and Fee and Room and Board Charges, 1971-72 to 2015-16 (Enrollment-Weighted),” Table 2, http://trends.collegeboard.org/college-pricing.


The large segment of future jobs will require college-educated workers. Ample public investment in higher education to keep quality high and tuition affordable, and to provide financial aid to students who need it most, would help states develop the skills and diverse workforce they will need to compete for these jobs. However, this investment can only happen if policymakers make sound tax and budget decisions. State revenue has improved since the depth of the recession, but they are still only modestly above pre-recession levels. To increase access and affordability to higher education, many states need to supplement revenue growth with new revenue to fully make up for the past years of cuts.

**Interpreting the Data**

Many institutions charge separate prices for different years of study/ different academic majors. In this, many students may see published prices that differ from those reported as the sticker price below. For this reason, the numbers used are average published prices and are not precise measures.

**Reversal of Funding Cuts Not Enough**

Public colleges and universities depend on state and local tax revenue as a major source of support. Unlike private universities, which rely on charitable donations and large endowments to help fund instruction, public universities typically rely heavily on

---

state and local appropriations. In 2015, state and local dollars constituted 54 percent of the funds these institutions used directly for teaching. While states begun restoring funds, levels are well below what they in 2008 – 18 percent per student lower – even as state revenues have returned to pre-recession levels (see figures below more detail). In regard to the states that have submitted their 2015-2016 higher education budgets compared with 2007-2008, when the recession hit, which are adjusted for inflation:

- State revenue on higher education has decreased an average of $1,597 per student, or 18 percent
- In only four states – Montana, North Dakota, Wisconsin, and Wyoming – is per-student funding now above 2008 pre-recession levels.
- 26 states have cut funding per student by more than 20 percent
- 9 states have cut funding per student by more than 30 percent
- Arizona and Illinois have cut funding by more than half

---

7 State Higher Education Executive Officers Association, April 2016.
State Funding for Higher Education Remains Far Below Pre-Recession Levels in Most States

Change in state spending per student, inflation adjusted, 2008-2016

Note: Since enrollment data is only available through the 2014-15 school year, we have estimated enrollment for the 2015-16 school year using data from past years. In the 2013-15 biennial budget, Wisconsin state lawmakers changed the funding model for Wisconsin’s Technical College System, shifting support from the local property tax to state General Purpose Revenue. This change reflects a shift of roughly $406 million in annual support from the local to state levels in Wisconsin but did not result in an overall increase in support for Wisconsin’s higher education institutions. Excluding this shift, per-student funding fell by $1,634 over 2008-2016.

Source: CBPP calculations using the “Grapevine” higher education appropriations data from Illinois State University, enrollment and combined state and local funding data from the State Higher Education Executive Officers Association, and the Consumer Price Index, published by the Bureau of Labor Statistics. Illinois funding data is provided by the Fiscal Policy Center at Voices for Illinois Children. Kentucky funding data is provided by the Kentucky Center for Economic Policy. Pennsylvania funding data is provided by the Pennsylvania Budget and Policy Center.
State Funding for Higher Education Remains Far Below Pre-Recession Levels in Most States

Percent change in state spending per student, inflation adjusted, 2008-2016

Note: Since enrollment data is only available through the 2014-15 school year, we have estimated enrollment for the 2015-16 school year using data from past years. In the 2013-15 biennial budget, Wisconsin state lawmakers changed the funding model for Wisconsin's Technical College System, shifting support from the local property tax to state General Purpose Revenue. This change reflects a shift of roughly $406 million in annual support from the local to state levels in Wisconsin but did not result in an overall increase in support for Wisconsin's higher education institutions. Excluding this shift, per-student funding fell by 25.2 percent over 2008-2016.

Source: CBPP calculations using the “Grapevine” higher education appropriations data from Illinois State University, enrollment and combined state and local funding data from the State Higher Education Executive Officers Association, and the Consumer Price Index, published by the Bureau of Labor Statistics. Illinois funding data is provided by the Fiscal Policy Center at Voices for Illinois Children. Kentucky funding data is provided by the Kentucky Center for Economic Policy. Pennsylvania funding data is provided by the Pennsylvania Budget and Policy Center.
Recently, most states increased per-student funding for their public higher education systems. (see figures below for more detail.)

- 38 states are investing more per student in 2015-2016 than 2014-2015
- Nationally, spending has increased on average $199 per student, or 2.8 percent
- State funding increases ranged from $13 per student in Missouri to $1,730 in Wyoming
- 15 states increased per-student funding by more than 5 percent
- 5 states – Colorado, Nevada, Oregon, Washington, and Wyoming – increased funding by more than 10 percent

However, some states have made even larger cuts to their per-student funding.

- 12 states funding fell over the last year, on average 8.8 percent or $516 per student\(^9\)
- State funding decreases ranged from $20 per student in New Jersey to $1,746 in Illinois
- 6 States – Alaska, Arizona, Illinois, Oklahoma, West Virginia, and Wisconsin – cut funding by more than $250 per student.

\(^9\) This is skewed by the decrease in state support in Illinois, where funding fell by 37 percent between 2015 and 2016 or $1,750 per student. The median decline in state funding in these 12 states was 2.4 percent or $173 per student.
Most States Increased Higher Education Funding Over Last School Year, but Some States Are Still Cutting

Change in state spending per student, inflation adjusted, 2015-2016

Source: CBPP calculations using data from Illinois State University’s annual Grapevine Report and the State Higher Education Executive Officers Association. Because enrollment data is only available through the 2015 school year, enrollment for the 2015-16 school year is estimated using data from past years. Years are fiscal years. Illinois funding data is provided by the Fiscal Policy Center at Voices for Illinois Children. Kentucky funding data is provided by the Kentucky Center for Economic Policy. Pennsylvania funding data is provided by the Pennsylvania Budget and Policy Center.
Most States Increased Higher Education Funding Over Last School Year, but Some States Are Still Cutting

Percent change in state spending per student, inflation adjusted, 2015-2016

Note: Iowa essentially had flat funding between FY2015 and FY2016.

Source: CBPP calculations using data from Illinois State University’s annual Grapevine Report and the State Higher Education Executive Officers Association. Because enrollment data is only available through the 2015 school year, enrollment for the 2015-16 school year is estimated using data from past years. Years are fiscal years. Illinois funding data is provided by the Fiscal Policy Center at Voices for Illinois Children. Kentucky funding data is provided by the Kentucky Center for Economic Policy. Pennsylvania funding data is provided by the Pennsylvania Budget and Policy Center.
Rise in Tuition

Over the past few years, states have increased funding in public colleges and universities above pre-recession levels. Due to this, tuition increases have been lower compared to the worst years of the recession. Published tuition at public four-year universities has increased in 34 states in recent years. The average tuition increases from these states was $254, or 2.8 percent. Over the last year:

- Louisiana increased its average tuition by 7 percent, or roughly 4540, which is more than any other state
- 9 states increased their average tuition by more than 5 percent
- However, in Washington State, tuition fell by nearly 4 percent\(^\text{10}\)

Regardless, tuition remains higher than pre-recession levels in many states. Since the 2007-2008 school year, average annual published tuition has risen by $2,333 nationally, or 33 percent (See figures below for more detail).\(^\text{11}\) Tuition hikes have become common, and average tuition has increased all around.

- 7 states have increased average tuition by more than 60 percent
- 14 states have increased average tuition by more than 40 percent
- 39 states have increased average tuition by more than 20 percent
- In Arizona, average tuition has increased 87.8 percent, or $4,978 per student.


### Tuition Has Increased Sharply at Public Colleges and Universities

Change in average tuition at public, four-year colleges, inflation adjusted, 2008 - 2016

Tuition Has Increased Sharply at Public Colleges and Universities

Percent change in average tuition at public, four-year colleges, inflation adjusted, 2008 - 2016

Cutting of Staff and Elimination of Programs

Tuition increases have been unsuccessful at fully replacing the per-student support that public colleges and universities have lost due to state funding cuts. Because tuition increases have not completely compensated for the loss of state funding, and because many public schools do not have substantial endowments or other source of funding, many public institutions have simultaneously reduced course offerings, student services, and other campus amenities.

Data on spending at public colleges and universities in recent years is incomplete, but considerable evidence suggests that these actions likely reduce the quality and availability of their academic offerings. Since the start of the recession, colleges and university systems in some states have eliminated administrative and faculty positions, cut courses or increased class sizes, and in some instances, consolidated or eliminated whole programs, departments, or schools.\textsuperscript{12} Public institutions continue to make these cuts even as states begin to reinvest in higher education. For example:

- The University of Alaska Fairbanks eliminated six degree offerings – including philosophy, engineering management, science management, chemistry, music and sociology.\textsuperscript{13}


• University of Akron in Ohio laid off over 200 employees as well as eliminating their school baseball team.\textsuperscript{14}

• The University of Arizona cut 320 positions from its budget including layoffs, firings, and resignations, and increased class sizes for core undergraduate courses.\textsuperscript{15}

• The University of Wisconsin-Madison laid off or reduced staff and faculty by 400 slots and held faculty salaries level.\textsuperscript{16}

Nationally, employment at public colleges and universities has grown respectably since the recession, but proportionally less than the growth in the number of students. Between 2008 and 2014, the number of full-time equivalent instructional staff a public colleges and universities grew roughly 7 percent, while the number of students at these institutions grew by 8.6 percent. That is, the number of students per faculty member has risen nationwide.\textsuperscript{17}


\textsuperscript{17} CBPP analysis of employment data from the National Center for Education Statistics and enrollment data from the State Higher Education Executive Officers Association.
Shifting Costs from State to Student

Since the recession, students have assumed a larger proportion of money payed to public colleges and universities. This is due to state and local funding for higher education decreasing following the recession, while tuition increased. This cost shift from states to students occurred during a time when additional expenses were difficult for many families because income has been nearly motionless. From 1970 to mid 1980s, tuition and income grew faster than inflation; by later 1980s, tuition began to grow faster than incomes (see figure below for detail). During periods of economic growth, funding has tended to recover while tuition has stabilized at higher levels in proportion to total higher education funding.¹⁸

In 1988, public institutions received 3.2 time the amount of revenue from state and local governments as they did from students.

1988, average tuition amount larger than per-student state expenditures in 2 state – New Hampshire and Vermont. In 2008, this number grew to 10 states.

In 2015, tuition revenue was greater that state and local government funding for higher education in 22 states, with 6 – Colorado, Delaware, Michigan, New
Hampshire, Pennsylvania, and Vermont – requiring students and families to account for costs by a ratio of 2-to-1.¹⁹

- In 2015, public institutions received 1.2 times the amount of revenue from state and local governments as they did from students

**Federal Aid Unable to Compensate for State Aid**

Financial aid also increased during the tuition spikes after the recession. The Federal Pell Grant Program – the United States source of student grant aid – distributed over 80 percent more aid between 2007-2008 and 2014-2015 school years. This allowed the program to reach 2.7 million more students than in 2008 and provided the average grant recipient with 21 percent more support, from $3,028 to $3,673.²⁰ This has helped many students and their families handle these tuition increases. College board calculates that the annual value of grant aid and higher education tax benefits for students at four-year public institutions has increased by an average of $1,410 in real terms since the Great Recession, offsetting about 61 percent of the average $2,320 tuition increase.²¹

---

¹⁹ State Higher Education Executive Officers Association, April 2016; government funding includes dollars from both state and local funding sources.


While the total price of college varies amongst states but tax-credit amounts are consistent, some students who attend college in states with large tuition increases are likely to experience increases in their net tuition and fees. State Financial Aid, which is minimal, has fallen overall. In 2008, per-student state grant dollars equaled $740. In 2014, that number fell to $710, roughly 4 percent.\(^{22}\)

**Cuts and Their Impact on Economic Future**

Research finds that decreased state support for college is likely the cause for reduced college access and graduation rates. This is an issue, because a college educated workforce is becoming increasingly important to long-term state and national economic outcomes. Today, a college degree is a pre-requisite for professional success and entry into the middle class and up. For example, a young college graduate earns on average $12,000 more per year than someone without a college degree.\(^{23}\)

States benefit when more citizens receive a degree. For example, higher education attainment has been linked with lower crime rates, increased levels of civic involvement, and overall health.\(^{24}\) Areas with higher concentrations of highly educated residents

---


attract strong employers who pay modest wages. These residents then invest their money into commodities in the community, benefiting the area’s economy. As a result, Enrico Moretti found that wages of workers of all levels of education are higher in areas with high concentrations of highly-educated residents.\textsuperscript{25} In other words, highly educated workforces can increase an area’s economic success.

In 2013, researchers from Georgetown University Center on Education and the Workforce predicted that by 2020, almost 66 percent of all jobs will require a college degree. This number has increased since 2007 when it was at 59 percent. They further predicted that by 2020, the nation will be producing 5 million fewer college graduates than the labor market requires.\textsuperscript{26} This means that our current higher education system is not adequate for the future demand for an educated labor force.

A major fear is that rising debt levels in part to increased tuition inhibits young graduates from starting businesses. Entrepreneurs rely on personal debt to launch their small ventures, but increased levels of student loan debt may make it difficult to obtain those loans necessary for startups. Researchers from the Federal Reserve Bank of Philadelphia found that as student loan debt increased, net business formation of the smallest businesses – four or fewer employees – fell.\textsuperscript{27}


\textsuperscript{26} Anthony P. Carnevale, Nicole Smith, and Jeff Strohl, “Recovery: Job Growth and Education Requirements through 2020,” Georgetown University Center on Education and the Workforce, June 2013, https://georgetown.app.box.com/s/tll0zkxt0puz45hu21g6.

With these facts considered, states should strive to increase college access and graduation rates to enhance their middle class and care for entrepreneurs and educated workers who are need to compete in the world.

**What Can States Do to Reverse the Damage?**

Over the last few years, many states have started reinvesting back into higher education. To maintain this trend, states will need to deny costly or ineffective tax cuts and raise additional revenue.

Understandably, state lawmakers face the challenge of determining the adequate funding of important public priorities. This means that to make progress in state and local investment into higher education, states need to deny tax cut and need to contemplate options for additional revenue. These revenue streams could come from repealing unsuccessful tax deductions, rolling back previous tax cuts, or increasing certain tax rates.\(^\text{28}\)

Revenue is needed most in states that recently allowed budget cuts or struggle with low energy prices that decrease revenue from taxes on natural resource extraction.\(^\text{29}\)

For instance, Last year, Wisconsin enacted a 2-year budget that cut $250 millions of


funding from the University of Wisconsin system, harming the educational value of many campuses.\textsuperscript{30}

Tax cuts may seem important to economic growth. However, their benefit is decreased by their prevention of investment into higher education that would increase accessibility to public institutions, advance graduation rates, and decrease student debt.

Conclusion

States have cut higher education funding heavily since the recession. This was due to the choices made in response to the economic downturn. Policymakers chose to target future spending cuts to make up for current revenue loses. In hindsight, a diversified mixture of revenue increases and spending cuts could have decreased the amount of funding cut from higher education.

Now, States’ higher education systems are suffering. Public institutions have been forced to heavily increase tuition while paring back degrees and programs in ways that may compromise educational value and student success. Today, students are paying more for a possibly compromised education.

Reinvestment into higher education is immensely important in increasing college accessibility and affordability. Policymakers will need to center their decision around investing in the future through quality education. To recover from the economic downturn, States need to increase revenue and avoid tax cuts that would deter investment into higher education.
Appendix

Most States Modestly Increased Tuition Over Last School Year
Percent change in average tuition at public, four-year colleges, inflation adjusted, 2015-2016

Source: College Board, "Trends in College Pricing," 2015. Years are fiscal years.
Most States Modestly Increased Tuition Over Last School Year

Change in average tuition at public, four-year colleges, inflation adjusted, 2015-2016