



The Economics of UW-Madison White Paper #5

Is the Wisconsin Taxpayer Stingy?*

Junjie Guo

Economist, Center for Research on the Wisconsin Economy
University of Wisconsin-Madison

Kim J. Ruhl

Curt and Sue Culver Professor, Department of Economics
Co-Director, Center for Research on the Wisconsin Economy
University of Wisconsin-Madison

Ananth Seshadri

Professor, Department of Economics
Mary Sue and Mike Shannon Distinguished Chair
Co-Director, Center for Research on the Wisconsin Economy
University of Wisconsin-Madison

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Executive Summary

- Recent reports note that Wisconsin is 42nd in the nation when it comes to funding the UW-System. Wisconsin allocates a larger share of higher-education appropriations to 2-year institutions than most other states and a smaller share to 4-year institutions. This distinction is becoming less meaningful as the 2-year technical colleges offer liberal arts transfer degrees as a pathway to a 4-year institution and the UW-System schools are increasingly focused on majors that satisfy workforce demands.
- This paper addresses the question: Is the Wisconsin taxpayer rather stingy in funding higher education in Wisconsin and, in particular, funding UW-Madison?
- Wisconsin is 22nd in the nation when it comes to total higher-education appropriations per full-time equivalent (FTE) undergraduate, which includes both UW-System and technical college funding. While this measure declined in the last decade, it also declined between 2003 and 2010. Despite the decline, it has remained higher than the median in the United States for more than the last two decades.
- While state appropriations per FTE undergraduate are a commonly used metric, they do not account for the variations in income across states (richer states spend more) and institution quality (peer comparisons).
 - After accounting for state income per capita, Wisconsin's appropriations per FTE undergraduate are appreciably higher than the national average, casting doubt on the notion that the Wisconsin taxpayer is stingy.
 - State appropriations per FTE undergraduate are higher for UW-Madison than the median of other Big-10 universities and the median of other public institutions in the Association of American Universities (AAU).
 - As a share of university revenue, state appropriations for UW-Madison are similar to the median of other Big-10 universities and the median of other public AAU institutions.
- States exert influence over in-state tuition. *Reservegate* led to a decade-long tuition freeze in Wisconsin. Focusing on the sum of tuition and fees and state appropriations, we find that UW-Madison is slightly below the median of Big-10 peers.
- In the past, UW System tuition rose to offset declines in state support to protect the university system. That implicit contract is now broken. If the state deems UW-Madison worthy of additional support, it ought to come from increases in in-state tuition and not on the backs of the Wisconsin taxpayer.

1 Introduction

Demographic changes have resulted in declining post-secondary enrollment in Wisconsin and other states across the country. These changes are prompting states to evaluate the long-term viability of public universities and to consider consolidating them. In Wisconsin, this has manifested as concern about the adequacy of state funding of the higher education system. Recent media commentary, based on reports from the State Higher Education Executive Officers Association (2023), points out that Wisconsin ranks 42nd (see panel a, figure 1) in state funding for higher education in 2022.¹ Within the higher education system, the data indicate that Wisconsin's 2-year technical colleges receive more funding than most other states, while its funding for 4-year institutions lags other states. Indeed, the gap between 4-year and 2-year per-student expenditure in Wisconsin is one of the largest in the country.

Higher education is going through a period of consolidation frequently seen in the private sector — Connecticut and Georgia already have consolidation plans in place — and is likely to see closures and mergers. For example, the University of Wisconsin-Milwaukee plans to close its 2-year campus in Waukesha after Spring 2025. This is the fifth UW branch in two years to announce it would close or move to an online model. Merging campuses has also been proposed as a way to avoid closure. Local leaders in Washington County pushed to merge the local UW-Milwaukee branch with Moraine Park Technical College as enrollment at the UW branch fell from nearly 1,100 at its peak to about 300 today. This merger was ultimately vetoed by Gov. Tony Evers. Failed mergers are not uncommon, but Wisconsin is likely to see more proposed mergers going forward.

This raises several questions. Is the state adequately funding higher education in Wisconsin? How does Wisconsin compare with its peer states? The answers to these questions are complicated and depend on the funding metric, the degree to which the technical-college system is viewed as separate from the Universities of Wisconsin, and whether we control for the quality of peer institutions or income differences across states.

We find that Wisconsin's state appropriations for higher education per student are slightly larger than the national average, casting doubt on the notion that the Wisconsin taxpayer is inadequately funding higher education. While there is variation between funding for technical colleges and the UW System, the distinction is becoming less meaningful as Wisconsin's technical colleges are increasingly offering liberal arts transfer degrees as a pathway for a seamless transfer to four-year institutions. There are extraordinary variations in higher-education structures within the United States. These structures often reflect unique histories and the economic needs of the state. Any attempt to generalize

¹ See, for example, Karnopp (2024).

the experience of one university system to those in other states can lead to serious misjudgements. When accounting for state income per capita, Wisconsin's appropriations per full-time equivalent (FTE) undergraduate are appreciably higher than the national average, casting further doubt on the notion that the Wisconsin taxpayer is stingy.

Turning to UW-Madison, state appropriations per FTE undergraduate are higher for UW-Madison than either the median of the other Big-10 universities or the median of the other public institutions in the Association of American Universities (AAU). Furthermore, as a share of university revenue, state appropriations for UW-Madison are similar to both the median of the other Big-10 universities and the median of the other public AAU institutions.

Since states exert considerable influence over in-state tuition, a more pertinent metric might include tuition as well as direct appropriations. In Wisconsin, a tuition freeze came about in response to what may be termed *Reservegate*. In 2013, the UW System had one of its most difficult moments when members of the state legislature discovered that the System held \$1 billion in reserves while simultaneously requesting tuition increases.² The tuition freeze lasted for a decade. When we include tuition and fees as well as state appropriations, we find that UW-Madison is slightly below the median of Big-10 peers in state appropriations per student FTE. This is unsurprising given that UW-Madison's in-state tuition is significantly below Midwestern peers such as the University of Minnesota-Twin Cities or the University of Michigan-Ann Arbor.

The bottom line: Wisconsin's state appropriations for higher education are largely in line with its peers. Peer comparisons suggest that there is little basis for the view that the Wisconsin taxpayer is stingy in funding higher education.

2 Higher-education appropriations in Wisconsin: 2-year vs 4-year

The State Higher Education Executive Officers Association (2023) measures *total higher-education appropriations* in each state as "state and local support available for public higher education operating expenses and student financial aid, excluding appropriations for research, hospitals, and medical education."

Figure 1 ranks states according to their total higher-education appropriations per full-time equivalent (FTE) undergraduate in 2022. The top panel includes only 4-year institutions, where Wisconsin is 42nd (red bar). The bottom panel includes both 2- and 4-year institutions, where Wisconsin is 22nd (red bar). These rankings have been stable since 2019 when SHEEO started reporting the data.

The difference in Wisconsin's ranking between the two panels shows that Wisconsin allocates a larger share of total higher-education appropriations to 2-year institutions than

²Unrestricted reserves, which are funds available for general expenditures, were \$648 million.

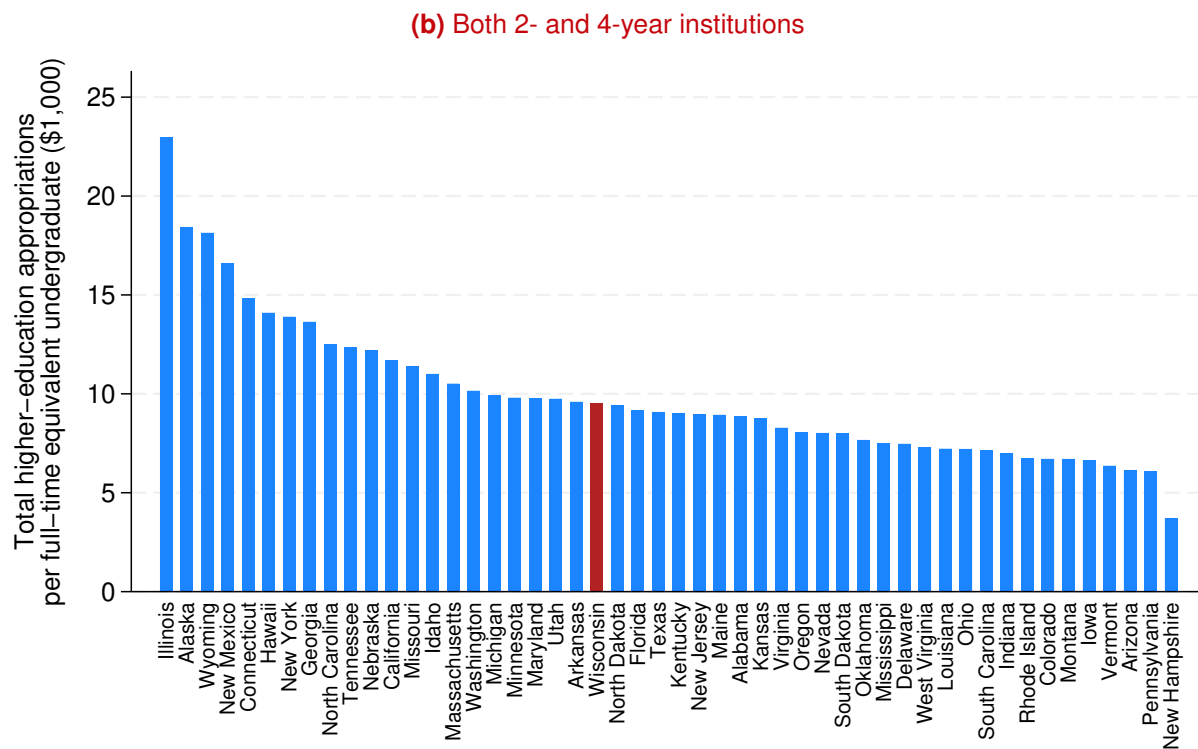
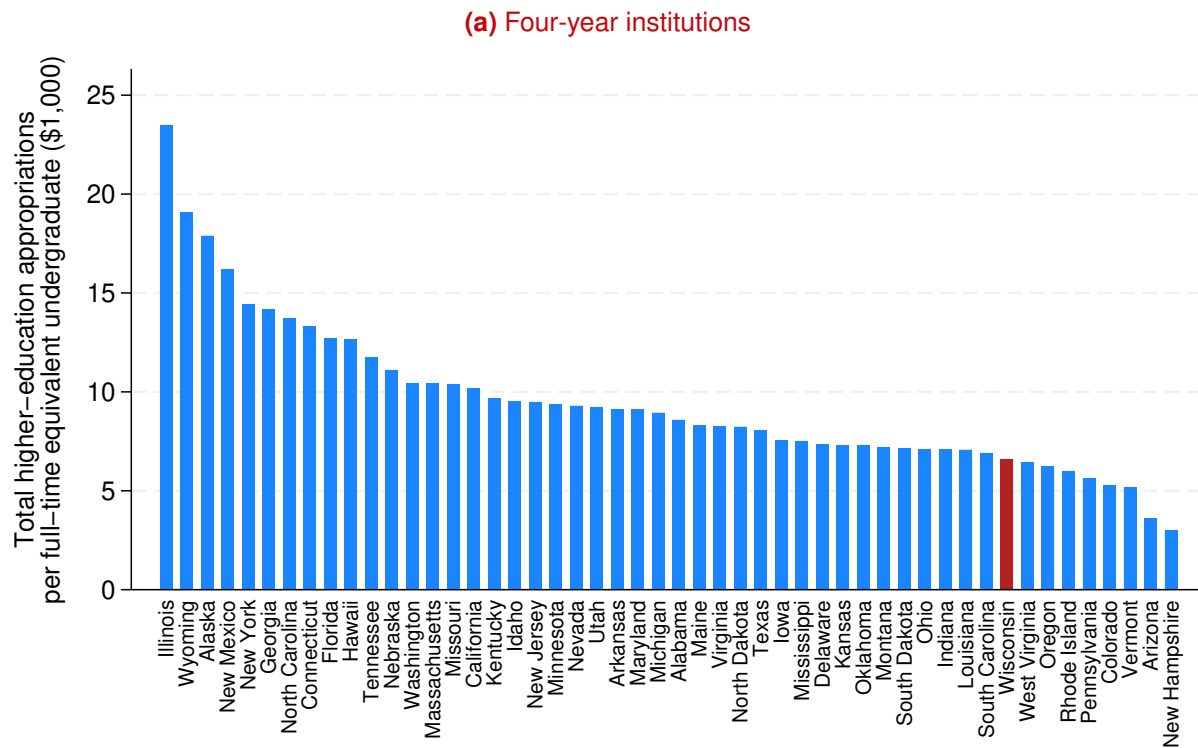


Figure 1: Total higher-education appropriations per full-time equivalent undergraduate, 2022
Source: State Higher Education Executive Officers Association (2023).

most other states. In fact, in 2022, total higher-education appropriations per FTE undergraduate were 76.6% higher for 2-year than 4-year institutions in Wisconsin. This is the third highest among all states, behind only Arizona (111.0%) and New Hampshire (78.8%), and much higher than the national average of 5.5%.

Figure 2 shows that Wisconsin's total higher-education appropriations per FTE undergraduate in both 2- and 4-year institutions are higher than the median state in each year between 2000–22. The left panel reports Wisconsin's ranking of total higher-education appropriations per FTE undergraduate in both 2- and 4-year institutions in 2000–22. While there have been some ups and downs, Wisconsin's ranking has never dropped below 23rd (in 2008). The right panel reports the ratio of Wisconsin's total higher-education appropriations per FTE undergraduate to the median across all states. The ratio is greater than one in each year since 2000.

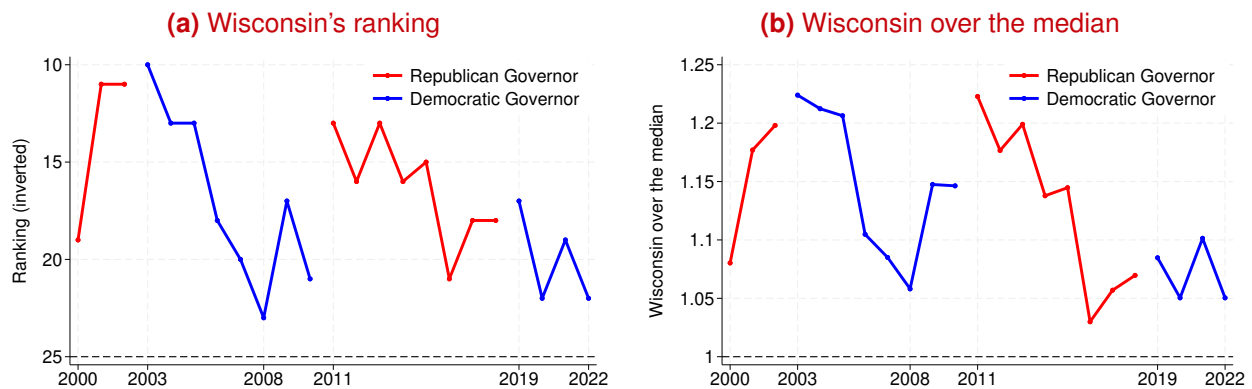


Figure 2: Total higher-education appropriations per full-time equivalent undergraduate in both 2- and 4-year institutions, 2000–22

Source: State Higher Education Executive Officers Association (2023).

Appropriations for higher education could vary across states because their taxpayers have different levels of income. To account for this, figure 3 plots the state and local support for higher education per \$1,000 of personal income calculated by SHEEO, which defines *state and local support* as “the sum of tax appropriations, non-tax support, local appropriations, non-appropriated support, state-funded endowment earnings, and other state funds, net of any funds not available for use.” The figure shows that, as a share of personal income, state and local support for higher education has been decreasing in both Wisconsin and other states, e.g., Michigan and Minnesota, two of Wisconsin's neighbors whose flagship universities are comparable with UW-Madison. Moreover, as a share of personal income, state and local support for higher education is higher in Wisconsin than both the two neighbors and the national average.

Together, we find that the Wisconsin taxpayer is not stingy in funding higher education, but the state allocates a larger share of total higher-education appropriations to 2-year

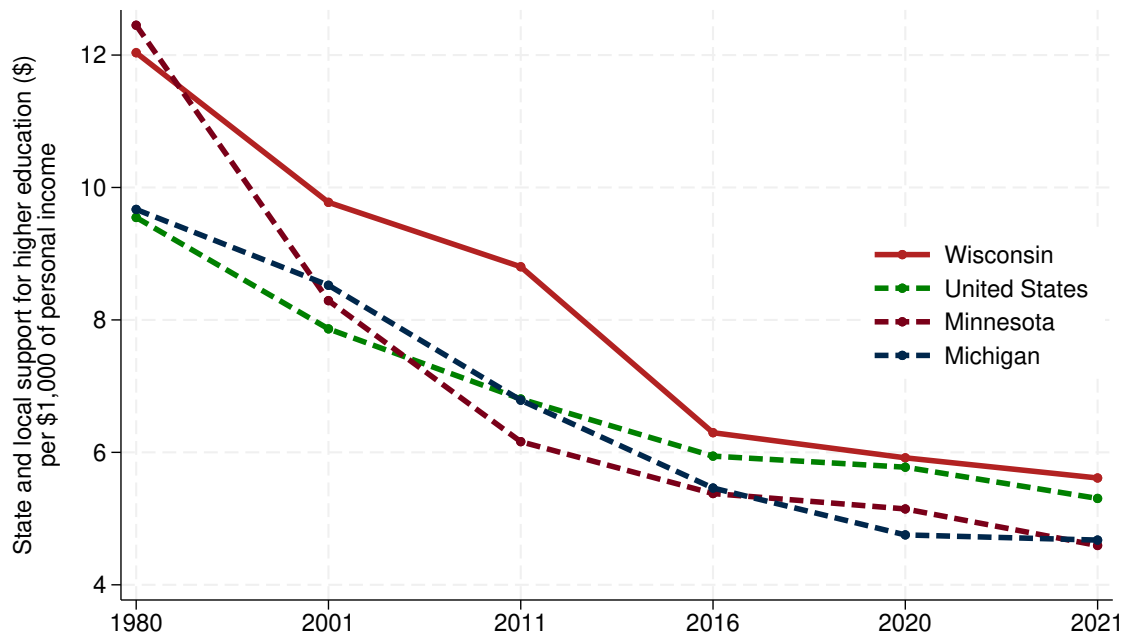


Figure 3: State and local support for higher education per \$1,000 of personal income

Data source: State Higher Education Executive Officers Association.

institutions than most other states. While there is variation between funding for technical colleges and the UW System, the distinction is becoming less meaningful as Wisconsin’s technical colleges are increasingly offering liberal arts transfer degrees and as the UW System focuses more and more on addressing workforce challenges. There are extraordinary variations in higher-education structures within the United States. Given the difficulty in comparing university systems across states, total state appropriations seem to be a more appropriate measure. The next section presents some measures that adjust for income differences across states.

3 State appropriations for higher education in Wisconsin vs peers

In Section 2, we measured total (state and local) appropriations. In this section, we focus on state-level funding. State appropriations and the number of full-time equivalent (FTE) undergraduates for each public post-secondary institution in each year are from the Integrated Postsecondary Education Data System (IPEDS) of the National Center for Education Statistics. *State appropriations* are the “amounts received by the institution through acts of a state legislative body, except grants and contracts and capital appropriations. Funds reported in this category are for meeting current operating expenses, not for specific projects or programs.”

We calculate state appropriations per FTE undergraduate as the ratio of total state appropriations to the total number of FTE undergraduates across all public post-secondary

institutions in the state and year. For comparison, we also calculate state appropriations per FTE undergraduate for the United States as the ratio of total state appropriations to the total number of FTE undergraduates across all public post-secondary institutions in the United States in that year.

The left panel of figure 4 shows that, in the ten years from 2012 to 2022, state appropriations per FTE undergraduate increased from \$4,415 to \$9,060 in Wisconsin (red solid line), and from \$5,436 to \$8,983 in the United States (green dashed line). The two lines are close to each other in most years, especially since 2016: state appropriations per FTE undergraduate in Wisconsin are close to the national average. For comparison, state appropriations per FTE undergraduate are higher in Minnesota (maroon dashed line) and lower in Michigan (blue dashed line).

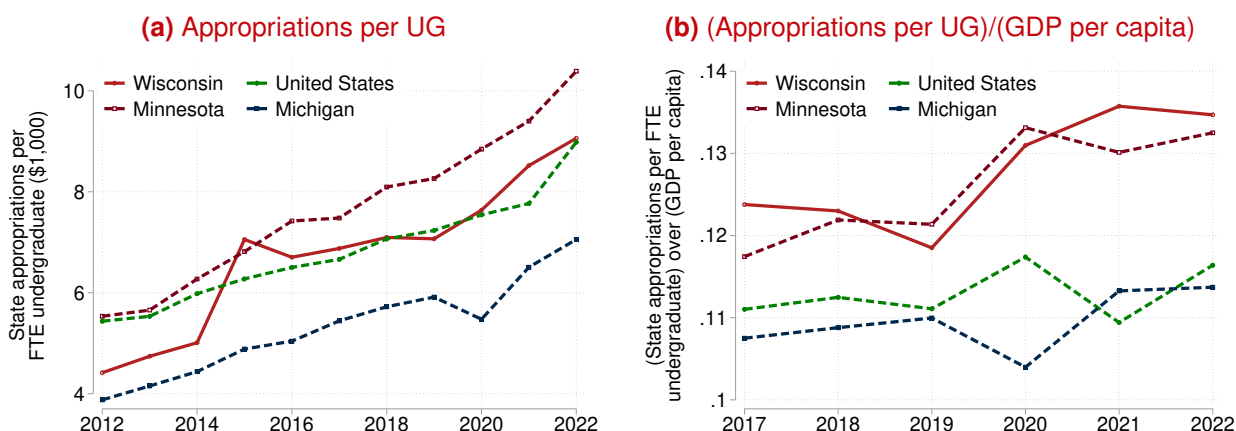


Figure 4: State appropriations per full-time equivalent undergraduate, 2012–22

Notes: Using data from IPEDS, we calculate state appropriations per full-time equivalent (FTE) undergraduate for each state in each year as the ratio of total state appropriations to the total number of FTE undergraduates across all public post-secondary institutions in the state and year. Similarly, we calculate state appropriations per FTE undergraduate for the United States as a whole in each year as the ratio of total state appropriations to the total number of FTE undergraduates across all public post-secondary institutions in all states in that year.

To account for the variation in income across states, the right panel normalizes state appropriations per FTE undergraduate by state GDP per capita. We focus on the period 2017–22, because the Bureau of Economic Analysis implemented comprehensive updates to the state economic accounts in 2023, and the updated state GDP data are available only since 2017. Relative to GDP per capita, state appropriations per FTE undergraduate are higher in Wisconsin (red solid line) than the national average (green dashed line). Moreover, relative to GDP per capita, state appropriations per FTE undergraduate in Wisconsin are now comparable with Minnesota (maroon dashed line) and remain higher than Michigan (blue dashed line).

Figure 4 includes both 2- and 4-year institutions. As documented in the previous section, the allocation of total higher-education appropriations between the two types of institu-

tions varies significantly across states. Table 1 reports our calculations for the two types of institutions using the IPEDS data described above. In 2022, state appropriations per FTE undergraduate were \$10,459 and \$8,562 for 2-year and 4-year institutions in Wisconsin, respectively; compared with 4-year institutions, state appropriations per FTE undergraduate were 22.1% higher for 2-year institutions. The reverse is true for Michigan, Minnesota and the United States, where state appropriations per FTE undergraduate for 2-year institutions are lower than those for 4-year institutions by 45.8%, 41.6%, and 49.4%, respectively.

	2-year (\$)	4-year (\$)	% difference
Wisconsin	10,459	8,562	22.1
United States	5,367	10,611	-49.4
Michigan	4,390	8,105	-45.8
Minnesota	7,416	12,703	-41.6

Table 1: State appropriations per full-time equivalent undergraduate, 2022

Notes: 2-year includes public post-secondary institutions whose programs are less than 4 years. 4-year includes public post-secondary institutions whose programs are 4-year or higher. Data source: IPEDS.

It bears mentioning that 2-year colleges in Wisconsin are spread between technical colleges and locations in the UW System where the 2-year campuses were merged with neighboring 4-year colleges. Wisconsin's 42nd ranking (figure 1), which considers only the UW-System, has spurred recent reports suggesting that the Wisconsin taxpayer is stingy. This metric ignores the fact that every state organizes higher education differently and there is variation across states in the reliance of property taxes versus income or other forms of tax revenue. There is overlap between the offerings of the technical colleges and the offerings at the UW-System. The differences in mission are much more nebulous now that technical colleges offer associate degrees in general education. The nearby schools are now in direct competition. UW-System accepts full transfer of technical college credits. Consequently, in evaluating whether the Wisconsin taxpayer is stingy in funding higher education, a much better metric is state appropriations per FTE undergraduate that includes all post-secondary institutions in Wisconsin.

Overall, we find that state appropriations per FTE undergraduate in Wisconsin are slightly higher than the national average. When adjusted for per capita income, Wisconsin ranks higher than the national average and Michigan. In the next section, we turn to state support for UW-Madison. In this case, we can account for education quality by comparing UW-Madison with peer institutions.

4 State appropriations for UW-Madison vs. its peers

We now turn our attention to state-level funding of flagship campuses. The left panel of figure 5 shows that state appropriations per FTE undergraduate at UW-Madison (red solid line) are lower than the University of Minnesota-Twin Cities (maroon dashed line), but higher than the University of Michigan-Ann Arbor (blue dashed line), the median of other Big-10 universities (orange dashed line), and the median of other public institutions in the Association of American Universities (green dashed line).

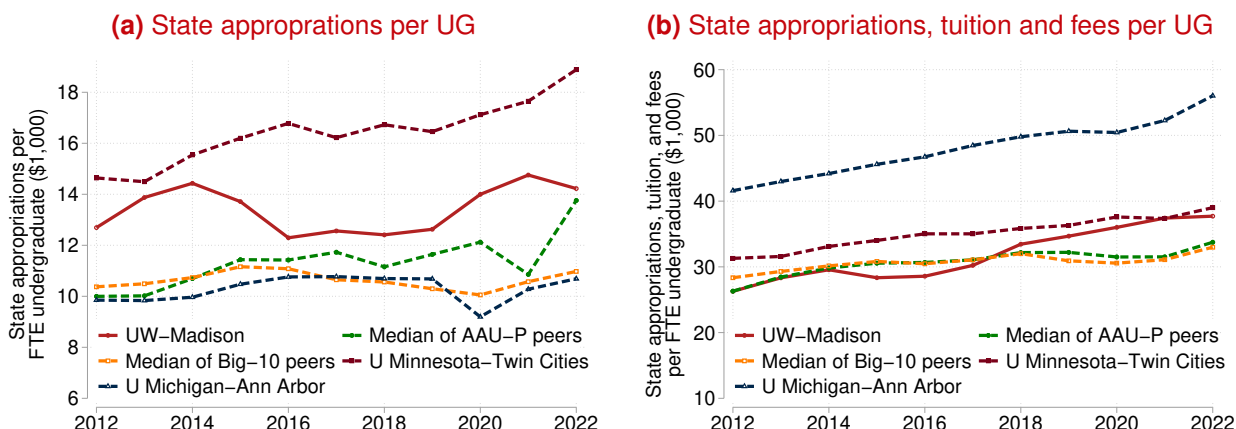


Figure 5: State appropriations, tuition and fees per full-time equivalent undergraduate, 2012–22

Notes: Big-10 peers include University of Illinois Urbana-Champaign, University of Iowa, University of Maryland-College Park, University of Michigan-Ann Arbor, Michigan State University, University of Minnesota-Twin Cities, University of Nebraska-Lincoln, Rutgers University-New Brunswick, Ohio State University, and Purdue University. Pennsylvania State University (PSU) is not included due to missing data. AAU-P peers include 34 of the 37 public institutions other than UW-Madison in the Association of American Universities. PSU, University of Colorado Boulder and University of Pittsburgh are not included due to missing data. Data source: IPEDS.

State governments often play a role, either directly or indirectly, in setting the in-state tuition and fees at public universities. To account for this, we analyze a measure that includes a university's revenue from tuition and fees when evaluating state support for higher education.

The right panel of figure 5 shows that the sum of state appropriations and tuition and fees per FTE undergraduate for UW-Madison (red solid line) were lower than both the median of other Big-10 universities (orange dashed line) and the median of other public AAU institutions (green dashed line) in 2012–17, but higher than both medians in 2018–22.

Figure 6 plots the share of a university's revenue from state appropriations and tuition and fees, the same measures used in figure 5. This ratio normalizes state support by the total budget of the university. On the one hand, a lower value might suggest a less-generous state. On the other hand, a lower value might indicate that the institution is better able to magnify the contribution made by the state by broadening its revenue base. It can be

thought of as an inverse multiplier since a lower value indicates that a university is better able to create other sources of revenue by leveraging state support and tuition.

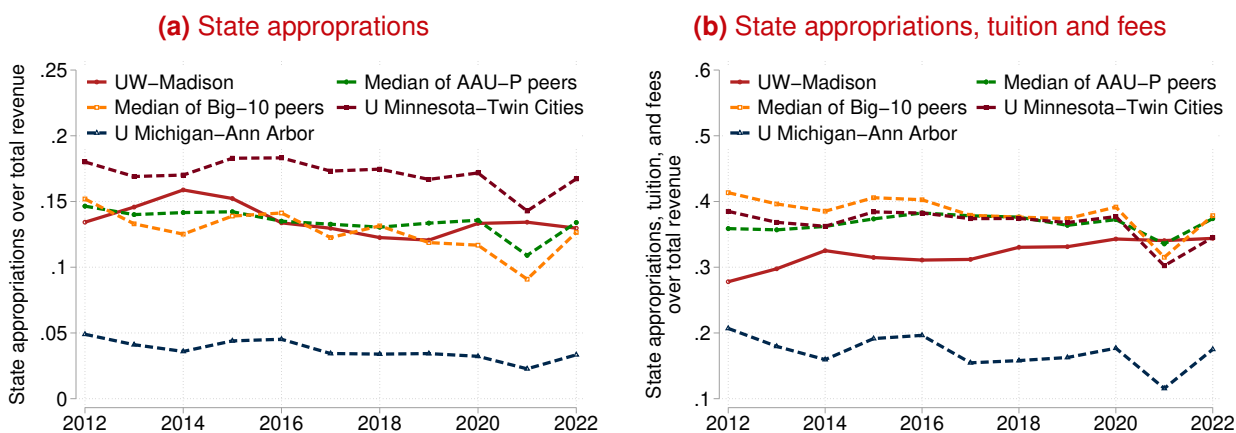


Figure 6: State appropriations, tuition and fees over a university's total revenue, 2012–22

Notes: Big-10 peers include University of Illinois Urbana-Champaign, University of Iowa, University of Maryland-College Park, University of Michigan-Ann Arbor, Michigan State University, University of Minnesota-Twin Cities, University of Nebraska-Lincoln, Rutgers University-New Brunswick, Ohio State University, and Purdue University. Pennsylvania State University (PSU) is not included due to missing data. AAU-P peers include 34 of the 37 public institutions other than UW-Madison in the Association of American Universities. PSU, University of Colorado Boulder and University of Pittsburgh are not included due to missing data. Data source: IPEDS.

The left panel shows that state appropriations account for 13.0% of UW-Madison's revenue in 2022. For comparison, state appropriations account for 22.7% of UW-Milwaukee's revenue, higher than the median (17.2%) of its salary peers.³ State appropriations account for 20.6% of revenue for the other 11 Universities of Wisconsin, which is lower than the median (23.6%) of their salary peers.

Moreover, as a share of university revenue, state appropriations for UW-Madison (red solid line) are lower than the University of Minnesota-Twin Cities (maroon dashed line), higher than the University of Michigan-Ann Arbor (blue dashed line), and similar to both the median of other Big-10 universities (orange dashed line) and the median of other public AAU institutions (green dashed line).

The right panel plots the sum of state appropriations and tuition and fees as a share of university revenue. In most years, UW-Madison (red solid line) has a higher share than the University of Michigan-Ann Arbor (blue dashed line), but a lower share than the University of Minnesota-Twin Cities (maroon dashed line), the median of the other Big-10 universities (orange dashed line), and the median of the other public AAU institutions (green dashed line).

The difference between the left panel, where UW-Madison is comparable with its peers, and the right panel, where UW-Madison is slightly below its peers, is mainly due to the

³ *Salary peers* were established by the 1984 Governor's Faculty Compensation Study Commission.

tuition freeze for in-state undergraduates imposed on the UW System during 2013–23.⁴ Despite the in-state tuition freeze, UW-Madison was able to close the gap with its peers by raising tuition for out-of-state students. The tuition freeze was a response to *Reservegate*, the discovery of very large reserves held by the UW System. The reserves were created by repeated 5.5% tuition hikes that were unspent. The buildup in reserves was either intentional, to serve as insurance against the state not funding the System’s requests in the future, or unintentional, reflecting poor budgeting practices. The breakdown in trust and bipartisan support for the decade-long tuition freeze has had a measurable effect on the University’s funding structure.

Decades ago, the UW-System had an implicit contract with the state of Wisconsin. In years where state funding was cut significantly, tuition would increase to fill the gap. In 2003–04, for example, in-state tuition at UW-Madison rose by 18.2% and in 2004–05 by 15.4%, to offset reductions in state appropriations. That contract has long been broken. There is now considerable distrust in higher education nationwide, a decline in the perceived social benefit from higher education investments, and a perception that universities have been pursuing alternative agendas at the expense of excellence. There is widespread concern over student debt.

These concerns are not easy to overcome, but if the state of Wisconsin decides that UW-Madison is worthy of receiving additional funding, it is time to look at increases in tuition for state residents and ensure that tuition is set in line with peer institutions. As our first two papers in this series show, the returns to attending UW-Madison are very high but vary considerably by major choice. Most UW-Madison graduates significantly outearn their high-school peers. It only makes sense that students have more skin in the game and pay for the (high rate of return) education they receive at UW-Madison, rather than be subsidized, in part, by their high-school counterparts, who will earn less over their lifetimes. Regardless, when it comes to funding higher education, there is little evidence to suggest that the Wisconsin taxpayer is stingy.

⁴In 2021, the state legislature lifted the freeze, sending tuition-setting authority back to the regents. The regents did not raise tuition for 2021–23, citing the impact of the pandemic and the federal pandemic relief money that campuses received from the government. The regents eventually did vote to raise tuition in both 2023-24 and 2024-25.

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