



The Economics of UW-Madison White Paper #3

Is UW-Madison in Decline?*

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

- UW-Madison's ranking among America's best colleges dropped significantly, from a high of 31st in 2003 to a low of 49th in 2019, before bouncing back to 35th in 2024.
- However, the rankings of most graduate programs at UW-Madison declined over the last 15 years without experiencing a similar recovery.
- A large part of UW-Madison's funding comes from federal grants. The decline in UW-Madison's ranking of R&D expenditures is a concerning trend.
- UW-Madison's global ranking has declined in the last decade, reducing the competitiveness and value of UW-Madison degrees abroad.
- UW-Madison will benefit from a renewed commitment to excellence, in strategically targeted areas, to make it the preeminent institution it deserves to be.

The higher education sector includes public schools, not-for-profit schools, and for-profit schools competing fiercely against each other. Universities compete in the international market, and schools occasionally fail. Competition for faculty, staff, and students is global, and competition is intense. Hoxby (1997) shows that competition among U.S. colleges has increased dramatically since 1940, when higher education was transformed from a series of local autarkies to a nationally and regionally integrated market. Colleges compete for students via tuition and subsidies in a manner that mimics competition between firms in other industries. Colleges not only compete against each other but also against firms outside the education sector in attracting and retaining high skilled workers. Jones and Yang (2016) show that this competition for high-skilled workers, combined with the rise in the wages of those workers, is the single most important factor accounting for the rise in college costs in the last 50 years.

Unlike a firm, competition among educational institutions is not for profits, but rather for status. Higher-ranked universities generate greater impact on multiple levels: they attract out-of-state revenues to the local economy, including federal and other research dollars, out-of-state tuition, and out-of-state philanthropy; they generate significant returns to state residents who attend (Dillon and Smith, 2020); and they generate spillovers to the regional economy by creating a fertile environment for startups. Rankings and status are directly linked to economic impact.

This paper studies the evolution of UW-Madison's rankings over the past two decades. It focuses on rankings of undergraduate quality, graduate quality, and rankings for R&D expenditures. UW-Madison's ranking among America's best undergraduate colleges dropped significantly in the 2010s before bouncing back in the last five years. UW-Madison's rankings of many graduate programs, however, have deteriorated without a similar recovery, and so has its R&D expenditure ranking. Internationally, UW-Madison's global ranking has also declined in the last decade, reducing the competitiveness of its graduates in the global labor market.

1 Domestic rankings of undergraduate and graduate programs

One of the most widely used rankings of America's best colleges is created by *US News & World Report*, which remains popular despite critiques of its methodology. Based on 17 indicators of academic quality, UW-Madison was ranked a top-35 college in the United States in each year from 2000 to 2007 (figure 1). However, in the ten years between 2009 and 2019, UW-Madison's ranking dropped significantly from 35th to 49th. Fortunately, the decline has reversed in the last five years. In 2024, UW-Madison regained its status as one of America's 35 best colleges for the first time in 15 years.

By contrast, according to the WSJ/College Pulse rankings, UW-Madison is only the 79th

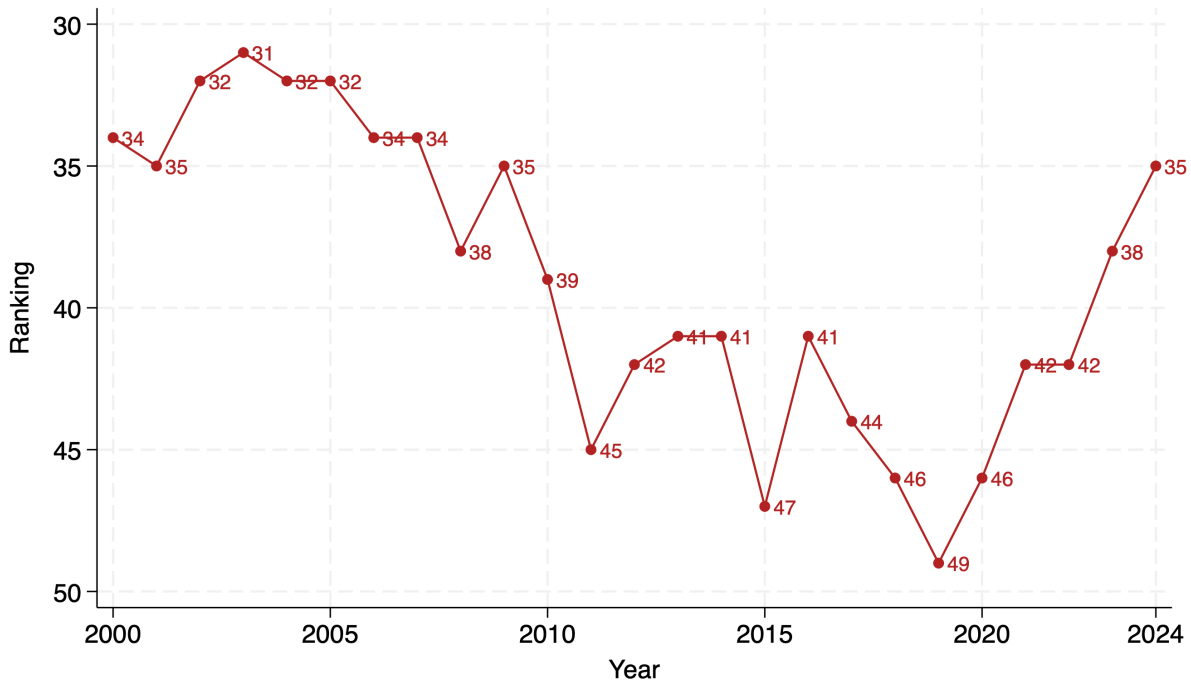


Figure 1: UW-Madison’s ranking among America’s best colleges: US News & World Report

best college in the United States in 2024 (Wall Street Journal, 2023). This ranking places more weight on student earnings. While *US News & World Report* only places a 5% weight on graduate earnings, the WSJ/College Pulse rankings place a 50% weight on metrics that measure how well colleges improve their graduates’ earnings.¹

The ranking in figure 1 is about the overall quality of the undergraduate program. As our previous report demonstrated, there is substantial variation in earnings across majors within UW-Madison. While undergraduate major-specific rankings are not systematically available, *US News & World Report* has ranked graduate programs for the last several decades. This is the yardstick by which most academic departments are judged. For the sciences, humanities, or social sciences, this is usually the Ph.D. program. For business schools, historically, it has been the ranking of the MBA program.

Table 1 shows that the rankings of most UW-Madison graduate programs declined over the last 15 years. Between 2010 and 2024, the departments with the largest declines in ranking include Nursing (from 19th to 66th); Business (MBA) (from 28th to 43rd); Engineering (from 16th to 27th); and Medicine (Research) (from 27th to 36th). The decline of the MBA program is particularly unfortunate, because its ranking had just improved from

¹While *The Wall Street Journal* also ranked universities in some other years, the methodologies behind those rankings vary dramatically from one year to another, making it hard to compare UW-Madison’s ranking over time. For example, in 2010, *The Wall Street Journal* picked UW-Madison as the 16th best school in the country based on ratings from recruiters (Wall Street Journal, 2010).

	2002	2010	2024	Change 2010-2024
Nursing	19	19	66	-47
Business (MBA)	46	28	43	-15
Engineering	15	16	27	-11
Medicine (Research)	31	27	36	-9
Public Affairs	11	14	23	-9
Social Work		12	20	-8
Chemistry	8	7	14	-7
English	17	17	24	-7
Clinical Psychology	2	1	7	-6
Earth Sciences		15	20	-5
Physics	16	16	21	-5
Sociology	1	2	7	-5
Biology/Biological Sciences	12	15	17	-2
Computer Science	10	11	13	-2
Mathematics	13	14	16	-2
Political Science	11	15	17	-2
Veterinary Medicine	8	5	7	-2
Law	25	35	36	-1
Library and Information Studies		10	11	-1
Psychology	9	8	9	-1
Economics	10	14	14	0
Rehabilitation Counseling	2	1	1	0
History	10	14	11	3
Education	6	7	1	6
Fine Arts		21	15	6

Table 1: Rankings of UW-Madison's graduates programs: US News & World Report

Notes: The programs are ordered according to the change in their rankings between 2010 and 2024 (the last column). Not all programs are ranked in each year. Some of the rankings for 2024 are from 2023, and some of the rankings for 2002 are from either 2001 or 2003. Data source: (UW-Madison, 2002, 2009, 2024).

46th to 28th in the eight years prior to 2010.

Since 2010, a few graduate programs at UW-Madison have maintained their rankings. This list includes Biology, Computer Science, Economics, Mathematics, Political Science and Psychology. Only a few increased their rankings, including History and Education, which is now the best in the country.

In addition to the decline in the rankings of many of UW-Madison's graduate programs, one noteworthy feature of the levels of these rankings is that, while UW-Madison competes favorably with the great public universities, (e.g., UCLA or University of Michigan) in most areas including the Humanities, Social Sciences or Natural Sciences, its professional schools, such as Business or Law, do not compete favorably. They do not now and they have not in the past.

2 Domestic Ranking of R&D expenditures

An important determinant and indicator of a university's ranking is its R&D expenditures. Universities contribute to society not only as educational environments but also as generators of new knowledge and new technology. Universities with more R&D expenditures tend to do better in both.

The U.S. National Science Foundation (NSF) ranks universities and colleges by total R&D expenditures. As shown in figure 2, UW-Madison's R&D expenditures have fallen behind its peers. In 2000, UW-Madison's R&D expenditures were the second-largest among all colleges and universities, behind only Johns Hopkins University (a private university), and the largest among all public colleges and universities. While occasionally overtaken by other universities, e.g., UCLA (2001-04), University of Michigan (2002-05, 2009-14), UC-San Francisco (2007-08) and UW-Seattle (2011, 2013-14), UW-Madison never dropped below 4th place until 2015, when its ranking fell to 6th, and never dropped below 6th until 2018, when its ranking was 8th. In 2022, the last year when the ranking was available, UW-Madison was at 8th place, behind Johns Hopkins University, UC-San Francisco, U Penn, U Michigan, UW-Seattle, UCLA and UC-San Diego.

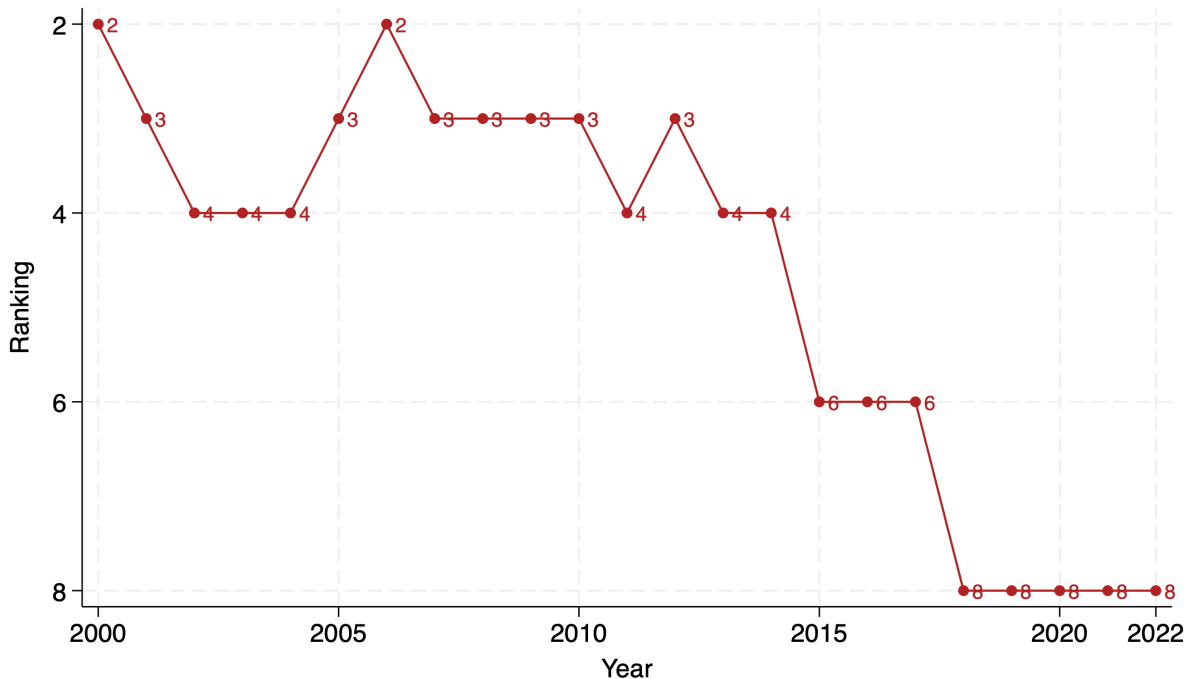


Figure 2: UW-Madison's ranking of R&D expenditures: U.S. National Science Foundation

Figure 3 plots the R&D expenditures at each of these universities other than Johns Hopkins, which is an outlier whose R&D expenditures are almost twice that of the second place university, in each year from 2010 to 2022. Clearly, UW-Madison's R&D expendi-

tures have been growing at a slower pace than some of its peers, e.g., UCLA and UC-San Diego.

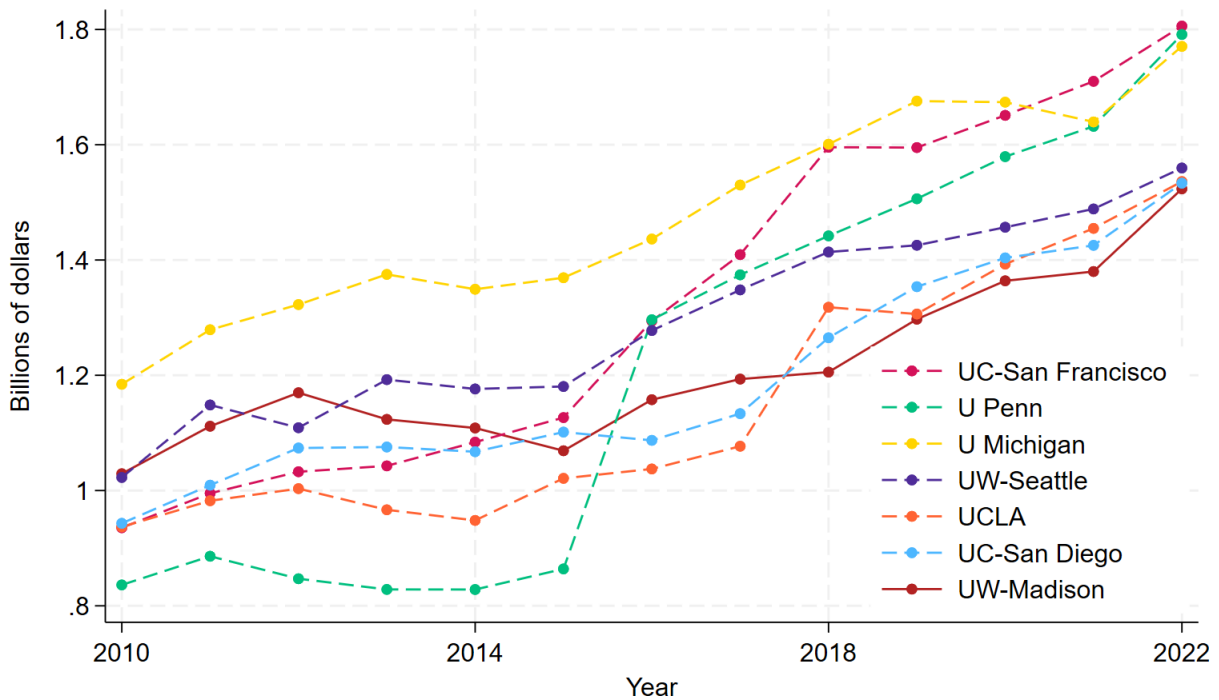


Figure 3: R&D expenditures at selected universities: U.S. National Science Foundation

Figure 4 plots the difference in R&D expenditures between UW-Madison and the average of the top-10 universities listed by the NSF, with the list varying from one year to another. In 2000, UW-Madison’s R&D expenditures were 2% above the average of the top-10 universities ranked by NSF. It dropped to 2% below the top-10 average in 2003 and stayed near that level for about 10 years. It dropped almost continuously from above the average in 2012 to 18% below the average in 2018. In 2022, the last year when data are available, UW-Madison’s R&D expenditures were 14% below the average of the top-10 universities ranked by the NSF.

3 Global rankings

According to three of the most-widely read university rankings in the world, UW-Madison’s global ranking has deteriorated. The red line in figure 5 is the Academic Ranking of World Universities (ARWU). Conducted by Shanghai’s Jiao Tong University, ARWU ranks more than 1800 universities annually. The ranking of each university is based on its alumni and staff winning Nobel Prizes and Fields Medals, research performance, highly-cited researchers, papers published in Nature and Science, articles indexed in the Thomson Reuters Science Citation Index Expanded and Social Sciences Citation Index, and per-

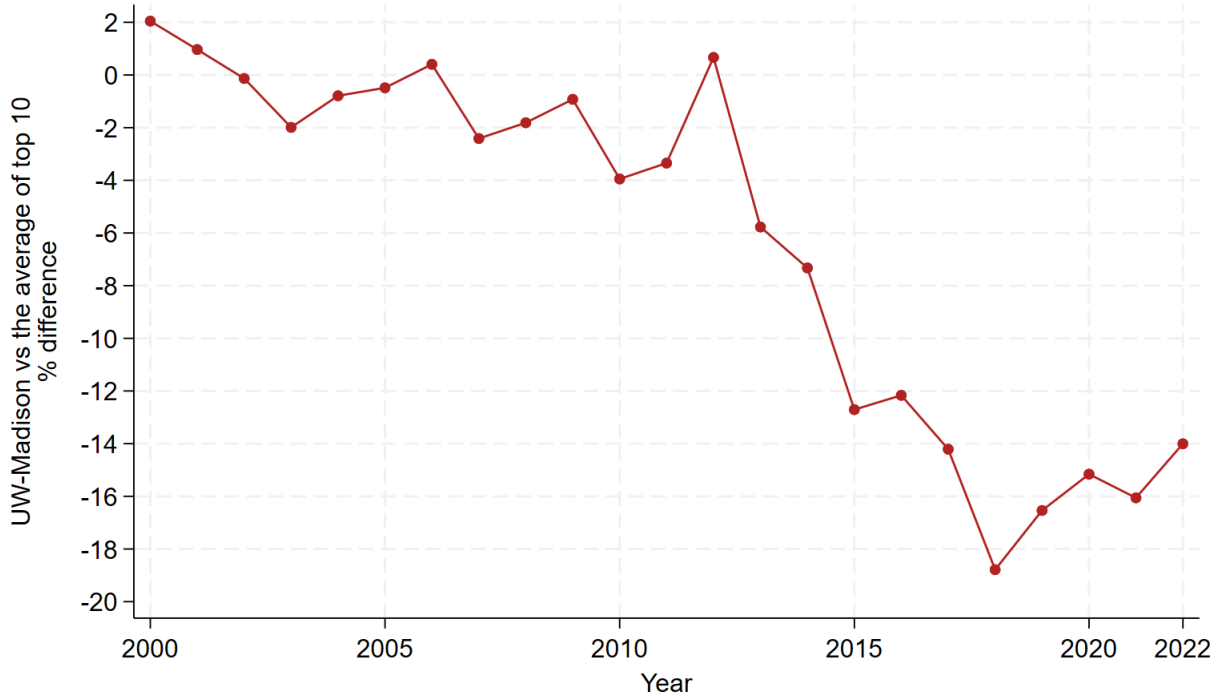


Figure 4: Difference in R&D expenditures: UW-Madison vs. the average of the top-10 universities listed by the U.S. National Science Foundation

capita performance related to the size of an institution. UW-Madison was a top-20 university in the world in each year from 2004 to 2013. In 2014, UW-Madison’s ranking dropped to 24th. It dropped again to 28th in 2016, to 32nd in 2020, and to 35th in 2024.

The blue line in figure 5 uses the Times Higher Education (THE) World University Rankings. With an emphasis on the research mission of universities, this ranking uses 18 performance indicators to judge research-intensive universities across all of their core missions: teaching (the learning environment); research environment (volume, income and reputation); research quality (the outputs of research); industry (knowledge transfer) and international outlook (staff, students and research). UW-Madison’s ranking was around 30th in 2013-15. It then dropped to 50th in 2016. After fluctuating around 50th for a few years, it then dropped again to 58th in 2022, and to 81st in 2023. The latest ranking is 63rd, significantly lower than it was ten years ago.

Finally, the black line in figure 5 uses the QS World University Rankings. This ranking uses a methodology that considers a range of factors, including academic reputation, employer reputation, research impact, and internationalization. The methodology is reviewed annually to ensure that it remains relevant and up-to-date. UW-Madison was ranked a top-40 university in the world in 2013-14. It then dropped to 42nd in 2015 and to 54th in 2016. After fluctuating around 55th for a few years, it dropped again to 65th in 2021, to 75th in

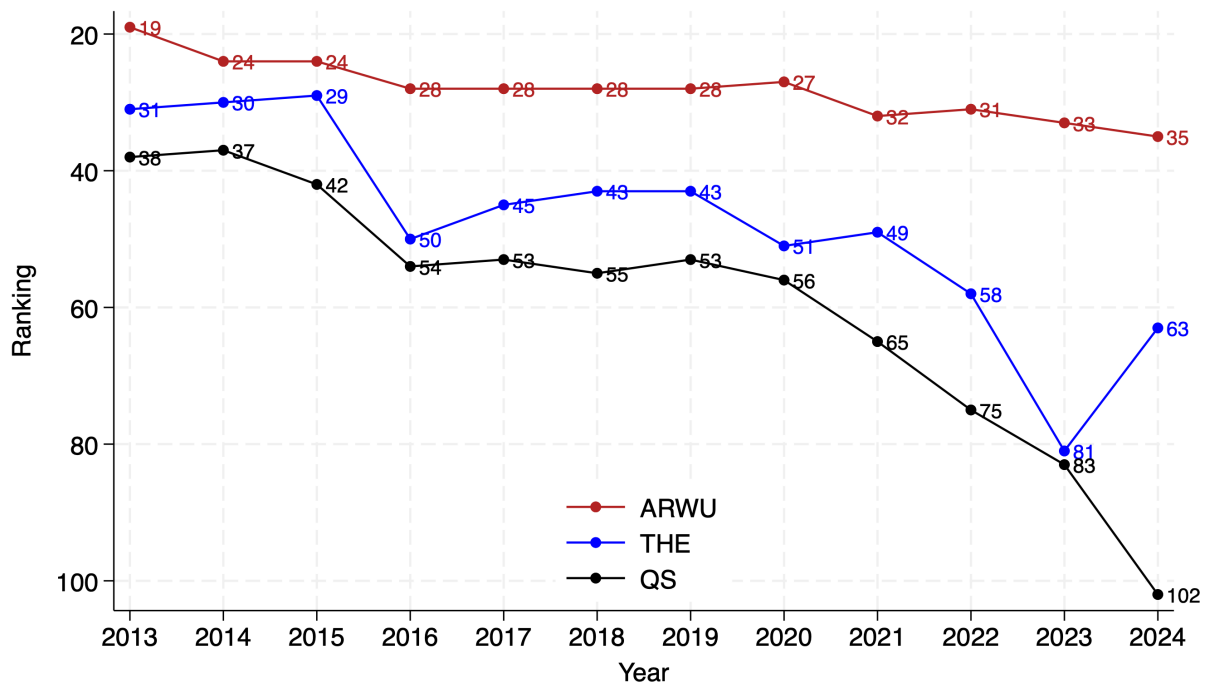


Figure 5: UW-Madison's global rankings

Notes: ARWU, THE and QS are the Academic Ranking of World Universities, the Times Higher Education World University Rankings, and the QS World University Rankings, respectively.

2022, to 83rd in 2023, and to 102nd in 2024.

This is not the finding of a single ranking. While no ranking is perfect, the fact that UW-Madison has fallen in all three rankings, which place different emphases on different attributes, suggests that UW-Madison's global reputation has fallen.

UW-Madison's ranking has a direct and practical impact on its graduates. For example, the UK government grants work visas to graduates (bachelors/masters/Ph.D.) of top-50 global universities, as ranked by the three metrics discussed above. For the first time in recent memory, now that UW-Madison has dropped out of the top 50 in two of the three global rankings, its graduates no longer receive priority when applying for UK positions (UK Visas and Immigration, 2023). Similarly, in 2021, the Chinese government issued a policy which gives priority for civil service jobs (which are popular in China) to students who earn degrees from top-50 universities according to the QS World University Rankings. UW-Madison is no longer one of them.

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