

The University of Wisconsin's \$15 billion Impact On the Wisconsin Economy

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Table of Contents

Executive Summary	4
Splash Page	
Purpose and Scope	6
Economic Impact of UW-Madison (including UW Hospitals & Clinics)	7
Direct Economic Impact of UW-Madison	9
Impact of UW-Madison on Wisconsin Jobs	10
UW-Madison Tax Revenue Impact	11
Return on Public Investment	12
Who Benefits from the Economic Impact of UW-Madison	
Total Economic Impact of Organization Affiliated with UW-Madison	14
Impact of UW-Madison Affiliated Organization on Wisconsin Jobs	15
UW-Madison Affiliated Organizations Tax Revenue Impact	16
Total Economic Impact of UW-Madison Startup Companies	17
Impact of UW-Madison Startups on Wisconsin Jobs and Tax Revenue Impact	18

Executive Summary

UW-Madison, along with affiliated organizations and connected startup companies, contributes \$15 billion per year to the Wisconsin economy, while supporting 193,310 Wisconsin jobs and generating \$847.5 million in state and local tax revenue.

Since the economic impact of UW-Madison was studied in 2003, research awards have grown to more than \$1.1 billion, university enrollments have increased, hospital operations have increased, the university and its affiliates have grown and contributed to the growth of the state economy. UW-Madison, along with the UW Hospital and Clinics, has an annual economic impact of \$12 billion, while supporting more than 158,350 Wisconsin jobs and generating \$687.9 million in state tax revenue.

There are numerous entities affiliated with UW-Madison, including the Wisconsin Alumni Association, the Center for Advanced Studies in Business, the Fluno Center for Executive Education, the Morgridge Institute, the University of Wisconsin Foundation, the Wisconsin Alumni Research Foundation (WARF), the Wisconsin Film Festival, University Research Park, and WiCell. These organizations contribute an additional \$918 million to the state economy, while supporting more than 9,988 additional jobs, and generating nearly \$46 million in additional tax revenue.

UW-Madison research has fostered the formation of at least 311 startup companies in Wisconsin. These Wisconsin startup companies support more than 24,972 jobs and contribute approximately \$2.3 billion to the Wisconsin economy.

THE ECONOMIC IMPACT OF THE UNIVERSITY OF WISCONSIN-MADISON

Annual Impact on the Wisconsin Economy:

- \$15 billion in total impact on the Wisconsin economy
 - \$12 billion economic impact from UW-Madison/UW Hospital operations and spending of faculty, staff, students, and visitors
 - o \$2.3 billion economic impact from UW connected startups
 - o \$918 million economic impact from UW affiliated organizations
- 193,310 Wisconsin jobs created and supported
- \$847.5 million in tax revenue generated

Purpose and Scope

The purpose of this study is to measure the economic impact that the University of Wisconsin-Madison has on the state economy. The university's economic impact comes from spending on operation of the campus, spending of faculty, staff, students and visitors, spending of university related entities, and spending of startup companies that are based on UW-Madison research and development. The spending from these sources, in turn, creates jobs and generates tax revenue.

This study is an update of previous economic impact work done for UW-Madison in 1971, 1985, 1991, 2003 and 2011. The methodology used in this study is consistent with that used in previous studies.

Economic Impact of UW-Madison (including UW Hospitals and Clinics)

The economic impact of UW-Madison and the UW Hospital and Clinics comes from spending in the Wisconsin economy. The sources of related spending include operations, faculty and staff, students, and visitors.

The total economic impact comes from two sources:

- 1. The <u>direct spending</u> of faculty and staff, students, visitors and university operations. Direct spending supports local and state businesses and those businesses in turn employ workers and spend money in the state economy.
- 2. Indirect or induced spending results from direct spending cycling through the regional and state economy. The spending from businesses that benefit from the direct spending of faculty and staff, students, visitors, and university operations creates additional indirect or induced economic activity that results in jobs and taxes generated within the state.

Direct spending of nearly \$5.0 billion feeds the economic engine that in turn generates nearly \$7.0 billion in indirect and induced spending. Overall, the sum of the economic activity generated by UW-Madison and the UW Hospital and Clinics is more than \$12.0 billion.

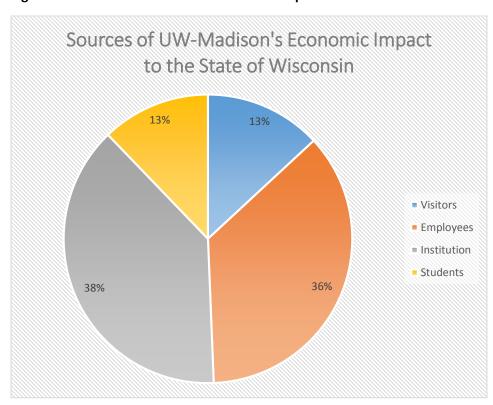
Direct spending of nearly \$5.0 billion feeds the economic engine that in turn generates nearly \$7.0 billion in additional economic activity.

The \$12 billion of economic impact comes from the following sources:

Figure 1. UW-Madison Economic Impact to the State of Wisconsin

Contributor	Contribution	% Share
Institution	\$4,629,756,370	38%
Employees	\$4,366,657,908	36%
Students	\$1,467,314,657	13%
Visitors	\$1,576,687,050	13%
Total	\$12,040,415,985	100%

Figure 2. Sources of UW-Madison Economic Impact to the State of Wisconsin



Direct Economic Impact of UW-Madison

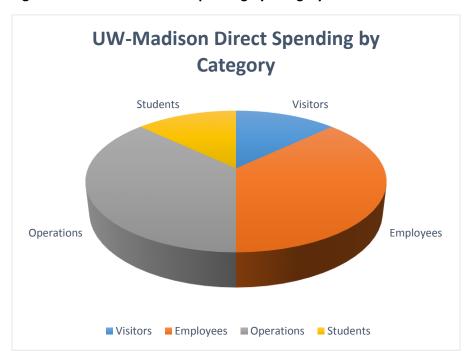
UW-Madison related direct spending in the state economy amounts to nearly \$5 billion per year. The primary contributors of that spending are students, employees, visitors, and UW-Madison's non-payroll spending for operations of the university and related medical facilities.

This spending contributes more than \$4.5 billion to private businesses, \$311 million to government revenue, and more than \$82 million to not-for profits or charities.

Figure 3. UW-Madison Direct Spending Balance Sheet

Contributor	Spending
Employees	\$1,845,710,235
Students	\$642,176,856
Operations	\$1,841,071,526
Visitors	\$658,558,613
Total	\$4,987,517,230
Recipient	
Private Business	\$4,577,312,383
Households	\$16,190,983
Not-for-profits	\$82,539,736
Local Government	\$311,483,128
TOTAL	\$4,987,517,230

Figure 4. UW-Madison Direct Spending by Category



Impact of UW-Madison on Wisconsin Jobs

Spending related to UW-Madison and the UW Hospital and Clinics has a large impact on Wisconsin jobs. Jobs attributable to UW-Madison occur in five ways:

- Faculty and staff are directly hired by the university to teach, conduct research, do public service, and perform a variety of administrative functions
- Operational spending creates jobs in regional and state businesses
- Employee spending creates jobs in the region and state
- Student spending creates jobs in the region and state
- Visitor spending creates jobs in the hospitality and related industries

Figure 5. UW-Madison Impact on Jobs (Full-Time Equivalent)

Job Generator	Jobs
Employees directly employed by the UW*	27,399
Operational spending	66,777
Employee spending	9,890
Student spending	26,800
Visitor spending	27,484
Total Job Impact	158,350

^{*}Includes UW Hospital & Clinics

UW-Madison Tax Revenue Impact

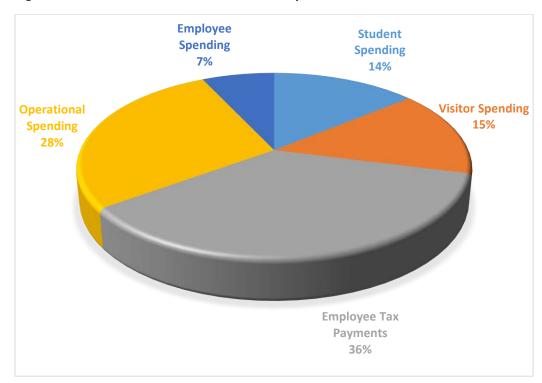
The economic activity generated by UW-Madison results in tax revenue. The tax revenue comes from state income tax payments, sales tax payments and payments for local property taxes. The sources of that tax revenue are shown in Figure 7.

UW-Madison's tax impact results from the overall economic activity of the university. UW faculty and staff pay state income taxes on their university and other income. They pay sales taxes on many types of expenditures. Faculty and staff spending and the spending of the university on operations generate jobs. Those jobs in turn generate income taxes, sales taxes and property tax payments. The spending of students and visitors generates sales taxes. That spending, in turn, creates jobs, and spending from those jobs generates sales and income taxes. Overall, university economic activity generates over \$687 million in tax revenue.

Figure 6. UW-Madison Tax Revenue by Source

Tax Revenue Source	Tax Revenue
Employee sales and income tax payments	\$249,530,506
Operational expenditures	\$193,969,987
Employee spending	\$47,879,552
Student spending	\$95,037,856
Visitor spending	\$101,565,880
Total Tax Revenue	\$687,983,781

Figure 7. Sources of Tax Revenue Generated by UW-Madison



Return on Public Investment

The University of Wisconsin-Madison is one of the world's great public universities. The university is based upon public investment in higher education that goes back to the founding of the State of Wisconsin in 1848. For over 150 years, the citizens of the State of Wisconsin have supported the teaching, research and public service missions of UW-Madison. Without the annual public investment by the State of Wisconsin, UW-Madison could not generate the total economic impact reported in this study.

As economic conditions have changed, the university has drawn resources from other sources to complement state investment. In 2013-2014, the State of Wisconsin invested \$497 million in state tax dollars. The total university budget for 2014-15 was \$2.9 billion.

What does the State of Wisconsin get in terms of return on investment for the investment of \$497 million? Unlike almost all other public programs, the university attracts money into the state and creates significant economic activity, jobs and tax revenue. The 2014-15 economic impact of UW-Madison/UW Hospital as reported in this study is \$12.0 billion.

For every \$1.00 of state tax investment in the university, there is \$24.14 in economic activity in the state. This rate of return is possible because of the state's long term investment in the university and the resulting infrastructure and worldwide reputation that has resulted.

For every \$1.00 of state tax investment in the university, there is \$24.14 in economic activity in the State of Wisconsin.

Who Benefits from the Economic Impact of UW-Madison?

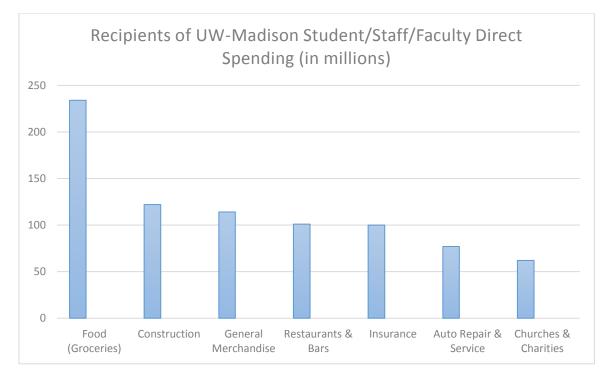
The overwhelming beneficiary of the economic activity of UW-Madison is private business. The direct expenditures of UW-Madison alone create \$4.5 billion in business for private companies.

The impact of spending by students and faculty and staff provides a good indication of how that spending supports private business. The direct spending of these two groups means the following:

- \$234 million spent on food
- \$122 million spent on construction
- \$114 million spent on general merchandise
- \$101 million spent at eating and drinking establishments
- \$100 million spent on insurance
- \$77 million spent on auto repair and service
- \$62 million spent on churches and charities

The direct expenditures of UW-Madison alone create \$4.5 billion in business for private companies.

Figure 8. Recipients of UW-Madison Student/Staff/Faculty Direct Spending



Total Economic Impact of Organizations Affiliated with UW-Madison

In addition to the university itself, there are many affiliated organizations and programs that owe their very existence to their connection with UW-Madison. These organizations include the Center for Advanced Studies in Business (CASB), the Wisconsin Alumni Association, the Fluno Center for Executive Education, the Morgridge Institute for Research, the University of Wisconsin Foundation, the Wisconsin Alumni Research Foundation (WARF), the Wisconsin Film Festival, University Research Park, and WiCell.

There is significant economic activity and impact connected with these organizations as well. As with the university itself, these affiliated entities produce economic impact from direct spending, as well as indirect and induced spending.

In the case of UW-Madison affiliated organizations, direct spending feeds the economic engine that in turn generates more than \$918 million in total economic impact, as shown in Figure 9.

Figure 9. Total Economic Impact of UW-Madison Affiliated Organizations to the State of Wisconsin

Contributor	Contribution	% Share
University Research Park	\$701,381,096	76%
WARF	\$116,987,433	13%
UW Foundation/Alumni	\$40,181,368	4%
Morgridge Institute	\$28,344,734	3%
Wisconsin Film Festival	\$18,685,423	2%
Fluno Center/CASB	\$13,248,860	1.5%
WiCell	\$3,356,439	.5%
Total Contribution	\$918,185,404	100%

Impact of UW-Madison Affiliated Organizations on Wisconsin Jobs

Spending by organizations affiliated with UW-Madison has a large impact on Wisconsin jobs. As with the UW itself, UW affiliated organizations create jobs directly as well as indirectly as a result of their operational and employee spending.

Figure 10. UW-Madison Affiliated Organizations Impact on Jobs (Full-Time Equivalent)

Contributor	Jobs Contributed
University Research Park	7926
WARF	1120
UW Foundation/Alumni	362
Morgridge Institute	224
Wisconsin Film Festival	191
Fluno Center/CASB	133
WiCell	33
Total Contribution	9988

UW-Madison Affiliated Organizations Tax Revenue Impact

The economic activity generated by organizations affiliated with UW-Madison results in tax revenue. The tax revenue comes from state income tax payments, sales tax payments and payments for local property taxes. The sources of that tax revenue are shown in Figure 11.

UW-Madison affiliated organizations' tax impact results from the overall economic activity of each organization. Staff at each organization pays state income taxes on their income. They pay sales tax on many types of expenditures. Organizational and staff spending by each entity generate jobs. Those jobs in turn generate income taxes, sales taxes and property tax payments. The spending of each organization's end users generates sales taxes. That spending, in turn, creates jobs, and spending from those jobs generates sales and income taxes. Overall, economic activity related to organizations affiliated with UW-Madison generates \$45.9 million in state and local tax revenue.

Figure 11. UW-Madison Affiliated Organizations Tax Revenue by Source

Contributor	Tax Contribution
University Research Park	\$36,332,078
WARF	\$4,897,150
UW Foundation/Alumni	\$1,776,549
Wisconsin Film Festival	\$1,108,375
Morgridge Institute	\$968,821
Fluno Center/CASB	\$694,197
WiCell	\$119,912
Total Contribution	\$45,897,084

Total Economic Impact of UW-Madison Startup Companies

UW-Madison is a premier research institution. The influx of federal research and development funds, the presence of University Research Park, and WARF's role in technology transfer and the commercialization of intellectual property, have fostered the formation of at least 311 Wisconsin startup companies. To be counted among UW connected startup companies, a company must have at least one of the following components:

- The company is based upon research or intellectual property developed at UW-Madison
- The company was founded by a UW-Madison faculty or academic staff member
- The company was formed by a UW-Madison graduate within one year of graduation

All companies identified in the 311 company list are Wisconsin-based companies. While many of these companies are located close to UW-Madison, there are UW connected startup companies spread across the state.

As with the university and its affiliated organizations, these UW connected startup companies produce economic impact from direct spending, as well as indirect and induced spending.

Overall, the sum of the economic impact of these UW connected Wisconsin startup companies is \$2,329,314,721. That impact includes the direct impact of payrolls and company operating expenses, as well as the subsequent indirect and induced economic impacts.

Overall, the sum of the economic impact of UW-connected Wisconsin startup companies is \$2,329,314,721.

Impact of UW-Madison Startups on Wisconsin Jobs

Spending by UW-Madison related startup companies has a large impact on Wisconsin jobs. Jobs attributable to these companies occur both as employees and staff directly hired by each company, as well as indirectly as a result of operational and employee spending.

The jobs created by these Wisconsin startup companies are high-paying jobs. The average annual pay, based upon survey data in 2011, was \$64,310, which does not include fringe benefits.

UW-Madison Startups Tax Revenue Impact

The economic activity generated by UW-Madison startup companies results in state and local tax revenue. The tax revenue comes from state income tax payments, sales tax payments and payments for local property taxes.

The tax impact of UW-related startup companies results from the overall economic activity of each organization. Staff at each company pays state income taxes on their income. They pay sales

taxes on many types of expenditures. Organizational and staff spending by each entity generate jobs. Those jobs generate income taxes, sales taxes and property tax payments. The spending of each organization's end users generates sales taxes. That spending creates jobs and spending from those jobs generates sales and income taxes. Overall, economic activity related to startup companies affiliated with UW-Madison generates \$113,663,658 in state and local tax revenue.

Figure 12. UW-Madison Startup Companies Impact on Wisconsin Jobs

Source	Jobs
Direct Employment	9,310
Indirect and Induced Jobs	15,662
Total Jobs	24,972

Overall economic activity related to UW-Madison startups generate \$113.6 million in state and local tax revenues.