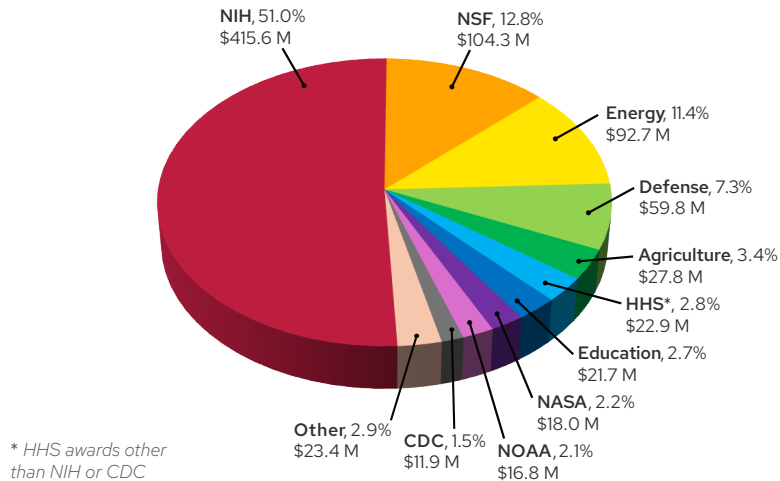


Research and Innovation at UW–Madison



The University of Wisconsin–Madison is a research powerhouse with annual expenditures exceeding \$1.93 billion, a figure that ranks among the top 5 universities in the nation for research volume. From education to entrepreneurship, research touches every part of the UW–Madison experience. We turn our discoveries into commercial opportunities that directly benefit industries across the entire state of Wisconsin and help solve some of the biggest challenges at home and around the globe.

2024-25 Federal Research Awards



19th greatest source of U.S. patents from a survey of the world's top universities, **12th** among U.S. universities

137 patents issued in FY 2025 to the Wisconsin Alumni Research Foundation for UW inventions and **381** disclosures

Federal investment in research is crucial for national economic growth, technological advancement, and public well-being. It drives innovation, supports a skilled workforce, and addresses critical challenges in areas like health care, energy, and national security.

\$1.93 B

invested in research annually

5th

in nation for research expenditures

4th

in nation for DOE research expenditures and **7th** in nation for NSF

20

Nobel Prizes by faculty & alumni

400+

startups formed from UW–Madison research

160+

Master's and specialist programs, **100+** doctoral programs, and more than **11,000** graduate and clinical doctoral students

750+

PhD degrees awarded annually

Office of Federal Relations, University of Wisconsin–Madison

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WISCONSIN
UNIVERSITY OF WISCONSIN–MADISON

MARCH 2026

How UW–Madison is Innovating Through Research

① Uncovering the causes of Alzheimer’s and other dementias

Supported through National Institutes of Health funding

With nearly 7 million Americans diagnosed with Alzheimer’s disease and related dementias – a disease that continues to grow at an alarming rate, with occurrence expected to rise by 44 percent over the next 15 years – UW–Madison is working to uncover the full range of problems in the brain that may cause dementia. UW–Madison is leading nationwide research initiatives including the Wisconsin Registry for Alzheimer’s Prevention (WRAP) study and the Clarity in Alzheimer’s Disease and Related Dementias Research Through Imaging, or CLARITI, study, which is investigating the neurobiology of Alzheimer’s disease and related dementias.

Find out more: <https://go.wisc.edu/clariti-funding>

② Mapping the cosmos for subatomic particles

Supported through National Science Foundation funding

The IceCube Neutrino Observatory is the first detector of its kind, designed to observe the cosmos from deep within the South Pole ice. Encompassing a cubic kilometer of ice, IceCube searches for nearly massless subatomic particles called neutrinos. These high-energy astronomical messengers provide information to probe the most violent astrophysical sources: events like exploding stars, gamma-ray bursts, and cataclysmic phenomena involving black holes and neutron stars.

Find out more: <https://icecube.wisc.edu/>

③ Protecting military personnel, advancing understanding of TBIs

Supported through U.S. Department of Defense funding

Based in the UW–Madison Department of Mechanical Engineering, the PANTHER program spans academia, industry and federal agencies to pursue new strategies for preventing and better detecting concussions and other traumatic brain injuries (TBIs). PANTHER research, funded through the U.S. Office of Naval Research in the Department of Defense, has already led to better, more comprehensive brain injury diagnosis. It has also produced a lightweight, ultra-shock-absorbing foam made from carbon nanotubes for helmets that will better protect athletes and military personnel from strong blows. Ongoing projects include improving the ballistic performance of helmets for the military.

Find out more: <https://go.wisc.edu/panther>

④ Advancing innovation, profitability in the dairy industry

Supported through U.S. Department of Agriculture funding

The Dairy Business Innovation Alliance (DBIA), a partnership between the Center for Dairy Research and the Wisconsin Cheese Makers Association, develops and administers programs providing technical assistance and grants to dairy farms and businesses across the Midwest. From increasing on-farm diversification to creating specialty cheeses and other value-added dairy products to advancing export opportunities and practices, DBIA supports research and activities that improve profitability for dairy farmers and processors.

Find out more: <https://go.wisc.edu/dbia>

⑤ Leading the way on satellite-based weather data

Supported through National Oceanic and Atmospheric Administration funding

Since 1980 UW–Madison and the National Oceanic and Atmospheric Administration have partnered through the CIMSS to advance weather and climate research. CIMSS’s end-to-end support of meteorological satellite applications is improving forecasts and trend analyses, helping everyone from farmers to lawmakers. CIMSS also maintains strong connections to the National Weather Service, domestic and international universities, research institutions, governmental and non-governmental organizations, industry and other stakeholders, forming strategic alliances to advance the field of satellite remote sensing.

Find out more: <https://go.wisc.edu/cimss>

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