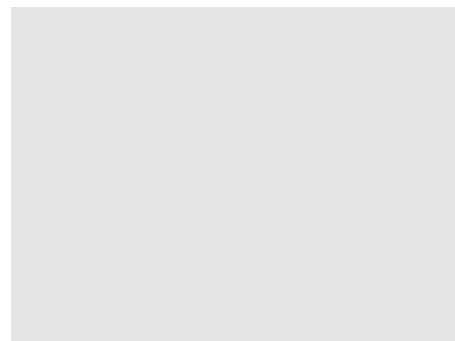


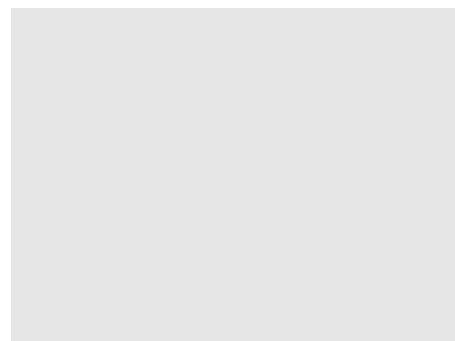
[https://www.wvnews.com/business/research-funding-at-west-virginia-universities-have-increased-by-millions-research-goes-towards-better-the/article\\_d8d7657a-d671-11ee-8ade-0375f1e36dfc.html](https://www.wvnews.com/business/research-funding-at-west-virginia-universities-have-increased-by-millions-research-goes-towards-better-the/article_d8d7657a-d671-11ee-8ade-0375f1e36dfc.html)

## Research funding at West Virginia universities have increased by millions: research goes towards better the state

by Daisy Gibbons STAFF WRITER  
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King



Maher

Marshall University Photo





Research and development expenditures at U.S. universities increased by \$8 billion in fiscal year 2022. The increases were the largest on record in current dollars, according to the National Center for Science and Engineering Statistics.

Photo courtesy of Marshall University



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From 2022 to 2023, West Virginia University's expenditures in research and development increased from \$214 million to \$246 million.

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contributing to the economy," King said. "Research-and-development efforts have raised the state's profile, diversify the economy and improve residents' lives."

More than 50% of funding goes towards faculty and student salaries while 25% covers supplies, King said.

"So when you think of salaries and supplies, they are about 75% of that \$246 million," he said. "When you think about the salaries, it is a multiplier effect because those are the people here buying groceries, going to restaurants and things like that. Those are dollars that go right back into the local economy."

Work funded by The National Institute of Health at the WVU Rockefeller Neuroscience Institute revolves around controlling addiction and helping individuals with Alzheimer's disease, King said.

Also, the West Virginia Water Research Institute at WVU is exploring how to extract rare earth elements from acid mine drainage.

"We have a pilot plant at Mount Storm demonstrating the ability to do this," King said. "We have funding from both the U.S. Department of Energy and U.S. Department of Defense."



somewhere in the state of West Virginia," he said. "That would take material extracted from the acid mine drainage and convert that to pure rare earth elements for industrial value."

Astrophysics is another area of research.

The Robert C. Byrd Green Bank Telescope in Green Bank is a federal facility with about 150 jobs, King said.

"The university makes extensive use of the facility that makes the case for continuous support of Green Bank by the federal government," King said.

"All these projects ... they not only raise the profile of West Virginia within the nation but also internationally. We are becoming known as a place where these things occur, and it really helps change the way people think about the state," King said.

The success WVU has seen gives investors more confidence that this is a good investment, King added.

"I think the trajectory we have seen over these last four years is an indication that what we have been doing is growing our reputation," he said.

Funding expenditures vary from year to year based on money awarded and timeline of a research contract, said John Maher, vice president for research at Marshall University and the executive director of the Marshall University Research Corporation.

Funds also vary because of timing.

"Sometimes the federal government would push to give us an award before the end of the fiscal year," Maher said. "Sometimes they would delay until after the start of the fiscal year."

"Timing is a lot of the variation and projects do tend to come along in chunks," he said.



An infrastructure award from the National Science Foundation has allowed the school to acquire new imaging tools, Maher said.

“We have acquired state-of-the-art imaging tools to allow us to look at brain tissue at a very high level of detail and determine how the neurons are connected to each other and how that changes overtime,” he said.

Students at Marshall and from the WVU Rockefeller Neuroscience Institute are looking at ways to advance this tool to help prevent major issues in the state, Maher said.

“This tool will help us understand how an addicted brain is different than a normal brain and what features predispose someone to addiction,” he said.

Cybersecurity is a growing area of research.

“Marshall is planning on building a cybersecurity center here right on the edge of campus,” Maher said. “It will be a major addition to the area not only for research at Marshall but attracting companies to work with Marshall to advance the cause as well.”

The school has been developing ways to protect critical infrastructure, networks and computers from cyber attack, Maher said.

Marshall researchers are also tackling problems that face Appalachia such as obesity and diabetes with funding from the NIH.

“They are doing some creative work looking at how sleep abnormalities contribute to those conditions,” Maher said.

Additional funds come from the Department of Energy, NASA, Department of Defense, Department of Homeland Security and U.S. Army Corps of Engineers, Maher said.

“The federal government doesn’t give out money if you’re not capable of using it and your

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