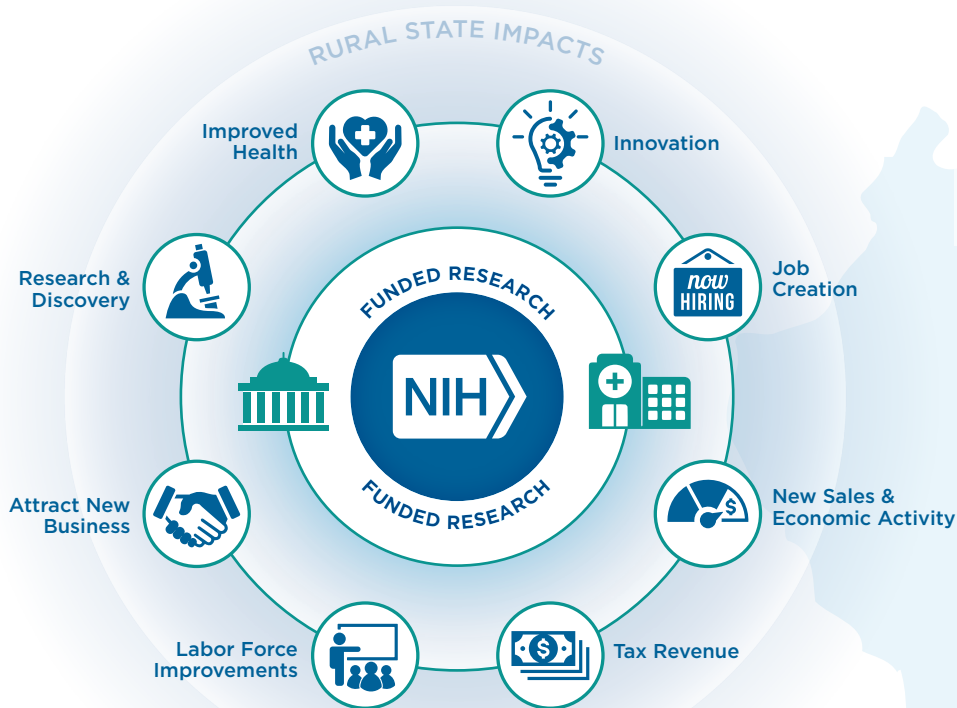


THE EXPONENTIAL IMPACT OF NIH FUNDING IN RURAL STATES

West Virginia

Research funding from the **National Institutes of Health** (NIH) that comes to institutions in West Virginia has a significant impact across the state — extending far beyond the immediate recipients of that funding.



FY22

Economic Impact of NIH Research Funding in West Virginia

\$49M
NIH Research Awards

- \$101M** New Economic Activity
- 672** Jobs
- \$10M** Tax and Fee Revenue
- \$32M** Statewide Household Earnings

\$1 NIH Funding = \$2.1 WV Economic Activity

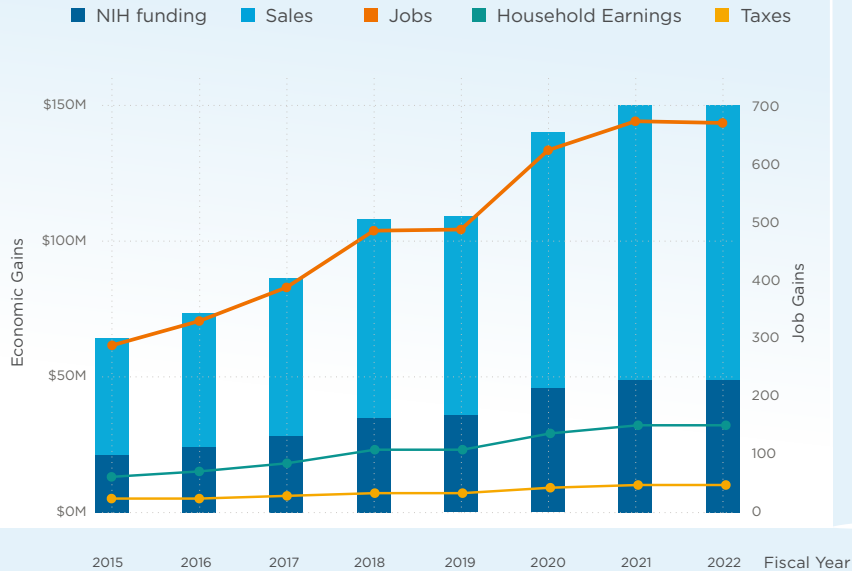
4 ORGANIZATIONS IN WEST VIRGINIA RECEIVED A TOTAL OF 99 AWARDS

Top recipients of NIH funding

- ◆ West Virginia University
- ◆ Marshall University
- ◆ Modulation Therapeutics, Inc.
- ◆ Wheeling Jesuit University

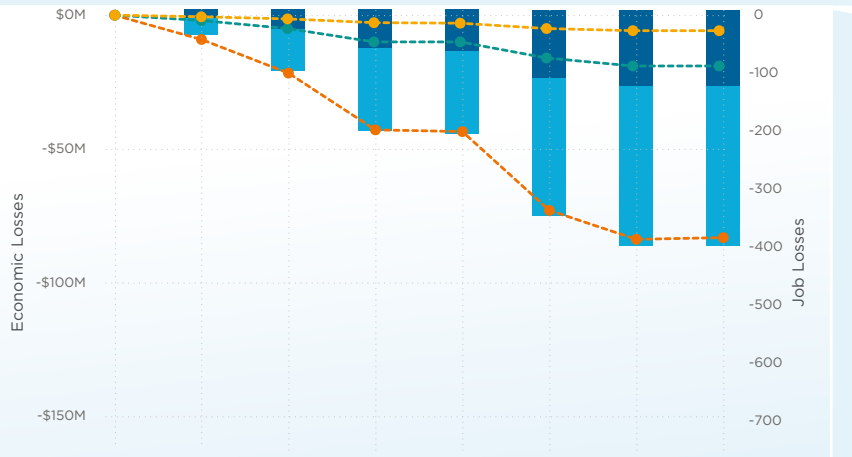


THE IMPACT OF 7 YEARS OF NIH BUDGET INCREASES ON WEST VIRGINIA



From 2016–2022, West Virginia **BENEFITTED** from a total of:

- \$267M** NIH Research Awards
- \$549M** New Economic Activity (sales)
- 3,664** Jobs
- \$172M** Statewide Household Earnings
- \$54M** Tax and Fee Revenue



If the NIH budget had stayed flat at FY15 levels from 2016–2022, the cumulative impact to West Virginia would have been the **LOSS** of:

- \$120M** NIH Research Awards
- \$247M** New Economic Activity (sales)
- 1,649** Jobs
- \$81M** Statewide Household Earnings
- \$24M** Tax and Fee Revenue

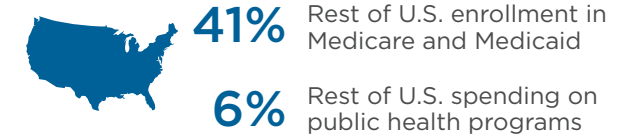
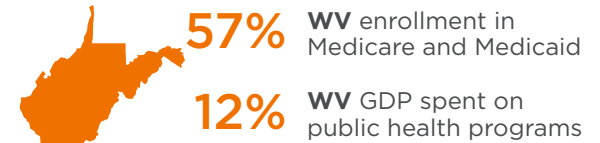
View data tables

Congress has increased the NIH budget each year since 2016, which has had a significant, positive impact on West Virginia's economy and prevented the negative economic impacts that flat funding would have caused.

Public Health Considerations

Improving Health

West Virginians have a lot to gain from NIH-funded medical research that results in improved treatment of disease. Improved health can also help ease the fiscal burden of spending on public health programs.



HOW WEST VIRGINIA RANKS COMPARED TO OTHER STATES



Life Expectancy

- 2nd** lowest life expectancy
- 4th** highest infant mortality

Chronic Conditions

- 1st** for cardiovascular disease
- 1st** for diabetes
- 1st** for obesity

Deaths

- 11th** for Alzheimer's disease
- 1st** for cancer
- 7th** for heart disease
- 1st** for opioid overdose
- 10th** for suicide



Boosting the Labor Force

NIH-funded research boosts an important sector of the labor force

Jobs in the R&D sector in West Virginia pay 1.3X more than jobs in other sectors. This, combined with strong pay growth, helps attract highly skilled workers and businesses to the state.

NIH research-funded jobs are helping to improve the labor force in West Virginia

Average Pay 2022			Employment Growth 2016-2022		Average Pay Growth 2016-2022	
R&D	All Sectors	Ratio	R&D	All Sectors	R&D	All Sectors
\$67,349	\$52,903	1.3	-1	-1	21	30

Biomedical Innovation in West Virginia

MAKING CARE FOR SUBSTANCE USE DISORDER AND INFECTIOUS DISEASES MORE ACCESSIBLE TO RURAL PATIENTS

For a hepatitis C or HIV patient who lives in rural West Virginia, a trip to the doctor can take up to a whole day. That's because the medical specialists who treat their conditions often practice in cities hours away.

With a grant from the NIH's National Institute on Drug Abuse, West Virginia University researcher Judith Feinberg is working with colleagues at Yale University to integrate services for opioid use disorder, the hepatitis C virus and HIV in 20 primary care clinics across West Virginia.

West Virginia has the highest overdose rate in the country, and the state has experienced numerous outbreaks of both HIV and hepatitis C in recent years. Because drug and alcohol use are known to place people at a higher risk for getting hepatitis C and HIV, these health conditions are deeply intertwined with the opioid crisis.

“The goal of this grant is to integrate care for substance use disorder, infectious diseases and other medical needs that people have — at the same time, in the same

place — so that we don't have key aspects of people's medical care being handled in a disconnected manner,” said Feinberg, the WVU Department of Medicine's vice chair for research. **“It's efficient and appropriate ... you can't deal with one effectively without dealing with the other. [Additionally], there is such a paucity of specialist care here in West Virginia that we can't be sending patients hither and yon to get appropriate care.”**

The researchers will use a variety of tools to empower care givers at 20 federally qualified health centers to evaluate and treat patients for substance use disorder, HIV and hepatitis C. They also will provide ongoing clinical education and support to primary care providers who may not feel expert in treating these conditions.

The researchers hope that what they learn may influence primary care in West Virginia as well as other communities aiming to address the co-occurrence of substance use disorders with HIV or hepatitis C.

[Learn more](#)

WVU's Judith Feinberg



Photo Credit: WVU



UNDERSTANDING THE CONNECTION BETWEEN BINGE DRINKING IN TEENS AND ADULT BRAIN FUNCTION

With a two-year grant from NIH, Marshall University researcher Mary-Louise Risher, PhD, is exploring how binge drinking during teens and early twenties disrupts brain function that can persist into adulthood.

“Binge drinking accounts for the majority of alcohol consumed by adolescents in the U.S. and occurs during a critical period of brain development,” Risher said. **“It is also associated with lasting cognitive impairment and increases the likelihood of developing an alcohol use disorder later in life. Our long-term goal is to understand what happens when brain development and alcohol use converge — disrupting the final stages of brain development — and how this can lead to cognitive impairment and increased prevalence of alcohol use disorder later in life.”**

Risher and her team hope their work will identify potential targets and treatments for the prevention and reversal of long-term alcohol-induced cognitive dysfunction. [Learn more](#)



MEET JACK VICTORY

Jack Victory, a third-year medical student at the West Virginia University School of Medicine and West Virginia native, was selected as one of 50 students nationally to attend the NIH [Medical Research Scholars Program](#) (MRSP).

The MRSP is a 12-month intensive research program where medical scholars from across the United States participate in a variety of training and research activities under the guidance of an NIH advisor and research mentor, while living on the NIH campus in Bethesda, Maryland.

“One of the things I am passionate about is finding safer ways to provide cancer therapy,” said Victory. **“With immunotherapy, the side effects are often mild in comparison to traditional chemotherapy, so advancing this research and treatment can not only help to treat cancer but can give someone their life back.”**

Because cancer is a growing epidemic in the United States and particularly in West Virginia, Victory hopes that his time in the MRSP will kickstart his lifelong career of research to provide solutions to a vulnerable population and give him the opportunity to make significant contributions to the field of immunological research. [Learn more](#)

