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# NIH's Role in Sustaining the U.S. Economy

**EVERY STATE BENEFITS**



2024 UPDATE

#keepNIHstrong



# There Is No Better Investment than One that **Saves Lives** and **Fuels the Economy**

When Congress invests in the National Institutes of Health (NIH), lives are saved, jobs are created and families and local economies across the country benefit. Each year more than 80 percent of the NIH budget is awarded to researchers pursuing all aspects of biomedical science and innovation.

Even before discoveries are made, NIH research grants are supporting local jobs and economic activity.



AN  
EXPONENTIAL  
RETURN ON  
INVESTMENT



**\$1** NIH FUNDED RESEARCH

=

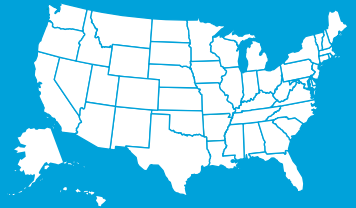


**\$2.46**

ECONOMIC ACTIVITY

## Every research dollar that leaves NIH does double duty.

In Fiscal Year 2023, the **\$37.81 billion** NIH awarded to researchers in the 50 U.S. states and the District of Columbia supported **412,041 jobs** and **\$92.89 billion** in economic activity.



## UNDERSTANDING RESEARCH TYPES



### Intramural Research

Intramural research is conducted by about 6,000 researchers in NIH's own laboratories. Only about **11 percent** of the NIH budget is spent on intramural research.



### Extramural Research

Extramural research is done by scientists outside of the NIH who have been awarded NIH research grants. **More than 80 percent of the NIH budget is spent on extramural research.**

### Basic Research

(aka Foundational Research, Basic Science)

Basic research is the foundation of medical discovery. Through it we gain greater understanding of living systems and life processes, leading to better ways to predict, prevent, diagnose and treat disease. Just over half of NIH's budget goes toward **basic science**.

### Clinical Research

Clinical research refers to studies conducted in collaboration with human beings, undertaken to improve human health. It includes clinical trials. The **NIH Clinical Center** is the world's largest hospital entirely devoted to clinical research.

### Applied Research

Applied research is designed to solve specific practical problems or answer certain questions. It involves applying existing knowledge, much of which is obtained through basic research, to a specific biomedical problem. Just under half of NIH's budget goes toward **applied research**.

### Translational Research

Translational research is the process of applying ideas and discoveries generated through basic scientific inquiry to the treatment or prevention of human disease — taking research from the 'bench to the bedside.' **The National Center for Advancing Translational Sciences (NCATS)** at NIH focuses on how to get more treatments to more patients more quickly.

# Every State Benefits

**NIH-funded research is conducted in every U.S. state and the District of Columbia.** As NIH funding is awarded to researchers in individual states, that funding supports employment and the purchase of research-related goods, services and materials. The income generated from these jobs and purchases cycles through the economy to produce new economic activity.



NIH RESEARCH SUPPORTS JOBS



**412,041**  
TOTAL JOBS  
IN FY2023

**39** states with **1,000+** jobs  
**24** states with **5,000+** jobs  
**13** states with **10,000+** jobs

NIH RESEARCH FUELS THE ECONOMY



**\$92.89B**  
IN NEW ECONOMIC  
ACTIVITY IN FY2023

**47** states with **\$100M+**  
**31** states with **\$500M+**  
**23** states with **\$1B+**



## RESEARCH HIGHLIGHT

### Improving Availability of Clinical Trials in Rural and Minority Populations

Across the U.S., minority and rural populations are often underrepresented in clinical trials and don't benefit from access to the treatments that are part of the research study. A [new NIH-funded clinical trials resource center](#) at West Virginia University aims to change this.

The [five-year grant](#) awarded in 2023 to WVU's Dr. Sally Hodder, director of the West Virginia Clinical and Translational Science Institute (WVCTSI), will fund the IDeA State Consortium for Clinical Research Resource Center. The ISCORE-RC will provide training and other resources to help institutions in [IDeA states](#) increase numbers of clinical trials and observational cohort studies and thereby increase trial availability and participation of minority and rural populations. The NIH IDeA program works to broaden research capacity and excellence in states with fewer biomedical research institutions.


# A Critical National Priority




For the past eight years, Congress has made funding medical research through the NIH a critical national priority. From FY2015 through FY2023, the NIH budget grew by more than **\$17 billion**, helping the agency to catch up from a long period of flat funding and restore lost purchasing power.

COMPARED TO 2015, NIH RESEARCH FUNDING IN 2023 RESULTED IN:

 **14,646**  
MORE GRANTS AWARDED

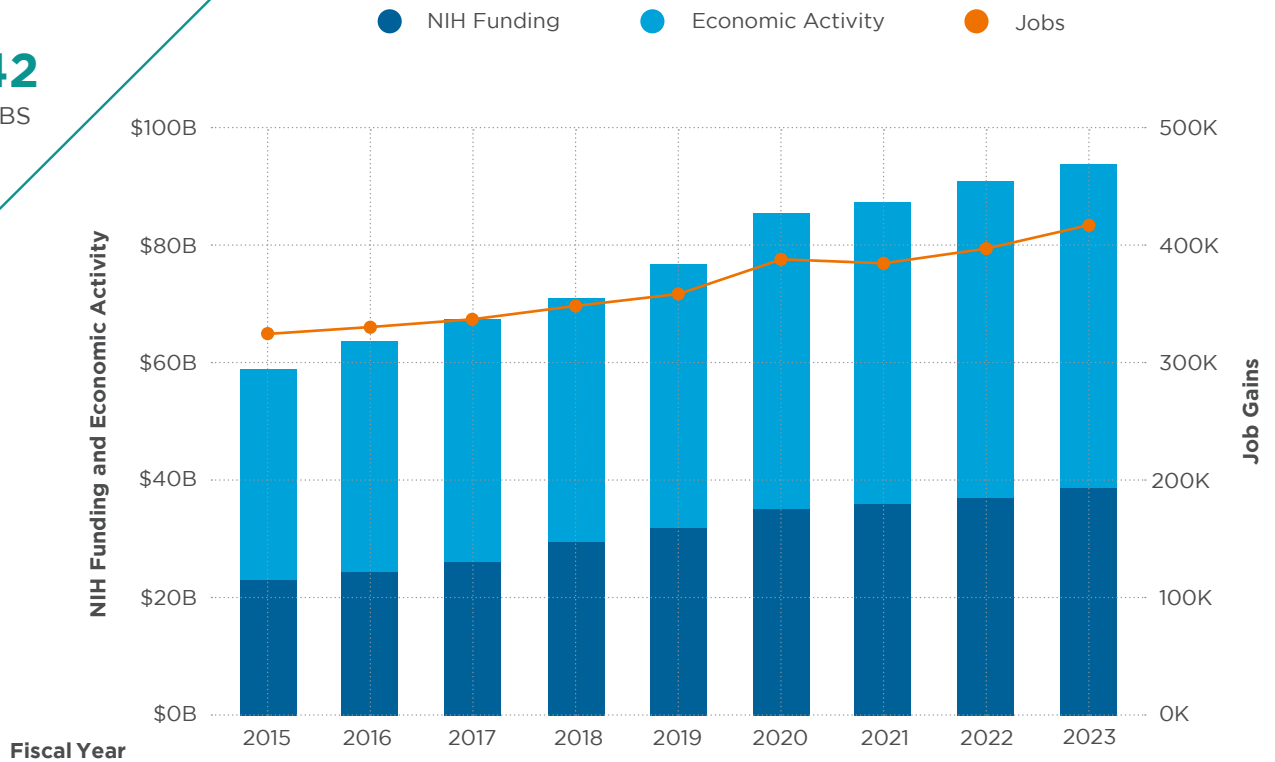
 **\$14.99B**  
MORE GRANT FUNDING AWARDED

 **\$33.8B**  
MORE ECONOMIC ACTIVITY

 **89,642**  
MORE JOBS

The National Institutes of Health is a catalyst for innovation and economic growth and a source of hope to patients and families affected by disease. Failure to robustly fund the NIH now will have a negative impact on U.S. leadership in biomedical research and innovation and the benefits that has on our health and economy.

NIH Funding Momentum





### IMPACT OF NIH BUDGET INCREASES SINCE 2015

	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Total NIH appropriations</b>	\$30.31 billion	\$32.31 billion	\$34.30 billion	\$37.31 billion	\$39.31 billion	\$41.69 billion	\$42.94 billion	\$45.18 billion	<b>\$47.68 billion</b>
<b>NIH research funds awarded, U.S.</b>	\$22.82 billion	\$24.59 billion	\$26.10 billion	\$28.05 billion	\$30.82 billion	\$34.65 billion	\$35.73 billion	\$36.68 billion	<b>\$37.81 billion</b>
<b>NIH research grants awarded, U.S.</b>	50,808	52,470	54,128	57,110	59,421	61,993	62,996	64,657	<b>65,454</b>
<b>Total jobs supported, U.S.</b>	322,399	332,255	337,419	347,247	365,122	393,370	387,774	399,620	<b>412,041</b>
<b>Total economic activity, U.S.</b>	\$59.09 billion	\$63.07 billion	\$66.35 billion	\$70.66 billion	\$76.96 billion	\$85.81 billion	\$87.68 billion	\$90.17 billion	<b>\$92.89 billion</b>

**A note about this data:** UMR’s analysis of the employment and economic activity attributable to NIH extramural research spending in the 50 U.S. states and the District of Columbia, relies on the RIMS II model maintained by the Bureau of Economic Analysis, part of the U.S. Department of Commerce. While RIMS parameters are updated each year, they lag by two years. Therefore this 2023 update and fiscal years 2022 and 2021 were calculated with the latest available RIMS parameters, which are for 2021. Updated calculations for fiscal years 2015-2020 use estimates of annual RIMS parameters where these parameters are interpolated based on published values for 2013 and 2021. The analysis for this 2023 update was performed by Ronald Horst, Ph.D., Inforum.



### RESEARCH HIGHLIGHT



#### Helping People with Down Syndrome Recover from Bone Fractures

Individuals with Down syndrome typically have poor bone health and are more prone to fractures. A new NIH-funded [study](#) at Texas A&M University will help scientists understand whether bone regeneration holds the key to helping people with Down syndrome recover from fractures.

The grant is part of the [INCLUDE](#) (INvestigation of Co-occurring conditions across the Lifespan to Understand Down syndromE) Project, a trans-NIH research initiative on critical health and quality-of-life needs for individuals with Down syndrome. In addition to helping people with Down syndrome, findings from the new project will also aid treatment development for people with limb loss, which affects more than two million people in the United States.

# Economic Impact of NIH Research by State FY2023

State	NIH AWARDS (\$M)	Jobs Created per \$1M NIH Awards	Intrastate Jobs	Added Interstate Activity (%)	Interstate Jobs	TOTAL EMPLOYMENT	ECONOMIC ACTIVITY (\$M)
Alabama	386.2	10.1	3900.0	22.3	869.4	4769.4	908.6
Alaska	15.8	8.6	135.9	148.7	202.1	338.0	64.6
Arizona	364.2	10.9	3964.4	37.1	1469.0	5433.4	1034.9
Arkansas	105.9	9.9	1050.8	51.2	537.8	1588.6	288.4
California	5312.2	8.9	47106.0	18.8	8842.7	55948.7	13553.9
Colorado	575.4	10.1	5817.6	22.8	1324.0	7141.6	1558.9
Connecticut	769.8	7.6	5868.9	12.6	740.0	6608.9	1677.7
Delaware	75.5	5.7	428.9	41.6	178.4	607.3	180.7
District of Columbia	230.7	1.8	406.2	29.9	121.6	527.7	421.5
Florida	913.9	11.2	10213.9	43.8	14688.3	14688.3	2778.9
Georgia	779.7	12.0	9370.5	26.1	2445.9	11816.4	2180.8
Hawaii	68.7	9.5	655.5	47.0	308.3	963.8	185.9
Idaho	18.8	10.0	187.5	184.3	345.6	533.1	100.6
Illinois	1233.4	9.5	11741.6	21.1	2483.2	14224.8	3456.3
Indiana	413.7	9.7	4011.7	33.6	1347.1	5358.8	1100.6
Iowa	208.8	8.9	1861.3	38.6	717.8	2579.1	503.8
Kansas	145.8	9.0	1318.3	44.3	583.3	1902.0	401.2
Kentucky	232.2	9.3	2156.4	34.5	743.6	2900.0	594.1
Louisiana	228.4	10.7	2445.7	40.1	980.7	3426.4	600.0
Maine	116.3	10.2	1186.3	23.9	283.7	1470.0	261.5
Maryland	2743.1	8.0	22073.8	5.2	1151.6	23225.4	5695.2
Massachusetts	3506.4	7.8	27273.9	5.7	1567.8	28841.6	7482.8
Michigan	991.0	10.2	10151.1	17.9	1814.0	11965.1	2415.5
Minnesota	718.5	9.4	6782.7	17.8	1209.7	7992.4	1741.3
Mississippi	78.3	9.8	765.3	59.8	457.5	1222.8	220.1
Missouri	807.9	9.2	7446.1	14.1	1052.8	8498.9	1884.7
Montana	39.9	10.1	405.2	55.9	226.7	631.9	110.0
Nebraska	150.2	9.8	1474.7	35.5	522.9	1997.6	370.6
Nevada	38.7	8.9	344.4	183.9	633.1	977.5	202.5
New Hampshire	128.0	7.2	919.7	25.9	238.0	1157.7	300.6
New Jersey	403.8	8.4	3402.4	50.9	1773.2	5135.6	1315.9
New Mexico	125.2	8.8	1097.2	34.2	375.0	1472.2	289.9
New York	3587.2	6.9	27868.0	17.8	4430.5	292968.5	7968.3
North Carolina	2282.4	10.1	23102.8	8.6	1978.5	25081.3	5339.0
North Dakota	26.9	8.3	223.7	94.6	211.6	435.3	87.9
Ohio	1005.8	10.5	10609.2	23.1	2451.7	13060.9	2588.4
Oklahoma	148.2	11.2	655.3	50.4	835.5	2489.8	426.0
Oregon	416.8	9.9	4128.8	21.4	844.0	5012.8	991.8
Pennsylvania	2228.5	8.8	19548.9	11.4	2235.4	21784.3	5227.0
Rhode Island	255.6	7.9	2023.3	9.3	188.8	2212.1	501.6
South Carolina	256.0	11.2	2871.1	33.0	946.7	3817.9	705.8
South Dakota	30.5	9.3	283.1	78.3	221.6	504.8	92.1
Tennessee	769.9	10.4	8019.6	16.7	1341.9	9361.5	1993.0
Texas	1846.2	12.1	22359.2	32.2	7204.0	29563.1	5798.8
Utah	293.4	12.3	3597.6	23.7	854.3	4452.0	785.9
Vermont	58.6	8.0	466.7	23.3	108.8	575.5	127.1
Virginia	664.3	9.0	5955.8	29.0	1728.0	7683.8	1734.5
Washington	1291.7	7.9	10221.0	17.2	1757.7	11978.7	2958.9
West Virginia	55.0	8.5	465.5	63.1	293.8	759.3	148.1
Wisconsin	653.6	10.0	6537.6	18.7	1221.9	7759.6	1148.0
Wyoming	12.0	8.9	107.5	147.0	158.0	265.4	48.5
<b>50 states plus D.C.</b>	<b>\$37,809.4</b>	<b>9.1</b>	<b>343,008.6</b>	<b>20.1</b>	<b>69,032.8</b>	<b>412,041.3</b>	<b>\$92,885.8</b>

UMR is a coalition of leading research institutions, patient and health advocates and private industry seeking strong and sustainable increases in funding for the National Institutes of Health to save and improve lives, advance innovation and fuel the economy. UMR members include: AdvaMed, Alzheimer's Association, American Association for Cancer Research, American Association for the Advancement of Science, American Cancer Society Cancer Action Network, Association of American Cancer Institutes, Association of American Universities, Association of Public and Land-grant Universities, BD, Boston University, Harvard University, Johns Hopkins University, Johnson & Johnson, Massachusetts Institute of Technology, Northwestern University, Stanford University, Texas A&M University Health, Thermo Fisher Scientific, University of Pennsylvania, Vanderbilt University, Vanderbilt University Medical Center, and Washington University in St. Louis.

