







NIH'S ROLE IN SUSTAINING THE U.S. ECONOMY

2019 STATE-BY-STATE UPDATE

Research funded by the National Institutes of Health (NIH) saves lives, improves health, and offers hope to people the world-over affected by disease. It also supports more than 433,000 jobs and nearly \$74 billion in economic activity across the United States, making the NIH a research and economic powerhouse.

In fiscal year 2018, the NIH provided just over \$28 billion in extramural research funding to scientists in all 50 states and the District of Columbia. These researchers are working to address some of our most urgent and chronic health problems. Their work also has a significant impact on economic growth and employment. Using the Regional Input-Output Modeling System (RIMS II) developed by the Department of Commerce, United for Medical Research calculated the impact of NIH research funding in 2018 on jobs and the economy.

As seen in the table on the next page, NIH research funding in 2018 directly and indirectly supported 433,011 jobs nationwide. Twenty-three states have employment of 5,000 or more supported by NIH research funding, 13 states have 10,000 or more and the median state has 4,585 jobs due to NIH activity. The income generated by these jobs, as well as by the purchase of research-related equipment, services and materials, when cycled through the economy, produced \$73.909 billion in new economic activity in 2018. Twenty-eight states experienced an economic gain of over \$500 million and 20 states exceeded \$1 billion in economic gain.

| RECENT IMPROVEMENTS TO THE NIH BUDGET | | | | | | | | | |
|--|---------------------|---------------------|---------------------|---------------------|--|--|--|--|--|
| | FY2015 | FY2016 | FY2017 | FY2018 | | | | | |
| Total NIH research funds awarded in 50 states + DC | \$22.8 billion | \$24.6 billion | \$26.1 billion | \$28.05 billion | | | | | |
| Total jobs supported nationwide | 352,349 jobs | 379,471 jobs | 402,816 jobs | 433,011 jobs | | | | | |
| Total economic activity nationwide | \$60.717 billion | \$64.799 billion | \$68.795 billion | \$73.909 billion | | | | | |

After more than a decade of flat-funding, Congress increased the NIH budget by \$9 billion over the last four fiscal years (FY16–19). These increases have made a difference in grants, jobs, and economic activity and, importantly, have allowed the NIH budget to begin to recover from years of under-funding and ensure that critical research continues to be funded.

433,011



23 states with 5,000+ jobs 13 states with 10,000+ jobs \$73.9 billion

TOTAL ECONOMIC ACTIVITY

28 states with \$500 million+

The NIH is the world's premier health research agency, fueling life-changing discovery and helping to maintain American output, employment and a globally competitive life sciences industry. The numbers in this report underscore the importance of not just providing the NIH strong funding, but of ensuring steady and sustainable growth in the NIH budget over the long term.

A note about this data: Since 2011, United for Medical Research has provided an analysis of the employment and economic activity attributable to NIH extramural research spending. We rely on the RIMS II model maintained by the Bureau of Economic Analysis, which is part of the U.S. Department of Commerce. This model was last updated by BEA in December 2016. This 2019 update, and each of the previous analyses, was conducted by Dr. Everett Ehrlich of ESC Company.

Economic Impact of NIH Research by State FY2018

| State | NIH AWARDS (\$M) | Jobs Created per \$1M NIH Awards | Intrastate Jobs | Added Interstate Activity (%) | Interstate Jobs | TOTAL EMPLOYMENT | ECONOMIC ACTIVITY (\$M) |
|--------------------------------|---------------------|-------------------------------------|--------------------|----------------------------------|--------------------|---------------------|----------------------------|
| Alabama | 350.7 | 12.926 | 4,533 | 18.8% | 850 | 5,384 | \$826 |
| Alaska | 16.4 | 11.796 | 194 | 110.0% | 213 | 406 | \$61 |
| Arizona | 238.2 | 14.971 | 3,567 | 38.7% | 1,381 | 4,948 | \$729 |
| Arkansas | 58.1 | 12.712 | 739 | 73.4% | 543 | 1,281 | \$178 |
| California | 4,243.4 | 13.477 | 57,187 | 17.0% | 9,750 | 66,937 | \$11,895 |
| Colorado | 404.4 | 15.194 | 6,145 | 22.0% | 1,354 | 7,499 | \$1,189 |
| Connecticut | 560.9 | 10.160 | 5,699 | 14.2% | 811 | 6,510 | \$1,293 |
| Delaware | 51.5 | 7.957 | 410 | 45.9% | 188 | 598 | \$140 |
| District of Columbia | 229.6 | 2.524 | 580 | 23.8% | 138 | 718 | \$432 |
| Florida | 607.7 | 15.946 | 9,690 | 44.8% | 4,346 | 14,036 | \$1,962 |
| Georgia | 582.7 | 16.647 | 9,699 | 25.2% | 2,440 | 12,139 | \$1,725 |
| Hawaii | 65.0 | 13.315 | 865 | 42.2% | 365 | 1,231 | \$181 |
| Idaho | 15.0 | 11.761 | 176 | 164.4% | 290 | 466 | \$72 |
| Illinois | 895.4 | 14.319 | 12,820 | 23.0% | 2,948 | 15,768 | \$2,713 |
| Indiana | 276.8 | 12.926 | 3,578 | 39.2% | 1,403 | 4,981 | \$774 |
| lowa | 191.9 | 12.165 | 2,334 | 32.8% | 766 | 3,100 | \$452 |
| Kansas | 114.6 | 11.736 | 1,345 | 43.8% | 590 | 1,935 | \$318 |
| Kentucky | 207.6 | 12.958 | 2,690 | 30.7% | 827 | 3,518 | \$526 |
| Louisiana | 153.0 | 13.844 | 2,118 | 49.5% | 1,049 | 3,167 | \$445 |
| Maine | 99.6 | 13.967 | 1,392 | 20.2% | 280 | 1,672 | \$226 |
| Maryland | 1,531.6 | 12.130 | 18,579 | 7.3% | 1,362 | 19,941 | \$3,582 |
| Massachusetts | 2,887.2 | 11.490 | 33,173 | 5.2% | 1,734 | 34,907 | \$6,765 |
| Michigan | 766.3 | 13.567 | 10,396 | 18.8% | 1,957 | 12,353 | \$1,982 |
| Minnesota | 561.7 | 12.955 | 7,276 | 17.0% | 1,238 | 8,514 | \$1,473 |
| Mississippi | 50.9 | 12.584 | 641 | 74.2% | 475 | 1,116 | \$157 |
| Missouri | 605.5 | 12.139 | 7,350 | 14.7% | 1,084 | 8,434 | \$1,455 |
| Montana | 52.0 | 13.536 | 7,330 | 31.7% | 224 | 928 | \$121 |
| Nebraska | 123.4 | 13.125 | 1,620 | 31.7% | 513 | 2,133 | \$303 |
| Nevada | 35.6 | 11.968 | 426 | 144.6% | 616 | 1,041 | \$167 |
| | 107.4 | 10.729 | 1,152 | 23.9% | 275 | | \$262 |
| New Hampshire New Jersey | 261.3 | 12.308 | 3,216 | 61.3% | 1,971 | 1,427 5,187 | \$974 |
| New Mexico | 98.0 | 11.774 | 1,154 | 32.2% | 372 | 1,526 | \$238 |
| New York | 2,632.7 | | 27,736 | | | | \$6,508 |
| | , | 10.535 | | 17.9% | 4,971 | 32,707 | |
| North Carolina North Dakota | 1,402.4 21.0 | 14.599 10.761 | 20,474 | 10.7% 91.8% | 2,182 | 22,657 434 | \$3,464 \$68 |
| Ohio | | | | | | | |
| | 816.9 | 13.548 | 11,067 | 21.9% | 2,428 | 13,496 | \$2,205 |
| Oklahoma | 96.1 | 14.457 | 1,389 | 61.6% | 856 | 2,245 | \$309 |
| Oregon | 345.9 | 13.698 | 4,738 | 20.2% | 957 | 5,695 | \$838 |
| Pennsylvania | 1,810.2 | 12.439 | 22,517 | 11.3% | 2,548 | 25,065 | \$4,580 |
| Rhode Island | 194.3 | 11.126 | 2,162 | 10.1% | 217 | 2,379 | \$395 |
| South Carolina | 197.0 | 15.112 | 2,976 | 33.0% | 983 | 3,959 | \$547 |
| South Dakota | 24.1 | 12.134 | 293 | 75.0% | 219 | 512 | \$71 |
| Tennessee | 549.7 | 13.318 | 7,320 | 17.9% | 1,310 | 8,630 | \$1,420 |
| Texas | 1,243.4 | 15.683 | 19,500 | 33.9% | 6,602 | 26,102 | \$4,097 |
| Utah | 228.4 | 16.752 | 3,826 | 19.8% | 759 | 4,585 | \$626 |
| Vermont | 57.6 | 12.821 | 738 | 18.9% | 139 | 877 | \$125 |
| Virginia | 415.1 | 11.147 | 4,627 | 35.8% | 1,656 | 6,283 | \$1,194 |
| Washington | 1,042.3 | 12.410 | 12,934 | 14.8% | 1,912 | 14,846 | \$2,562 |
| West Virginia | 35.4 | 11.437 | 405 | 75.7% | 307 | 712 | \$107 |
| Wisconsin | 481.7 | 13.219 | 6,367 | 21.2% | 1,351 | 7,718 | \$1,131 |
| Wyoming | 14.1 | 10.427 | 147 | 109.3% | 161 | 307 | \$46 |
| 50 states plus DC | 28,051.6 | | 360,891 | 20.0% | 72,120 | 433,011 | \$73,909 |

United for Medical Research is a coalition of leading research institutions, patient and health advocates, and private industry that have joined together to seek steady increases in funding for the National Institutes of Health. Members include: AdvaMed, Alzheimer's Association, American Association for the Advancement of Science, American Cancer Society Cancer Action Network, American Heart Association, Association of American Universities, Association of Public and Land-grant Universities, BD, Biotechnology Innovation Organization, Boston University, Corning, Harvard University, Johns Hopkins University, Johnson & Johnson, Massachusetts Institute of Technology, Northwestern University, PhRMA, Research!America, Stanford University, Thermo Fisher Scientific, University of Pennsylvania, Vanderbilt University Medical Center and Washington University in St. Louis.

