



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

A 2011 Update Authored by Dr. Everett Ehrlich

The health benefits of the National Institutes of Health (NIH) research support are clear: investment in NIH directly leads to better medicines, procedures, treatments, equipment and delivery systems to prevent and cure disease. Additionally NIH plays a notable role as an economic engine, helping maintain American competitiveness.

NIH supports nearly half a million jobs all across the country and remains the largest funder of life sciences research in the U.S. More than 80 percent of its budget directly funds “extramural” research performed by 325,000 scientists at more than 3,000 institutions in all fifty states and the District of Columbia.

In May, 2011, United For Medical Research released a report entitled, “An Economic Engine: NIH Research, Employment, and the Future of the Medical Innovation Sector,” which focused on the economic benefits of NIH extramural spending. As that report noted, spending on basic research triggers complementary private investment and contributes significantly to the competitive strength of U.S. health industries in an in-

creasingly global market. Furthermore, NIH is an important source of employment in its own right.

Using the Department of Commerce’ RIMS II model, the report projected that \$26.6 billion in NIH extramural funding in 2010 directly and indirectly supported 487,900 jobs nationwide, leading to fifteen states experiencing job growth of 10,000 or more.

This paper updates those employment estimates¹. In 2011, NIH remained a powerhouse driver of economic activity and jobs, but the lack of sustained investment in the agency is beginning to have an impact. As seen in Table 1, the \$23.7 billion spent by NIH extramurally in the fifty states and the District of Columbia in 2011 directly and indirectly supported 432,094 jobs, a decrease of approximately 55,000 jobs from the previous year. This decrease in funding was due, at least in part, to the end of supplementary investment in NIH provided by the American Recovery and Reinvestment Act.

Regardless, 13 states showed NIH-supported employment of 10,000 or more, and nearly half

of all states (24 states) had 5,000 or more jobs which could be attributed to NIH investment, led by California (63,196 jobs), New York (33,193 jobs), Massachusetts (34,598 jobs), and Texas (25,878 jobs). In addition to the direct jobs impact, there is a broad and compelling literature demonstrating the dynamic role between NIH spending and the private sector as the discoveries NIH finances move to commercial applications involving new medicines, tests, procedures, and devices. NIH spending in 2011 alone produced \$62.132 billion in new economic activity.

This update underscores that NIH funding consistently generates substantial, positive returns, and that the benefits enabled by NIH funding extend well beyond research discoveries. Our nation’s commitment to NIH has been, and will remain, an important factor in bolstering the nation’s economy and driving U.S. global success. Whether the goal is to fuel new medical discoveries or to drive U.S. economic growth, investing in NIH should remain a top national priority.

¹ Given that 2012 spending is yet to be fully determined, it bases new employment estimates on 2011 state-by-state NIH extramural spending patterns.

Table 1 Jobs Supported by NIH Awards to States, FY 2011

State	NIH awards (\$M)	Employment multiplier * (jobs per \$1 change in NIH award)	Intrastate jobs	Added Interstate activity (%)	Interstate jobs	TOTAL EMPLOYMENT
Alabama	268.5	16.47	4,422	0.215	951	5,373
Alaska	9.2	16.49	152	1.985	301	453
Arizona	183.8	16.87	3,101	0.462	1,431	4,532
Arkansas	62.6	17.64	1,104	0.617	682	1,786
California	3,535.3	15.43	54,534	0.159	8,662	63,196
Colorado	320.3	16.08	5,152	0.237	1,220	6,372
Connecticut	479.5	11.69	5,605	0.160	899	6,504
Delaware	30.6	9.52	291	0.746	217	508
District of Columbia	202.4	2.15	434	0.252	110	544
Florida	492.6	17.84	8,787	0.479	4,206	12,993
Georgia	463.3	18.81	8,713	0.258	2,250	10,963
Hawaii	60.7	16.56	1,005	0.382	384	1,390
Idaho	9.3	14.69	137	2.275	312	449
Illinois	779.2	15.57	12,133	0.233	2,828	14,960
Indiana	216.2	16.56	3,579	0.405	1,449	5,028
Iowa	197.7	16.73	3,308	0.275	909	4,217
Kansas	105.8	13.86	1,467	0.451	661	2,128
Kentucky	156.3	17.62	2,754	0.336	927	3,680
Louisiana	166.8	18.13	3,024	0.454	1,373	4,397
Maine	74.9	19.57	1,466	0.242	355	1,821
Maryland	1,687.7	13.77	23,240	0.057	1,317	24,557
Massachusetts	2,507.9	13.18	33,053	0.047	1,544	34,598
Michigan	655.5	15.18	9,949	0.180	1,795	11,744
Minnesota	493.8	15.94	7,871	0.170	1,338	9,209
Mississippi	33.9	16.81	569	1.093	622	1,191
Missouri	477.3	13.47	6,429	0.165	1,059	7,489
Montana	39.7	17.86	709	0.353	251	960
Nebraska	84.1	15.00	1,262	0.416	525	1,787
Nevada	20.6	13.42	276	2.263	625	901
New Hampshire	88.4	12.77	1,129	0.236	267	1,396
New Jersey	250.7	13.42	3,366	0.590	1,987	5,352
New Mexico	105.7	15.27	1,614	0.263	424	2,037
New York	2,041.4	13.74	28,041	0.184	5,152	33,193
North Carolina	1,063.0	17.25	18,340	0.122	2,231	20,571
North Dakota	17.5	14.57	255	0.774	197	453
Ohio	711.0	17.37	12,350	0.205	2,536	14,886
Oklahoma	82.5	19.43	1,602	0.654	1,048	2,650
Oregon	303.6	16.93	5,138	0.185	951	6,089
Pennsylvania	1,455.1	14.97	21,785	0.115	2,506	24,291
Rhode Island	152.8	14.06	2,148	0.115	247	2,395
South Carolina	142.0	18.21	2,586	0.376	974	3,560
South Dakota	18.6	10.76	200	0.983	197	397
Tennessee	479.9	16.86	8,093	0.157	1,267	9,360
Texas	1,066.8	18.55	19,787	0.308	6,091	25,878
Utah	171.0	20.10	3,436	0.203	697	4,132
Vermont	52.6	17.15	901	0.184	166	1,067
Virginia	332.3	13.68	4,546	0.403	1,830	6,376
Washington	926.0	14.66	13,575	0.118	1,605	15,180
West Virginia	19.0	16.59	315	1.291	406	721
Wisconsin	402.6	16.54	6,659	0.207	1,378	8,036
Wyoming	6.2	15.31	95	2.684	254	349
50 states plus DC	23,704		360,485		71,609	432,094

About United for Medical Research:

United for Medical Research represents leading research institutions, patient and health advocates and private industry, joined together to seek steady increases in federal funding for the National Institutes of Health. The coalition consists of the American Cancer Society Cancer Action Network, American Diabetes Association, American Heart Association, Association of American Universities, Association of Public and Land Grant Universities, BD, Biotechnology Industry Organization, Harvard University, Johns Hopkins University, Life Technologies, Massachusetts Institute of Technology, Melanoma Research Alliance, PhRMA, Research!America, Stanford University, The Endocrine Society, Thermo Fisher Scientific, University of Pennsylvania, University of Southern California, Vanderbilt University, and Washington University in St. Louis.