

TABLE 72

**Higher education R&D expenditures at institutions reporting clinical trials, by state, institutional control, institution, and source of funds: FY 2019**

(Dollars in thousands)

State, institutional control, and institution	Total		Federal		Nonfederal	
	All R&D expenditures	Clinical trials	All R&D expenditures	Clinical trials	All R&D expenditures	Clinical trials
Alabama						
Public						
U. Alabama, Birmingham	607,863	49,300	398,403	13,772	209,460	35,528
U. South Alabama	52,540	410	19,947	66	32,593	344
Arizona						
Public						
Northern Arizona U.	58,914	964	35,980	720	22,934	244
U. Arizona	734,270	9,519	327,025	821	407,245	8,698
Arkansas						
Public						
U. Arkansas for Medical Sciences	153,135	1,642	63,498	0	89,637	1,642
California						
Public						
California Polytechnic State U., San Luis Obispo	30,923	1,186	9,720	1,173	21,203	13
California State U., Sacramento	23,544	2	5,801	0	17,743	2
California State U., San Marcos	10,595	89	9,134	89	1,461	0
San Diego State U.	92,964	4	39,515	4	53,449	0
San Francisco State U.	31,888	73	15,675	73	16,213	0
U. California, Berkeley	802,931	257	347,601	182	455,330	75
U. California, Davis	804,282	11,987	374,707	1,843	429,575	10,144
U. California, Irvine	448,967	13,828	217,094	2,790	231,873	11,038
U. California, Los Angeles	1,306,376	62,275	600,714	25,538	705,662	36,737
U. California, Riverside	177,655	802	81,151	0	96,504	802
U. California, San Diego	1,353,763	3,804	698,925	477	654,838	3,327
U. California, San Francisco	1,595,098	49,918	671,047	20,143	924,051	29,775
Private						
Azusa Pacific U.	5,598	1	137	1	5,461	0
Stanford U.	1,204,116	125,414	738,957	45,065	465,159	80,349
Touro U.	3,543	205	1,540	205	2,003	0
U. Southern California	909,683	168,336	543,607	125,072	366,076	43,264
Western U. of Health Sciences	4,951	156	3,035	5	1,916	151
Colorado						
Public						
Colorado State U., Pueblo	3,107	64	1,282	0	1,825	64
U. Colorado Denver and Anschutz Medical Campus	542,732	47,863	353,021	4,030	189,711	43,833
Connecticut						
Public						
U. Connecticut	285,764	5,864	159,220	4,840	126,544	1,024
Private						
Yale U.	1,072,309	41,582	576,776	0	495,533	41,582
Delaware						
Public						
U. Delaware	206,270	1,533	133,020	1,533	73,250	0
District of Columbia						
Private						
George Washington U.	269,799	13,509	155,697	11,702	114,102	1,807
Georgetown U.	240,960	12,107	94,050	16	146,910	12,091
Howard U.	44,163	529	29,978	27	14,185	502
Florida						

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Public						
Florida Atlantic U.	51,085	182	21,667	76	29,418	106
Florida International U.	225,864	7,535	96,912	6,614	128,952	921
Florida State U.	329,205	8,490	149,784	8,237	179,421	253
U. Central Florida	225,085	2,111	99,310	2,067	125,775	44
U. Florida	928,639	41,189	387,906	11,034	540,733	30,155
U. South Florida, Tampa	391,325	11,679	181,882	0	209,443	11,679
U. West Florida	41,977	104	11,506	0	30,471	104
Private						
Nova Southeastern U.	24,567	71	8,965	0	15,602	71
U. Miami	360,716	29,000	212,023	3,618	148,693	25,382
Georgia						
Public						
Augusta U.	96,502	4,940	47,031	43	49,471	4,897
U. Georgia	477,536	688	159,948	566	317,588	122
Private						
Emory U.	794,928	52,859	424,461	8,523	370,467	44,336
Mercer U.	44,128	791	27,035	361	17,093	430
Morehouse School of Medicine	31,289	7	22,461	7	8,828	0
Hawaii						
Public						
U. Hawaii, Manoa	280,416	387	167,816	21	112,600	366
Illinois						
Public						
Southern Illinois U., Carbondale	41,729	1,580	12,625	5	29,104	1,575
U. Illinois, Chicago	382,949	8,504	208,603	5,294	174,346	3,210
U. Illinois, Urbana-Champaign	677,523	166	382,206	136	295,317	30
Private						
Loyola U., Chicago	39,223	3,412	23,562	546	15,661	2,866
Northwestern U.	857,069	53,817	502,300	18,124	354,769	35,693
Rosalind Franklin U. of Medicine and Science	16,126	15	8,865	0	7,261	15
Rush U.	96,267	14,170	68,941	1,215	27,326	12,955
U. Chicago	459,171	32,647	332,776	499	126,395	32,148
Indiana						
Public						
Indiana U., Bloomington	668,157	42,329	308,586	16,639	359,571	25,690
Indiana U.-Purdue U., Indianapolis	67,635	3,112	27,349	1,630	40,286	1,482
Iowa						
Public						
U. Iowa	508,353	12,737	252,563	0	255,790	12,737
Private						
Des Moines U.	1,954	15	845	4	1,109	11
Palmer C. of Chiropractic, Davenport	1,650	1,000	1,100	1,000	550	0
Kansas						
Public						
U. Kansas	352,643	18,366	169,694	1,791	182,949	16,575
Kentucky						
Public						
U. Kentucky	410,581	6,089	192,945	408	217,636	5,681

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U. Louisville	173,462	8,023	87,563	1,962	85,899	6,061
Louisiana						
Public						
Louisiana State U., Baton Rouge	296,497	10,520	88,721	6,980	207,776	3,540
Louisiana State U., Health Sciences Center, New Orleans	40,914	409	31,290	0	9,624	409
Louisiana State U., Health Sciences Center, Shreveport	26,262	373	12,185	5	14,077	368
Private						
Tulane U.	196,933	3,807	104,219	0	92,714	3,807
Maine						
Private						
Bowdoin C.	2,991	116	1,790	0	1,201	116
Maryland						
Public						
Towson U.	3,423	157	2,144	157	1,279	0
U. Maryland <sup>a</sup>	1,096,600	29,542	696,880	1,750	399,720	27,792
Private						
Johns Hopkins U. <sup>b</sup>	2,917,436	46,962	2,482,130	550	435,306	46,412
Massachusetts						
Public						
U. Massachusetts, Amherst	223,177	4,102	117,359	3,391	105,818	711
U. Massachusetts, Medical School	281,507	5,064	197,388	99	84,119	4,965
Private						
Boston C.	61,956	611	32,475	611	29,481	0
Boston U.	534,205	3,622	318,511	59	215,694	3,563
Harvard U.	1,239,736	33,442	618,405	31,500	621,331	1,942
New England C. of Optometry	1,223	44	928	0	295	44
Tufts U.	213,285	2,853	146,630	1,178	66,655	1,675
Michigan						
Public						
Central Michigan U.	17,102	159	8,100	113	9,002	46
Grand Valley State U.	6,592	478	1,663	478	4,929	0
Michigan State U.	725,708	5,363	331,148	4,261	394,560	1,102
Michigan Technological U.	80,443	739	34,709	601	45,734	138
U. Michigan, Ann Arbor	1,675,805	29,859	886,851	3,689	788,954	26,170
Wayne State U.	244,217	14,850	118,043	259	126,174	14,591
Western Michigan U. and Homer Stryker M.D. School of Medicine	25,071	593	14,399	0	10,672	593
Private						
Van Andel Research Institute	61,738	323	18,259	0	43,479	323
Minnesota						
Public						
U. Minnesota, Twin Cities	1,013,112	37,535	494,549	20,244	518,563	17,291
Mississippi						
Public						
U. Mississippi	158,809	10,769	73,865	9,655	84,944	1,114
U. Southern Mississippi	76,464	232	46,924	232	29,540	0
Missouri						
Public						
U. Missouri, Columbia	278,793	3,125	123,252	199	155,541	2,926

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U. Missouri, Kansas City	26,708	89	14,327	0	12,381	89
Private						
Saint Louis U.	66,103	3,785	34,275	673	31,828	3,112
Washington U., Saint Louis	887,088	44,710	543,508	15,057	343,580	29,653
Montana						
Public						
Montana State U., Bozeman	154,811	800	88,955	577	65,856	223
Nebraska						
Public						
U. Nebraska, Kearney	2,919	42	1,240	42	1,679	0
U. Nebraska, Lincoln	316,820	1,620	109,954	1,596	206,866	24
U. Nebraska, Medical Center	194,455	12,958	102,604	5,361	91,851	7,597
Private						
Creighton U.	24,039	1,021	8,265	202	15,774	819
New Hampshire						
Private						
Dartmouth C. and Dartmouth Hitchcock Medical Center	342,142	14,994	154,597	10,909	187,545	4,085
New Jersey						
Public						
Rowan U.	22,892	22	12,064	0	10,828	22
Rutgers, State U. New Jersey, New Brunswick	657,249	16,128	297,609	6,584	359,640	9,544
New Mexico						
Public						
U. New Mexico	239,696	4,678	159,940	1,977	79,756	2,701
New York						
Public						
SUNY, C. of Optometry	2,968	714	1,823	3	1,145	711
SUNY, Downstate Medical Center	36,015	691	26,914	156	9,101	535
SUNY, Stony Brook U.	260,813	3,555	144,618	1,067	116,195	2,488
SUNY, U. Buffalo	413,817	7,815	182,983	274	230,834	7,541
SUNY, Upstate Medical U.	38,091	3,068	22,028	191	16,063	2,877
Private						
Albany Medical C.	23,028	3,418	11,827	390	11,201	3,028
Albert Einstein C. of Medicine	298,824	217	202,513	217	96,311	0
Columbia U. in the City of New York	1,003,615	77,387	736,536	31,215	267,079	46,172
Cornell U.	1,144,534	26,619	525,182	6,720	619,352	19,899
Fordham U.	20,287	8	4,218	8	16,069	0
Icahn School of Medicine at Mount Sinai	722,241	82,507	443,745	33,400	278,496	49,107
New York Medical C.	19,398	3,967	11,061	291	8,337	3,676
New York U.	934,720	28,873	436,850	3,438	497,870	25,435
Rockefeller U.	351,089	261	84,566	29	266,523	232
Syracuse U.	154,366	552	37,803	452	116,563	100
U. Rochester	393,960	29,569	306,551	4,774	87,409	24,795
North Carolina						
Public						
East Carolina U.	55,611	3,272	17,428	197	38,183	3,075
U. North Carolina, Chapel Hill	1,153,773	38,108	720,613	6,913	433,160	31,195
U. North Carolina, Greensboro	26,325	497	18,923	481	7,402	16
Private						

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Duke U.	1,226,517	613,383	709,705	369,235	516,812	244,148
Wake Forest U.	238,933	22,530	165,702	12,166	73,231	10,364
North Dakota						
Public						
North Dakota State U.	152,381	74	35,322	74	117,059	0
Ohio						
Public						
Cleveland State U.	80,077	1,162 i	51,475	955 i	28,602	207 i
Kent State U.	47,188	1,213	13,350	1,179	33,838	34
Miami U.	22,380	1,945	9,755	1,940	12,625	5
Ohio State U.	929,250	61,782	497,651	14,625	431,599	47,157
Ohio U.	53,735	239	14,802	172	38,933	67
U. Cincinnati	529,796	26,796	252,892	11,680	276,904	15,116
U. Toledo	55,006	1,281	28,273	26	26,733	1,255
Wright State U.	64,208	877	41,428	69	22,780	808
Private						
Case Western Reserve U.	438,994	5,512	357,549	4,718	81,445	794
Oklahoma						
Public						
Oklahoma State U., Center for Health Sciences	5,408	113	985	7	4,423	106
U. Oklahoma, Norman and Health Science Center	302,679	9,426	164,855	47	137,824	9,379
U. Oklahoma, Tulsa	6,373	115	1,803	0	4,570	115
Private						
U. Tulsa	18,648	137	4,142	0	14,506	137
Oregon						
Public						
Oregon Health and Science U.	415,629	50,650	298,227	21,327	117,402	29,323
U. Oregon	110,664	6,015	80,083	5,887	30,581	128
Private						
National U. of Natural Medicine	1,245	195	760	136	485	59
Pacific U.	8,753	761	3,917	721	4,836	40
Pennsylvania						
Public						
Pennsylvania State U., University Park and Hershey Medical Center	949,679	7,709	600,489	2,031	349,190	5,678
Temple U.	284,301	16,243	161,673	1,875	122,628	14,368
U. Pittsburgh, Pittsburgh	1,080,951	13,910	677,559	1,104	403,392	12,806
Private						
Drexel U.	149,481	2,355	85,278	502	64,203	1,853
Salus U.	854	285	696	225	158	60
Thomas Jefferson U.	170,458	20,641	74,816	5,722	95,642	14,919
U. Pennsylvania	1,506,285	68,357	717,359	6,436	788,926	61,921
South Carolina						
Public						
Medical U. South Carolina	295,600	37,588	153,226	21,641	142,374	15,947
U. South Carolina, Columbia	205,940	939	102,992	0	102,948	939
Tennessee						
Public						
East Tennessee State U.	14,197	1,491	7,688	1,209	6,509	282

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U. Tennessee, Chattanooga	9,280	30	2,393	0	6,887	30
U. Tennessee, Health Science Center	96,979	1,712	42,396	38	54,583	1,674
Private						
Meharry Medical C.	18,286	128	16,443	0	1,843	128
Vanderbilt U. and Vanderbilt U. Medical Center	776,937	52,272	492,808	18,418	284,129	33,854
Texas						
Public						
Texas A&M U., College Station and Health Science Center	952,156	292	359,609	0	592,547	292
Texas Tech U., Health Sciences Center	44,072	232	11,345	19	32,727	213
Texas Tech U., Health Sciences Center, El Paso	11,883	515	2,279	12	9,604	503
Texas Woman's U.	4,477	238	1,864	184	2,613	54
U. Houston	195,398	171	68,523	74	126,875	97
U. North Texas, Health Science Center	50,124	72	27,260	0	22,864	72
U. Texas Health Science Center, Houston	271,525	18,092	132,647	5,139	138,878	12,953
U. Texas Health Science Center, San Antonio	188,483	7,721	96,502	380	91,981	7,341
U. Texas M. D. Anderson Cancer Center	969,496	137,598	176,156	734	793,340	136,864
U. Texas Medical Branch	175,372	1,864	107,806	648	67,566	1,216
U. Texas Southwestern Medical Center	496,697	31,564	203,544	12,115	293,153	19,449
U. Texas, Arlington	123,207	771	41,764	722	81,443	49
U. Texas, Austin	696,111	8,104	407,981	7,754	288,130	350
U. Texas, El Paso	106,809	999	41,261	999	65,548	0
Private						
Baylor C. of Medicine	651,920	32,032	309,354	13,703	342,566	18,329
Baylor U.	33,304	640	6,955	640	26,349	0
Rice U.	182,564	753	83,584	350	98,980	403
Southern Methodist U.	42,562	357	17,869	353	24,693	4
Texas Christian U.	6,552	130	2,866	130	3,686	0
Utah						
Public						
U. Utah	601,133	30,820	302,585	0	298,548	30,820
Vermont						
Public						
U. Vermont	135,859	50,563	90,405	38,896	45,454	11,667
Private						
Saint Michael's C.	1,200	130	964	130	236	0
Virginia						
Public						
Eastern Virginia Medical School	27,064	3,236	19,408	1,895	7,656	1,341
U. Virginia, Charlottesville	613,938	4,624	276,335	499	337,603	4,125
Virginia Commonwealth U.	255,648	3,765	142,293	974	113,355	2,791
Virginia Polytechnic Institute and State U.	541,969	4,541	209,607	4,351	332,362	190
Washington						
Public						
U. Washington, Bothell	7,950	103	3,353	103	4,597	0
U. Washington, Seattle	1,425,601	37,335	992,643	10,357	432,958	26,978
Washington State U.	369,333	1,132	158,982	1,091	210,351	41
West Virginia						
Public						
Marshall U.	19,622	81	9,617	1	10,005	80

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West Virginia U.	187,512	2,080	82,353	48	105,159	2,032
Wisconsin						
Public						
U. Wisconsin-Madison	1,297,331	13,512	608,925	913	688,406	12,599
Private						
Marquette U.	37,777	1,760	12,792	1,436	24,985	324
Medical C. Wisconsin	244,752	18,205	119,036	2,023	125,716	16,182
Puerto Rico						
Public						
U. Puerto Rico, Medical Sciences Campus	45,014	3,466	34,570	2,333	10,444	1,133
Private						
Ponce Health Sciences U.	11,390	821	8,339	0	3,051	821

i = imputed.

<sup>a</sup> The University of Maryland includes expenditures from the University of Maryland, Baltimore and University of Maryland, College Park campuses. In FY 2019, the two campuses began reporting as one research unit to reflect their new strategic partnership. This relationship was codified through the University of Maryland Strategic Partnership Act passed by the Maryland General Assembly in 2016. Prior to FY 2019, both campuses reported to the survey as separate institutions.

<sup>b</sup> Johns Hopkins University includes the Applied Physics Laboratory, with zero in both total and federally financed clinical trials R&D expenditures in FY 2019.

**Source(s):**

National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2019.