

TABLE 44

Domestic R&D paid for by the U.S. federal government and performed by the company, by funding agency, industry, and company size: 2017

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	DOD	DOE	NASA	NIH	DHS	DOT	EPA	NSF	All other agencies
All industries	21-23, 31-33, 42-81	24,277	16,632	570	4,298	665	52	53	1	10-46	1,959-2,000
Manufacturing industries	31-33	18,889	13,745	209	3,857	112	22	8	*	1-36	896-937
Food	311	1	*	1	0	0	0	*	*	0	0
Beverage and tobacco products	312	0	0	0	0	0	0	0	0	0	0
Textile, apparel, and leather products	313-16	*	*	0	0	0	0	0	0	0	0
Wood products	321	*	*	0	0	0	0	0	0	0	0
Paper	322	*	0	0	0	*	0	0	0	0	0
Printing and related support activities	323	0-2	*	*	0	0-2	0	0	0	0	0
Petroleum and coal products	324	0	0	0	0	0	0	0	0	0	0
Chemicals	325	205	65	3-80	0	60	0-21	0	0	2	0-77
Basic chemicals	3251	6	0	3-7	0	0-3	0	0	0	0	0
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	*	*	0	0	*	0	0	0	0	0
Pesticide, fertilizer, and other agricultural chemicals	3253	0-14	0-14	*	0	0-3	0	0	0	0-3	0
Pharmaceuticals and medicines	3254	186	36-66	0-77	0	58	0-21	0	0	0-3	0-77
Soap, cleaning compound, and toilet preparation	3256	*	0	*	0	*	0	0	0	0	0
Paint, coating, adhesive, and other chemicals	3255, 3259	0-14	0-14	0-14	0	0-3	0	0	0	0	0
Plastics and rubber products	326	1	*	1	0	*	0	0	0	0	0
Nonmetallic mineral products	327	2	0-2	0-2	0	1	0	0-2	0	0	0
Primary metals	331	5	1	2	2	*	0	0	0	0	0
Fabricated metal products	332	59	0-60	0	0-60	0	0	0	0	0	0
Machinery	333	170	31-107	48-130	0-86	0	0	0-9	0	0	0-92
Agricultural implement	33311	3	*	3	0	0	0	0	0	0	0
Semiconductor machinery	333242	7	0	0-8	0	0	0	0	0	0	0-8
Engine, turbine, and power transmission equipment	3336	75-151	30-106	46	0	0	0	0	0	0	0
Other machinery	other 333	7-86	*	0-82	0-86	0	0	0-9	0	0	0-86
Computer and electronic products	334	3,937	3,392	75	358	20-53	*	0-9	0	0-34	59-80
Communications equipment	3342	805	595	0-21	191	0-21	0	0	0	0	0

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Semiconductor and other electronic components	3344	80	51	23	0-8	0	0	0	0	0-8	0-8
Navigational, measuring, electromedical, and control instruments	3345	2,963	2,705	25	140	20-26	*	0-9	0	0	59-72
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	27	4	*	1	21	0	0	0	0	0
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	2,880	2,675	*	135	0	0	0-9	0	0	59-72
Other measuring and controlling device	other 3345	56	26	24	4	0-4	*	0-4	0	0	0
Other computer and electronic products	other 334	89	41	5-29	18-29	0-26	*	0-9	0	0-26	*
Electrical equipment, appliances, and components	335	38	26	0-13	0-13	0-13	0	0	0	0	0
Transportation equipment	336	14,433	10,121	0-82	3,335-3,498	0-32	1-23	0-9	0	0	668-877
Automobiles, bodies, trailers, and parts	3361-63	0-2,745	0-1,431	0-82	0-1,922	0	0-21	0-9	0	0	0-877
Aerospace products and parts	3364	11,259-13,070	8,690	0-82	1,576-3,498	0-32	2	0	0	0	0-877
Aircraft, aircraft engine, and aircraft parts	336411-13	9,905-11,715	8,336	0-82	575-2,497	0-32	2	0	0	0	0-877
Guided missile, space vehicle, and related parts	336414-15, 336419	1,355	353	0	1,001	0	0	0	0	0	0
Military armored vehicle, tank, and tank component	336992	2	2	0	0	0	*	0	0	0	0
Other transportation	other 336	0-1,434	0-1,431	0	0-1,434	0	0	0	0	0	0
Furniture and related products	337	1	0	*	1	*	0	0	0	0	0
Miscellaneous	339	27-42	0-42	0-42	0	0-32	0	0	0	0	0-38
Medical equipment and supplies	3391	7-38	0-38	0-38	0	0-32	0	0	0	0	0-38
Other miscellaneous manufacturing	3399	0-35	0-35	0-35	0	0-32	0	0	0	0	0
Nonmanufacturing industries	21-23, 42-81	5,388	2,887	360	441	553	30	44	1	9	1,064
Mining, extraction, and support activities	21	0	0	0	0	0	0	0	0	0	0
Utilities	22	27	0	27	0	0	0	0	0	0	*
Wholesale trade	42	0	0	0	0	0	0	0	0	0	0
Electronic shopping and electronic auctions	454111-12	0	0	0	0	0	0	0	0	0	0
Transportation and warehousing	48-49	0	0	0	0	0	0	0	0	0	0
Information	51	98	54	19	*	0	0	0	0	0	24

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Publishing	511	62	30	10	* i	0	0	0	0	0	21
Newspaper, periodical, book, and directory publishers	5111	0	0	0	0	0	0	0	0	0	0
Software publishers	5112	62	30	10	* i	0	0	0	0	0	21
Telecommunications	517	0 - 3 i	0	0 - 3 i	0	0	0	0	0	0	0
Data processing, hosting, and related services	518	35	24	8 i	0	0	0	0	0	0	3
Other information	other 51	0 - 3 i	0	0 - 3 i	0	0	0	0	0	0	0
Finance and insurance	52	0	0	0	0	0	0	0	0	0	0
Real estate and rental and leasing	53	0	0	0	0	0	0	0	0	0	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0	0	0	0	0	0	0	0	0
Other real estate and rental and leasing	other 53	0	0	0	0	0	0	0	0	0	0
Professional, scientific, and technical services	54	5,256	2,831	314 i	441	548	30	44	1	9	1,040
Architectural, engineering, and related services	5413	788	587	157 i	7 i	3 i	0	11	0	0	23
Computer systems design and related services	5415	995	479	57 i	11 i	25 i	5	5	0	*	413 i
Scientific research and development services	5417	3,200	1,645	93	335 i	483	21	28	1	8	585
Biotechnology research and development	541711	113	47	2	0	47	1	0	0	1	16
Physical, engineering, and life sciences (except biotechnology) research and development	541712	2,258	1,554	89	335 i	183	20	7	*	5	65
Social sciences and humanities research and development	541720	830	45	2	*	254	1	21	1	2	505
Other professional, scientific, and technical services	other 54	272	119	7	87	36	3	2	*	*	19
Health care services	621-23	5 i	0	* i	0	5 i	0	0	0	0	* i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	2	2	0	0	0	0	0	0	0	0
All companies (number of domestic employees)	-	24,277 i	16,632 i	570 i	4,298 i	665	52	53	1	10-46	1,959-2,000 i
Small companies											
10-19 ^a	-	485	207	122 i	45 i	76	0	7	*	3	24
20-49	-	605	349	57 i	66 i	97	0-33	5	* i	2 i	0-33
Medium companies											
50-99	-	659	500	42 i	39 i	49	0-28	0-13	*	4	0-28
100-249	-	1,241	848	45 i	154 i	83	18	9	*	*	84
Large companies											
250-499	-	592	364	21 i	135	57	0-18	0-13 i	0	0	0-18

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500-999	-	221	166	9 i	1 i	35	*	*	0	0	11
1,000-4,999	-	1,461	564	30 i	156 i	0-30 i	0-35	0-13 i	0	0-38	593 - 713
5,000-9,999	-	1,525	298	71	624	240	0-35	21	1	0	231 - 274
10,000-24,999	-	3,514	2,601	67	810 i	3	*	0-13	0	*	16 - 36 i
25,000 or more	-	13,976 i	10,734 i	105	2,269 i	0-30	0-35	0-13	0	0	788 - 870 i

* = amount < \$500,000; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

DHS = Department of Homeland Security, DOD = Department of Defense, DOE = Department of Energy, DOT = Department of Transportation, EPA = Environmental Protection Agency, NAICS = 2012 North American Industry Classification System, NASA = National Aeronautics and Space Administration, NIH = National Institutes of Health, NSF = National Science Foundation.

^a Business Research and Development Survey does not include companies with fewer than 10 domestic employees.

Note(s)

Detail may not add to total because of rounding. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded R&D. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s)

National Center for Science and Engineering Statistics and U.S. Census Bureau, Business Research and Development Survey, 2017.