

TABLE 3

## Worldwide R&amp;D paid for by the company and others and performed by the company, by industry, company size, and worldwide R&amp;D program size: 2015

(Millions of U.S. dollars)

Industry	NAICS code	R&D program size					
		All companies	Less than \$1 million	\$1 million–\$9.999 million	\$10 million–\$49.999 million	\$50 million–\$99.999 million	\$100 million or more
All industries	21–23, 31–33, 42–81	429,512	10,055	25,785	34,195	21,504	337,972
Manufacturing industries	31–33	288,051	4,888	12,412	19,255	14,752	236,744
Food	311	6,070	224	540	462	608	4,237
Beverages and tobacco products	312	1,525	25	39	192	195	1,074
Textiles, apparel, and leather products	313–16	819	123	175	265	256	0
Wood products	321	198	47	48	103	0	0
Paper	322	867	51	89	127	104	496
Printing and related support activities	323	198	67	81	50	0	0
Petroleum and coal products	324	252	D	45	65	D	0
Chemicals	325	81,342	476	2,445	5,596	4,165	68,660
Basic chemicals	3251	3,677	50	393	626	506	2,102
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,780	146	156	149	79	1,251
Pesticides, fertilizers, and other agricultural chemicals	3253	3,405	D	41	D	0	3,245
Pharmaceuticals and medicines	3254	69,266	58	1,486	4,458	3,009	60,254
Soaps, cleaning compounds, and toilet preparations	3256	1,549	72	124	189	152	1,013
Paints, coatings, adhesives, and other chemicals	3255, 3259	1,665	D	246	D	419	795
Plastics and rubber products	326	2,899	285	702	758	577	577
Nonmetallic mineral products	327	1,487	80	157	234	0	1,015
Primary metals	331	715	71	170	245	0	230
Fabricated metal products	332	2,454	709	710	691	344	0
Machinery	333	16,718	844	1,718	2,098	1,119	10,939
Agricultural implements	33311	2,152	67	91	122	88	1,783
Semiconductor machinery	333242	3,812	9	34	198	177	3,395
Engines, turbines, and power transmission equipment	3336	2,945	36	45	407	0	2,458
Other machinery	other 333	7,809	732	1,548	1,372	855	3,303
Computer and electronic products	334	92,783	802	2,323	3,871	3,707	82,079
Communications equipment	3342	23,049	121	348	671	1,051	20,858
Semiconductors and other electronic components	3344	40,348	264	695	1,488	1,338	36,563
Navigational, measuring, electromedical, and control instruments	3345	16,943	285	1,005	1,105	769	13,779
Electromedical, electrotherapeutic, and irradiation apparatuses	334510, 334517	3,681	62	296	294	557	2,473
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	8,033	7	116	186	0	7,724
Other measuring and controlling devices	other 3345	5,228	216	593	625	212	3,582
Other computer and electronic products	other 334	12,444	133	275	607	550	10,879
Electrical equipment, appliances, and components	335	5,687	171	610	841	829	3,236
Transportation equipment	336	57,687	331	1,014	1,891	1,643	52,808
Automobiles, bodies, trailers, and parts	3361–63	25,698	194	553	1,276	876	22,800
Aerospace products and parts	3364	29,139	70	332	401	637	27,700
Aircraft, aircraft engines, and aircraft parts	336411–13	27,489	67	311	377	510	26,225
Guided missiles, space vehicles, and related parts	336414–15, 336419	1,649	3	20	24	127	1,475

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Military armored vehicles, tanks, and tank components	336992	16	4	12	0	0	0
Other transportation	other 336	2,834	64 i	117	215	130 i	2,308
Furniture and related products	337	477	121 i	69	225	62	0
Miscellaneous manufacturing	339	15,873	D	1,476	1,540	D	11,396
Medical equipment and supplies	3391	13,170	196 i	1,195	1,202	873	9,705
Other miscellaneous manufacturing	3399	2,703 i	D	281	338	D	1,691 i
Nonmanufacturing industries	21–23, 42–81	141,461	5,168 i	13,373	14,940	6,752	101,228
Mining, extraction, and support activities	21	4,348	D	155	112	D	3,984
Utilities	22	483	10 i	56	124	0	293
Wholesale trade	42	1,793 i	861 i	814 i	118 i	0	0
Electronic shopping and electronic auctions	454111–12	D	128 i	22	64 i	0	D
Transportation and warehousing	48–49	416	D	27	D	0	321
Information	51	78,035	765 i	3,006	4,308	3,398	66,559
Publishing	511	42,187	368 i	1,142	1,650	1,441	37,585
Newspaper, periodical, book, and directory publishers	5111	107 i	24 i	13	70	0	0
Software publishers	5112	42,080	344 i	1,129	1,580	1,441	37,585
Telecommunications	517	3,648	41 i	436	159	265	2,748
Data processing, hosting, and related services	518	10,677	250 i	1,250	2,225	1,508	5,444
Other information	other 51	21,523	105 i	178	275	184	20,782
Finance and insurance	52	6,292	11 i	155	629	177	5,321
Real estate and rental and leasing	53	314	D	13	D	221	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	D	4 i	3	D	0	0
Other real estate and rental and leasing	other 53	D	D	10	0	221	0
Professional, scientific, and technical services	54	46,276	3,156 i	8,551	9,061	2,506	23,002
Architectural, engineering, and related services	5413	4,187 i	676 i	1,146 i	1,292 i	257	815
Computer systems design and related services	5415	17,225	1,466 i	2,170 i	3,211	882	9,496
Scientific research and development services	5417	20,707	653 i	4,401	3,368	1,084 i	11,201
Biotechnology research and development	541711	7,211 i	175 i	1,394	760	687 i	4,195 i
Physical, engineering, and life sciences (except biotechnology) research and development	541712	12,787	472 i	2,967	2,589	397	6,362
Social sciences and humanities research and development	541720	708	6 i	40	19	0	643
Other professional, scientific, and technical services	other 54	4,157	361 i	834	1,190	283	1,490
Health care services	621–23	771 i	71 i	204	65	217 i	214 i
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	D	D	370	D	D	D
All companies (number of domestic employees)	–	429,512	10,055 i	25,785	34,195	21,504	337,972
Micro companies <sup>a</sup>							
5–9	–	3,107 i	1,838 i	1,175 i	93 i	0	0
Small companies							
10–19	–	5,756 i	2,431 i	3,044	281 i	0	0
20–49	–	10,624 i	2,839 i	5,623	2,035	127	0
Medium companies							
50–99	–	11,916	1,337 i	4,703	4,711	457 i	708 i

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100–249	–	14,991	1,008	i	4,761	6,481	1,617	1,124
Large companies								
250–499	–	14,675	376	i	2,882	5,821	2,627	2,968
500–999	–	17,643	126	i	1,634	4,483	5,307	6,093
1,000–4,999	–	71,610	84	i	1,603	7,218	8,043	54,663
5,000–9,999	–	48,336	7	i	154	1,894	2,188	44,093
10,000–24,999	–	70,870	7	i	150	641	720	69,353
25,000 or more	–	159,984	2	i	56	538	418	158,970

D = data withheld to avoid disclosing operations of individual companies; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

<sup>a</sup> Business R&D and Innovation Survey does not include companies with fewer than five 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. R&D program size classifications are based on R&D performance.

**Source(s)**

National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2015.