

TABLE 35

Domestic R&D paid for and performed by the company, by industry, company size, and domestic R&D program size: 2019

(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	428,968	4,608	28,126	35,140	24,458	336,636
Manufacturing industries	31–33	248,109	2,637	14,197	19,863	15,920	195,491
Food	311	3,937	159 - 173	600	566	477 - 591	2,019 - 2,120
Beverage and tobacco products	312	971	42	84	60	173 - 274	511 - 612
Textile, apparel, and leather products	313–16	873	28	213	246	220	166
Wood products	321	180	19	80	81	0	0
Paper	322	1,064	12	133	86	0	832
Printing and related support activities	323	420	26	284	110	0	0
Petroleum and coal products	324	1,203	13	24 - 75	77 - 106	0 - 372	645 - 1,066
Chemicals	325	87,288	336	2,683	6,769	6,411	71,088
Basic chemicals	3251	2,198	39	364	633	521	640
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,092	0 - 164	151	118 - 140	0	636 - 823
Pesticide, fertilizer, and other agricultural chemicals	3253	1,501	0 - 25	80	84	0	1,313 - 1,339
Pharmaceuticals and medicines	3254	78,652	59 - 76	1,707	5,373	5,647 - 5,667	65,848
Soap, cleaning compound, and toilet preparation	3256	2,596	74	174	172	107	2,069
Paint, coating, adhesive, and other chemicals	3255, 3259	1,249	0 - 164	207	366 - 391	114 - 137	368 - 562
Plastics and rubber products	326	2,770	159	706	806	275	825
Nonmetallic mineral products	327	1,473	23 - 37	125 - 140	210	86	1,014
Primary metals	331	649	32	233 - 249	302	65 - 81	0
Fabricated metal products	332	2,632	447	1,013	627	356	189
Machinery	333	13,930	393	1,958	1,919	1,353	8,307
Agricultural implement	33311	1,913	46	122	134	193	1,418
Semiconductor machinery	333242	3,854	5	18 - 96	151	243	3,359 - 3,436
Engine, turbine, and power transmission equipment	3336	1,096	16	106	163	0 - 72	738 - 813
Other machinery	other 333	7,067	326	1,635 - 1,712	1,471	844 - 918	2,715
Computer and electronic products	334	75,570	363	2,393	2,948	2,457	67,409
Communications equipment	3342	11,495	49	312 - 379	531	537 - 604	10,000
Semiconductor and other electronic components	3344	31,975	56	686	1,037	819	29,378
Navigational, measuring, electromedical, and control instruments	3345	10,912	212	1,140	1,111	415	8,034
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,117	35	280	468	154	2,179

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Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	3,400	32	150	169	55	2,994
Other measuring and controlling device	other 3345	4,395	145	710	474	205	2,861
Other computer and electronic products	other 334	21,188	47	189 - 254	269	620 - 685	19,996
Electrical equipment, appliances, and components	335	4,886	192	548	855	933	2,358
Transportation equipment	336	31,505	110	1,403	2,016	1,568	26,409
Motor vehicles, bodies, trailers, and parts	3361–63	20,883	84	700	1,280	1,042	17,778
Aerospace products and parts	3364	8,900	3 - 27	478 - 650	493	363 - 388	7,366 - 7,540
Aircraft, aircraft engine, and aircraft parts	336411–13	8,341	0 - 23	376	331	363 - 388	7,248
Guided missile, space vehicle, and related parts	336414–15, 336419	559	4	102 - 274	162	0	118 - 292
Military armored vehicle, tank, and tank component	336992	25	1	24	0	0	0
Other transportation	other 336	1,697	0 - 23	28 - 200	244	137 - 162	1,092 - 1,266
Furniture and related products	337	407	30	127	250	0	0
Miscellaneous	339	18,352	221 - 234	1,514 - 1,556	1,901 - 1,929	1,163 - 1,486	13,187 - 13,513
Medical equipment and supplies	3391	15,812	101	1,079	1,394	1,114	12,123
Other miscellaneous manufacturing	3399	2,540	119 - 133	436 - 477	507 - 535	50 - 372	1,064 - 1,389
Nonmanufacturing industries	21–23, 42–81	180,858	1,970	13,929	15,276	8,538	141,145
Mining, quarrying, oil and gas extraction, and support activities	21	2,535	26	346	0 - 1,716	0	446 - 2,164
Utilities	22	237	0 - 31	29 - 66	127	14 - 81	0
Wholesale trade	42	1,104	400	704	0	0	0
Electronic shopping and electronic auctions	454111–12	3,088 - 15,775	i 14	68	0 - 1,720	0 - 293	1,005 - 15,677
Transportation and warehousing	48–49	9,504	i 19	111	488	101	8,785
Information	51	109,062	393	4,882	6,057	6,354	91,376
Publishing	511	32,447	204	1,567	1,292 - 1,410	1,043	28,221 - 28,341
Newspaper, periodical, book, and directory publishers	5111	61	5	18	38	0	0
Software publishers	5112	32,386	199	1,549	1,255 - 1,372	1,043	28,221 - 28,341
Telecommunications	517	3,700	35	134	487	90	2,954
Data processing, hosting, and related services	518	30,154	119	2,707	3,751	4,746	18,831
Other information	other 51	42,761	35	474	408 - 526	475	41,250 - 41,370
Finance and insurance	52	8,890	14	322	1,287	373	6,893
Real estate and rental and leasing	53	1,371	10	17	64	0	1,280
Lessors of nonfinancial intangible assets (except copyrighted works)	533	45	4	i 6	35	0	0

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Other real estate and rental and leasing	other 53	1,326	6	11	30	0	1,280
Professional, scientific, and technical services	54	29,131	993 - 1,022	5,497	4,957	1,181 - 1,214	16,472
Architectural, engineering, and related services	5413	2,288	222	1,048	580	250	187
Computer systems design and related services	5415	18,395	600	2,505	2,098	520	12,673
Scientific research and development services	5417	3,265	72	1,193	1,350	287	363
Research and development in biotechnology	541711	1,083	20	359	377	157	171
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	2,155	50	808	974	130	193
Research and development in the social sciences and humanities	541720	27	1	26	0	0	0
Other professional, scientific, and technical services	other 54	5,182	97 - 127	751	929	125 - 158	3,249
Health care services	621–23	1,928	26	889	579	50 - 317	116 - 386
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	1,322 - 14,012	11 - 77	1,024 - 1,065	0 - 1,720	170	100 - 12,787
All companies (number of domestic employees)	–	428,968	4,608	28,126	35,140	24,458	336,636
Small companies							
10–19 ^a	–	4,432	977	2,974	334	146	0
20–49	–	10,040	1,567	6,158	2,079 - 2,126	191 - 236	0
Medium companies							
50–99	–	11,492	951	4,808	4,113	1,141	478
100–249	–	16,520	661	6,514	5,809	2,467	1,069
Large companies							
250–499	–	15,356	286	3,165	5,639	2,834	3,432
500–999	–	21,549	91	2,046	5,497	5,043	8,872
1,000–4,999	–	64,475	69	1,966	8,012	8,657	45,770
5,000–9,999	–	44,728	1	161	1,909	1,745	40,911
10,000–24,999	–	74,385	2	232	1,173	1,399	71,579
25,000 or more	–	165,991	1	102	529 - 577	788 - 833	164,525

i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

^a The Business Enterprise 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. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. This change has affected the comparability of these estimates with estimates published for years prior to 2018. R&D program size classifications are based on R&D performance. 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 Census Bureau, Business Enterprise Research and Development Survey, 2019.