

TABLE 30

## Domestic R&amp;D paid for and performed by the company, by industry, company size, and domestic R&amp;D program size: 2021

(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	527,804	5,164	29,864	41,230	25,406	426,141
Manufacturing industries	31–33	287,666	2,804	13,865	23,086	16,407	231,504
Food	311	4,963 - 4,968	165 - 203	645	847	680 - 718	2,588
Beverage and tobacco products	312	1,228	25	124	67	179	832
Textile, apparel, and leather products	313–16	818	65	190	288	79	197
Wood products	321	433 - 442	26	258 - 267	149	0	0
Paper	322	1,139	21	119	163	147	688
Printing and related support activities	323	196 - 205	23 - 32	92	82	0	0
Petroleum and coal products	324	952	19	70	170	72	621
Chemicals	325	97,097	325	2,477	8,251	5,507	80,537
Basic chemicals	3251	2,559	42 - 55	198 - 234	810	556 - 593	871 - 932
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,291 - 1,320	0 - 34	135 - 171	185 - 210	0	880 - 929
Pesticide, fertilizer, and other agricultural chemicals	3253	915 - 946	4 - 17	74	113	0	711 - 754
Pharmaceuticals and medicines	3254	88,524	90	1,649	6,708	4,800	75,276
Soap, cleaning compound, and toilet preparations	3256	2,531	66 - 79	153	155 - 169	0	2,144
Paint, coating, adhesive, and other chemicals	3255, 3259	1,242 - 1,252	51 - 100	202 - 232	240 - 265	114 - 151	533 - 563
Plastics and rubber products	326	2,961	192	650	1,035	171	913
Nonmetallic mineral products	327	1,503	95	191	127	109	981
Primary metals	331	887 - 890	55 - 60	181	282	0	368
Fabricated metal products	332	3,879	474 - 512	1,789	729	514 - 552	334
Machinery	333	16,726	369	1,950	2,228	1,472	10,707
Agricultural implement	33311	1,799 - 1,807	0 - 53	51 - 120	164	50 - 103	1,415 - 1,484
Semiconductor machinery	333242	5,182	6	42	144	278	4,711
Engine, turbine, and power transmission equipment	3336	1,239 - 1,246	11	56 - 65	166	176	829
Other machinery	other 333	8,499	298 - 353	1,723 - 1,796	1,754	914 - 969	3,682 - 3,752
Computer and electronic products	334	94,211	346	2,174	3,035	3,020	85,635
Communications equipment	3342	11,339	59	213 - 278	332 - 386	610 - 677	10,006
Semiconductor and other electronic components	3344	45,516	75	765	1,044	1,076	42,556
Navigational, measuring, electromedical, and control instruments	3345	10,014	187	769 - 833	1,273	887 - 953	6,832
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	2,837	38	164 - 229	422	338	1,809 - 1,876
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	2,109	38	90	90 - 230	221	1,532 - 1,671
Other measuring and controlling devices	other 3345	5,068	112	450 - 515	621 - 760	328 - 395	3,286 - 3,425

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Other computer and electronic products	other 334	27,342	24 i	309 - 363	333 - 387	381	26,240
Electrical equipment, appliances, and components	335	5,007	94	546	1,068	751	2,548
Transportation equipment	336	34,405	174	923	1,999	1,956	29,352
Motor vehicles, bodies, trailers, and parts	3361–63	22,754	75	397	1,311	1,094	19,877
Aerospace products and parts	3364	9,900	43	331	563	626	8,337
Aircraft, aircraft engine, and aircraft parts	336411–13	9,293	39	303 - 332	234 - 564	360	7,998 - 8,338
Guided missile, space vehicle, and related parts	336414–15, 336419	608	4	0 - 28	0 - 329	266	0 - 339
Military armored vehicle, tank, and tank components	336992	20 - 24	2 - 6	18	0	0	0
Other transportation	other 336	1,726 - 1,731	49 - 56	177	125	236	1,138
Furniture and related products	337	423	39	143	241	0	0
Miscellaneous	339	20,822	233 - 250	1,330 - 1,346	2,324	1,714	15,203
Medical equipment and supplies	3391	18,204	108	829	1,735	1,276	14,256
Other miscellaneous manufacturing	3399	2,618	125 - 142	501 - 518	589	438	947
Nonmanufacturing industries	21–23, 42–81	240,138	2,360	15,999	18,143	8,999	194,637
Mining, quarrying, oil and gas extraction, and support activities	21	1,077 - 1,151	20	282 i	155 - 233	126	492
Utilities	22	133 - 17,961	3	0 - 1,392	7 - 932	23 - 108 i	100 - 17,928
Wholesale trade	42	1,661 - 1,770 i	371	1,240 i	49 - 160 i	0	0
Electronic shopping and electronic auctions	454111–12	5,931 - 24,034 i	0 - 399	44	10 - 935	50 - 134	4,419 - 23,494 i
Transportation and warehousing	48–49	7,198 - 7,200	0 - 59	88	537	50 - 109 i	6,467
Information	51	146,488	506	5,022	8,962	4,333	127,666
Publishing	511	38,521	258 - 266	1,762 - 1,892	2,667	1,255 - 1,385	32,441
Newspaper, periodical, book, and directory publishers	5111	81	9	15	56 i	0	0
Software publishers	5112	38,441	249 - 257	1,747 - 1,877	2,611	1,255 - 1,385	32,441
Telecommunications	517	3,736 - 3,805	7 - 15	113 - 183	359	75 i	3,175
Data processing, hosting, and related services	518	44,585	215 - 223	2,678 - 2,787	5,244	2,464 - 2,573	33,866
Other information	other 51	59,577 - 59,647	11	245 - 337	692	353 - 445	58,184
Finance and insurance	52	20,902	10	737	1,134	809	18,213
Real estate and rental and leasing	53	2,095 - 2,097	0 - 60	43	10 - 70	0	1,985

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		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
Lessors of nonfinancial intangible assets (except copyrighted works)	533	5 - 8	0 - 2	6	0	0	0
Other real estate and rental and leasing	other 53	2,087 - 2,091	0 - 60	37	10 - 70	0	1,985
Professional, scientific, and technical services	54	32,083	1,040	6,967	6,009	2,701	15,366
Architectural, engineering, and related services	5413	2,553	207	1,036	1,121	189	0
Computer systems design and related services	5415	17,188	571	3,394	2,014	1,263	9,946
Scientific research and development services	5417	6,123	103	1,485	1,832	1,078	1,624
Research and development in nanotechnology	541713	154	5	106	44	0	0
Research and development in biotechnology (except nanobiotechnology)	541714	1,664	18	455	552	583	58
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	4,266	79	908	1,217	495	1,567
Research and development in the social sciences and humanities	541720	38	2	16	20	0	0
Other professional, scientific, and technical services	other 54	6,218	158	1,052	1,042	171	3,795
Health care services	621–23	1,965 - 2,043	14 - 96	189	347	655	758
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	2,501 - 3,136	0 - 399	0 - 1,392	0 - 925	171	100 - 2,965
All companies (number of domestic employees)	–	527,804	5,164	29,864	41,230	25,406	426,141
Small companies							
10–19 <sup>a</sup>	–	4,258	1,150	2,676	248	50 - 85	100 - 135
20–49	–	12,626	1,584 - 1,671	7,622	3,221	113 - 156	0 - 84
Medium companies							
50–99	–	12,488	1,074	5,178	5,321	915	0
100–249	–	20,030	785 - 870	6,824	7,229	4,122	984 - 1,068
Large companies							
250–499	–	20,574	257	3,166	6,749	3,273	7,129
500–999	–	23,655	116	2,042	5,660	5,234	10,602
1,000–4,999	–	83,609	98	1,947	8,731	6,802	66,031
5,000–9,999	–	53,873	11	168	2,363	2,124	49,205
10,000–24,999	–	84,057	2	177	1,115	2,077	80,687
25,000 or more	–	212,634	*	63	592	656	211,322

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

NAICS = 2017 North American Industry Classification System.

<sup>a</sup> 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. Statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D and are not comparable 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, 2021.