

Table 5. Worldwide R&D paid for by the company and performed by the company and others, by industry and company size: 2024

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Performed by the company	Performed by others
All industries	21–23, 31–33, 42–81	890,002	829,569	60,433
Manufacturing industries	31–33	495,967	444,976	50,990
Food	311	7,920	7,541	379
Beverage and tobacco products	312	2,798	2,457	341
Textile, apparel, and leather products	313–16	910	901	8
Wood products	321	282	263	20
Paper	322	1,325	1,316	9
Printing and related support activities	323	270	259	11
Petroleum and coal products	324	1,493	1,203	290
Chemicals	325	197,022	158,186	38,836
Basic chemicals	3251	4,046	3,793	253
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,838	1,806	32
Pesticide, fertilizer, and other agricultural chemicals	3253	D	D	D
Pharmaceuticals and medicines	3254	184,244	146,269	37,976
Soap, cleaning compound, and toilet preparations	3256	4,061	3,634	427
Paint, coating, adhesive, and other chemicals	3255, 3259	D	D	D
Plastics and rubber products	326	3,233	3,171	62
Nonmetallic mineral products	327	1,810	1,782	28
Primary metals	331	1,323	1,305	18
Fabricated metal products	332	3,911	3,871	40
Machinery	333	26,647	26,169	478
Agricultural implement	33311	D	D	D
Semiconductor machinery	333242	D	D	D
Engine, turbine, and power transmission equipment	3336	5,056	5,031	25
Other machinery	other 333	10,312	10,161	151
Computer and electronic products	334	149,206	144,408	4,798
Communications equipment	3342	16,977	15,898	1,079
Semiconductor and other electronic components	3344	70,675	70,109	566
Navigational, measuring, electromedical, and control instruments	3345	14,408	14,036	372
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,739	3,577	162
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	3,669	3,652	17
Other measuring and controlling devices	other 3345	7,000	6,807	193
Other computer and electronic products	other 334	47,146	44,365	2,781
Electrical equipment, appliances, and components	335	8,100	8,001	99
Transportation equipment	336	58,375	54,192	4,182
Motor vehicles, bodies, trailers, and parts	3361–63	39,292	35,557	3,734
Aerospace products and parts	3364	17,033	16,655	378
Aircraft, aircraft engine, and aircraft parts	336411–13	11,854	11,593	262
Guided missile, space vehicle, and related parts	336414–15, 336419	5,179	5,063	116
Military armored vehicle, tank, and tank components	336992	24	23	1
Other transportation	other 336	2,026	1,957	70
Furniture and related products	337	501	497	4
Miscellaneous	339	30,842	29,454	1,388
Medical equipment and supplies	3391	27,628	26,367	1,261
Other miscellaneous manufacturing	3399	3,214	3,086	127
Nonmanufacturing industries	21–23, 42–81	394,035	384,593	9,443
Mining, quarrying, oil and gas extraction, and support activities	21	1,737	1,554	183
Utilities	22	1,358	D	D
Wholesale trade	42	D	D	D
Electronic shopping and electronic auctions	454111–12	10,712	10,188	524
Transportation and warehousing	48–49	D	D	D

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Information	51	277,811	273,014	4,797
Publishing	511	81,746	79,860	1,885
Newspaper, periodical, book, and directory publishers	5111	520	i 497	i 23
Software publishers	5112	81,226	79,363	1,863
Telecommunications	517	D	D	D
Data processing, hosting, and related services	518	72,223	71,785	438
Other information	other 51	D	D	D
Finance and insurance	52	30,542	29,422	1,120
Real estate and rental and leasing	53	2,883	2,856	27
Lessors of nonfinancial intangible assets (except copyrighted works)	533	47	23	24
Other real estate and rental and leasing	other 53	2,836	2,833	3
Professional, scientific, and technical services	54	49,564	48,169	1,394
Architectural, engineering, and related services	5413	3,485	3,269	216
Computer systems design and related services	5415	28,830	28,167	663
Scientific research and development services	5417	7,044	6,655	390
Research and development in nanotechnology	541713	465	453	11
Research and development in biotechnology (except nanobiotechnology)	541714	1,350	1,221	129
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	5,221	4,972	249
Research and development in the social sciences and humanities	541720	9	8	*
Other professional, scientific, and technical services	other 54	10,204	10,079	i 125
Health care services	621–23	2,084	1,986	98
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	3,916	3,766	150
All companies (number of domestic employees)	–	890,002	829,569	60,433
Small companies				
10–19 ^a	–	5,305	4,370	935
20–49	–	17,830	15,317	2,513
Medium companies				
50–99	–	18,982	16,140	2,841
100–249	–	33,429	29,316	4,114
Large companies				
250–499	–	33,538	30,529	3,009
500–999	–	47,427	45,042	2,385
1,000–4,999	–	145,933	137,920	8,012
5,000–9,999	–	72,974	67,394	5,581
10,000–24,999	–	166,552	152,304	14,248
25,000 or more	–	348,032	331,238	16,794

* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies; 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.

^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. Statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2024.