

Table 3. Worldwide R&D paid for by the company and others and performed by the company, by industry, company size, and worldwide R&D program size: 2024

(Millions of U.S. dollars)

Industry and company size	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	929,809	4,710	33,688	51,153	41,550	798,708
Manufacturing industries	31–33	495,527	2,222	14,444	25,326	24,401	429,133
Food	311	7,810	165	863	1,054	691	5,037
Beverage and tobacco products	312	2,457	47	110	51	451	1,799
Textile, apparel, and leather products	313–16	907	24	242	326	140	174
Wood products	321	269	14	114	141	0	0
Paper	322	1,317	10	103	220	61	924
Printing and related support activities	323	260	18	99	56	86	0
Petroleum and coal products	324	1,205	D	D	172	129	D
Chemicals	325	170,685	304	2,736	10,156	9,488	148,001
Basic chemicals	3251	4,041	69	373	606	820	2,172
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,870	22	206	171	105	1,365
Pesticide, fertilizer, and other agricultural chemicals	3253	1,421	10	64	249	0	1,099
Pharmaceuticals and medicines	3254	157,749	79	1,527	8,824	8,320	138,999
Soap, cleaning compound, and toilet preparations	3256	3,905	39	171	72	0	3,623
Paint, coating, adhesive, and other chemicals	3255, 3259	1,699	85	395	234	243	743
Plastics and rubber products	326	3,326	154	566	455	672	1,479
Nonmetallic mineral products	327	1,804	44	131	306	0	1,324
Primary metals	331	1,352	26	180	262	161	722
Fabricated metal products	332	3,978	338	1,183	389	751	1,316
Machinery	333	28,454	349	1,971	1,858	2,055	22,222
Agricultural implement	33311	3,657	D	135	105	D	3,228
Semiconductor machinery	333242	8,798	3	51	128	68	8,548
Engine, turbine, and power transmission equipment	3336	5,485	D	70	197	D	5,142
Other machinery	other 333	10,515	D	1,715	1,429	D	5,305
Computer and electronic products	334	153,232	298	2,282	3,589	3,622	143,442
Communications equipment	3342	16,688	37	549	443	392	15,266
Semiconductor and other electronic components	3344	74,100	72	601	1,094	1,382	70,951
Navigational, measuring, electromedical, and control instruments	3345	17,442	158	958	1,666	1,365	13,296
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,793	33	268	612	485	2,394
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	6,645	15	114	378	362	5,775
Other measuring and controlling devices	other 3345	7,004	109	575	676	517	5,127
Other computer and electronic products	other 334	45,002	30	174	386	483	43,928
Electrical equipment, appliances, and components	335	8,880	55	458	1,332	1,396	5,638
Transportation equipment	336	79,271	192	1,232	2,493	1,639	73,714
Motor vehicles, bodies, trailers, and parts	3361–63	37,737	128	657	1,462	1,302	34,187
Aerospace products and parts	3364	37,835	33	327	833	175	36,468
Aircraft, aircraft engine, and aircraft parts	336411–13	26,748	30	298	705	175	25,540
Guided missile, space vehicle, and related parts	336414–15, 336419	11,087	3	28	128	0	10,928
Military armored vehicle, tank, and tank components	336992	33	1	33	0	0	0

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Other transportation	other 336	3,665	30	216	199	162	3,059
Furniture and related products	337	498	27	130	118	222	0
Miscellaneous	339	29,822	D	D	2,348	2,836	D
Medical equipment and supplies	3391	26,707	92	1,528	1,741	2,267	21,079
Other miscellaneous manufacturing	3399	3,114	D	D	606	569	D
Nonmanufacturing industries	21–23, 42–81	434,282	2,488	19,243	25,827	17,149	369,575
Mining, quarrying, oil and gas extraction, and support activities	21	2,217	9	72	290	173	1,673
Utilities	22	623	3	97	113	108	302
Wholesale trade	42	1,802	i 335	1,207	i 260	i 0	0
Electronic shopping and electronic auctions	454111–12	10,188	i 17	82	139	139	9,811
Transportation and warehousing	48–49	11,610	D	562	r 224	D	10,671
Information	51	274,536	434	6,530	12,326	8,344	246,902
Publishing	511	80,509	288	2,838	3,922	2,512	70,950
Newspaper, periodical, book, and directory publishers	5111	497	i 6	i 23	0	469	i 0
Software publishers	5112	80,012	282	2,815	3,922	2,044	70,950
Telecommunications	517	3,547	25	209	465	126	2,722
Data processing, hosting, and related services	518	72,547	116	3,179	7,155	5,385	56,712
Other information	other 51	117,933	5	i 305	784	321	116,518
Finance and insurance	52	29,593	7	451	929	1,331	26,874
Real estate and rental and leasing	53	2,856	11	r 74	135	174	2,463
Lessors of nonfinancial intangible assets (except copyrighted works)	533	23	1	i 0	23	0	0
Other real estate and rental and leasing	other 53	2,833	10	r 74	112	174	2,463
Professional, scientific, and technical services	54	94,925	1,554	9,091	9,993	5,808	68,480
Architectural, engineering, and related services	5413	3,931	620	1,269	1,220	472	350
Computer systems design and related services	5415	32,634	564	i 3,793	4,098	2,802	21,377
Scientific research and development services	5417	47,162	123	2,983	3,066	1,793	39,196
Research and development in nanotechnology	541713	568	5	125	172	0	265
Research and development in biotechnology (except nanobiotechnology)	541714	9,580	29	801	648	401	7,701
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	36,299	86	2,033	2,203	1,392	30,586
Research and development in the social sciences and humanities	541720	714	3	25	43	0	644
Other professional, scientific, and technical services	other 54	11,199	i 247	i 1,046	1,608	741	7,557
Health care services	621–23	2,118	44	260	348	497	i 968
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	3,814	D	817	1,071	D	1,431
All companies (number of domestic employees)	–	929,809	4,710	33,688	51,153	41,550	798,708
Small companies							
10–19 ^a	–	5,434	1,122	3,711	537	63	0
20–49	–	17,384	1,532	8,457	4,033	596	2,766
Medium companies							
50–99	–	18,251	750	6,426	7,927	2,352	796

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100–249	–	32,183	621	6,753	11,671	7,592	5,546	
Large companies								
250–499	–	33,288	194	3,474	8,863	6,435	14,321	
500–999	–	49,792	410	2,306	6,113	7,926	33,037	
1,000–4,999	–	152,811	69	2,060	8,479	11,686	130,517	
5,000–9,999	–	76,317	3	236	1,955	2,457	71,666	
10,000–24,999	–	177,871	4	187	1,024	1,662	174,994	
25,000 or more	–	366,479	5	78	551	780	365,064	

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; r = relative standard error is more than 50%.

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. R&D program size classifications are based on R&D performance.

Source(s):

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