

TABLE 69

U.S. patent applications and patents issued to companies located in the United States that performed or funded R&D, by industry and company size: 2022

(Number)

Industry and company size	NAICS code	Applications				Patents issued ^c
		Total	Nonprovisional utility patents			
			Total	To foreign jurisdictions ^a	From within organized R&D activity ^b	
All industries	21-23, 31-33, 42-81	160,810	110,955	57,853	90,432	103,232
Manufacturing industries	31-33	116,218	76,771	45,612	64,169	70,731
Food	311	2,035	1,131	516	633	925
Beverage and tobacco products	312	799	685	617	649	457
Textile, apparel, and leather products	313-16	441	226	122	171	158
Wood products	321	61	12	5	8	54
Paper	322	260	219	89	213	335
Printing and related support activities	323	153	74	55	71	93
Petroleum and coal products	324	599	316	103	115	460
Chemicals	325	18,135	9,383	7,585	8,613	7,913
Basic chemicals	3251	1,023	644	559	592	480
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	820	354	231	331	480
Pesticide, fertilizer, and other agricultural chemicals	3253	377	190	128	174	131
Pharmaceuticals and medicines	3254	13,486	6,547	5,574	6,166	5,230
Soap, cleaning compound, and toilet preparations	3256	1,500	1,111	707	819	948
Paint, coating, adhesive, and other chemicals	3255, 3259	929	536	387	530	644
Plastics and rubber products	326	1,277	712	399	615	569
Nonmetallic mineral products	327	1,462	1,338	930	1,209	673
Primary metals	331	129	68	54	68	53
Fabricated metal products	332	1,953	979	579	809	643
Machinery	333	12,256	7,219	4,160	6,146	7,781
Agricultural implement	33311	1,525	999	606	947	1,019
Semiconductor machinery	333242	2,949	783	584	634	1,324
Engine, turbine, and power transmission equipment	3336	1,133	855	561	757	738
Other machinery	other 333	6,649	4,581	2,408	3,808	4,700
Computer and electronic products	334	44,269	33,803	15,490	27,670	30,450
Communications equipment	3342	8,062	7,209	5,712	6,025	7,081
Semiconductor and other electronic components	3344	21,781	16,104	6,582	12,108	12,057
Navigational, measuring, electromedical, and control instruments	3345	2,655	1,963	1,148	1,391	1,655
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	661	459	174	437	367
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	161	147	122	126	137
Other measuring and controlling devices	other 3345	1,833	1,357	852	829	1,151

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Other computer and electronic products	other 334	11,771	8,527	2,047	8,146	9,657	
Electrical equipment, appliances, and components	335	4,254	2,860	1,826	2,152	2,695	
Transportation equipment	336	11,562	9,322	6,770	7,078	9,516	
Motor vehicles, bodies, trailers, and parts	3361-63	5,974	4,695	3,827	3,415	3,962	
Aerospace products and parts	3364	4,845	4,110	2,816	3,473	5,345	
Aircraft, aircraft engine, and aircraft parts	336411-13	1,872	1,505	556	874	1,868	
Guided missile, space vehicle, and related parts	336414-15, 336419	2,973	2,605	2,260	2,599	3,477	
Military armored vehicle, tank, and tank components	336992	13	4	0	4	9	
Other transportation	other 336	730	513	128	186	200	
Furniture and related products	337	184	94	27	57	76	
Miscellaneous	339	16,391	8,327	6,285	7,893	7,881	
Medical equipment and supplies	3391	13,703	7,160	5,593	6,812	6,936	
Other miscellaneous manufacturing	3399	2,688	1,167	692	1,081	944	
Nonmanufacturing industries	21-23, 42-81	44,592	34,185	12,241	26,262	32,501	
Mining, quarrying, oil and gas extraction, and support activities	21	871	562	476	528	432	
Utilities	22	79	70	19	67	51	
Wholesale trade	42	1,971	894	239	846	924	
Electronic shopping and electronic auctions	454111-12	2,123	1,957	137	1,956	2,094	
Transportation and warehousing	48-49	281	235	30	224	321	
Information	51	21,322	16,669	6,196	14,363	14,556	
Publishing	511	4,425	3,521	1,946	3,240	4,027	
Newspaper, periodical, book, and directory publishers	5111	147	147	0	0	0	
Software publishers	5112	4,278	3,374	1,946	3,240	4,027	
Telecommunications	517	2,994	2,787	239	1,582	2,449	
Data processing, hosting, and related services	518	6,126	4,671	671	4,192	4,223	
Other information	other 51	7,777	5,689	3,339	5,349	3,856	
Finance and insurance	52	3,147	2,646	347	1,289	2,218	
Real estate and rental and leasing	53	72	36	3	30	64	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0	0	0	0	
Other real estate and rental and leasing	other 53	72	36	3	30	64	
Professional, scientific, and technical services	54	14,082	10,771	4,695	6,671	11,701	
Architectural, engineering, and related services	5413	483	317	174	178	171	

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Computer systems design and related services	5415	6,586	5,467	1,570	3,479	7,095	
Scientific research and development services	5417	6,351	4,681	2,765	2,727	3,896	
Research and development in nanotechnology	541713	326	250	53	243	143	
Research and development in biotechnology (except nanobiotechnology)	541714	617	341	235	289	160	
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	5,394	4,078	2,478	2,196	3,587	
Research and development in the social sciences and humanities	541720	13	12	0	0	6	
Other professional, scientific, and technical services	other 54	662	306	187	287	539	
Health care services	621–23	233	92	51	74	62	
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	411	253	48	215	77	
All companies (number of domestic employees)	–	160,810	110,955	57,853	90,432	103,232	
Small companies							
10–19 ^d	–	1,948	1,147	469	865	885	
20–49	–	5,106	3,055	1,483	2,446	1,927	
Medium companies							
50–99	–	4,761	2,585	1,300	2,393	1,992	
100–249	–	11,499	8,513	6,441	8,010	7,140	
Large companies							
250–499	–	7,770	4,431	2,253	3,529	3,016	
500–999	–	5,811	3,454	2,246	3,122	2,947	
1,000–4,999	–	21,439	15,228	8,479	11,825	13,518	
5,000–9,999	–	14,930	10,363	5,344	9,723	9,226	
10,000–24,999	–	31,705	20,571	12,350	17,727	20,184	
25,000 or more	–	55,840	41,608	17,487	30,792	42,397	

i = more than 50% of the estimate is imputation to account for nonresponse.

NAICS = 2017 North American Industry Classification System.

^a Also includes patent applications for which company planned to apply for in foreign jurisdictions.^b Includes patent applications in which the named inventors were R&D employees.^c Includes patent applications from 2022 and prior years. For a small number of companies issued more than 100 patents by the Patent and Trademark Office (USPTO), counts from USPTO.gov were used to supplement survey data.^d 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. Statistics are based on companies in the United States that reported to the survey. No systematic item imputation was applied. These statistics include an adjustment to the weight to account for unit nonresponse.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2022.