

Table 41. Domestic R&D performance, by performer, source of funds, industry, and company size: 2024

(Millions of U.S. dollars)

Industry and company size	NAICS code	Performed by the company			Performed by others		
		Total	Paid for by the company	Paid for by others	Total	Paid for by the company	Paid for by others
All industries	21–23, 31–33, 42–81	765,082	679,371	85,711	59,683	49,148	10,535
Manufacturing industries	31–33	405,092	356,431	48,661	48,362	41,163	7,199
Food	311	6,288	6,020	268	281	279	2
Beverage and tobacco products	312	1,459	1,459	*	171	171	0
Textile, apparel, and leather products	313–16	788	783	6	6	6	0
Wood products	321	267	261	6	20	20	0
Paper	322	1,240	1,238	1	7	7	0
Printing and related support activities	323	255	253	2	1	1	0
Petroleum and coal products	324	1,006	1,004	2	215	215	*
Chemicals	325	143,745	131,790	11,954	35,578	31,377	4,201
Basic chemicals	3251	3,120	2,883	237	201	198	2
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,354	D	D	105	16	89
Pesticide, fertilizer, and other agricultural chemicals	3253	1,253	D	D	73	D	D
Pharmaceuticals and medicines	3254	133,627	122,656	10,971	34,867	30,765	4,102
Soap, cleaning compound, and toilet preparations	3256	2,956	2,684	272	302	302	0
Paint, coating, adhesive, and other chemicals	3255, 3259	1,435	D	D	29	D	D
Plastics and rubber products	326	2,908	2,767	141	35	34	*
Nonmetallic mineral products	327	1,578	1,556	22	27	27	*
Primary metals	331	1,174	1,129	45	21	18	2
Fabricated metal products	332	3,230	3,137	93	92	26	66
Machinery	333	22,035	19,844	2,191	417	358	58
Agricultural implement	33311	2,561	D	D	D	D	D
Semiconductor machinery	333242	6,851	D	D	28	D	D
Engine, turbine, and power transmission equipment	3336	4,230	D	D	D	D	5
Other machinery	other 333	8,394	8,060	333	128	120	8
Computer and electronic products	334	115,599	107,038	8,561	4,305	4,205	101
Communications equipment	3342	12,839	12,069	771	1,034	1,034	*
Semiconductor and other electronic components	3344	52,358	48,546	3,812	D	373	D
Navigational, measuring, electromedical, and control instruments	3345	14,083	10,736	3,347	370	291	79
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,245	3,046	199	165	159	6
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	6,161	3,190	2,971	79	15	64
Other measuring and controlling devices	other 3345	4,677	4,501	177	126	118	9
Other computer and electronic products	other 334	36,318	35,687	631	D	2,507	D
Electrical equipment, appliances, and components	335	6,999	6,135	864	77	76	1
Transportation equipment	336	71,231	47,039	24,192	6,029	3,265	2,764
Motor vehicles, bodies, trailers, and parts	3361–63	31,812	D	D	3,010	D	D
Aerospace products and parts	3364	35,904	15,130	20,774	2,958	D	D
Aircraft, aircraft engine, and aircraft parts	336411–13	D	D	D	D	D	2,613
Guided missile, space vehicle, and related parts	336414–15, 336419	D	D	D	D	D	D
Military armored vehicle, tank, and tank components	336992	33	23	10	1	1	0
Other transportation	other 336	3,481	D	D	61	57	3

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Furniture and related products	337	450	450	0	4	4	0
Miscellaneous	339	24,840	24,528	312	1,077	1,074	4
Medical equipment and supplies	3391	22,126	21,840	285	997	993	4
Other miscellaneous manufacturing	3399	2,715	2,688	27	81	81	*
Nonmanufacturing industries	21–23, 42–81	359,990	322,940	37,050	11,321	7,985	3,336
Mining, quarrying, oil and gas extraction, and support activities	21	1,862	1,224	638 i	112	112	*
Utilities	22	613	D	D	D	D	D
Wholesale trade	42	1,692 i	D	D	87 i	D	D
Electronic shopping and electronic auctions	454111–12	7,898 i	7,898 i	0	511 i	508 i	2 r
Transportation and warehousing	48–49	11,341	D	D	D	D	D
Information	51	228,174	226,853	1,322	4,026	4,012	13
Publishing	511	63,596	63,085	511	D	1,442	D
Newspaper, periodical, book, and directory publishers	5111	489 i	489 i	0	11	11	0
Software publishers	5112	63,108	62,597	511	D	1,431	D
Telecommunications	517	3,323	D	D	D	D	D
Data processing, hosting, and related services	518	58,772	58,017	755	354	350	4
Other information	other 51	102,484	D	D	D	D	D
Finance and insurance	52	25,463	25,362	101	938	938	0
Real estate and rental and leasing	53	2,750	2,750	0	3	3	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	23	23	0	* i	* i	0
Other real estate and rental and leasing	other 53	2,727	2,727	0	3	3	0
Professional, scientific, and technical services	54	74,548	40,134	34,415	4,069	1,074	2,994 i
Architectural, engineering, and related services	5413	3,893	3,240	654	281	198	83
Computer systems design and related services	5415	26,764	22,353	4,411	742	507	235
Scientific research and development services	5417	33,942	5,705	28,237	2,878 i	263	2,615 i
Research and development in nanotechnology	541713	548	434	115	23	11	11
Research and development in biotechnology (except nanobiotechnology)	541714	6,751	1,204	5,547	181	103	77
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	25,931	4,060	21,872 i	2,674 i	148	2,526 i
Research and development in the social sciences and humanities	541720	712	8	704	1	*	1
Other professional, scientific, and technical services	other 54	9,949 i	8,835 i	1,113	168	107	60
Health care services	621–23	2,020	1,888	131	119	87	32
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	3,628	3,579	49	143	123	20
All companies (number of domestic employees)	–	765,082	679,371	85,711	59,683	49,148	10,535
Small companies							
10–19 ^a	–	4,790	3,734	1,056	718	583	135
20–49	–	16,179	14,153	2,026	2,404	2,069	335
Medium companies							
50–99	–	17,078	14,998	2,080	2,560	2,116	444
100–249	–	29,325	26,548	2,777	3,520	3,143	378
Large companies							

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250–499	–	28,852	26,185	2,667	3,126	2,568	558
500–999	–	44,697	40,152	4,545	2,449	1,980	469
1,000–4,999	–	123,813	110,612	13,201	8,867	7,060	1,807
5,000–9,999	–	62,950	55,804	7,146	6,284	4,908	1,376
10,000–24,999	–	140,348	120,991	19,357	12,561	10,966	1,594
25,000 or more	–	297,050	266,195	30,855	17,194	13,755	3,439 i

* = 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; 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.

Source(s):

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