

Table 42. Domestic R&D performance, by source of funds, performer, industry, and company size: 2024

(Millions of U.S. dollars)

Industry and company size	NAICS code	Paid for by the company				Paid for by others							
						Total		R&D performed by others (subcontracted or passed-through R&D costs)		R&D performed by the company			
		Total	R&D performed by others (purchased and collaborative R&D)	R&D performed by the company						Total	Paid for by the U.S. government	Paid for by non-U.S. government sources	
All industries	21–23, 31–33, 42–81	728,519	49,148	679,371	96,246	10,535	85,711	30,995	54,716				
Manufacturing industries	31–33	397,593	41,163	356,431	55,860	7,199	48,661	23,361	25,300				
Food	311	6,299	279	6,020	270	2	268	1	267				
Beverage and tobacco products	312	1,630	171	1,459	*	0	*	*	0				
Textile, apparel, and leather products	313–16	789	6	783	6	0	6	0	6				
Wood products	321	281	20	261	6	0	6	*	6				
Paper	322	1,245	7	1,238	1	0	1	0	1				
Printing and related support activities	323	254	1	253	2	0	2	0	2				
Petroleum and coal products	324	1,219	215	1,004	3	*	2	1	1				
Chemicals	325	163,167	31,377	131,790	16,156	4,201	11,954	684	11,270				
Basic chemicals	3251	3,081	198	2,883	239	2	237	72	165				
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	D	16	D	D	89	i D	0	D				
Pesticide, fertilizer, and other agricultural chemicals	3253	D	D	D	D	D	D	D	D				
Pharmaceuticals and medicines	3254	153,421	30,765	122,656	15,073	4,102	10,971	587	i 10,384				
Soap, cleaning compound, and toilet preparations	3256	2,986	302	2,684	272	0	272	0	272				
Paint, coating, adhesive, and other chemicals	3255, 3259	D	D	D	D	D	D	D	D				
Plastics and rubber products	326	2,802	34	2,767	141	*	141	2	139				
Nonmetallic mineral products	327	1,583	i 27	i 1,556	i 22	*	22	2	19				
Primary metals	331	1,147	18	1,129	47	2	45	6	39				
Fabricated metal products	332	3,163	26	3,137	159	66	93	5	r 88				
Machinery	333	20,203	358	19,844	2,249	58	2,191	161	2,030				
Agricultural implement	33311	D	D	D	D	D	D	2	r D				
Semiconductor machinery	333242	D	D	D	D	D	D	D	D				
Engine, turbine, and power transmission equipment	3336	D	D	D	D	5	D	D	D				
Other machinery	other 333	8,180	120	8,060	341	8	333	33	300				

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Computer and electronic products	334	111,242	4,205	107,038	8,661	101	8,561	3,380	5,181	
Communications equipment	3342	13,103	1,034	12,069	771	*	771	D	D	
Semiconductor and other electronic components	3344	48,919	373	48,546	D	D	3,812	243	3,570	
Navigational, measuring, electromedical, and control instruments	3345	11,027	291	10,736	3,426	79	3,347	2,897	450	
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,205	159	3,046	205	6	199	37	161	
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	3,204	15	3,190	3,036	64	2,971	2,765	206	
Other measuring and controlling devices	other 3345	4,618	118	4,501	185	9	177	94	83	
Other computer and electronic products	other 334	38,194	2,507	35,687	D	D	631	D	D	
Electrical equipment, appliances, and components	335	6,211	76	6,135	865	1	864	62	802	
Transportation equipment	336	50,304	3,265	47,039	26,956	2,764	24,192	18,950	5,242	
Motor vehicles, bodies, trailers, and parts	3361–63	D	D	D	D	D	D	D	1,652	
Aerospace products and parts	3364	D	D	15,130	D	D	20,774	17,217	3,557	
Aircraft, aircraft engine, and aircraft parts	336411–13	D	D	D	D	2,613	D	13,802	D	
Guided missile, space vehicle, and related parts	336414–15, 336419	D	D	D	D	D	D	3,414	D	
Military armored vehicle, tank, and tank components	336992	24	1	23	10	0	10	D	D	
Other transportation	other 336	D	57	D	D	3	D	D	D	
Furniture and related products	337	454	4	450	0	0	0	0	0	
Miscellaneous	339	25,602	1,074	24,528	316	4	312	107	205	
Medical equipment and supplies	3391	22,833	993	21,840	289	4	285	98	187	

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Other miscellaneous manufacturing	3399	2,769	81	2,688	27	*		27	9	18	
Nonmanufacturing industries	21–23, 42–81	330,926	7,985	322,940	40,386	3,336		37,050	7,634	29,416	
Mining, quarrying, oil and gas extraction, and support activities	21	1,336	112	1,224	639	*		638	*	638	i
Utilities	22	1,347	D	D	D	D		D	D	1	
Wholesale trade	42	D	D	D	D	D		D	D	D	
Electronic shopping and electronic auctions	454111–12	8,406	i 508	i 7,898	i 2	r 2	r	0	0	0	
Transportation and warehousing	48–49	D	D	D	D	D		D	D	2	
Information	51	230,865	4,012	226,853	1,335	13		1,322	60	1,262	
Publishing	511	64,527	1,442	63,085	D	D		511	3	508	
Newspaper, periodical, book, and directory publishers	5111	499	i 11	i 489	0	0		0	0	0	
Software publishers	5112	64,028	1,431	62,597	D	D		511	3	508	
Telecommunications	517	3,871	D	D	D	D		D	3	D	
Data processing, hosting, and related services	518	58,367	350	58,017	759	4		755	53	702	
Other information	other 51	104,101	D	D	D	D		D	0	D	
Finance and insurance	52	26,301	938	25,362	101	0		101	0	101	
Real estate and rental and leasing	53	2,753	3	2,750	0	0		0	0	0	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	24	* i	23	0	0		0	0	0	
Other real estate and rental and leasing	other 53	2,730	3	2,727	0	0		0	0	0	
Professional, scientific, and technical services	54	41,208	1,074	40,134	37,409	2,994	i	34,415	7,297	27,118	
Architectural, engineering, and related services	5413	3,437	198	3,240	737	83		654	404	249	
Computer systems design and related services	5415	22,860	507	22,353	4,646	235		4,411	1,115	3,295	
Scientific research and development services	5417	5,968	263	5,705	30,852	2,615	i	28,237	4,933	23,304	
Research and development in nanotechnology	541713	445	11	434	126	11		115	75	39	

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Research and development in biotechnology (except nanobiotechnology)	541714	1,307		103		1,204		5,625		77		5,547		641		4,906	
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	4,208		148		4,060		24,398		2,526		21,872		3,542		18,330	
Research and development in the social sciences and humanities	541720	9		*		8		704		1		704		675		29	
Other professional, scientific, and technical services	other 54	8,943		107		8,835		1,174		60		1,113		844		269	
Health care services	621–23	1,975		87		1,888		164		32		131		*		131	
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	3,702		123		3,579		69		20		49		D		D	
All companies (number of domestic employees)	–	728,519		49,148		679,371		96,246		10,535		85,711		30,995		54,716	
Small companies																	
10–19 ^a	–	4,317		583		3,734		1,191		135		1,056		486		570	
20–49	–	16,221		2,069		14,153		2,361		335		2,026		808		1,218	
Medium companies																	
50–99	–	17,114		2,116		14,998		2,524		444		2,080		703		1,376	
100–249	–	29,691		3,143		26,548		3,155		378		2,777		1,089		1,689	
Large companies																	
250–499	–	28,753		2,568		26,185		3,226		558		2,667		878		1,789	
500–999	–	42,131		1,980		40,152		5,014		469		4,545		853		3,692	
1,000–4,999	–	117,672		7,060		110,612		15,008		1,807		13,201		1,579		11,621	
5,000–9,999	–	60,712		4,908		55,804		8,522		1,376		7,146		1,150		5,996	
10,000–24,999	–	131,958		10,966		120,991		20,952		1,594		19,357		2,108		17,249	
25,000 or more	–	279,950		13,755		266,195		34,294		3,439		30,855		21,340		9,515	

* = 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.