

Table 11. Domestic R&D paid for by the company and others and performed by the company, by industry and company size: 2024

(Millions of U.S. dollars)

Industry	NAICS code	Company size (domestic employees)										
		All companies	10–19 ^a	20–49	50–99	100–249	250–499	500–999	1,000–4,999	5,000–9,999	10,000–24,999	25,000 or more
All industries	21–23, 31–33, 42–81	765,082	4,790	16,179	17,078	29,325	28,852	44,697	123,813	62,950	140,348	297,050
Manufacturing industries	31–33	405,092	1,623	6,336	9,905	16,369	16,967	17,777	61,779	36,830	95,296	142,209
Food	311	6,288 i	4	101	115	278	329	398	1,028	1,589 i	1,513 i	932 i
Beverage and tobacco products	312	1,459	20 r	8	16	28	32	14	193	384	65	698
Textile, apparel, and leather products	313–16	788	0	67 r	11	44	51	32	230	279	74	0
Wood products	321	267	0	4	4	14	8 i	20	38	105	74	0
Paper	322	1,240	0	1 r	4	57	27	96	74	381	355	245
Printing and related support activities	323	255	3	5	15	33	10	16	93	70 i	10	0
Petroleum and coal products	324	1,006	0	D	D	15	12	75	98	2	731	D
Chemicals	325	143,745	882	3,172	6,142	10,136	9,535	7,085	24,802	7,552	47,621	26,817
Basic chemicals	3251	3,120	25 r	25	149	153	407	213	1,148	531	468	0
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,354	6	19 r	35	60	62	129	135 i	0	908	0
Pesticide, fertilizer, and other agricultural chemicals	3253	1,253	2	34	D	15	102	0	594	D	D	0
Pharmaceuticals and medicines	3254	133,627	811	3,027	5,853	9,691	8,766	6,611	22,360	6,256	44,858	25,394
Soap, cleaning compound, and toilet preparations	3256	2,956	4 r	10	23	104	36	15	246	541 i	709	1,268
Paint, coating, adhesive, and other chemicals	3255, 3259	1,435	33	58	D	112	162	117	318	D	D	155
Plastics and rubber products	326	2,908	1 r	68	85	161	174	191	687	627	693	222
Nonmetallic mineral products	327	1,578 i	9	D	30	41	44	55	160	254	D	0
Primary metals	331	1,174	15 r	13	36	33	20	18	339	194	507	0
Fabricated metal products	332	3,230	31	256	213	416	259	371	1,119	234	318	14
Machinery	333	22,035	105	578	628	744	839	777	3,168	4,549	5,902	4,745
Agricultural implement	33311	2,561	10	20	13	105	34	36	235	D	D	D
Semiconductor machinery	333242	6,851	*	26	68	57	D	204	1,031	D	D	0
Engine, turbine, and power transmission equipment	3336	4,230	4 r	26 r	6	12	54	44	128	D	D	2,890
Other machinery	other 333	8,394	91	506	541	569	D	493	1,773	D	1,988	D
Computer and electronic products	334	115,599	277	906	1,141	2,267	3,276	2,946	19,120	9,704	27,161	48,800
Communications equipment	3342	12,839	52	173	202 r	304	D	D	3,389	D	D	D
Semiconductor and other electronic components	3344	52,358	88	268	434	866	2,042	1,695	7,829	4,304	22,378	12,452
Navigational, measuring, electromedical, and control instruments	3345	14,083	114	422	446	973	827	479	3,905	2,354	1,274	3,290
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,245	50	199	139	290	475	233	276	1,224	361	0
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	6,161	14	47	96	335	61	29	2,040	250	0	3,290
Other measuring and controlling devices	other 3345	4,677	50	177	211	349	291	217	1,590	880	913	0
Other computer and electronic products	other 334	36,318	23	43	59	124	D	D	3,997	D	D	D
Electrical equipment, appliances, and components	335	6,999	65	87	309	513	568	1,175	2,443	611	863	366 i
Transportation equipment	336	71,231	57	189	495	566	556	3,011	3,752	5,689	4,403	52,513
Motor vehicles, bodies, trailers, and parts	3361–63	31,812	D	91	D	287	343	1,907	1,805	4,587	3,321	D

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Aerospace products and parts	3364	35,904	D	68	289	194	134	990	1,706	639 i	D	30,961 i	
Aircraft, aircraft engine, and aircraft parts	336411–13	D	8	D	D	D	D	656	1,307	639 i	D	D	
Guided missile, space vehicle, and related parts	336414–15, 336419	D	D	D	D	D	D	334	399	0	0	D	
Military armored vehicle, tank, and tank components	336992	33	0	0	14	*	12	8	0	0	0	0	
Other transportation	other 336	3,481	D	30	D	86	67	107	241	463 i	D	D	
Furniture and related products	337	450	2	5	16	30	49	30	97	143	78	0	
Miscellaneous	339	24,840	151	D	D	991	1,178	1,468	4,339	4,462	D	D	
Medical equipment and supplies	3391	22,126	147	824 r	544	650	824	1,224	3,105	4,426	3,712	6,669	
Other miscellaneous manufacturing	3399	2,715	4	D	D	342	354	244	1,234	35	D	D	
Nonmanufacturing industries	21–23, 42–81	359,990	3,167	9,842	7,173	12,957	11,885	26,920	62,033	26,120	45,052	154,841	
Mining, quarrying, oil and gas extraction, and support activities	21	1,862	6	30	70	27	175	606 i	155	84	710	0	
Utilities	22	613	1	24 r	0	0	2	8	150	12	397	20	
Wholesale trade	42	1,692 i	89	237	213 i	352 i	343 i	193 i	167 i	55 i	43 i	0	
Electronic shopping and electronic auctions	454111–12	7,898 i	1 r	15	7	46	124	6	353 i	D	0	D	
Transportation and warehousing	48–49	11,341	0	*	467 r	7	85	131	1,121	3,328	5,469 i	731	
Information	51	228,174	945	4,780	2,159	5,808	5,675	16,430	38,765	12,208	18,990	122,413	
Publishing	511	63,596	526	1,034	867	2,473	1,511	2,065	12,039	2,837	13,788	26,456	
Newspaper, periodical, book, and directory publishers	5111	489 i	* i	* i	8 i	9 i	5 i	0	467 i	0	0	0	
Software publishers	5112	63,108	525	1,034	860	2,464	1,506	2,065	11,573	2,837	13,788	26,456	
Telecommunications	517	3,323	2 r	D	D	140	134	190	D	D	41	D	
Data processing, hosting, and related services	518	58,772	411	3,586	1,154	2,780	3,618	4,985	21,324	3,260	5,162 i	12,492	
Other information	other 51	102,484	7	D	D	415	412	9,190	D	D	0	D	
Finance and insurance	52	25,463	23	17	14	643	886	569	7,246	4,464 i	3,106	8,494	
Real estate and rental and leasing	53	2,750	3	21	45	30	15	83	2,439	7	0	109	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	23	0	0	23	* i	0	*	0	0	0	0	
Other real estate and rental and leasing	other 53	2,727	3	21	22	29	15	83	2,439	7	0	109	
Professional, scientific, and technical services	54	74,548	2,087	4,567	4,008	5,611	4,171	8,438	9,742	3,668	16,041	16,214 i	
Architectural, engineering, and related services	5413	3,893	221	392	415	607	629	584 r	576	360	109	0	
Computer systems design and related services	5415	26,764	548	1,727	1,843	2,296	1,464	5,288	3,265	339	2,992	7,001	
Scientific research and development services	5417	33,942	1,176	1,991	1,488	1,970	1,252	1,843	5,164 i	2,308	10,058	6,691 i	
Research and development in nanotechnology	541713	548	32	102	132	0	6	266	11	0	0	0	
Research and development in biotechnology (except nanobiotechnology)	541714	6,751	380	453	299	425	152	513	323 i	1,666	554	1,985	
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	25,931	763	1,421	1,057	1,502	1,090	1,064	4,825 i	0	9,504	4,706 i	
Research and development in the social sciences and humanities	541720	712	2	15	0	43	5	0	6	642	0	0	
Other professional, scientific, and technical services	other 54	9,949 i	141	457	262	738	827	723	736	661	2,882 i	2,521 i	
Health care services	621–23	2,020	5	77	78	181	83	127	1,286	18	*	166	

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Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	3,628		7		75		113		251		325		329		610	D	294		D

* = 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.