

Table 10. Domestic R&D paid for by the company and others and performed by the company, by type of cost, industry, and company size: 2024

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Salaries, wages, and fringe benefits	Stock-based compensation	Temporary staffing	Expensed equipment	Materials and supplies	Lease and rental payments	Depreciation	Royalties and licensing fees	Other purchased services (except R&D)	Other
All industries	21–23, 31–33, 42–81	765,082	405,761	93,505	30,007	12,579	47,252	13,019	31,920	4,363	30,199	96,476
Manufacturing industries	31–33	405,092	210,178	29,266	12,509	4,722	38,621	6,162	19,423	3,366	17,618	63,228
Food	311	6,288	3,594	68	318	19	1,052	155	297	8	137	640
Beverage and tobacco products	312	1,459	818	14	32	1	81	5	78	*	178	252
Textile, apparel, and leather products	313–16	788	549	11	20	3	79	8	18	1	21	78
Wood products	321	267	224	*	5	2	23	*	*	*	D	D
Paper	322	1,240	550	1	2	61	499	4	14	1	D	D
Printing and related support activities	323	255	175	1	8	2	16	1	9	*	12	30
Petroleum and coal products	324	1,006	432	1	39	1	59	3	26	30	D	D
Chemicals	325	143,745	63,544	8,763	7,171	1,092	12,704	2,776	5,094	1,178	11,082	30,340
Basic chemicals	3251	3,120	1,779	69	77	24	314	75	201	D	171	D
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,354	946	*	49	1	100	21	111	25	69	31
Pesticide, fertilizer, and other agricultural chemicals	3253	1,253	679	5	58	5	150	77	86	D	52	D
Pharmaceuticals and medicines	3254	133,627	57,243	8,674	6,907	1,047	11,907	2,554	4,553	1,125	10,695	28,922
Soap, cleaning compound, and toilet preparations	3256	2,956	1,827	15	67	7	153	24	91	D	46	D
Paint, coating, adhesive, and other chemicals	3255, 3259	1,435	1,070	*	14	9	79	25	52	6	49	132
Plastics and rubber products	326	2,908	1,737	6	56	117	334	22	108	6	75	448
Nonmetallic mineral products	327	1,578	1,128	20	22	9	81	14	85	1	64	153
Primary metals	331	1,174	481	4	24	11	447	2	28	5	91	80
Fabricated metal products	332	3,230	2,094	184	83	22	379	32	110	25	136	164
Machinery	333	22,035	13,124	633	909	193	2,422	203	911	78	779	2,783
Agricultural implement	33311	2,561	1,466	D	88	5	276	12	134	*	D	D
Semiconductor machinery	333242	6,851	3,687	564	46	33	623	109	382	1	D	D
Engine, turbine, and power transmission equipment	3336	4,230	2,616	D	496	36	295	10	179	1	231	D
Other machinery	other 333	8,394	5,355	D	279	120	1,228	73	216	76	205	D
Computer and electronic products	334	115,599	62,713	16,638	1,545	2,184	9,274	1,740	7,805	1,287	1,789	10,624
Communications equipment	3342	12,839	7,306	1,514	274	251	288	940	359	13	129	1,763
Semiconductor and other electronic components	3344	52,358	28,425	7,518	774	409	4,718	369	4,138	1,144	847	4,015
Navigational, measuring, electromedical, and control instruments	3345	14,083	8,067	516	200	159	1,907	120	336	35	507	2,235
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,245	1,905	218	43	7	235	41	72	9	176	539
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	6,161	3,058	204	65	46	1,242	42	131	18	217	1,139
Other measuring and controlling devices	other 3345	4,677	3,105	94	92	106	431	37	133	9	113	557
Other computer and electronic products	other 334	36,318	18,914	7,089	297	1,366	2,360	311	2,972	94	306	2,610

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Electrical equipment, appliances, and components	335	6,999	4,181	448	253	79	484	199	229	154	154	818
Transportation equipment	336	71,231	40,196	1,534	1,206	587	8,706	660	3,915	549	1,743	12,136
Motor vehicles, bodies, trailers, and parts	3361-63	31,812	17,961	1,398	702	349	3,452	468	3,341	487	574	3,079
Aerospace products and parts	3364	35,904	20,034	129	442	203	4,751	148	486	35	1,083	8,594
Aircraft, aircraft engine, and aircraft parts	336411-13	D	13,346	122	250	132	4,042	33	D	D	882	D
Guided missile, space vehicle, and related parts	336414-15, 336419	D	6,688	7	192	72	708	115	D	D	201	D
Military armored vehicle, tank, and tank components	336992	33	20	0	1	5	7	0	*	0	*	1
Other transportation	other 336	3,481	2,182	7	60	29	497	43	88	27	86	462
Furniture and related products	337	450	311	2	8	18	42	4	9	1	13	42
Miscellaneous	339	24,840	14,327	938	809	321	1,939	334	687	41	1,003	4,442
Medical equipment and supplies	3391	22,126	12,413	882	750	269	1,755	271	641	38	941	4,165
Other miscellaneous manufacturing	3399	2,715	1,914	56	58	51	184	63	46	3	62	277
Nonmanufacturing industries	21-23, 42-81	359,990	195,583	64,239	17,498	7,857	8,631	6,858	12,497	997	12,581	33,248
Mining, quarrying, oil and gas extraction, and support activities	21	1,862	961	9	58	57	257	13	110	3	97	297
Utilities	22	613	511	*	39	4	14	*	13	*	11	22
Wholesale trade	42	1,692	1,219	*	98	21	122	12	29	3	44	143
Electronic shopping and electronic auctions	454111-12	7,898	5,659	1,242	46	134	9	32	97	5	40	631
Transportation and warehousing	48-49	11,341	5,527	1,133	222	358	906	321	831	174	324	1,545
Information	51	228,174	114,009	55,643	12,483	5,805	2,216	4,855	7,734	557	8,230	16,641
Publishing	511	63,596	36,622	12,591	2,551	831	1,447	303	684	85	2,456	6,028
Newspaper, periodical, book, and directory publishers	5111	489	332	0	123	0	0	0	*	0	15	18
Software publishers	5112	63,108	36,290	12,591	2,427	831	1,447	303	684	85	2,441	6,009
Telecommunications	517	3,323	2,482	34	573	13	23	89	18	3	D	D
Data processing, hosting, and related services	518	58,772	33,301	12,013	1,397	615	528	804	1,478	366	3,028	5,240
Other information	other 51	102,484	41,604	31,006	7,962	4,347	217	3,660	5,554	103	D	D
Finance and insurance	52	25,463	19,405	1,463	1,759	458	81	218	1,148	13	175	743
Real estate and rental and leasing	53	2,750	1,231	1,093	98	42	5	4	47	*	29	201
Lessors of nonfinancial intangible assets (except copyrighted works)	533	23	14	*	*	*	1	0	4	0	1	2
Other real estate and rental and leasing	other 53	2,727	1,217	1,093	98	42	4	4	43	*	28	199
Professional, scientific, and technical services	54	74,548	43,231	3,252	2,412	914	4,778	1,272	2,385	199	3,450	12,655
Architectural, engineering, and related services	5413	3,893	2,856	7	140	60	208	43	36	3	60	481
Computer systems design and related services	5415	26,764	16,713	1,764	918	250	502	424	625	36	649	4,882
Scientific research and development services	5417	33,942	17,334	383	861	427	3,711	759	1,477	54	2,570	6,367
Research and development in nanotechnology	541713	548	283	13	20	13	97	12	31	1	13	65

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Research and development in biotechnology (except nanobiotechnology)	541714	6,751	3,279	90	178	41	876	124	242	12	1,037	871
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	25,931	13,389	255	638	367	2,736	619	1,198	41	1,520	5,169
Research and development in the social sciences and humanities	541720	712	383	26	26	6	2	3	5	*	*	262
Other professional, scientific, and technical services	other 54	9,949	6,327	1,097	493	176	357	47	248	106	171	926
Health care services	621–23	2,020	1,050	226	70	36	155	44	81	31	99	228
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	3,628	2,780	177	213	29	88	85	22	12	81	142
All companies (number of domestic employees)	–	765,082	405,761	93,505	30,007	12,579	47,252	13,019	31,920	4,363	30,199	96,476
Small companies												
10–19 ^a	–	4,790	3,130	96	196	39	347	153	75	24	211	518
20–49	–	16,179	8,760	275	535	153	1,411	336	880	102	2,318	1,409
Medium companies												
50–99	–	17,078	10,366	735	593	159	1,534	373	373	89	1,185	1,672
100–249	–	29,325	17,162	1,712	1,070	308	2,240	788	808	188	1,370	3,679
Large companies												
250–499	–	28,852	16,269	2,096	972	318	1,827	551	873	165	1,229	4,552
500–999	–	44,697	20,038	6,278	1,512	552	2,630	1,978	1,244	269	3,817	6,378
1,000–4,999	–	123,813	66,910	18,340	3,695	1,355	6,244	1,814	3,474	715	5,480	15,784
5,000–9,999	–	62,950	35,932	5,930	1,637	738	3,817	889	3,157	381	2,003	8,466
10,000–24,999	–	140,348	73,109	13,362	5,358	1,968	10,513	1,732	5,747	1,049	6,486	21,024
25,000 or more	–	297,050	154,086	44,682	14,437	6,990	16,689	4,406	15,289	1,379	6,099	32,994

* = 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.

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.