

TABLE 26

Domestic R&D paid for and performed by the company, by type of cost, industry, and company size: 2020

(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	466,162	258,088	47,548	20,710	7,555	27,379	7,799	18,558	3,476	12,415	62,634
Manufacturing industries	31-33	264,596	138,844	15,665	10,767	3,566	24,503	3,844	12,946	3,024	8,306	43,131
Food	311	4,985	3,018	36	192	16	695	69	235	15	146	563
Beverage and tobacco products	312	1,056	561	10	61	2	73	1	49	0	39	260
Textile, apparel, and leather products	313-16	812	631	18	16	15	63	5	15	3	11	36
Wood products	321	183	138	0	3	1	27	1	3	0	3	7 i
Paper	322	927	479	*	6	17 i	314	6	6	*	7	92
Printing and related support activities	323	282	207	3 i	14 i	1 i	17 i	6 i	17 i	0	1	16 i
Petroleum and coal products	324	1,222	597 - 673	0	12	1	29 - 54	6	57	*	232	201 - 266
Chemicals	325	89,403	37,712	5,118	6,133	835	8,336	1,498	3,928	1,878	4,621	19,345
Basic chemicals	3251	2,523	1,298	13	26 - 43	13	487	40	146	55	149	275 - 292
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,161	791	1	44	6	60	19	84	5	54	96
Pesticide, fertilizer, and other agricultural chemicals	3253	775	385 - 424 i	1 i	101 - 122 i	2 i	50 - 71 i	6 i	39 i	19	8 i	106 - 163 i
Pharmaceuticals and medicines	3254	80,858	32,548	5,084	5,850	803	7,494	1,395	3,492	1,798	4,350	18,044
Soap, cleaning compound, and toilet preparation	3256	2,476	1,454	16	85	3	152	21	87	*	21	636
Paint, coating, adhesive, and other chemicals	3255, 3259	1,610	1,199 - 1,234	3	8	7	70 - 91	17	80	*	39	129 - 169
Plastics and rubber products	326	2,607	1,573	4	25	37	565	22	82	5	44	251
Nonmetallic mineral products	327	1,619 i	823 i	21 i	44 i	37 i	134 i	39 i	70 i	1	27	422 i
Primary metals	331	795	305	1	4	7	377	2	21	*	37	42
Fabricated metal products	332	3,336	1,994	55	89	45	735	30	84	12	51	242
Machinery	333	15,071	8,586	302	569	164	2,099	217	615	35	416	2,068
Agricultural implement	33311	1,760	973 - 1,020	1	112	7	213	3 - 8	41	1	48	306 - 359
Semiconductor machinery	333242	4,121	1,964	232	32	8	460	134	317	*	148	825
Engine, turbine, and power transmission equipment	3336	1,523	944	8	29	12	74	26	57	15	21	338
Other machinery	other 333	7,667	4,658 - 4,706	61	396	137	1,352	48 - 53	200	18	199	544 - 600 i

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Computer and electronic products	334	88,505	49,911	9,507	1,451	1,583	5,781	1,507	5,828	669	1,201	11,065
Communications equipment	3342	11,107	6,264	748	362	143	261	797	505	22	94 - 142	1,866 - 1,914
Semiconductor and other electronic components	3344	40,801	21,239	4,523	614	256	3,580	207	2,949	358	393	6,682
Navigational, measuring, electromedical, and control instruments	3345	11,012	7,362	325	353	124	745	84	395	16	350	1,259
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	2,606	1,509	171	96	25	206	17	76	13	154	340
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	3,561	2,699	47 - 64	180	20	170	18	86	*	71	250 - 273
Other measuring and controlling device	other 3345	4,844	3,154	90 - 107	77	79	368	48	233	2	125	647 - 670
Other computer and electronic products	other 334	25,585	15,046	3,912	121	1,061	1,196	419	1,980	273	317 - 364	1,211 - 1,258
Electrical equipment, appliances, and components	335	4,492	2,955	53	220	35	298	72	130	33	210	485
Transportation equipment	336	30,232	17,756	82	1,021	529	3,305	217	1,045	276	489	5,511
Motor vehicles, bodies, trailers, and parts	3361-63	19,522	12,577	42	805	454	2,071	176	867	271	100 - 193	2,063 - 2,162
Aerospace products and parts	3364	9,111	4,207	25	183	36	922	26	144	1	297	3,270
Aircraft, aircraft engine, and aircraft parts	336411-13	8,281	3,788	21	142	28	755	16	112	1	292	3,126
Guided missile, space vehicle, and related parts	336414-15, 336419	831	419	4	41	8	167	11	33	0	5	144
Military armored vehicle, tank, and tank component	336992	4	2	*	*	*	1	*	0	*	0 - 2	0 - 3
Other transportation	other 336	1,594	970	15	33	39	311	15	34	5	0 - 90	80 - 176
Furniture and related products	337	492	280	2	16	6	92	4	9	23	18	42
Miscellaneous	339	18,576	11,250 - 11,312	454	892	235	1,530 - 1,555	141	750	73	754	2,412 - 2,475
Medical equipment and supplies	3391	15,944	9,423	435	814	188	1,303	121	694	29	708	2,229
Other miscellaneous manufacturing	3399	2,632	1,828 - 1,889	19	77	47	227 - 252	20	56	44	46	182 - 246
Nonmanufacturing industries	21-23, 42-81	201,566	119,243	31,883	9,943	3,989	2,876	3,955	5,612	452	4,109	19,503

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Mining, quarrying, oil and gas extraction, and support activities	21	1,121	782	8	38	5	80	14	15	*	48	130
Utilities	22	224	119	1	25	2	7	1	10	3	21	35
Wholesale trade	42	1,001	765	*	10	5	55	2	15	4	9	136
Electronic shopping and electronic auctions	454111-12	3,837 - 19,343	0 - 11,438	2,016 - 4,233	155	0 - 313	0 - 256	0 - 238	0 - 772	0 - 55	3	0 - 5,493
Transportation and warehousing	48-49	4,954	2,393	1,373	342	30	96	8	0 - 209	0 - 55	205	301 - 454
Information	51	128,350	76,351	23,252	6,394	3,041	975	2,933	3,643	284	2,483	8,994
Publishing	511	34,516	22,150	4,304	1,664	349	516	340	418	112	1,418	3,245
Newspaper, periodical, book, and directory publishers	5111	60	56	0	3	*	*	*	*	0	*	*
Software publishers	5112	34,456	22,094	4,304	1,660	349	516	340	418	112	1,418	3,245
Telecommunications	517	3,371	2,559	23	175	18	57	13 - 23	14	4	484	11 - 29
Data processing, hosting, and related services	518	41,105	26,875	6,578 - 6,612	1,156	576	293	711	841	149	416 - 449	3,466 - 3,496
Other information	other 51	49,358	24,767	12,312 - 12,346	3,400	2,098	108	1,859 - 1,869	2,371	20	132 - 165	2,224 - 2,265
Finance and insurance	52	12,204	7,790	1,123	1,770	203	88	100	300	16	190	625
Real estate and rental and leasing	53	3,249	957	2 - 2,211	37	0 - 313	0 - 256	0 - 238	43	0 - 55	3	0 - 2,209
Lessors of nonfinancial intangible assets (except copyrighted works)	533	7	2	3	0 - 3	0 - 3	*	*	*	0 - 3	*	*
Other real estate and rental and leasing	other 53	3,242	955	0 - 2,209	33 - 38	0 - 313	0 - 256	0 - 238	43	0 - 55	3	0 - 2,209
Professional, scientific, and technical services	54	28,322	17,886	1,719	889	375	1,237	635	793	77	1,067	3,643
Architectural, engineering, and related services	5413	2,214	1,866	4	35	11	147	13	17	1	14	105
Computer systems design and related services	5415	14,293	9,631	694	601	198	387	98	539	39	197	1,909
Scientific research and development services	5417	6,246	2,556	945	147	83	415	491	166	32	798	614
Research and development in nanotechnology	541713	126	73	*	3	1	11	19	7	1	2	10
Research and development in biotechnology (except nanobiotechnology)	541714	1,176	536	153	48	10	123	36	37	26	55	153

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Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	4,906 i	1,931	792 i	95	73	257 - 282	416 - 437 i	122	5	717 - 743 i	428 - 453
Research and development in the social sciences and humanities	541720	38	15	0	1	*	0 - 23	0 - 19	*	0	0 - 23	0 - 23
Other professional, scientific, and technical services	other 54	5,570	3,834	76	106	84	289	33	71	4	59	1,014
Health care services	621-23	1,374	765	95	156	20	86	29	26	17	31	149
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	1,429 - 16,934	0 - 11,438	81	128	0 - 313	0 - 256	0 - 238 i	0 - 772 i	*	47	0 - 5,493
All companies (number of domestic employees)	-	466,162	258,088	47,548	20,710	7,555	27,379	7,799	18,558	3,476	12,415	62,634
Small companies												
10-19 ^a	-	4,019	2,393	199	199	32	370	113 i	108	46	161	398 i
20-49	-	10,970	7,026	245	368	124	1,056	220	198	167	536	1,030
Medium companies												
50-99	-	11,177	6,810	312	413	178	1,377	278	251	96	468	995
100-249	-	22,132	12,398	1,859	872	204	2,043	723	444	250	1,283	2,056
Large companies												
250-499	-	18,067	11,390	1,345	586	130	1,211	241	656	165	557	1,786
500-999	-	18,458	10,262	1,168	796	207	1,286	392	718	293	655	2,680
1,000-4,999	-	75,917	42,342	10,629	2,349	1,219	4,050	1,081	2,359	765	2,611	8,512
5,000-9,999	-	42,451	24,608	2,990	2,084	540	2,918	688	1,869	256 i	713	5,785
10,000-24,999	-	72,827	39,796	6,251	4,306	589	5,314	557	3,817	364	2,418	9,416
25,000 or more	-	190,145	101,061	22,551	8,739	4,331	7,754	3,506	8,139	1,075	3,014	29,976

* = amount < \$500,000; 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 and are not comparable with estimates published for years prior to 2018. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2020.