

TABLE 25

Domestic R&D paid for and performed by the company, by type of cost, industry, and company size: 2018

(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	377,806	211,925	28,203	16,489	6,871	24,609	6,812	14,772	2,674	11,922	53,529
Manufacturing industries	31-33	234,682	123,857	10,499	8,829	3,713	21,675	3,844	10,359	2,383	10,013	39,510
Food	311	4,412	2,674	40	78	35	494	40	201	3	192	653
Beverage and tobacco products	312	1,004	531	10	49	3	84	9	47	*	49	220
Textile, apparel, and leather products	313-16	986	637	13	22	70	95	5	15	3	19	107
Wood products	321	199	143	0	5	3	33	2	3	0	4	7
Paper	322	932	444	0	34	20	381	3	6	0	4	39
Printing and related support activities	323	238	154	16	13	1	15	2	13	*	3	20
Petroleum and coal products	324	1,246	723	0	19	17	32	4	35	*	305	112
Chemicals	325	73,584	32,532	4,397	4,254	523	6,340	1,212	3,399	1,318	3,937	15,672
Basic chemicals	3251	2,251	1,368	6	27 - 51	27	212	34	131	4	147	269 - 293
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,568	981	1	69	1	104	14	94 - 112	9	0 - 207	66 - 297
Pesticide, fertilizer, and other agricultural chemicals	3253	1,135	657	1	33 - 61	6	95	24	94	18	39	137 - 171
Pharmaceuticals and medicines	3254	64,800	27,171	4,377	3,997	458	5,707	1,111	2,933	1,282	3,529	14,236
Soap, cleaning compound, and toilet preparation	3256	2,573	1,518 - 1,544	12	85	12 - 17	128	17	84 - 104	*	17	648 - 679
Paint, coating, adhesive, and other chemicals	3255, 3259	1,257	813 - 835	1	17	12 - 17	94	12	43	4	0 - 207	24 - 260
Plastics and rubber products	326	2,667	1,572	18	45	51	435	25	79	14	34	392
Nonmetallic mineral products	327	1,361	712	5	33	27	135	34	73	0	76	266
Primary metals	331	817	429	9	6	3	158	3	43	1	16	148
Fabricated metal products	332	2,222	1,377	19	54	17	354	14	28	9	31	319
Machinery	333	13,765	7,987	237	537	112	1,883	252	588	35	212	1,922
Agricultural implement	33311	1,862	1,022	0	137	7	264	7	41	2	56	326
Semiconductor machinery	333242	3,623	1,756	186	12 - 32	29	470	71	274	0	23	779 - 804

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Engine, turbine, and power transmission equipment	3336	2,310	1,411	1	243 - 263	4	275	10	95	0 - 34	3	211 - 270
Other machinery	other 333	5,970	3,797	50	106 - 126	72	873	164	178	0 - 34	130	543 - 603
Computer and electronic products	334	73,922	40,961	5,275	1,356	1,601	4,390	1,751	4,363	615	3,675	9,935
Communications equipment	3342	11,822	7,019	745	425	174	362	808	592	45	130	1,524
Semiconductor and other electronic components	3344	28,642	15,739	1,297	427	310	1,789	309	2,306	289	1,830	4,346
Navigational, measuring, electromedical, and control instruments	3345	10,864	6,917	326	321	126	956	102	228	6	379	1,502
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,046	1,684	178	104	32	217	52	71	2	203	503
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	3,388	2,361	32 - 57	119	13 - 62	326	14	69	1	80 - 111	322 - 374
Other measuring and controlling device	other 3345	4,430	2,872	91 - 116	98	32 - 81	412	36	89	2	66 - 97	626 - 676
Other computer and electronic products	other 334	22,594	11,285	2,907	184	991	1,283	532	1,238	275	1,336	2,563
Electrical equipment, appliances, and components	335	4,222	2,819	50	138	32	323	86	101	5	162	506
Transportation equipment	336	35,894	20,140	13	1,531	933	5,095	282	808	259	450	6,384
Motor vehicles, bodies, trailers, and parts	3361-63	23,080	13,902	5	1,308	895	3,721	250	682	251	190	1,876
Aerospace products and parts	3364	11,160	5,136	2 - 4	173	7 - 34	1,054	20 - 23	103	0 - 5	249	4,378 - 4,417
Aircraft, aircraft engine, and aircraft parts	336411-13	10,746	4,935	2	151	6 - 33	993	21	102	0 - 5	247	4,257 - 4,292
Guided missile, space vehicle, and related parts	336414-15, 336419	414	201	0 - 2	21	1	62	0 - 3	*	0	3	119 - 128
Military armored vehicle, tank, and tank component	336992	6	3	0	*	*	0 - 2	*	*	*	*	0 - 4

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Other transportation	other 336	1,649	1,098	3 - 6	50	3 - 31	317 - 321	8 - 13	23	3 - 9	10	88 - 131
Furniture and related products	337	404	288	1	9	1	50	2	3	2	5	44
Miscellaneous	339	16,807	9,735	394	646	266	1,377	117	554	117	840	2,762
Medical equipment and supplies	3391	14,267	7,895	366	597	246	1,155	104	521	105	802	2,476
Other miscellaneous manufacturing	3399	2,540	1,839	28	49	20	222	14	33	11	38	287
Nonmanufacturing industries	21-23, 42-81	143,123	88,067	17,704	7,660	3,158	2,934	2,967	4,413	292	1,908	14,019
Mining, quarrying, oil and gas extraction, and support activities	21	1,775	1,153	46	133 - 143	13 - 19	149	13 - 25	0 - 52	0	6 - 37	155 - 219
Utilities	22	224	80 - 131	*	11	0 - 3	0 - 8	1	5	4	27	34 - 85
Wholesale trade	42	881	612	0	5 - 15	2	81 - 93	0 - 5	0 - 4	1	9 - 21	130 - 142
Electronic shopping and electronic auctions	454111-12	11,557	6,011 - 6,107	1,509 - 1,865	0 - 279	102 - 116	0 - 106	0 - 125	199 - 645	3	0 - 54	2,289 - 2,742
Transportation and warehousing	48-49	935	662 - 671	9	84	16	103	8	17 - 26	*	15	12
Information	51	93,487	56,547	14,727	4,221	2,420	1,177	2,421	2,706	183	1,314 - 1,344	7,738 - 7,775
Publishing	511	32,281	21,064	3,524	1,286	258	401	301	434	78	1,017	3,918
Newspaper, periodical, book, and directory publishers	5111	131	90	0	8	1	*	1	14	*	5	11
Software publishers	5112	32,150	20,974	3,524	1,278	256	401	300	420	78	1,012	3,907
Telecommunications	517	3,631	2,481 - 2,540	129 - 157	168	16 - 20	554	133 - 143	22 - 30	1	11 - 42	0 - 38
Data processing, hosting, and related services	518	23,115	15,791	2,830 - 2,846	522	281	142 - 147	522	451	87	179	2,289 - 2,305
Other information	other 51	34,459	17,152 - 17,212	8,201 - 8,229	2,245	1,860 - 1,864	74 - 79	1,455 - 1,465	1,790 - 1,798	16	76 - 107	1,478 - 1,520
Finance and insurance	52	7,426	4,391	217	1,788	74	63	46	290	8	120	430
Real estate and rental and leasing	53	1,022	608	84	27	23	4	5	44	*	9	218

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50-99	-	10,446	6,384	301	423	106	1,048	269	187	125	520	1,084
100-249	-	14,626	9,369	557	610	133	1,312	242	365	115	472	1,451
Large companies												
250-499	-	16,604	9,462	1,071	825	302	1,228	448	391	120	487	2,270
500-999	-	15,561	8,953	940	732	194	1,200	272	404	327	570	1,970
1,000-4,999	-	58,509	35,432	5,104	1,848	791	3,291	738	1,949	385	1,316	7,656
5,000-9,999	-	36,274	20,431	2,519	1,774	355	2,280	524	1,503	88	653	6,146
10,000-24,999	-	74,423	39,617	4,915	3,298	1,319	5,087	1,196	4,000	369	3,380	11,241
25,000 or more	-	138,465	74,286	12,536	6,361	3,410	8,187	2,852	5,781	1,054	3,879	20,118

* = amount < \$500,000; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

^a Business 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. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. This change has affected the comparability of these estimates 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 U.S. Census Bureau, Business Research and Development Survey, 2018.