

TABLE 26

## Domestic R&amp;D paid for and performed by the company, by industry and company size: 2018

(Millions of U.S. dollars)

Industry	NAICS code	Company size (domestic employees)										
		All companies	10-19 <sup>a</sup>	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	377,806	3,340	9,556	10,446	14,626	16,604	15,561	58,509	36,274	74,423	138,465
Manufacturing industries	31-33	234,682	1,447	4,899	6,101	8,966	10,119	9,951	34,106	26,338	52,915	79,841
Food	311	4,412	4	87	56 - 69	191	264	193	384	138	2,195	883 - 896
Beverage and tobacco products	312	1,004	3	40	12	15	8	34	10	203	173	507
Textile, apparel, and leather products	313-16	986	10	5	12	29	47	48	271	294	79	190
Wood products	321	199	*	15	22	14	4	27	19	59	40	0
Paper	322	932	0	2	12	33	23	4	138	189	308	223
Printing and related support activities	323	238	0	8	13	30	68	30	42	28	19	0
Petroleum and coal products	324	1,246	3	12	23	22	42	60	24	24	113	924
Chemicals	325	73,584	751 - 772	2,440	3,095	3,992	4,698	3,084	9,272	7,355	27,752	11,127 - 11,149
Basic chemicals	3251	2,251	12	83	51	156	174	93	1,154	189	339	0
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,568	0 - 64	0 - 80	0 - 112	44	36	58	80 - 114	0	1,065 - 1,351	0
Pesticide, fertilizer, and other agricultural chemicals	3253	1,135	i 6	21 - 32	10	17 - 27	15	3	183 - 203	i 166	694	i 0
Pharmaceuticals and medicines	3254	64,800	671 - 693	2,213	2,913	3,603	4,282	2,772	6,825	6,785	23,820	10,896 - 10,918
Soap, cleaning compound, and toilet preparation	3256	2,573	0 - 64	44	9 - 20	85 - 95	83	50	543	i 214	1,226 - 1,547	0 - 232
Paint, coating, adhesive, and other chemicals	3255, 3259	1,257	0 - 64	0 - 80	0 - 112	68 - 78	108	107	454 - 475	0	3 - 512	0 - 232
Plastics and rubber products	326	2,667	5	89	123	185	270	294	812	538	351	0
Nonmetallic mineral products	327	1,361	4	18	17	41	12	73	95	155	946	0
Primary metals	331	817	0	17	21	92	41	50	179	120	288	9
Fabricated metal products	332	2,222	31	132	145	455	225	450	409	163	211	0
Machinery	333	13,765	102 - 115	367	558	864	561	652	2,475	3,062	1,982	3,131 - 3,138
Agricultural implement	33311	1,862	4	52	31	63	14 - 20	79	365	14	0	1,232 - 1,238
Semiconductor machinery	333242	3,623	6	6	29	i 59	26 - 117	67 - 569	588 - 682	2,245 - 2,747	0	0
Engine, turbine, and power transmission equipment	3336	2,310	6	11	10	36	0 - 46	4 - 64	141 - 301	0 - 502	0 - 1,983	0 - 1,901
Other machinery	other 333	5,970	87 - 100	298	488	707	380 - 471	0 - 502	1,171 - 1,313	303	0 - 1,983	0 - 1,901

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Computer and electronic products	334	73,922	247	868	1,003	1,553	2,394	3,033	12,233	9,090	i	8,536	34,966	
Communications equipment	3342	11,822	19	101	151 - 219	356	352	766	2,922	545 - 619		1,368	5,171	
Semiconductor and other electronic components	3344	28,642	54	324	313	518	1,608	1,125	4,517	5,097	i	4,465	10,622	
Navigational, measuring, electromedical, and control instruments	3345	10,864	61 - 176	372 - 399	420	542	181 - 436	604	3,551	367 - 442		1,901 - 1,996	i	2,394 - 2,856
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,046	49	155	154	144 - 181	145 - 179	340	1,178	0		846	i	0
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	3,388	13	21	31 - 80	33 - 132	36	0 - 265	502 - 675	0 - 442		0 - 795		1,959
Other measuring and controlling device	other 3345	4,430	0 - 115	196 - 223	187 - 236	229 - 328	0 - 253	0 - 265	1,697 - 1,870	0 - 442		353 - 1,071	i	435 - 897
Other computer and electronic products	other 334	22,594	0 - 115	43 - 70	50 - 118	137	0 - 253	538	1,244	3,006		708 - 801		16,316 - 16,777
Electrical equipment, appliances, and components	335	4,222	47	227	310	241	217	424	1,145	501		625		485
Transportation equipment	336	35,894	154	154	132	390	592	903	3,301	2,382		5,186		22,700
Motor vehicles, bodies, trailers, and parts	3361-63	23,080	0 - 12	37 - 66	52 - 60	251	369	564	2,300	1,204		4,065		14,187 - 14,240
Aerospace products and parts	3364	11,160	142	23 - 51	62	94 - 122	153	230	832 - 848	655		1,122		7,823
Aircraft, aircraft engine, and aircraft parts	336411-13	10,746	134	7 - 36	42	83 - 111	139	230	589	549		1,122		7,823
Guided missile, space vehicle, and related parts	336414-15, 336419	414	8	0 - 16	20	10	14	0	243 - 259	105		0		0
Military armored vehicle, tank, and tank component	336992	6	0	0 - 6	0 - 6	0 - 6	0 - 6	0	0	0		0		0
Other transportation	other 336	1,649	0 - 12	31 - 67	6 - 19	11 - 45	62 - 72	110	153 - 170	523		0		636 - 691
Furniture and related products	337	404	0	13	23	37	24	9	79	205		14		0
Miscellaneous	339	16,807	65 - 71	405	514 - 520	782	629	582	3,217	1,832		4,098		4,675
Medical equipment and supplies	3391	14,267	64	360	281	551	309	476	2,290	1,421		3,977		4,539
Other miscellaneous manufacturing	3399	2,540	2 - 8	45	234 - 240	231	320	106	927	411	i	121	i	136
Nonmanufacturing industries	21-23, 42-81	143,123	1,894	4,658	4,345	5,660	6,485	5,611	24,404	9,936		21,508		58,624

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Mining, quarrying, oil and gas extraction, and support activities	21	1,775	9	16	33	51	52	44	i	65	i	277	1,227	0		
Utilities	22	224	1	9	*	8	0	0-94		48		0-94	67	0-94		
Wholesale trade	42	881	i	35	142	118	i	262	i	105	i	172	i	47	0	*
Electronic shopping and electronic auctions	454111-12	11,557	i	0-37	0-83	3	i	20	0-219	0-231	0-485	0-1,076	i	0	9,418-10,738	i
Transportation and warehousing	48-49	935		2	i	11	7	39	2	264	157	14	20	419		
Information	51	93,487	679	1,151	1,498	2,911	3,747	3,489	17,682	6,700	15,494	40,137				
Publishing	511	32,281	202	487	476	979	761	715	7,802	4,849	1,854	14,157				
Newspaper, periodical, book, and directory publishers	5111	131	0	7	7	*	52	i	15	i	0	0	50	i	0	
Software publishers	5112	32,150	202	480	469	979	709	700	7,802	4,849	1,804	14,157				
Telecommunications	517	3,631	0-478	0-665	0-181	0-421	265	0-535	0-2,675	0-444	0-3,367	0-3,367				
Data processing, hosting, and related services	518	23,115	0-478	0-665	843	1,511-1,530	2,115	2,240	7,207	1,408	1,767-2,931	4,861				
Other information	other 51	34,459	0-478	0-665	0-181	0-421	606	0-535	0-2,675	0-444	7,341-11,874	17,751-21,120				
Finance and insurance	52	7,426	249	11	33	150	461	182	1,133	i	1,086	1,753	2,369			
Real estate and rental and leasing	53	1,022	0	2	8	14	2	57	938	0	0	0				
Lessors of nonfinancial intangible assets (except copyrighted works)	533	6	0	0	*	6	0	0	0	0	0	0				
Other real estate and rental and leasing	other 53	1,016	0	2	8	9	2	57	938	0	0	0				
Professional, scientific, and technical services	54	22,374	873	3,194	2,400	1,958	1,236	902	3,794	784	2,397	4,837				
Architectural, engineering, and related services	5413	2,277	119	286	311	445	292	97	272	241	214	*				
Computer systems design and related services	5415	13,633	352	1,573	1,178	867	577	580	2,767	476	1,744	3,518				
Scientific research and development services	5417	2,424	345	689	547	233	131	27	206	3	197	46				
Research and development in biotechnology	541711	820	125-133	142	186	67	57-67	0	189	0	0	46				
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	1,577	213	539	361	167	53	27	17	3	197	0				
Research and development in the social sciences and humanities	541720	27	0-6	8	*	0	12-20	0	0	0	0	0				

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Other professional, scientific, and technical services	other 54	4,041	58	646	364	412	237	197	549	65	i	242	1,273	
Health care services	621–23	1,401	13	43	136	81	665	274	i	60	3	0	127	i
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	2,041	0 - 37	0 - 83	108	165	0 - 219	0 - 231	0 - 485	0 - 1,076	i	549	0 - 1,221	

\* = 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.

<sup>a</sup> 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.