

TABLE 26

Domestic R&D paid for and performed by the company, by industry and company size: 2016

(Millions of U.S. dollars)

Industry	NAICS code	Company size (domestic employees)											
		All companies	5 – 9 ^a	10 – 19	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	317,731	1,044	3,887	7,473	7,728	11,722	11,438	13,525	53,305	35,887	53,384	118,339
Manufacturing industries	31–33	211,660	389	2,014	3,529	4,829	7,877	6,903	9,053	38,100	20,236	45,978	72,752
Food	311	4,611	5	6	27	58	199	147	94	588	202	2,456	829
Beverages and tobacco products	312	987	0	0	18	3	17	5	22	24	197	24	676
Textiles, apparel, and leather products	313–16	1,156	0	1	18	23	337	24	14	254	274	104	106
Wood products	321	181	0	9	4	5	11	7	24	52	46	24	0
Paper	322	851	0	4	6	14	29	23	21	151	163	418	22
Printing and related support activities	323	219	2	1	22	20	49	12	23	57	17	7	8
Petroleum and coal products	324	367	D	2	20	14	115	23	45	D	0	124	0
Chemicals	325	64,165	193	1,059	1,619	2,225	3,280	2,789	1,875	11,286	5,534	19,930	14,375
Basic chemicals	3251	2,284	0	11	52	97	118	124	100	913	465	405	0
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	693	2	D	20	27	27	65	62	175	0	D	0
Pesticides, fertilizers, and other agricultural chemicals	3253	1,061	0	D	D	31	D	D	0	152	*	D	0
Pharmaceuticals and medicines	3254	55,983	185	993	1,396	1,932	2,935	2,486	1,579	9,053	4,423	16,844	14,159
Soaps, cleaning compounds, and toilet preparations	3256	2,660	3	16	24	55	106	19	103	400	397	1,385	150
Paints, coatings, adhesives, and other chemicals	3255, 3259	1,484	3	D	D	82	D	D	33	593	250	D	65
Plastics and rubber products	326	3,584	3	10	92	99	178	173	161	825	468	1,418	155
Nonmetallic mineral products	327	1,274	1	2	18	26	42	10	70	119	116	870	0
Primary metals	331	583	3	17	16	68	44	35	35	185	42	137	0
Fabricated metal products	332	2,127	21	89	178	209	394	190	291	300	237	218	0
Machinery	333	11,699	9	143	301	394	650	426	593	3,462	1,724	973	3,025
Agricultural implements	33311	1,552	1	6	16	13	42	13	62	311	9	0	1,079
Semiconductor machinery	333242	3,028	D	D	D	D	78	D	175	1,462	D	0	0
Engines, turbines, and power transmission equipment	3336	1,901	D	D	D	D	32	78	D	39	D	0	D
Other machinery	other 333	5,218	D	D	D	D	499	D	D	1,649	D	973	D
Computer and electronic products	334	68,515	64	364	640	738	1,244	1,793	3,373	13,673	6,597	10,598	29,430
Communications equipment	3342	11,293	6	73	D	119	257	294	1,066	2,519	1,397	D	D
Semiconductors and other electronic components	3344	29,176	13	61	215	263	426	1,047	986	6,068	2,442	7,663	9,993
Navigational, measuring, electromedical, and control instruments	3345	10,131	40	214	273	282	421	316	595	3,337	308	1,969	2,376
Electromedical, electrotherapeutic, and irradiation apparatuses	334510, 334517	2,466	D	155	44	54	174	112	283	967	D	499	0
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	3,121	1	5	45	26	74	28	30	483	D	D	D
Other measuring and controlling devices	other 3345	4,544	D	54	184	202	173	176	282	1,887	D	D	D
Other computer and electronic products	other 334	17,914	6	16	D	74	141	136	726	1,750	2,449	D	D
Electrical equipment, appliances, and components	335	4,302	6	33	154	153	260	204	627	1,053	582	851	378
Transportation equipment	336	32,905	1	95	52	165	330	628	1,114	2,840	2,115	4,578	20,986

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Automobiles, bodies, trailers, and parts	3361–63	19,293	0	74	D	98	215	549	878	i	1,830	1,246	2,290	D											
Aerospace products and parts	3364	12,272	0	D	17	53	61	40	159	653	D	2,118	8,489												
Aircraft, aircraft engines, and aircraft parts	336411–13	11,930	0	13	13	52	61	40	136	546	598	1,981	8,489												
Guided missiles, space vehicles, and related parts	336414–15, 336419	342	0	D	4	1	i	0	0	23	107	D	137	0											
Military armored vehicles, tanks, and tank components	336992	3	*	i	*	*	2	0	*	0	0	0	0	0											
Other transportation	other 336	1,337	1	i	D	D	12	i	53	39	78	357	D	171	D										
Furniture and related products	337	366	0	3	i	18	i	12	i	40	i	38	i	7	i	58	176	14	0						
Miscellaneous manufacturing	339	13,768	D	175	i	325	602	656	375	661	D	1,745	i	3,235	2,763										
Medical equipment and supplies	3391	11,474	29	163	i	297	519	483	277	471	2,316	1,129	3,235	2,555											
Other miscellaneous manufacturing	3399	2,294	i	D	12	i	28	i	83	i	173	i	98	191	D	615	i	0	208	i					
Nonmanufacturing industries	21–23, 42–81	106,071	655	i	1,873	i	3,944	i	2,899	3,845	4,534	4,472	15,205	15,651	i	7,407	45,587								
Mining, extraction, and support activities	21	2,897	1	i	2	14	5	i	7	i	14	10	65	258	i	1,132	1,389								
Utilities	22	325	0	0	D	0	*	i	0	3	38	11	225	D											
Wholesale trade	42	442	i	20	i	74	i	104	i	69	i	88	i	55	i	17	i	11	i	2	i	2	i	1	i
Electronic shopping and electronic auctions	454111–12	1,569	i	5	i	3	i	31	i	5	i	11	i	D	0	3	D	0	D						
Transportation and warehousing	48–49	486	0	0	4	i	*	i	1	2	i	18	28	0	0	433									
Information	51	70,075	102	i	514	i	1,389	i	1,200	1,781	3,078	2,590	11,492	13,114	i	2,427	32,387								
Publishing	511	33,174	D	400	i	560	i	560	781	818	1,116	5,850	5,190	D	17,050										
Newspaper, periodical, book, and directory publishers	5111	77	i	0	*	i	8	i	3	i	18	i	36	9	1	i	0	0	0						
Software publishers	5112	33,098	D	399	i	551	i	557	763	782	1,107	5,849	5,190	D	17,050										
Telecommunications	517	3,530	i	0	6	i	64	i	D	74	124	D	155	0	D	D									
Data processing, hosting, and related services	518	11,776	10	i	97	i	739	i	474	897	2,013	1,256	4,226	D	1,609	D									
Other information	other 51	21,594	D	11	26	D	30	123	D	1,262	D	5	D												
Finance and insurance	52	7,237	0	5	i	8	i	6	46	48	588	458	466	2,687	2,926										
Real estate and rental and leasing	53	475	0	5	i	1	i	5	i	25	2	2	435	0	0	0									
Lessors of nonfinancial intangible assets (except copyrighted works)	533	27	0	0	1	i	2	i	24	0	0	0	0	0	0										
Other real estate and rental and leasing	other 53	449	0	5	i	1	i	4	i	1	i	2	2	435	0	0	0								
Professional, scientific, and technical services	54	20,845	508	i	1,243	i	2,341	i	1,517	i	1,637	1,109	996	2,406	675	816	7,596								
Architectural, engineering, and related services	5413	1,816	46	i	100	i	244	329	i	251	i	212	129	275	66	76	88								
Computer systems design and related services	5415	13,255	109	i	259	i	918	i	542	i	796	570	644	1,860	548	722	6,286								
Scientific research and development services	5417	2,811	325	i	510	i	900	529	359	75	29	34	2	7	41										
Biotechnology research and development	541711	750	i	121	i	126	i	255	151	i	52	i	0	4	0	0	41								
Physical, engineering, and life sciences (except biotechnology) research and development	541712	2,029	201	i	379	i	631	372	304	75	25	34	2	7	0										
Social sciences and humanities research and development	541720	32	2	i	6	i	15	7	3	0	0	0	*	0	0										
Other professional, scientific, and technical services	other 54	2,962	29	i	374	i	279	i	117	232	251	195	237	59	11	1,180									

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Health care services	621–23	782	6	16	i	33	73	191	i	147	i	173	15	i	44	0	85	
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	939	i	14	i	11	i	D	18	i	57	D	75	254	D	119	i	D

* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies; 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 R&D and Innovation Survey does not include companies with fewer than five 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 R&D.

Source(s)

National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2016.