

TABLE 35

## Domestic R&amp;D paid for by others 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	500-599	1,000-4,999	5,000-9,999	10,000-24,999	25,000 or more
All industries	21-23, 31-33, 42-81	63,230	1,050	1,695	1,875	3,921	3,041	2,096	10,068	9,063	9,997	20,423
Manufacturing industries	31-33	39,393	239	471	751	1,186	1,381	1,272	8,165	2,652	6,641	16,634
Food	311	242	0	*	0-12	94	6	1	87	44	1	0-12
Beverage and tobacco products	312	109	0	2	0	*	101	0	0	5	0	0
Textile, apparel, and leather products	313-16	4	0	0	*	*	3	0	0	0	0	0
Wood products	321	4	0	0	*	0	* i	4	0	0	0	0
Paper	322	2	0	0	0	1	0	0	1	0	0	0
Printing and related support activities	323	4	0	0	*	*	3	1	0	0	0	0
Petroleum and coal products	324	23	0	0	0	3	0	0	2	0	18	0
Chemicals	325	10,553	44-65	189	414	388	281	352	4,324	550	3,931 i	55-75
Basic chemicals	3251	192	4	7	2	*	0	12	163	3	*	0
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	85	*	0-10	0-9	0	10	0	43-76	0	0-26	0
Pesticide, fertilizer, and other agricultural chemicals	3253	326	0	0-10 i	0	0-8	0	0	307-326	0	*	0
Pharmaceuticals and medicines	3254	9,792	40-61	174	404	381	269	340	3,771	547	3,787 i	55-75
Soap, cleaning compound, and toilet preparation	3256	137	0	*	0-9	0-8	0	0	0	0	119-138	0
Paint, coating, adhesive, and other chemicals	3255, 3259	21	1	*	0-9	0-8	2	0	0-20	0	0-20	0
Plastics and rubber products	326	83	*	4	3	14	7	7	44	0	3	0
Nonmetallic mineral products	327	24	0	0	3	7	2	0	3	9	0	0
Primary metals	331	22 i	0	0	1	1	7 i	0	9	2	2 i	0
Fabricated metal products	332	105	4	7	11	8	2	*	74	0	0	0
Machinery	333	1,034	49-60	37	63	45	89	58	634	0	51	0-5
Agricultural implement	33311	10	0	0	0	6	0-5	0	1	0	0	0-5
Semiconductor machinery	333242	543	*	0	0	2	0-90	0	450-542	0	0	0
Engine, turbine, and power transmission equipment	3336	173	1 i	0	7	8 i	0-46	0-58	0-159	0	0-52	*
Other machinery	other 333	307	47-60	37	55	28	0-90	0-58	0-141	0	0-52	0
Computer and electronic products	334	9,775	91	142	172	427	433	628	1,474	801 i	1,684	3,922

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Communications equipment	3342	1,285	i *	0	0 - 67	43	109	8	13	375-448	i	667	i	0
Semiconductor and other electronic components	3344	2,410		4	77	59	227	287	496	1,020		214		26
Navigational, measuring, electromedical, and control instruments	3345	5,863		0 - 88	40 - 66	47	153	6 - 39	125	318		138 - 213	924 - 1,018	3,896
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	163		*	1	0	55 - 92	0 - 33	66	0		0	6	0
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	5,455		0	40	0 - 48	0 - 98	1	0	146 - 318		137 - 213	918 - 1,013	3,896
Other measuring and controlling device	other 3345	245		0 - 88	0 - 26	0 - 48	0 - 98	6	60	0 - 172		1	0	0
Other computer and electronic products	other 334	217		0 - 88	0 - 26	0 - 67	4	0 - 33	0	123		0	0 - 92	0
Electrical equipment, appliances, and components	335	266		1	26	9	4	20	6	199		1	0	0
Transportation equipment	336	16,735		21	i 27	58	177	408	168	1,146		1,175	945	12,609
Motor vehicles, bodies, trailers, and parts	3361-63	2,506		0	0 - 27	29 - 35	127	400	0 - 113	1,048		109	508	145 - 287
Aerospace products and parts	3364	13,131		i 21	i 0 - 28	23	23 - 51	5	56	83 - 99		1,063	437	11,373
Aircraft, aircraft engine, and aircraft parts	336411-13	12,222		i 1	0 - 27	10	23 - 51	0	56	65		229	437	11,373
Guided missile, space vehicle, and related parts	336414-15, 336419	909		20	i 0 - 17	13	0	5	0	19 - 35		834	0	0
Military armored vehicle, tank, and tank component	336992	6		0	0	1 - 6	0	0 - 5	0	0		0	0	0
Other transportation	other 336	1,092		0	0 - 27	0	0 - 27	0 - 5	0 - 113	0 - 16		3	0	948 - 1,090
Furniture and related products	337	5		0	4	*	i 1	0	0	*		0	0	0
Miscellaneous	339	402		10 - 16	33	7 - 13	18	19	46	166		i 64	5	30
Medical equipment and supplies	3391	264		11	27	8	14	9	40	56		64	5	30
Other miscellaneous manufacturing	3399	138		i 0 - 5	6	i 0 - 5	5	9	6	110		i 0	0	0
Nonmanufacturing industries	21-23, 42-81	23,838		810	1,224	1,124	2,735	1,660	824	1,904		6,411	3,356	3,789
Mining, quarrying, oil and gas extraction, and support activities	21	130		0	*	8	0	16	0	0		0	105	0
Utilities	22	51		5	3	0	0	0	0	0		0	*	42
Wholesale trade	42	25		0	1	*	11	13	0	0		0	0	0

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Electronic shopping and electronic auctions	454111–12	94	2	0	0	93	0	0	0	0	0	0	
Transportation and warehousing	48–49	7	0	0	0	0	0	4	0	4	0	0	
Information	51	862	26	46	33	156	71	97	165	58	0	211	
Publishing	511	489	4	12	2	5	53	63	96	44	0	211	
Newspaper, periodical, book, and directory publishers	5111	*	0	0	*	0	0	0	0	0	0	0	
Software publishers	5112	489	4	12	2	5	53	63	96	44	0	211	
Telecommunications	517	65	10	32	23	0	0	0	1	0	0	0	
Data processing, hosting, and related services	518	191	0–13	2	8	35–54	18	33	65	14	i	0	
Other information	other 51	117	0–13	0	0	98–115	*	1	3	0	0	0	
Finance and insurance	52	45	0	0	0	0	0	0	0	0	0	45	
Real estate and rental and leasing	53	0	0	0	0	0	0	0	0	0	0	0	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0	0	0	0	0	0	0	0	0	0	
Other real estate and rental and leasing	other 53	0	0	0	0	0	0	0	0	0	0	0	
Professional, scientific, and technical services	54	22,486	775	1,165	1,036	2,456	1,546	720	i	1,710	6,337	3,250	3,490
Architectural, engineering, and related services	5413	1,684	164	226	77	123	102	281	i	25	157	57	471
Computer systems design and related services	5415	2,291	55	127	54	134	65	44	i	0	3	1,399	409
Scientific research and development services	5417	17,761	499	735	806	1,948	1,157	352		1,684	6,175	1,795	2,610
Research and development in biotechnology	541711	5,037	102–110	98	167	0–95	74	71		20–124	0	1,791	2,610
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	12,080	390	627	639	1,854	1,082	280		1,028	6,175	4	0
Research and development in the social sciences and humanities	541720	644	0–6	10	0	0–95	0	0		533–635	0	0	0
Other professional, scientific, and technical services	other 54	750	56	76	99	251	223	44	i	0	1	0	0
Health care services	621–23	75	2	3	44	i	6	14	4	2	0	0	1
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	62	1	6	3	13	0	0		27	13	0	0

\* = 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.