

TABLE 35

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

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Basic research	Applied research	Development
All industries	21-23, 31-33, 42-81	71,457	6,688	15,468	49,301
Manufacturing industries	31-33	43,848	4,576 i	8,075 i	31,197
Food	311	254	27	62	166
Beverage and tobacco products	312	121	41	6	74
Textile, apparel, and leather products	313-16	9	*	*	9
Wood products	321	3	*	0	3
Paper	322	1	*	0	*
Printing and related support activities	323	1	* i	1 i	1 i
Petroleum and coal products	324	89 - 103	13 - 32	0 - 35	31 - 77
Chemicals	325	11,675	2,265	2,540	6,870
Basic chemicals	3251	171	15	50	106
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	73	13 i	15 i	45 i
Pesticide, fertilizer, and other agricultural chemicals	3253	284 - 291	50 - 62 i	224 - 237 i	0
Pharmaceuticals and medicines	3254	10,918	2,134	2,200	6,584
Soap, cleaning compound, and toilet preparation	3256	189	43	25	121
Paint, coating, adhesive, and other chemicals	3255, 3259	32 - 39	0 - 9	15 - 24	15
Plastics and rubber products	326	26	*	2	24
Nonmetallic mineral products	327	98	4	19	76
Primary metals	331	20	1	2	17
Fabricated metal products	332	60	1	8	51
Machinery	333	1,152	32	91	1,028
Agricultural implement	33311	10 - 52	*	0 - 29	1 - 52
Semiconductor machinery	333242	686	1	59	626
Engine, turbine, and power transmission equipment	3336	122	4	5	113
Other machinery	other 333	292 - 334	27	0 - 29	236 - 289
Computer and electronic products	334	11,030	768	1,946 i	8,315
Communications equipment	3342	996 i	42 - 96 i	302 - 356 i	597 i
Semiconductor and other electronic components	3344	2,380	410	493	1,478
Navigational, measuring, electromedical, and control instruments	3345	7,493	264 i	1,099 i	6,130
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	251	6	69	176
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	7,025 i	173 i	986 i	5,865
Other measuring and controlling device	other 3345	217	84	43	89
Other computer and electronic products	other 334	161	0 - 52	0 - 52	110
Electrical equipment, appliances, and components	335	506	17	26	462
Transportation equipment	336	18,564	1,389 i	3,315 i	13,860
Motor vehicles, bodies, trailers, and parts	3361-63	3,599	194 i	1,599 i	1,806 i
Aerospace products and parts	3364	13,803 i	1,182 i	1,569 i	11,052
Aircraft, aircraft engine, and aircraft parts	336411-13	13,011 i	1,176 i	1,568 i	10,266
Guided missile, space vehicle, and related parts	336414-15, 336419	793	6	1	786
Military armored vehicle, tank, and tank component	336992	6	0	*	6
Other transportation	other 336	1,155	13	147	996
Furniture and related products	337	3	*	*	3
Miscellaneous	339	215 - 233	3 - 11	28 - 60	169 - 201
Medical equipment and supplies	3391	173	4	27	142

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Other miscellaneous manufacturing	3399	42 - 60	0 - 6	1 - 32	27 - 58
Nonmanufacturing industries	21-23, 42-81	27,608	2,112	7,393	18,103 i
Mining, quarrying, oil and gas extraction, and support activities	21	45	0 - 6 i	17 - 25 i	21 i
Utilities	22	40	5	6	30
Wholesale trade	42	58	8	5	44
Electronic shopping and electronic auctions	454111-12	2 - 50	0	2 - 50	0
Transportation and warehousing	48-49	3	1	*	2
Information	51	1,113	179	164	770
Publishing	511	509	35	82	393
Newspaper, periodical, book, and directory publishers	5111	0	0	0	0
Software publishers	5112	509	35	82	393
Telecommunications	517	54 - 66	0 - 64	0 - 51	1 - 40
Data processing, hosting, and related services	518	446	74	33	339
Other information	other 51	91 - 105	5 - 72	0 - 51	0 - 38
Finance and insurance	52	92	23	5	64
Real estate and rental and leasing	53	*	0	0	*
Lessors of nonfinancial intangible assets (except copyrighted works)	533	*	0	0	*
Other real estate and rental and leasing	other 53	0	0	0	0
Professional, scientific, and technical services	54	26,045	1,876	7,117	17,052 i
Architectural, engineering, and related services	5413	2,001	81	593	1,326
Computer systems design and related services	5415	3,643	423	1,020	2,200
Scientific research and development services	5417	19,354	1,342	5,380	12,632 i
Research and development in nanotechnology	541713	53 i	5 i	15 i	33 i
Research and development in biotechnology (except nanobiotechnology)	541714	5,014	693	104	4,217
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	13,632 i	256 - 278	5,055 - 5,077	8,300 i
Research and development in the social sciences and humanities	541720	654	366 - 387	184 - 205 i	82 i
Other professional, scientific, and technical services	other 54	1,048	30	125	894
Health care services	621-23	103	17	24	62
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	62 - 109	0 - 6	0 - 50	59
All companies (number of domestic employees)	-	71,457	6,688	15,468	49,301
Small companies					
10-19 ^a	-	1,029	104 i	349	575
20-49	-	2,025	142	430	1,453
Medium companies					
50-99	-	1,816	67	420	1,329
100-249	-	3,280	306	695	2,279
Large companies					
250-499	-	2,811	234	781	1,796
500-999	-	2,807	300	303	2,203
1,000-4,999	-	12,322	2,518	3,428 i	6,375
5,000-9,999	-	5,945	98	1,868	3,979 i
10,000-24,999	-	15,739 i	829 i	3,958 i	10,953 i
25,000 or more	-	23,684	2,090 i	3,235 i	18,359

* = 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.