

TABLE 38
Companies with domestic R&D paid for by others and performed by the company in energy and environmental protection application areas, by industry and company size: 2018

(Millions of U.S. dollars)

Industry and company size	NAICS code	Domestic R&D		Energy		Environmental protection	
		Companies ^a (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount
All industries	21-23, 31-33, 42-81	3,876	63,230	790	i 1,949	237	1,763
Manufacturing industries	31-33	1,764	39,393	290	i 1,005	109	786
Food	311	36	242	D	1	4	30
Chemicals	325	377	10,553	16	108	16	73
Basic chemicals	3251	24	192	7	39	4	10
Pharmaceuticals and medicines	3254	241	9,792	4	i 46	6	56
Other chemicals	other 325	112	569	5	23	5	6
Plastics and rubber products	326	90	83	29	i 7	4	1
Nonmetallic mineral products	327	19	24	D	1	D	2
Fabricated metal products	332	110	105	D	8	D	*
Machinery	333	212	1,034	59	166	14	64
Agricultural implement	33311	8	10	0	0	D	1
Semiconductor machinery	333242	7	543	D	0 - 106	D	0 - 46
Engine, turbine, and power transmission equipment	3336	25	173	5	61	3	19
Other machinery	other 333	174	307	D	0 - 106	D	0 - 46
Computer and electronic products	334	382	9,775	87	i 350	39	i 511
Semiconductor and other electronic components	3344	154	2,410	50	i 249	D	0 - 512
Other electronic products	other 334	229	7,365	38	i 101	D	0 - 512
Electrical equipment, appliances, and components	335	91	266	58	i 51	D	1
Transportation equipment	336	187	16,735	27	307	19	82
Motor vehicles, bodies, trailers, and parts	3361-63	118	2,506	22	263	19	82
Other transportation	other 336	69	14,229	i 5	44	0	0
Miscellaneous	339	126	402	D	2	5	i 9
Other manufacturing	312-16, 321-24, 331, 337	136	173	6	4	4	13
Nonmanufacturing industries	21-23, 42-81	2,114	23,838	500	i 944	128	i 977
Mining, quarrying, oil and gas extraction, and support activities	21	10	130	5	89	D	13
Utilities	22	6	51	5	50	D	34
Wholesale trade	42	40	25	0	0	0	0
Information	51	150	862	3	136	0	0
Publishing	511	53	489	3	136	0	0
Telecommunications	517	12	65	0	0	0	0
Data processing, hosting, and related services	518	42	191	0	0	0	0
Other information	other 51	43	117	0	0	0	0

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		Companies ^a (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount			
Professional, scientific, and technical services	54	1,766	22,486	482	i	659	i	116	i	911
Architectural, engineering, and related services	5413	348	1,684	105	i	318	i	52	i	852
Scientific research and development services	5417	1,010	17,761	356	i	323		53		46
Research and development in biotechnology	541711	143	5,037	5	i	*	i	7	i	1
Other scientific research and development	other 5417	866	12,724	351	i	323		46		45
Other professional, scientific, and technical services	other 54	408	3,041	20		18		11		13
Health care services	621-23	86	75	0		0		0		0
Other nonmanufacturing	23, 44-45, 48-49, 52-53, 55-56, 624, 71-72, 81	56	209	5		9		6		18
All companies (number of domestic employees)	-	3,876	63,230	790	i	1,949		237		1,763
Small companies										
10-19 ^c	-	939	1,050	224	i	216		53	i	38
20-49	-	1,059	1,695	191	i	148		50	i	76
Medium companies										
50-99	-	484	1,875	64	i	74		30		35
100-249	-	726	i	3,921	178	i	156	26	i	83
Large companies										
250-499	-	233	3,041	34	i	111		18		97
500-999	-	123	2,096	21	i	103	i	12		137
1,000-4,999	-	173	10,068	39		310		25		100
5,000-9,999	-	47	9,063	11		133	i	3		193
10,000-24,999	-	57	9,997	18		271		12		38
25,000 or more	-	36	20,423	10		426		8		966

* = 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 Beginning in survey year 2018, these statistics include an adjustment to the weight to account for unit nonresponse. A company having multiple reporting parts for data collection may contribute to the statistics for multiple industries, so the detail may not add to the total for the number of companies.

^b Beginning in survey year 2018, these statistics include an adjustment to the weight to account for unit nonresponse. These company count estimates reflect an imputation process implemented for survey year 2014. This change has affected the comparability of these company count estimates with estimates published for years prior to 2014. A company having multiple reporting parts for data collection may contribute to the statistics for multiple industries, so the detail may not add to the total for the number of companies.

^c 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. Companies could report R&D in one, more than one, or no application area. 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.