

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: 2017

(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	3,180	61,065	520	2,333	207	949
Manufacturing industries	31-33	1,603	41,072	279	1,506	118	325
Food	311	35	244	D	1	3	14
Chemicals	325	357	11,692	14	46	10	41
Basic chemicals	3251	37	181	8	11	6	38
Pharmaceuticals and medicines	3254	277	10,973	D	0 - 36	D	2
Other chemicals	other 325	43	538	D	0 - 36	D	1
Plastics and rubber products	326	60	117	86	8	3	*
Nonmetallic mineral products	327	33	30	D	5	D	6
Fabricated metal products	332	135	107	34	2	35	2
Machinery	333	224	940	15	105	11	38
Agricultural implement	33311	7	59	D	2	0	0
Semiconductor machinery	333242	12	465	D	0 - 25	D	0 - 21
Engine, turbine, and power transmission equipment	3336	32	159	4	80	3	18
Other machinery	other 333	173	257	D	0 - 25	D	0 - 21
Computer and electronic products	334	313	8,633	62	854	25	129
Semiconductor and other electronic components	3344	121	2,289	32	254	D	*
Other electronic products	other 334	192	6,344	30	599	D	129
Electrical equipment, appliances, and components	335	67	181	25	54	3	4
Transportation equipment	336	161	18,663	29	417	20	89
Automobiles, bodies, trailers, and parts	3361-63	88	2,745	19	260	D	89
Other transportation	other 336	73	15,918	10	157	D	*
Miscellaneous manufacturing	339	156	285	7	8	D	2
Other manufacturing	312-16, 321-24, 331, 337	63	181	D	6	3	1
Nonmanufacturing industries	21-23, 42-81	1,578	19,993	241	827	89	624
Mining, extraction, and support activities	21	36	309	5	280	3	14
Utilities	22	5	36	4	32	D	29
Wholesale trade	42	65	31	0	0	0	0
Information	51	170	1,354	D	157	D	2
Publishing	511	97	1,062	D	157	D	2
Telecommunications	517	D	40 - 163	0	0	0	0
Data processing, hosting, and related services	518	62	119	0	0	0	0
Other information	other 51	D	11 - 134	0	0	0	0
Professional, scientific, and technical services	54	1,154	17,951	228	357	78	553

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Architectural, engineering, and related services	5413	273	1,147	72	i 170	28	i 488
Scientific research and development services	5417	617	14,504	127	i 168	40	46
Biotechnology research and development	541711	111	3,653	D	2	3	2
Other scientific research and development	other 5417	507	10,851	D	167	37	44
Other professional, scientific, and technical services	other 54	264	2,299	29	18	10	19
Health care services	621-23	86	144	0	0	0	0
Other nonmanufacturing	23, 44-45, 48-49, 52-53, 55-56, 624, 71-72, 81	61	169	D	1	5	26
All companies (number of domestic employees)	-	3,180	61,065	520	2,333	207	949
Small companies							
10-19 ^c	-	742	909	81	i 60	34	63 i
20-49	-	935	1,842	152	i 113	44	i 54 i
Medium companies							
50-99	-	533	2,071	83	79	50	36 i
100-249	-	399	3,703	46	94	20	40
Large companies							
250-499	-	190	2,331	74	57	13	32
500-999	-	111	1,576	15	16	8	18 i
1,000-4,999	-	145	12,771	27	306 i	15	82
5,000-9,999	-	36	7,497	9	76	4	23
10,000-24,999	-	53	10,070	21	527 i	11	49 i
25,000 or more	-	36	18,295 i	13	1,004	8	552

* = 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 Statistics for the number of companies are based only on companies in the United States that reported to the survey. These statistics do not 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 Statistics for the number of companies are based only on companies in the United States that reported to the survey. These statistics do not include an adjustment to the weight to account for unit nonresponse. These company count estimates reflect a new 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. Statistics are representative of companies located in the United States that performed or funded R&D. 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, 2017.