

TABLE 30

Companies with domestic R&D paid for and performed by the company in energy and environmental protection application areas, by industry and company size: 2016

(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	29,999	317,731	5,988	i 20,341	3,746	i 7,426
Manufacturing industries	31-33	18,634	211,660	4,280	i 15,260	2,878	i 6,140
Food	311	1,153	4,611	103	i 35	127	i 51
Chemicals	325	2,640	64,165	459	i 595	512	i 397
Basic chemicals	3251	284	2,284	140	i 368	116	i 206
Pharmaceuticals and medicines	3254	960	55,983	4	i 13	5	i 20
Other chemicals	other 325	1,397	5,898	315	i 214	391	i 171
Plastics and rubber products	326	1,201	3,584	265	i 336	229	i 211
Nonmetallic mineral products	327	409	1,274	113	i 105	82	i 114
Fabricated metal products	332	2,229	2,127	557	i 292	298	i 81
Machinery	333	2,648	11,699	959	i 1,600	658	i 1,126
Agricultural implements	33311	190	1,552	31	i 19	30	i 145
Semiconductor machinery	333242	48	3,028	14	i 115	D	*
Engines, turbines, and power transmission equipment	3336	125	1,901	78	i 507	55	i 544
Other machinery	other 333	2,285	5,218	837	i 959	D	437
Computer and electronic products	334	2,980	68,515	724	i 5,376	283	i 771
Semiconductors and other electronic components	3344	822	29,176	242	i 3,222	16	60
Other electronic products	other 334	2,159	39,339	482	i 2,154	267	i 712
Electrical equipment, appliances, and components	335	719	4,302	434	i 1,375	115	i 144
Transportation equipment	336	1,114	32,905	191	i 4,677	128	i 3,020
Automobiles, bodies, trailers, and parts	3361-63	738	19,293	121	3,895	103	i 2,842
Other transportation	other 336	376	13,612	70	i 783	25	i 178
Miscellaneous manufacturing	339	1,603	13,768	54	i 478	18	59
Other manufacturing	312-16, 321-24, 331, 337	1,949	4,710	422	i 391	429	i 166
Nonmanufacturing industries	21-23, 42-81	11,366	106,071	1,708	i 5,081	868	i 1,286
Mining, extraction, and support activities	21	62	2,897	26	2,115	16	625
Utilities	22	34	325	34	310	21	65
Wholesale trade	42	1,642	442	i 401	i 30	D	*
Information	51	2,327	70,075	250	i 1,157	11	78
Publishing	511	1,341	33,174	221	i 577	7	63
Telecommunications	517	121	3,530	i 5	26	D	1
Data processing, hosting, and related services	518	744	11,776	21	i 536	D	14
Other information	other 51	121	21,594	3	18	0	0
Professional, scientific, and technical services	54	6,385	20,845	950	i 1,395	784	i 499
Architectural, engineering, and related services	5413	1,354	1,816	504	i 609	396	i 176
Scientific research and development services	5417	1,480	2,811	241	i 371	215	i 195
Biotechnology research and development	541711	315	750	i 3	1	3	3

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		Companies ^a (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount					
Other scientific research and development	other 5417	1,165	2,062	238	i	370	212	i	192	i		
Other professional, scientific, and technical services	other 54	3,551	16,217	204	i	415	i	173	i	129	i	
Health care services	621-23	241	782	D		*	D		*			
Other nonmanufacturing	23, 44-45, 48-49, 52-53, 55-56, 624, 71-72, 81	676	10,706	D		74	i	33	i	19	i	
All companies (number of domestic employees)	-	29,999	317,731	5,988	i	20,341		3,746	i	7,426		
Micro companies ^c												
5 - 9	-	3,507	1,044	i	592	i	65	i	341	i	27	i
Small companies												
10 - 19	-	6,390	3,887	i	1,294	i	288	i	705	i	113	i
20 - 49	-	7,873	7,473	i	1,533	i	602	i	977	i	206	i
Medium companies												
50 - 99	-	4,519	7,728		891	i	531	i	576	i	188	i
100 - 249	-	3,909	11,722		788	i	892		524	i	286	i
Large companies												
250 - 499	-	1,567	11,438		296	i	584		198	i	195	i
500 - 999	-	840	13,525		186		962		126		274	
1,000 - 4,999	-	926	53,305		240		3,437		181		996	i
5,000 - 9,999	-	226	35,887		83		1,730		49		651	
10,000 - 24,999	-	146	53,384		52		3,792		45		1,732	
25,000 or more	-	98	118,339		33		7,458		24		2,759	

* = 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 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. Some R&D may be reported in more than one application area. Some R&D is not classified in any application area.

Source(s)

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