

TABLE 23. Domestic R&D paid for and performed by the company in energy and environmental protection application areas, by industry and company size: 2012

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total domestic R&D	Application areas	
			Energy	Environmental protection
All industries	21–23, 31–33, 42–81	247,280	20,479	6,876
Manufacturing industries	31–33	170,197	15,805	5,752
Food	311	3,921	193 i	95 i
Chemicals	325	50,867	558	440
Basic chemicals	3251	2,536	330	258
Pharmaceuticals and medicines	3254	42,594	39	10 i
Other chemicals	other 325	5,737	189	172
Plastics and rubber products	326	3,171	148	70 i
Nonmetallic mineral products	327	1,293 i	118	81 i
Fabricated metal products	332	1,720 i	174 i	122 i
Machinery	333	13,294	2,546	1,882
Agricultural implement	33311	1,503	65	152
Semiconductor machinery	333295	2,078	105	1
Engine, turbine, and power transmission equipment	3336	3,757	1,156	887
Other machinery	other 333	5,956	1,221	842
Computer and electronic products	334	56,677	5,207	1,153 i
Semiconductor and other electronic components	3344	25,957	3,198	351 i
Other electronic products	other 334	30,720	2,009	801
Electrical equipment, appliances, and components	335	2,900	895	107 i
Transportation equipment	336	21,344	4,784	1,249
Automobiles, bodies, trailers, and parts	3361–63	13,191	4,395	1,068
Other transportation	other 336	8,153	389	181
Miscellaneous manufacturing	339	10,423	515	355
Other manufacturing	312–16, 321–24, 331, 337	4,587	665 i	199
Nonmanufacturing industries	21–23, 42–81	77,083	4,674	1,123 i
Mining, extraction, and support activities	21	2,443	1,922	440 i
Utilities	22	245	230	61
Wholesale trade	42	1,580 i	37 i	21 i
Information	51	45,851	635 i	170
Publishing	511	28,253	242 i	126
Telecommunications	517	2,768 i	34 i	0
Data processing, hosting, and related services	518	4,801	46 i	8
Other information	other 51	10,030	313 i	35
Professional, scientific, and technical services	54	20,166	1,691 i	383 i
Architectural, engineering, and related services	5413	1,123	616	37 i
Scientific research and development services	5417	6,788	434	174 i
Biotechnology research and development	541711	4,370	129	82
Other scientific research and development	other 5417	2,418	305 i	93 i
Other professional, scientific, and technical services	other 54	12,255 i	642 i	172 i
Health care services	621–23	416	* i	0
Other nonmanufacturing	23, 44–45, 48–49, 52–53, 55–56, 624, 71–72, 81	6,382	158 i	48 i
All companies (number of domestic employees)	–	247,280	20,479	6,876
Small companies ^a				
5–499	–	39,388	3,357 i	1,236 i
5–99	–	19,958 i	1,986 i	811 i
5–49	–	12,670 i	1,286 i	551 i
5–9	–	1,966 i	156 i	45 i
10–24	–	4,985 i	653 i	324
25–49	–	5,718 i	477 i	182 i
50–99	–	7,288 i	699 i	260 i
100–249	–	9,899	703	243 i
250–499	–	9,531	668	182 i
Medium and large companies				
500–999	–	10,227	1,069	224
1,000–4,999	–	43,025	2,726	956

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5,000–9,999	–	23,821	1,553	947
10,000–24,999	–	43,119	2,713	1,418
25,000 or more	–	87,698	9,062	2,095

* = amount < \$500,000; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2007 North American Industry Classification System.

^a The upper bound is based on the U.S. Small Business Administration's definition of a small business; the Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.

NOTES: Detail may not add to total because of rounding. The 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: National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2012.