

TABLE 21

Companies with domestic R&D paid for by the company and others and performed by the company in the nanotechnology focus area, by industry and company size: 2016

(Millions of U.S. dollars)

Industry and company size	NAICS code	Domestic R&D		Nanotechnology R&D							
		Companies ^a (number)	Amount	Total		Paid for by the company		Paid for by others			
				Companies ^b (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount		
All industries	21-23, 31-33, 42-81	31,784	374,685	1,804	i 25,305	i 1,677	i 23,823	i 267	i 1,482	i	
Manufacturing industries	31-33	19,522	250,553	987	i 23,217	i 922	i 22,113	i 155	i 1,105	i	
Food	311	1,185	4,828	0	0	0	0	0	0		
Chemicals	325	2,907	73,575	320	i 1,424	i 286	i 1,292	i 59	i 132	i	
Basic chemicals	3251	346	2,545	84	i 52	i 55	i 32	i 36	i 21	i	
Pharmaceuticals and medicines	3254	1,089	64,628	34	522	i 29	412	i 17	110	i	
Other chemicals	other 325	1,473	6,402	202	i 850	i 202	i 848	i 5	2		
Plastics and rubber products	326	1,238	3,752	25	22	i 15	12	i 13	i 10	i	
Nonmetallic mineral products	327	416	1,289	30	i 9	i 30	i 5	D	3		
Fabricated metal products	332	2,406	2,239	10	28	i 10	28	i 0	0		
Machinery	333	2,780	12,585	95	i 1,877	i 94	i 1,824	i 6	54		
Agricultural implements	33311	198	1,565	0	0	0	0	0	0		
Semiconductor machinery	333242	50	3,411	19	i 1,802	i 18	i 1,791	D	11		
Engines, turbines, and power transmission equipment	3336	128	1,959	D	*	D	*	0	0		
Other machinery	other 333	2,405	5,650	D	75	D	32	i D	43		
Computer and electronic products	334	3,090	77,385	341	i 19,363	i 326	i 18,473	i 63	i 890	i	
Semiconductors and other electronic components	3344	858	31,391	162	i 18,816	i 157	i 17,958	i 30	i 858	i	
Other electronic products	other 334	2,232	45,993	180	i 547	i 169	i 515	i 32	i 32		
Electrical equipment, appliances, and components	335	727	4,771	51	i 115	i 48	i 110	i 6	i 5	i	
Transportation equipment	336	1,154	51,275	17	148	15	138	4	10		
Automobiles, bodies, trailers, and parts	3361-63	768	22,042	5	11	5	11	0	0		
Other transportation	other 336	386	29,234	12	i 137	i 10	i 127	i 4	10		
Miscellaneous manufacturing	339	D	D	68	i 214	i 68	i 213	i D	*	i	
Other manufacturing	312-16, 321-24, 331, 337	D	D	29	i 18	i 29	i 18	D	*		
Nonmanufacturing industries	21-23, 42-81	12,263	124,132	817	i 2,087	i 755	i 1,710	i 112	i 377	i	
Mining, extraction, and support activities	21	69	3,296	11	57	11	54	D	3		
Utilities	22	34	351	0	0	0	0	0	0		
Wholesale trade	42	1,652	452	i 0	0	0	0	0	0		
Information	51	2,362	70,748	35	i 620	i 34	i 615	D	5		
Publishing	511	1,349	33,574	D	617	D	612	D	5		
Telecommunications	517	D	D	0	0	0	0	0	0		

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		Companies ^a (number)	Amount	Total		Paid for by the company		Paid for by others			
				Companies ^b (number)	Amount	Companies ^b (number)	Amount	Companies ^b (number)	Amount		
Data processing, hosting, and related services	518	765	11,914	D	3 i	D	3 i	0	0		
Other information	other 51	D	D	0	0	0	0	0	0		
Professional, scientific, and technical services	54	7,181	37,595	766 i	1,408 i	705 i	1,039 i	109 i	369 i		
Architectural, engineering, and related services	5413	1,544	3,412	4	6	D	D	D	D		
Scientific research and development services	5417	1,940	14,842	181 i	434 i	129 i	115 i	92 i	319 i		
Biotechnology research and development	541711	411	4,464	25 i	29	21 i	20 i	7	10		
Other scientific research and development	other 5417	1,529	10,378	156 i	404 i	108 i	95 i	85 i	309 i		
Other professional, scientific, and technical services	other 54	3,697	19,341	580 i	968 i	D	D	D	D		
Health care services	621-23	284	848	0	0	0	0	0	0		
Other nonmanufacturing	23, 44-45, 48-49, 52-53, 55-56, 624, 71-72, 81	682	10,841	6 i	3 i	6 i	3 i	0	0		
All companies (number of domestic employees)	-	31,784	374,685	1,804 i	25,305 i	1,677 i	23,823 i	267 i	1,482 i		
Micro companies ^c											
5 - 9	-	3,921	1,581	330 i	57 i	303 i	35 i	45 i	22 i		
Small companies											
10 - 19	-	6,757	4,958	439 i	175 i	394 i	128 i	65 i	47 i		
20 - 49	-	8,397	9,662	455 i	611	439 i	514	64 i	96		
Medium companies											
50 - 99	-	4,712	9,298	208 i	300 i	196 i	214 i	27	86		
100 - 249	-	4,062	14,875	154 i	438 i	143 i	260 i	23 i	178 i		
Large companies											
250 - 499	-	1,623	13,092	63	878 i	54	802 i	15	76		
500 - 999	-	868	14,450	41	760 i	40	692 i	5	68		
1,000 - 4,999	-	959	63,971	71	5,207 i	68	4,900 i	9	307 i		
5,000 - 9,999	-	235	40,633	17	4,272 i	15	3,932 i	4	340 i		
10,000 - 24,999	-	153	65,594	18	6,019 i	17	5,804 i	5	215		
25,000 or more	-	98	136,571	9	6,587 i	8	6,541 i	4	46		

* = 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

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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.