

Table 20. 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: 2024

(Millions of U.S. dollars and number of companies)

Industry and company size	NAICS code	Domestic R&D		Nanotechnology R&D							
				Total		Paid for by the company		Paid for by others			
		Companies (number)	Amount	Companies (number)	Amount	Companies (number)	Amount	Companies (number)	Amount	Companies (number)	Amount
All industries	21–23, 31–33, 42–81	29,570	765,082	920	i 38,968	760	i 36,916	250	i 2,052	i	
Manufacturing industries	31–33	12,780	405,092	620	i 32,986	580	i 31,965	110	i 1,020	i	
Food	311	990	6,288 i	10	D	10	i D	10	D		
Beverage and tobacco products	312	260	1,459	10	*	10	*	0	0		
Textile, apparel, and leather products	313–16	190	788	10	4	10	4	0	0		
Wood products	321	90	267	0	0	0	0	0	0		
Paper	322	80	1,240	10	2	10	2	0	0		
Printing and related support activities	323	140	255	0	0	0	0	0	0		
Petroleum and coal products	324	60	1,006	10	8	10	8	0	0		
Chemicals	325	2,250	143,745	220	i 1,162	210	i 1,146	10	17		
Basic chemicals	3251	300	3,120	60	i 335	60	i 335	10	i *	i	
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	130	1,354	10	1	10	1	0	0		
Pesticide, fertilizer, and other agricultural chemicals	3253	70	1,253	20	i D	20	i D	0	0		
Pharmaceuticals and medicines	3254	1,140	133,627	70	667	70	656	10	11		
Soap, cleaning compound, and toilet preparations	3256	210	2,956	20	8	20	5	10	3		
Paint, coating, adhesive, and other chemicals	3255, 3259	420	1,435	70	i D	70	i D	10	3		
Plastics and rubber products	326	650	2,908	30	i 104	30	i 104	0	0		
Nonmetallic mineral products	327	280	1,578 i	20	i 11	20	i D	10	D		
Primary metals	331	170	1,174	10	2	10	2	0	0		
Fabricated metal products	332	1,480	3,230	10	17	10	17	0	0		
Machinery	333	1,980	22,035	80	i 4,981	80	i D	30	r D		
Agricultural implement	33311	160	2,561	0	0	0	0	0	0		
Semiconductor machinery	333242	50	6,851	20	4,915 i	20	D	10	D		
Engine, turbine, and power transmission equipment	3336	140	4,230	0	0	0	0	0	0		
Other machinery	other 333	1,640	8,394	70	i 66	60	i D	30	r D		
Computer and electronic products	334	1,710	115,599	180	i 24,516	160	i 24,013	40	i 503	i	
Communications equipment	3342	300	12,839	10	i 47	10	i 47	0	0		
Semiconductor and other electronic components	3344	470	52,358	90	i 23,931	80	i 23,598	20	i 332	i	
Navigational, measuring, electromedical, and control instruments	3345	810	14,083	90	i D	80	i D	20	D		
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	220	3,245	30	i 119	20	i D	10	r D		
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	130	6,161	10	4	10	D	10	D		
Other measuring and controlling devices	other 3345	470	4,677	60	i D	60	i D	10	i D		
Other computer and electronic products	other 334	150	36,318	10	i D	10	i D	10	D		
Electrical equipment, appliances, and components	335	380	6,999	40	i 433	30	i 365	20	i 68	i	
Transportation equipment	336	930	71,231	20	1,240 i	10	1,153 i	10	i 87	i	
Motor vehicles, bodies, trailers, and parts	3361–63	540	31,812	10	1,008 i	10	997 i	10	i 11	i	

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Aerospace products and parts	3364	260	35,904	10	232	10	156	10	i	76					
Aircraft, aircraft engine, and aircraft parts	336411–13	230	D	10	D	10	D	10	i	D					
Guided missile, space vehicle, and related parts	336414–15, 336419	30	D	10	i	D	10	D	10	i	D				
Military armored vehicle, tank, and tank components	336992	20	33	0	0	0	0	0		0					
Other transportation	other 336	130	3,481	0	0	0	0	0		0					
Furniture and related products	337	200	450	0	0	0	0	0		0					
Miscellaneous	339	1,050	24,840	50	i	D	50	D	20	i	7				
Medical equipment and supplies	3391	660	22,126	50	i	484	40	i	477	20	i	7			
Other miscellaneous manufacturing	3399	390	2,715	10		D	10	D	0		0				
Nonmanufacturing industries	21–23, 42–81	16,790	359,990	300	i	5,983	i	190	i	4,951	150	i	1,032	i	
Mining, quarrying, oil and gas extraction, and support activities	21	60	1,862	10	i	43	i	10	i	43	i	0		0	
Utilities	22	70	613	10		*	10		*	0		0			
Wholesale trade	42	2,350	1,692	i	10	1	10	1	10		*				
Electronic shopping and electronic auctions	454111–12	270	7,898	i	0	0	0	0	0	0	0				
Transportation and warehousing	48–49	490	r 11,341		0	0	0	0	0	0	0				
Information	51	3,750	228,174	30	i	3,922	30	i	3,919	10		3			
Publishing	511	1,690	63,596	20	i	3,910	20	i	3,910	0		0			
Newspaper, periodical, book, and directory publishers	5111	50	i 489	i	0	0	0	0	0	0	0				
Software publishers	5112	1,650	63,108	20	i	3,910	20	i	3,910	0		0			
Telecommunications	517	150	3,323	10		1	0	0	10		1				
Data processing, hosting, and related services	518	1,680	58,772	10		11	i	10	9	i	10		2		
Other information	other 51	240	102,484	0		0	0	0	0	0	0				
Finance and insurance	52	220	25,463	0		0	0	0	0	0	0				
Real estate and rental and leasing	53	540	2,750	0		0	0	0	0	0	0				
Lessors of nonfinancial intangible assets (except copyrighted works)	533	10	i 23	0		0	0	0	0	0	0				
Other real estate and rental and leasing	other 53	530	2,727	0		0	0	0	0	0	0				
Professional, scientific, and technical services	54	7,560	74,548	250	i	1,973	i	140	i	949	140	i	1,024	i	
Architectural, engineering, and related services	5413	1,660	3,893	50	i	52	i	50	i	52	i	0		0	
Computer systems design and related services	5415	2,950	26,764	20	i	991	i	20	i	445	10	i	545	i	
Scientific research and development services	5417	1,500	33,942	180	i	882	i	80	i	410	130	i	471	i	
Research and development in nanotechnology	541713	80	548	50	i	390		40	i	349	30		41		
Research and development in biotechnology (except nanobiotechnology)	541714	420	6,751	30	i	23		20	i	20	i	10		2	
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	980	25,931	110	i	463	i	30		41	100	i	421	i	
Research and development in the social sciences and humanities	541720	20	712	10	i	6	i	0		0	10	i	6	i	
Other professional, scientific, and technical services	other 54	1,480	9,949	i	20	48	i	10		40	i	10	i	7	i
Health care services	621–23	260	2,020	10	i	5		10		5	10	i	1	i	

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Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	1,290		3,628	20	i	38	i	10	i	34	i	10		4	
All companies (number of domestic employees)	–	29,570		765,082	920	i	38,968	i	760	i	36,916	i	250	i	2,052	i
Small companies																
10–19 ^a	–	5,590		4,790	220	i	199		160	i	129	i	100		70	
20–49	–	7,920		16,179	230	i	399	i	190	i	306	i	60	i	93	
Medium companies																
50–99	–	5,030		17,078	130	i	488		110	i	426		20	i	62	
100–249	–	4,540		29,325	120	i	453	i	100	i	375	i	30		77	
Large companies																
250–499	–	2,100		28,852	60		769		50		732		20	i	37	i
500–999	–	1,880		44,697	60	i	1,151		50		1,067		10	i	84	i
1,000–4,999	–	1,490		123,813	80		6,201	i	80		5,799	i	10		402	i
5,000–9,999	–	280		62,950	30		4,390	i	20		4,000	i	10	i	391	
10,000–24,999	–	610		140,348	20		15,198	i	20		14,708	i	10		490	i
25,000 or more	–	150		297,050	20	i	9,720	i	10		9,373	i	10	i	347	

* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies; i = more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse; r = relative standard error is more than 50%.

NAICS = 2017 North American Industry Classification System.

^a The Business Enterprise 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 \$50,000 or more of R&D. Companies could report R&D in one, more than one, or no application area.

Source(s):
National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2024.