

**Table 39. Domestic R&D paid for by sources located outside the United States and performed by the company, by source of funds, industry, and company size: 2023**

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Foreign companies			Foreign government agencies	Foreign universities, colleges, and academic researchers	All other
			Subsidiaries <sup>a</sup>	Company's parent	Unaffiliated companies			
All industries	21-23, 31-33, 42-81	59,791	34,114	22,643	2,874	104	4	53
Manufacturing industries	31-33	42,188	23,945	15,934	2,191	94	*	i 23
Food	311	363	46	307	11	0	0	0
Beverage and tobacco products	312	3	0	3	0	0	0	0
Textile, apparel, and leather products	313-16	1	0	0	1	0	0	0
Wood products	321	6	0	6	0	0	0	0
Paper	322	1	0	1	0	0	0	0
Printing and related support activities	323	0	0	0	0	0	0	0
Petroleum and coal products	324	D	D	0	*	i 0	0	0
Chemicals	325	13,983	4,064	9,218	687	1	*	i 13
Basic chemicals	3251	173	D	D	D	0	*	0
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	D	0	D	D	0	0	0
Pesticide, fertilizer, and other agricultural chemicals	3253	D	D	D	*	0	0	0
Pharmaceuticals and medicines	3254	12,752	3,710	8,361	668	1	*	13
Soap, cleaning compound, and toilet preparations	3256	280	18	262	0	0	0	0
Paint, coating, adhesive, and other chemicals	3255, 3259	D	D	D	5	*	*	i 0
Plastics and rubber products	326	627	511	113	3	r 0	0	* r
Nonmetallic mineral products	327	17	1	8	9	0	0	0
Primary metals	331	*	*	0	0	0	0	0
Fabricated metal products	332	246	105	141	*	0	0	*
Machinery	333	1,821	534	975	309	D	0	D
Agricultural implement	33311	D	D	D	D	0	0	0
Semiconductor machinery	333242	D	D	D	1	0	0	0
Engine, turbine, and power transmission equipment	3336	D	*	D	D	*	0	D
Other machinery	other 333	D	D	36	D	D	0	0
Computer and electronic products	334	21,077	17,217	2,976	883	0	0	1
Communications equipment	3342	D	D	D	D	0	0	0
Semiconductor and other electronic components	3344	4,645	D	D	D	0	0	*
Navigational, measuring, electromedical, and control instruments	3345	D	D	354	590	0	0	1
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	357	84	273	0	0	0	0
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	586	*	*	586	0	0	0
Other measuring and controlling devices	other 3345	D	D	80	4	i 0	0	1
Other computer and electronic products	other 334	D	D	D	D	0	0	0
Electrical equipment, appliances, and components	335	680	146	i 487	46	1	r 0	* r
Transportation equipment	336	2,380	479	1,603	208	i D	0	D

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Motor vehicles, bodies, trailers, and parts	3361-63	D	459	1,512	119	i	D	0	D				
Aerospace products and parts	3364	D	20	77	89	i	D	0	0				
Aircraft, aircraft engine, and aircraft parts	336411-13	D	20	77	D		D	0	0				
Guided missile, space vehicle, and related parts	336414-15, 336419	D	0	0	D		D	0	0				
Military armored vehicle, tank, and tank components	336992	0	0	0	0		0	0	0				
Other transportation	other 336	14	0	14	0		0	0	0				
Furniture and related products	337	66	66	0	0		0	0	0				
Miscellaneous	339	D	D	97	i	35	D	0	D				
Medical equipment and supplies	3391	516	391	90	i	35	0	0	0				
Other miscellaneous manufacturing	3399	D	D	7		0	D	0	D				
Nonmanufacturing industries	21-23, 42-81	17,603	i	10,169	i	6,709	i	683	i	10	3	30	i
Mining, quarrying, oil and gas extraction, and support activities	21	28	20	3	6		0	0	0				
Utilities	22	0	0	0	0		0	0	0				
Wholesale trade	42	139	i	18	i	121	i	0	0	0	0		
Electronic shopping and electronic auctions	454111-12	0	0	0	0		0	0	0				
Transportation and warehousing	48-49	0	0	0	0		0	0	0				
Information	51	9,291	i	8,850	i	395		38	0	7			
Publishing	511	965		697		260		1	r	0	7		
Newspaper, periodical, book, and directory publishers	5111	1	i	0	1	i	0	0	0	0			
Software publishers	5112	964		697	259		1	r	0	7			
Telecommunications	517	D	0	D	D		0	0	0				
Data processing, hosting, and related services	518	D	D	74	37		0	0	0				
Other information	other 51	D	D	D	0		0	0	0				
Finance and insurance	52	1,182		1,182	0		0	0	0				
Real estate and rental and leasing	53	0	0	0	0		0	0	0				
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0	0	0		0	0	0				
Other real estate and rental and leasing	other 53	0	0	0	0		0	0	0				
Professional, scientific, and technical services	54	6,829	i	99	6,062	i	636	i	10	3	19	i	
Architectural, engineering, and related services	5413	91		7	79		2		1	*	2		
Computer systems design and related services	5415	2,589		47	2,532		5		2	r	0	2	
Scientific research and development services	5417	3,989	i	7	3,349	i	609	i	6		3	16	i
Research and development in nanotechnology	541713	8		0	7		1		0		1	0	
Research and development in biotechnology (except nanobiotechnology)	541714	610		0	585		16		0		0	8	i

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Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	3,368 i	7	2,757 i	592 i			2 r	2	7 i	
Research and development in the social sciences and humanities	541720	4	0	0	0			4	0	0	
Other professional, scientific, and technical services	other 54	159	37	102	20			0	0	0	
Health care services	621-23	6	0	0	3			0	0	3	
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	130	*	129	1 r			0	*	0	
All companies (number of domestic employees)	-	59,791	34,114	22,643	2,874			104	4	53	
Small companies											
10-19 <sup>b</sup>	-	D	11	150	D			3	2	D	
20-49	-	636	65 r	491	68			D	1	D	
Medium companies											
50-99	-	879	29	765	79			3 r	*	3	
100-249	-	1,393	111	1,195	72			3	* i	13	
Large companies											
250-499	-	1,847	770	1,032	43			0	*	2	
500-999	-	3,170	773	2,002	377			D	* i	D	
1,000-4,999	-	9,386	3,441	5,368	576			0	0	2 i	
5,000-9,999	-	4,230	1,739	2,334	151 i			6	0	* i	
10,000-24,999	-	D	2,246	9,307 i	838 i			D	* i	D	
25,000 or more	-	25,611	24,929	0	D			D	0	0	

\* = 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.

<sup>a</sup> Statistics are based on companies in the United States that reported to the survey. No systematic item imputation was applied. These statistics include an adjustment to the weight to account for unit nonresponse.

<sup>b</sup> 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. In all other tables, R&D costs of foreign-company subsidiaries of U.S. companies are included in company-funded U.S. domestic R&D totals. Only in this table are such R&D costs classified as being part of R&D paid for by sources located outside of the United States.

**Source(s):**

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2023.