

TABLE 40

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: 2021

(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 ^a	Company's parent	Unaffiliated companies			
All industries	21-23, 31-33, 42-81	55,500	32,055	20,806	2,450	155	1	34
Manufacturing industries	31-33	37,305	22,293	13,401	1,454	136	*	21
Food	311	756 i	508 - 544 i	212	1 - 35	0	0	0
Beverage and tobacco products	312	57	38	18	0	*	r	0
Textile, apparel, and leather products	313-16	1	1	0	*	0	0	0
Wood products	321	2 - 10	0	2 - 10	0	0	0	0
Paper	322	25	25	0	0	0	0	0
Printing and related support activities	323	0 - 4	0	0	0	0	0	0 - 4
Petroleum and coal products	324	117	117	0	0	0	0	0
Chemicals	325	12,266	3,842	7,695	723	0	*	6
Basic chemicals	3251	147	11	126	10	0	*	0
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	31 - 79 i	0	31 - 78 i	*	0	0	0
Pesticide, fertilizer, and other agricultural chemicals	3253	210 - 241	0	210 - 241	0	0	0	0
Pharmaceuticals and medicines	3254	11,598	3,815	7,066	711	0	0	6
Soap, cleaning compound, and toilet preparations	3256	222	12	209	0	0	0	0
Paint, coating, adhesive, and other chemicals	3255, 3259	5 - 32	4	0 - 25	2	0	*	i
Plastics and rubber products	326	175	72	103	*	r	0	*
Nonmetallic mineral products	327	22	1 r	12	0	0	0	10
Primary metals	331	0 - 146 i	0 - 141	*	0 - 26 i	0	0	0
Fabricated metal products	332	69	4	60	5	0	0	0
Machinery	333	321	37	117	161	2	*	3 r
Agricultural implement	33311	3 - 103	3 - 35	0 - 56	0 - 68	0	0	0
Semiconductor machinery	333242	146	0	55	91	0	0	0
Engine, turbine, and power transmission equipment	3336	7 - 16	*	8	0 - 7	*	0	0
Other machinery	other 333	61 - 166	2 - 34	0 - 56	0 - 71	2	*	3 r
Computer and electronic products	334	18,870	16,526	2,065	225	53	0	*
Communications equipment	3342	141 - 10,590 i	9 - 10,334 i	99 - 207	0 - 12	17 - 39	0	0
Semiconductor and other electronic components	3344	3,892	2,177	1,527	187	0	0	0
Navigational, measuring, electromedical, and control instruments	3345	561 - 4,489	184 - 4,093	333	28	15 - 36	0	*
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	328	99	229	0	0	0	0

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Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	16 - 172	2	0 - 105	0 - 29		15 - 36	0	0		
Other measuring and controlling devices	other 3345	83 - 4,125	83 - 3,991	0 - 105	0 - 29		0	0	*		
Other computer and electronic products	other 334	1,638 - 14,261	1,638 - 14,157	0 - 104	0 - 12		0	0	0		
Electrical equipment, appliances, and components	335	471	24	440	8		0	0	0		
Transportation equipment	336	3,100 - 3,109	151	2,576	294	i	81	i	0 - 1	0 - 4	
Motor vehicles, bodies, trailers, and parts	3361-63	2,854 - 2,927	143	2,479	234	i	0 - 70	i	0	0 - 4	i
Aerospace products and parts	3364	119 - 254	8	40 - 98	58 - 61		10 - 82	i	0 - 1	0 - 4	
Aircraft, aircraft engine, and aircraft parts	336411-13	117 - 252	8	40 - 98	56 - 61		8 - 82	i	0 - 1	0 - 4	
Guided missile, space vehicle, and related parts	336414-15, 336419	2	0	0	0 - 2		0 - 2		0	0	
Military armored vehicle, tank, and tank components	336992	0 - 1	0	0	0 - 1		0		0	0	
Other transportation	other 336	0 - 56	0	0 - 56	0		0		0	0	
Furniture and related products	337	18	18	0	0		0		0	0	
Miscellaneous	339	895 - 1,042	795 - 936	92 - 104	7		0		0 - 1	0	
Medical equipment and supplies	3391	896	796	93	7		0		0	0	
Other miscellaneous manufacturing	3399	0 - 146	0 - 141	0 - 11	*		0		0 - 1	0	
Nonmanufacturing industries	21-23, 42-81	18,195	i 9,762	i 7,405	i 995	i	19		1	13	i
Mining, quarrying, oil and gas extraction, and support activities	21	151 - 1,296	i 0 - 1,131	145 - 158	i 6 - 20	i	0		0	0	
Utilities	22	0 - 8	0	0 - 8	0		0		0	0	
Wholesale trade	42	44 - 1,644	i 0 - 1,598	45	i 0		0		0	* r	
Electronic shopping and electronic auctions	454111-12	0 - 3,072	i 0 - 3,072	0	0		0		0	0	
Transportation and warehousing	48-49	0 - 2,624	0 - 2,623	0	0 - 1		0		0	0	
Information	51	7,343	i 6,649	i 649	45		0		0	0	
Publishing	511	1,078	742	325	r 11	r	0		0	0	
Newspaper, periodical, book, and directory publishers	5111	0	0	0	0		0		0	0	
Software publishers	5112	1,078	742	325	r 11	r	0		0	0	
Telecommunications	517	0 - 96	0	0 - 96	0		0		0	0	
Data processing, hosting, and related services	518	755	484 - 526	i 195 - 236	34		0		0	0	
Other information	other 51	5,413 - 5,512	i 5,380 - 5,424	i 0 - 99	0		0		0	0	

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Finance and insurance	52	0 - 2,623	0 - 2,623	0	0	0	0	0
Real estate and rental and leasing	53	0 - 1,651	0 - 1,651	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 - 1,651	0 - 1,651	0	0	0	0	0
Professional, scientific, and technical services	54	7,546 i	43	6,550 i	920 i	19	1	13 i
Architectural, engineering, and related services	5413	45	0	36	8	*	*	0
Computer systems design and related services	5415	2,085	31	2,010	33 r	11	0	*
Scientific research and development services	5417	5,186 i	2	4,365 i	798 i	8	*	13 i
Research and development in nanotechnology	541713	12	0	12	1 i	0	0	0
Research and development in biotechnology (except nanobiotechnology)	541714	584	0	549	27	7	*	*
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	4,589 i	2	3,804 i	770 i	1	*	13 i
Research and development in the social sciences and humanities	541720	1	0	0	0	1	0	0
Other professional, scientific, and technical services	other 54	231	10	139	82	*	0	0
Health care services	621-23	8	0	6	2 r	0	*	0
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	5 - 24	0	0	5 - 24	0	0	0
All companies (number of domestic employees)	-	55,500	32,055	20,806	2,450	155	1	34
Small companies								
10-19 ^b	-	177 - 252	2	175	0 - 73	1	1	0 - 8
20-49	-	487	14	392	69	8	0	3 r
Medium companies								
50-99	-	872	87	684	90	9	*	2 r
100-249	-	1,488	49	1,232	205	2	*	*
Large companies								
250-499	-	2,382	606	1,520	249	0	*	6
500-999	-	2,267	767	1,193	297	1	0	10
1,000-4,999	-	9,509	3,083	5,885	509	21 - 34	*	0 - 8
5,000-9,999	-	5,254 i	962	3,540 i	741 i	2	*	8 i
10,000-24,999	-	10,579 - 10,653	4,262	6,098	221 i	0 - 71	0	0

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25,000 or more	-	22,414	22,224	86	0 - 73	29 - 106	i	0

* = amount < \$500,000; 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 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.

^b 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 and are not comparable with estimates published for years prior to 2018. 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. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2021.