Table 7. Worldwide R&D paid for by others and performed by the company and others, by industry and company size: 2024

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total		Performed by the company		Performed by others	
All industries	21–23, 31–33, 42–81	111,682		100,240		11,442	
Manufacturing industries	31–33	58,522		50,550		7,971	
Food	311	271		269		2	
Beverage and tobacco products	312	*		*		0	
Textile, apparel, and leather products	313–16	6		6		0	
Wood products	321	6		6		0	
Paper	322	1		1		0	
Printing and related support activities	323	2		2		0	
Petroleum and coal products	324	3		2		*	
Chemicals	325	17,384		12,499		4,885	
Basic chemicals	3251	250		248		2	
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	154		64	i	89	i
Pesticide, fertilizer, and other agricultural chemicals	3253	D		D		D	
Pharmaceuticals and medicines	3254	16,266		11,480		4,786	
Soap, cleaning compound, and toilet preparations	3256	272		272		0	
Paint, coating, adhesive, and other chemicals	3255, 3259	D		D		D	
Plastics and rubber products	326	155		155		*	
Nonmetallic mineral products	327	23		22		*	r
Primary metals	331	49		47		2	
Fabricated metal products	332	173		107		66	
Machinery	333	2,346		2,285		61	
Agricultural implement	33311	D		D		D	
Semiconductor machinery	333242	D		D		D	
Engine, turbine, and power transmission equipment	3336	461		453		8	
Other machinery	other 333	361		353		8	
Computer and electronic products	334	8,998		8,824		174	
Communications equipment	3342	790		790	i	*	i
Semiconductor and other electronic components	3344	4,084		3,991		92	
Navigational, measuring, electromedical, and control instruments	3345	3,485		3,406		79	
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	222		216		6	
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	3,057		2,993		64	
Other measuring and controlling devices	other 3345	206		197		9	r
Other computer and electronic products	other 334	639		637		2	
Electrical equipment, appliances, and components	335	880		879		1	
Transportation equipment	336	27,853		25,078		2,775	i
Motor vehicles, bodies, trailers, and parts	3361–63	2,324		2,180		144	
Aerospace products and parts	3364	23,807	i	21,180		2,627	i
Aircraft, aircraft engine, and aircraft parts	336411–13	17,769	i	15,155	i	2,614	i
Guided missile, space vehicle, and related parts	336414–15, 336419	6,038		6,024		14	
Military armored vehicle, tank, and tank components	336992	10		10		0	
Other transportation	other 336	1,712		1,709		3	
Furniture and related products	337	1		1	i	*	i
Miscellaneous	339	372		368		4	
Medical equipment and supplies	3391	344		340		4	
Other miscellaneous manufacturing	3399	28		28		*	
Nonmanufacturing industries	21–23, 42–81	53,161		49,690		3,471	
Mining, quarrying, oil and gas extraction, and support activities	21	663		663	i	*	
Utilities	22	D		D		D	
Wholesale trade	42	D		D		D	
Electronic shopping and electronic auctions	454111–12	2	r	0		2	r
Transportation and warehousing	48–49	D		D		D	

Table 7. Worldwide R&D paid for by others and performed by the company and others, by industry and company size: 2024

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total		Performed by the company		Performed by others	
Information	51	1,553		1,521		32	
Publishing	511	659		649		10	
Newspaper, periodical, book, and directory publishers	5111	0		0		0	
Software publishers	5112	659		649		10	
Telecommunications	517	D		D		D	
Data processing, hosting, and related services	518	766		762		4	
Other information	other 51	D		D		D	
Finance and insurance	52	170		170		0	
Real estate and rental and leasing	53	0		0		0	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0		0		0	
Other real estate and rental and leasing	other 53	0		0		0	
Professional, scientific, and technical services	54	49,851		46,755		3,095	i
Architectural, engineering, and related services	5413	745		662		83	
Computer systems design and related services	5415	4,704		4,466		237	
Scientific research and development services	5417	43,221		40,507		2,714	i
Research and development in nanotechnology	541713	126		115		11	
Research and development in biotechnology (except nanobiotechnology)	541714	8,437		8,360		78	
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	33,952		31,327		2,624	i
Research and development in the social sciences and humanities	541720	706		706		1	
Other professional, scientific, and technical services	other 54	1,181		1,120		61	
Health care services	621–23	179		131		47	
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	69		49		20	
All companies (number of domestic employees)	–	111,682		100,240		11,442	
Small companies							
10–19[a]	–	1,204		1,064		140	
20–49	–	2,640		2,066		574	
Medium companies							
50–99	–	2,572		2,111		461	
100–249	–	3,300		2,867		433	
Large companies							
250–499	–	3,323		2,759		564	
500–999	–	5,273		4,750		523	
1,000–4,999	–	17,097		14,891		2,206	
5,000–9,999	–	10,318		8,924		1,395	
10,000–24,999	–	27,214		25,567		1,647	
25,000 or more	–	38,740	i	35,241		3,499	i

* = 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.

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