

TABLE 7

## Worldwide R&amp;D paid for by others and performed by the company and others, by industry and company size: 2015

(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	75,749	65,012	10,736
Manufacturing industries	31-33	50,165	41,643	8,522
Food	311	206	196	10
Beverages and tobacco products	312	D	119	D
Textiles, apparel, and leather products	313-16	35	32	3
Wood products	321	9	8	i 1 i
Paper	322	4	3	i 1 i
Printing and related support activities	323	10	7	i 3 i
Petroleum and coal products	324	15	14	*
Chemicals	325	14,257	9,654	4,603
Basic chemicals	3251	484	471	13
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	31	30	i 2 i
Pesticides, fertilizers, and other agricultural chemicals	3253	D	D	D
Pharmaceuticals and medicines	3254	13,184	8,637	4,547
Soaps, cleaning compounds, and toilet preparations	3256	148	116	31
Paints, coatings, adhesives, and other chemicals	3255, 3259	D	D	D
Plastics and rubber products	326	D	153	i D
Nonmetallic mineral products	327	25	24	1
Primary metals	331	50	49	1
Fabricated metal products	332	256	223	i 34 i
Machinery	333	D	973	i D
Agricultural implements	33311	19	19	i * i
Semiconductor machinery	333242	414	373	i 41 i
Engines, turbines, and power transmission equipment	3336	159	156	3
Other machinery	other 333	D	425	D
Computer and electronic products	334	8,928	8,657	270
Communications equipment	3342	1,473	1,435	i 38 i
Semiconductors and other electronic components	3344	1,963	1,933	30
Navigational, measuring, electromedical, and control instruments	3345	5,237	5,038	198
Electromedical, electrotherapeutic, and irradiation apparatuses	334510, 334517	248	236	12
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	4,773	4,589	183
Other measuring and controlling devices	other 3345	216	213	3
Other computer and electronic products	other 334	255	251	4
Electrical equipment, appliances, and components	335	498	i 485	i 13 i
Transportation equipment	336	D	20,686	i D
Automobiles, bodies, trailers, and parts	3361-63	D	2,837	D
Aerospace products and parts	3364	D	D	D
Aircraft, aircraft engines, and aircraft parts	336411-13	D	D	D
Guided missiles, space vehicles, and related parts	336414-15, 336419	1,266	1,265	i 1
Military armored vehicles, tanks, and tank components	336992	12	12	0
Other transportation	other 336	D	D	4
Furniture and related products	337	10	9	i 1 i
Miscellaneous	339	373	350	i 23 i
Medical equipment and supplies	3391	205	195	10
Other miscellaneous manufacturing	3399	168	155	i 13 i
Nonmanufacturing industries	21-23, 42-81	25,583	23,369	2,215
Mining, extraction, and support activities	21	D	646	D
Utilities	22	47	34	13
Wholesale trade	42	86	84	i 2 i
Electronic shopping and electronic auctions	454111-12	19	16	2

TABLE 7

## Worldwide R&amp;D paid for by others and performed by the company and others, by industry and company size: 2015

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Performed by the company	Performed by others
Transportation and warehousing	48-49	*	*	0
Information	51	D	950	D
Publishing	511	820	756	64
Newspaper, periodical, book, and directory publishers	5111	* i	* i	* i
Software publishers	5112	820	756	64
Telecommunications	517	76	71	5 i
Data processing, hosting, and related services	518	D	105	D
Other information	other 51	18	18	0
Finance and insurance	52	D	38	D
Real estate and rental and leasing	53	1	1	0 i
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0	0
Other real estate and rental and leasing	other 53	1	1	0 i
Professional, scientific, and technical services	54	D	21,222	D
Architectural, engineering, and related services	5413	2,170	1,911	260 i
Computer systems design and related services	5415	2,107	2,095	12 i
Scientific research and development services	5417	18,276	16,734	1,542
Biotechnology research and development	541711	5,774	5,650	124 i
Physical, engineering, and life sciences (except biotechnology) research and development	541712	11,665	10,387	1,278
Social sciences and humanities research and development	541720	837	697	141
Other professional, scientific, and technical services	other 54	D	483	D
Health care services	621-23	378	308	70 i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	79	69	10
All companies (number of domestic employees)	-	75,749	65,012	10,736
Micro companies <sup>a</sup>				
5-9	-	D	1,022	D i
Small companies				
10-19	-	D	1,255	D i
20-49	-	2,998	2,344	653 i
Medium companies				
50-99	-	3,469	2,797	672
100-249	-	3,035	2,643	392
Large companies				
250-499	-	2,518	2,224	293
500-999	-	2,319	2,041	278 i
1,000-4,999	-	12,751	10,592	2,159
5,000-9,999	-	6,230	4,743	1,486
10,000-24,999	-	14,413	13,427	986
25,000 or more	-	25,387	21,924	3,463 i

\* = 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.

<sup>a</sup> 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.

**Source(s)**

TABLE 7

**Worldwide R&D paid for by others and performed by the company and others, by industry and company size: 2015**

(Millions of U.S. dollars)

National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2015.