

TABLE 58. Worldwide R&D paid for by others and performed by the company and others, by industry and company size: 2009

(Millions of U.S. dollars)

Industry and company size	NAICS code	Worldwide	Own performance	Paid to others
All industries	21-23, 31-33, 42-81	76,426	61,121	15,305
Manufacturing industries	31-33	49,474 i	37,975 i	11,499 i
Food	311	172	169	3
Beverage and tobacco products	312	2	2	0
Textiles, apparel, and leather products	313-316	9	8	1
Wood products	321	18	17	1
Paper	322	27	25	2
Printing and related support activities	323	1	1	*
Petroleum and coal products	324	D	D	7
Chemicals	325	5,925	3,778	2,147
Basic chemicals	3251	141	134	7
Resin, synthetic rubber, fibers, and filaments	3252	24	24 i	1
Pesticide, fertilizer, and other agricultural chemical	3253	D	D	D
Pharmaceuticals and medicines	3254	5,602	3,495	2,107
Soap, cleaning compound, and toilet preparation	3256	4	3	1
Paint, coating, adhesive, and other chemical	3255, 3259	D	D	D
Plastics and rubber products	326	172	143	29
Nonmetallic mineral products	327	26	24	2
Primary metals	331	249	244	5
Fabricated metal products	332	118	110	8
Machinery	333	453	376	77
Agricultural implements	33311	D	9	D
Semiconductor machinery	333295	31	29	2
Engine, turbine, and power transmission equipment	3336	D	119	D
Other machinery	other 333	D	220	D
Computer and electronic products	334	8,245	7,824	421
Communications equipment	3342	1,810	1,664	146 i
Semiconductor and other electronic components	3344	651	630	21
Navigational, measuring, electromedical, and control instruments	3345	5,228	4,983	245
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	1,286 i	1,264 i	22
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	3,836	3,618	218
Other measuring and controlling instruments	other 3345	106	100	5
Computer and peripheral equipment and other computer and electronic products	other 334	556	547	9
Electrical equipment, appliances, and components	335	263	230	33
Transportation equipment	336	33,270 i	24,530 i	8,740 i
Automobiles, bodies, trailers, and parts	3361-3363	D	D	D
Aerospace products and parts	3364	30,593 i	22,468 i	8,124 i
Aircraft, aircraft engine, and aircraft parts	336411-336413	D i	D i	D i
Guided missile, space vehicle, and related parts	336414, 336415, 336419	D	D	D
Military armored vehicle, tank, and tank components	336992	2	2	*
Other transportation equipment	other 336	D i	D i	D i
Furniture and related products	337	4	3	1
Miscellaneous manufacturing	339	D	D	21
Medical equipment and supplies	3391	136	122	15
Other miscellaneous manufacturing	3399	D	D	6
Nonmanufacturing industries	21-23, 42-81	26,952	23,146	3,806
Mining, extraction, and support activities	21	D	278	D
Utilities	22	47	33	13
Construction	23	5	5	*
Wholesale trade	42	D	172	D i
Retail trade	44, 45	0	0	0
Electronic shopping and mail-order houses	4541	0	0	0
Other retail trade	other 44, 45	0	0	0
Transportation and warehousing	48, 49	29 i	26 i	3

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Information	51	860	843	17
Publishing	511	709	696	13
Newspaper, periodical, book, and directory publishers	5111	2	*	2
Software publishers	5112	707	696	12
Telecommunications	517	85	83	2
Data processing, hosting, and related services	518	63	61	1
Other information	other 51	3	3	*
Finance and insurance	52	8	8	0
Real estate and rental and leasing	53	0	0	0
Professional, scientific, and technical services	54	25,116	21,456	3,660
Architectural, engineering, and related services	5413	2,582	2,071	511 i
Computer systems design and related services	5415	2,134	1,880	254
Scientific R&D services	5417	13,494	11,580	1,914
Biotechnology R&D	541711	4,167	3,356	811
Physical, engineering, and life sciences (except biotechnology) R&D	541712	8,512	7,559	953
Social sciences and humanities R&D	541720	815	665	150
Other professional, scientific, and technical services	other 54	6,905	5,925	981
Health care services	621–623	286	190	96
Other nonmanufacturing	55, 56, 61, 624, 71, 72, 81	138	134	4
All companies	–	76,426	61,121	15,305
Small companies (number of domestic employees) ^a				
5–499	–	17,606	14,695	2,911
5–99	–	11,471	9,545	1,926
5–49	–	5,295	4,394	901
5–24	–	3,101	2,571	530
25–49	–	2,194	1,823	371
50–99	–	6,176	5,150	1,025
100–249	–	2,866	2,302	564
250–499	–	3,268	2,848	420
Medium and large companies (number of domestic employees)				
500–999	–	2,085	1,676	409
1,000–4,999	–	7,739	6,292	1,447
5,000–9,999	–	6,877	6,065	813
10,000–24,999	–	10,946	9,380	1,567
25,000 or more	–	31,172 i	23,013 i	8,159 i

* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies; i = value > 50% of estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2007 North American Industry Classification System.

^a Upper bound based on U.S. Small Business Administration's definition of small business; Business R&D and Innovation Survey (BRDIS) does not include companies with fewer than five domestic employees.

NOTES: Detail may not add to total because of rounding. Industry classification based on dominant business code for domestic R&D performance where available. For companies that did not report business codes, classification used for sampling was assigned. Statistics are representative of companies located in United States that performed or funded R&D.

SOURCE: National Science Foundation/National Center for Science and Engineering Statistics and U.S. Census Bureau, Business R&D and Innovation Survey, 2009.