

TABLE 1

Business R&D and Innovation Survey aggregate estimates, by questionnaire reference: 2015

(Financial information, employees, patents)

Question	Survey item	Aggregate amount
Company and financial information (US\$millions)		
1.8	Worldwide net sales and operating revenues	12,138,755
1.9	Net sales and operating revenues from domestic operations	9,049,901
	R&D paid for by the company and performed by the company and others	
2.1	Worldwide R&D paid for by the company (expense), total	440,301
2.3	Worldwide R&D paid for by the company (expense) adjustments	27,955
2.4	Worldwide R&D paid for by the company and performed by the company and others	412,345
2.8a	Domestic R&D paid for by the company and performed by the company and others	335,360
2.8b	Foreign R&D paid for by the company and performed by the company and others	76,985
2.6	Indirect R&D charges to be recouped from the U.S. federal government (IR&D or independent R&D)	7,063
-	Domestic R&D paid for by the company and performed by the company and others	
2.11a(1)	Salaries, wages, and fringe benefits	171,715
2.11b(1)	Stock-based compensation	19,059
2.11c(1)	Temporary staffing, including on-site contractors	12,711
2.11d(1)	Expensed equipment	4,868
2.11e(1)	Materials and supplies	21,210
2.11f(1)	Leased facilities and equipment rental payments	4,829
2.11g(1)	Depreciation and amortization of R&D property and equipment	11,348
2.11h(1)	Payments to business partners for collaborative R&D	9,295
2.11i(1)	Purchased R&D services	29,389
2.11j(1)	All other purchased services except R&D	6,172
2.11k(1)	All other costs	44,764
2.12(3)	Worldwide R&D paid for by the company and performed by others	47,846
2.12(1)	Domestic R&D paid for by the company and performed by others	38,683
2.12(2)	Foreign R&D paid for by the company and performed by others	9,163
2.13(3)	Worldwide R&D paid for and performed by the company	364,500
2.13(1)	Domestic R&D paid for and performed by the company	296,677
2.13(2)	Foreign R&D paid for and performed by the company	67,822
2.12(1) + 2.13(1) + 3.8(1) + 3.9(1)	Domestic R&D paid for by the company and others and performed by the company and others	404,594
2.13(1) + 3.9 (1)	Domestic R&D paid for by the company and others and performed by the company	355,821
-	Domestic R&D paid for and performed by the company	
2.19	Performed at largest domestic location	171,049
2.21	Performed at second-largest domestic location	29,967
2.23	Domestic R&D paid for by foreign operations or subsidiaries and performed by the company	6,785
2.24	Foreign R&D paid for by domestic operations or subsidiaries and performed by the company	8,937
-	Domestic R&D paid for by the company and performed by others	
2.26a	Companies in United States	32,121
2.26b	Your company's foreign parent or owner	414
2.26c	Companies outside United States	3,829
2.26d	U.S. federal government agencies or laboratories	156
2.26e	U.S. state and local government agencies or laboratories	10
2.26f	Foreign government agencies or laboratories	*
2.26g	All other organizations in the United States	479
2.26h	All other organizations outside the United States	158
2.26	Undistributed (BRDI-1(S))	1,516 i
2.28	Monetary gifts made by the company to U.S. universities and colleges	293
-	Projected worldwide R&D expense for 2016	
2.29(3)	Worldwide R&D to be paid for and performed by the company	433,478
2.29(1)	Domestic R&D to be paid for and performed by the company	347,502
2.29(2)	Foreign R&D to be paid for and performed by the company	85,977

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Question	Survey item	Aggregate amount
2.30	Projected R&D services and projected payments for collaborative R&D	37,878
2.31	Total domestic capital expenditures	558,899
2.32	Domestic capital expenditures for R&D	28,203
2.33a	Structures	3,674
2.33b	Equipment	13,704
2.33c	Capitalized software	6,970
2.33d	All other expenditures	3,856
-	R&D paid for by others and performed by the company and others	
3.1a	R&D reimbursed by the company's foreign parent or owner	14,742
3.1b	Collaborative R&D reimbursed by business partners	8,543
3.1c	R&D paid for by government or private foundation grants	11,834
3.1d	Defense RDT&E goods or services provided to the federal government or government contractors	17,151
3.1e	Medical nonclinical R&D services provided to others not owned by the company	3,245
3.1f	Medical clinical trial Phase I–III services provided to others not owned by the company	10,191
3.1g	Nondefense custom software development or computer systems designed for others not owned by the company	513
3.1h	Prototype development, production, and testing for customer's products	2,882
3.1i	All other R&D services not included in 3.1a–3.1h provided to the federal government or to others not owned by the company	6,648
3.1j	Worldwide R&D paid for by others and performed by the company and others	75,749
3.4a	Domestic R&D paid for by others and performed by the company and others	69,233
3.4b	Foreign R&D paid for by others and performed by the company and others	6,515
-	Domestic R&D paid for by others and performed by the company and others	
3.7a(1)	Salaries, wages, and fringe benefits	32,454
3.7b(1)	Stock-based compensation	520
3.7c(1)	Temporary staffing, including on-site contractors	1,751
3.7d(1)	Expensed equipment	351
3.7e(1)	Materials and supplies	5,808
3.7f(1)	Leased facilities and equipment rental payments	879
3.7g(1)	Depreciation and amortization of R&D property and equipment	1,084
3.7h(1)	Payments to business partners for collaborative R&D	1,858
3.7i(1)	Purchased R&D services	8,231
3.7j(1)	All other purchased services except R&D	2,181
3.7k(1)	All other costs	14,116
3.8(3)	Worldwide R&D paid for and performed by others	10,736
3.8(1)	Domestic R&D paid for and performed by others	10,089
3.8(2)	Foreign R&D paid for and performed by others	647
3.9(3)	Worldwide R&D paid for by others and performed by the company	65,012
3.9(1)	Domestic R&D paid for by others and performed by the company	59,144
3.9(2)	Foreign R&D paid for by others and performed by the company	5,868
-	Domestic R&D paid for by others and performed by the company	
3.14a	Companies in United States	14,595
3.14b	Your company's foreign parent or owner	12,579
3.14c	Companies outside United States	3,738
3.14d	U.S. federal government agencies or laboratories	26,990
3.14e	U.S. state and local government agencies or laboratories	127
3.14f	Foreign government agencies or laboratories	572
3.14g	All other organizations in the United States	489
3.14h	All other organizations outside the United States	54
-	Federally funded R&D performed by the company	
3.18a	Department of Defense	18,163

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Question	Survey item	Aggregate amount
3.18b	Department of Energy	1,727 i
3.18c	National Aeronautics and Space Administration	4,331 i
3.18d	National Institutes of Health	877 i
3.18e	Department of Homeland Security	47
3.18f	Department of Transportation	117
3.18g	Environmental Protection Agency	5
3.18h	National Science Foundation	16
3.18i	Other U.S. federal agencies	1,707
-	Federally funded R&D performed by the company by type of agreement	
3.19a	Contracts	25,833 i
3.19b	Grants and all other agreements	1,158
-	Domestic R&D paid for by others and performed by the company	
3.23	Performed at largest domestic location	29,554
3.25	Performed at second-largest domestic location	5,386
3.27	Domestic R&D paid for by U.S. federal government agencies or laboratories and performed by others	4,200
-	Projected R&D to be paid for by others and performed by the company in 2016	
3.28	Worldwide to be paid for by others and performed by the company	73,844
3.29	Domestic R&D to be paid for by others and performed by the company	59,333
3.30	Domestic R&D to be paid for by U.S. federal government and performed by the company	26,156
-	Domestic R&D paid for and performed by the company	
4.3	R&D directed toward business areas or product lines new to company	43,082
-	Type of R&D (character of work)	
4.6b	Basic research	16,306
4.6a	Applied research	44,344
4.5b	Development	236,027
-	Application areas	
4.7	Energy applications	20,486
4.8	Environmental protection applications	7,481
4.9	Defense applications	9,857
4.10	Health or medical applications	71,474
4.11	Agricultural applications	6,040
-	Technology focus areas	
4.12	Software products and software embedded in other projects or products	101,995
4.13	Biotechnology	32,798
4.14	Nanotechnology	20,123 i
-	Domestic R&D paid for by others and performed by the company	
-	Type of R&D (character of work)	
4.18b	Basic research	5,486
4.18a	Applied research	12,128
4.17b	Development	41,530
-	Application areas	
4.19	Energy applications	2,585
4.20	Environmental protection applications	1,666 i
4.21	Defense applications	19,963
4.22	Health or medical applications	17,487
4.23	Agricultural applications	555
-	Technology focus areas	
4.24	Software products and software embedded in other projects or products	8,190
4.25	Biotechnology	6,997
4.26	Nanotechnology	1,494 i
-	Federally funded R&D performed by the company	
-	Type of R&D (character of work)	

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4.30b	Basic research	2,038 i
4.30a	Applied research	6,102 i
4.29b	Development	18,850 i
-	Technology focus areas	
4.31	Software products and software embedded in other projects or products	3,958
-	Foreign R&D paid for and performed by the company	
-	Type of R&D (character of work)	
4.33a	Research	17,552
4.33b	Development	50,270
-	Foreign R&D paid for by others and performed by the company	
-	Type of R&D (character of work)	
4.35a	Research	944 i
4.35b	Development	4,925 i
Employees (thousands)		
-	Worldwide	
5.1	Total employees	29,240
5.3b(3)	Non-R&D employees	27,062
5.3a(3)	R&D employees	2,178
5.5a(3)	Female	568
5.5b(3)	Male	1,610
5.6a(3)	Researchers	1,539
5.6b(3)	Technicians	409
5.6c(3)	Support staff	231
-	Domestic	
5.2(1)	Total employees	18,915
5.3b(1)	Non-R&D employees	17,372
5.3a(1)	R&D employees	1,543
5.5a(1)	Female	389
5.5b(1)	Male	1,155
5.6a(1)	Researchers	1,075
5.6b(1)	Technicians	302
5.6c(1)	Support staff	167
-	Foreign	
5.2(2)	Total employees	10,325
5.3b(2)	Non-R&D employees	9,690
5.3a(2)	R&D employees	635
5.5a(2)	Female	179
5.5b(2)	Male	456
5.6a(2)	Researchers	464
5.6b(2)	Technicians	107
5.6c(2)	Support staff	64
-	Researchers with PhD	
5.7(3)	Worldwide	143
5.7(1)	Domestic	115
5.7(2)	Foreign	28 i
-	Full-time equivalent	
5.8d	R&D employees	1,399
5.8a	Full-time R&D employees	1,233
5.8b	Full-time employees not solely working on R&D	149
5.8c	Part-time employees working on R&D	17
5.9d	Researchers	981
5.9a	Full-time R&D employees	886

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5.9b	Full-time employees not solely working on R&D	85 i
5.9c	Part-time employees working on R&D	10
5.10	Non-U.S. citizens employed as researchers under temporary visa	32
U.S. patents (number) ^a		
6.1	Patents applied for, total	129,562
6.2	Nonprovisional utility patents applied for	102,195
6.3	Applications filed or planned in foreign jurisdictions	45,358
6.4	Applications originated from organized R&D activities	75,926
6.5	Utility patents issued	91,327
U.S. patents (US\$millions) ^a		
-	Revenue received from others	
6.7	From sale of patents	1,008
6.8	From licensing patents	22,679
-	Amount paid to others	
6.9	To purchase patents	5,050
6.10	To license patents	6,971

* = amount < \$500,000; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

IR&D = independent research and development; RDT&E = research, development, test, and evaluation.

^a These statistics do not include an adjustment to the weight to account for unit nonresponse.

Note(s)

Detail may not add to total because of rounding. Statistics are representative of companies located in the United States that performed or funded R&D.

Source(s)

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