

Table SRD-3

## Funds spent for business R&amp;D performed in the United States, by type of R&amp;D and selected sources of funds: 2010–19

(Millions of dollars and percent share)

Source of funds	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Millions of dollars										
All business R&D										
All business R&D <sup>a</sup>	278,977	294,093	302,250	322,528	340,728	355,821	374,685	400,100	441,036	492,956
Paid for by the company	221,706	238,768	247,280	264,913	282,570	296,677	317,731	339,036	377,806	428,968
Paid for by others	57,271	55,324	54,970	57,615	58,158	59,144	56,954	61,065	63,230	63,989
Federal	34,199	31,309	30,621	29,362	26,554	26,990	23,772	24,277	24,685	21,941
All others	23,072	24,015	24,349	28,253	31,604	32,154	33,182	36,788	38,545	42,048
Basic research										
All business R&D <sup>a</sup>	16,371	13,020	13,293	19,508	21,936	21,792	24,644	24,829	28,980	32,239
Paid for by the company	13,453	10,735	11,163	15,275	16,107	16,306	19,143	18,732	22,312	25,916
Paid for by others	2,918	2,285	2,131	4,233	5,829	5,486	5,501	6,097	6,668	6,324
Federal	1,406	677	644	1,196	2,044	2,038	2,005	1,783	2,510	2,313
All others	1,512	1,608	1,487	3,037	3,785	3,448	3,496	4,314	4,158	4,011
Applied research										
All business R&D <sup>a</sup>	44,906	47,186	50,755	51,014	53,415	56,472	61,020	62,132	65,222	74,031
Paid for by the company	35,475	37,573	39,629	38,105	39,012	44,344	48,806	49,149	53,229	59,697
Paid for by others	9,431	9,613	11,126	12,908	14,403	12,128	12,213	12,984	11,993	14,333
Federal	4,705	4,404	4,137	6,028	6,445	6,102	5,181	5,037	5,097	4,883
All others	4,726	5,209	6,989	6,880	7,958	6,026	7,032	7,947	6,896	9,450
Experimental development										
All business R&D <sup>a</sup>	217,699	233,887	238,202	252,007	265,377	277,558	289,021	313,139	346,834	386,686
Paid for by the company	172,777	190,460	196,488	211,532	227,451	236,027	249,782	271,155	302,264	343,355
Paid for by others	44,922	43,426	41,714	40,475	37,927	41,530	39,239	41,984	44,570	43,332
Federal	28,089	26,228	25,840	22,137	18,065	18,850	16,586	17,457	17,078	14,745
All others	16,833	17,198	15,874	18,338	19,862	22,680	22,653	24,527	27,492	28,587
Sources of funds as a percentage of business R&D, by type of R&D										
All business R&D										
All business R&D <sup>a</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Paid for by the company	79.5	81.2	81.8	82.1	82.9	83.4	84.8	84.7	85.7	87.0
Paid for by others	20.5	18.8	18.2	17.9	17.1	16.6	15.2	15.3	14.3	13.0
Federal	12.3	10.6	10.1	9.1	7.8	7.6	6.3	6.1	5.6	4.5
All others	8.3	8.2	8.1	8.8	9.3	9.0	8.9	9.2	8.7	8.5
Basic research										
All business R&D <sup>a</sup>	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0
Paid for by the company	82.2	82.5	84.0	78.3	73.4	74.8		77.7	75.4	80.4

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(Millions of dollars and percent share)

Source of funds	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Paid for by others	17.8	17.5	16.0	21.7	26.6	25.2	22.3	24.6	23.0	19.6
Federal	8.6	5.2	4.8	6.1	9.3	9.4	8.1	7.2	8.7	7.2
All others	9.2	12.4	11.2	15.6	17.3	15.8	14.2	17.4	14.3	12.4
Applied research										
All business R&D <sup>a</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Paid for by the company	79.0	79.6	78.1	74.7	73.0	78.5	80.0	79.1	81.6	80.6
Paid for by others	21.0	20.4	21.9	25.3	27.0	21.5	20.0	20.9	18.4	19.4
Federal	10.5	9.3	8.2	11.8	12.1	10.8	8.5	8.1	7.8	6.6
All others	10.5	11.0	13.8	13.5	14.9	10.7	11.5	12.8	10.6	12.8
Experimental development										
All business R&D <sup>a</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Paid for by the company	79.4	81.4	82.5	83.9	85.7	85.0	86.4	86.6	87.1	88.8
Paid for by others	20.6	18.6	17.5	16.1	14.3	15.0	13.6	13.4	12.9	11.2
Federal	12.9	11.2	10.8	8.8	6.8	6.8	5.7	5.6	4.9	3.8
All others	7.7	7.4	6.7	7.3	7.5	8.2	7.8	7.8	7.9	7.4

i = more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = North American Industry Classification System.

<sup>a</sup> Includes companies located in the United States that performed or funded R&D. Data in this table represent an aggregate of all industries in the North American Industry Classification System codes 21–33 and 42–81.**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. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. For survey years 2010–13, industry classification was based on the 2007 NAICS, whereas for survey years 2014–18, industry classification was based on the 2012 NAICS. The 2010–16 data come from the Business R&D and Innovation Survey and do not include companies with fewer than 5 domestic employees. Data for 2017–18 come from the Business Research and Development Survey and do not include companies with fewer than 10 domestic employees. Data for 2019 come from the Business Enterprise Research and Development Survey and do not include companies with fewer than 10 domestic employees.

**Source(s):**

National Center for Science and Engineering Statistics and U.S. Census Bureau, Business R&amp;D and Innovation Survey (BRDIS), Business Research and Development Survey (BRDS), and Business Enterprise Research and Development Survey (BERD).

*Science and Engineering Indicators*