

TABLE 9

**Department of Defense obligations for research, development, test, and evaluation, by agency and performer: FY 2019**

(Dollars in millions)

Agency	Total	Intramural <sup>a</sup>	Extramural							
			United States and U.S. territories							Foreign
			Industry	Industry-administered FFRDCs	Universities and colleges	University-administered FFRDCs	Other nonprofits	Nonprofit-administered FFRDCs	State, local governments	
Department of Defense										
RDT&E	93,956.4	28,515.2	58,554.4	432.8	3,413.3	531.3	893.4	943.1	31.6	641.5
Total research	8,268.4	2,604.5	2,804.4	61.6	2,161.5	89.1	357.8	71.6	3.6	114.5
Basic research	2,510.2	572.1	327.4	13.9	1,373.4	9.3	106.2	21.6	2.5	83.8
Applied research	5,758.2	2,032.4	2,477.1	47.7	788.0	79.8	251.6	50.0	1.1	30.7
Total experimental development <sup>b</sup>	50,511.1	17,710.0	29,428.3	318.4	1,124.4	361.6	462.2	648.9	27.9	429.3
Advanced technology	6,923.2	2,636.4	3,433.9	63.4	327.2	82.5	248.4	56.8	2.2	72.4
Major systems	43,587.9	15,073.7	25,994.4	255.0	797.1	279.1	213.9	592.1	25.7	356.9
Total operational systems development <sup>c</sup>	35,176.9	8,200.7	26,321.6	52.8	127.4	80.6	73.4	222.6	0.0	97.7
Defense Advanced Research Projects Agency										
RDT&E	3,321.0	344.0	2,076.1	38.2	600.4	55.7	129.7	27.8	0.7	48.4
Total research	1,743.3	81.2	880.7	25.3	557.7	26.6	114.3	20.3	0.7	36.5
Basic research	478.3	14.9	138.4	8.7	242.7	6.0	41.2	7.7	0.0	18.8
Applied research	1,265.0	66.3	742.3	16.7	315.0	20.6	73.1	12.6	0.7	17.7
Total experimental development <sup>b</sup>	1,577.7	262.9	1,195.3	12.9	42.7	29.1	15.4	7.5	0.0	11.9
Advanced technology	1,411.5	201.9	1,090.1	12.9	42.7	29.1	15.4	7.5	0.0	11.9
Major systems	166.1	60.9	105.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total operational systems development <sup>c</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Department of the Air Force										
RDT&E	40,178.8	6,047.2	32,589.3	123.7	572.8	154.3	49.9	448.5	8.7	184.3
Total research	2,106.9	911.6	647.9	2.2	470.1	2.2	33.3	5.7	0.5	33.3
Basic research	559.4	100.5	60.2	0.1	360.5	0.2	3.4	1.1	0.0	33.3
Applied research	1,547.5	811.2	587.7	2.1	109.6	2.0	29.8	4.6	0.5	0.0
Total experimental development <sup>b</sup>	12,969.9	3,410.1	8,910.4	101.4	79.7	80.2	11.8	273.0	8.2	95.0
Advanced technology	836.9	364.3	442.7	0.7	15.2	0.2	6.2	7.6	0.1	0.0

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Major systems	12,133.0	3,045.8	8,467.7	100.8	64.6	80.0	5.6	265.4	8.1	95.0
Total operational systems development <sup>c</sup>	25,102.0	1,725.5	23,030.9	20.1	23.0	72.0	4.9	169.8	0.0	55.9
Department of the Army										
RDT&E	12,024.8	4,590.5	6,463.1	7.7	509.2	29.0	295.9	66.0	1.9	61.6
Total research	1,956.2	707.7	784.4	0.6	353.5	2.8	81.6	13.4	1.9	10.2
Basic research	494.7	159.2	65.6	0.0	237.9	0.2	12.1	9.8	1.9	7.9
Applied research	1,461.5	548.5	718.8	0.6	115.5	2.6	69.5	3.7	0.0	2.3
Total experimental development <sup>b</sup>	8,318.6	3,126.6	4,739.7	7.1	145.0	24.9	176.8	49.8	*	48.7
Advanced technology	1,637.0	687.4	811.0	*	69.1	4.4	56.1	2.4	0.0	6.6
Major systems	6,681.6	2,439.3	3,928.7	7.1	75.9	20.5	120.7	47.4	*	42.0
Total operational systems development <sup>c</sup>	1,750.0	756.1	939.0	0.0	10.7	1.3	37.5	2.8	0.0	2.7
Department of the Navy										
RDT&E	18,575.6	7,331.6	9,649.9	66.2	1,028.6	50.6	250.8	138.2	1.1	58.7
Total research	1,590.7	537.6	302.3	6.3	604.7	1.7	95.6	9.6	0.6	32.1
Basic research	655.7	182.9	22.1	0.1	391.7	0.3	34.9	0.9	0.6	22.2
Applied research	935.0	354.7	280.2	6.2	213.0	1.4	60.7	8.8	0.0	9.9
Total experimental development <sup>b</sup>	13,750.5	5,529.0	7,558.8	28.2	347.6	41.5	128.5	93.0	0.4	23.6
Advanced technology	1,008.2	415.5	417.8	0.9	68.8	0.2	97.3	6.5	0.3	0.8
Major systems	12,742.4	5,113.4	7,141.0	27.3	278.8	41.3	31.2	86.4	0.1	22.7
Total operational systems development <sup>c</sup>	3,234.4	1,265.0	1,788.8	31.8	76.2	7.4	26.6	35.6	0.0	3.0
Other defense agencies										
RDT&E	19,856.3	10,201.9	7,776.0	196.9	702.2	241.7	167.1	262.7	19.3	288.5
Total research	871.3	366.3	189.1	27.1	175.4	55.8	33.0	22.5	0.0	2.3
Basic research	322.1	114.7	41.0	5.0	140.5	2.6	14.6	2.1	0.0	1.6
Applied research	549.2	251.6	148.0	22.1	34.9	53.2	18.4	20.4	0.0	0.7
Total experimental development <sup>b</sup>	13,894.4	5,381.4	7,024.1	168.8	509.4	185.9	129.8	225.7	19.3	250.0

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Advanced technology	2,029.7	967.3	672.3	49.0	131.6	48.7	73.4	32.8	1.8	53.0
Major systems	11,864.7	4,414.2	6,351.7	119.9	377.8	137.3	56.4	192.9	17.4	197.1
Total operational systems development <sup>c</sup>	5,090.5	4,454.1	562.9	1.0	17.5	0.0	4.4	14.5	0.0	36.1

\* = amount greater than \$0 but less than \$50,000.

FFRDC = federally funded research and development center; RDT&amp;E = research, development, test, and evaluation.

<sup>a</sup> Intramural activities cover costs associated with the administration of intramural R&D programs and extramural R&D procurements by federal personnel as well as actual intramural performance.<sup>b</sup> Department of Defense (DOD) development obligations have been reported in two categories, advanced technology and major systems, since volume 44 (FYs 1994–96). As of volume 66 (FYs 2016–17), the definition of major systems development was changed to represent DOD Budget Activities 4 through 6 instead of Budget Activities 4 through 7.<sup>c</sup> Funding for DOD's Operational Systems Development (Budget Activity 7) was first reported as a separate category for volume 66.**Note(s):**

Because of rounding, detail may not add to total. Only those agencies and subdivisions that had obligations in variables represented by this table appear in the table. See technical table A-2 for additional notes associated with the agencies listed in this table.

**Source(s):**

National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development, FYs 2019–20.