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**Federal obligations for basic research, by detailed field of science and engineering: FYs 2011–20**

(Dollars in millions)

Field	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 (preliminary)
All fields	29,313.6	30,958.9	29,779.4	31,587.9	31,527.1	32,292.7	33,271.5	36,195.1	40,017.3	41,755.3
Computer sciences and mathematics	1,788.5	1,794.9	1,690.8	1,917.7	1,984.5	2,109.7	1,877.3	2,084.6	2,305.9	2,474.2
Computer sciences	936.4	922.4	859.9	958.9	1,024.5	996.9	998.7	1,032.3	1,150.7	NA
Mathematics	741.3	806.2	757.5	824.4	874.1	1,019.3	823.9	942.5	1,038.8	NA
Other computer sciences and mathematics	110.7	66.3	73.4	134.4	85.8	93.4	54.6	109.8	116.4	NA
Engineering	3,168.0	3,458.9	3,407.5	3,544.6	3,694.0	3,657.7	3,685.6	3,585.7	3,618.0	3,811.5
Aeronautical engineering	153.2	401.9	408.9	446.9	468.7	478.6	450.0	99.2	70.9	NA
Astronautical engineering	32.9	79.4	85.0	92.8	98.8	99.3	101.0	8.3	8.7	NA
Chemical engineering	182.7	94.4	84.2	103.7	60.5	69.6	76.2	71.6	74.9	NA
Civil engineering	149.2	35.3	28.2	27.8	54.3	38.0	26.7	13.9	11.5	NA
Electrical engineering	281.0	298.7	259.4	247.8	228.2	227.7	225.0	238.2	219.5	NA
Mechanical engineering	82.3	156.4	146.9	128.6	125.5	122.9	123.8	110.5	103.4	NA
Metallurgy and materials engineering	1,077.2	1,186.1	1,201.1	1,232.8	1,289.9	1,279.3	1,306.5	1,363.5	1,223.1	NA
Other engineering	1,209.5	1,206.7	1,193.9	1,264.2	1,368.0	1,342.3	1,376.4	1,680.4	1,906.0	NA
Environmental sciences	1,796.4	2,258.7	2,395.8	2,753.0	2,738.4	2,765.0	2,686.8	2,996.4	3,251.8	2,922.3
Atmospheric sciences	612.5	952.3	994.8	1,036.6	1,051.4	1,080.4	1,087.8	508.1	513.7	NA
Geological sciences	396.4	501.5	411.2	417.8	432.7	433.1	439.0	182.6	200.3	NA
Oceanography	483.0	494.4	456.5	482.7	431.8	441.7	384.5	418.6	432.1	NA
Other environmental sciences	304.5	310.3	533.2	815.8	822.4	809.8	775.5	1,887.2	2,105.6	NA
Life sciences	15,373.4	16,015.8	15,317.3	16,019.0	15,209.7	15,577.0	16,573.8	18,176.1	18,880.6	20,206.5
Agricultural sciences	547.0	480.4	462.4	513.7	554.2	566.1	584.2	596.6	634.6	NA
Biological sciences (excluding environmental biology)	8,277.1	8,317.4	7,918.8	8,283.6	7,758.4	8,026.1	8,573.3	9,158.9	9,785.8	NA
Environmental biology	434.6	406.6	384.4	394.8	398.6	380.5	371.9	513.6	490.2	NA
Medical sciences	5,085.5	5,528.0	5,325.9	5,564.2	5,270.5	5,337.2	5,717.3	6,414.9	6,389.2	NA
Other life sciences	1,029.2	1,283.4	1,225.8	1,262.7	1,228.0	1,267.1	1,327.2	1,492.1	1,580.8	NA
Physical sciences	3,815.0	4,556.7	4,432.2	4,637.5	4,620.8	4,706.9	4,717.4	5,930.8	7,907.0	7,716.1
Astronomy	498.8	925.0	973.9	1,036.0	1,073.5	1,093.0	1,139.5	878.9	1,577.2	NA
Chemistry	774.3	776.3	714.7	722.1	672.4	688.0	694.5	738.9	691.3	NA
Physics	2,275.2	2,568.0	2,468.8	2,576.0	2,569.2	2,593.2	2,597.2	2,517.8	2,570.6	NA
Other physical sciences	266.7	287.4	274.8	303.4	305.7	332.7	286.2	1,795.2	3,067.8	NA
Psychology	978.8	1,087.8	1,016.0	1,037.6	999.9	989.8	1,027.3	1,147.3	1,366.1	1,471.7
Biological aspects	13.4	13.1	13.8	13.7	14.2	15.7	10.0	19.4	16.1	NA
Social aspects	16.9	13.3	16.4	13.2	13.6	11.7	13.5	10.3	10.6	NA
Other psychological sciences	948.5	1,061.5	985.8	1,010.7	972.1	962.4	1,003.8	1,117.6	1,339.4	NA
Social sciences	371.0	381.4	373.8	386.1	344.7	378.1	359.3	374.1	451.2	428.9
Anthropology	25.8	26.8	24.1	24.1	28.2	29.4	28.9	31.0	32.7	NA
Economics	54.5	54.6	58.4	58.2	47.3	50.5	56.3	52.5	85.7	NA
Political science	9.3	10.3	8.9	12.1	12.4	13.7	12.1	9.0	10.3	NA
Sociology	35.5	38.7	24.4	30.8	26.7	24.2	23.2	24.0	36.7	NA
Other social sciences	245.9	251.0	258.1	260.9	230.1	260.2	238.7	257.6	285.9	NA
Other sciences nec	2,022.6	1,404.6	1,145.8	1,292.5	1,935.1	2,108.5	2,344.2	1,900.0	2,236.8	2,724.1

NA = not available; data were not collected at that level for that fiscal year.

nec = not elsewhere classified.

**Note(s):**

Because of rounding, detail may not add to total. FY 2020 preliminary data do not include obligations from supplemental COVID-19 related appropriations (e.g., Coronavirus Aid, Relief, and Economic Security [CARES] Act).

**Source(s):**

National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.