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**Federal obligations for basic research, by detailed field of science and engineering: FYs 2012–21**

(Dollars in millions)

Field	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 (preliminary)
All fields	30,958.9	29,779.4	31,587.9	31,527.1	32,292.7	33,271.5	36,195.1	40,017.3	41,546.6	41,231.3
Computer sciences and mathematics	1,794.9	1,690.8	1,917.7	1,984.5	2,109.7	1,877.3	2,084.6	2,305.9	2,524.5	2,591.1
Computer sciences	922.4	859.9	958.9	1,024.5	996.9	998.7	1,032.3	1,150.7	1,230.1	NA
Mathematics	806.2	757.5	824.4	874.1	1,019.3	823.9	942.5	1,038.8	503.8	NA
Other computer sciences and mathematics	66.3	73.4	134.4	85.8	93.4	54.6	109.8	116.4	790.6	NA
Engineering	3,458.9	3,407.5	3,544.6	3,694.0	3,657.7	3,685.6	3,585.7	3,618.0	2,897.9	2,871.3
Aeronautical engineering	401.9	408.9	446.9	468.7	478.6	450.0	99.2	70.9	70.4	NA
Astronautical engineering	79.4	85.0	92.8	98.8	99.3	101.0	8.3	8.7	14.9	NA
Chemical engineering	94.4	84.2	103.7	60.5	69.6	76.2	71.6	74.9	94.1	NA
Civil engineering	35.3	28.2	27.8	54.3	38.0	26.7	13.9	11.5	16.3	NA
Electrical engineering	298.7	259.4	247.8	228.2	227.7	225.0	238.2	219.5	205.3	NA
Mechanical engineering	156.4	146.9	128.6	125.5	122.9	123.8	110.5	103.4	115.6	NA
Metallurgy and materials engineering	1,186.1	1,201.1	1,232.8	1,289.9	1,279.3	1,306.5	1,363.5	1,223.1	281.1	NA
Other engineering	1,206.7	1,193.9	1,264.2	1,368.0	1,342.3	1,376.4	1,680.4	1,906.0	2,100.3	NA
Environmental sciences	2,258.7	2,395.8	2,753.0	2,738.4	2,765.0	2,686.8	2,996.4	3,251.8	3,166.9	2,743.6
Atmospheric sciences	952.3	994.8	1,036.6	1,051.4	1,080.4	1,087.8	508.1	513.7	562.7	NA
Geological sciences	501.5	411.2	417.8	432.7	433.1	439.0	182.6	200.3	261.8	NA
Oceanography	494.4	456.5	482.7	431.8	441.7	384.5	418.6	432.1	470.2	NA
Other environmental sciences	310.3	533.2	815.8	822.4	809.8	775.5	1,887.2	2,105.6	1,872.2	NA
Life sciences	16,015.8	15,317.3	16,019.0	15,209.7	15,577.0	16,573.8	18,176.1	18,880.6	20,804.8	20,887.1
Agricultural sciences	480.4	462.4	513.7	554.2	566.1	584.2	596.6	634.6	681.8	NA
Biological sciences (excluding environmental biology)	8,317.4	7,918.8	8,283.6	7,758.4	8,026.1	8,573.3	9,158.9	9,785.8	10,326.0	NA
Environmental biology	406.6	384.4	394.8	398.6	380.5	371.9	513.6	490.2	471.1	NA
Medical sciences	5,528.0	5,325.9	5,564.2	5,270.5	5,337.2	5,717.3	6,414.9	6,389.2	7,460.0	NA
Other life sciences	1,283.4	1,225.8	1,262.7	1,228.0	1,267.1	1,327.2	1,492.1	1,580.8	1,865.9	NA
Physical sciences	4,556.7	4,432.2	4,637.5	4,620.8	4,706.9	4,717.4	5,930.8	7,907.0	6,513.0	7,444.4
Astronomy	925.0	973.9	1,036.0	1,073.5	1,093.0	1,139.5	878.9	1,577.2	870.4	NA
Chemistry	776.3	714.7	722.1	672.4	688.0	694.5	738.9	691.3	754.1	NA
Physics	2,568.0	2,468.8	2,576.0	2,569.2	2,593.2	2,597.2	2,517.8	2,570.6	2,515.9	NA
Other physical sciences	287.4	274.8	303.4	305.7	332.7	286.2	1,795.2	3,067.8	2,372.6	NA
Psychology	1,087.8	1,016.0	1,037.6	999.9	989.8	1,027.3	1,147.3	1,366.1	1,611.7	1,637.9
Biological aspects	13.1	13.8	13.7	14.2	15.7	10.0	19.4	16.1	12.9	NA
Social aspects	13.3	16.4	13.2	13.6	11.7	13.5	10.3	10.6	11.8	NA
Other psychological sciences	1,061.5	985.8	1,010.7	972.1	962.4	1,003.8	1,117.6	1,339.4	1,586.9	NA
Social sciences	381.4	373.8	386.1	344.7	378.1	359.3	374.1	451.2	439.5	439.2
Anthropology	26.8	24.1	24.1	28.2	29.4	28.9	31.0	32.7	18.3	NA
Economics	54.6	58.4	58.2	47.3	50.5	56.3	52.5	85.7	38.9	NA
Political science	10.3	8.9	12.1	12.4	13.7	12.1	9.0	10.3	4.6	NA
Sociology	38.7	24.4	30.8	26.7	24.2	23.2	24.0	36.7	19.9	NA
Other social sciences	251.0	258.1	260.9	230.1	260.2	238.7	257.6	285.9	357.9	NA
Other sciences nec	1,404.6	1,145.8	1,292.5	1,935.1	2,108.5	2,344.2	1,900.0	2,236.8	3,588.3	2,616.8

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. FYs 2020 and 2021 obligations include additional funding provided by 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.