

TABLE 123

## Federal obligations for 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	58,064.8	61,986.3	59,532.6	63,191.4	63,825.4	67,104.6	69,871.3	74,587.6	81,117.8	85,262.4
Computer sciences and mathematics	3,374.3	3,527.5	3,427.0	3,883.2	3,862.7	4,222.8	3,894.2	4,206.9	4,330.0	4,740.3
Computer sciences	2,191.7	2,392.2	2,361.5	2,612.8	2,645.6	2,815.4	2,734.7	2,887.9	2,896.8	NA
Mathematics	891.6	925.3	864.0	979.3	1,005.9	1,160.0	941.7	1,055.2	1,156.9	NA
Other computer sciences and mathematics	291.0	210.1	201.4	291.0	211.2	247.3	217.8	263.8	276.3	NA
Engineering	10,057.2	11,403.4	10,948.2	11,887.5	11,983.6	12,971.5	13,207.4	13,758.6	15,279.3	16,417.4
Aeronautical engineering	845.1	1,814.9	1,842.1	1,833.0	1,825.1	1,836.1	1,892.1	1,118.0	1,199.2	NA
Astronautical engineering	410.1	690.2	737.3	668.7	660.6	650.7	651.4	795.8	829.7	NA
Chemical engineering	474.5	349.6	419.0	535.4	374.6	373.0	302.3	692.3	454.1	NA
Civil engineering	617.1	513.6	446.9	445.1	457.6	461.9	605.9	476.3	566.3	NA
Electrical engineering	1,235.5	1,324.6	1,163.2	1,240.2	897.3	1,062.9	1,102.7	1,009.8	970.6	NA
Mechanical engineering	309.8	372.2	548.6	502.7	323.6	374.2	449.8	498.2	630.1	NA
Metallurgy and materials engineering	1,621.3	1,699.2	1,729.3	1,768.7	1,756.9	1,975.4	1,941.1	1,915.0	1,842.8	NA
Other engineering	4,543.8	4,639.1	4,061.8	4,893.6	5,688.0	6,237.3	6,262.1	7,253.1	8,786.5	NA
Environmental sciences	3,207.2	3,884.3	4,041.0	4,365.8	4,413.7	4,450.4	4,469.6	4,567.6	5,074.7	4,778.3
Atmospheric sciences	953.9	1,469.2	1,542.4	1,567.5	1,567.9	1,597.0	1,651.3	796.3	824.2	NA
Geological sciences	597.8	725.7	626.6	561.0	643.3	562.4	580.3	227.1	239.1	NA
Oceanography	723.7	813.5	787.6	848.0	726.0	773.0	774.3	777.7	819.2	NA
Other environmental sciences	931.7	875.8	1,084.4	1,389.3	1,476.5	1,518.0	1,463.8	2,766.4	3,192.1	NA
Life sciences	29,449.7	31,006.2	29,662.8	30,950.8	30,625.1	32,045.4	34,089.6	36,994.4	38,303.7	40,665.4
Agricultural sciences	1,085.0	942.7	903.1	1,004.2	1,320.3	1,283.1	1,353.4	1,325.0	1,445.5	NA
Biological sciences (excluding environmental biology)	15,178.3	15,458.3	14,588.1	15,310.6	14,839.7	15,922.6	16,555.7	17,828.5	18,910.4	NA
Environmental biology	854.9	796.7	782.0	820.6	819.1	788.1	783.4	922.4	924.2	NA
Medical sciences	10,202.2	11,078.5	10,917.4	11,285.3	11,086.8	11,358.6	12,648.7	13,564.5	13,774.8	NA
Other life sciences	2,129.4	2,729.9	2,472.3	2,530.0	2,559.2	2,693.0	2,748.4	3,353.9	3,248.8	NA
Physical sciences	5,426.6	6,407.5	6,281.9	6,483.1	6,510.3	6,705.6	6,581.5	7,881.4	9,816.1	9,607.6
Astronomy	555.4	1,099.4	1,147.0	1,191.6	1,230.2	1,246.7	1,292.4	887.3	1,583.4	NA
Chemistry	1,106.3	1,103.0	982.2	1,012.7	967.7	998.9	969.2	1,121.2	1,125.5	NA
Physics	3,268.8	3,708.3	3,481.8	3,565.2	3,040.2	3,731.9	3,675.9	3,541.1	3,446.0	NA
Other physical sciences	496.1	496.7	670.9	713.6	1,272.2	728.1	643.9	2,331.7	3,661.3	NA
Psychology	1,886.8	2,086.6	1,935.2	1,968.0	1,994.9	2,021.4	2,081.2	2,326.9	2,753.6	2,932.9
Biological aspects	16.4	14.2	14.3	15.0	19.1	19.8	10.4	19.9	17.5	NA
Social aspects	54.5	61.7	64.9	59.5	58.5	56.0	56.4	48.4	52.7	NA
Other psychological sciences	1,816.0	2,010.8	1,856.0	1,893.5	1,917.2	1,945.6	2,014.4	2,258.5	2,683.3	NA
Social sciences	1,262.4	1,124.5	1,237.3	1,435.1	1,136.3	1,226.7	1,027.2	1,039.4	1,155.7	1,018.3
Anthropology	26.1	30.2	26.3	26.5	29.9	31.5	32.1	34.7	34.9	NA
Economics	398.6	343.5	333.0	344.3	336.8	370.9	294.1	282.4	294.9	NA
Political science	12.0	12.9	11.0	13.4	16.0	14.6	17.6	10.8	14.2	NA
Sociology	132.5	154.7	137.2	157.7	128.2	197.4	178.0	143.2	224.0	NA
Other social sciences	693.2	583.2	729.8	893.2	625.3	612.2	505.4	568.2	587.6	NA
Other sciences nec	3,400.5	2,546.3	1,999.3	2,217.9	3,298.8	3,460.8	4,520.6	3,812.4	4,404.8	5,102.2

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.