

TABLE 123

Federal obligations for 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	61,986.3	59,532.6	63,191.4	63,825.4	67,104.6	69,871.3	74,587.6	81,117.8	85,304.8	85,155.5
Computer sciences and mathematics	3,527.5	3,427.0	3,883.2	3,862.7	4,222.8	3,894.2	4,206.9	4,330.0	5,912.4	6,063.3
Computer sciences	2,392.2	2,361.5	2,612.8	2,645.6	2,815.4	2,734.7	2,887.9	2,896.8	4,280.5	NA
Mathematics	925.3	864.0	979.3	1,005.9	1,160.0	941.7	1,055.2	1,156.9	681.4	NA
Other computer sciences and mathematics	210.1	201.4	291.0	211.2	247.3	217.8	263.8	276.3	950.4	NA
Engineering	11,403.4	10,948.2	11,887.5	11,983.6	12,971.5	13,207.4	13,758.6	15,279.3	13,222.0	14,238.1
Aeronautical engineering	1,814.9	1,842.1	1,833.0	1,825.1	1,836.1	1,892.1	1,118.0	1,199.2	1,093.5	NA
Astronautical engineering	690.2	737.3	668.7	660.6	650.7	651.4	795.8	829.7	915.9	NA
Chemical engineering	349.6	419.0	535.4	374.6	373.0	302.3	692.3	454.1	788.2	NA
Civil engineering	513.6	446.9	445.1	457.6	461.9	605.9	476.3	566.3	475.7	NA
Electrical engineering	1,324.6	1,163.2	1,240.2	897.3	1,062.9	1,102.7	1,009.8	970.6	880.6	NA
Mechanical engineering	372.2	548.6	502.7	323.6	374.2	449.8	498.2	630.1	522.8	NA
Metallurgy and materials engineering	1,699.2	1,729.3	1,768.7	1,756.9	1,975.4	1,941.1	1,915.0	1,842.8	704.5	NA
Other engineering	4,639.1	4,061.8	4,893.6	5,688.0	6,237.3	6,262.1	7,253.1	8,786.5	7,840.8	NA
Environmental sciences	3,884.3	4,041.0	4,365.8	4,413.7	4,450.4	4,469.6	4,567.6	5,074.7	5,039.5	4,631.7
Atmospheric sciences	1,469.2	1,542.4	1,567.5	1,567.9	1,597.0	1,651.3	796.3	824.2	908.1	NA
Geological sciences	725.7	626.6	561.0	643.3	562.4	580.3	227.1	239.1	306.0	NA
Oceanography	813.5	787.6	848.0	726.0	773.0	774.3	777.7	819.2	946.2	NA
Other environmental sciences	875.8	1,084.4	1,389.3	1,476.5	1,518.0	1,463.8	2,766.4	3,192.1	2,879.2	NA
Life sciences	31,006.2	29,662.8	30,950.8	30,625.1	32,045.4	34,089.6	36,994.4	38,303.7	42,524.8	42,013.9
Agricultural sciences	942.7	903.1	1,004.2	1,320.3	1,283.1	1,353.4	1,325.0	1,445.5	1,412.6	NA
Biological sciences (excluding environmental biology)	15,458.3	14,588.1	15,310.6	14,839.7	15,922.6	16,555.7	17,828.5	18,910.4	20,165.4	NA
Environmental biology	796.7	782.0	820.6	819.1	788.1	783.4	922.4	924.2	901.9	NA
Medical sciences	11,078.5	10,917.4	11,285.3	11,086.8	11,358.6	12,648.7	13,564.5	13,774.8	16,182.2	NA
Other life sciences	2,729.9	2,472.3	2,530.0	2,559.2	2,693.0	2,748.4	3,353.9	3,248.8	3,862.7	NA
Physical sciences	6,407.5	6,281.9	6,483.1	6,510.3	6,705.6	6,581.5	7,881.4	9,816.1	8,419.9	8,775.4
Astronomy	1,099.4	1,147.0	1,191.6	1,230.2	1,246.7	1,292.4	887.3	1,583.4	871.3	NA
Chemistry	1,103.0	982.2	1,012.7	967.7	998.9	969.2	1,121.2	1,125.5	1,143.8	NA
Physics	3,708.3	3,481.8	3,565.2	3,040.2	3,731.9	3,675.9	3,541.1	3,446.0	3,577.1	NA
Other physical sciences	496.7	670.9	713.6	1,272.2	728.1	643.9	2,331.7	3,661.3	2,827.6	NA
Psychology	2,086.6	1,935.2	1,968.0	1,994.9	2,021.4	2,081.2	2,326.9	2,753.6	3,275.8	3,265.0
Biological aspects	14.2	14.3	15.0	19.1	19.8	10.4	19.9	17.5	13.5	NA
Social aspects	61.7	64.9	59.5	58.5	56.0	56.4	48.4	52.7	41.8	NA
Other psychological sciences	2,010.8	1,856.0	1,893.5	1,917.2	1,945.6	2,014.4	2,258.5	2,683.3	3,220.5	NA
Social sciences	1,124.5	1,237.3	1,435.1	1,136.3	1,226.7	1,027.2	1,039.4	1,155.7	1,137.4	1,266.3
Anthropology	30.2	26.3	26.5	29.9	31.5	32.1	34.7	34.9	19.3	NA
Economics	343.5	333.0	344.3	336.8	370.9	294.1	282.4	294.9	202.7	NA
Political science	12.9	11.0	13.4	16.0	14.6	17.6	10.8	14.2	12.5	NA
Sociology	154.7	137.2	157.7	128.2	197.4	178.0	143.2	224.0	152.4	NA
Other social sciences	583.2	729.8	893.2	625.3	612.2	505.4	568.2	587.6	750.5	NA
Other sciences nec	2,546.3	1,999.3	2,217.9	3,298.8	3,460.8	4,520.6	3,812.4	4,404.8	5,772.9	4,901.8

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.