

TABLE 119. Federal obligations for applied research, by detailed field of science and engineering: FYs 1991–2001

(Dollars in millions)

Field	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
All fields	11,797.6	12,000.7	13,491.4	13,887.7	14,557.4	13,795.7	14,423.4	15,309.3	16,083.9	18,900.8	22,755.6
Environmental sciences	886.3	904.0	1,075.0	1,321.7	1,387.0	1,465.7	1,502.2	1,533.2	1,479.5	1,490.3	1,588.6
Atmospheric sciences	353.7	332.0	349.0	396.7	447.3	414.6	484.8	519.2	505.5	387.3	516.4
Geological sciences	229.7	209.2	242.6	350.1	396.6	394.3	303.5	212.1	248.1	209.6	273.2
Oceanography	201.0	248.9	260.2	306.6	219.1	265.2	294.2	273.8	272.7	308.1	278.7
Environmental sciences, nec	101.7	113.8	223.3	268.3	324.0	391.7	419.7	528.1	453.3	585.3	520.4
Life sciences	4,188.4	4,068.8	4,483.3	4,812.2	5,209.8	5,185.3	5,457.6	5,704.2	6,225.3	7,915.7	10,221.8
Biological and agricultural sciences	2,223.0	2,116.0	2,271.5	2,351.1	2,566.0	2,707.6	2,598.9	2,851.5	3,106.1	4,764.6	5,342.7
Agricultural sciences	360.9	353.4	370.8	356.7	302.8	286.5	293.2	390.3	424.9	449.2	496.0
Biological sciences (excluding environmental biology)	1,589.3	1,453.2	1,567.4	1,606.6	1,677.1	1,922.8	1,929.2	2,053.6	2,240.7	3,888.9	4,427.7
Environmental biology	272.8	309.4	333.3	387.8	586.2	498.3	376.4	407.6	440.4	426.4	419.0
Medical sciences	1,602.6	1,778.9	2,023.5	2,251.8	2,356.3	2,232.6	2,497.6	2,603.9	2,844.7	2,540.0	3,776.6
Life sciences, nec	362.9	173.9	188.2	209.3	287.4	245.2	361.1	248.8	274.6	611.2	1,102.6
Mathematics and computer sciences	477.6	678.9	714.1	779.9	976.1	932.0	1,010.5	1,131.4	1,245.7	1,407.3	1,652.8
Computer sciences	361.4	524.0	541.8	567.9	696.8	743.1	875.1	979.6	1,077.8	1,196.6	1,437.2
Mathematics	63.2	90.5	68.9	94.7	94.6	91.8	63.4	83.3	91.3	124.3	108.0
Mathematics and computer sciences, nec	52.9	64.3	103.4	117.3	184.7	97.1	71.9	68.4	76.6	86.5	107.6
Physical sciences	1,353.9	1,487.7	1,519.8	1,426.5	1,413.5	1,060.4	1,172.8	1,268.3	976.4	1,317.3	1,273.6
Astronomy	19.3	9.4	22.8	22.8	32.9	20.2	20.6	25.2	39.4	86.3	109.0
Chemistry	289.7	339.6	299.5	334.2	304.1	330.4	327.9	301.5	260.3	459.8	288.1
Physics	816.0	970.7	1,037.7	940.9	943.8	445.7	505.9	552.0	528.1	641.0	699.5
Physical sciences, nec	228.9	168.1	159.8	128.7	132.7	264.2	318.4	389.6	148.5	130.3	177.0
Psychology	256.9	175.6	303.9	302.2	344.6	233.5	251.5	279.0	285.3	808.9	449.0
Biological aspects	72.0	20.3	19.1	23.3	27.4	29.3	27.6	14.3	5.8	2.5	3.2
Social aspects	128.2	84.1	118.7	100.5	134.1	73.4	83.7	84.6	56.7	41.7	54.3
Psychological sciences, nec	56.7	71.2	166.1	178.4	183.1	130.8	140.2	180.1	222.8	764.7	391.5
Social sciences	566.0	549.8	480.8	463.3	472.0	442.1	475.3	581.3	608.3	742.4	730.2
Anthropology	3.3	3.1	3.7	6.6	6.6	5.6	6.2	4.7	4.9	1.9	1.5
Economics	150.1	172.3	158.7	154.9	161.8	154.8	159.1	188.9	171.2	197.7	191.5
Political science	10.0	16.1	22.8	20.6	15.2	10.9	9.2	15.6	15.4	17.5	13.6
Sociology	155.7	70.5	65.6	55.0	33.5	27.9	17.7	77.4	74.7	78.8	77.6
Social sciences, nec	246.9	287.9	229.9	226.2	254.9	242.8	283.2	294.8	342.1	446.5	446.0
Other sciences, nec	357.8	408.8	622.4	592.8	494.9	407.9	446.3	510.9	639.6	636.6	554.1
Engineering	3,710.8	3,727.1	4,292.0	4,189.0	4,259.5	4,068.9	4,107.3	4,301.0	4,623.7	4,582.2	6,285.5
Aeronautical engineering	760.0	629.5	946.8	946.8	977.2	987.6	1,083.7	1,311.2	1,278.0	1,141.1	2,060.3
Astronautical engineering	583.4	536.0	440.4	439.3	480.2	454.7	526.5	563.2	554.4	426.3	718.9
Chemical engineering	202.6	192.5	172.7	167.3	179.4	155.4	166.9	137.9	148.0	143.9	138.9
Civil engineering	245.7	276.9	213.3	239.8	269.3	247.3	230.2	208.3	259.7	179.5	240.5
Electrical engineering	587.4	593.6	678.4	536.1	551.7	468.3	449.3	425.4	513.1	567.7	642.8

TABLE 119. Federal obligations for applied research, by detailed field of science and engineering: FYs 1991–2001

(Dollars in millions)

Field	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Mechanical engineering	220.0	223.4	324.3	236.5	247.8	180.8	149.7	142.9	140.8	195.9	190.4
Metallurgy and materials engineering	416.1	453.6	454.3	521.2	446.9	487.2	398.1	310.9	306.9	400.3	489.7
Engineering, nec	695.4	821.6	1,061.7	1,102.0	1,107.1	1,087.6	1,102.8	1,201.3	1,422.9	1,527.4	1,803.9

nec = not elsewhere classified.

NOTES: Because of rounding, detail may not add to total. Due to reorganization within Department of Health and Human Services, the Alcohol, Drug Abuse, and Mental Health Administration ceased to exist as of October 1992, and its R&D functions have been reported with National Institutes of Health data since FY 1992. However research support for some fields (e.g., psychology) in FY 1992 seems to be underreported. National Science Foundation made changes to its field of science and engineering coding system, producing changes to some FY 1996 engineering field data e.g., mechanical engineering). In FY 2000 National Aeronautics and Space Administration reclassified Space Station as physical asset, reclassified Space Station Research as equipment, and transferred funding for program from R&D to R&D plant; National Institutes of Health reclassified all its development activities as research.

SOURCE: National Science Foundation/National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.