

TABLE 117. Federal obligations for basic 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	12,170.8	12,489.9	13,399.1	13,523.5	13,877.0	14,464.0	14,941.9	15,613.0	17,443.7	19,569.8	21,958.1
Environmental sciences	1,263.5	1,303.6	1,533.5	1,516.5	1,467.5	1,554.0	1,543.5	1,528.7	1,615.7	1,838.4	1,663.0
Atmospheric sciences	449.0	435.2	635.1	698.3	688.2	671.2	679.5	655.2	671.0	717.0	597.2
Geological sciences	499.0	526.5	555.3	487.8	451.7	390.0	388.3	391.2	412.1	429.6	400.6
Oceanography	197.5	210.0	207.2	190.2	188.2	309.1	303.5	286.0	383.9	364.9	402.4
Environmental sciences, nec	118.0	131.9	135.9	140.2	139.3	183.8	172.1	196.4	148.7	326.9	262.9
Life sciences	5,433.6	5,841.7	6,288.8	6,472.1	6,601.3	6,879.0	7,203.8	7,853.4	9,197.1	10,049.0	12,835.5
Biological and agricultural sciences	3,374.9	3,517.6	3,787.8	3,751.9	3,836.5	3,922.4	3,945.1	4,222.3	4,941.6	7,610.4	8,773.8
Agricultural sciences	319.4	334.2	342.2	370.6	367.5	329.5	348.1	372.5	424.5	445.7	511.7
Biological sciences (excluding environmental biology)	2,868.5	2,981.8	3,222.5	3,139.2	3,248.3	3,387.2	3,391.0	3,653.0	4,236.9	6,851.1	7,952.3
Environmental biology	186.9	201.6	223.2	242.1	220.6	205.7	206.1	196.8	280.2	313.6	309.8
Medical sciences	1,857.7	2,131.0	2,380.9	2,610.3	2,615.9	2,740.8	3,035.2	3,392.4	3,956.5	1,923.8	2,808.6
Life sciences, nec	201.0	193.1	120.1	109.9	148.9	215.9	223.4	238.6	299.1	514.7	1,253.1
Mathematics and computer sciences	426.1	481.4	511.3	521.7	603.0	639.6	661.4	705.5	734.9	798.3	957.8
Computer sciences	223.5	247.7	284.3	262.3	317.1	376.8	389.5	419.1	438.3	463.0	585.6
Mathematics	164.4	228.2	221.8	247.7	164.0	162.6	238.2	250.7	254.0	308.6	288.4
Mathematics and computer sciences, nec	38.2	5.5	5.1	11.8	121.9	100.2	33.6	35.6	42.6	26.6	83.9
Physical sciences	2,881.5	2,951.4	2,907.1	2,826.9	2,864.8	2,862.6	2,976.4	2,941.4	3,089.8	3,470.6	3,327.1
Astronomy	612.3	729.7	663.4	724.8	731.6	708.8	754.2	706.9	718.4	794.0	650.2
Chemistry	538.7	556.6	543.7	540.3	559.4	550.7	517.8	517.5	554.6	765.8	736.8
Physics	1,644.9	1,607.5	1,600.6	1,502.3	1,507.4	1,545.6	1,561.7	1,579.8	1,693.8	1,764.4	1,762.3
Physical sciences, nec	85.5	57.6	99.4	59.6	66.4	57.4	142.6	137.1	122.9	146.4	177.9
Psychology	225.5	122.6	246.8	246.1	278.0	291.5	293.9	312.0	347.3	817.8	292.9
Biological aspects	68.2	14.3	18.1	24.8	31.4	33.5	30.2	27.3	12.2	5.7	10.4
Social aspects	69.2	16.9	16.0	16.3	22.2	10.1	13.0	12.9	9.9	14.3	5.5
Psychological sciences, nec	88.1	91.4	212.7	205.0	224.4	248.0	250.7	271.8	325.1	797.8	277.0
Social sciences	161.3	139.9	194.1	184.0	206.7	212.5	221.0	224.8	246.5	308.0	278.4
Anthropology	12.7	11.0	10.0	9.7	15.1	12.7	14.8	13.5	13.4	14.0	14.1
Economics	37.3	39.3	46.0	38.4	44.7	39.4	46.1	41.5	45.3	51.8	42.5
Political science	7.1	6.4	6.4	4.8	7.1	5.7	4.9	4.6	4.8	5.1	5.9
Sociology	28.2	10.2	11.1	13.1	14.3	13.3	8.2	23.5	9.2	11.8	17.9
Social sciences, nec	75.9	72.9	120.6	118.1	125.5	141.3	147.0	141.7	173.9	225.4	198.0
Other sciences, nec	545.6	399.4	510.1	465.6	406.9	412.8	459.0	452.7	572.5	523.6	691.7
Engineering	1,233.7	1,249.8	1,207.4	1,290.4	1,448.9	1,612.1	1,583.0	1,594.4	1,639.7	1,764.2	1,911.5
Aeronautical engineering	256.2	245.1	246.2	275.9	271.0	261.7	269.1	285.2	331.7	322.8	369.7
Astronautical engineering	69.7	94.4	53.6	59.8	66.3	71.8	69.8	68.0	66.2	88.7	33.9
Chemical engineering	101.7	105.0	72.8	70.9	66.7	59.8	68.1	52.3	55.2	52.6	60.2
Civil engineering	59.3	53.4	38.7	38.1	70.1	52.9	45.4	35.9	68.8	59.7	47.9
Electrical engineering	142.5	165.4	203.1	205.7	204.6	201.5	172.9	213.9	185.6	177.0	246.9

TABLE 117. Federal obligations for basic 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	115.6	113.9	142.6	141.6	164.7	113.2	104.9	106.7	99.6	93.4	128.8
Metallurgy and materials engineering	294.6	273.6	241.3	330.2	368.5	501.8	462.6	478.2	481.2	517.8	591.1
Engineering, nec	194.3	199.2	209.1	168.3	236.9	349.4	390.4	354.3	351.4	452.2	433.1

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.