

Table 376. Summary of federal funds for research, development, and R&D plant, by type of obligations, recipients, and fields: Fiscal years 1995 to 2003

[In millions of current dollars]

Item	Actual							Estimate		
	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent change, 2002 to 2003
1	2	3	4	5	6	7	8	9	10	11
Total outlays for research, development, and R&D plant	\$68,410.0	\$67,756.1	\$70,892.0	\$72,295.6	\$72,613.9	\$74,077.0	\$79,692.2	\$91,113.8	\$97,171.7	6.6
Research and development	66,374.6	65,909.9	68,897.2	70,434.5	70,585.2	69,807.3	75,335.7	86,072.5	92,464.6	7.4
R&D plant	2,035.4	1,846.2	1,994.8	1,861.1	2,028.7	4,269.7	4,356.5	5,041.4	4,707.1	-6.6
Total obligations for research, development, and R&D plant	71,011.8	69,408.7	71,744.7	73,743.5	77,386.6	77,356.1	84,003.0	97,464.6	103,113.8	5.8
Research and development obligations	68,754.9	67,662.6	69,829.9	71,903.3	75,340.8	72,863.2	79,933.2	92,979.4	98,608.1	6.1
Performers										
Federal intramural ¹	17,342.7	16,596.4	16,720.0	17,114.0	18,084.7	17,149.8	20,219.8	23,531.3	24,557.7	4.4
Industrial firms	30,468.7	30,361.4	31,418.0	31,839.7	31,901.6	27,735.5	27,006.2	34,182.2	36,411.3	6.5
FFRDCs ² administered by industrial firms	1,203.9	1,137.0	1,128.2	1,188.8	1,328.1	1,100.9	1,186.6	1,380.1	1,477.9	7.1
Universities and colleges	11,933.0	11,944.7	12,561.1	13,365.9	14,959.1	16,815.1	19,587.9	21,343.6	23,055.2	8.0
FFRDCs ² administered by universities and colleges	3,574.3	3,447.7	3,701.1	3,890.2	3,896.5	4,053.2	4,617.7	4,669.2	4,834.5	3.5
Other nonprofit institutions	2,806.5	2,886.9	2,962.1	3,155.1	3,608.8	4,216.6	5,138.8	5,793.0	6,260.7	8.1
FFRDCs ² administered by nonprofit institutions	831.4	754.5	821.0	603.0	913.3	1,231.5	1,269.1	1,185.3	1,222.2	3.1
State and local governments	316.5	246.7	261.1	447.5	357.5	224.0	450.6	491.6	393.1	-20.0
Foreign	277.8	287.4	257.5	299.1	291.3	336.7	456.5	403.1	395.5	-1.9
Research obligations	28,573.4	28,265.1	29,365.6	30,922.3	33,527.5	38,470.5	44,713.7	49,808.8	53,376.9	7.2
Performers										
Federal intramural ¹	7,787.8	7,528.2	7,667.2	7,964.7	8,685.8	9,449.6	11,130.9	12,529.8	13,210.6	5.4
Industrial firms	4,727.9	4,291.3	4,392.1	4,635.1	4,579.8	4,801.2	5,262.3	6,293.6	6,565.7	4.3
FFRDCs ² administered by industrial firms	818.0	696.2	759.6	844.1	879.3	700.3	822.3	885.6	982.4	10.9
Universities and colleges	10,371.6	10,673.7	11,173.2	11,741.0	13,203.8	16,015.9	18,657.1	20,330.5	22,228.9	9.3
FFRDCs ² administered by universities and colleges	2,235.6	2,386.0	2,598.9	2,743.0	2,554.1	2,773.2	3,096.3	3,410.0	3,478.2	2.0
Other nonprofit institutions	2,056.1	2,179.5	2,294.9	2,425.2	2,806.7	3,719.8	4,577.9	5,152.6	5,750.9	11.6
FFRDCs ² administered by nonprofit institutions	210.1	195.8	217.5	214.5	469.5	696.1	739.4	728.0	741.2	1.8
State and local governments	221.4	187.4	144.0	240.1	232.4	162.5	308.7	353.4	282.4	-20.1
Foreign	144.8	126.8	118.1	114.5	116.1	152.0	118.9	125.3	136.6	9.0
Fields of science										
Life sciences	11,979.0	12,099.7	12,661.3	13,557.6	15,422.5	17,964.7	23,057.3	25,868.4	28,672.8	10.8
Psychology	653.6	513.0	545.4	591.0	632.6	1,626.7	741.9	838.6	955.2	13.9
Physical sciences	4,851.2	3,964.4	4,148.7	4,209.7	4,066.2	4,787.9	4,600.8	5,145.2	5,200.4	1.1
Environmental sciences	2,722.9	2,997.0	3,045.7	3,062.0	3,095.3	3,328.8	3,251.7	3,667.5	3,878.8	5.8
Mathematics and computer sciences	1,667.9	1,554.1	1,671.8	1,836.8	1,980.6	2,205.6	2,610.6	2,751.3	2,866.1	4.2
Engineering	4,952.7	5,679.6	5,690.3	5,895.4	6,263.4	6,346.4	8,197.0	8,951.4	9,160.6	2.3
Social sciences	682.9	674.2	696.3	806.1	854.9	1,050.3	1,008.6	1,027.2	1,050.3	2.3
Other sciences	1,063.2	783.0	906.1	963.7	1,212.1	1,160.2	1,245.8	1,559.2	1,592.6	2.1
Basic research obligations	13,895.5	14,462.4	14,942.2	15,613.0	17,443.7	19,569.8	21,958.1	24,173.5	25,976.6	7.5
Performers										
Federal intramural ¹	2,712.9	2,689.2	2,688.6	2,917.8	3,255.2	3,621.8	4,193.8	4,685.4	4,411.1	-5.9
Industrial firms	1,221.2	1,131.0	1,166.7	1,119.7	1,082.8	1,356.5	917.1	1,122.9	1,446.2	28.8
FFRDCs ² administered by industrial firms	239.1	272.8	294.7	326.4	313.4	171.3	175.1	197.9	220.0	11.2
Universities and colleges	6,951.3	7,406.1	7,695.8	7,952.2	9,107.1	10,056.7	11,792.2	12,737.1	14,024.2	10.1
FFRDCs ² administered by universities and colleges	1,438.3	1,522.0	1,600.0	1,642.3	1,565.5	1,674.0	1,762.1	1,969.3	1,984.3	0.8
Other nonprofit institutions	1,134.2	1,235.2	1,289.6	1,397.6	1,650.0	1,985.3	2,441.7	2,754.0	3,152.9	14.5
FFRDCs ² administered by nonprofit institutions	75.2	76.5	88.4	121.8	354.9	521.6	540.5	553.6	570.6	3.1
State and local governments	78.7	80.2	68.4	84.9	61.4	75.7	71.5	85.0	89.5	5.4
Foreign	44.5	49.5	49.9	50.4	53.4	106.9	64.0	68.4	77.6	13.4
Fields of science										
Life sciences	6,746.7	6,911.0	7,203.8	7,853.4	9,197.1	10,049.0	12,835.5	14,355.4	15,391.7	7.2
Psychology	279.8	281.5	293.9	312.0	347.3	817.8	292.9	335.6	361.1	8.5
Physical sciences	2,709.3	2,901.7	2,976.4	2,941.4	3,089.8	3,470.6	3,327.1	3,664.1	3,868.9	5.6
Environmental sciences	1,410.7	1,531.2	1,543.5	1,528.7	1,615.7	1,838.4	1,663.0	1,852.5	2,018.3	8.9
Mathematics and computer sciences	626.1	622.0	661.4	705.5	734.9	798.3	957.8	1,002.4	1,054.5	5.2
Engineering	1,432.2	1,606.6	1,583.0	1,594.4	1,639.7	1,764.2	1,911.5	1,909.1	2,174.3	13.9
Social sciences	210.8	230.0	221.0	224.8	246.5	308.0	278.4	294.9	304.8	3.3
Other sciences	479.9	378.3	459.3	452.7	572.5	523.6	691.7	759.4	800.0	5.3
Applied research obligations	14,677.9	13,802.7	14,423.4	15,309.3	16,083.7	18,900.7	22,755.6	25,635.2	27,400.3	6.9
Performers										
Federal intramural ¹	5,074.9	4,839.0	4,978.7	5,046.9	5,430.6	5,827.8	6,937.2	7,844.5	8,799.4	12.2
Industrial firms	3,506.7	3,160.3	3,225.5	3,515.4	3,497.0	3,444.6	4,345.2	5,170.7	5,119.5	-1.0
FFRDCs ² administered by industrial firms	578.9	423.4	464.9	517.7	565.8	528.9	647.2	687.7	762.4	10.9
Universities and colleges	3,420.3	3,267.6	3,477.4	3,788.9	4,096.7	5,959.2	6,864.9	7,593.4	8,204.7	8.1
FFRDCs ² administered by universities and colleges	797.3	864.0	998.8	1,100.7	988.6	1,099.2	1,334.2	1,440.8	1,493.9	3.7
Other nonprofit institutions	921.9	944.3	1,005.3	1,027.7	1,156.7	1,734.5	2,136.2	2,398.6	2,598.0	8.3
FFRDCs ² administered by nonprofit institutions	134.9	119.4	129.2	92.6	114.6	174.5	198.9	174.4	170.6	-2.2
State and local governments	142.7	107.3	75.5	155.2	171.0	86.9	237.1	268.4	192.8	-28.1
Foreign	100.3	77.4	68.2	64.1	62.8	45.1	54.9	56.9	59.0	3.6

See notes at end of table.

Table 376. Summary of federal funds for research, development, and R&D plant, by type of obligations, recipients, and fields: Fiscal years 1995 to 2003—Continued

[In millions of current dollars]

Item	Actual							Estimate		
	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent change, 2002 to 2003
1	2	3	4	5	6	7	8	9	10	11
Fields of science										
Life sciences	5,232.3	5,188.7	5,457.6	5,704.1	6,225.3	7,915.7	10,221.8	11,512.9	13,281.0	15.4
Psychology	373.9	231.5	251.5	279.0	285.3	808.9	449.0	503.0	591.1	17.5
Physical sciences	2,141.9	1,062.7	1,172.4	1,268.3	976.4	1,317.3	1,273.6	1,481.1	1,331.6	-10.1
Environmental sciences	1,312.3	1,465.8	1,502.2	1,533.2	1,479.5	1,490.3	1,588.6	1,815.0	1,860.5	2.5
Mathematics and computer sciences	1,041.7	932.1	1,010.5	1,131.4	1,245.7	1,407.3	1,652.8	1,748.9	1,811.6	3.6
Engineering	3,520.5	4,073.0	4,107.3	4,301.0	4,623.7	4,582.2	6,285.5	7,042.3	6,986.4	-0.8
Social sciences	472.0	444.2	475.3	581.3	608.3	742.3	730.2	732.2	745.5	1.8
Other sciences	583.3	404.7	446.8	510.9	639.6	636.6	554.1	799.8	792.6	-0.9
Development obligations	40,181.4	39,397.5	40,464.3	40,981.0	41,813.1	34,392.7	35,219.5	43,170.6	45,231.2	4.8
Performers										
Federal intramural ¹	9,554.9	9,068.1	9,052.7	9,149.3	9,398.9	7,700.2	9,088.9	11,001.5	11,347.2	3.1
Industrial firms	25,740.7	26,070.1	27,025.8	27,204.6	27,321.8	22,934.4	21,744.0	27,888.6	29,845.6	7.0
FFRDCs ² administered by industrial firms	385.9	440.7	368.6	344.7	448.8	400.6	364.3	494.5	495.5	0.2
Universities and colleges	1,561.4	1,271.0	1,387.9	1,624.8	1,755.3	799.3	930.8	1,013.1	826.4	-18.4
FFRDCs ² administered by universities and colleges ...	1,338.7	1,061.6	1,102.1	1,147.2	1,342.3	1,279.9	1,521.4	1,259.2	1,356.3	7.7
Other nonprofit institutions	750.4	707.4	667.2	729.9	802.0	496.8	560.8	640.4	509.8	-20.4
FFRDCs ² administered by nonprofit institutions	621.3	558.7	603.4	388.5	443.7	535.4	529.7	457.3	480.9	5.2
State and local governments	95.1	59.3	117.1	207.4	125.1	61.5	141.9	138.2	110.7	-19.9
Foreign	133.0	160.5	139.3	184.6	175.2	184.7	337.6	277.7	258.9	-6.8
R&D plant obligations	2,256.9	1,746.1	1,914.8	1,840.2	2,045.8	4,492.8	4,069.8	4,485.2	4,505.7	0.5
Performers										
Federal intramural ¹	482.6	405.1	608.3	475.3	483.3	573.3	520.4	625.1	788.3	26.1
Industrial firms	696.6	465.4	389.8	487.7	544.7	2,814.6	2,179.8	2,428.6	2,257.6	-7.0
FFRDCs ² administered by industrial firms	95.1	43.9	60.5	45.6	172.8	27.6	41.8	108.3	108.9	0.6
Universities and colleges	323.8	243.1	238.6	139.5	141.2	213.5	284.7	318.8	370.1	16.1
FFRDCs ² administered by universities and colleges ...	543.9	497.8	548.8	663.6	615.5	613.8	615.9	560.1	556.5	-0.6
Other nonprofit institutions	25.6	23.4	16.7	10.9	12.2	55.5	27.9	34.8	45.9	32.2
FFRDCs ² administered by nonprofit institutions	62.6	66.1	52.0	12.1	70.7	193.5	357.5	376.4	345.1	-8.3
State and local governments	0.5	1.0	—	—	5.3	0.9	1.4	3.2	3.5	7.7
Foreign	26.1	0.5	0.1	5.5	—	0.1	40.4	29.9	29.8	-0.3

—Not available.

¹ Includes costs associated with the administration of intramural and extramural programs by federal personnel as well as actual intramural performance.² Federally funded research and development centers.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: National Science Foundation, *Federal Funds for Research and Development*, various years. (This table was prepared July 2003.)