

TABLE 2. Summary of federal obligations and outlays for research, development, and R&D plant, by character of work, performer, and field: FY 2008–11

(Dollars in millions)

Character of work, performer, and field	2008	2009	Preliminary			
			2010	% change 2009–10	2011	% change 2010–11
Outlays for research and development and R&D plant	125,125.3	129,614.1	135,884.8	4.8	134,122.6	-1.3
Research and development	123,059.1	126,855.8	132,202.9	4.2	131,049.5	-0.9
R&D plant	2,066.2	2,758.3	3,681.9	33.5	3,073.2	-16.5
Obligations for research and development and R&D plant	129,049.5	136,996.5	140,496.5	2.6	130,241.4	-7.3
Research and development	127,105.7	133,349.0	136,426.0	2.3	127,786.6	-6.3
Performer						
Intramural ^a	29,637.9	30,442.3	32,278.3	6.0	32,223.7	-0.2
Industry	56,337.6	53,303.8	54,158.3	1.6	49,948.9	-7.8
Industry FFRDCs	4,119.9	4,054.5	4,225.9	4.2	4,060.6	-3.9
Universities and colleges	26,026.5	31,563.0	31,177.8	-1.2	28,373.0	-9.0
University and college FFRDCs	1,988.6	3,362.6	3,547.3	5.5	3,455.6	-2.6
Other nonprofit institutions	5,965.0	7,047.8	7,388.7	4.8	6,391.8	-13.5
Nonprofit FFRDCs	2,083.0	2,588.1	2,725.0	5.3	2,481.9	-8.9
State and local governments	389.0	389.8	394.6	1.2	366.3	-7.2
Foreign	558.1	597.1	530.1	-11.2	484.9	-8.5
Research	53,893.7	63,708.8	65,250.1	2.4	60,372.4	-7.5
Performer						
Intramural ^a	11,921.7	13,325.9	14,073.4	5.6	13,306.9	-5.4
Industry	5,782.4	6,285.6	6,882.8	9.5	6,180.5	-10.2
Industry FFRDCs	2,929.7	3,070.5	3,170.9	3.3	3,147.0	-0.8
Universities and colleges	24,323.2	30,172.5	29,765.9	-1.3	27,239.8	-8.5
University and college FFRDCs	1,623.1	2,148.2	2,273.8	5.9	2,304.0	1.3
Other nonprofit institutions	5,397.5	6,501.0	6,728.9	3.5	5,962.8	-11.4
Nonprofit FFRDCs	1,205.7	1,462.0	1,613.2	10.3	1,537.0	-4.7
State and local governments	338.8	343.6	343.2	-0.1	326.0	-5.0
Foreign	371.5	399.4	397.9	-0.4	368.3	-7.4
Field of science and engineering						
Environmental sciences	2,984.6	3,751.4	3,287.8	-12.4	3,356.8	2.1
Life sciences	28,918.8	33,267.7	34,337.2	3.2	30,818.3	-10.2
Mathematics and computer sciences	3,047.3	3,612.5	3,478.9	-3.7	3,401.3	-2.2
Physical sciences	5,072.6	5,823.4	5,751.0	-1.2	5,767.1	0.3
Psychology	1,740.8	2,086.7	2,207.0	5.8	1,961.0	-11.1
Social sciences	977.0	1,159.3	1,301.7	12.3	1,285.6	-1.2
Other sciences, nec	2,177.1	3,713.4	4,193.6	12.9	3,990.8	-4.8
Engineering	8,975.5	10,294.4	10,692.9	3.9	9,791.4	-8.4
Basic research	27,154.0	32,877.9	32,051.6	-2.5	30,083.4	-6.1
Performer						
Intramural ^a	4,767.5	5,523.9	5,456.4	-1.2	5,030.9	-7.8
Industry	1,545.4	1,632.5	1,657.2	1.5	1,597.5	-3.6
Industry FFRDCs	574.9	678.3	660.0	-2.7	593.5	-10.1
Universities and colleges	14,645.7	18,232.6	17,323.4	-5.0	16,153.8	-6.8
University and college FFRDCs	1,484.3	1,964.3	2,004.1	2.0	2,086.8	4.1
Other nonprofit institutions	2,935.2	3,487.7	3,521.9	1.0	3,170.9	-10.0
Nonprofit FFRDCs	915.8	1,059.1	1,127.5	6.5	1,171.9	3.9
State and local governments	75.9	94.4	94.3	-0.1	87.5	-7.2
Foreign	209.1	204.9	206.8	0.9	190.6	-7.8
Field of science and engineering						
Environmental sciences	1,593.1	2,142.9	1,708.7	-20.3	1,772.8	3.8
Life sciences	15,557.4	17,587.6	17,769.9	1.0	15,887.2	-10.6
Mathematics and computer sciences	1,407.4	1,861.7	1,612.1	-13.4	1,661.7	3.1
Physical sciences	3,403.1	4,121.8	3,957.3	-4.0	4,028.6	1.8
Psychology	936.0	1,100.7	1,133.4	3.0	991.2	-12.6
Social sciences	330.0	426.1	379.0	-11.0	393.3	3.8

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Other sciences, nec	1,190.9	2,228.2	2,120.4	-4.8	1,980.8	-6.6
Engineering	2,736.0	3,408.8	3,370.7	-1.1	3,367.8	-0.1
Applied research	26,739.7	30,830.9	33,198.4	7.7	30,288.9	-8.8
Performer						
Intramural ^a	7,154.2	7,802.0	8,617.0	10.4	8,276.0	-4.0
Industry	4,237.0	4,653.1	5,225.6	12.3	4,583.0	-12.3
Industry FFRDCs	2,354.8	2,392.2	2,510.9	5.0	2,553.5	1.7
Universities and colleges	9,677.5	11,939.9	12,442.5	4.2	11,086.0	-10.9
University and college FFRDCs	138.8	183.8	269.7	46.7	217.2	-19.5
Other nonprofit institutions	2,462.3	3,013.3	3,207.0	6.4	2,791.9	-12.9
Nonprofit FFRDCs	289.9	402.9	485.7	20.5	365.1	-24.8
State and local governments	262.9	249.2	248.9	-0.1	238.5	-4.2
Foreign	162.4	194.5	191.1	-1.7	177.7	-7.0
Field of science and engineering						
Environmental sciences	1,391.5	1,608.5	1,579.1	-1.8	1,584.0	0.3
Life sciences	13,361.5	15,680.2	16,567.3	5.7	14,931.1	-9.9
Mathematics and computer sciences	1,639.8	1,750.8	1,866.8	6.6	1,739.5	-6.8
Physical sciences	1,669.5	1,701.5	1,793.6	5.4	1,738.5	-3.1
Psychology	804.8	985.9	1,073.6	8.9	969.8	-9.7
Social sciences	647.0	733.2	922.7	25.8	892.3	-3.3
Other sciences, nec	986.2	1,485.1	2,073.2	39.6	2,010.1	-3.0
Engineering	6,239.5	6,885.7	7,322.2	6.3	6,423.6	-12.3
Development	73,212.0	69,640.2	71,176.0	2.2	67,414.3	-5.3
Performer						
Intramural ^a	17,716.1	17,116.4	18,204.8	6.4	18,916.8	3.9
Industry	50,555.2	47,016.0	47,275.5	0.6	43,768.4	-7.4
Industry FFRDCs	1,190.2	983.9	1,055.0	7.2	913.6	-13.4
Universities and colleges	1,703.3	1,390.5	1,411.9	1.5	1,133.2	-19.7
University and college FFRDCs	365.5	1,214.4	1,273.4	4.9	1,151.5	-9.6
Other nonprofit institutions	567.5	546.7	659.8	20.7	429.1	-35.0
Nonprofit FFRDCs	877.3	1,126.1	1,111.8	-1.3	944.9	-15.0
State and local governments	50.2	46.2	51.4	11.2	40.3	-21.6
Foreign	186.6	197.7	132.2	-33.1	116.6	-11.8
R&D plant	1,943.9	3,647.5	4,070.5	11.6	2,454.8	-39.7
Performer						
Intramural ^a	494.0	804.7	1,456.4	81.0	694.9	-52.3
Industry	449.0	375.8	422.0	12.3	404.7	-4.1
Industry FFRDCs	175.6	127.7	261.9	105.0	238.4	-9.0
Universities and colleges	210.2	607.0	846.0	39.4	339.6	-59.9
University and college FFRDCs	334.4	706.5	418.7	-40.7	275.1	-34.3
Other nonprofit institutions	23.7	154.4	142.1	-8.0	45.6	-67.9
Nonprofit FFRDCs	253.8	868.2	518.2	-40.3	453.3	-12.5
State and local governments	0.0	1.2	3.1	154.4	1.3	-58.9
Foreign	3.1	2.0	2.1	1.9	2.1	-1.3

FFRDC = federally funded research and development center; nec = not elsewhere classified.

^a Includes costs associated with administration of intramural and extramural programs by federal personnel and actual intramural performance. Extramural performers are all performers other than intramural.

NOTES: Because of rounding, detail may not add to total. Percentages are computed using dollars in thousands.

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