NSF Survey of R&D Expenditures at Universities and Colleges Fiscal Year 2009 Data Results Spreadsheet

NSF Survey of R&D Expenditures at Universities and Colleges

Item 1

Last Modified: 01/15/2010

Item 1. How much of your current fund expenditures for separately budgeted research and development in the sciences and engineering (including indirect costs) came from the following sources in FY 2009?

Item 1. Expenditures by Source of Funds, Fiscal Year 2009

Source of Funds	Line	(1) Total (Dollars in thousands)	(2) What Percentage of Federal & Total Funds Are Basic Research?		(3) Calculated Basic Research Funds (Dollars in thousands) (Col. 1 x Col. 2) (Read-Only)
a. Federal Government	1110	619,353	79	% $	489,289
b. State and local governments	1125	13,196			
c. Industry	1150	76,834			
d. Institution funds (sum of Row d(1) and Row d(2))	1160	43,002			
(1) Institutionally financed organized research (confidential)**	1161	4,644			
(2) Unreimbursed indirect costs and related sponsored research (confidential)**	1162	38,358			
e. All other sources	1175	25,661			
f. TOTAL (sum of a through e)	1100	778,046	76	% $	591,315

Basic research is directed toward an increase of knowledge; it is research where the primary aim of the investigator is a fuller knowledge or understanding of the subject under study rather than a specific application thereof.

(Read-Only)

****Information received from individual institutions in lines d(1) and d(2), or estimates for basic research expenditures, will NOT be published or released; only aggregate totals will appear in tabulations. In accordance with the National Science Foundation Act of 1950, as amended, and other applicable federal laws, your responses will not be disclosed in identifiable form to anyone other than agency employees or authorized persons.**

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Item 1A

Last Modified: 12/03/2009

Item 1A. How much of your total (item 1, row f) and Federal (item 1, row a) R&D expenditures were passed through by your institution to subrecipients? (If all information is not available, report those amounts that are available. Exclude vendor relationships.)

Item 1A. Passed Through Funds, Fiscal Year 2009

(Dollars in thousands)

Subrecipients	Line	(1) Total	(2) Federal
a. To higher education subrecipients	1910	0	0
b. To other subrecipients	1920	0	0
c. To all subrecipients (sum of a and b)	1900	0	0

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Item 1B

Last Modified: 12/03/2009

Item 1B. How much of your total (item 1, row f) and Federal (item 1, row a) R&D expenditures did your institution receive as a subrecipient? (If all information is not available, report those amounts that are available. Exclude vendor relationships.)

Item 1B. Funds Received as a Subrecipient, Fiscal Year 2009

(Dollars in thousands)

Your Institution as a Subrecipient	Line	(1) Total	(2) Federal
a. From higher education pass-through entities	1610	0	0
b. From other pass-through entities	1620	0	0
c. From all pass-through entities (sum of a and b)	1600	0	0

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Item 2

Last Modified: 01/15/2010

Item 2. Allocate your FY 2009 current fund expenditures (total and federally financed) for separately budgeted research and development (including indirect costs) by field of science and engineering.

Please note that total R&D expenditures in row j, column (1) should be the same as reported in Item 1, row f.

Total Federal R&D expenditures in row j, column (2) should be the same as reported in Item 1, row a.

Please EXCLUDE from your response any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science and engineering fields. These non-science and engineering R&D expenditures are reported in Item 2A.

Item 2. Current Fund Expenditures, Fiscal Year 2009

(Dollars in thousands)

Field of Science & Engineering	Line	(1) Total	(2) Federal
a. Engineering (Total)	1410	81,374	61,065
(1) Aeronautical & astronautical	1411	4,226	3,806
(2) Bioengineering/biomedical engineering	1418	18,203	12,372
(3) Chemical	1412	5,315	4,318
(4) Civil	1413	11,349	7,372
(5) Electrical	1414	23,096	18,366
(6) Mechanical	1415	7,263	5,269
(7) Metallurgical & materials	1417	7,028	5,535
(8) Other	1416	4,894	4,027
b. Physical Sciences (Total)	1420	39,188	34,469
(1) Astronomy	1421	5,845	3,998
(2) Chemistry	1422	21,037	18,504
(3) Physics	1423	12,306	11,967
(4) Other	1424	0	0
c. Environmental Sciences (Total)	1430	110,858	97,255
(1) Atmospheric	1431	24,150	19,565
(2) Earth sciences	1432	5,667	5,493
(3) Oceanography	1433	71,443	66,687
(4) Other	1434	9,598	5,510
d. Mathematical Sciences (Total)	1441	4,680	4,324

e. Computer Sciences (Total)	1442	4,923	2,412
f. Life Sciences (Total)	1450	517,978	406,414
(1) Agricultural	1451	17,233	9,755
(2) Biological	1452	89,848	79,006
(3) Medical	1453	396,872	305,141
(4) Other	1454	14,025	12,512
g. Psychology (Total)	1460	7,237	6,478
h. Social Sciences (Total)	1470	11,808	6,936
(1) Economics	1471	21	0
(2) Political science	1472	5,623	1,849
(3) Sociology	1473	3,241	2,913
(4) Other	1474	2,923	2,174
i. Other Sciences, not elsewhere classified (Total)	1480	0	0
j. Total (sum of a through i)	1400	778,046	619,353

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Item 3

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Item 3. Allocate the portion of your FY 2009 current fund expenditures (total and federally financed) for separately budgeted research and development that went for the purchase of research equipment by field of science and engineering.

Current fund expenditures in each field for scientific research equipment is that PORTION or SUBTOTAL of the amounts reported in the corresponding cells of the "Total" and "Federal" columns in item 2.

Item 3. Equipment Expenditures, Fiscal Year 2009
Subtotal of Current Fund Expenditures in Item 2

(Dollars in thousands)

Field of Science & Engineering	Line	(1) Total	(2) Federal
a. Engineering (Total)	1810	6,370	4,575
(1) Aeronautical & astronautical	1811	2,553	2,323
(2) Bioengineering/biomedical engineering	1818	306	239
(3) Chemical	1812	967	934
(4) Civil	1813	110	110
(5) Electrical	1814	1,789	505
(6) Mechanical	1815	367	309
(7) Metallurgical & materials	1817	278	155
(8) Other	1816	0	0
b. Physical Sciences (Total)	1820	8,517	4,725
(1) Astronomy	1821	3,440	61
(2) Chemistry	1822	2,113	1,712
(3) Physics	1823	2,964	2,952
(4) Other	1824	0	0
c. Environmental Sciences (Total)	1830	10,355	9,433
(1) Atmospheric	1831	1,558	1,547
(2) Earth sciences	1832	828	725
(3) Oceanography	1833	7,920	7,133
(4) Other	1834	49	28
d. Mathematical Sciences (Total)	1841	111	111
e. Computer Sciences (Total)	1842	11	6
f. Life Sciences (Total)	1850	9,540	7,400
(1) Agricultural	1851	171	24
(2) Biological	1852	3,658	3,175

(3) Medical	1853	5,559	4,080
(4) Other	1854	152	121
g. Psychology (Total)	1860	2,135	2,098
h. Social Sciences (Total)	1870	33	31
(1) Economics	1871	0	0
(2) Political science	1872	9	9
(3) Sociology	1873	10	10
(4) Other	1874	14	12
i. Other Sciences, not elsewhere classified (Total)	1880	0	0
j. Total (sum of a through i)	1800	37,072	28,379

Current fund expenditures in each field for scientific research equipment is that PORTION or SUBTOTAL of the amounts reported in the corresponding cells of the "Total" and "Federal" columns in Item 2.

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Item 2A

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Item 2A. What were your current fund expenditures (total and federally financed) for separately budgeted research and development (including indirect costs) for non-science and engineering fields in FY 2009?

NOTE: For rows 2A(a) through 2A(i), report only data that have not been reported in Items 1 and 2 on this survey. Non-S&E R&D should include any separately budgeted scholarly and creative activity, but should exclude training.

Item 2A. Non-S&E Current Fund Expenditures, Fiscal Year 2009

(Dollars in thousands)

Non-Science & Engineering Fields	Line	(1) Total	(2) Federal
a. Education	1510	9,931	4,914
b. Law	1520	876	698
c. Humanities	1530	3,574	2,833
d. Visual & Performing Arts	1540	53	0
e. Business and Management	1550	161	34
f. Communication, Journalism, and Library Science	1560	182	181
g. Social Work	1570	12,966	1,027
h. Other Non-S&E Fields (please specify)	1580	0	0
i. Total, Non-S&E Fields (sum of a through h)	1500	27,743	9,687
j. Total, S&E (from Item 2, line j)	1400	778,046	619,353
k. Grand Total (sum of i and j)	2000	805,789	629,040

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Item 2B

Last Modified: 12/03/2009

Item 2B. What were the Federal Government agency sources for your FY 2009 federally financed current fund expenditures for separately budgeted research and development (including indirect costs) (item 2, column 2) by field of science and engineering?

Total Federal expenditures reported in Item 2B, column 1 should be the same as the Federal expenditures reported in Item 2, column 2.

Federally financed R&D expenditures in row j, column (1) should be the same as reported in Item 1, row a.

Allocate funding to the original sources whenever possible. If that information is unknown, report the proximate funding source.

KEY: USDA, Department of Agriculture; DoD, Department of Defense; DOE, Department of Energy; HHS, Department of Health and Human Services (Includes NIH); NASA, National Aeronautics and Space Administration; NSF, National Science Foundation. "Other" Federal sources include all other Federal agencies.

Item 2B. Current Fund Expenditures by Specific Federal Agencies, Fiscal Year 2009

(Dollars in thousands)

Field of Science & Engineering	Line	(1) Total Federal	Specific Federal Agencies (2) USDA	(3) DoD	(4) DOE	(5) HHS*	(6) NASA	(7) NSF	(8) Other
a. Engineering (Total)	1410	61,065	0	2,443	4,587	15,829	1,942	21,588	14,676
(1) Aeronautical & astronautical	1411	3,806	0	0	2,167	113	87	300	1,139
(2) Bioengineering/biomedical	1418	12,372	0	0	147	11,079	635	0	511
(3) Chemical	1412	4,318	0	164	572	1,160	0	2,005	417
(4) Civil	1413	7,372	0	446	697	168	917	1,836	3,308
(5) Electrical	1414	18,366	0	1,816	318	882	303	9,566	5,481
(6) Mechanical	1415	5,269	0	0	85	921	0	1,314	2,949
(7) Metallugical & materials	1417	5,535	0	17	601	1,316	0	3,012	589
(8) Other	1416	4,027	0	0	0	190	0	3,555	282

Field of Science & Engineering	Line	(1) Total Federal	Specific Federal Agencies (2) USDA	(3) DoD	(4) DOE	(5) HHS*	(6) NASA	(7) NSF	(8) Other
b. Physical Sciences (Total)	1420	34,469	0	355	8,522	8,379	2,731	13,744	738
(1) Astronomy	1421	3,998	0	0	21	0	2,323	1,654	0
(2) Chemistry	1422	18,504	0	347	718	7,998	68	8,711	662
(3) Physics	1423	11,967	0	8	7,783	381	340	3,379	76
(4) Other	1424	0	0	0	0	0	0	0	0

Field of Science & Engineering	Line	(1) Total Federal	Specific Federal Agencies (2) USDA	(3) DoD	(4) DOE	(5) HHS*	(6) NASA	(7) NSF	(8) Other
c. Environmental Sciences (Total)	1430	97,255	731	292	925	3,382	6,826	35,237	49,862
(1) Atmospheric	1431	19,565	0	0	376	0	1,587	4,648	12,954
(2) Earth Sciences	1432	5,493	0	0	409	0	1,556	2,564	964
(3) Oceanography	1433	66,687	0	13	95	3,084	3,683	27,860	31,952
(4) Other	1434	5,510	731	279	45	298	0	165	3,992

Field of Science & Engineering	Line	(1) Total Federal	Specific Federal Agencies						
			(2) USDA	(3) DoD	(4) DOE	(5) HHS*	(6) NASA	(7) NSF	(8) Other
d. Mathematical Sciences (Total)	1441	4,324	0	338	10	448	0	3,439	89
e. Computer Sciences (Total)	1442	2,412	0	362	88	7	0	742	1,213
f. Life Sciences (Total)	1450	406,414	987	4,947	4,060	356,102	508	10,540	29,270
(1) Agricultural	1451	9,755	708	0	2,152	0	8	990	5,897
(2) Biological	1452	79,006	129	3,423	1,492	67,240	4	5,232	1,486
(3) Medical	1453	305,141	150	1,517	416	284,986	496	1,312	16,264
(4) Other	1454	12,512	0	7	0	3,876	0	3,006	5,623

Field of Science & Engineering	Line	(1) Total Federal	Specific Federal Agencies						
			(2) USDA	(3) DoD	(4) DOE	(5) HHS*	(6) NASA	(7) NSF	(8) Other
g. Psychology (Total)	1460	6,478	0	0	0	5,221	0	1,024	233
h. Social Sciences (Total)	1470	6,936	0	34	0	2,077	0	3,136	1,689
(1) Economics	1471	0	0	0	0	0	0	0	0
(2) Political Science	1472	1,849	0	10	0	53	0	1,158	628
(3) Sociology	1473	2,913	0	0	0	1,422	0	934	557
(4) Other	1474	2,174	0	24	0	602	0	1,044	504
i. Other Sciences (Total)	1480	0	0	0	0	0	0	0	0
j. Total (sum of a through i)	1400	619,353	1,718	8,771	18,192	391,445	12,007	89,450	97,770

* Includes NIH.

Please EXCLUDE from your response any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science and engineering fields.

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Item 4

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Item 4. How many R&D projects in both science and engineering (S&E) and non-S&E fields were AWARDED to your institution in FY 2009 from the sources below and what were their dollar amounts?

Include only awards for research. Do not include awards for instruction, outreach, public service, or other sponsored activities.

Include the total amount awarded in FY 2009, even if the funds will be spent over multiple years. For example, if your institution receives an award of $5,000,000 that will be spent over five years, report $5,000,000.

The total amount of the award should be reported by the prime award recipient. Exclude subawards your institution received as a subrecipient.

Item 4. Awards for R&D, Fiscal Year 2009

Source of R&D Funds	Line	(1) Number of R&D awards	(2) Total R&D dollars awarded (in thousands)
a. Federal stimulus funds (American Recovery and Reinvestment Act, or ARRA)	2010	42	16,993
b. Other federal funds	2020	2,592	782,303
c. Nonfederal funds	2030	3,253	350,645
d. Total (sum of a through c) (read only)	2000	5,887	1,149,941

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