

Overview Tables

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Table I-1. R&D in the FY 2001 Budget by Agency

Table I-1. R&D in the FY 2001 Budget by Agency

(budget authority in millions of dollars)

| | FY 1999 | FY 2000 | FY 2001 | Change FY 00-01 | |
|--|---------|----------|---------------|-----------------|---------|
| | Actual | Estimate | Budget | Amount | Percent |
| TOTAL R&D (Conduct of R&D and R&D Facilities) | | | | | |
| Defense (military) | 38,888 | 39,282 | 38,576 | -706 | -1.8% |
| <i>S&T (6.1-6.3 + medical)</i> | 7,612 | 8,667 | 7,609 | -1,058 | -12.2% |
| <i>All Other DOD R&D</i> | 31,276 | 30,615 | 30,967 | 352 | 1.1% |
| Health and Human Services | 15,825 | 18,082 | 19,168 | 1,086 | 6.0% |
| <i>Nat'l Institutes of Health</i> | 14,995 | 17,102 | 18,094 | 992 | 5.8% |
| NASA | 9,717 | 9,777 | 10,040 | 263 | 2.7% |
| Energy | 6,966 | 7,117 | 7,639 | 522 | 7.3% |
| Nat'l Science Foundation | 2,670 | 2,863 | 3,431 | 568 | 19.8% |
| Agriculture | 1,645 | 1,763 | 1,824 | 61 | 3.5% |
| Commerce | 1,084 | 1,073 | 1,148 | 75 | 7.0% |
| NOAA | 593 | 591 | 594 | 3 | 0.5% |
| NIST | 465 | 458 | 497 | 39 | 8.6% |
| Interior | 499 | 573 | 590 | 17 | 2.9% |
| Transportation | 607 | 606 | 778 | 172 | 28.3% |
| Environ. Protection Agency | 669 | 647 | 673 | 26 | 4.0% |
| Veterans Affairs | 644 | 655 | 655 | 0 | 0.0% |
| Education | 205 | 233 | 271 | 38 | 16.3% |
| Int'l Assistance Programs | 189 | 142 | 114 | -28 | -19.7% |
| Smithsonian | 105 | 113 | 122 | 9 | 8.0% |
| Tennessee Valley Auth. | 34 | 33 | 32 | -1 | -3.0% |
| Labor | 69 | 71 | 42 | -29 | -40.8% |
| Nuclear Reg. Comm. | 49 | 53 | 53 | 0 | 0.0% |
| Corps of Engineers | 50 | 53 | 42 | -11 | -20.8% |
| Housing and Urban Dev. | 58 | 45 | 62 | 17 | 37.8% |
| Justice | 88 | 77 | 74 | -3 | -3.9% |
| Social Security | 38 | 25 | 42 | 17 | 68.0% |
| Postal Service | 67 | 45 | 45 | 0 | 0.0% |
| State | 1 | 0 | 0 | 0 | -- |
| Treasury | 3 | 6 | 6 | 0 | 0.0% |
| Marine Mammal Com. | 1 | 1 | 1 | 0 | 0.0% |
| Total R&D | 80,171 | 83,334 | 85,427 | 2,093 | 2.5% |
| Defense R&D | 42,085 | 42,583 | 41,981 | -602 | -1.4% |
| Nondefense R&D | 38,086 | 40,751 | 43,446 | 2,695 | 6.6% |

Source: AAAS, based on OMB data for R&D for FY 2001, agency budget justifications, and information from agency budget offices.

Note: The projected inflation rate between FY 2000 and FY 2001 is 2.0 percent.

All figures are rounded to the nearest million. Changes calculated from unrounded figures.

Table I-2. Distribution of the FY 2001 Budget

Table I-2. Distribution of the FY 2001 Budget
(outlays in billions of dollars)

| | FY 1999 | FY 2000 | FY 2001 | Change FY 00-01 | |
|----------------------------------|---------|----------|---------------|-----------------|---------|
| | Actual | Estimate | Budget | Amount | Percent |
| Discretionary | | | | | |
| Defense | 276 | 291 | 292 | 1 | 0.3% |
| International | 20 | 22 | 24 | 2 | 8.7% |
| Domestic | 280 | 305 | 318 | 14 | 4.5% |
| Nondefense (Int'l + Dom.) | 300 | 326 | 342 | 15 | 4.8% |
| TOTAL Discretionary | 575 | 618 | 634 | 16 | 2.7% |
| Entitlements and Mandatory | | | | | |
| Social Security * | 387 | 403 | 422 | 19 | 4.7% |
| Medicare * | 188 | 199 | 218 | 18 | 9.1% |
| Medicaid | 108 | 116 | 125 | 9 | 7.5% |
| Other | 256 | 276 | 274 | -2 | -0.9% |
| TOTAL Mandatory | 939 | 995 | 1,038 | 43 | 4.4% |
| Net Interest | 230 | 220 | 208 | -12 | -5.4% |
| Undistrib. Offsetting Receipts | -40 | -43 | -45 | -2 | 5.3% |
| TOTAL Budget (Outlays) | 1,703 | 1,790 | 1,835 | 45 | 2.5% |
| TOTAL Receipts | 1,827 | 1,956 | 2,019 | 63 | 3.2% |
| Estimated Unified Surplus | 124 | 167 | 184 | 17 | 10.4% |
| <i>On-budget surplus</i> | 1 | 19 | 24 | 6 | 29.6% |
| <i>Off-budget surplus</i> | 124 | 148 | 160 | 12 | 8.0% |
| Gross Domestic Product (GDP) | 9,115 | 9,572 | 10,041 | 469 | 4.9% |
| Federal Budget as Percent of GDP | 18.7% | 18.7% | 18.3% | | |

Source: Office of Management and Budget, *Budget of the U.S. Government FY 2001*.

Note: The projected inflation rate between FY 2000 and FY 2001 is 2.0 percent.

All figures are rounded to the nearest billion. Changes calculated from unrounded figures.

* Excludes administrative costs for these programs, which are classified as discretionary.

Table I-3. Historical Trends in R&D and Federal Outlays

**Table I-3. Historical Trends in R&D and Federal Outlays
(outlays in billions of dollars)**

| | FY 1970 Actual | FY 1980 Actual | FY 1990 Actual | FY 2001 Budget |
|---|-------------------|-------------------|-------------------|-------------------|
| Composition of Federal Outlays (Current Dollars) | | | | |
| Mandatory Programs | 61 | 262 | 568 | 993 |
| Net Interest | 14 | 53 | 184 | 208 |
| Defense Discretionary | 82 | 135 | 300 | 292 |
| International Discretionary | 4 | 13 | 19 | 24 |
| Domestic Discretionary | 34 | 129 | 181 | 318 |
| TOTAL Federal Outlays | 196 | 591 | 1,253 | 1,835 |
| Federal R&D Outlays included: | | | | |
| in Defense Discretionary | 8 | 15 | 42 | 38 |
| in International Discretionary | NA | 0 | 0 | 0 |
| in Domestic Discretionary | 8 | 17 | 23 | 45 |
| TOTAL R&D Outlays | 16 | 32 | 65 | 83 |
| Composition of Federal Outlays | | | | |
| Mandatory Programs | 31.2% | 44.4% | 45.3% | 54.1% |
| Net Interest | 7.4% | 8.9% | 14.7% | 11.4% |
| Defense Discretionary | 41.8% | 22.8% | 23.9% | 15.9% |
| International Discretionary | 2.0% | 2.2% | 1.5% | 1.3% |
| Domestic Discretionary | 17.6% | 21.8% | 14.5% | 17.3% |
| TOTAL Federal Outlays | 100.0% | 100.0% | 100.0% | 100.0% |
| Federal R&D Outlays as Percent of Discretionary Outlays ¹ | | | | |
| Defense | 10.1% | 11.1% | 13.9% | 13.1% |
| International | NA | 0.8% | 2.1% | 0.8% |
| Domestic | 21.8% | 13.0% | 12.9% | 14.0% |
| TOTAL R&D as % of total discr. | 13.1% | 11.5% | 13.0% | 13.1% |
| Federal R&D Outlays as Percent of GDP | | | | |
| Defense R&D | 0.8% | 0.5% | 0.7% | 0.4% |
| Nondefense R&D ² | 0.7% | 0.6% | 0.4% | 0.4% |
| TOTAL R&D | 1.6% | 1.2% | 1.1% | 0.8% |

Source: *Budget of the United States Government FY 2001, Historical Tables.*

NA = data not available.

All figures are rounded to the nearest billion. Changes calculated from unrounded figures.

¹ R&D as a percent of its respective category (e.g., defense R&D as a percentage of defense discretionary).

² Includes international and domestic R&D programs.

Table I-4. Major Functional Categories of R&D

Table I-4. Major Functional Categories of R&D¹
(budget authority in millions of dollars)

| | FY 1999 | FY 2000 | FY 2001 | Change FY 00-01 | |
|--------------------------|---------------|---------------|----------------|-----------------|---------|
| | Actual | Estimate | Budget | Amount | Percent |
| Defense | 42,085 | 42,583 | 41,981 | -602 | -1.4% |
| Nondefense ² | 38,086 | 40,751 | 43,446 | 2,695 | 6.6% |
| Space | 8,532 | 8,746 | 9,106 | 360 | 4.1% |
| Health | 16,431 | 18,663 | 19,742 | 1,079 | 5.8% |
| Energy ³ | 1,177 | 1,264 | 1,350 | 86 | 6.8% |
| General Science | 5,342 | 5,501 | 6,400 | 899 | 16.3% |
| Environment ⁴ | 2,022 | 2,076 | 2,136 | 60 | 2.9% |
| Agriculture | 1,435 | 1,552 | 1,587 | 35 | 2.3% |
| Transportation | 1,792 | 1,637 | 1,712 | 75 | 4.6% |
| Commerce | 490 | 481 | 553 | 72 | 15.0% |
| International | 190 | 142 | 114 | -28 | -19.7% |
| All Other | 675 | 690 | 746 | 56 | 8.1% |
| Total R&D | 80,171 | 83,334 | 85,427 | 2,093 | 2.5% |

Source: AAAS estimates based on data from OMB, agency budget justifications, and information from agency budget offices.

Classifications generally follow the government's budget function categories except health (which here includes health R&D in HHS and VA).

All figures are rounded to the nearest million. Changes calculated from unrounded figures.

¹ Includes conduct of R&D and R&D facilities.

² Includes all R&D not in defense.

³ Does not reflect actual or proposed deferrals of Clean Coal Technology BA.

⁴ Includes natural resources R&D.

Please see Chapter 4 for a discussion of this table.

Table I-5. R&D by Character of Work

Table I-5. R&D by Character of Work
(budget authority in **billions** of dollars)

| | FY 1980 | FY 1990 | FY 2000 | FY 2001 | % Share of Total | | |
|-----------------------|-------------|-------------|-------------|-------------|------------------|---------------|---------------|
| | Actual | Actual | Estimate | Budget | 1980 | 1990 | 2001 |
| Basic Research | 4.7 | 11.3 | 19.0 | 20.3 | 14.2% | 17.0% | 23.7% |
| Applied Research | 6.9 | 10.2 | 17.6 | 18.4 | 20.8% | 15.3% | 21.5% |
| Total Research | 11.6 | 21.5 | 36.5 | 38.6 | 35.0% | 32.3% | 45.2% |
| Development | 20.0 | 42.3 | 44.4 | 44.3 | 60.4% | 63.7% | 51.9% |
| Conduct of R&D | 31.6 | 63.8 | 80.9 | 82.9 | 95.5% | 96.0% | 97.1% |
| R&D Facilities | 1.5 | 2.6 | 2.4 | 2.5 | 4.5% | 4.0% | 2.9% |
| Total R&D | 33.1 | 66.4 | 83.3 | 85.4 | 100.0% | 100.0% | 100.0% |

Constant FY 2000 Dollars

| | | | | |
|-----------------------|-------------|-------------|-------------|-------------|
| Basic Research | 8.8 | 13.8 | 19.0 | 19.9 |
| Applied Research | 13.0 | 12.5 | 17.6 | 18.0 |
| Total Research | 21.8 | 26.3 | 36.5 | 37.9 |
| Development | 37.6 | 51.9 | 44.4 | 43.4 |
| Conduct of R&D | 59.4 | 78.3 | 80.9 | 81.3 |
| R&D Facilities | 2.8 | 3.2 | 2.4 | 2.4 |
| Total R&D | 62.2 | 81.5 | 83.3 | 83.8 |

Source: OMB data for R&D for FY 2001, agency budget justifications, agency documents, *AAAS Report XVI* (1991), and *AAAS Report VI* (1981).

Constant dollar conversions based on OMB's GDP deflators.

See Appendix 2 for definitions of terms.

Please see Chapter 4 for a discussion of this table.

Table I-6. Defense and Nondefense R&D

Table I-6. Defense and Nondefense R&D by Character of Work
(budget authority in millions of dollars)

| | FY 1999 Actual | FY 2000 Estimate | FY 2001 Budget | % Change FY 00-01 | Distribution % '01 Total |
|---------------------------------|-------------------|---------------------|---------------------------|----------------------|-----------------------------|
| Basic Research | | | | | |
| Defense | 1,110 | 1,205 | 1,262 | 4.7% | 1.5% |
| Nondefense | 16,323 | 17,760 | 18,997 | 7.0% | 22.2% |
| Total Basic | 17,433 | 18,965 | 20,259 | 6.8% | 23.7% |
| Applied Research | | | | | |
| Defense | 4,394 | 5,087 | 4,853 | -4.6% | 5.7% |
| Nondefense | 11,597 | 12,490 | 13,501 | 8.1% | 15.8% |
| Total Applied | 15,992 | 17,577 | 18,355 | 4.4% | 21.5% |
| Development | | | | | |
| Defense | 35,802 | 35,554 | 35,299 | -0.7% | 41.3% |
| Nondefense | 8,519 | 8,829 | 9,020 | 2.2% | 10.6% |
| Total Dev. | 44,321 | 44,383 | 44,318 | -0.1% | 51.9% |
| Total Conduct of R&D | | | | | |
| Defense | 41,306 | 41,846 | 41,414 | -1.0% | 48.5% |
| Nondefense | 36,440 | 39,080 | 41,518 | 6.2% | 48.6% |
| Total Conduct | 77,745 | 80,925 | 82,931 | 2.5% | 97.1% |
| R&D Facilities | | | | | |
| Defense | 780 | 737 | 567 | -23.1% | 0.7% |
| Nondefense | 1,646 | 1,671 | 1,928 | 15.4% | 2.3% |
| Total R&D Facils. | 2,426 | 2,409 | 2,496 | 3.6% | 2.9% |
| Total R&D | | | | | |
| Defense | 42,085 | 42,583 | 41,981 | -1.4% | 49.1% |
| Nondefense | 38,086 | 40,751 | 43,446 | 6.6% | 50.9% |
| Total R&D | 80,171 | 83,334 | 85,427 | 2.5% | 100.0% |

Source: OMB data for R&D and agency budget justifications.

See Appendix 2 for definitions of terms.

All figures rounded to the nearest million. Changes calculated from unrounded figures.

Defense includes Dept. of Defense and defense programs in the Dept. of Energy.

Please see Chapter 4 for a discussion of this table.

Table I-7. Federal Support for R&D at Colleges and Universities

Table I-7. Federal Support for Conduct of R&D at Colleges and Universities
(budget authority in millions of dollars)

| | FY 1999 | FY 2000 | FY 2001 | Change FY 00-01 | |
|---|---------|----------|---------------|-----------------|---------|
| | Actual | Estimate | Budget | Amount | Percent |
| Health & Human Services | 9,181 | 10,431 | 11,065 | 634 | 6.1% |
| <i>Nat'l Institutes of Health</i> | 9,077 | 10,319 | 10,948 | 629 | 6.1% |
| - <i>Nat'l Cancer Institute</i> | 1,251 | 1,422 | 1,506 | 83 | 5.9% |
| - <i>Heart, Lung, and Blood</i> | 1,154 | 1,308 | 1,378 | 70 | 5.3% |
| - <i>Allergy and Infectious</i> | 849 | 965 | 1,036 | 71 | 7.4% |
| - <i>General Medical Scis.</i> | 907 | 1,027 | 1,085 | 58 | 5.7% |
| - <i>All Other NIH</i> | 4,916 | 5,596 | 5,943 | 346 | 6.2% |
| Nat'l Science Foundation | 2,183 | 2,317 | 2,812 | 495 | 21.4% |
| - <i>Research & Related Acts.</i> | 2,079 | 2,185 | 2,639 | 454 | 20.8% |
| - <i>Other NSF</i> | 104 | 132 | 173 | 41 | 30.8% |
| Defense (Military) | 1,304 | 1,255 | 1,209 | -46 | -3.7% |
| NASA | 870 | 957 | 968 | 11 | 1.2% |
| - <i>Space Science</i> | 423 | 439 | 479 | 40 | 9.1% |
| - <i>Life and Microgravity</i> | 98 | 99 | 102 | 3 | 3.0% |
| - <i>Earth Science</i> | 267 | 262 | 298 | 36 | 13.8% |
| - <i>All Other NASA</i> | 82 | 157 | 89 | -68 | -43.3% |
| Energy | 719 | 695 | 766 | 71 | 10.2% |
| - <i>High Energy Physics</i> | 115 | 130 | 127 | -3 | -2.4% |
| - <i>Bio. And Env. Research</i> | 113 | 91 | 107 | 16 | 17.3% |
| - <i>Basic Energy Sciences</i> | 125 | 122 | 145 | 23 | 18.9% |
| Agriculture | 482 | 600 | 615 | 15 | 2.5% |
| Environ. Protection Agency | 140 | 147 | 145 | -2 | -1.3% |
| Interior | 50 | 46 | 47 | 1 | 1.4% |
| Transportation | 102 | 106 | 165 | 59 | 55.7% |
| Commerce | 80 | 79 | 86 | 7 | 8.9% |
| NOAA | 70 | 70 | 70 | 0 | 0.0% |
| NIST | 10 | 9 | 16 | 7 | 77.8% |
| Education | 131 | 146 | 167 | 21 | 14.4% |
| Nuclear Reg. Comm. | 4 | 4 | 4 | 0 | 0.0% |
| Postal Service | 5 | 5 | 5 | 0 | 0.0% |
| Social Security | 37 | 25 | 30 | 5 | 20.0% |
| Total Federal R&D at Colleges and Universities | 15,287 | 16,813 | 18,084 | 1,271 | 7.6% |

Source: AAAS, based on OMB supporting data for R&D, agency budget justifications, and information from agency budget offices.

Please see Chapter 4 for a discussion of this table.

Table I-8. R&D Expenditures at Colleges and Universities

Table I-8. R&D Expenditures at Colleges and Universities
Fiscal Year 1998

| | FY 1997 | FY 1998 | % Change FY 97-98 | % of Total (FY 98) |
|--|---------|---------------|----------------------|-----------------------|
| (R&D expenditures in millions of dollars) | | | | |
| - by funding source: | | | | |
| Federal Government | 14,420 | 15,077 | 4.6% | 58.6% |
| State and Local Government | 1,883 | 1,928 | 2.4% | 7.5% |
| Industry | 1,700 | 1,870 | 10.0% | 7.3% |
| Institutional Funds | 4,495 | 4,999 | 11.2% | 19.4% |
| All Other Sources | 1,690 | 1,861 | 10.1% | 7.2% |
| Total | 24,188 | 25,735 | 6.4% | 100.0% |
| - by science and engineering field: | | | | |
| Engineering | 3,831 | 4,054 | 5.8% | 15.8% |
| Physical Sciences | 2,347 | 2,440 | 3.9% | 9.5% |
| Environmental Sciences | 1,523 | 1,615 | 6.1% | 6.3% |
| Mathematical Sciences | 287 | 308 | 7.2% | 1.2% |
| Computer Sciences | 708 | 754 | 6.6% | 2.9% |
| Life Sciences | 13,498 | 14,547 | 7.8% | 56.5% |
| Psychology | 389 | 437 | 12.2% | 1.7% |
| Social Sciences | 1,101 | 1,121 | 1.9% | 4.4% |
| Other Sciences, n.e.c. * | 504 | 460 | -8.9% | 1.8% |
| Total | 24,188 | 25,735 | 6.4% | 100.0% |
| - by character of work: | | | | |
| Basic Research | 16,498 | 17,382 | 5.4% | 67.5% |
| Applied Research and Development | 7,689 | 8,353 | 8.6% | 32.5% |
| Total | 24,188 | 25,735 | 6.4% | 100.0% |

Source: National Science Foundation, *Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1998*, 1999.

The complete data, and definitions of science and engineering fields, are available at <http://www.nsf.gov/sbe/srs/stats.htm>.

* not elsewhere classified.

These data are based on performer surveys of expenditures, and thus differ from data presented elsewhere in this report.

Please see Chapter 4 for a discussion of this table.

Table I-9. R&D by Appropriations Subcommittee

Table I-9. R&D Funding by Congressional Appropriations Subcommittee
(budget authority in millions of dollars)

| | FY 1999 Actual | FY 2000 Estimate | FY 2001 Budget | Change FY 00-01 | |
|-------------------------------|-------------------|---------------------|---------------------------|-----------------|-------------|
| | | | | Amount | Percent |
| Defense ¹ | 38,888 | 39,282 | 38,576 | -706 | -1.8% |
| VA, HUD, Independent Agencies | 13,758 | 13,987 | 14,860 | 874 | 6.2% |
| Labor, HHS, Education | 16,007 | 18,276 | 19,377 | 1,101 | 6.0% |
| Energy & Water | 6,431 | 6,502 | 7,015 | 513 | 7.9% |
| Interior | 1,482 | 1,651 | 1,700 | 49 | 3.0% |
| Agriculture | 1,565 | 1,687 | 1,733 | 46 | 2.7% |
| Commerce, Justice, State | 1,173 | 1,151 | 1,223 | 72 | 6.3% |
| Transportation | 607 | 606 | 778 | 172 | 28.3% |
| Foreign Operations | 190 | 142 | 114 | -28 | -19.7% |
| Treasury, Postal, Gen. Gov't. | 70 | 51 | 51 | 0 | 0.0% |
| Total R&D | 80,171 | 83,334 | 85,427 | 2,093 | 2.5% |

Source: AAAS, based on estimates for R&D from OMB and agency data.

¹ A fraction of DOD R&D may be funded in Military Construction.

R&D as Percent of Discretionary Appropriations by Appropriations Subcommittee for FY 2001 (budget authority in billions of dollars)

| | FY 2001 R&D | FY 2001 Discr. ² | R&D as % of Discr. |
|-------------------------------|----------------|--------------------------------|-----------------------|
| Defense ¹ | 38.6 | 284.3 | 13.6% |
| VA, HUD, Independent Agencies | 14.9 | 84.4 | 17.6% |
| Labor, HHS, Education | 19.4 | 105.8 | 18.3% |
| Energy & Water | 7.0 | 22.6 | 31.0% |
| Interior | 1.7 | 16.4 | 10.4% |
| Agriculture | 1.7 | 14.8 | 11.7% |
| Commerce, Justice, State | 1.2 | 37.8 | 3.2% |
| Transportation | 0.8 | 13.9 | 5.6% |
| All Other | 0.2 | 42.2 | 0.4% |
| Total | 85.4 | 622.2 | 13.7% |
| Defense Discretionary | 42.0 | 306.3 | 13.7% |
| Nondefense Discretionary | 43.4 | 315.9 | 13.8% |

Source: AAAS, based on estimates of R&D and *Budget of the U.S. Government FY 2001*.

¹ A fraction of DOD R&D may be funded in Military Construction (in "All Other").

² Includes discretionary spending from the Violent Crime Reduction Trust Fund.

NOTE: Discretionary budget authority does not include limitations on obligations from transportation trust funds. Discretionary totals are not reduced by offsets.

Please see Chapter 1 for a discussion of this table.

Table I-10. Interagency S&T Initiatives

Table I-10. Interagency Science and Technology Initiatives
(budget authority in millions)

| | FY 1999 Actual | FY 2000 Estimate | FY 2001 Budget | Change FY 00-01 Amount | Change FY 00-01 Percent |
|---|-------------------|---------------------|-------------------|---------------------------|----------------------------|
| National Nanotechnology Initiative | | | | | |
| National Science Foundation | N/A | 97 | 217 | 120 | 123.7% |
| Defense | N/A | 70 | 110 | 40 | 57.1% |
| Energy | N/A | 58 | 94 | 36 | 62.1% |
| NASA | N/A | 5 | 20 | 15 | 300.0% |
| Commerce | N/A | 8 | 18 | 10 | 125.0% |
| National Institutes of Health | N/A | 32 | 36 | 4 | 12.5% |
| Total Nanotechnology | 247 | 270 | 495 | 225 | 83.3% |
| Information Technology R&D * (see Chapter 24) | | | | | |
| Commerce | 25 | 36 | 44 | 8 | 22.2% |
| Defense | 215 | 282 | 397 | 115 | 40.8% |
| Energy | 440 | 517 | 667 | 150 | 29.0% |
| Environ. Protection Agency | 4 | 4 | 4 | 0 | 0.0% |
| Health and Human Services | 118 | 191 | 233 | 42 | 22.0% |
| NASA | 106 | 174 | 230 | 56 | 32.2% |
| National Science Foundation | 393 | 517 | 740 | 223 | 43.1% |
| Total IT R&D | 1,301 | 1,721 | 2,314 | 593 | 34.5% |
| U.S. Global Change Research Program (see Chapter 17) | | | | | |
| National Science Foundation | 182 | 187 | 187 | 0 | 0.0% |
| Energy | 114 | 120 | 123 | 3 | 2.5% |
| Commerce (NOAA) | 63 | 67 | 93 | 26 | 38.8% |
| Agriculture | 52 | 53 | 85 | 32 | 60.4% |
| Interior | 27 | 27 | 25 | -2 | -7.4% |
| Environ. Protection Agency | 17 | 21 | 23 | 2 | 9.5% |
| Health and Human Services | 40 | 46 | 48 | 2 | 4.3% |
| Smithsonian | 7 | 7 | 7 | 0 | 0.0% |
| NASA | 1,155 | 1,173 | 1,149 | -24 | -2.0% |
| Total USGCRP | 1,657 | 1,701 | 1,740 | 39 | 2.3% |
| Clean Energy: Biobased Products and Bioenergy (see Chapter 17) | | | | | |
| Agriculture | N/A | 71 | 115 | 44 | 62.0% |
| Energy | N/A | 125 | 174 | 49 | 39.2% |
| Total Bioenergy | 195 | 196 | 289 | 93 | 47.4% |
| Partnership for a New Gen. Vehicles | 235 | 226 | 255 | 29 | 12.8% |
| Climate Change Tech. Init. (Chap. 17) | 1,021 | 1,099 | 1,432 | 333 | 30.3% |
| Critical Infrastructure Protection R&D | 450 | 461 | 606 | 145 | 31.5% |

Source: OMB supporting data for FY 2001 Budget.

N/A - Agency details for FY 1999 not available.

* - Merges High Performance Computing and Communications and IT².

Table I-11. Total U.S. R&D, 1997-1999

Table I-11. Total U.S. R&D, 1997-1999
(expenditures in millions of dollars)

| (calendar years) | 1997 | 1998 | 1999 | % Change |
|----------------------------------|---------|-------------|----------------|----------|
| | Actual | Preliminary | Preliminary | 1998-99 |
| U.S. R&D by funding source: | | | | |
| Federal Government | 65,016 | 64,853 | 65,853 | 1.5% |
| Industry | 136,394 | 151,105 | 169,312 | 12.0% |
| Universities and Colleges | 4,842 | 5,366 | 5,838 | 8.8% |
| Nonprofits | 3,436 | 3,686 | 3,913 | 6.2% |
| Nonfederal Government | 1,898 | 1,974 | 2,085 | 5.6% |
| Total U.S. R&D | 211,586 | 226,984 | 247,000 | 8.8% |
| U.S. R&D by performer: | | | | |
| Federal Government | 16,814 | 17,189 | 17,362 | 1.0% |
| Industry | 155,409 | 168,291 | 185,892 | 10.5% |
| Universities and Colleges | 25,136 | 26,684 | 28,256 | 5.9% |
| FFRDCs * | 8,562 | 8,715 | 9,171 | 5.2% |
| Nonprofits | 5,665 | 6,105 | 6,319 | 3.5% |
| Total U.S. R&D | 211,586 | 226,984 | 247,000 | 8.8% |
| U.S. R&D by character of work: | | | | |
| Basic Research | 35,495 | 37,695 | 40,224 | 6.7% |
| <i>(from federal sources)</i> | 19,328 | 20,186 | 21,020 | 4.1% |
| <i>(from industry sources)</i> | 10,315 | 11,373 | 12,689 | 11.6% |
| Applied Research | 47,453 | 51,722 | 56,462 | 9.2% |
| Development | 128,638 | 137,566 | 150,315 | 9.3% |
| Total U.S. R&D | 211,586 | 226,984 | 247,000 | 8.8% |
| U.S. GDP** (billions of dollars) | 8,111 | 8,509 | 8,849 | 4.0% |
| U.S. R&D / GDP | 2.61% | 2.67% | 2.79% | |

Source: National Science Foundation, *National Patterns of R&D Resources 1999 Data Update*. The complete data are available at <http://www.nsf.gov/sbe/srs/stats.htm>.

* Federally Funded Research and Development Centers.

** Gross Domestic Product.

These data are based on performer surveys of expenditures for calendar years, and thus differ from data presented elsewhere in this report (agency budget authority data by fiscal year). These data also exclude R&D facilities.

Please see Chapters 1 and 5 for a discussion of the data in this table.

Table I-12. National Patterns of R&D 1999

Table I-12. National Patterns of R&D:
Intersectoral Transfers and Constant Dollar Changes, 1999
(expenditures in millions of dollars)

| | Sources of Funds | | | | Total |
|--|------------------|----------|--------------------------------|-------------------------|---------|
| | Federal Gov't. | Industry | Colleges & Univs. ² | Non-profit Institutions | |
| Preliminary Expenditures, 1999 | | | | | |
| Performers: | | | | | |
| Federal | 17,362 | -- | -- | -- | 17,362 |
| Industry | 19,937 | 165,955 | -- | -- | 185,892 |
| Colleges & Univs. | 16,137 | 2,163 | 7,923 | 2,032 | 28,256 |
| FFRDCs ¹ | 9,171 | -- | -- | -- | 9,171 |
| Nonprofits | 3,246 | 1,194 | -- | 1,880 | 6,319 |
| TOTAL | 65,853 | 169,312 | 7,923 | 3,913 | 247,000 |
| Percent Change in Constant Dollars (1998 to 1999) | | | | | |
| Performers: | | | | | |
| Federal | -0.5% | -- | -- | -- | -0.5% |
| Industry | -3.0% | 10.4% | -- | -- | 8.8% |
| Colleges & Univs. | 2.9% | 7.4% | 6.3% | 4.5% | 4.3% |
| FFRDCs ¹ | 3.6% | -- | -- | -- | 3.6% |
| Nonprofits | -1.8% | 9.0% | -- | 4.5% | 1.9% |
| TOTAL | 0.0% | 10.3% | 6.3% | 4.5% | 7.2% |

Source: National Science Foundation / SRS, *National Patterns of R&D Resources: 1999 Data Update*, 1999. Amounts represent current operating costs based on data from performers of R&D and therefore do not correspond exactly to the figures for R&D elsewhere in this report. In particular, federal (DOD) funding of R&D performed by industry may be significantly understated. Capital expenditures for R&D are generally excluded. Data in calendar years.

Constant dollar conversions based on calendar-year GDP deflators from the NSF report.

¹ Federally funded research and development centers. Includes all FFRDCs (administered by industry, nonprofits, and universities).

² Includes an estimated \$2.1 billion in state and local government funds provided to university and college performers.

"--" - Unknown but assumed to be negligible.

Please see Chapters 1 and 5 for a discussion of the data in this table.

Table I-13. National Funds for R&D by Source of Funds

Table I-13. National Funds for R&D by Source of Funds
(expenditures in millions of dollars)

| | 1970 | 1980 | 1990 | 1999 | Percent Share of Total | | |
|---|---------------|----------------|----------------|----------------|------------------------|---------------|---------------|
| | Actual | Actual | Actual | Prelim. | 1970 | 1980 | 1999 |
| Current Dollars | | | | | | | |
| Federal | 14,984 | 30,035 | 61,668 | 65,853 | 57.0% | 47.4% | 26.7% |
| Industry | 10,449 | 30,940 | 83,382 | 169,312 | 39.8% | 48.9% | 68.5% |
| Colleges and Univs. | 259 | 920 | 3,186 | 5,838 | 1.0% | 1.5% | 2.4% |
| State/Local | 237 | 519 | 1,399 | 2,085 | 0.9% | 0.8% | 0.9% |
| Nonprofits | 343 | 919 | 2,405 | 3,913 | 1.3% | 1.5% | 1.6% |
| TOTAL | 26,271 | 63,332 | 152,039 | 247,000 | 100.0% | 100.0% | 100.0% |
| Constant 1999 Dollars | | | | | | | |
| Federal | 56,259 | 56,973 | 75,398 | 65,853 | | | |
| Industry | 39,232 | 58,690 | 101,947 | 169,312 | | | |
| Colleges and Univs. | 972 | 1,745 | 3,895 | 5,838 | | | |
| State/Local | 890 | 984 | 1,710 | 2,085 | | | |
| Nonprofits | 1,288 | 1,743 | 2,940 | 3,913 | | | |
| TOTAL | 98,637 | 120,134 | 185,890 | 247,000 | | | |
| Total U.S. R&D as % of GDP | 2.54% | 2.27% | 2.65% | 2.79% | | | |

Source: National Science Foundation / SRS, *National Patterns of R&D*

Resources: 1999 Data Update, 1999. Amounts represent current operating costs based on data from performers of R&D and therefore do not correspond exactly to the figures for R&D elsewhere in this report. In particular, federal (DOD) funding of R&D performed by industry may be significantly understated. Capital expenditures for R&D are generally excluded. Data in calendar years.

Constant dollar conversions based on calendar-year GDP deflators from the NSF report.

Please see Chapters 1 and 5 for a discussion of the data in this table.

Table I-14. National Funds for R&D By Performers

Table I-14. National Funds for R&D by Performers
(expenditures in millions of dollars)

| | 1970 | 1980 | 1990 | 1999 | Percent Share of Total | | |
|------------------------------|--------|---------|---------|---------|------------------------|--------|--------|
| | Actual | Actual | Actual | Prelim. | 1970 | 1980 | 1999 |
| Current Dollars | | | | | | | |
| Federal | 4,154 | 7,831 | 15,671 | 17,362 | 15.8% | 12.4% | 7.0% |
| Industry | 17,594 | 43,228 | 107,404 | 185,892 | 67.0% | 68.3% | 75.3% |
| Colleges and | | | | | | | |
| Univs. | 2,418 | 6,455 | 16,935 | 28,256 | 9.2% | 10.2% | 11.4% |
| FFRDCs ¹ | 1,430 | 4,118 | 7,914 | 9,171 | 5.4% | 6.5% | 3.7% |
| Nonprofits | 677 | 1,700 | 4,115 | 6,319 | 2.6% | 2.7% | 2.6% |
| TOTAL | 26,271 | 63,332 | 152,039 | 247,000 | 100.0% | 100.0% | 100.0% |
| Constant 1999 Dollars | | | | | | | |
| Federal | 15,597 | 14,855 | 19,160 | 17,362 | | | |
| Industry | 66,058 | 81,999 | 131,317 | 185,892 | | | |
| Colleges and | | | | | | | |
| Univs. | 9,079 | 12,244 | 20,706 | 28,256 | | | |
| FFRDCs ¹ | 5,369 | 7,811 | 9,676 | 9,171 | | | |
| Nonprofits | 2,542 | 3,225 | 5,031 | 6,319 | | | |
| TOTAL | 98,637 | 120,134 | 185,890 | 247,000 | | | |

Source: National Science Foundation / SRS, *National Patterns of R&D*

Resources: 1999 Data Update, 1999. Amounts represent current operating costs based on data from performers of R&D and therefore do not correspond exactly to the figures for R&D elsewhere in this report. In particular, federal (DOD) funding of R&D performed by industry may be significantly understated. Capital expenditures for R&D are generally excluded. Data in calendar years.

Constant dollar conversions based on calendar-year GDP deflators from the NSF report.

¹ Federally funded research and development centers. Includes all FFRDCs (administered by industry, nonprofits, and universities).

Please see Chapters 1 and 5 for a discussion of the data in this table.

Table I-15. AAAS Analysis of the Outyear Projections for R&D in the FY 2001 Budget, FY 2000-2005

(budget authority in millions of dollars)

| | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | % Chg. FY '00-'05 | |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|
| | Estimate | Budget | Projected | Projected | Projected | Projected | current \$ | constant \$ |
| Defense (military) | 39,282 | 38,576 | 39,094 | 38,271 | 38,157 | 37,046 | -5.7% | -14.6% |
| Health and Human Services | 18,082 | 19,168 | 19,151 | 19,379 | 19,849 | 20,280 | 12.2% | 1.6% |
| <i>Nat'l Institutes of Health</i> | 17,102 | 18,094 | 18,094 | 18,311 | 18,765 | 19,176 | 12.1% | 1.6% |
| NASA | 9,777 | 10,040 | 10,304 | 10,611 | 11,123 | 11,453 | 17.1% | 6.1% |
| Energy | 7,117 | 7,639 | 7,657 | 7,666 | 7,745 | 7,854 | 10.4% | 0.0% |
| <i>Defense</i> | 3,301 | 3,405 | 3,405 | 3,432 | 3,489 | 3,541 | 7.3% | -2.8% |
| <i>Nondefense</i> | 3,816 | 4,234 | 4,252 | 4,235 | 4,256 | 4,313 | 13.0% | 2.4% |
| Nat'l Science Foundation | 2,863 | 3,431 | 3,436 | 3,473 | 3,558 | 3,636 | 27.0% | 15.0% |
| Agriculture | 1,763 | 1,824 | 1,730 | 1,749 | 1,790 | 1,829 | 3.7% | -6.1% |
| Commerce | 1,073 | 1,148 | 1,154 | 1,165 | 1,194 | 1,216 | 13.4% | 2.7% |
| Interior | 573 | 590 | 590 | 601 | 614 | 628 | 9.7% | -0.7% |
| Transportation | 606 | 778 | 784 | 792 | 804 | 814 | 34.3% | 21.6% |
| Environ. Protection Agency | 647 | 673 | 673 | 682 | 698 | 714 | 10.3% | -0.1% |
| All Other | 1,552 | 1,561 | 1,561 | 1,578 | 1,610 | 1,640 | 5.7% | -4.3% |
| Total R&D | 83,334 | 85,427 | 86,132 | 85,968 | 87,141 | 87,109 | 4.5% | -5.3% |
| Defense R&D | 42,583 | 41,981 | 42,498 | 41,703 | 41,646 | 40,587 | -4.7% | -13.7% |
| Nondefense R&D | 40,751 | 43,446 | 43,633 | 44,265 | 45,495 | 46,522 | 14.2% | 3.4% |

The two detailed analyses (one for defense R&D and one for nondefense R&D) containing agency details and methodology are available on the World Wide Web at <http://www.aaas.org/spp/R&D/>.

Please see Chapter 4 for a discussion of this table.

Table I-16. Historical Tables: Federal R&D by Agency, FY 1989-2001

(budget authority in millions of dollars)

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000** | 2001*** |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| DOD | 38,578 | 37,869 | 37,209 | 37,779 | 38,848 | 35,510 | 35,349 | 35,783 | 37,238 | 37,569 | 38,888 | 39,282 | 38,576 |
| NASA | 5,920 | 7,112 | 8,124 | 8,544 | 8,815 | 9,406 | 9,459 | 9,432 | 9,352 | 9,751 | 9,717 | 9,777 | 10,040 |
| DOE | 6,255 | 6,988 | 7,339 | 8,133 | 7,444 | 6,771 | 6,416 | 6,273 | 6,217 | 6,351 | 6,966 | 7,117 | 7,639 |
| NIH * | 7,551 | 8,107 | 8,977 | 9,624 | 9,891 | 10,474 | 10,762 | 11,425 | 12,217 | 13,110 | 14,995 | 17,102 | 18,094 |
| NSF | 1,762 | 1,729 | 1,893 | 1,972 | 2,014 | 2,243 | 2,396 | 2,391 | 2,424 | 2,501 | 2,670 | 2,863 | 3,431 |
| USDA | 1,139 | 1,223 | 1,391 | 1,519 | 1,467 | 1,528 | 1,487 | 1,488 | 1,556 | 1,561 | 1,645 | 1,763 | 1,824 |
| Interior | 480 | 531 | 620 | 643 | 649 | 708 | 668 | 571 | 591 | 536 | 499 | 573 | 590 |
| DOT | 326 | 354 | 411 | 621 | 621 | 641 | 666 | 601 | 612 | 590 | 607 | 606 | 778 |
| EPA | 397 | 424 | 459 | 493 | 497 | 588 | 554 | 482 | 595 | 637 | 669 | 647 | 673 |
| Commerce | 427 | 453 | 537 | 583 | 793 | 1,022 | 1,118 | 966 | 964 | 1,091 | 1,084 | 1,073 | 1,148 |
| All Other * | 1,450 | 1,656 | 1,787 | 2,029 | 1,890 | 2,185 | 2,073 | 1,794 | 2,166 | 2,247 | 2,431 | 2,532 | 2,635 |
| Total R&D | 64,284 | 66,446 | 68,747 | 71,941 | 72,928 | 71,074 | 70,948 | 71,206 | 73,934 | 75,942 | 80,171 | 83,334 | 85,427 |
| Defense R&D | 41,579 | 40,978 | 40,375 | 41,231 | 42,114 | 38,299 | 37,833 | 38,465 | 40,047 | 40,571 | 42,085 | 42,583 | 41,981 |
| Nondef. R&D | 22,705 | 25,467 | 28,372 | 30,709 | 30,815 | 32,775 | 33,115 | 32,741 | 33,886 | 35,371 | 38,086 | 40,751 | 43,446 |
| Basic Res. | 10,618 | 11,279 | 12,407 | 12,943 | 13,444 | 13,693 | 13,772 | 14,442 | 14,961 | 15,523 | 17,433 | 18,965 | 20,259 |

(continued)

Table I-16 (continued). Historical Tables: Federal R&D by Agency, FY 1989-2001 in constant FY 2000 dollars

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000** | 2001*** |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| (in constant FY 2000 dollars) | | | | | | | | | | | | | |
| DOD | 49,116 | 46,448 | 44,012 | 43,677 | 43,804 | 39,139 | 38,156 | 37,894 | 38,776 | 38,627 | 39,469 | 39,282 | 37,819 |
| NASA | 7,536 | 8,723 | 9,609 | 9,878 | 9,939 | 10,367 | 10,210 | 9,989 | 9,738 | 10,025 | 9,862 | 9,777 | 9,843 |
| DOE | 7,964 | 8,571 | 8,681 | 9,403 | 8,394 | 7,463 | 6,925 | 6,643 | 6,474 | 6,530 | 7,070 | 7,117 | 7,489 |
| NIH * | 9,613 | 9,944 | 10,619 | 11,127 | 11,152 | 11,544 | 11,617 | 12,099 | 12,722 | 13,479 | 15,220 | 17,102 | 17,739 |
| NSF | 2,243 | 2,120 | 2,240 | 2,280 | 2,270 | 2,472 | 2,586 | 2,532 | 2,525 | 2,571 | 2,710 | 2,863 | 3,363 |
| USDA | 1,450 | 1,500 | 1,645 | 1,756 | 1,654 | 1,685 | 1,605 | 1,575 | 1,621 | 1,605 | 1,670 | 1,763 | 1,788 |
| Interior | 611 | 651 | 733 | 743 | 732 | 780 | 721 | 605 | 616 | 551 | 506 | 573 | 578 |
| DOT | 415 | 434 | 486 | 718 | 700 | 706 | 719 | 636 | 637 | 606 | 616 | 606 | 763 |
| EPA | 506 | 520 | 543 | 569 | 560 | 648 | 598 | 511 | 620 | 655 | 679 | 647 | 659 |
| Commerce | 543 | 555 | 635 | 674 | 894 | 1,126 | 1,207 | 1,023 | 1,004 | 1,122 | 1,100 | 1,073 | 1,126 |
| All Other * | 1,846 | 2,032 | 2,113 | 2,346 | 2,131 | 2,408 | 2,238 | 1,900 | 2,255 | 2,310 | 2,467 | 2,532 | 2,583 |
| Total R&D | 81,843 | 81,499 | 81,316 | 83,172 | 82,230 | 78,338 | 76,581 | 75,407 | 76,987 | 78,080 | 81,370 | 83,334 | 83,751 |
| Defense R&D | 52,936 | 50,262 | 47,757 | 47,668 | 47,485 | 42,214 | 40,837 | 40,734 | 41,701 | 41,714 | 42,715 | 42,583 | 41,157 |
| Nondef. R&D | 28,906 | 31,237 | 33,559 | 35,504 | 34,745 | 36,125 | 35,744 | 34,672 | 35,286 | 36,367 | 38,655 | 40,751 | 42,594 |
| Basic Res. | 13,518 | 13,834 | 14,676 | 14,964 | 15,159 | 15,093 | 14,866 | 15,294 | 15,579 | 15,960 | 17,693 | 18,965 | 19,861 |

Source: AAAS Reports VII through XXV, based on OMB and agency R&D budget data.

Constant dollar conversions based on OMB's GDP deflators from the FY 2001 budget.

* Between FY 1991 and 1992, R&D from ADAMHA (HHS) transferred to NIH. ADAMHA R&D included in NIH totals for all years.

** - Latest estimate for FY 2000. *** - AAAS estimates of President's FY 2001 request.

The full version of this table ('76-'01) is available on the World Wide Web at www.aaas.org/spp/R&D/.

Table I-17. "21st Century Research Fund"

Table I-17. "21st Century Research Fund" by Agency

(budget authority in millions of dollars)

| | FY 1999 | FY 2000 | FY 2001 | Change FY 00-01 | |
|--|---------|----------|---------------|-----------------|---------|
| | Actual | Estimate | Budget | Amount | Percent |
| Health and Human Services | 15,612 | 17,813 | 18,813 | 1,000 | 5.6% |
| <i>(National Institutes of Health)</i> | 15,612 | 17,813 | 18,813 | 1,000 | 5.6% |
| National Science Foundation | 3,672 | 3,897 | 4,572 | 675 | 17.3% |
| Department of Energy | 3,583 | 3,680 | 4,221 | 541 | 14.7% |
| <i>(Science programs)</i> | 2,721 | 2,788 | 3,151 | 363 | 13.0% |
| <i>(Energy programs)</i> | 862 | 892 | 1,070 | 178 | 20.0% |
| NASA | 4,996 | 4,895 | 5,165 | 270 | 5.5% |
| <i>(Space Science)</i> | 2,119 | 2,193 | 2,399 | 206 | 9.4% |
| <i>(Earth Science)</i> | 1,414 | 1,443 | 1,406 | -37 | -2.6% |
| <i>(Aero-Space Technology)</i> | 1,199 | 984 | 1,058 | 74 | 7.5% |
| <i>(Life and Microgravity Scis.)</i> | 264 | 275 | 302 | 27 | 9.8% |
| Department of Defense | 4,120 | 4,582 | 4,361 | -221 | -4.8% |
| <i>(Basic Research)</i> | 1,068 | 1,167 | 1,217 | 50 | 4.3% |
| <i>(Applied Research)</i> | 3,052 | 3,415 | 3,144 | -271 | -7.9% |
| Agriculture | 1,531 | 1,573 | 1,649 | 76 | 4.8% |
| <i>(CSREES Res. And Edu.)</i> | 486 | 487 | 469 | -18 | -3.7% |
| <i>(Economic Research Service)</i> | 54 | 53 | 55 | 2 | 3.8% |
| <i>(Agricultural Res. Service)</i> | 794 | 830 | 894 | 64 | 7.7% |
| <i>(Forest Service Research)</i> | 197 | 203 | 231 | 28 | 13.8% |
| Commerce | 827 | 835 | 862 | 27 | 3.2% |
| <i>(OAR in NOAA)</i> | 287 | 301 | 303 | 2 | 0.7% |
| <i>(NIST minus MEP)</i> | 540 | 534 | 559 | 25 | 4.7% |
| Interior (USGS) | 797 | 813 | 895 | 82 | 10.1% |
| Environmental Protection Agency | 671 | 664 | 758 | 94 | 14.2% |
| Veterans Affairs | 316 | 321 | 321 | 0 | 0.0% |
| Education | 289 | 319 | 379 | 60 | 18.8% |
| Transportation | 618 | 646 | 899 | 253 | 39.2% |
| <i>(Highway Research)</i> | 468 | 490 | 715 | 225 | 45.9% |
| <i>(Aviation Research)</i> | 150 | 156 | 184 | 28 | 17.9% |
| Total "21st Century Fund" | 37,032 | 40,038 | 42,895 | 2,857 | 7.1% |

OMB data from the *Budget of the U.S. Government FY 2001*.

The programs in the 21st Century Research Fund do not correspond to definitions of R&D.

The Fund contains selected R&D and non-R&D programs

with a science and technology-oriented mission.

Please see Chapters 1 and 7 for a discussion of this table.