

Table II-7. NSF R&amp;D

**Table II-7.** R&D in the National Science Foundation  
(budget authority in millions of dollars) \*

|  | FY 2001<br>Actual | FY 2002<br>Estimate | FY 2003<br>Budget | Change FY 02-03 |         |
|--|-------------------|---------------------|-------------------|-----------------|---------|
|  |                   |                     |                   | Amount          | Percent |
| 1. Research and Related Activities (R&RA)                                      |                   |                     |                   |                 |         |
| Mathematical and Physical Sciences (MPS)                                       |                   |                     |                   |                 |         |
| Mathematical Sciences  | 121               | 151                 | <b>182</b>        | 30              | 20.1%   |
| Astronomical Sciences  | 149               | 166                 | <b>161</b>        | -5              | -2.8%   |
| Physics  | 188               | 196                 | <b>193</b>        | -3              | -1.3%   |
| Chemistry  | 154               | 163                 | <b>161</b>        | -2              | -1.3%   |
| Materials Research   | 210               | 220                 | <b>219</b>        | 0               | -0.1%   |
| Multidisciplinary Activities   | 32                | 25                  | <b>25</b>         | 0               | 0.8%    |
| Total MPS  | 854               | 920                 | <b>942</b>        | 21              | 2.3%    |
| Engineering (ENG)  |                   |                     |                   |                 |         |
| Bioengineering & Env. Sys.   | 39                | 42                  | <b>44</b>         | 2               | 5.0%    |
| Chemical & Transport System<br>Design, Manufacture, &<br>Industrial Innovation | 51                | 57                  | <b>59</b>         | 2               | 3.8%    |
| Electrical & Commun. Sys.  | 127               | 136                 | <b>141</b>        | 5               | 3.7%    |
| Engineering Edu. & Centers   | 54                | 65                  | <b>67</b>         | 2               | 2.9%    |
| Civil & Mechanical Systems   | 109               | 117                 | <b>119</b>        | 3               | 2.4%    |
|  | 53                | 56                  | <b>58</b>         | 2               | 3.0%    |
| Total ENG  | 433               | 472                 | <b>488</b>        | 16              | 3.3%    |
| Biological Sciences (BIO)  |                   |                     |                   |                 |         |
| Molecular and Cellular Biosci  | 114               | 115                 | <b>112</b>        | -3              | -2.7%   |
| Integrative Biology & Neurosci   | 96                | 101                 | <b>99</b>         | -3              | -2.7%   |
| Environmental Biology  | 97                | 102                 | <b>100</b>        | -3              | -2.7%   |
| Biological Infrastructure  | 69                | 69                  | <b>72</b>         | 4               | 5.5%    |
| Emerging Frontiers   | 45                | 46                  | <b>68</b>         | 22              | 47.2%   |
| Plant Genome Research  | 65                | 75                  | <b>75</b>         | 0               | 0.0%    |
| Total BIO  | 486               | 508                 | <b>526</b>        | 17              | 3.4%    |
| Geosciences (GEO)  |                   |                     |                   |                 |         |
| Atmospheric Sciences   | 189               | 202                 | <b>219</b>        | 17              | 8.4%    |
| Earth Sciences   | 116               | 126                 | <b>153</b>        | 27              | 21.2%   |
| Ocean Sciences   | 259               | 281                 | <b>319</b>        | 38              | 13.5%   |
| Total GEO  | 564               | 609                 | <b>691</b>        | 82              | 13.4%   |
| Computer and Information Science and Engineering (CISE)                        |                   |                     |                   |                 |         |
| Computer-Communications Res  | 66                | 70                  | <b>70</b>         | 0               | 0.5%    |
| Information and Intelligent Sys  | 49                | 52                  | <b>51</b>         | -1              | -2.8%   |
| Experimental and Integrative<br>Activities                                     | 61                | 63                  | <b>62</b>         | -1              | -0.8%   |

(continued)

Table II-7. NSF R&amp;D

**Table II-7 (continued).** R&D in the National Science Foundation  
(budget authority in millions of dollars) \*

|   | FY 2001      | FY 2002      | FY 2003      | Change FY 02-03 |             |
|---|--------------|--------------|--------------|-----------------|-------------|
|   | Actual       | Estimate     | Budget       | Amount          | Percent     |
| Adv. Networking Infra. and Res.                 | 65           | 70           | <b>68</b>    | -2              | -2.8%       |
| Adv. Compu. Infra. and Res.                     | 82           | 87           | <b>85</b>    | -2              | -1.8%       |
| Information Tech. Research                      | 155          | 174          | <b>191</b>   | 17              | 9.9%        |
| Total CISE                                      | 478          | 515          | <b>527</b>   | 12              | 2.3%        |
| Social, Behavioral, and Economic Sciences (SBE) |              |              |              |                 |             |
| Social & Economic Scis.                         | 66           | 68           | <b>78</b>    | 10              | 13.9%       |
| Behavioral & Cognitive Scis.                    | 57           | 59           | <b>65</b>    | 7               | 11.6%       |
| Int'l. Sci. and Engineering                     | 38           | 26           | <b>27</b>    | 1               | 3.9%        |
| Science Resources Statistics                    | 16           | 16           | <b>26</b>    | 10              | 58.8%       |
| Total SBE                                       | 177          | 169          | <b>196</b>   | 27              | 15.9%       |
| US Polar Programs                               |              |              |              |                 |             |
| Polar Research Programs                         | 214          | 230          | <b>236</b>   | 6               | 2.6%        |
| Antarctic Logistical Support                    | 68           | 68           | <b>68</b>    | 0               | 0.0%        |
| Total Polar Programs                            | 282          | 298          | <b>304</b>   | 6               | 2.0%        |
| Integrative Activities                          | 98           | 107          | <b>111</b>   | 4               | 3.8%        |
| BA Adjustment *                                 | -15          | 0            | <b>0</b>     | 0               | --          |
| <b>Total R&amp;RA *</b>                         | <b>3,357</b> | <b>3,599</b> | <b>3,783</b> | <b>185</b>      | <b>5.1%</b> |
| 2. Major Research Equipment                     | 122          | 139          | <b>126</b>   | -13             | -9.0%       |
| 3. Education & Human Resources (EHR)            |              |              |              |                 |             |
| Educational System Reform                       | 110          | 45           | <b>40</b>    | -5              | -10.9%      |
| Elem., Secondary, & Informal                    | 203          | 165          | <b>171</b>   | 6               | 3.7%        |
| Undergraduate Education                         | 141          | 142          | <b>136</b>   | -7              | -4.8%       |
| Graduate Education                              | 88           | 106          | <b>128</b>   | 23              | 21.7%       |
| Human Resource Develop.                         | 90           | 97           | <b>90</b>    | -7              | -7.4%       |
| Math & Science Partnerships                     | 0            | 160          | <b>200</b>   | 40              | 25.0%       |
| Res., Eval.. And Commun.                        | 74           | 68           | <b>67</b>    | -1              | -1.3%       |
| EPSCoR <sup>1</sup>                             | 89           | 91           | <b>75</b>    | -16             | -17.6%      |
| BA Adjustment *                                 | -10          | 0            | <b>0</b>     | 0               | --          |
| Total EHR                                       | 785          | 875          | <b>908</b>   | 33              | 3.8%        |

(continued)

Table II-7. NSF R&D

**Table II-7 (continued).** R&D in the National Science Foundation  
(budget authority in millions of dollars) \*

|                                       | FY 2001<br>Actual | FY 2002<br>Estimate | FY 2003<br>Budget | Change FY 02-03 |         |
|---------------------------------------|-------------------|---------------------|-------------------|-----------------|---------|
|                                       |                   |                     |                   | Amount          | Percent |
| 4. Salaries and Expenses              | 167               | 176                 | 210               | 34              | 19.1%   |
| 5. Inspector General                  | 6                 | 7                   | 8                 | 1               | 19.2%   |
| Total NSF Budget *                    | 4,437             | 4,796               | <b>5,036</b>      | 240             | 5.0%    |
| <b>Deduct non-R&amp;D Activities:</b> |                   |                     |                   |                 |         |
| <i>R&amp;RA non-R&amp;D</i>           | 320               | 357                 | <b>396</b>        | 38              | 10.7%   |
| <i>EHR non-R&amp;D</i>                | 624               | 729                 | <b>771</b>        | 42              | 5.7%    |
| <i>Salaries and Expenses</i>          | 167               | 176                 | <b>210</b>        | 34              | 19.1%   |
| <i>Inspector General</i>              | 6                 | 7                   | <b>8</b>          | 1               | 19.2%   |
| <b>Total NSF R&amp;D</b>              | 3,320             | 3,526               | <b>3,651</b>      | 125             | 3.5%    |
| Conduct of R&D                        | 3,032             | 3,250               | <b>3,404</b>      | 154             | 4.7%    |
| R&D Facilities                        | 288               | 276                 | <b>247</b>        | -29             | -10.4%  |

Source: NSF budget justification and Quantitative Data Tables.

\* - Directorate detailed figures are in obligations. BA adjustment converts obligations to budget authority.

Does not include funding from H-1B Nonimmigrant Petitioner Fees.

<sup>1</sup> Experimental Program to Stimulate Competitive Research.

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

**Please see Chapter 7 for information on the NSF budget.**