NSF and Geosciences Funding Opportunities

AMS/UCAR & AGU Heads and Chairs Meeting

Jarvis Moyers

October 12, 2006
President’s American Competitiveness Initiative

Double the NSF budget over 10 years
<table>
<thead>
<tr>
<th>Appropriations Account</th>
<th>FY 2007 Request</th>
<th>Change over FY 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research &amp; Related Activities</td>
<td>$4,666</td>
<td>$334 7.7%</td>
</tr>
<tr>
<td>Education &amp; Human Resources</td>
<td>$816</td>
<td>$20 2.5%</td>
</tr>
<tr>
<td>Major Research Equipment &amp; Facilities Construction</td>
<td>$240</td>
<td>$50 26.0%</td>
</tr>
<tr>
<td>Salaries &amp; Expenses</td>
<td>$282</td>
<td>$35 14.2%</td>
</tr>
<tr>
<td>National Science Board</td>
<td>$4</td>
<td>($0.04) 1.0%</td>
</tr>
<tr>
<td>Inspector General</td>
<td>$12</td>
<td>$0.5 4.4%</td>
</tr>
<tr>
<td>TOTAL, NSF</td>
<td>$6,020</td>
<td>$439 7.9%</td>
</tr>
</tbody>
</table>
# Budget Request by Division

## Geosciences Funding
(Dollars in Millions)

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Atmospheric Sciences (ATM)</td>
<td>215.32</td>
<td>216.09</td>
<td>226.85</td>
<td>10.76</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.0%</td>
</tr>
<tr>
<td>Earth Sciences (EAR)</td>
<td>136.95</td>
<td>140.12</td>
<td>152.30</td>
<td>12.18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.7%</td>
</tr>
<tr>
<td>Ocean Sciences (OCE)</td>
<td>290.79</td>
<td>288.25</td>
<td>307.13</td>
<td>18.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.5%</td>
</tr>
<tr>
<td>Innovative &amp; Collaborative Education and Research (ICER)</td>
<td>54.11</td>
<td>58.37</td>
<td>58.57</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Total, GEO</strong></td>
<td><strong>$697.17</strong></td>
<td><strong>$702.83</strong></td>
<td><strong>$744.85</strong></td>
<td><strong>42.02</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>6.0%</strong></td>
</tr>
</tbody>
</table>

Totals may not add due to rounding.
FY 2008 Budget Preparation

- OMB guidance positive for FY 2008
  - Guidance and Request Level
- NSF is preparing budget request under positive guidance
  - Several initiatives will be of direct benefit to GEO.
NSF Budget

Senate resolution
- $5.992B
- 7.4% increase over 2006 (0.5% less than Presidential request)

House resolution
- $6.02B (Presidential request)
- 7.9% increase over 2006
Continuing resolution
- No budget action until at least post-election
- Depending on election, could be postponed longer
- Potential for an omnibus appropriation bill
- Potential for a recission in omnibus
What Are We Concerned About?

- Success rate for research proposals was 20% in FY05, down from 30% in FY00
- Potential impact on merit review
  - Increased workload on reviewer community
  - Increased workload on NSF staff
- Potential loss of capacity
All R&RA directorates experienced a decline in funding rates between FY 2000 and FY 2005.

Funding Rate for Select Directorates
Competitive Research Grants
Decrease in proposal success rates coincides with increases in proposal submissions and average award size/duration.

NSF Average Annual Award Size vs. Funding Rate for Competitive Research Grants

- Average Annual Award Size
- Funding Rate
Average Number of Proposals Submitted for One Award

Number of Proposals

- 1997-1999
- 1998-2000
- 1999-2001
- 2000-2002
- 2001-2003
- 2002-2004
- 2003-2005
Observations

- # of PIs submitting to NSF increased from FY 2000-2005
  - 29% increase in first-time submitters
  - 38% increase overall
- 30% increase in # proposals PIs submit to gain a single award
  - 1998-2000: 1.7 per PI
  - 2003-2005: 2.2 per PI
What is the likelihood that a given proposal will be funded?

Research proposal success rates dropped from 30% in FY 2000 to 20% in FY 2005, leveled off in FY 2006 (21%)

Coincided with:

- 37% increase in proposal submissions (began in FY 2000, peaked in FY 2004, leveled off in FY 2005 and 2006)
- 41% increase in average award size
- 39% increase in median award size

Research proposal success rates varied across the R&RA directorates, however all experienced declines
What is the likelihood that a given PI will be funded?

Over a three-year period, PI success rate significantly higher than proposal success rate, however this is also decreasing

- 1998-2000: 44.4% PI success rate
- 2003-2005: 36.8% PI success rate

Total # of PIs receiving awards increased 9.3%

- Masked by greater increases in proposal submissions rates and in # of PIs submitting
# Status of Budget for FY 2007 by Account

($ in millions)

<table>
<thead>
<tr>
<th>NSF ACCT</th>
<th>C.P. FY06</th>
<th>Req. FY07</th>
<th>House FY07</th>
<th>% Chg/ FY 06</th>
<th>Senate FY07</th>
<th>% Chg/ FY 06</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;RA</td>
<td>$4,331</td>
<td>$4,666</td>
<td>$4,666</td>
<td>7.72%</td>
<td>$4646</td>
<td>7.27%</td>
</tr>
<tr>
<td>EHR</td>
<td>$797</td>
<td>$816</td>
<td>$832</td>
<td>4.48%</td>
<td>$836</td>
<td>4.90%</td>
</tr>
<tr>
<td>MRE</td>
<td>$191</td>
<td>$240</td>
<td>$237</td>
<td>24.40%</td>
<td>$237</td>
<td>24.40%</td>
</tr>
<tr>
<td>S&amp;E</td>
<td>$247</td>
<td>$282</td>
<td>$268</td>
<td>8.67%</td>
<td>$257</td>
<td>3.93%</td>
</tr>
<tr>
<td>OIG</td>
<td>$11.4</td>
<td>$11.9</td>
<td>$11.9</td>
<td>4.40%</td>
<td>$11.9</td>
<td>4.40%</td>
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<tr>
<td>NSB</td>
<td>$3.95</td>
<td>$3.91</td>
<td>$3.91</td>
<td>-1.01%</td>
<td>$3.91</td>
<td>-1.01%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$5,581</td>
<td>$6,020</td>
<td>$6,020</td>
<td>7.86%</td>
<td>$5,992</td>
<td>7.36%</td>
</tr>
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