Engaging with the National Science Foundation

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[PUBLIC LAW 507-81ST CONGRESS]
[CHAPTER 171-2D SESSION]
[S. 247]

AN ACT

To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "National Science Foundation Act of 1950".

ESTABLISHMENT OF NATIONAL SCIENCE FOUNDATION

SEC. 2. There is hereby established in the executive branch of the Government an independent agency to be known as the National Science Foundation (hereinafter referred to as the "Foundation"). The Foundation shall consist of a National Science Board (hereinafter referred to as the "Board") and a Director.
• To develop and encourage the pursuit of a national policy for the promotion of basic research and education in the sciences

• To initiate and support basic scientific research in the mathematical, physical, medical, biological, engineering, and other sciences, by making contracts or other arrangements (including grants, loans, and other forms of assistance) for the conduct of such basic scientific research and to appraise the impact of research upon industrial development and upon the general welfare

• To award … scholarships and graduate fellowships in the mathematical, physical, medical, biological, engineering, and other sciences

see The Role of Federal Research in the Nation’s Prosperity and Security, NSB Keynote May 21, 2001, by Newt Gingrich
• To foster the interchange of scientific information among scientists in the United States and foreign countries

• In exercising the authority and discharging the functions referred to in subsection (a) of this section, it shall be one of the objectives of the Foundation to strengthen basic research and education in the sciences, including independent research by individuals, throughout the United States, including its Territories and possessions, and to avoid undue concentration of such research and education.
F is usually thinking about three budgets:
1. FY 2017 (omnibus appropriation bills passed May 2017)
2. FY 2018 (submitted May 2017, in hands of Congress)
3. FY 2019 (developing now)
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2. FY 2018 (submitted May 2017, in hands of Congress)
3. FY 2019 (developing now)
NSF is usually thinking about three budgets:

1. FY 2017-18 (omnibus appropriation bills passed May 2017)
2. FY 2018-19 (submitted May 2017)
3. FY 2019-20 (developing now)

## CISE Major Investments

<table>
<thead>
<tr>
<th>Area of Investment</th>
<th>FY 2016 Actual</th>
<th>FY 2017 (TBD)</th>
<th>FY 2018 Request</th>
<th>Change Over FY 2016 Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAREER</td>
<td>$45.20</td>
<td></td>
<td>$37.30</td>
<td>-$7.90 [-17.5%]</td>
</tr>
<tr>
<td>CEMSS</td>
<td>91.93</td>
<td></td>
<td>72.70</td>
<td>-19.23 [-20.9%]</td>
</tr>
<tr>
<td>Advanced Manufacturing</td>
<td>43.25</td>
<td></td>
<td>37.00</td>
<td>-6.25 [-14.5%]</td>
</tr>
<tr>
<td>CIF21</td>
<td>87.50</td>
<td></td>
<td></td>
<td>-87.50 [-100.0%]</td>
</tr>
<tr>
<td>HDR</td>
<td></td>
<td>50.00</td>
<td></td>
<td>50.00 N/A</td>
</tr>
<tr>
<td>INFEWS</td>
<td>8.00</td>
<td></td>
<td></td>
<td>-8.00 [-100.0%]</td>
</tr>
<tr>
<td>IUSE</td>
<td>1.98</td>
<td>2.00</td>
<td></td>
<td>0.02 [1.0%]</td>
</tr>
<tr>
<td>NRT</td>
<td>7.69</td>
<td>3.00</td>
<td></td>
<td>-4.69 [-61.0%]</td>
</tr>
<tr>
<td>NSCI*</td>
<td></td>
<td>97.00</td>
<td>97.00</td>
<td>N/A</td>
</tr>
<tr>
<td>NSF I-Corps™</td>
<td>11.71</td>
<td>9.65</td>
<td></td>
<td>-2.06 [-17.6%]</td>
</tr>
<tr>
<td>NSF INCLUDES</td>
<td>1.72</td>
<td>1.78</td>
<td></td>
<td>0.06 [3.5%]</td>
</tr>
<tr>
<td>R&amp;R</td>
<td>5.98</td>
<td></td>
<td></td>
<td>-5.98 [-100.0%]</td>
</tr>
<tr>
<td>SaTC</td>
<td>70.90</td>
<td>65.50</td>
<td></td>
<td>-5.40 [-7.6%]</td>
</tr>
<tr>
<td>S&amp;CC</td>
<td>13.50</td>
<td>16.50</td>
<td></td>
<td>3.00 [22.2%]</td>
</tr>
<tr>
<td>Understanding the Brain</td>
<td>30.60</td>
<td>22.15</td>
<td></td>
<td>-8.45 [-27.6%]</td>
</tr>
<tr>
<td>BRAIN Initiative</td>
<td>9.80</td>
<td>9.50</td>
<td></td>
<td>-0.30 [-3.1%]</td>
</tr>
</tbody>
</table>

- **Major investments may have funding overlap and thus should not be summed.**
- **This includes $60 million in FY 2018 as part of OAC's HPC investment for a leadership-class computing resource (see HPC Appendix for more information).**
Building the FY 2020 budget
October 1, 2019 – September 30, 2020

• Summer 2018 (FY 2018): NSF Director retreat
• Summer – Fall 2018 (FY 2018 – FY 2019): NSF prepares draft budget request for OMB
  • OMB and OSTP release Administration Research and Development FY 2021 Budget Priorities memo
• Budget passback from OMB between Thanksgiving and Christmas 2018
• Budget revised and sent back to OMB late 2018 – early 2019
• President’s budget submitted to Congress shortly after State of the Union address, February 2019

• House, Senate pass appropriation bills by October 1, 2019
New program discussions happen at all levels in NSF

- Assistant Directors
- Division Directors
- Program Officers

Ideas come from the community:

- Workshops and community generated reports
- National Academy of Sciences
- FACAs
  - PCAST
  - COV
  - Advisory boards
- Evaluation of existing portfolios
  - Where was the proposal pressure?
  - Where did we not get the proposals we expected to get?
  - Formal program reviews. eg, by the Science and Technology Policy Institute (STPI)
Some tensions

- flat budgets in the face of growing departments
- core programs versus crosscutting programs
- small, medium, large
- international
How to get engaged

Paying attention
  • NSF updates
  • National Academy of Science reports
  • CCC reports

Giving of your time
  • visit NSF
  • serve on panels
  • serve at NSF
Thank you!

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