Antony DiGiovanni
Division Director (Acting)
Budget Division
Office of Budget, Finance & Award Management
Topics Covered

- Origins of NSF
- NSF Organization
- NSF Budget in the Federal Context
- NSF Fiscal Year 2018 Budget
- Funding Trends
- Key Documents
- Questions

“Ask Early, Ask Often!”
NSF Mission

“To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense...”
NSF in a Nutshell

- Independent Agency
- Supports basic research & education
- Uses grant mechanism
- Low overhead; highly automated
- Discipline-based structure
- Cross-disciplinary mechanisms
- Use of Rotators/IPAs
- National Science Board
Basic research results in general knowledge and an understanding of nature and its laws. This general knowledge provides the means of answering a large number of important practical problems.
- Vannevar Bush
How NSF is Organized

National Science Board (NSB)
Director Deputy Director

Office of the Inspector General (OIG)

Biological Sciences (BIO)
Computer & Information Science & Engineering (CISE)
Engineering (ENG)
Geosciences (GEO)

Mathematical & Physical Sciences (MPS)

Office of Diversity & Inclusion
Office of the General Counsel
Office of Integrative Activities
Office of International Science & Engineering
Office of Legislative & Public Affairs

Social, Behavioral & Economic Sciences (SBE)
Education & Human Resources (EHR)
Budget, Finance & Award Management (BFA)
Information & Resource Management (IRM)
NSF by the Numbers

93% funds research, education and related activities

$7.5B FY 2017 enacted

49,000 proposals evaluated

2,000 NSF-funded institutions

11,000 Awards funded

353,000 people NSF supported

Fund STEM education & workforce

Fund research in all S&E disciplines

231 NSF-funded Nobel Prize winners
NSF Support of Academic Basic Research in Selected Fields

As a Percentage of Total Federal Support

- **Computer Science**: 83%
- **Biology**: 69%
- **Social and Psychological Sciences**: 68%
- **Mathematics**: 64%
- **Environmental Sciences**: 63%
- **Engineering**: 46%
- **Physical Sciences**: 45%
- **All Science and Engineering Fields**: 27%

**Note**: Biology includes Biological Science and Environmental Science. Biology and Psychological Sciences exclude National Institutes of Health funding from the total amount of federal support.

**Source**: NSF/National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development
FY 2018 Request: Total R&D by Agency

Budget Authority in Billions of Dollars

- Agriculture, $2.0
- Commerce (NIST, NOAA), $1.6
- NSF, $5.4
- Energy, $13.4
- NASA, $10.3
- HHS (NIH), $26.1
- Defense, $53.4
- All Other, $5.0

Total R&D = $118 billion
Total NSF Request

NSF FY 2018 Budget Request
Total: $6.65 billion
## FY 2018 Budget Request

### NSF Budget by Appropriation

<table>
<thead>
<tr>
<th>NSF Budget by Appropriation ($ in Millions)</th>
<th>FY 2018 Request</th>
<th>Change over FY 2017 Enacted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>Percent</td>
</tr>
<tr>
<td>Research &amp; Related Activities</td>
<td>$5,362</td>
<td>-$672</td>
</tr>
<tr>
<td>Education &amp; Human Resources</td>
<td>$761</td>
<td>-$119</td>
</tr>
<tr>
<td>Major Research Equipment &amp; Facilities Construction</td>
<td>$183</td>
<td>-$26</td>
</tr>
<tr>
<td>Agency Operations &amp; Award Management</td>
<td>$329</td>
<td>-$1</td>
</tr>
<tr>
<td>National Science Board</td>
<td>$4</td>
<td>-</td>
</tr>
<tr>
<td>Office of Inspector General</td>
<td>$15</td>
<td>*</td>
</tr>
<tr>
<td><strong>Total NSF</strong></td>
<td>$6,653</td>
<td>-$819</td>
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</tbody>
</table>

Totals may not add due to rounding.

* denotes <$50,000 or <1%
# FY 2018 Budget Request

**NSF Budget by Appropriation ($ in Millions)**

<table>
<thead>
<tr>
<th>Appropriation</th>
<th>FY 2017 Enacted</th>
<th>FY 2018 Request</th>
<th>FY 2018 House</th>
<th>FY 2018 Senate</th>
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<tbody>
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<td>Research &amp; Related Activities</td>
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<td>$5,362</td>
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<td>Education &amp; Human Resources</td>
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<td>Major Research Equipment &amp; Facilities Construction</td>
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<td>Agency Operations &amp; Award Management</td>
<td>$330</td>
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<td>National Science Board</td>
<td>$4</td>
<td>$4</td>
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<tr>
<td>Office of Inspector General</td>
<td>$15</td>
<td>$15</td>
<td>$15</td>
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<tr>
<td><strong>Total NSF</strong></td>
<td><strong>$7,472</strong></td>
<td><strong>$6,653</strong></td>
<td><strong>$7,340</strong></td>
<td><strong>$7,311</strong></td>
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Totals may not add due to rounding.
What to Watch

- FY 2018 Continuing Resolution through December 8, 2017
- FY 2018 House and Senate votes on Appropriations Bills

- FY 2019 OMB Budget submitted September 11, 2017
- FY 2019 President’s Budget Request submitted to Congress February 2018
NSF Appropriations Dates Versus Start of Federal Fiscal Year Oct. 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Days from October 1</th>
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<tr>
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<td>1991</td>
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</table>

Days from October 1
NSF Funding Profile, FY 2016 - 2018

Research Grants Awards

<table>
<thead>
<tr>
<th>Year</th>
<th>Competitive Proposals</th>
<th>Awards</th>
<th>Funding Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2016</td>
<td>8,800</td>
<td>41,100</td>
<td>21%</td>
</tr>
<tr>
<td>FY 2017</td>
<td>9,300</td>
<td>43,200</td>
<td>22%</td>
</tr>
<tr>
<td>FY 2018</td>
<td>8,000</td>
<td>42,100</td>
<td>19%</td>
</tr>
</tbody>
</table>
NSF Competitive Awards, Declines & Funding Rates
Distribution by Average Reviewer Ratings

- No Score: 5,702 Declines, 2,865 Awards
- Poor to Fair: 1,267 Declines, 3 Awards
- Fair to Good: 9,368 Declines, 77 Awards
- Good to Very Good: 15,392 Declines, 2,000 Awards
- Very Good to Excellent: 5,008 Declines, 3,596 Awards
- Excellent: 5,008 Declines, 2,906 Awards

Legend: Green = Declines, Blue = Awards
NSF Award Portfolio

Over $27 billion in total award funding

Over 42,500 active awards
• Standard and continuing grants
• Cooperative agreements
• Graduate research fellowships
• Other awards

Over 3,000 Awardees
• Universities / 4-year colleges
• Non-profit organizations
• Community colleges
• For-profit organizations
• Other awardees

Type of Award Instrument
- Standard Grant: 29%
- Continuing Grant: 67%
- Fellowships: 1%
- Cooperative Agreement: <1%
- Other Awards: 2%

Type of Awardee Institution
- Universities / 4-year colleges: 91%
- Non-Profit: 4%
- Community College: 1%
- For Profit: 2%
- Other: 2%
Conference Award Portfolio

Arizona Institutions

• 914 active awards totaling $602.2 million
• 8,297 lifetime awards totaling $2.6 billion

Conference Attendees

• 126 of 162 organizations registered have 16,832 active awards totaling $11.2 billion
Key Documents

• Proposal & Award Policies & Procedures Guide

• Fiscal Year 2018 Budget Request
  www.nsf.gov/about/budget/fy2018/index.jsp

• NSF Strategic Plan for Fiscal Years 2014-2018

• NSB Report on Merit Review
For More Information

Ask Early, Ask Often!

- nsf.gov/staff
- nsf.gov/staff/orglist.jsp
- nsf.gov/about/career_opps/rotators/index.jsp