The Grants Process at the National Science Foundation
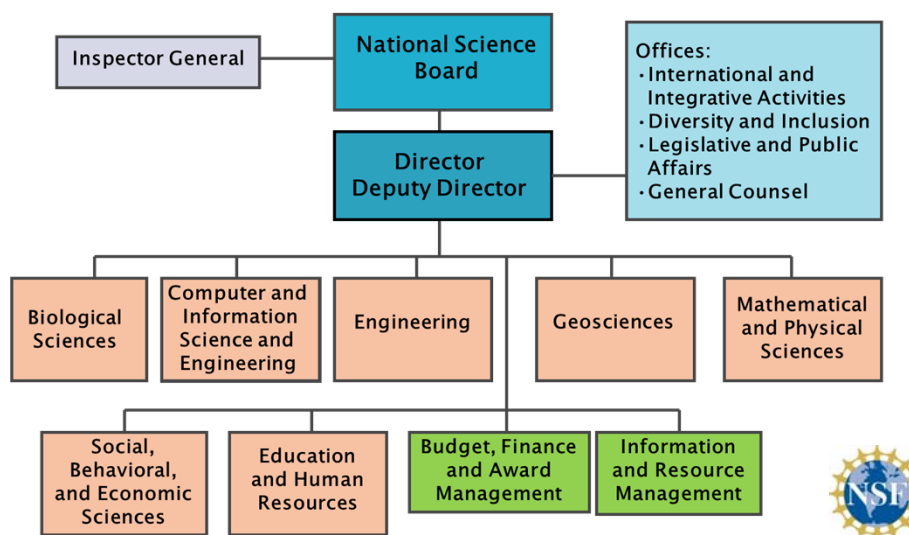
For the NIH Scientific Management Review Board

October 14, 2014

Joanne Tornow
Deputy Assistant Director

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

| Inspector General |

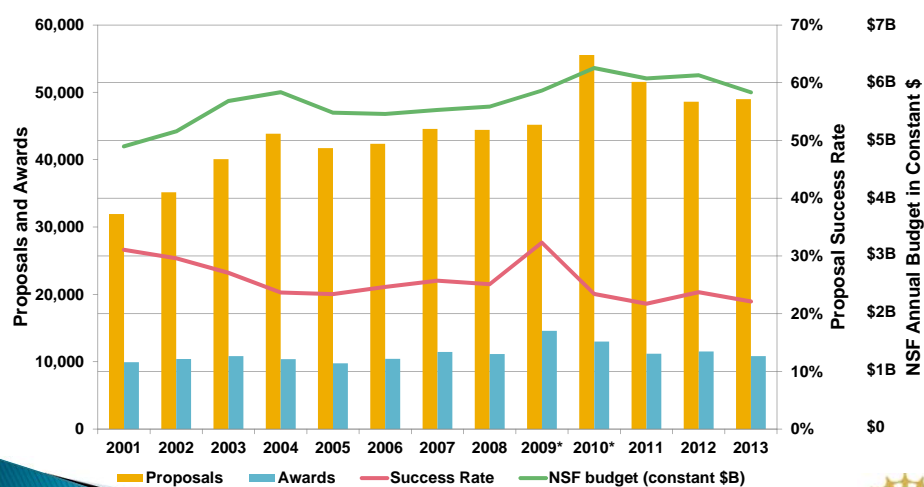| National Science Board |

Offices:
· International and Integrative Activities
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· General Counsel

| Director Deputy Director |

| Biological Sciences | Computer and Information Science and Engineering | Engineering | Geosciences | Mathematical and Physical Sciences |

| Social, Behavioral, and Economic Sciences | Education and Human Resources | Budget, Finance and Award Management | Information and Resource Management |

NSF by the Numbers (FY 2013)

▸ $6.9 billion annual budget (after sequester)

▸ Provides 22% of federal support for basic S&E research

▸ 48,999 proposals

▸ 10,829 new awards

▸ 22% funding rate

▸ 36,475 reviewers

NSF's Merit Review Process FY 2013
http://nsf.gov/pubs/2014/nsb1432/nsb1432.pdf

NSF Proposals, Awards and Funding Rates

Legend: Proposals | Awards | Success Rate | NSF budget (constant $B)

NSF Proposal & Award Process Timeline
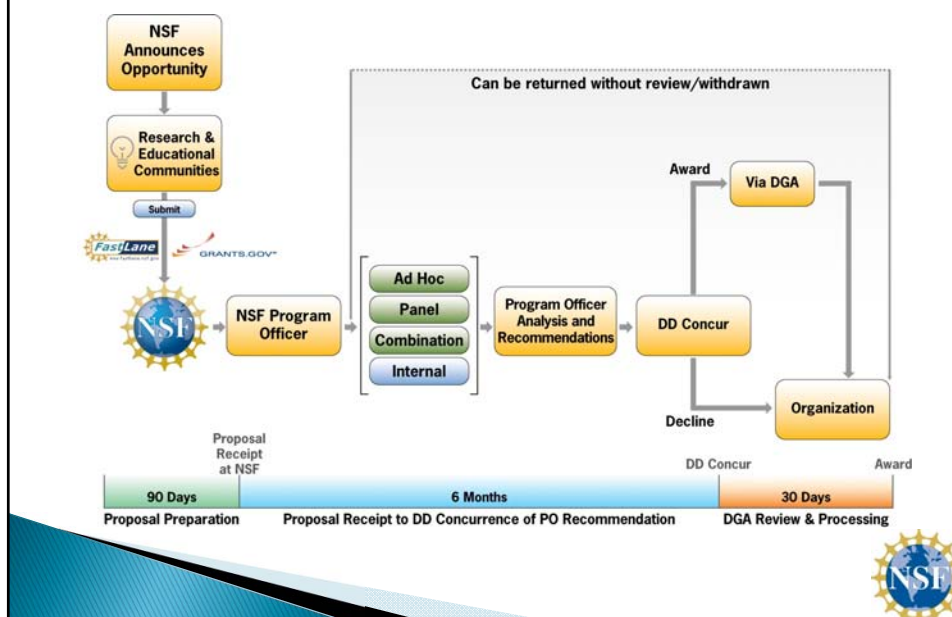
Review Methods
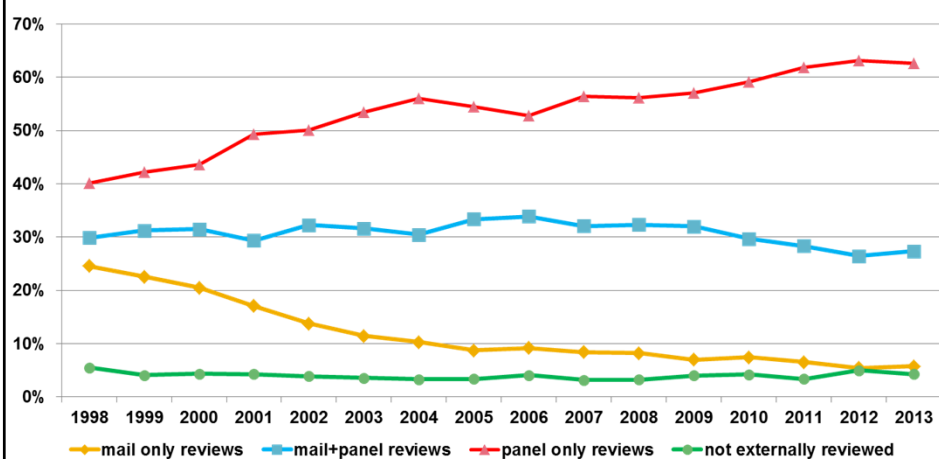
Merit Review Pilots

Pilot	Nature of pilot
Virtual Panels	Expanded use of review panels in which all panelists participate electronically from distributed locations
Asynchronous Reviewer Discussions	Access–controlled moderated message board, open to reviewers over a specified period, to enable the sharing of comments and discussion of a set of proposals.
Mechanism Design	Game theory techniques are used to allow investigators who submit proposals to take part in the review process.
Preliminary Proposals for Core Programs	Core programs move from semi–annual deadlines for full proposals to an annual deadline for preliminary proposals.
One–Plus	Investigators with promising but unfunded proposals may revise and resubmit their ideas for possible funding in the second half of the annual funding cycle by invitation only
Elimination of Program Deadline	A core program that has traditionally had two proposal deadlines per year switched to accepting proposals at any time to see if proposal pressure would be affected.
Umbrella–Amendment Solicitation	Flexible solicitation mechanism for community infrastructure accommodates both long–term goals and changing community requirements.

Usage of and Proposal Rating by Panel Review Type
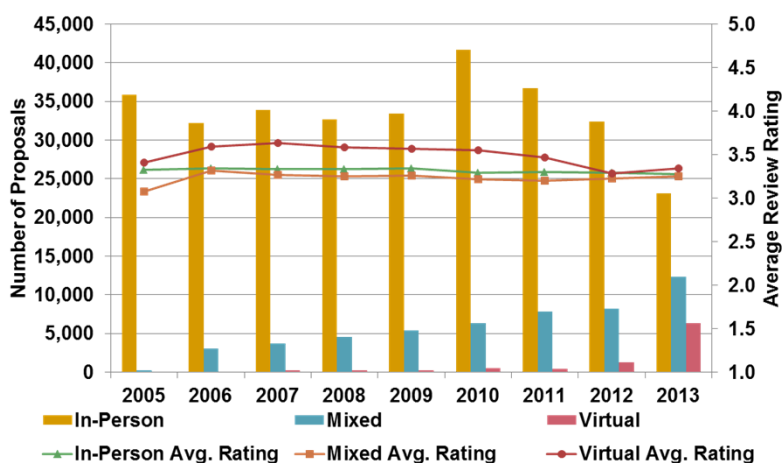
Percentage of Proposals Processed within 6 Months

FY04	FY05	FY06	FY07	FY08	FY09*	FY10	FY11	FY12	FY13
77%	76%	78%	77%	78%	61%	75%	78%	78%	76%

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Potential Bottlenecks (1)

▸ Identifying reviewers

▸ Additional review steps for larger or specific types of proposals:
  ◦ Site visits
  ◦ Review by Director's Review Board
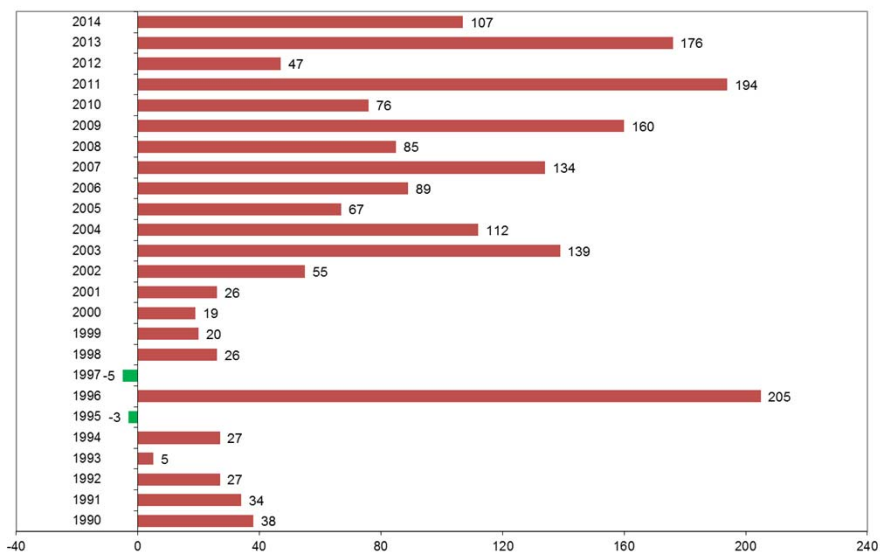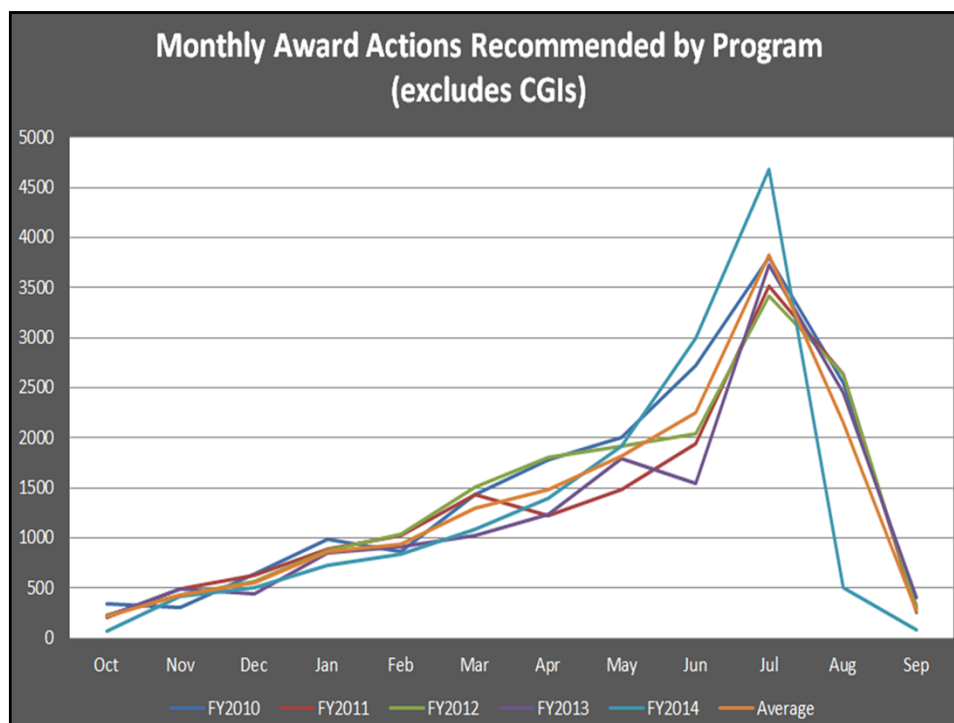 ◦ Review by the National Science Board

Potential Bottlenecks (2)

- Ensuring appropriate documentation
  - Animal Care and Use
  - Human Subjects Protections
  - Environmental Protections
  - New institutional awardees

- Volume of work

- Uncertainty of funds

Appropriations Drift: 1990 to 2014
NSF Appropriations Dates vs Start of FY

Year	Value
2014	107
2013	176
2012	47
2011	194
2010	76
2009	160
2008	85
2007	134
2006	89
2005	67
2004	112
2003	139
2002	55
2001	26
2000	19
1999	20
1998	26
1997	-5
1996	205
1995	-3
1994	27
1993	5
1992	27
1991	34
1990	38

Exhibit I-1
Flowchart of the Proposal & Award Process
(*Letters of Intent and Preliminary Proposals are processed as described in Chapter III)