

**NSB Update:  
Impact of Proposal and Award  
Management Mechanisms  
(IPAMM) Working Group**



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# IPAMM Working Group

- Charge:
  - Identify best practices to achieve an appropriate balance between proposal success rates, award sizes and award duration
- Focusing on research grants
- Members from across NSF: EHR, R&RAs, OISE, OPP, and BFA
  - Program Directors and Division Directors
  - Rotators and Permanent Staff



# What is the context?

- In FY 2000, NSF received ~21,400 research proposals, made ~6,500 awards (average/median: ~\$101,500/\$75,000)
- Between FY 00-06:
  - Average and median award sizes increased 41% and 38%, respectively, through FY 05
  - FY 00-04, NSF budget grew ~42% (\$3.9B to \$5.6B), flat between FY 04-06 (~\$5.6B)
  - 47% increase in research proposal submissions (leveled off in FY 05 and 06)
  - Annual # research awards relatively constant
  - Research proposal success rates dropped from 30% in FY 00 to 20% in FY 05, leveled off in FY 06 at 21%
- Potential effects on merit review, capacity



# What is the likelihood that a given PI will be funded?

- PI success rates calculated over rolling 3-year windows
  - FY 97-99: 44.1% of PIs that submitted one or more proposals received at least one award
  - FY 04-06: 35.7% of PIs that submitted one or more proposals received at least one award
- Comparing FY 97-99 and FY 04-06 windows:
  - 8.9% increase in total # of PIs receiving awards
  - 34% increase in # of PIs submitting to NSF





# Are successful PIs working harder to get funded?

- Successful PIs are submitting more proposals to gain a single award
  - 97-99: 1.7 per PI
    - 41% submitted more than one proposal
  - 04-06: 2.2 per PI
    - 55% submitted more than one proposal
- Successful PIs that submitted more than one proposal increasingly diversified
  - 97-99: 59% submitted to multiple programs
  - 04-06: 69% submitted to multiple programs



# How have new investigators fared re: success rates?

- Proposal success rates for new PIs:
  - Dropped from 20% (between FY 97-02) to 14% in FY 04-05 (15% in FY 06)
- PI success rates for new PIs:
  - Dropped from 29.8% in FY 97-99 to 23.6% in FY 04-06
    - 13% increase in # of new PIs receiving awards
    - 43% increase in # of new PIs submitting proposals



# How have new investigators fared re: awards?

- Award distribution for new PIs remained stable within the NSF portfolio from FY 97 to FY 05 (27% and 28%, respectively)
- Time from degree to first NSF grant remained stable from FY 97 to FY 06
  - 60% received first NSF grant within 5 years of degree
  - 73% vs. 74% received first NSF grant within 7 years of degree
  - Length of time varied for different disciplines





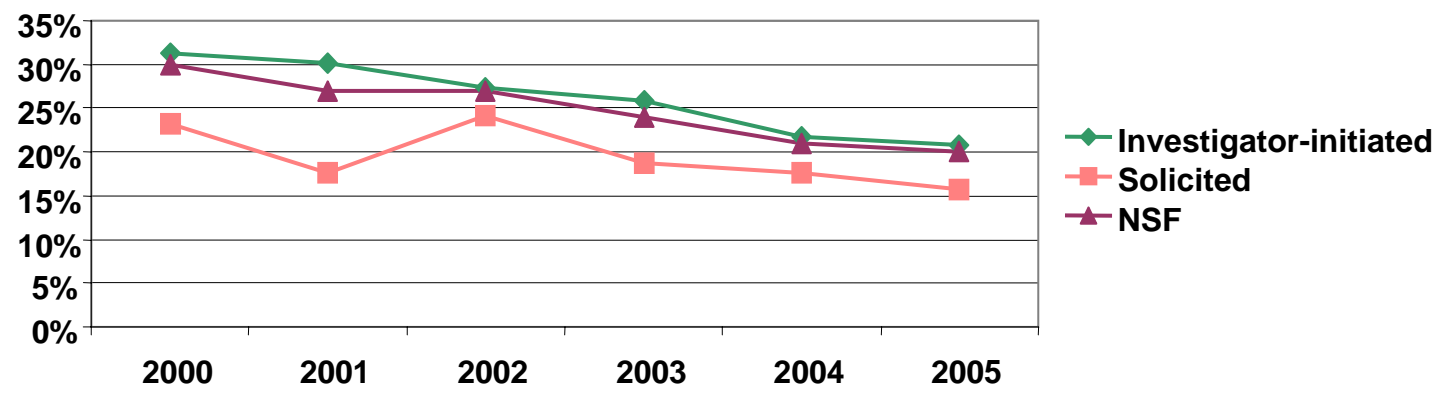
# Potential drivers that increase proposal submission?

- Possible drivers related to NSF:
  - Use of solicitations
  - Budget increases
  - Increased efficiencies (FastLane, reduced dwell time)
- Possible external drivers:
  - Institutional pressures
  - Community growth
  - Changes at other agencies
  - Increasing costs of research



# Findings related to use of solicitations from FY 00-05

- Use of solicitations with specific research foci increased from 53 in FY 00 to 77 in FY 05, peaking at ~82 in FY 02-04
- Proportion of proposals responding to solicited research calls increased from 12% in FY 00 to 20% in FY 05, peaking at 29% in FY 03
- Success rate comparison:



# Eliciting external input

- IPAMM members have briefed several Advisory Committees this Fall
- Common themes:
  - Concerned about potential impact on beginning investigators, transformative research
  - Identified institutional pressures, decreasing funds from other sources, and increasing costs as potential external drivers affecting proposal submissions to NSF



# Eliciting external input

- Proposer survey being developed with BAH, will address four primary goals:
  - Identifying drivers that increase submissions
  - Assess PI perceptions regarding success rates
  - Assess impacts of increasing proposal submission rates on the PI and reviewer community
  - Identify trends in customer satisfaction
- Recently piloted survey using small focus groups of IPA Program Directors
  - Generally found survey clear, relevant and easy to answer



## Next steps

- Case studies of various practices related to proposal submissions
- Complete development and approval processes for proposer survey, run survey
- Full focus groups with IPA Program Directors to validate results of survey (early spring 2007)
- Prepare draft report (mid- to late spring 2007)

