General funding
- NSF funding comes in five pots that cannot be interchanged (research, education, administration, National Science Board, Office of the Inspector General)
- FY12 funding: adding interdisciplinary program (INSPIRE) and several new STEM programs (TBPS, WIDER, TLF)
- DMS funds 74% individuals, 16% workforce, 10% centers/institutes
- DMS has 29% award rate
- NSF has an additional $30 mil available to supplement interdisciplinary projects across directorates or agencies; apply as usual
- NSF is a public investment firm- selection of projects to fund must explainable to taxpayers, although still fund basic research (so immediate purpose not always known)

Proposal preparation
- Always read the overview and MPS section of the GPG, as changes occur every year
- Sign up for email updates (events, deadlines, new opportunities, etc)
- Get on a panel to learn more about process
- RFP coding:
  - Announcements have no deadlines; the GPG should be used as the procedure basis
  - Solicitations have specialized instructions and also use the GPG; they do have deadlines
    - Target dates: discuss with program officer if will be late (potentially still eligible)
    - Submission window: don’t send before or after window
- Co-PIs are always seen as equals
- Always list suggested reviewers
- Questions should be addressed to the on-campus grants and contracts office FIRST; only call NSF if it is a clarification that might be important to a broader group
- Summary:
  - use headings “intellectual merit” and “broader impact”
  - write LAST to assure coincides with proposal content
  - this is the first place directors look to determine the panel(s) to review it
  - should provide a ‘spark’ that will make the program director and panel want to continue reading
- Description:
  - Results from prior support:
    - can be anywhere in text that makes sense (generally in front if ties to planned work, in rear if does not)
    - include the impact and merit of previous funding
    - illustrate the great things you did with their money before
  - Clarify: what will you do (impact/merit)? Why is this important to you/the discipline/taxpayers? What has already been done and by whom? How will you do the work? Why are you using these methods?
  - For individual grants: before writing: consider your long-term research and education goals; survey the literature; prepare a concept paper to share with colleagues; read the solicitation carefully
  - Always have someone provide constructive criticism prior to submission
- References:
  - Shows reviewers you know who to cite and who the leaders are in the field
List ALL authors on a publication, not “etal.”; this helps NSF identify potential reviewers

Links to URLs are encouraged

- **Biographical sketch:**
  - Imperative to use their format
  - Illustrates your qualifications to do the work
  - Can add other sections (ie. honors/awards) as long as fit in rest and stay under 2 pages

- **Budget:**
  - Don’t lowball or aim to high; the reviewers will know what is reasonable
  - Stick to the necessary items
  - 2 months limit on salary is to assure the role of education in your career

- **Facilities:**
  - Imperative with cost sharing changes-voluntary committed costsharing prohibited unless specified
  - Use section to show voluntary uncommitted costsharing-describe available resources without assigning a value or stating when they will become available
  - Contents of section seen as a promise to provide as far as Program Officer considered

- **PostDoc mentoring plan:**
  - See presentation for examples of good mentoring activities

- **Data management plan:**
  - Guidelines may vary with the directorate; check online
  - Issue is how raw data will be made available to the public

- **Letters of commitment should be in English**

**Merit Review**

- 70% decided on in first 6 months; takes another month to award
- Read funding opportunity even if submitted to it before; things change
- Many reasons to return without review
- Know how proposal will be reviewed:
  - Ad hoc: sent to those with specific expertise
  - Panel: getting more common; proposal will be discussed among members so very important to get all details correct
  - Internal review: contact the program officer in advance

- Program Directors do not have to follow advice of reviewers
- Program Directors have a portfolio to fill—a certain range of programs/issues that must be addressed; this is why high ranked proposals not always funded

**Award management**

- Universities may have more limited allowable expenditure rules than NSF; University rules are key
- Reporting like in ARRA likely to expand to other programs
- Submitting a report late holds back funding for all grants with your name included
- Once final report submitted no other action may occur (extensions, expenses)
- Projects outcomes reports:
  - Required for awards after Jan 4, 2010
  - Submit via Research.gov
  - Explain work in way your grandma would understand
  - Can use images