NSF Career Grants

Hank Levy
Computer Science & Engineering
A little about CSE

- We are in COE but also have one foot in A&S
- We take awards very seriously
- We have a history of successful junior faculty awards:
  - 27 NSF Career Awards
  - 4 Presidential Faculty Fellow or Early Career (PECASE)
  - 5 Office of Naval Research Young Investigator Awards
  - 14 Sloan Research Fellowships
  - 2 Packard Fellowships
  - 2 Microsoft New Faculty Fellowships
  - …..more stuff

- These things are a lot of work – they don’t happen by accident
About Career

• Supports future leaders in the field
• Typically 4 or 5 years to bootstrap your work
• Prestige – the best young faculty are “expected” to win awards like this
What NSF is looking for

• Research Vision – you need to show that you have vision for the future in at least two ways:
  – In the problem you’ve chosen to work on
  – In your approach to the research

• Academic Mission – you need to show that your interests are broader than the research itself, including:
  – Education, teaching, training
  – Outreach, participation of underrepresented groups
  – Development and dissemination of educational materials, experimental infrastructure, etc.

• BOTH of these (and their INTEGRATION) are critical to your proposal
Specific NSF Evaluation Criteria

• “Intellectual Merit”
  – Importance of activity to advance knowledge and understanding
  – Creativity and originality
  – Significance of expected contributions

• “Broader Impacts”
  – Integration of research and teaching
  – Broadening participation of underrepresented groups
  – Developing experimental research and educational experiences

• Reviews will be required to specifically address these two criteria!
  – You want to “make it obvious” what to say 😊
More on criteria

• You should have a clear outline of work
  – How will you carry out the research?
  – What is your timeline?
  – How will you use results in education and outreach?

• You should make it clear why *you* are the person to fund
  – What skills, knowledge, or experience do you have that will convince me that you can do what you are claim?
  – What local resources are available that will help to make you successful?
    • Physical environment
    • Collaborations
    • Programs already in place (including education/outreach)
    • Mentoring
What if?

• If you get one: whoohoo!

• If you don’t get one:
  – These things are always a crapshoot – not everybody wins the lottery with their first ticket
  – Not to worry -- you have several years to try again
  – The reviews will not tell you what really happened
  – Talk to your program officer, get feedback on what the committee liked and didn’t, ask how to improve the proposal for next time