

Introduction to NIH

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Scale, organization and character

Federal R&D Funding by Agency

(budget authority, millions of dollars)

Fiscal Years

1976 to 2016

Select R&D Character
Basic Research

Constant Dollars
No

Agency

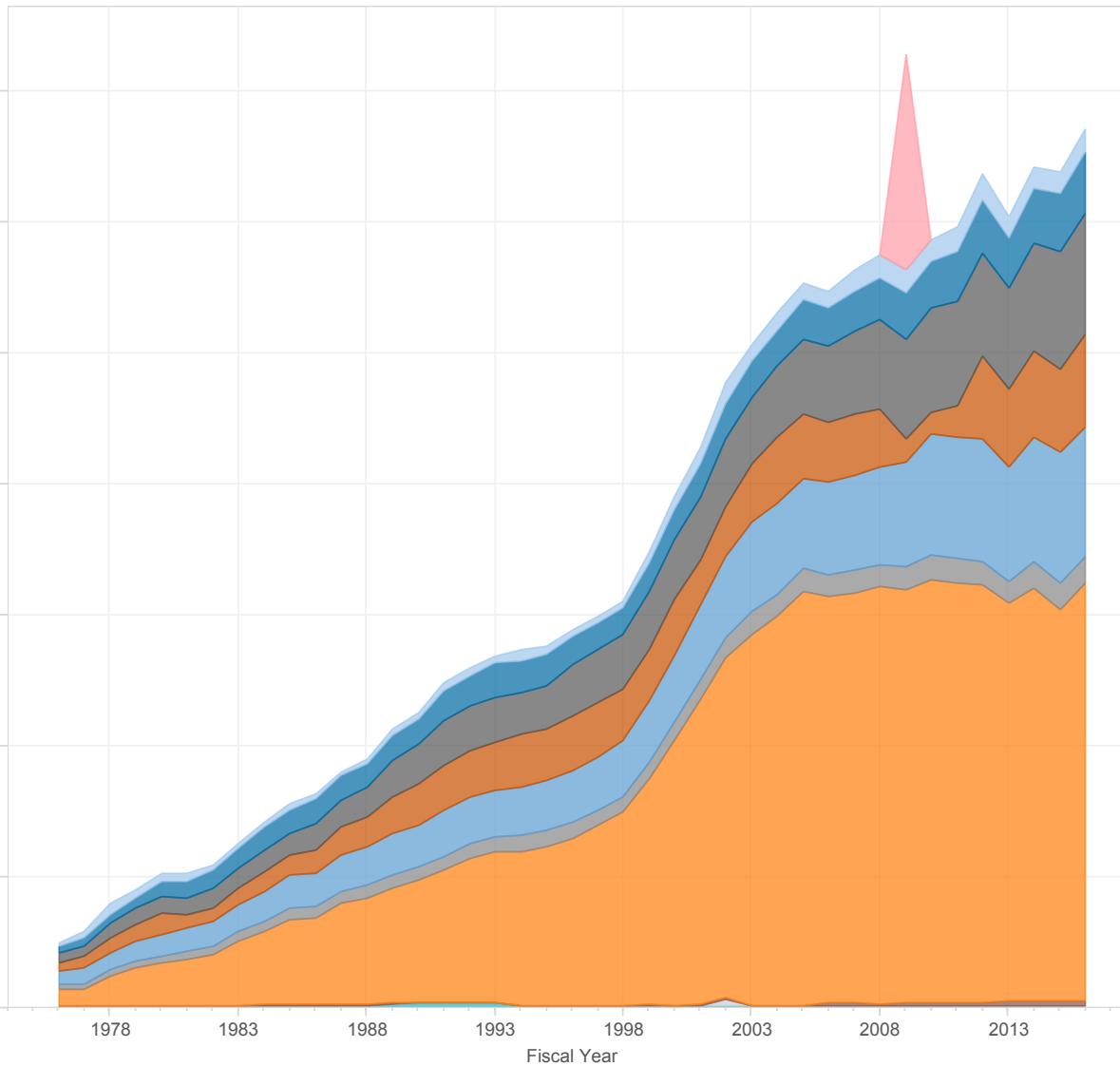
- Recovery Act
- All Other
- DOD
- DOE
- NASA
- NSF
- USDA
- NIH
- NIST
- NOAA
- USGS

Select Agency
All

"All Other" includes the
Depts. of Transportation,
Veterans Affairs, Homeland
Security, and State, the
Environmental Protection
Agency, and others.

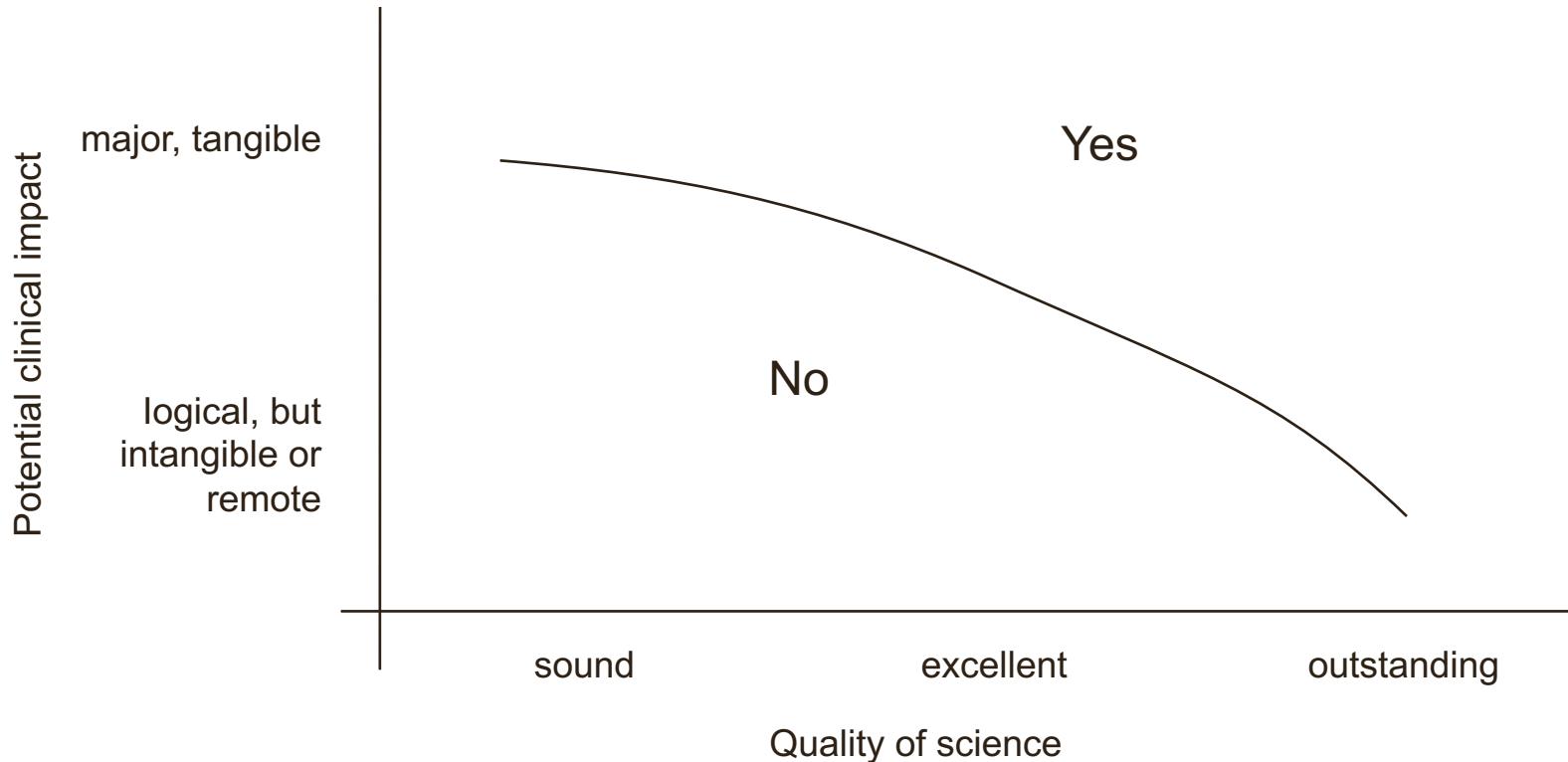
Based on agency budget
documents and data,
supplemented with NSF
survey data. Last updated
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What gets funded



How things get funded

Funding and review process are usually separate

- Institutes and Centers (IC's)
 - Set agendas, offer programs and fund grants
- Center for Scientific Review (CSR)
 - Reviews most grant applications

Your program official

- Works for the Institute or Center (*career position*)
- Interested in having a productive portfolio
- Can be your friend and advisor
- Has limited discretion in funding
 - Can't fund a poorly scored application
 - Can't not fund an application that does really well

The review process

Assignment

- New applications are assigned to
 - an Institute or Center (IC) for possible funding, according to the content. Dual assignment is possible
 - a review panel (“*study section*”).
- Amended applications
 - generally go to the same review panel.
- Renewal applications
 - generally go to the same IC.



The percentile system

- At the study section
 - Each application not clearly in the “bottom half” is scored
 - Applications are rank-ordered by score to get *percentiles*
- At the IC
 - Applications reviewed by different study sections are compared by *percentile*.

**Where you stand among applications in your study section,
and funds available in your assigned IC,
determines funding.**

Some advice

Tips for NSF investigators

- Most NIH grants are meant to be renewable, or gateways to long lines of research
- Proposed work should usually be
 - put in context of a longer-range plan,
 - self-contained as a project.



Tips for NSF investigators

- NIH reviewers expect very specific plans
 - *DON'T* list mere possibilities without providing a clear sense of your intended approach.
 - *DO* be convincing regarding the likely success of techniques and methods *in your hands*.
 - *DO* describe alternatives to key, less than fully proven techniques.

Goal: Make reviewers fully confident in your ability to complete the work.



Tips for NSF investigators

- NIH reviewers
 - *evaluate proposals.*
 - *do not recommend for or against funding.*
- NIH program officials
 - fund proposals *based on reviewer evaluations.*

NEVER say in a proposal that the program officer liked your idea or suggested that you apply.



Tips for NSF investigators

- NIH expects to cover salary and benefits for *all faculty effort, year-round.*
- Absence of year-round faculty effort on the budget page can cause reviewers to question your commitment to the project.
- Unless you have good reason to limit your grant budget, request full salary recovery.
- Even if not requesting reimbursement for effort, show your full time commitment clearly.



Things to avoid at all costs

- A plan of unrealistic scope
 - A proposal being called “ambitious” can be a positive, or a big negative.
- “Specific Aim fatigue”
 - Think long and hard about more than three specific aims.
- Hyperbole
 - Never call your own work “innovative.” That’s for reviewers to decide.



Things to avoid at all costs

- Getting mired in technical details
- Skipping over key details
- An application that is, in any way, hard to read
 - Your own system of acronyms means extra cognitive effort for the reviewer.



Use a cover letter to steer your application

- ...to an Institute or Center
 - Check success rate data online.
 - But be certain it's a good fit.
 - Dual assignment is possible.
 - Speak with program officer(s) about fit.
- ...to a study section
 - Check rosters online.
 - Consider both individuals and disciplines/perspectives.
 - Again, be certain it's a good fit.



Work within NIH structure/culture

- Address the right audience, separately and one at a time:
 - Review process – SRO, CSR
 - Advice & counsel, interpreting critique – program office
 - Grant application – peer reviewers

NEVER quote or characterize a conversation with your program office in an application

Resources

- Applicant AND reviewer guidelines, study section rosters, and more...

<https://grants.nih.gov/grants/peer-review.htm>

- OER home page

grants.nih.gov/grants/oer.htm

- RePORT success rate data

report.nih.gov/success_rates/

