Revising and Resubmitting Unsuccessful Proposals

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Learning Objectives

• Understand multiple and complex reasons for proposal rejections
• Understand agency review processes
• Gain skill in interpreting agency reviews
• Determine feasibility of resubmission
• Determine likelihood of future success
• Apply specific strategies to revise proposals based on reasons for rejection
Rejection Facts of Life

• Most research proposals are rejected: 75-90%
  – 22.5% NIH overall success rate (2010 report)
• Very few first applications are funded at any agency
• Re-submissions do succeed:
  – NIH report in 2009:
  – 8% for first-timers, 35% for second-timers
  – NSF does not compile statistics but anecdotally, scores improve similarly
• Rejections offer a learning opportunity
• Reviewers are mostly accurate and objective
• The peer review system usually works as intended
Reasons for Rejection: Sources

• 2010 NIH study of 45,000 applications listed 10 most-common errors--some can cause automatic rejection

• As one government reviewer stated: "Overall, the most striking reason for low-marked proposals was the consistent failure of universities to be fully responsive to what was asked for in the RFP."

  – This is our strength--we can make a difference here for PIs.
Reasons for Rejection: Sources

• Classic study of 605 rejected NIH proposals
  – Found four main categories of short-comings:
    • Problem (58 percent)
    • Approach (73 percent)
    • Investigator (55 percent)
    • Other (16 percent)
      – Institutional setting, unrealistic budget request, inadequate personnel, lack of P.I. time, unconvincing need for project, directions not followed, sloppy presentation, missed deadline, missing components--we can fix these!
NIH Ten Most Common Errors
(2010 analysis of 45,000 applications)

• DUNS # on 424 does not match DUNS for grants.gov
• Incorrect Type of Submission, Federal Identifier and Type of Application on 424
• Missing eRA Commons ID for all PD/PIs
• **Missing** PI/PDs role on Senior/Key Person Profile Form
• Missing organization name for all Senior/Key persons
• Missing required attachments (human subjects, animals)
• Attachments not in PDF format for NIH
• Page limits in FOA not followed
• Missing effort >0 for all Senior/Key listed in R&R Budget Form
• Special FOA instructions not followed

We can fix all of these!
Revisions and the Review Process

• Different review processes and feedback from different agencies
• For effective faculty advising, RAs need to understand agency review processes
• Little consistency across agencies, whether federal or private
• Reviews typically are confidential to PIs
• RAs offer broader perspective than PIs in reading and interpreting reviews
NSF Review Process

• Up to five/six individual reviewers
• Applicant can suggest reviewers and non-reviewers
• Reviewers not known to applicant
• Selected by NSF program officer--who also makes funding decision
• Reviewers may not be the same for resubmissions
• Resubmissions not labeled as such
• No opportunity to identify changes in resubmission
• Applicant receives all individual reviews (scored from excellent to poor) plus program officer summary
• Scores range from excellent to poor (5-item scale)
• Up to six months for notification
NIH Review Process

- Published, established peer review groups
- Managed by permanent NIH employee in central NIH division responsible for all NIH reviews
- Review division separate from funding division
- Reviewers serve three-year rotating terms
- Full proposal read by 3-5 individuals
- One reviewer serves as lead discussant but...
- Whole review group discusses proposals
- Review group *recommends* funding but several more levels of review occur before decision to fund
NIH Review Process, continued

• New scoring system as of January 2010:
  – Applicant receives “summary statement” plus several numerical scores:
    • Total possible score of 25 (old range was 500)
    • Percentile score
    • Relevance score
• One resubmission allowed; 6-9 month wait
• Additional space allowed to explain revisions
• Most of same panel will re-review, with some turnover each year
• May not be assigned to same principal reviewers
ED Review Process

- Three anonymous reviewers (non-federal)
- Each reads up to 10 proposals per competition
- Selected by ED program officers from database
- Total possible score of 100 points
  - Each required section has specific point value
  - Each reviewer separately scores each proposal
  - Program officer conducts panel discussion to reconcile outlying scores
  - Each reviewer must meet standard of less than 10 points deviation in total score
  - Applicant receives verbatim reviews and points from all three readers + combined, averaged score
  - Funding decision based on numerical averaged score
Other Agencies’ Review Process

• EPA, USDA, DOE, DOD, private foundations
  – May or may not use external reviewers
  – May or may not provide written reviews
  – May or may not have transparent review process
  – May or may not have point system
  – May or may not match point system to page limits or proposal sections
  – May or may not have resubmission policy
Deciding to Revise and Resubmit: How to Advise Principal Investigators

- Analyze the reviews from PI
  - Help them to identify types of problems
  - Determine consistency of comments
- Get other objective expert opinions
- Ask PI to contact the program officer for advice
- Re-assess time and P.I. commitment
- Decide if the project is still relevant and important, and if program is still available
- If so, go for it! If not, move on!
Why proposals are rejected

• Administrative/regulatory reasons
  – Agency guidelines
  – Proposal format
  – Program restrictions
  – Deadlines
  – Ineligibility
  • PI
  • Institution
Remedies: Administrative
We Can Make a Difference

• Review RFP carefully and completely
• Scrupulously follow the prescribed format
  – Font, page limits, attachments, margins
• Determine if restrictions remain
• Apply well before deadline day
• Find new or co-PI
• Consider changing applicant institution
  – Become subcontractor/partner
Why proposals are rejected: PI

• Principal investigator(s)
  – Inadequate experience
    • Research
    • Management
  – Little evidence of experience with grants
  – Unclear description of work roles/tasks
  – Publications inadequate or not relevant to project
    • Low productivity, few recent papers
  – Staff insufficient or untrained in approach
  – No collaborators recruited or no letters from collaborators
Remedies: PI
We Can Make a Difference

• Inexperience
  – Add senior co-PIs or consultants
    • Mentor
    • Colleague
    • Subcontract
  – Provide management plan/organization chart
  – Include time and task chart for each year
  – Provide job descriptions of staff (in narrative or in budget justification or both)
Why proposals are rejected: Politics

• Political reasons/perceptions
  – Geographic distribution
  – Congressional influence/interference
  – Set-asides, pork-barrel
  – Problem is too localized
  – Internal regional/local competition
    • UW-Madison vs. UW-Milwaukee
    • Penn State vs. Villanova
    • Stanford vs. Santa Clara
Remedies: Politics

• Secure university commitment to project
  – Keep government relations staff informed

• Set problem in national context
  – Use proposal as case study
  – Show wider/larger application

• Provide more local detail
  – Show local impact/demographics/need/value
  – Demonstrate local political/government commitment

• If you can’t beat them, join them
  – Include colleagues from Big-Time U
Primary reason proposals are rejected: Intellectual-Scientific

- Intellectual/scientific/academic reasons
  - Importance of topic to discipline
  - Currency or cutting-edge research
  - Focus: too narrow or too broad
  - Unpopular or uncommon methodology
  - Inadequate literature search
  - Unclear, disorganized presentation with gaps in reasoning and logic -- science and intellectual argument are missed or not clear
Possible Remedies

• Strong introduction: why is project important
• Comprehensive literature review
• Present project in intellectual context
• Explain method selected and why
• Explain why other methods not used
• Use strong format to show progression of ideas
• Change project scope
  – Add co-investigators if too broad
  – Decrease project goals and provide more focus
  – Add more project time
Why proposals are rejected: Project Design

• Project design:
  – Not enough evidence to support the need
  – Aims are not of sufficient importance
  – Lack of appropriate controls
  – Not directly testing hypothesis
  – Inadequate consideration of power
  – Insufficient consideration of statistical needs
  – Project may not produce any improvement
  – Problem is much bigger than the PI realizes
  – Idea is too ambitious
  – Goals and objectives are unreachable:
    • Too many, too broad or too vaguely expressed
Remedies: Project Design

- Detailed needs analysis/justification
- Specific background data—own and others
- Measurable objectives/outcomes
- Limited number of aims (3-5 maximum)
- Propose pilot to demonstrate likelihood
- Clear description of project activities
- If none of the above are appropriate, look for another sponsor/program
Why proposals are rejected: Budget

- Budget reasons: agency
  - Request too high for program
  - Agency already committed to continuations
  - Fiscal year cycle
- Budget reasons: applicant
  - Unconvincing or confusing budget narrative
  - Inappropriate/unallowable requests
  - Bad arithmetic, wrong F&A and benefit rates
  - Vague travel, equipment plans
  - Too many staff requested
  - Consultants not linked to proposal activities
Remedies: Budget
We Can Make a Difference

- Lower the annual and overall request
- Remove some budget categories
- Resubmit in first cycle of fiscal year
- Write a detailed, well-described narrative linking budget requests to project narrative
- Provide quotes and detailed information especially for equipment, trips, consultants:
  - U.S. State Department for foreign; U.S. GSA for domestic
  - Consultant rates, letter of commitment
  - Equipment quotes from multiple vendors or sole source
- Add salary and benefit tables, job descriptions
Why proposals are rejected: Institution/Environment

• Institution
  – Facilities, space, equipment, computers, etc.
    • Little or no necessary equipment
  – Financial resources/cost-sharing
    – Little demonstration of institutional support
  – Other research support:
    • Graduate students
    • Grant infrastructure
  – Legal issues:
    • Institution being audited or under sanctions
  – Inadequate compliance infrastructure/history
  – Little evidence of effective collaboration among institutions
Remedies: Institution/Environment
We Can Make a Difference

• Provide more detail on facilities—floor plans, lists of equipment, other resources
• Find a partner institution/lab/department
• Resolve compliance issues
• Describe grant management system
• Provide letters of support/commitment
• Specifically identify cost-sharing
  – In-kind
  – Cash
  – Other sources of funding
Why proposals are rejected: Presentation and Format

• Presentation
  – Writing is too vague to the reviewers
  – Long paragraphs, long sentences, long words
  – Careless proofreading: grammar, spelling, typos, punctuation
  – Masses of print without pictures, format or space
  – Poor quality or mislabeling of images
  – Inaccurate word choices
Remedies: Presentation, Format: We Can Make a Difference

• Use clear, specific format/editing strategies:
  – Do careful and multiple proofreading
  – Use external editor (person, not grammar/spell check)
  – Provide headings and sub-headings
  – Use frequent and relevant illustrations, clearly and accurately labeled
  – Write short paragraphs
  – Write short sentences:
    • 20-word rule
    • Long sentence/short word rule
Final Thoughts

• Grant success is a life-long process
• Research administrators can significantly influence/improve PI success rates
• Aggressive tracking and follow-up works
  – Targeted follow-up:
    • New faculty/investigators
    • One-time opportunities
    • Inappropriate agency/program selection
    • Discrepant reviews
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