

CAREER Panel



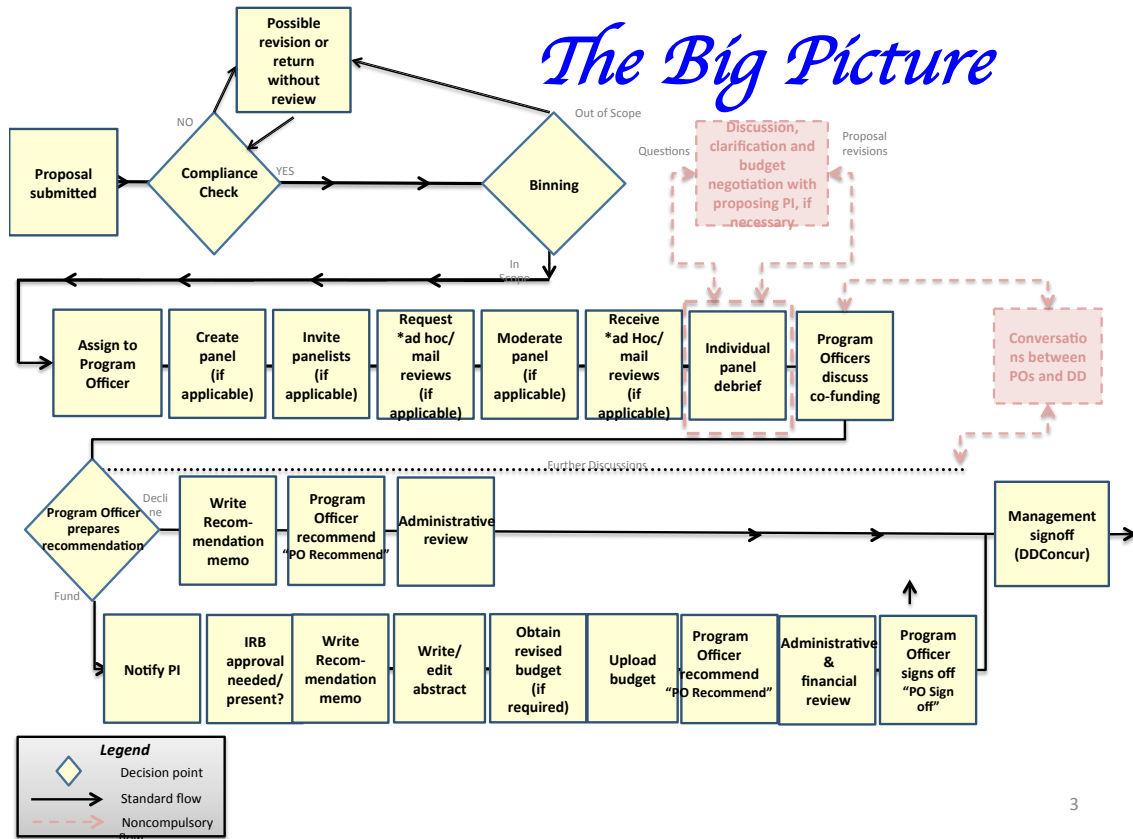
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The NSF Review Process (aka “why does it take so long?”)

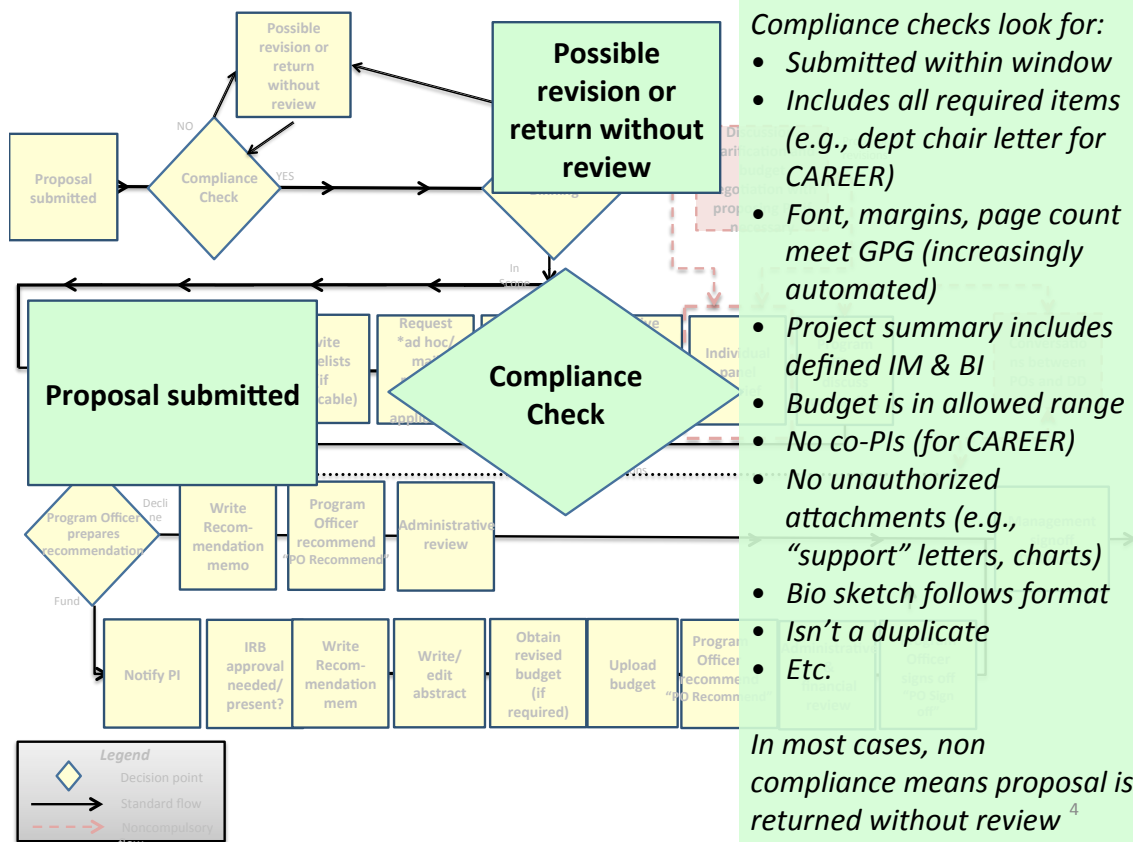


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The Big Picture

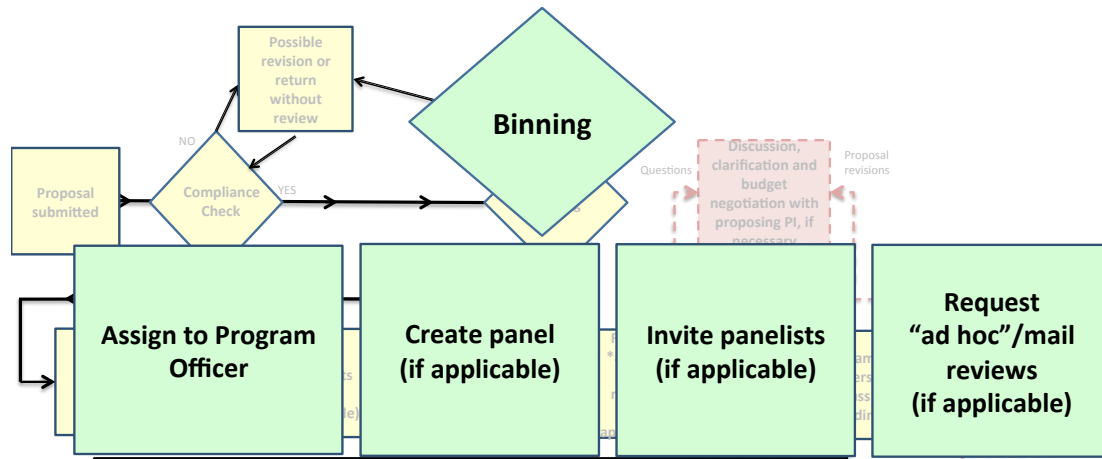


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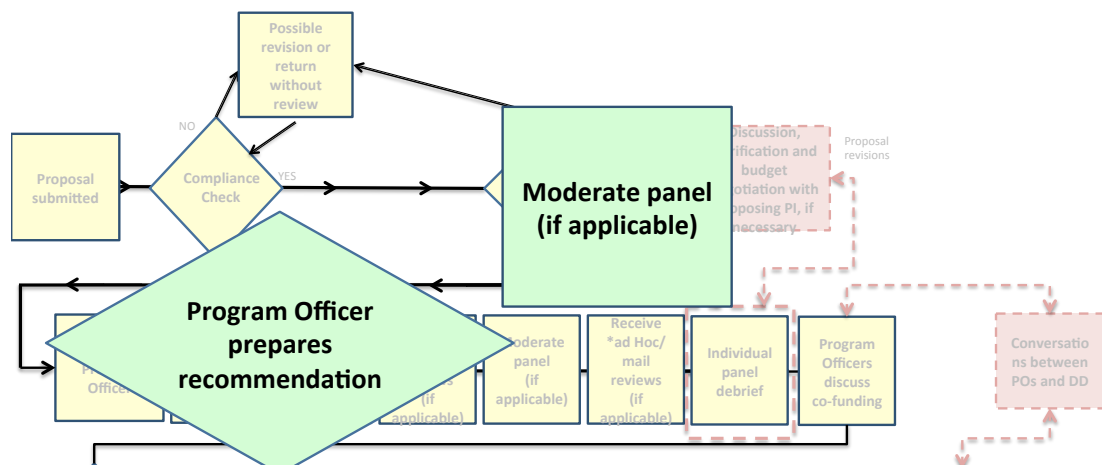


- Compliance checks look for:
- Submitted within window
 - Includes all required items (e.g., dept chair letter for CAREER)
 - Font, margins, page count meet GPG (increasingly automated)
 - Project summary includes defined IM & BI
 - Budget is in allowed range
 - No co-PIs (for CAREER)
 - No unauthorized attachments (e.g., "support" letters, charts)
 - Bio sketch follows format
 - Isn't a duplicate
 - Etc.
- In most cases, non compliance means proposal is returned without review ⁴

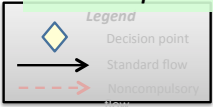
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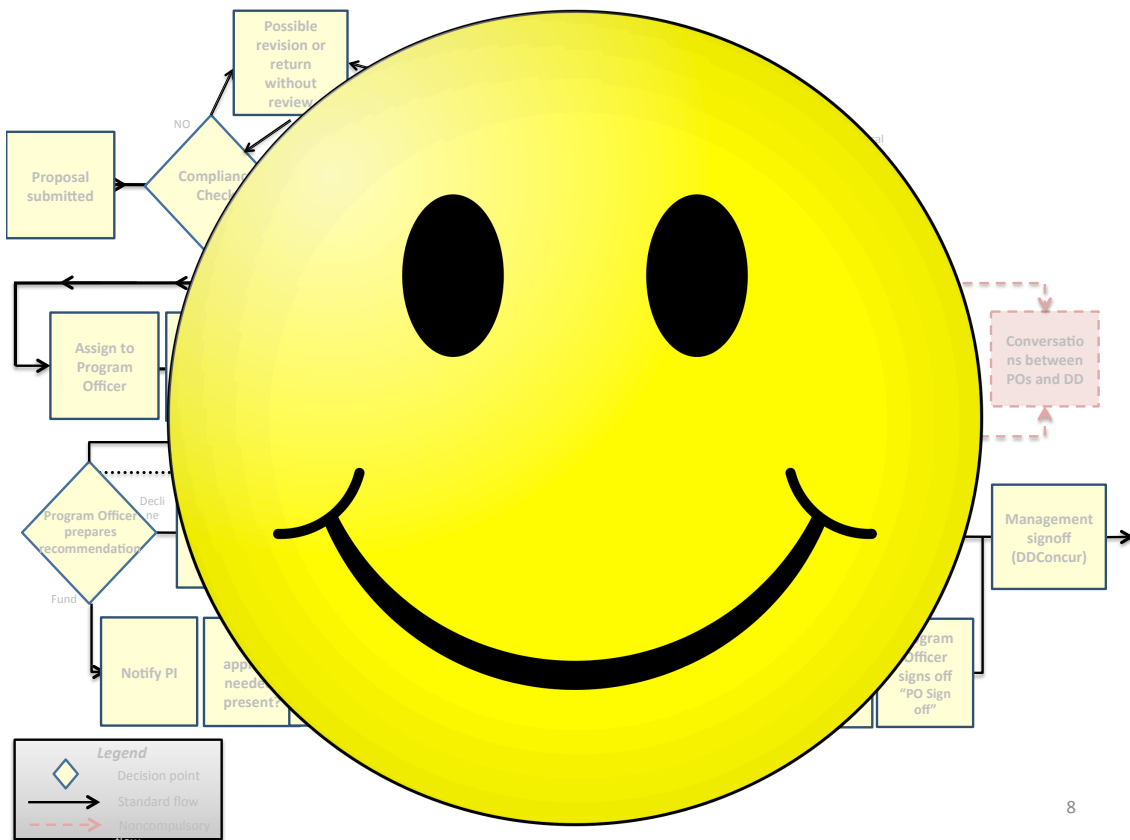
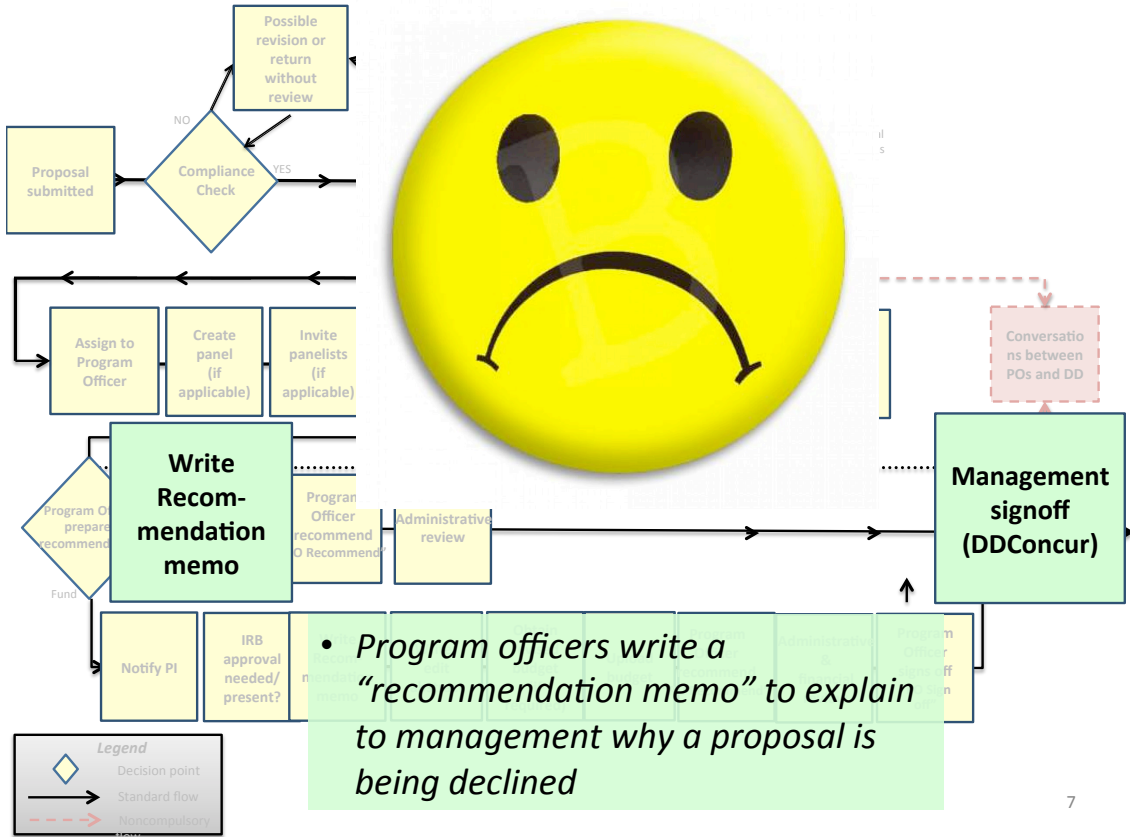


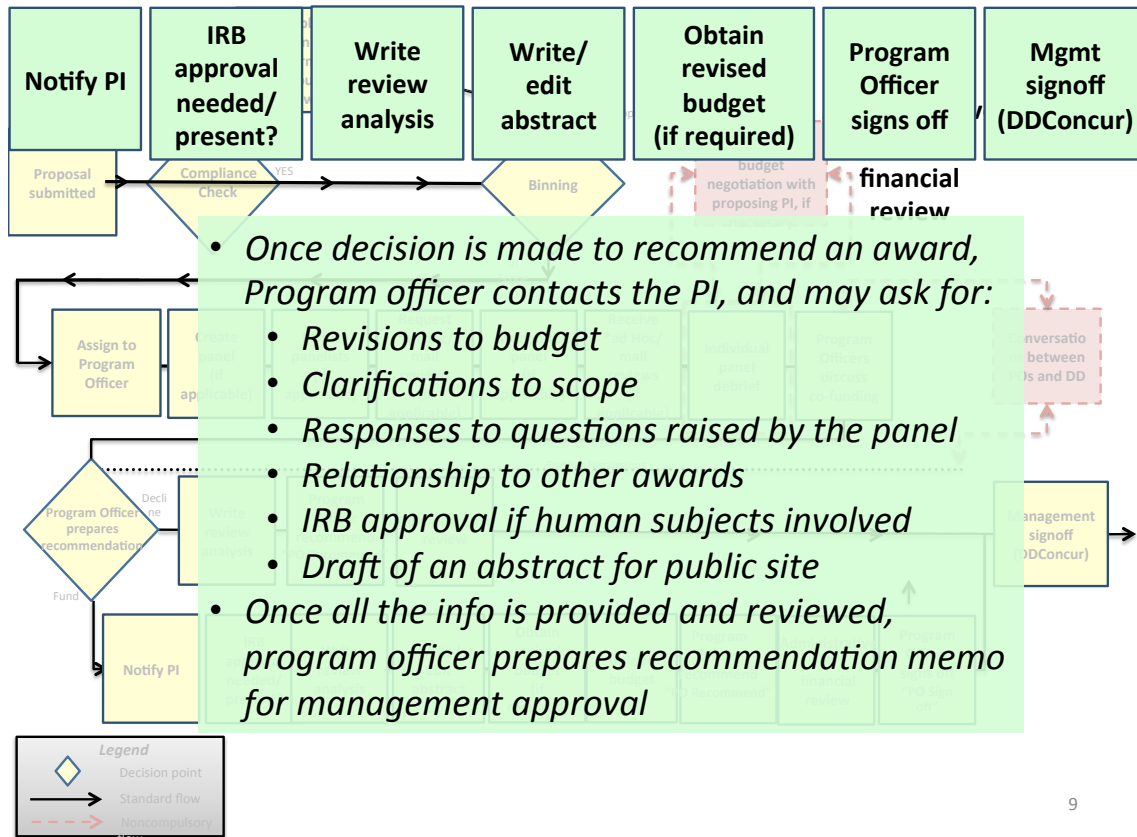
- Binning groups related proposals together, and includes swapping and sharing between programs
- Program officer assigned based on research area
- Most proposals reviewed on panels – it takes time to find the right people!
- Niche areas sometimes have ad hoc reviewers in addition (or instead) of panels
- Most proposals reviewed on one panel, but sometimes by two panels within the same program or by two programs



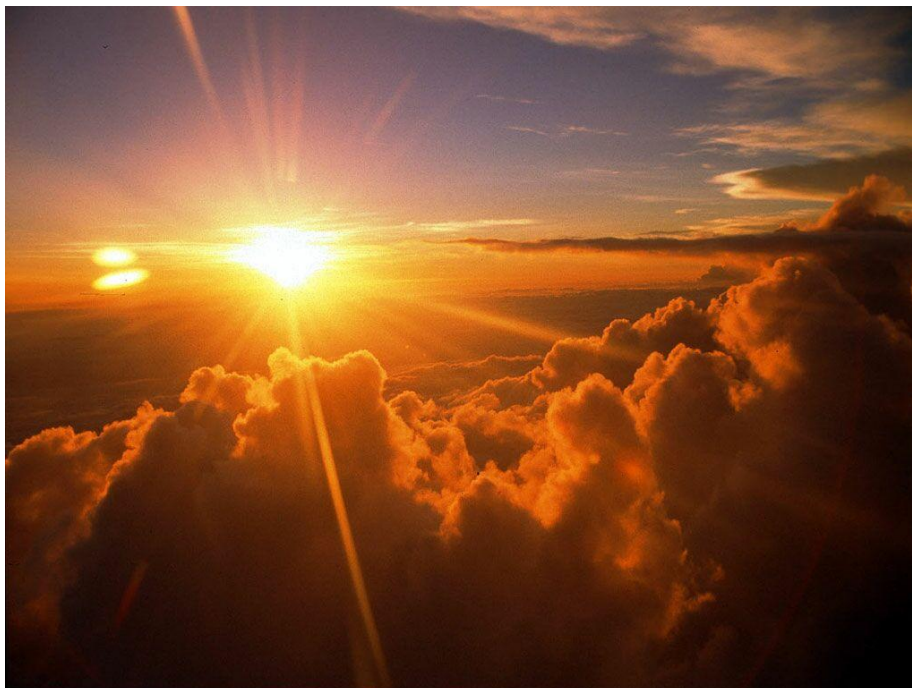
- The most public part of a program officer’s job is moderating a panel
- After the panel, recommendations discussed/approved by management
- Panels provide advice
- Program officers provide recommendations
- Management provides approval
- DGA provides commitment







The Clouds Part



The Steps In Review

- Compliance, binning, trading, etc.
- Identify panelists
- Panelists read proposals and write reviews
- *The panel*
- Coordinate with other panels on the same program or other programs co-reviewing, get management preliminary approval
- Contact PIs and ask for clarifications
- Write recommendation memo and get management approval
- DGA award to the institution
- Timeline: 70% of proposals awarded/declined within six months

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Panel Overview

- Assigning proposals to a program
- Assigning proposals to a panel
- Constituting a panel
- Panel day deliberations
- Panel recommendations

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Before the Panel

- Assigning proposals to a program
 - Program Directors (PDs) read proposals and “swap” after obtaining PI’s permission
- Constituting a panel (typically senior members of research community with appropriate expertise and breadth of experience; sometimes recent CAREER awardees)
- Assigning proposals to panelists – about a month before panel
 - Panelists asked about COIs
 - PD assigns or Panelists provide a spreadsheet of review preferences
 - Final assignments -- minimum of 3 reviews per proposal; typically 7-10 proposals per panelist
 - Reviews requested before panel day
- Obtaining ad hoc reviews where appropriate

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Panel Day Deliberations

- Program Director (PD) presents and discusses “panel charge”
 - Panelists and PD leave the room while proposal with which have COI is discussed
 - Discussion of review criteria--Intellectual Merit (IM) & Broader Impact (BI) including integration of research and education, as well as Data Management Plan & Post Doc Mentoring Plan (if post docs included in proposal)
- Each proposal is discussed as to IM and BI and placed into a recommendation category (typically Highly Competitive, Competitive, Low Competitive, and Not Competitive)
- Panel summary is written by a panelist who serves as “scribe” and approved by all non-conflicted panelists
- Panelists may change their reviews to reflect issues raised during the panel discussion
- Recommendations
 - Panel makes recommendations not funding decisions

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What do Panels Look for?

Heilmeier's Catechism

- What are you trying to do? Articulate your objectives using absolutely no jargon. (**Clear summary**)
- How is it done today, and what are the limits of current practice? (**Related work**)
- What's new in your approach and why do you think it will be successful? (**Include preliminary work**)
- Who cares? If you're successful, what difference will it make? (**Impact**)
- What are the risks and the payoffs?
- How much will it cost? How long will it take? (**Budget**)
- What are the midterm and final "exams" to check for success? (**Evaluation plan**)

– George H. Heilmeier, President and CEO of Bellcore

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Top Ten Mistakes to Avoid in Writing CAREER Proposals

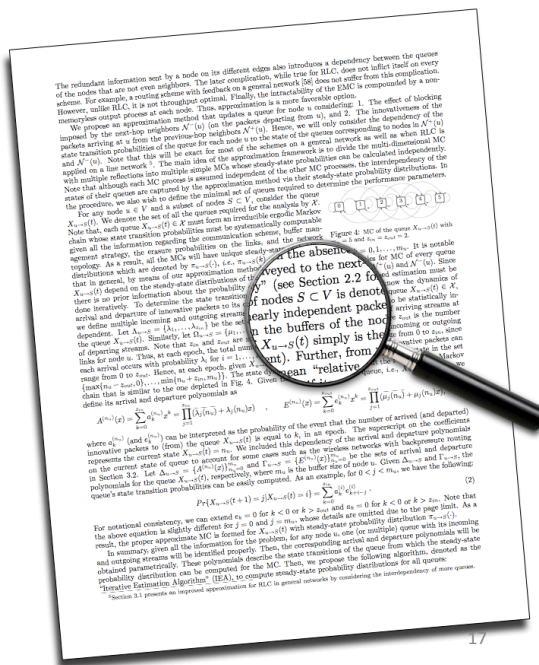
CISE Mixed Advisory Taskforce on Technology,
Education, Research and Science (CISE MATTERS)



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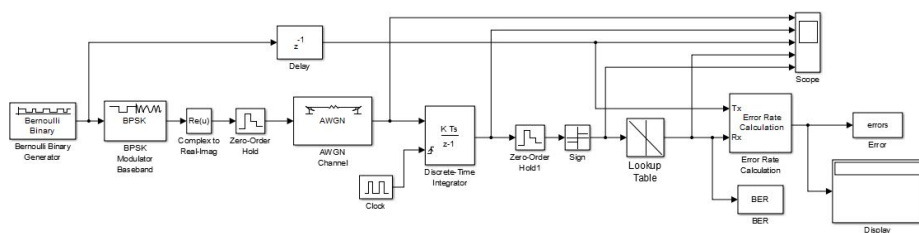
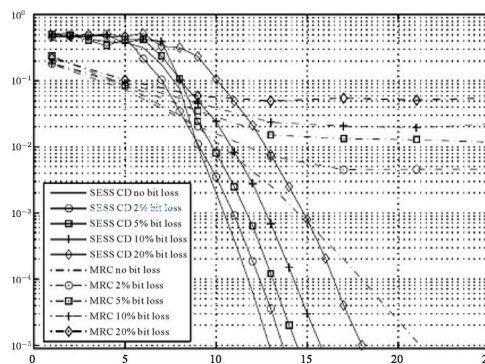
Number 10: Fonts Too Small

- Small fonts promote reader fatigue
- Reviewers HATE small fonts
- GPG mandates:
 - 11 point font minimum
 - 1 inch margins
 - 6 lines max per vertical inch



Number 9: Figures Illegible

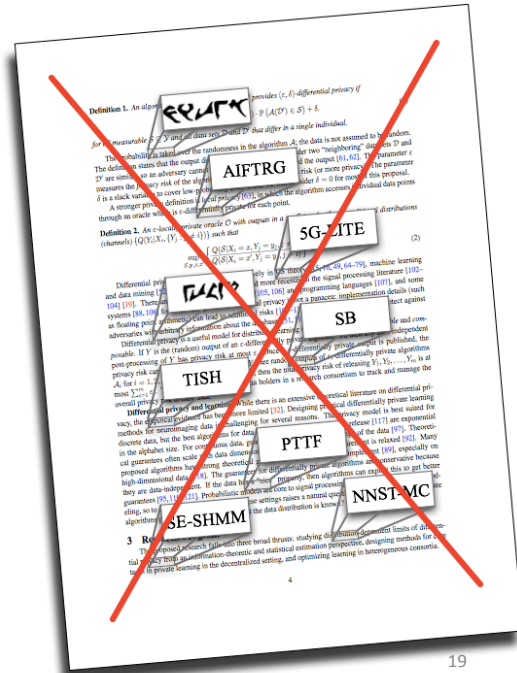
- Avoid "crowded" visuals
- Don't assume reader will print in color
- Use vector graphic formats



Number 8: Acronyms

- Acronyms are **UGLY**, and make text hard to read.
- Write in **ENGLISH**, not **KLINGON!**

Reliance on acronyms:
A pile of Base Station (BS)



Number 7: Dissing the Competition

- **Good idea:** Citing others' work
- **Bad idea:** Slighting others' work



("Others' work" might be sitting on the panel)

Number 6: Poor distinction between preliminary results and proposed work

- Make a clear demarcation
- Distinguish your results from others'
- Provide clear road map for future work



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Number 5: Lackluster Education Plan

- Should be integrated with research plan
- Think **beyond** your present teaching duties



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Number 4: “It wasn’t clear ...”

Symptoms:

- Long-winded explanations
- Too many superfluous details
- Poor organization of thoughts into words

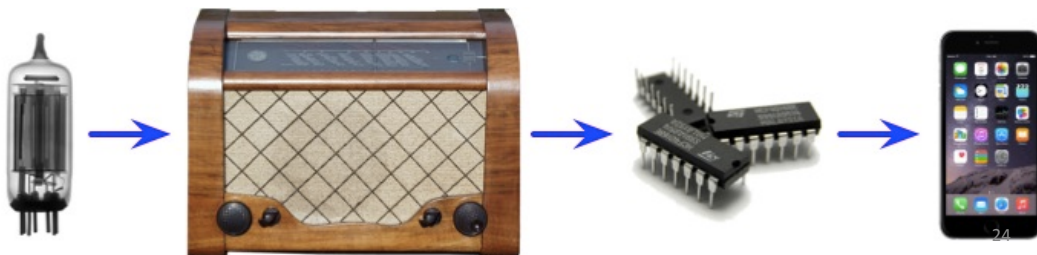
Remedies:

- Use fewer words
- Read first two pages aloud
- “Make every word tell”



Number 3: Dull Broader Impacts

- Broader Impacts ask:
 - [How will this work change society?](#)
- Don’t confuse this with “extracurricular activities” not supported by the research plan
- Outreach plans should be substantiated



Number 2: Confining yourself to your PhD work

- CAREER proposal should be **forward-looking**
- Move **above and beyond** your PhD work
- “Imagine a world ...”



(yes)



(no)

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Number 1: Research Plan lacking Cohesion

- Don't staple together unrelated ideas
- Don't offer a laundry list with no prioritization
- Don't make everything look like a nail to your one hammer
- **Tell a story with your narrative**



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Questions?



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Image attributions

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<http://mediag.com/news/a-peek-behind-the-curtain/>

pp. 3–9:

J. Epstein, NSF

p. 10

<http://www.wallpedes.com/p/11129>

p.16

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<http://www.dreamstime.com/stock-image-boring-class-image541051>
<http://albaum.com/2011/03/it-you-think-dictionaries-are-boring/>

p. 23:

<http://employee-it-training.co.uk/2014/01/every-little-helps/>

"Vigorous writing is concise. A sentence should contain no unnecessary words, a paragraph no unnecessary sentences, for the same reason that a drawing should have no unnecessary lines and a machine no unnecessary parts. This requires not that the writer make all his sentences short, or that he avoid all detail and treat his subjects only in outline, but that every word tell."

Strunk and White, The Elements of Style, ISBN-13: 9780205309023

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