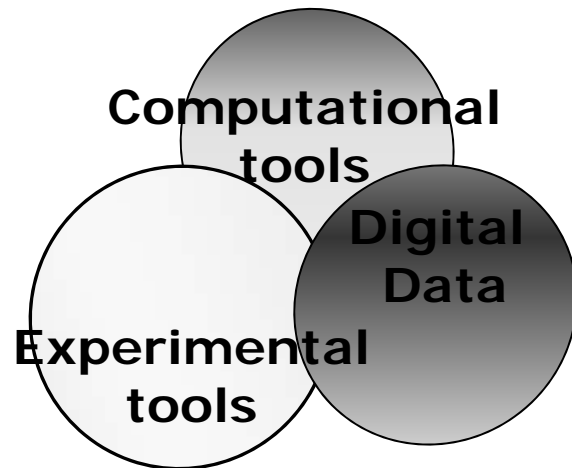


# DMREF Program Panel

## Stafford I Room 000 – P1xxxxx

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June xx, 2013



# Welcome!

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- **Thanks !**
  - Reviewing proposals takes a lot of time and effort; it is hard work
- **Panel introductions:**
  - who you are
  - where you work
  - your areas of interest/expertise
- Televideoconference?
- Late arrivals?

# Remote Panelists

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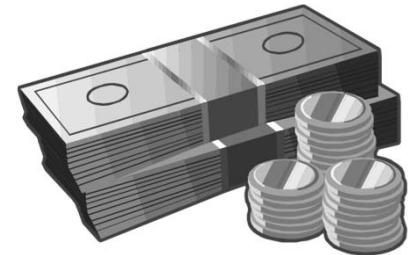


- **IN ADVANCE**: Send your conflict of interest form by fax (703) 292-9035 or e-mailed PDF (mackerma@nsf.gov)
- People on conference calls should mute their phones (so that we don't get lots of competing background noise)
- Make sure you can hear everyone on the panel and everyone on the panel can hear you
- Ensure public / colleagues etc. cannot overhear
- Disconnect/reconnect for conflicts of interest
- Do not use "chat" for proposal discussion

# Reimbursement Information

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- William Daniels
  - (703) 292-4755,
  - wdaniels@nsf.gov,
  - nr. Room 1065.07 in Stafford I
- Electronic Fund Transfer (EFT) Information
  - Must be entered into FastLane by **all** panelists
  - Insures your reimbursement
  - Best to do before panel meeting
- Receipts
  - Federal employees & foreign panelists must save receipts; others should do so for tax purposes



# Practical On-Site & Travel Matters

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- Elevators, Restrooms & Water Fountain at N & S points on each floor
- Refreshments: help yourself, replenished midday
- On own for meals
- Travel Details
  - Air travel should be arranged through SATO Travel (800-817-5257)
  - If you drove, complete automobile travel form



### Asian

- 1) Hunan Gate
- 2) P.F. Chang's
- 3) Szechuan Wok
- 4) Bangkok Bistro
- 5) Shiki Sushi
- 6) Tara Temple Lounge
- 7) Mastutake

### Bar/Grille

- 8) Rock Bottom
- 9) Union Jack's
- 10) Front Page
- 11) Carpool
- 12) Dan and Brad's
- 13) A-Town
- 14) The Green Turtle
- 15) World of Beer

### Burgers/BBQ

- 16) Big Buns
- 17) Ted's Montana Grill

### Café/Bakery

- 18) Buzz
- 19) Starbucks
- 20) Manhattan Bagel
- 21) Panera Bread Co.
- 22) Cusi

### Frozen Treats

- 23) Cold Stone Creamery
- 24) FrozenYo

# NSF Area Restaurant Map



### Groceries/Convenience

- 25) Harris Teeter
- 26) CVS Pharmacy

### Food court (Ballston Commons Mall)

- |              |               |                 |
|--------------|---------------|-----------------|
| Arby's       | Chik-fil-A    | Subway          |
| Kabuki Sushi | Juice Zone    | McDonalds       |
| I Love Thai  | Texas BBQ     | Bloom's Grill   |
| Fabian's     | Charley's Sub | Blue River Cafe |
| Manchu Wok   | Sbarro        | Yenis Dim Sum   |

### Deli/Subs

- 27) Potbelly Sandwiches
- 28) Mike's Café
- 29) Quizno's
- 30) Jimmy John's
- 31) Tivoli
- 32) Zoe's Kitchen
- 33) Earl's Sandwich Shop

### Italian/Pizza

- 34) Vapiano International
- 35) Rustico
- 36) Pinzini
- 37) Tutto Bene
- 38) Pizza Roma
- 39) Café Tirolo

### Tex/Mex

- 40) Uncle Julio's
- 41) Chipotle
- 42) Super Pollo

### Other

- 43) Sweetgreen (salads)
- 44) Noodles & Co.
- 45) Grand Cru Wine Cafe
- 46) IHOP
- 47) The MarketPlace (buffet)
- 48) Willow
- 49) Leek American Bistro
- 50) Buffalo Wild Wings

# FastLane log in instructions

<https://www.fastlane.nsf.gov/index.jsp>

- 1) Navigate to FastLane
- 2) & click on "Panelist Functions."
- 3) Enter your log in information.
- 4) Enter the panel ID (provided to you), your last name and password. After logging into FastLane the first time, you will set a new password, if you have forgotten it, contact us.

The screenshot shows the FastLane login interface. At the top, there is a navigation bar with links: NSF Home | News | Site Map | FastLane Help | Grants.gov Help | Contact Us. Below this, a banner states: "FastLane is an interactive real-time system used to conduct NSF business over the Internet. FastLane is for official NSF use only. [More About FastLane...](#)". To the right of the banner is a "FastLane User Support" box with contact information: (7 AM to 9 PM Eastern Time • M-F) 1-800-673-6188, FastLane Availability (recording): 1-800-437-7408.

The main navigation menu includes: Awards and Status, Proposal Review, **Panelist Functions** (circled with an arrow), Research Administration, and Financial Functions. Below this, a secondary menu lists: Library Awards, Graduate Research Fellowship Program, and Postdoctoral Fellowships and Other Programs.

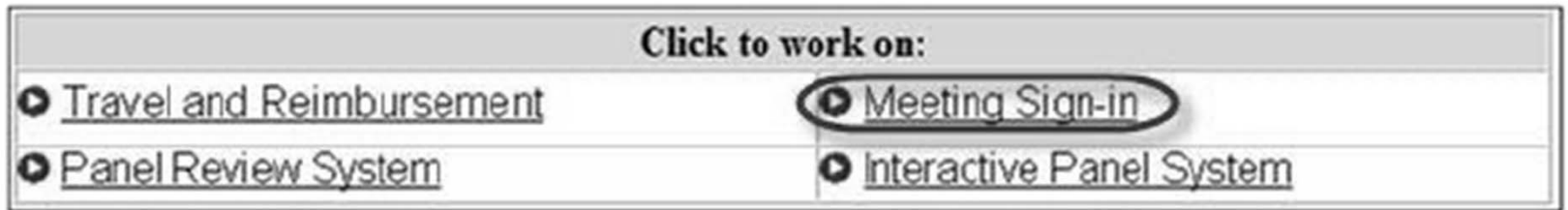
The "Panelist Functions" section is active, displaying a list of functions: Panel Review, Interactive Panel System, Travel and Reimbursement System, and Panelist Personal Information. A notice below reads: "Alert: Computer Scanning Policy - Important Information for NSF Visitors and Panelists. Notice: After you log in, check your Reviewer Information and verify that the e-mail address shown is correct. If you forget your password, we will send your re-set password to this e-mail address. Access to the Interactive Panel System requires that JavaScript be enabled on your browser."

The "Log In" form is on the right, with a checkbox for "If you are using a screen reader please check this box to disable the automatic refresh function:". The form fields are: Panel ID (P089000), Panelist Last Name (Holliday), Password (\*\*\*\*\*), and a "Log In" button. A "Forgot Password?" link is at the bottom of the form.

The footer contains the National Science Foundation address: 4201 Wilson Boulevard, Arlington, Virginia 22230, USA. Tel: 703-292-5111, FIRS: 800-877-8339 | TDD: 703-292-5090. A "Privacy and Security" link is also present.

# Electronic Sign In (for each day of the panel)

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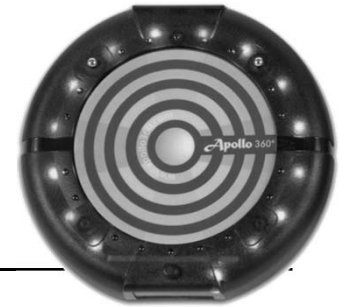


- Sign In via Fastlane's Interactive Panel System (IPS):
  - to ensure reimbursement
  - to correct any mistakes in the spelling of your name or address in the NSF database



# Conflicts-of-Interest

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- Make note on COI form, Sign & Return Conflict-of-Interest form, **tell me**
- Typical conflicts:
  - Current, previous (12 mos.) or possible future employment at institution
  - Advisor or student relationship
  - Co-author of paper, project collaborator within past 48 months
  - Family member or close friend
- Declare actual & perceived conflicts -- you may discover one during panel discussion  
– **just let me know ASAP**
- If conflicted, cannot participate in discussion of proposal

# Confidentiality

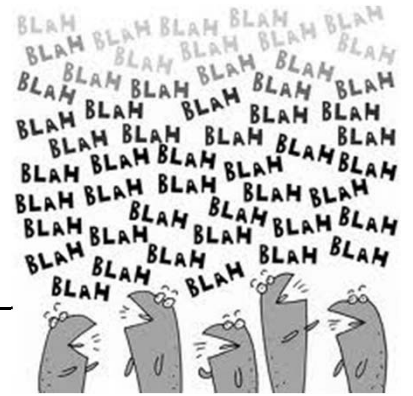
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- Results are confidential!
- Who served on this panel, including yourself, is confidential. If you want to list it on your C.V., don't be specific (omit panel name/function and/or date).
- Scientific and technical information contained in proposals is confidential
- Proposals contain sensitive information and are not in the public domain. Do not copy, distribute or quote from them -- leave copies here, or dispose of them safely (shredding) & delete electronic copies
- Do not discuss results or recommendations outside this panel forum
- NOT CONFIDENTIAL: NSF review process, information contained in the solicitations, etc.

# Social Media & Confidentiality

- Warning: you must maintain confidentiality of panel & its recommendations
- Using social media (tweeting, texting, Facebook, personal web pages) can violate this requirement
- Do not tweet or text** during a panel meeting, be careful what you post on your web page or facebook



facebook

twitter





# Revised Merit Review Criteria

(Jan. 2013)

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- 3 Guiding Principles
- 2 Criteria
  - **Intellectual Merit:** criterion encompasses potential to advance knowledge
  - **Broader Impacts:** criterion encompasses potential to benefit society and contribute to achievement of specific, desired societal outcomes.
- 5 Elements



WHERE DISCOVERIES BEGIN



## **NSB Task Force on Merit Review**

- Established Spring 2010
- Rationale:
  - More than 13 years since the last in-depth review and revision of the review criteria
  - Opportunity to align review criteria with NSF's new Strategic Plan
  - Persistent anecdotal reports about confusion related to the Broader Impacts criterion, and inconsistency in how the criterion was being applied.



## 3 Guiding Principles

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- All NSF projects should be of the **highest quality** and have the **potential to advance, if not transform, the frontiers of knowledge**
- NSF projects, in the aggregate, should contribute more broadly to **achieving societal goals**
- **Meaningful assessment & evaluation** of NSF funded projects should be based on appropriate metrics, keeping in mind likely correlation between effect of broader impacts and resources provided to implement projects

# Five Review Elements

Elements for **both** criteria:

1. What is the **potential** for the proposed activity to:
  - a. advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
  - b. benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially **transformative concepts**?
3. Is the **plan** for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well **qualified** is the individual, team, or institution to conduct the proposed activities?
5. Are there adequate **resources** available to the PI (either at the home institution or through collaborations) to carry out the proposed activities?

# Transformative Research

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- **Research** that describes a range of endeavors which promise extraordinary outcomes such as:
  - revolutionizing entire disciplines, creating entirely new fields, or disrupting accepted theories & perspectives
  - in other words, those endeavors which have potential to change the way we address critical challenges in science, engineering & innovation





# Designing Materials to Revolutionize & Engineer our Future (DMREF)

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- Collaborative processes, iterative feedback, interaction between all components – synthesis, characterization/testing, computation/simulation?
- Likely to lead to significant advances?
- Accelerate materials discovery and development?
- Open access to algorithms & data?

# Individual Review Ratings

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- **Excellent**: Outstanding proposal in all respects; deserves highest priority for support.
- **Very Good**: High quality proposal in nearly all respects; should be supported if at all possible.
- **Good**: A quality proposal, worthy of support.
- **Fair**: Proposal lacking in one or more critical aspects; key issues need to be addressed.
- **Poor**: Proposal has serious deficiencies.

Ratings should match your remarks & reflect your opinion of the proposal!

- You may use a split rating, e.g., E/V



# Bias in Evaluation

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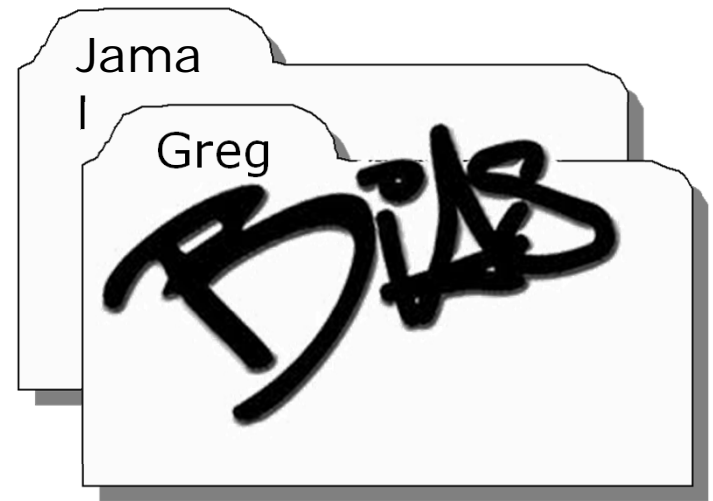
- Implicit bias toward a group
  - Non-conscious hypotheses/stereotypes, often about competence
- Lack of critical mass  $\Rightarrow$  greater reliance on implicit bias
  - Few women & minorities in sciences
- Accumulation of disadvantage
  - Small bias in same direction has large effect over time
  - Very small differences in treatment can have major consequences in salary, promotion and prestige (*Valian, 1998*)

# Examples of Bias & Implicit Bias

## *Race: The Evaluation of Identical CVs*

---

- "Jamal" had to send 15 resumes to get a callback, compared to 10 needed by "Greg."
- "Greg" yielded as many more callbacks as an additional eight years of experience for "Jamal."
- The higher the resume quality, the higher the gap between callbacks for "Greg" and "Jamal."



# Examples of Bias & Implicit Bias

## *Gender: The Impact of Blind Auditions*

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- Based on audition records of 14,000 individuals & rosters of orchestras from 1970-1996:
- The audition data show the use of a screen increases the probability that a woman will advance from preliminary rounds by 50%
- The roster data show the switch to blind auditions accounts for 30% of the increase in the proportion of women among new hires.



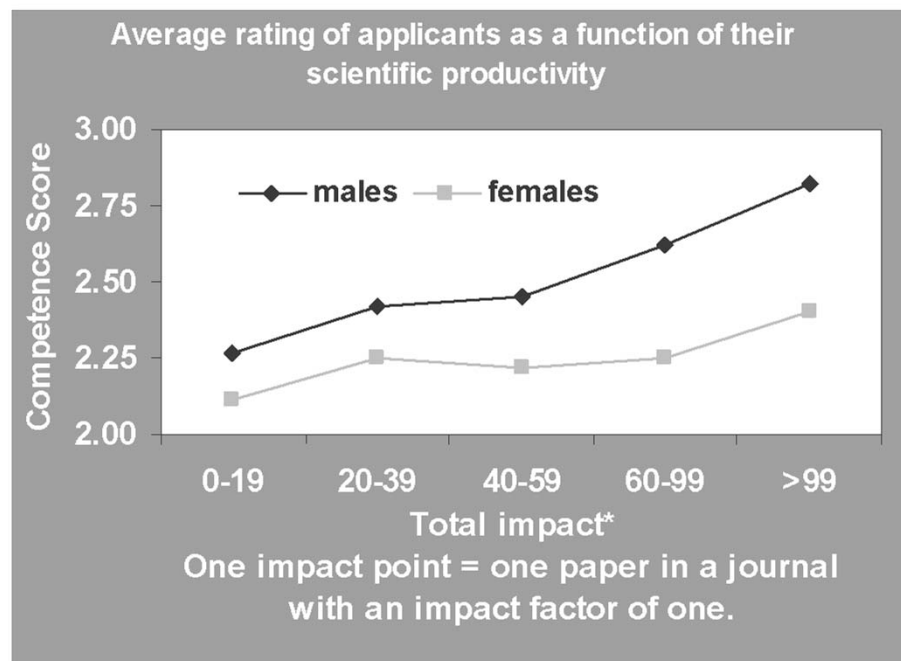
Goldin & Rouse (2000) *The American Economic Review*, 90, 4, 715-741.

# Evaluation of Fellowship Applications

"...the success rate of female scientists applying for postdoctoral fellowships at the [Swedish Medical Research Council] during the 1990s has been less than half that of male applicants."

Wenneras & Wold (1997) *Nature*, 387, p. 341

Women had to be 2.5 times more productive to receive the same competence score.



Similar findings:  
GAO report on *Peer Review in Federal Agency Grant Selection* (1994); & *European Molecular Biology Organization Reports* (2001)

\*Cited by Richard Zare, Stanford chemistry professor and former NSB chair, editorial in 5/15/06 *Chemistry and Engineering News*



# Examples of Bias & Implicit Bias

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When shown pictures, evaluators overestimated the height of men and underestimated the height of women even given reference points.

Biernat, *et al.*

When asked to attribute contribution of skill and luck to successful performances, evaluators attributed men's success more to skill and women's success more to luck.

Deaux and Emswiller



# Implicit biases are...

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- **Widely culturally shared**
  - All people, even members of under-represented groups, hold implicit biases about these groups
  - People are often not aware of them
- **Applied more** under circumstances of:
  - Lack of information
  - Stress from competing tasks
  - Time pressure
  - Lack of critical mass

Fiske (2002). *Current Directions in Psychological Science*, 11, 123-128.



# Ways to Mitigate Evaluation Bias

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- (1) Increase **awareness** of how implicit biases might affect evaluation
- (2) **Decrease time pressure and distractions** in evaluation process
- (3) **Rate on explicit criteria** rather than global judgments
- (4) **Point to specific evidence** supporting judgments

Bauer & Baltes, 2002, *Sex Roles*, 47 (9/10), 465-476

Please incorporate (3) & (4) in your discussions

# Panel Ground Rules

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- **Everyone has a voice** on every proposal barring any conflicts of interest
- If remote, say your name first **EVERY time**
- Speak up to ensure everyone can clearly hear you
- Contribute to, but do not dominate, discussion
- Try not to interrupt others
- Do not go off on sidebars or tangents
- Do not discuss proposals not included in this panel
- Do not discuss proposals outside of this panel forum, or if a Program Director is not listening (NSF staff must be present or connected to conversations)

# Interactive Panel System (IPS)

5) Select either the **Panel Review System** (to enter reviews) or the **Interactive Panel System** (for panel activities)

NSF FastLane

Home News Comments nsf.gov

### Panelist System Selection

REVIEWER INFORMATION		Edit	
Name	Judith Rittenburg		
Address	National Science Foundation Division of Information Systems 4201 Wilson Boulevard Arlington, VA 22230, USA		
E-Mail	jr@nsf.gov		
Office Phone	7032921000 ext.		
<a href="#">Change Password</a>			

PANEL INFORMATION	
Panel ID	workload
Panel Name	Partnership for Innovation Panel
Start Date	Apr 15 2004
End Date	Aug 24 2005
Cut-off Date	Aug 24 2005
Panel Status	Active

DEMOGRAPHIC INFORMATION				Add/Update	
Race	N/A			Gender	N/A
Ethnicity	N/A			Disability	N/A
Citizenship	N/A				

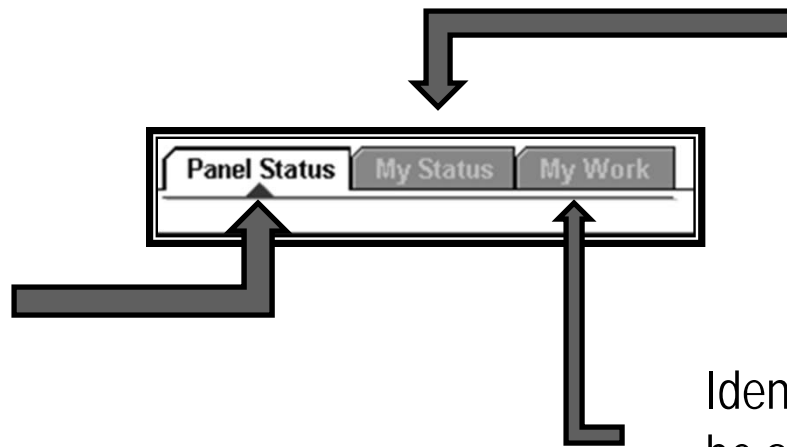
Click to work on:

<a href="#">Panel Travel System</a>	<a href="#">Panel Banking System</a>
<a href="#">Panel Review System</a>	<a href="#">Interactive Panel System</a>

[Go Back To Home Page](#)

# IPS Tab Functions

Click on this tab to see the status of and information concerning all of the proposals.



Identifies proposals where some action is required on your part and those you have completed.

Identifies proposals you will be scribing and approving

If you have a conflict of interest, you will see this message and be denied access to the proposal.

144	0211961	You have a Conflict of Interest for this proposal
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# Key to IPS Symbols

Navigation within 'My Work' is done from the left side of the screen. To work on any proposal, click on the underlined proposal ID.

The proposals are divided into four groups depending on your responsibilities. The groups are:

- **Action Required Proposals:** These proposals are awaiting an action from you. Possible actions include the writing or approving of a panel summary.
- **No Action Required Proposals:** These proposals are awaiting an action from another panelist. They will switch to the "Action Required" group if/when your action is needed.
- **Completed Proposals:** All required Panel Summary Approvals have been given. If the panel summary changes, these proposals will reappear in the "Action Required" group.
- **Not Assigned to You:** This group contains proposals for which you have no specific responsibilities. However, if you choose, you can submit comments on these proposals.

Each proposal ID has an image preceding it which denotes the status of the panel summary. The meanings of the images are:

-  **Not Yet Started**
-  **Work In Progress**
-  **Available For Comment**
-  **Needs Approval**
-  **Approved**
-  **Needs Someone Else Approval**
-  **Conflict of Interest**

Additionally, there are two drop-down lists at the upper left side of your screen:

'**Proposals Sorted By**' lets you choose how the proposals will be sorted in the various responsibility groups. You can sort the proposals by **Discussion Order**, **Proposal ID**, or **Summary Status**.

'**Other Functions**' allows the reviewer to access functions not available from the other Interactive Panel System screens. The available functions are: **Print Summary** (for Scribes only), **Recommendations**, **Prepare Reviews**, and **Name/Addr. Info**.

# Panel Summary: *Reflects Opinion / Assessment*

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- Intellectual merit: strengths & weaknesses
- Broader impacts: strengths & weaknesses
- Program-Specific Criteria
- Summary: rationale for recommendation
- Explicitly address any outlying reviews or dissenting opinions
- Conclude by stating: *"The summary was read by/to the panel and the panel concurred that the summary accurately reflects the panel discussion."*
- Do not make a category or funding recommendation in the summary box or provide a placement/rank for the proposal; these are entered separately

# Panel Placement and Ranking

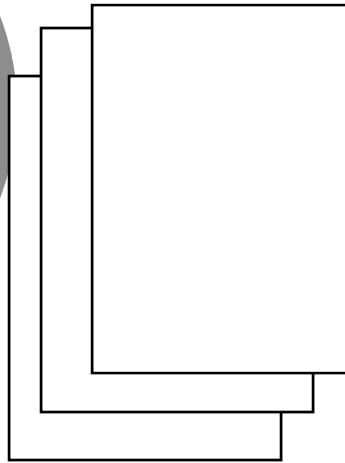
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- Each proposal is placed into a Category:
  - If a **TOP PRIORITY**, make a **convincing case**
  - If **2<sup>ND</sup> PRIORITY**, **guide** improvement
  - If **LOW PRIORITY**, say **why**
- At the end of the panel (time permitting):  
Numerical priority ranking for best proposals
- Panel makes recommendation to NSF; NSF makes final decisions re. awards & declines

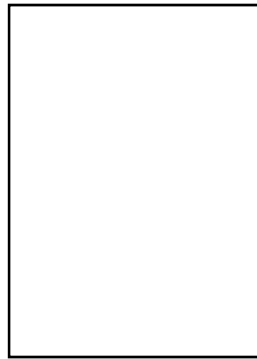


# The PI Receives

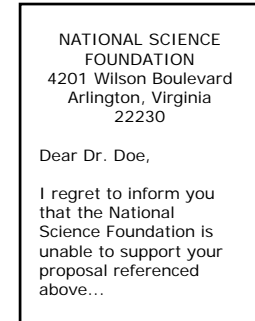
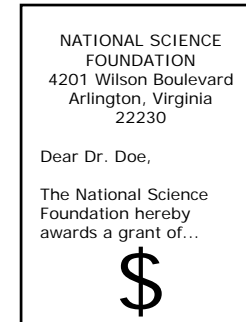
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Panel Reviews  
(verbatim &  
anonymous)



Panel Summary  
(verbatim &  
anonymous)



Context statement  
& award/declination  
letter

- Provide important feedback on all criteria
- Comments should be constructive, informative, non-inflammatory and non-discriminatory

# One last important caution

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- You may not discuss proposals, summaries, or any panel-related business, without the ears of an NSF official
- Neglecting this caution can be considered scientific misconduct

# ***Thank you!***

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