



Peer Review & Factors in Funding

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NAS Committee on the Assessment of NIH Research on Women's Health
January 25, 2024

Outline

- CSR scope & considerations in quality peer review
- Arriving at funding decisions
- Coming changes in peer review

CSR's Mission



To ensure that NIH grant applications receive fair, independent, expert, and timely scientific reviews - free from inappropriate influences - so NIH can fund the most promising research.

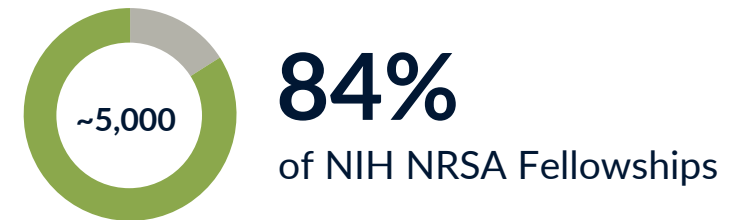
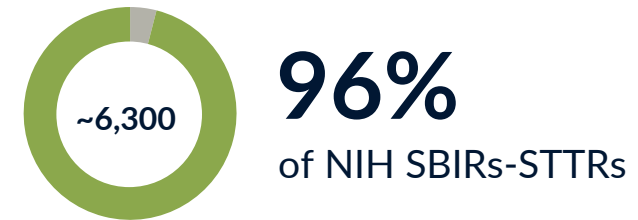
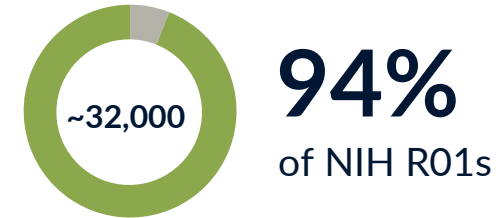


Scope [FY23 applications]


~79,000
NIH Applications




~60,000 (76%)
Reviewed by CSR



~275 SROs, ~19,000 reviewers, ~1,200 meetings

Application Assignments

CSR's Division of Receipt and Referral makes two assignments, corresponding to two levels of review:

1. Study section for first-level peer review

Published study section guidelines, developed through a formal process, to review like science together and have an appropriate level of competition

2. Funding institute/center for a second level of review and funding decision

Institutes/centers that participate in the NOFO; institute interests

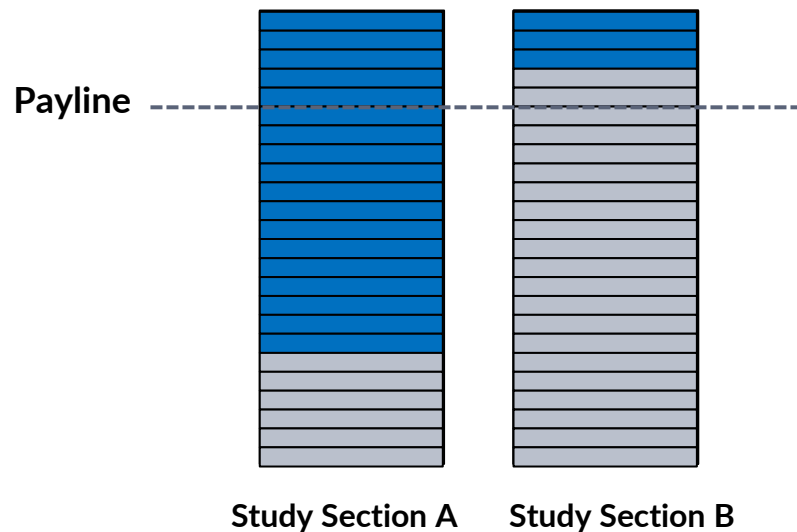
Study Section Output

- ~ Top 50% discussed
 - All receive 3 written critiques
 - Discussed receive a resume of discussion and overall impact score. Resume is written for the program officer.
- Percentile score – normalizes study section behavior
 - Funding institutes/centers have applications reviewed in many different study sections

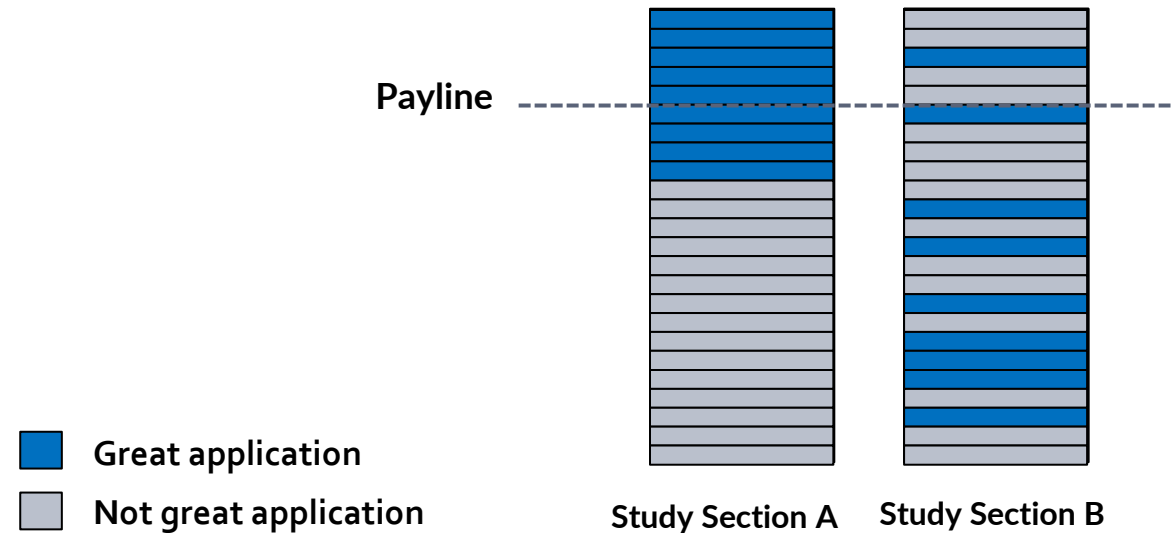
Study Section Scope and Function

Problems with either **scientific scope** or study section **performance** may result in failure to identify the highest impact applications

Maldistribution of strong versus weak science across study sections



Study section's inability to distinguish strong versus weak science



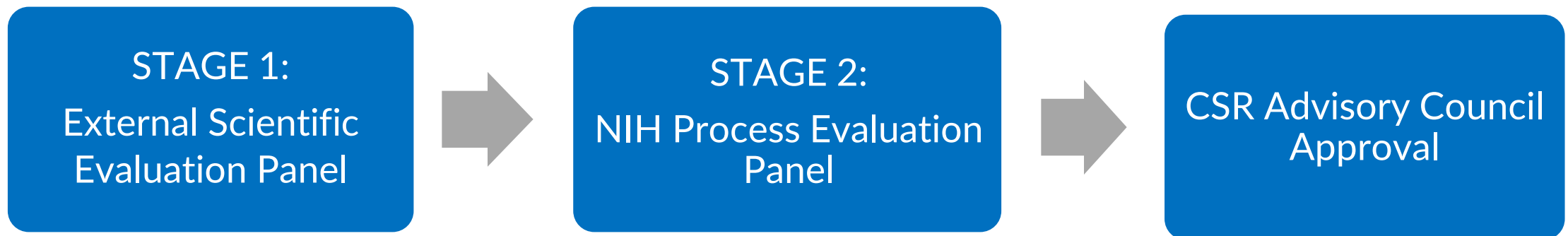
Study Section Evaluation, Restructuring

ENQUIRE: Evaluating Panel Quality In Revue

Launched in 2019, a systematic, data-driven, continuous process to evaluate study sections – about 20% of CSR study sections assessed per year, i.e. each study section assessed every five years

Stage 1 [Scientific Evaluation]: Evaluate scientific currency of study sections to optimize identification of high impact research. Identify emerging areas, declining areas, create/merge/sunset study sections (*panel provided with output/publication data, ESI outcomes data, sample abstracts/aims, & more*)

Stage 2 [Process Evaluation]: Evaluate study section function and recommend changes to optimize identification of highest impact research (*panel provided with application number trends, score distributions, roster expertise, reports of meeting dynamics through study section site visits, program feedback & more*)



The entire ENQUIRE process is overseen by CSR's Scientific Division Directors.

Reporting Concerns about Bias or Integrity

With ~1.2k meetings, ~60k apps, ~19k reviewers, ~200k critiques, mistakes will occur

For issues related to respectful interactions, bias or anything else that could affect the fairness of the review process, contact your SRO or send an email to reportbias@csr.nih.gov. This email box is monitored by senior leadership and all reports are investigated.

For issues related to review integrity, contact your SRO, or the CSR Review Integrity Officer at csrrio@mail.nih.gov, or the NIH Review Policy Officer at reviewpolicyofficer@mail.nih.gov.

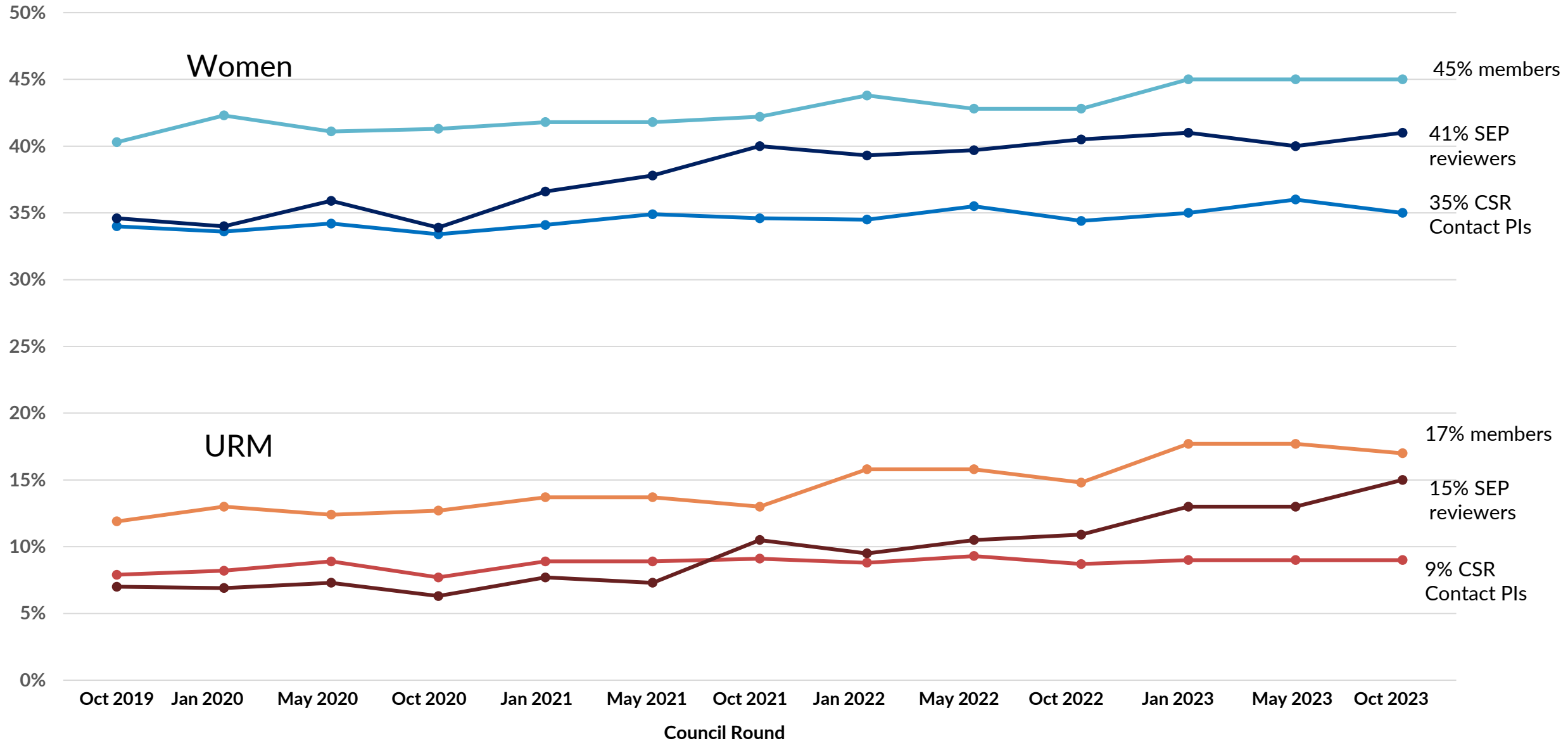
CSR policy regarding a potentially flawed/biased review

Assessment by CSR management – is it a flawed review?

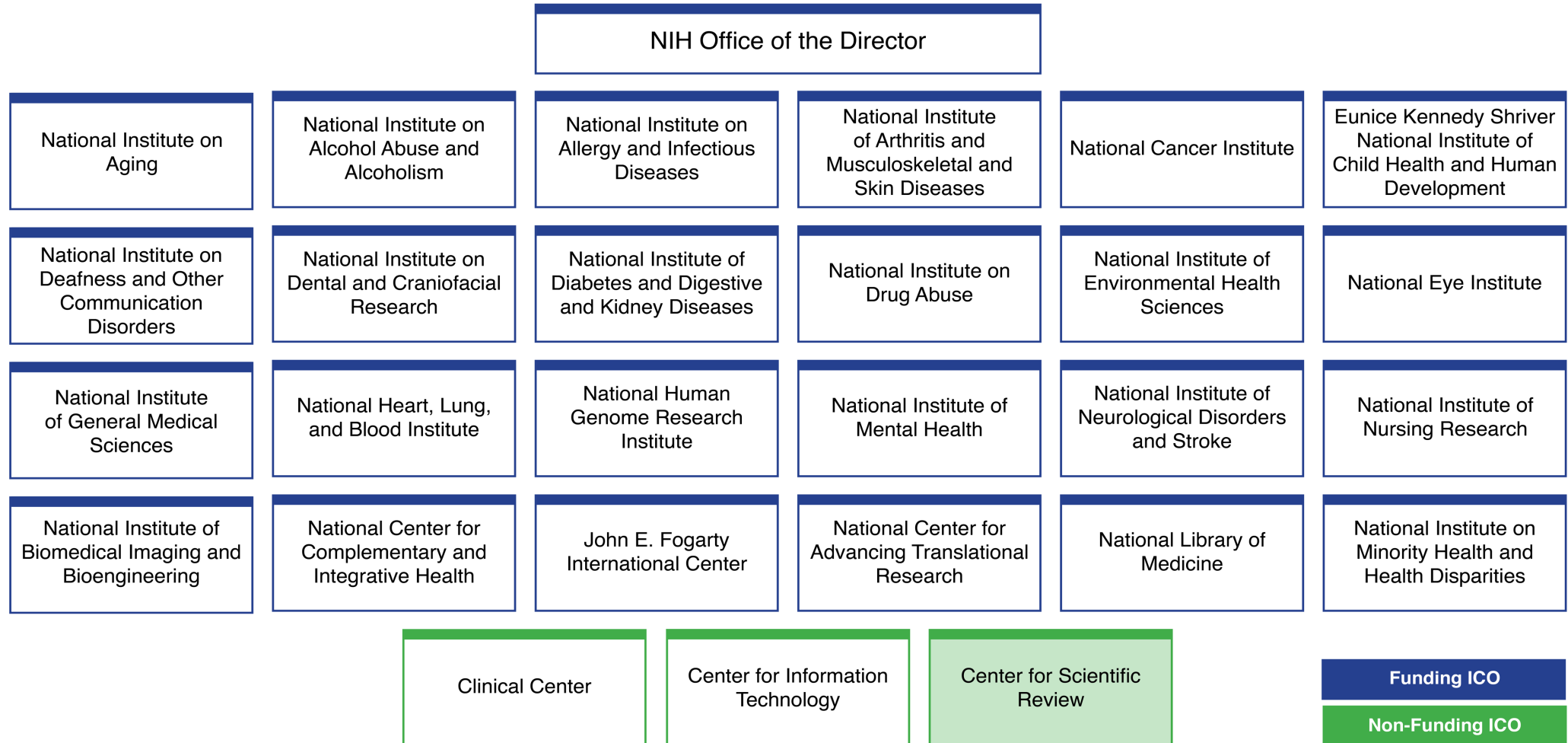
- Yes - CSR re-reviews the application in the same council round.
- No – CSR refers PI to program officer for guidance on council appeal process

Interested in how CSR is addressing bias in review?
<https://public.csr.nih.gov/AboutCSR/Address-Bias-in-Peer-Review>

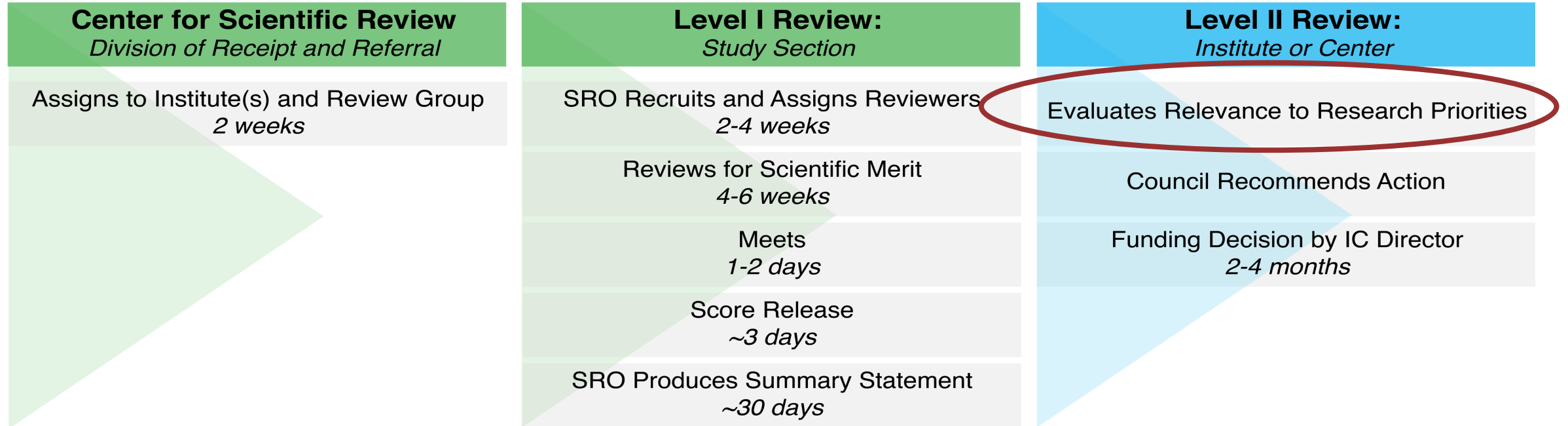
CSR continues to increase the diversity of its reviewer pool



NIH Structure



Review and Funding of NIH Grant Applications



24 Competitions, with Different Odds

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Associations of topic-specific peer review outcomes and institute and center award rates with funding disparities at the National Institutes of Health

Michael S Lauer , Jamie Doyle, Joy Wang, Deepshikha Roychowdhury

Office of the Director, National Institutes of Health, United States; Division of Clinical Innovation, National Center for Advancing Translational Sciences, United States; Office of Extramural Research, National Institutes of Health, United States

<https://elifesciences.org/articles/67173>

IC	Applications(N)	Awards(N)	Award rate(%)	AAB PI	AAB(%)	Appropriations(\$B)
EY	2026	315	15.5	14	0.69	0.684
GM	9781	1266	12.9	113	1.16	2.371
DC	1145	141	12.3	13	1.14	0.405
DE	1282	140	10.9	26	2.03	0.400
MH	5067	536	10.6	87	1.72	1.463
DA	3606	359	10.0	66	1.83	1.029
NS	6786	668	9.8	77	1.13	1.605
NR	1180	107	9.1	55	4.66	0.141
HL	11,325	995	8.8	171	1.51	2.998
ES	2193	188	8.6	44	2.01	0.745
AI	9421	791	8.4	196	2.08	4.359
DK	6986	538	7.7	110	1.57	1.900
AA	1423	105	7.4	16	1.12	0.447
EB	1777	131	7.4	15	0.84	0.330
AG	4211	302	7.2	52	1.23	1.199
CA	15,906	1045	6.6	206	1.30	4.950
HD	5454	340	6.2	168	3.08	1.287
MD	829	51	6.2	123	14.84	0.269
AR	2656	161	6.1	30	1.13	0.522

Simplifying Review of NIH Research Project Grant (RPG) Applications – Jan 25, 2025

Overview of Changes to Peer Review Framework for RPGs

MAIN REVIEW FACTORS – all affect Overall Impact score

- **Factor 1: Importance of the Research [scored]** - strengths/weaknesses

Significance, Innovation

- **Factor 2: Rigor and Feasibility [scored]** - strengths/weaknesses

Approach

- **Factor 3: Expertise and Resources [not scored]** - drop down- appropriate, or identify gaps]

Investigators, Environment

- Study Timeline (for CT only)
- Inclusion plans – sex/gender, race/ethnicity, based on age (HS and CT)

ADDITIONAL CRITERIA – not scored, but can affect Overall Impact score

- ~~Study Timeline (for CT only)~~
- Human Subject Protections (for HS and CT)
- ~~Inclusion of Women, Minorities, and Children (for HS and CT)~~
- Vertebrate Animal Protections
- Biohazards
- Resubmission/Renewal/Revisions

*Most “Additional Review Considerations”, which had no bearing on Overall Impact Score, **removed** from first-level peer review.*

Reviewers briefly comment on Budget and Chem/Bio resources authentication plans

Next Steps: Between Now and January 2025

Fall 2023:

- ✓ Issue Guide Notice announcing changes
- ✓ Staff webinar providing overview of changes and timeline for implementation
- ✓ Public webinar providing an overview of changes

Over the next year:

- Changes to NIH systems
- Developing training resources
- Updating and publishing funding opportunities



One-stop shop, central NIH site with information, FAQs

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

Lots of training/outreach to socialize the change for reviewers, chairs, applicants, staff

Questions?

Think of something later? Kristin.Kramer@nih.gov