

Beckman Foundation Blinded Application Review

Arnold and Mabel Beckman Foundation

Dr. Anne Hultgren

Executive Director

Our Process

Messages from our Founder, Arnold O. Beckman:

“I want to support young scientists, those who do not yet have the clout to receive major research grants.”
“There is no satisfactory substitute for excellence.”

- 2018: Internal discussions with Board and Science Advisory Council
 - Our awardees mostly from the same set of institutions each year
 - Requested analysis of institutional diversity

Strategic Questions:

How do our awardee demographics compare to our applicants? (we can control)
Are we receiving applications from a diversity of institutions? (we can influence)

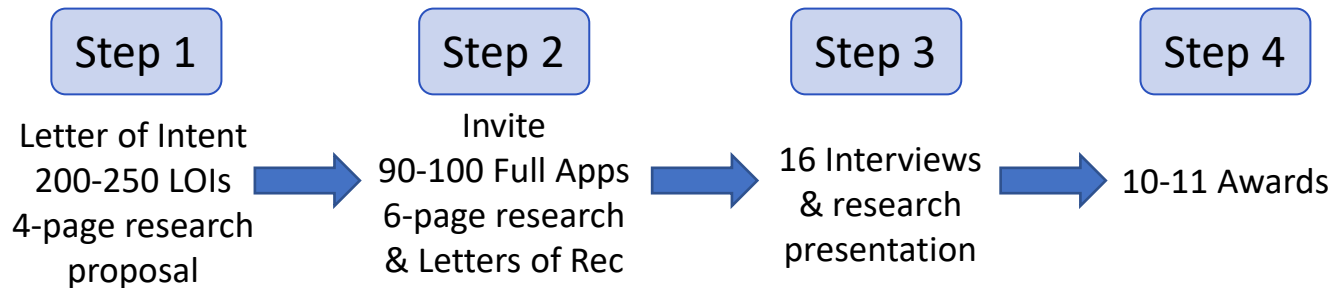
- 2019: Developed methodology, conducted analysis on institutional diversity
- 2020: ***Distributed analysis results*** to our Board, SAC, and review committees; began planning for blind reviews in our Beckman Young Investigator program
- 2021 applicants: Began ***blinded review*** at “Letter of Intent” step

Analysis Method

- Which Institutions have “clout” to receive major research grants?
- Used 5 categories:
 - “AMBF Top Ten” – Institutions with most historical funding from Beckman Foundation
 - NSF 1-25, 26-50, 51-100*
 - Other – Institutions not on 2018 NSF Top 100 list

(*Source: <https://ncesdata.nsf.gov/fedsupport/2018/html/fss18-dt-tab004.html>)

- Counted applications in each category for 4 steps of review process



“AMBF Top Ten” Institutions

Caltech, Columbia, Cornell, Harvard, Johns Hopkins, MIT, Princeton, Stanford, UC Berkeley, Yale

NSF 1-25 (examples)

UCLA, Northwestern, USC, U of Pennsylvania, U of Michigan, U of Washington, WUSTL, UC Boulder

NSF 26-50 (examples)

Ohio State, UT Austin, Carnegie Mellon, U of Arizona, New York University, UC Davis

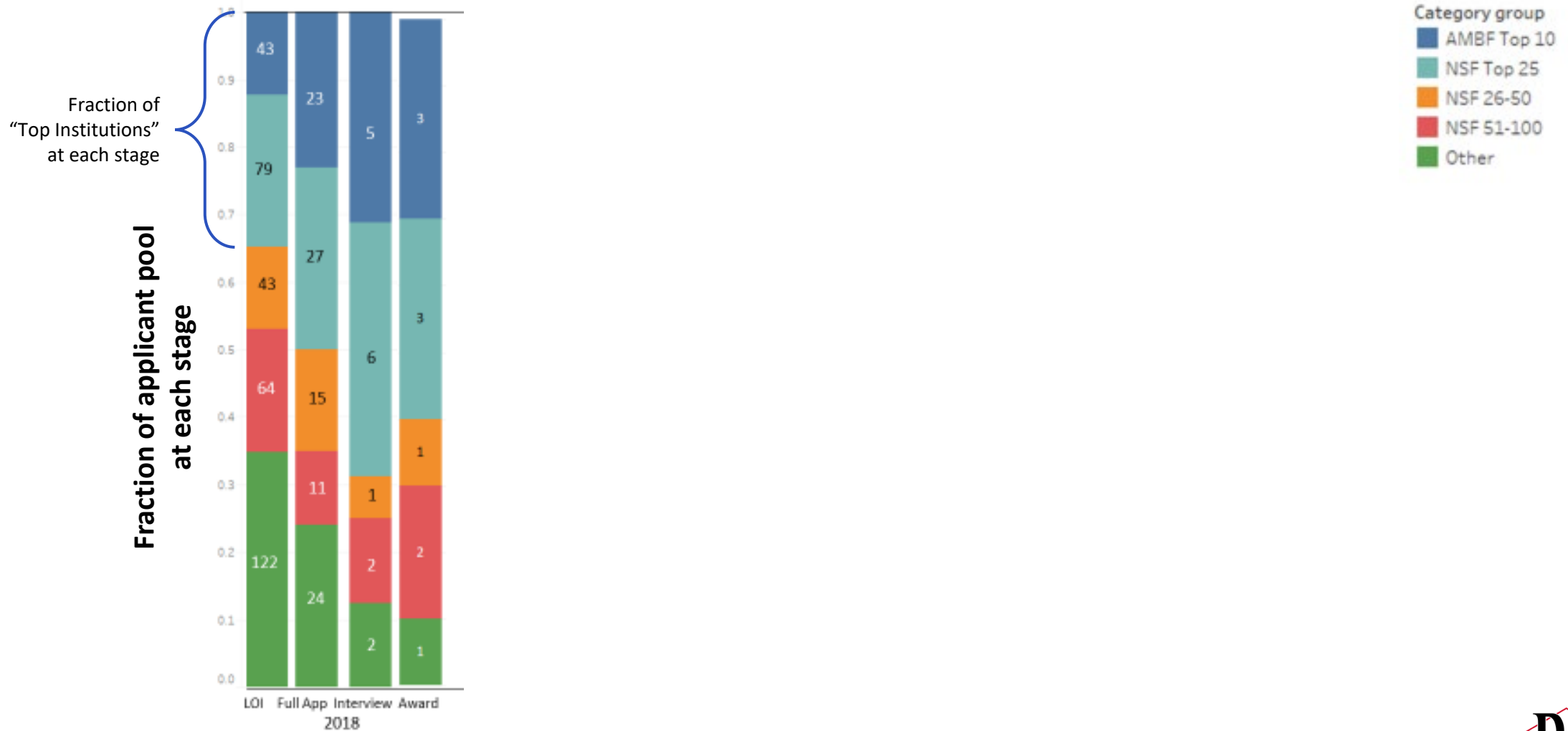
NSF 51-100 (examples)

U of Miami, NC State, Florida State, UC Santa Barbara, Temple University, U of Cincinnati

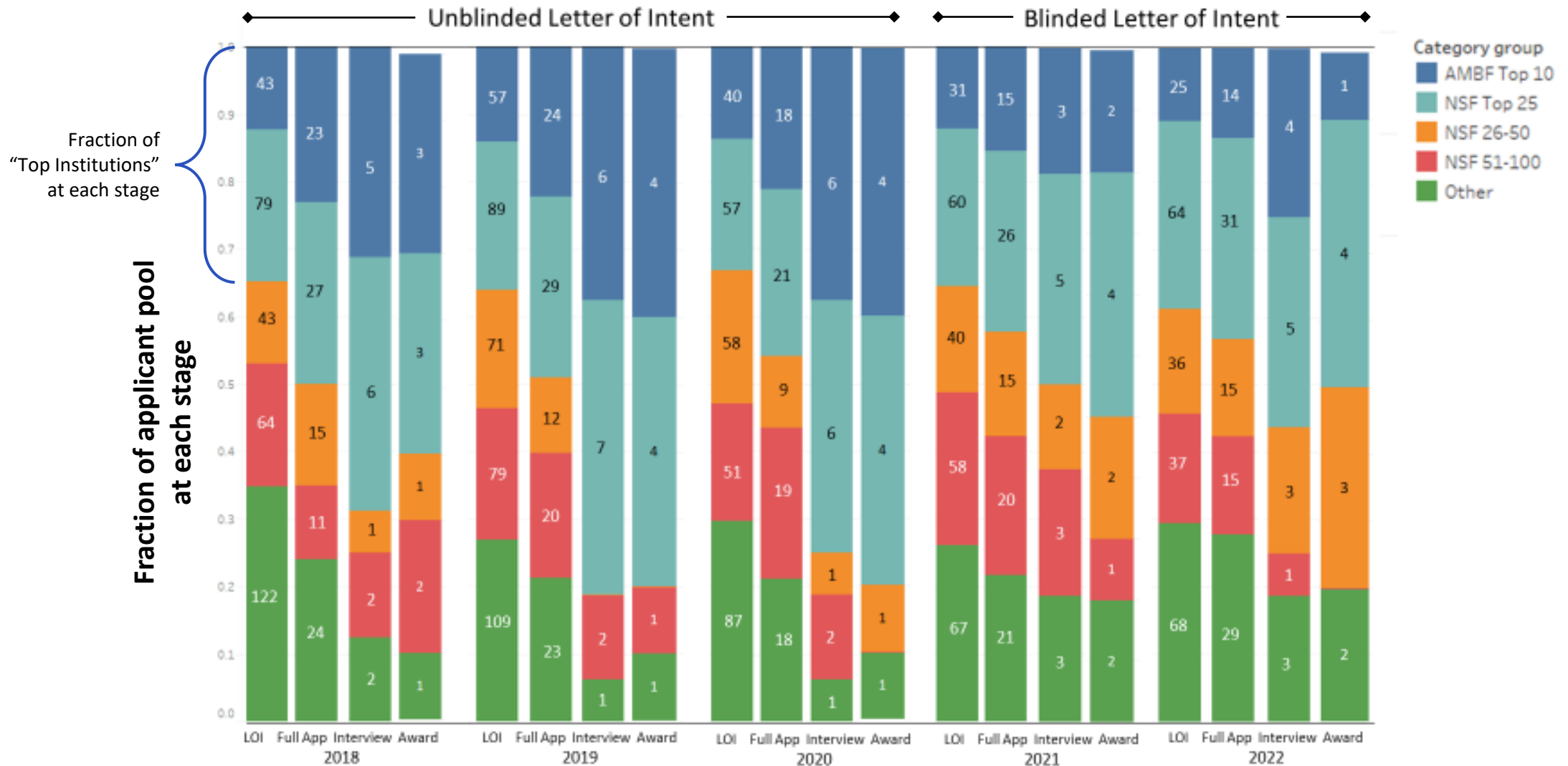
Other (examples from our applicants)

Auburn, UC Santa Cruz, Colorado School of Mines, Florida A&M, Marquette, U of Nevada Reno

Results, 2018



Results, 2018-2022



Some “Blinding” Logistics

- **Just the LOI stage, applicant information available in Full Applications**
- **We have a separate form in our application portal (hidden from reviewers) to collect applicant info**
 - Name, institution, gender, race, ethnicity, disability, existing and pending external funding
- **Instructions for applicants:**
 - Do not include your name, gender, or any institutional information in the technical pre-proposal.
 - You are encouraged to write in third person (example: the applicant). Using "I" or "We" is allowed.
 - Do not name collaborators, mentors, postdoc advisors, lab members, etc.
 - If you include references to your own publications in the technical proposal, do not use any formatting markings (asterisk, bolding, italics, etc.) to identify yourself within the list of authors.
 - If you have unpublished work, use this format: ¹(Applicant name withheld). Unpublished work, 2022.
 - **Failure to follow guidelines could result in disqualification.**
- **Compliance considerations:**
 - Application portal – triple-check that applicant names not visible or included in file name downloads!
 - Internal staff review LOIs for obvious violations
 - Reviewers can flag LOIs for intentional violations
 - Discussed at the start of review meetings
 - At least two reviewers must agree to disqualify an application
 - Must be intentional violation, not just that the reviewer “thinks they know” the applicant

Conclusions on Institutional Diversity

- Do our awardee demographics compare to our applicants?
 - As a fraction of applicants, we made progress in our awardees reflecting the applicant pool, but there is still a gap
- Do we have applications from a diversity of institutions?
 - Need more analysis on which institutions in the NSF 51-100 and Other categories are applying
- Some unintended benefits:
 - Blinded applications are much easier to review – short and just the science
 - No comments such as “this applicant trained with [premier scientist XYZ], so I will give them the benefit of the doubt...” or “well, Stanford must have seen their potential...”
 - Review meeting discussions focus only on the science topics – no publication counting or debates over relative journal impact factors

Future Directions

- Continue to increase outreach for applications from diversity of institutions
 - What can we do to help new applicants be competitive?
 - Posted guidance and example documents
 - Posted video instructions and hold “Office Hours” with our Program Officers
 - Considering a “Mentor network” of our awardees
- Examine our Full Application review and Interview processes to reduce biases
 - More diverse reviewers and better reviewer training?
 - Is our scoring system biased?
 - Can we do real-time data analysis during the review discussions?
- Continue analysis and tracking for metrics of our applicants, reviewers, and awardees