

Building Inclusion, Diversity, Equity, and Accessibility into Research Programs

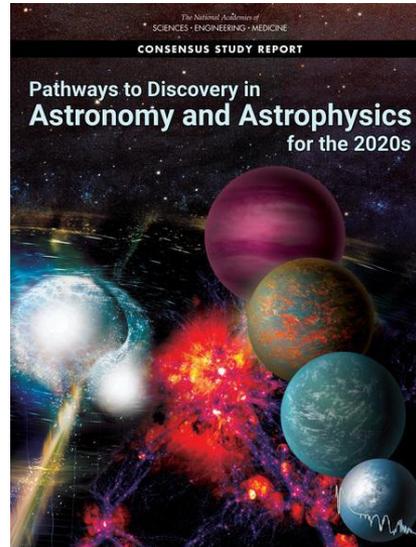
Dara Norman



*All comments and opinions expressed here are my own and are not necessarily those of my employer.

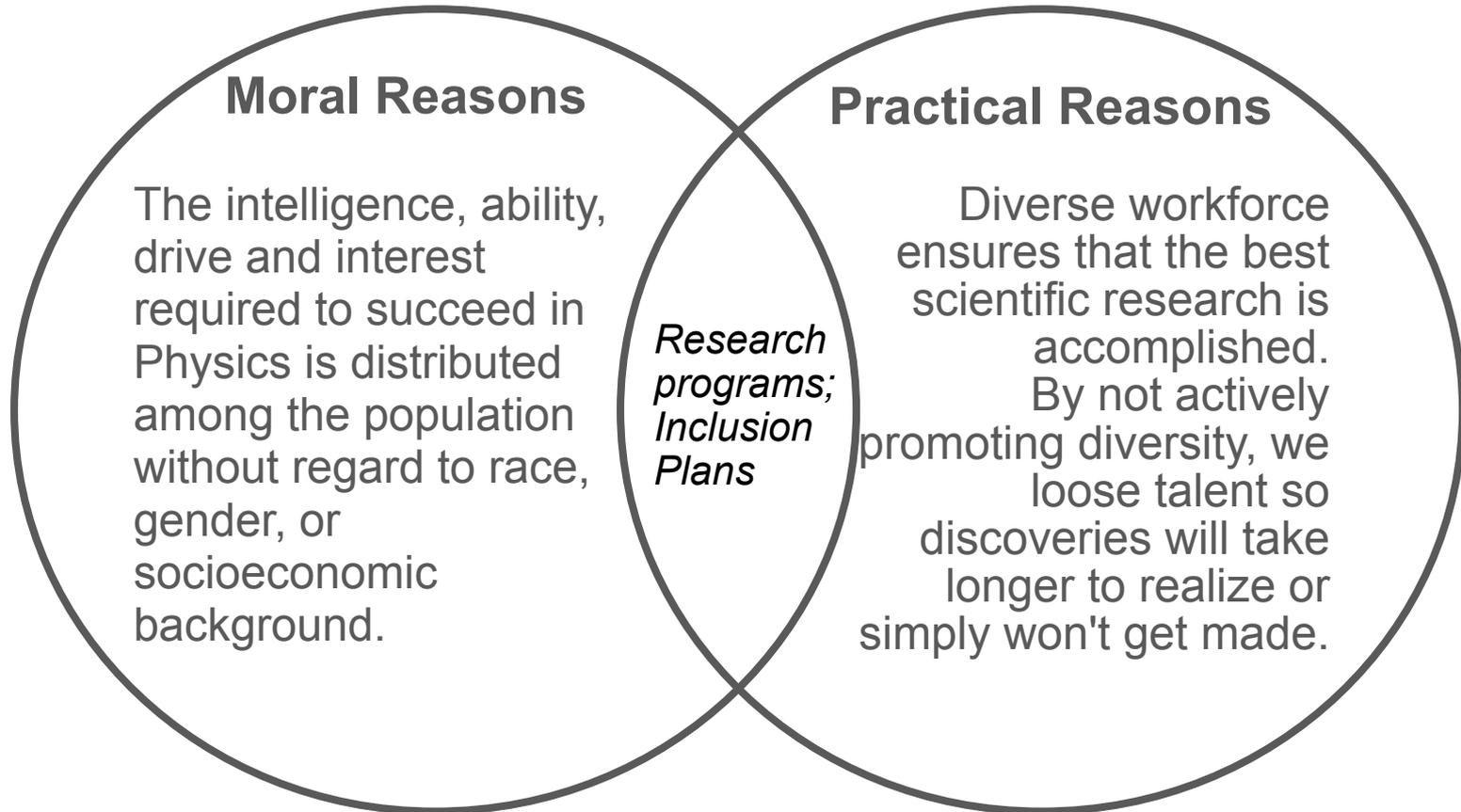
We are Ready!

The Astro community recognizes the need to include topics of Inclusion, Diversity, Equity, and Accessibility (IDEA) in research.



Pathways to Discovery
from *Foundational Activities*:
“Develop and diversify the
Scientific Workforce”

Why Build IDEA into Research programs



Inclusion, Diversity, **Equity**, and Access

Equity



Equality

The quality of being fair;
To provide all with the
support they need to
reach and exceed goals;

The focus is on outcomes.

The state of being
equal.

As policies and practices to promote IDEA are implemented, this difference must be kept in mind.

Policies & Practice must support IDEA



Encourage students with previously little Physics Background to move toward careers in Physics

Bridge programs

- Pros:** Opportunity to bring students with other STEM interests and backgrounds to Physics as a career
- Cons:** Can promote deficit-minded thinking about minority students
- Mitigation:** Focus on implementation and regular assessment, revision



Anonymized proposals Reviewed by Anonymous Panel Members.



Dual Anonymous Review

- Pros:** Better focus on the science of the proposal
- Cons:** Can conflict with other science mission priorities
- Mitigation:** Focus on implementation and regular assessment, revision

Similarly, research plans and practices should include regular evaluation.

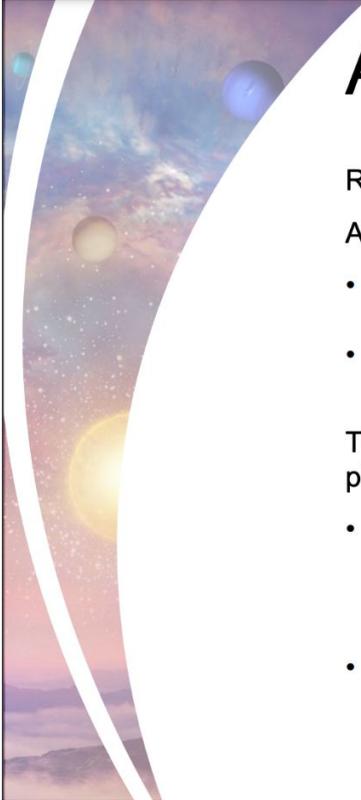
Incentives need to be provided to promote cultural change

Previously...

Research funding (e.g., grants) is currently not tied to metrics or progress on the inclusion of underrepresented and disenfranchised groups.

“Broadening Participation” must be about **workforce and research participation**, not just public outreach and education.

Now...



ATP Inclusion Criterion Pilot Program

ROSES-21 will be amended to add the following change to the Astrophysics Theory Program (ATP)

All proposals should include an inclusion plan. This section will address:

- Plans for creating and sustaining a positive and inclusive working environment for those carrying out the proposed investigation, and
- Contributions the proposed investigation will make to the training and development of a diverse and inclusive scientific workforce.

The inclusion plan will be evaluated for adequacy and completeness. The evaluation of the inclusion plan includes the following factors:

- Does the inclusion plan adequately communicate the goal of a positive and inclusive working environment for the investigation team? Does the inclusion plan provide adequate processes for creating and sustaining a positive and inclusive working environment for the investigation team? Are these processes likely to be successful in achieving the goal.
- Does the inclusion plan adequately describe the contribution of the proposed investigation to the training and development of a diverse and inclusive workforce? Does the inclusion plan provide an adequate plan for achieving the identified contribution? Is the plan likely to be successful in realizing the identified contribution?

Review of NASA's Inclusion Criteria Pilot

Bulletin of the AAS • Vol. 54, Issue 1 (Obituaries, News & Commentaries, Community Reports)

Report on the Review of ATP Inclusion Plans by DEI Expert and Science Expert Panels

Tim Sacco¹, Dara Norman¹

¹NOIRLab

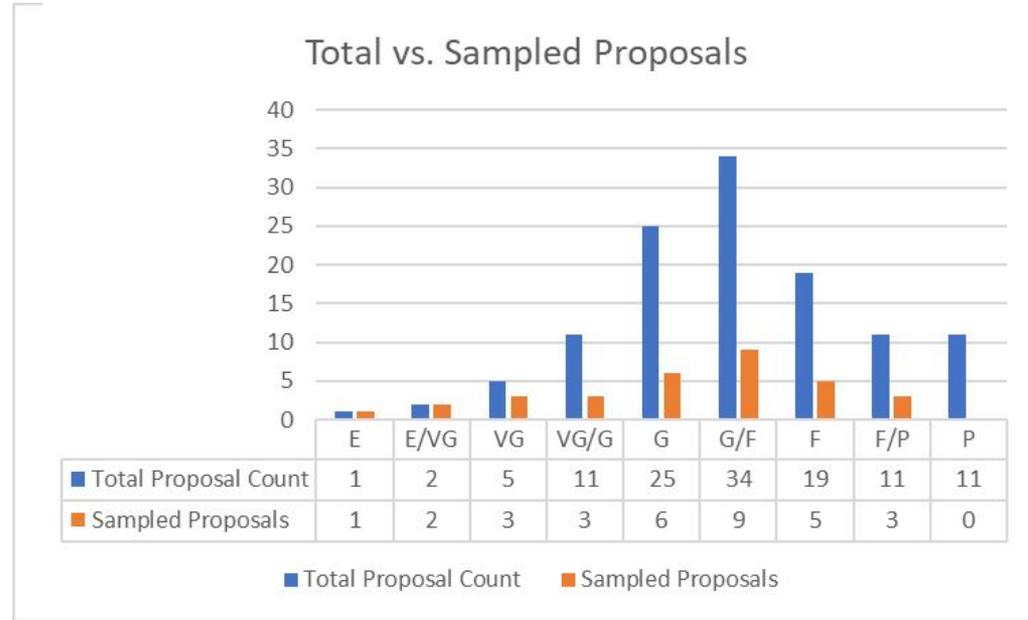
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<https://baas.aas.org/pub/2022i028/release/1>

Blue: Distribution of DEI expert grades of the Inclusion Plans for 119 ATP proposals



See AAS Talk for additional details

221 - Community & Profession: Outreach and Mentoring

Timothy Sacco and Dara Norman

221.05 U.S. Extremely Large Telescope Program's
'Research Inclusion Toolkit': Preparing the Astronomy
Community for Inclusive Collaborations

Tuesday, January 10, 2023

10:40 AM PST - 10:50 AM PST

Room 607

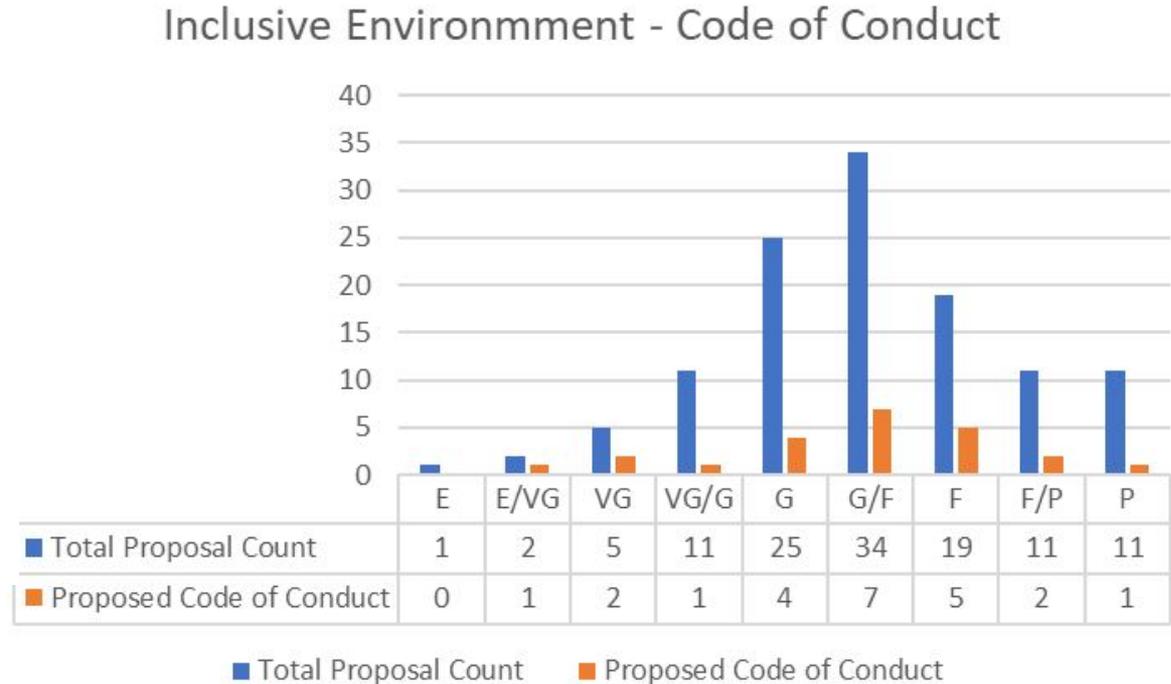
A Brief Summary of Findings

- 1) Inclusion of a good practice did not necessarily translate into a good grade (e.g. distribution of grades for 'Code of Conduct' inclusion)**
- 2) Themes that might have the highest impact (e.g., leveraging partnerships to support DEI and substantial evaluation of partnerships) were implemented less often in the plans.
- 3) In their evaluations, Science Expert panels did not identify the same critiques as DEI expert panels although overall positive vs negative ranks were similar. There is a need to educate science experts on good practices in evaluating inclusion plans.

Implementation matters for success

Inclusion of a good practice did not necessarily translate into a good grade (e.g. distribution of grades for 'Code of Conduct' inclusion)

How a practice is Implemented matters!



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Themes from ATP proposals

DEI credentialing - 53%

Code of Conduct - 18%

Normal Mentoring - 23%

Leveraging Institutional Resources

Fostering an inclusive Environment/Climate

Code of Conduct

Normal mentoring practice

Evaluation of inclusivity

Substantial Evaluation plans

Open Communication

Regular Meetings

Equitable Recruitment

DEI training

Cross Institutional Partnerships

Credentialling

Leverage partnership for DEI

Theme	Sub-theme	# of proposals	% of Total proposals
DEI Credentialling		64	53%
	History with DEI work	44	37%
	Institution DEI Credentials	30	25%
	Department DEI Credntials	22	18%
Leveraging Institutional Resources		68	57%
	Bridge programs	9	8%
Fostering an inclusive Environment/Climate		84	70%
	Code of Conduct	22	18%
	Normal mentoring practice	27	23%
	Evaluation of inclusivity	12	10%
	Substantial Evaluation plans	4	3%
	Open Communication	15	13%
	Regular Meetings	23	19%
	Equitable Recruitment	13	11%
	DEI training	13	11%
Cross Institutional Partnerships		13	11%
	Credentialling	8	7%
	Leverage partnership for DEI	5	4%

High Impact Themes Implemented Less Often

DEI credentialing - 53%

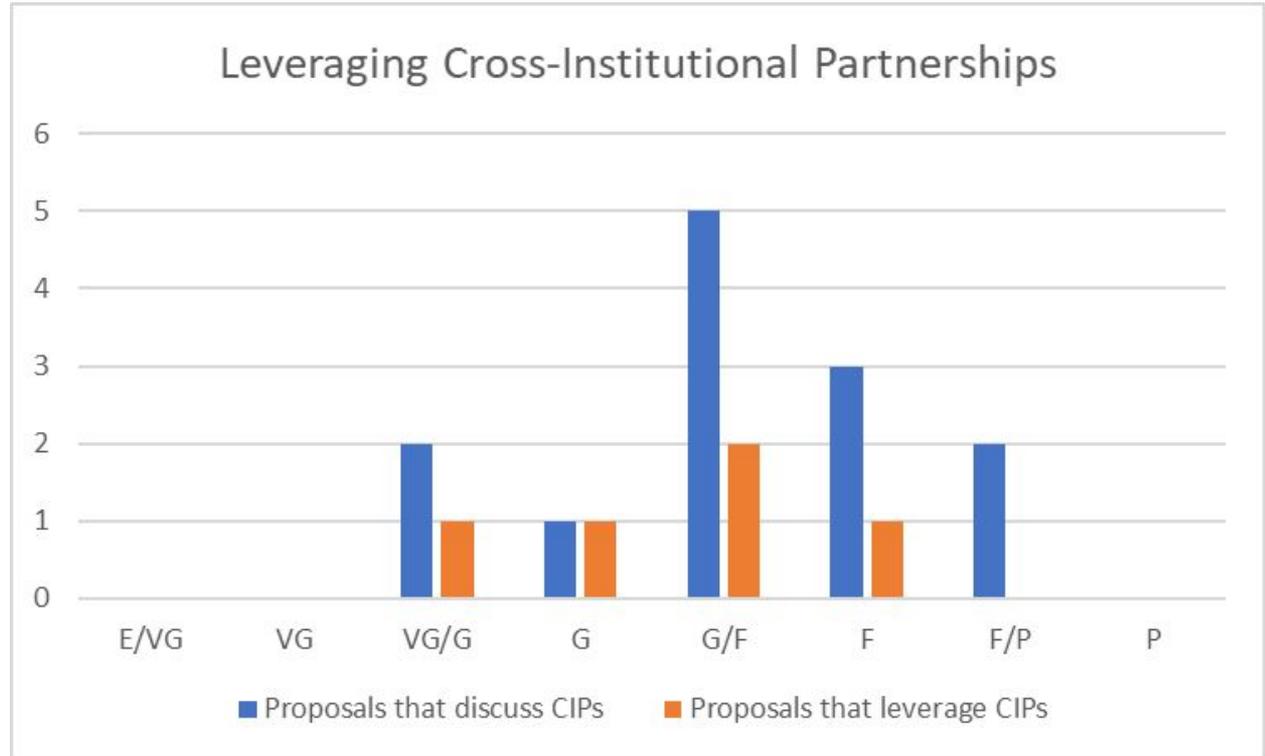
Code of Conduct - 18%

Normal Mentoring - 23%

Substantial evaluation plans - 3%

Cross Institutional Partnership - 11%

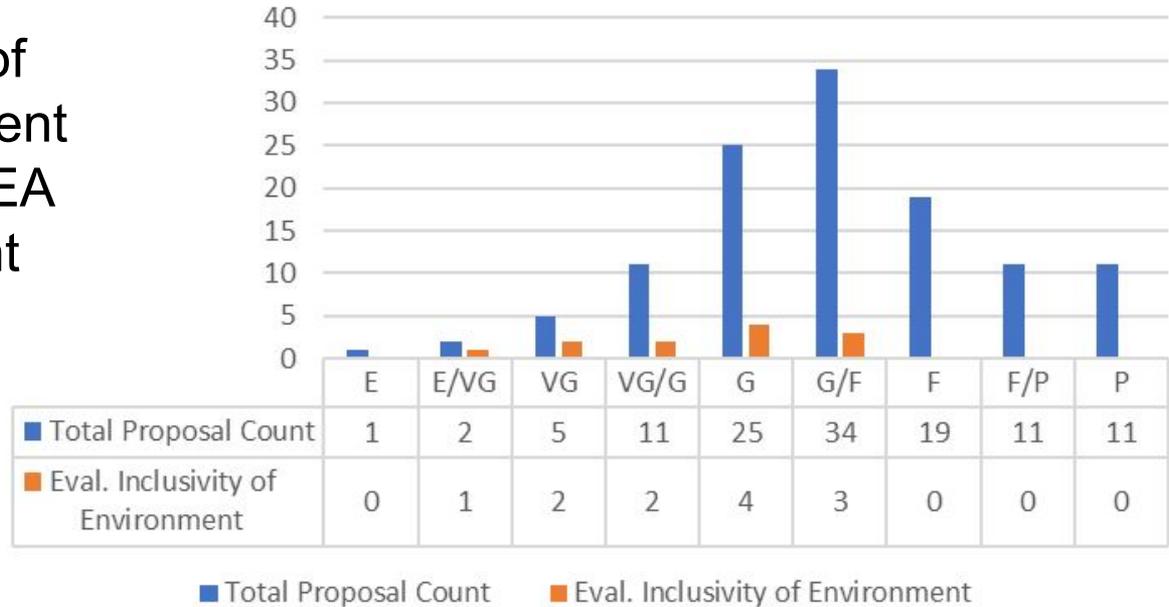
Leveraging Partnership for DEI - 4%



Attention to the Evaluation

Building in evaluation of the research environment and how to monitor IDEA success is an important component.

Inclusive Environment - Evaluate Environment

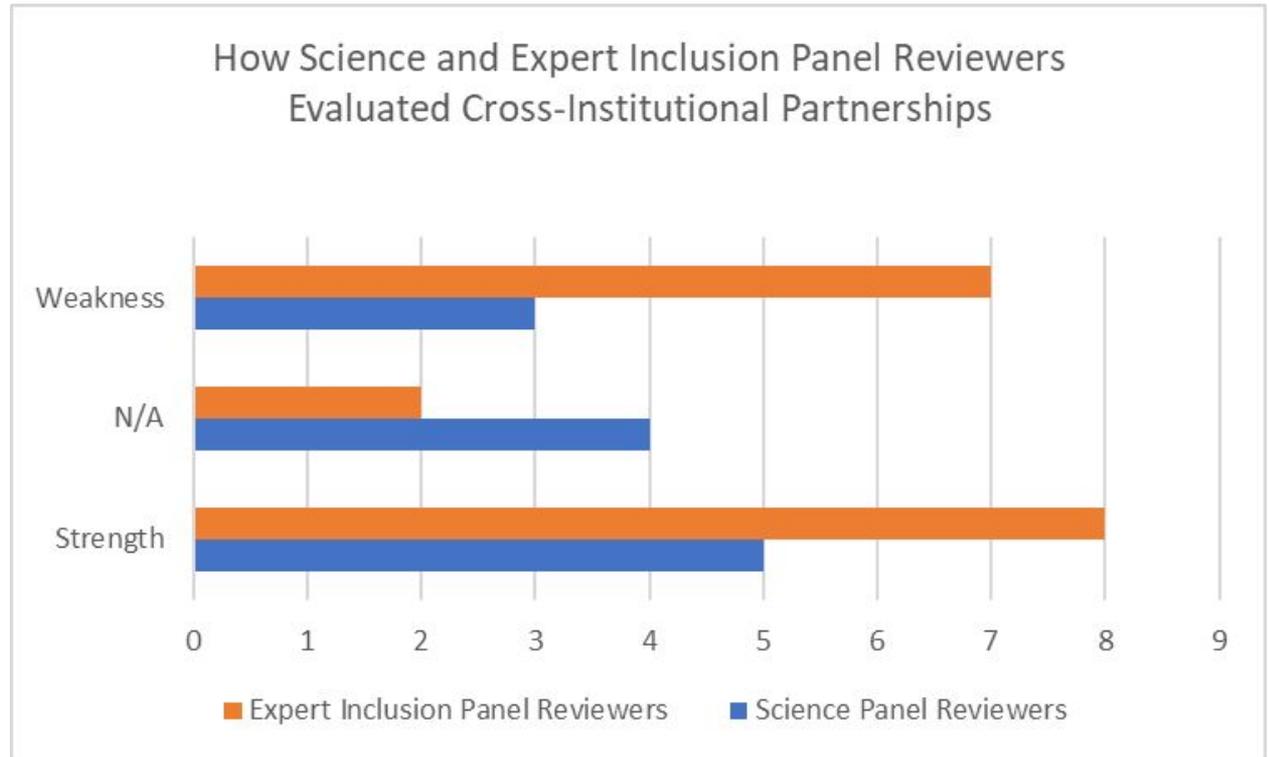


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Science Experts and Inclusion Plan Evaluation - more work to do

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Toolkit of Collaborative Practice

The US-Extremely Large Telescope Program's Research Inclusion Initiative is supporting the building of a toolkit (database) of good collaborative practice

Vetted by sociologists, the toolkit provides

- a. An inventory of resources
- b. Curated, organized and assessed
- c. Content can be filtered to narrow in on interests/needs



Open Collaboration



More Details at Sacco Talk: **Tuesday, Jan10 10:40AM Rm 607**

Summary: Tips for Building IDEA into Research Programs

1. There are Moral and Practical reasons to build IDEA into research plans. (Both are valid.)
2. Equity is not the same as Equality.
3. Regular evaluation of policy and procedures is important.
4. The implementation of practice matters for success.
5. High impact activities may be the hardest to implement, but ultimately may be the most beneficial (i.e., drive the most positive change).
6. Next steps include educating scientists about Inclusion Plans, as both PIs and reviewers, with resources like the Toolkit of Collaborative Practice

Questions?