AWESOM IDEA

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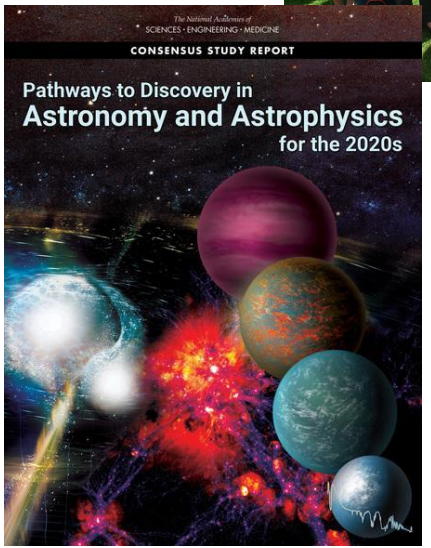
Astrophysics With Equity: Surmounting Obstacles to Membership (AWESOM)

“We Ready”

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

Inclusive Astronomy 2015



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

Research Inclusion

The US-Extremely Large Telescope Program Research Inclusion Initiative: Focus is on 4 main areas of inclusion identified through conversations with researchers at small and under-resourced colleges and universities.

1. Policies and procedures that support mutually beneficial partnerships
2. Opportunities for scientific networking and collaboration building
3. Technical infrastructure that enables participation
4. Instruction on Science platforms and software tools

Policies for the Allocation of Observing Time

ANTARES

ASTRO DATALAB

Review of NASA's Inclusion Plan 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

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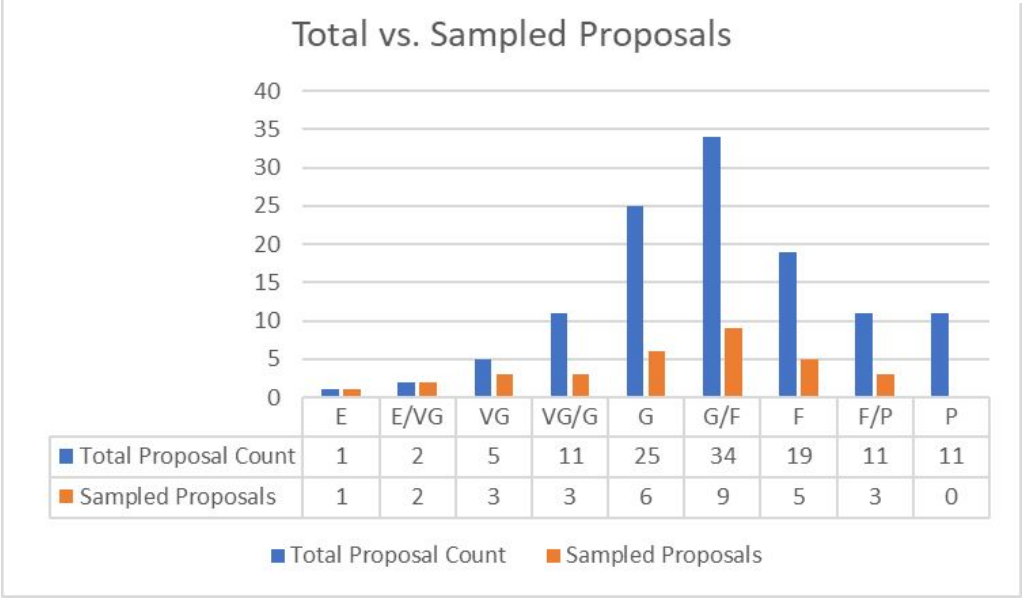
https://baas.aas.org/pub/2022i028/release/1

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



	E	E/VG	VG	VG/G	G	G/F	F	F/P	P
Total Proposal Count	1	2	5	11	25	34	19	11	11
Sampled Proposals	1	2	3	3	6	9	5	3	0

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 DEI

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.

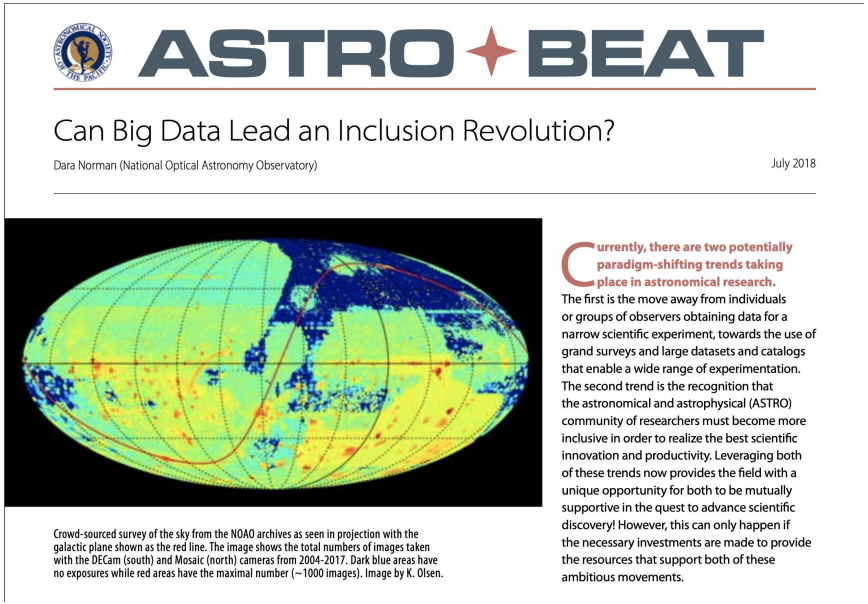
Dual Anonymous Review

- **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.

Access

- ❏ Scientific Resource Access - The availability of resources to support scientific research
- ❏ Advisory Access - Access to decision making on issues of science direction



ASTRO BEAT

Can Big Data Lead an Inclusion Revolution?

Dara Norman (National Optical Astronomy Observatory) July 2018

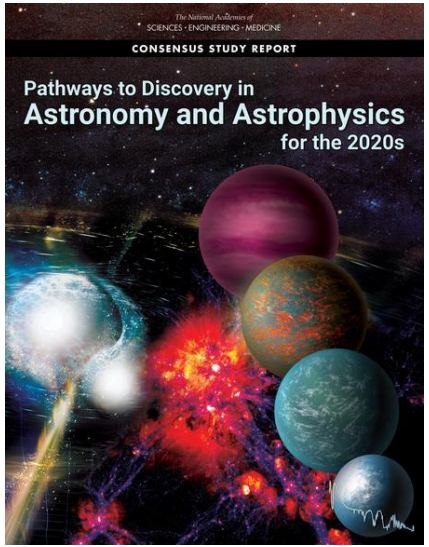
Crowd-sourced survey of the sky from the NOAO archives as seen in projection with the galactic plane shown as the red line. The image shows the total numbers of images taken with the DECam (south) and Mosaic (north) cameras from 2004-2017. Dark blue areas have no exposures while red areas have the maximal number (~1000 images). Image by K. Olsen.

Currently, there are two potentially paradigm-shifting trends taking place in astronomical research.

The first is the move away from individuals or groups of observers obtaining data for a narrow scientific experiment, towards the use of grand surveys and large datasets and catalogs that enable a wide range of experimentation. The second trend is the recognition that the astronomical and astrophysical (ASTRO) community of researchers must become more inclusive in order to realize the best scientific innovation and productivity. Leveraging both of these trends now provides the field with a unique opportunity for both to be mutually supportive in the quest to advance scientific discovery! However, this can only happen if the necessary investments are made to provide the resources that support both of these ambitious movements.

Norman, 2018, ASP https://astrosociety.org/file_download/inline/12faca89-b5f4-4e59-aa62-ce7ad5add47c

Data and access in the context of Pathways (Astro2020 Decadal Report)



- ***Progress will come from an end-to-end approach*** *that considers the entire flow of data from the instrument, to the archive, to analysis and publication.*
- … **design, build, deploy, and sustain pipelines for producing science-ready data** across all general-purpose ground-based observatories… archived in a standard format for eventual public use
- … **improve coordination among U.S. archive centers** and… create a centralized nexus for interacting with the international archive communities
- ***Develop and diversify the Scientific Workforce*** *…work to improve diversity of project teams, participants, and beneficiaries.*

Future of Astrophysical Data Infrastructure Workshop

3-16 February 2023, at the Flatiron Institute in New York City Deadline:Jan 18

https://aas.org/posts/news/2022/12/future-astrophysical-data-infrastructure-workshop

1) Research Inclusion Plans- their inception, preparation and review

2) Data Access through software - CSDC projects and the 'Future of Astro Data Infrastructure Workshop’ in Feb

3) Dual Anonymous review - pros/cons and making sure this (and other) policy is continually reviewed

4) Understanding needs through embracing broader advocacy - the recent example: the non-proprietary data question