EAP Community Survey - Update on Results

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Reminder: Current EAPs and Motivation for the Survey

- Current status: EAPs in place for JWST and HST.
- NASA mandate applies to future missions not current missions.
- Survey requested by JSTUC and STUC to gather information from both user communities. (Lead was Molly Peeples. Thanks also for your inputs!)
- Survey results won’t dictate policy but will help inform future discussions.
- There are lots of stakeholders (and formal agreements) — all would have to agree IF a change is ever proposed.
Survey Details

• Released: Monday November 28, 2022
• Advertised broadly:
  • >15k astronomers via STScI mailing list
  • publicised at AAS
  • circulated by NEXSci via their mailing list
  • posted on social media
• Deadline: Wednesday February 15, 2023
• Total Responses: 1171
• Very preliminary results: JSTUC meeting March 1, 2023
• Intermediate results: STUC meeting May 10, 2023

Data analysis is still ongoing!
So far...

- **7 key questions:**
  - Have you used Archival HST data?
  - Have you used Archival JWST data?
  - Have you ever not done a project because of an EAP?
  - How would a reduced or zero EAP affect your research plans?
  - How do you think the following groups would be impacted by reduced or zero EAP?
    - What are the potential benefits of zero EAP?
    - What are the potential downsides of zero EAP?
- **3 demographic groups:**
  - Career Stage
  - Research Field
  - Geographic Region
So far…

• 7 key questions:
  • Have you used Archival HST data?
  • Have you used Archival JWST data?
  • Have you ever not done a project because of an EAP?
  • How would a reduced or zero EAP affect your research plans?
  • How do you think the following groups would be impacted by reduced or zero EAP?
  • What are the potential benefits of zero EAP?
  • What are the potential downsides of zero EAP?

• 3 demographic groups:
  • Career Stage
  • Research Field
  • Geographic Region
Career Stage
Career Stage

- Undergraduate Student: 13 (1.1%)
- Graduate Student (PhD/Masters): 167 (14.3%)
- Postdoc: 190 (16.2%)
- Research Scientist / Long-Term: 225 (19.2%)
- Non Tenure-Track Faculty: 47 (4.0%)
- Tenure-Track Faculty: 120 (10.2%)
- Tenured Faculty: 357 (30.5%)
- Emeritus: 4 (0.3%)
- Other or No Response: 48 (4.1%)

Number of Respondents
Archival HST Data Use / Career Stage

Archival Hubble Data Use by Career Stage

- Yes
  - Undergraduate Student: 13 (1.1%)
  - Graduate Student (PhD/Masters): 167 (14.3%)
  - Postdoc: 190 (16.2%)
  - Research Scientist / Long-Term: 225 (19.2%)
  - Non-Tenure-Track Faculty: 47 (4.0%)
  - Tenure-Track Faculty: 120 (10.2%)
  - Emeritus: 357 (30.5%)
  - Other or No Response: 48 (4.1%)

- No
  - Undergraduate Student: 24.9%
  - Graduate Student (PhD/Masters): 44.3%
  - Postdoc: 38.4%
  - Research Scientist / Long-Term: 19.1%
  - Non-Tenure-Track Faculty: 20.0%
  - Tenure-Track Faculty: 12.0%
  - Emeritus: 29.2%
Archival JWST Data Use / Career Stage

- Explored publicly-available reduced images (jpegs, pngs, tiff files)
- Used publicly-available data in a paper submitted for publication
- Explored publicly-available data (fits files)
- Explored publicly-available data for a potential science project
- End Nov through mid Feb.

Archival JWST Data Use by Career Stage

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Number of Respondents

Fraction of Respondents in Career Stage
Potential Benefits/Downsides of Reduced EAP / Career Stage

Potential Benefits by Career Stage

- Synergy / Transferability
- Greater flexibility
- New projects
- Improved publications
- Reduced pressure
- Improved teaching
- Increased funding
- Enhanced visibility
- Improved networking
- New collaborations

Potential Downsides by Career Stage

- Rushed publications
- Increased pressure
- Reduced funding
- Greater stress
- Weaker networking
- Reduced opportunities
- Fewer resources
- Increased workload
- Reduced visibility
- Limited opportunities

Number of Respondents by Category:

- Undergraduate Student: 13 (1.1%)
- Graduate Student (PhD/Masters): 167 (14.3%)
- Postdoc: 190 (16.2%)
- Research Scientist / Long-Term: 225 (19.2%)
- Non Tenure-Track Faculty: 47 (4.0%)
- Tenure-Track Faculty: 120 (10.2%)
- Tenured Faculty: 357 (30.5%)
- Emeritus: 4 (0.3%)
- Other or No Response: 48 (4.1%)

Geographic Region:

- North: 54.7%
- South: 9.2%
- Midwest: 19.5%
- West: 16.5%
- International: 0.1%

Fraction of Respondents in Career Stage

Fraction of Respondents in Geographic Region
Potential Benefits/Downsides of Reduced EAP / Career Stage

Potential Benefits by Career Stage

Potential Downsides by Career Stage

Undergraduate Student: 13 (1.1%)
Graduate Student (PhD/Masters): 167 (14.3%)
Postdoc: 190 (16.2%)
Research Scientist / Long-Term: 225 (19.2%)
Non Tenure-Track Faculty: 47 (4.0%)
Tenure-Track Faculty: 120 (10.2%)
Tenured Faculty: 357 (30.5%)
Emeritus: 4 (0.3%)
Other or No Response: 48 (4.1%)

Lots of white space

Little white space
Potential Benefits/Downsides of Reduced EAP / Career Stage

Potential Benefits by Career Stage

Potential Downsides by Career Stage

Undergraduate Student - 13 (1.1%)
Graduate Student (PhD/Masters) - 167 (14.3%)
Postdoc - 190 (16.2%)
Research Scientist / Long-Term - 225 (19.2%)
Non Tenure-Track Faculty - 47 (4.0%)
Tenure-Track Faculty - 120 (10.2%)
Tenured Faculty - 357 (30.5%)
Emeritus - 4 (0.3%)
Other or No Response - 48 (4.1%)

Number of Respondents

0 100 200 300 400 500 600 700 800

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

Fraction of Respondents by Geographic Region

Fraction of Respondents by Career Stage

Undergraduate Student - 0.13
Graduate Student (PhD/Masters) - 0.167
Postdoc - 0.19
Research Scientist / Long-Term - 0.225
Non Tenure-Track Faculty - 0.047
Tenure-Track Faculty - 0.12
Tenured Faculty - 0.357
Emeritus - 0.004
Other or No Response - 0.048

Number of Respondents
Some genuine potential benefits:

- Helps researchers with language barriers.
- Those who don’t have access to a supportive community of mentors and resource analysts would have access to the data at the same time as their more well resourced colleagues.
- It will make the field much more diverse, equitable, and inclusive. It enables access to datasets required to be a successful astronomer. This obviously has a cascading effect in terms of who gets to do astronomy.

Some where a no response didn’t suffice:

- There are no benefits.
- I really don’t see any benefits. There is no need to share the photons right away.
- I see no positives that outweigh the negatives.
- I see zero benefits whatsoever. None of the above items will/would actually happen, and certainly not by making results or analyses that stand the test of time.
- There are no overall benefits that are in the public interest.
- <redacted for rudeness>
Impacts of reduced or zero EAP / Career Stage

-2 : mostly negative
-1 : somewhat negative
0 : no impact
+1 : somewhat positive
+2 : mostly positive

Calculated average of responses in each bin.
Preliminary results so far

• A minority of the astronomy community favours moving to zero EAP.
• A majority does not favour moving to zero EAP and feels:
  • The disadvantages significantly outweigh the advantages.
  • Junior researchers (students and postdocs) and researchers at small/low-resource/teaching-heavy institutions will be most impacted.
• **These results do not vary with research field, career stage, or geographic region.**
• A large fraction of the community had already explored JWST by mid-February. (Very likely more now 7 months later!)
Next Steps

• Finish analysing the survey and compile report.
• Form a working group including STUC and JSTUC members.
• Working group will review the report and provide input to the STScI Director (and NASA).

• Anticipated timeline: report ready by mid-October.
This is still a work in progress…

More to come!