

ASTROMOVES: Careers and Research during Crisis

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ABSTRACT

ASTROMOVES is a MSCA funded project focused on documenting and analysing the career moves and decision-making of astrophysicists and related scientists. Keeping with the conference theme of "Research in times of crisis", the global pandemic has led to the restructuring of the project to include interviews conducted via the internet and more interactions via email rather than in person. The astrophysicists are speaking about how the pandemic is changing both their lives and how they are navigating their careers. Salient issues are life work balance, unemployment and mental health. Presented are the demographics of the astrophysicists, some information about their career trajectories, and statistics on the duration of their career post PhD along with the number of positions they have held. Snippets of interviews will be used to illustrate the points that have been made about life work balance, unemployment and mental health under normal circumstances and now during the pandemic.



Moving

Astrophysicists, as with other PhD researchers, oftentimes have to complete two or more postdoctoral positions before obtaining a permanent position. Each postdoc can be between 1 and 5 years, but typically are three years. It has been hypothesized that having to move so often is a factor in the lack of diversity of their scientific community. There are other factors that are under exploration including the reputation of institutions in terms of various forms of discrimination; the role of families;

Interviews

Scientists had to hold a PhD and had to have changed positions twice since obtaining their PhD. Changing positions included changing job titles while remaining in the same location, however, all those interviewed had relocated at least twice post-PhD.

Twenty scientists have been interviewed. Eleven are male, nine are female. There is self-identified gender diversity: two are bisexual, two are asexual, two are gay. Two have disabilities. Two married couples were interviewed.

COVID-19 & ASTROMOVES

ASTROMOVES data goals were to interview 50 scientists with 25 of those being heterosexual white men to be somewhat representative of the demographics of the astrophysics community. Then every effort would be made to interview intersectional scientists including those with disabilities, different abilities, different races/ethnicities, those from Eastern Europe, and those that identify as gender diverse. Though the scientists are volunteers, in order to meet these diversity goals a combination of targeted recruitment and a sample of convenience was anticipated. The project was designed to collect interviews during conferences, as with previous projects, there was to be a dedicated quiet room for doing interviews and an electronic signup sheet would have been used for attendees to volunteer to be interviewed. Typically during a four-day conference, up to fifteen (15) interviews can be collected. However, the pandemic stymied the whole process. Instead, data collection had to switch to online interviews, which has had advantages and disadvantages.

Disadvantages

Recruitment: At a conference, being interviewed as a welcome activity providing a break from the normal conference talks and events. There was a novelty factor that made it attractive. Instead, scientists have to be approached individually via email, significantly slowing down both recruitment and completion of interviews. A few scientists have volunteered after hearing an ASTROMOVES presentation or after the first ASTROMOVES preprint appeared online. Some snowball sampling has been used such as the interviews that have been done with couples. The project goal was to have all 50 interviews completed within the first nine months of the project. Instead, it is estimated that it will take an entire year to complete 50 interviews. At the nine-month mark, only twenty (20) interviews have been completed.

Advantages

Transcription: Fortunately, the online conferencing tool both records and auto-transcribes the interviews. Though the transcripts contain many errors, it saves time in that the transcripts do not have to be done entirely by hand.

Maka'ala Quote

Each scientist was assigned a Hawaiian pseudonym.

"I mean a lot like, of course it's affected everybody's life. Profoundly and so I'm certainly no exception to that. Yeah, I mean, before before COVID, I would [...] travel a lot... I have friends in many different places. I like to think of myself as being very research active. So, I get lots of invites to conferences and seminars. And there's lots of interesting things I want to attend in that way. My family lives abroad, etc. So, a big part of my life was was traveling around to do all these things. And, you know, that is all completely stopped now. So that's disappointing. I've managed better than I might have guessed. If someone had told me a year ago that something like this was going to happen. In that regard. thanks to...video calls and things like that. But yeah, it's not it's not great. In terms of other aspects, so...I'm by myself. So, I have like no human interaction whatsoever and haven't for nine months. And that's not great. You know, aside from again through the computer. So again, I'm managing okay for now because there's an expectation that this will end eventually. Um, but yeah, I mean, you know, it's pretty profoundly unpleasant experience."

COVID-19 & The Astrophysicists

The global pandemic, COVID-19, had positively and negatively impacted the lives of astrophysicists. Themes that emerged from the interviews are life work balance, mental health, and unemployment. The Maka'ala quote includes these except unemployment.

Life-Work Balance: First, most of the scientists defined being productive as producing more articles, i.e. publishing. Moving online most scientists found to be positive for their work in terms of not having external distractions, such as going to conferences and departmental meetings, allowing them to get more research completed and more articles submitted for publication. However, when teaching or childcare was added, the scientists were not happy with their life-work balance and felt distinctly not balanced and unproductive.

Mental Health: Mentally being unwell such as depression and loneliness resulting from the pandemic, the scientists correlated to not being productive (i.e. not getting research done and articles submitted). Loneliness was acute with those people that were single and living alone.

Unemployment: Two scientist had become unemployed due to positions being put on hold due to the pandemic. One of these had to use public assistance to survive until job negotiations resume.

There was no mention of lack of access to data because most already had their datasets before the pandemic, and/or many telescopes take data automatically and make the data publicly available, and/or scientists could access the observatories remotely.

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