**Career Pipeline & Development Meeting**

**Monday, January 24, 2022**

**1:00 PM – 2:00 PM Eastern Time**

**Attended:** Aneliya Karadzhinova-Ferrer, Sudhir Malik, Bhujyo Bhattacharya, Rami Kamalieddin, Alan Stone, Tiffany Lewis, Daria Wang

**Summary:**

* CEF Convener meeting is scheduled this Friday, January 28, 2022. Action item: Sudhir will attend this meeting and provide updates on behalf of CPD group.
* CP1 meeting is scheduled this afternoon at 3:30pm EST. Action item: Bhujyo and Aneliya will connect with Matt then. Aneliya will work on EC survey plots once she is back from travel.
* For CP3 – use overleaf draft to save your thoughts/ideas.
* Most of the field surveys contain information about people that stayed in academia, however our paper revolves around those who left academia. Action item: Aneliya will put together a short list of people to invite and add their stories as examples to the CP.
* Aneliya invited Rachel to help with the paper, and potentially use her network of people in the US who could share their alumni stories. Documenting Rachel’s alumni programs at CERN within the paper would give her more visibility and would be beneficial for both parties.
* Tiffany recommended Midhat Farooq, Careers program manager at APS, as someone who could provide valuable insights for the paper. She is career program officer, and point of contact for people when they are trying to leave the field. Tiffany met her 6-8 months ago. She is responsive to emails. This is her area of specialty. Writing the paper might be a big ask, but she might be able to fill in the gaps. Action item: Aneliya will draft invitation, share with Sudhir and Julie, and then send it to Midhat.
* Alan mentioned that he was able to collect data on a lot of PhD students with a goal to figure out what sectors they went into. A lot of them left for the private sector. The information is out there, and it is accurate, except that this project took place some time ago, so now things may have changed. Alan can share this information with conveners. The information collected includes where students got their PhD, who their advisor was, what area they specialized in, and where they got employed.
* Salary gap between academia and private sector is an incentive for some to leave academia, and makes it impossible for others to come back to academia after they worked in industry. People that leave academia, they still follow along, but they are not actively participants anymore.
* Aneliya knows two people returning from industry because they were too restricted in their research. They work in hardware, engineering, but they are restricted in projects they are working on. Salary difference is huge. Pay comes with a price, you lose your freedom.
* Family is another issue. In the US most of Americans live within an hour of their mother. When you have kids, you want to be close to parents. You make decisions based on that.
* This is also particularly relevant for postdocs. In the US finding a postdoc in the same city you did your PhD in is very difficult. It is hard moving around every 2-3 years. A lot of people leave because they are not ok with this lifestyle.
* Half of women physicists are married to another physicist, which makes it harder to find duel positions.
* Academic institutions and labs fall on the excuse they don’t have enough funds.
* Pay vs. security. People prefer to be postdoc because it provides you security that you cannot get in finance or tech sector, because in these areas you can be fired for any reason, but it is a lot more difficult to fire a postdoc. Hardware are typically long-term projects and they are not at will. But in finance and tech all contracts are at will. Counterpoint: Most postdocs are underpaid when compared to private sector. As a PhD, you have a secure position for a short period of time. There is no guarantee you will be hired in academia after your postdoc. In practice, industry doesn’t fire anyone who is doing well. And even if you end up getting fired, having worked for a large company looks good on your resume, so you can find any job you want after. After losing a job in academia, it takes 1 year to find a new one. Losing a job in tech, it takes about 3-4 months to find a new job.
* 3 year postdoc is the norm. It is hard to imagine you need more time. We want to see you move further. And if you stay in that position, we can’t fill it up with anyone else. The longer you stay, the harder it is to get a job in academia.
* Visa issues can make people choose postdoc route as opposed to industry. If you are trying to get a green card, it is more secure to stay as a postdoc in the US because industry might create more uncertainty for you. You can move on to a private company after you get your green card. For foreigners, being a postdoc might be more secure. But for American citizens it doesn’t hold much. Postdoc is a temporary position.
* In astrophysics it is typically 1-2 years for postdoc. In particle physics it is 3 years. After 4 years they have to convert your position into some other title and increase pay, which is not great for your professor because they would have to allocate more money from their grant to pay you.
* Hiring process is more straightforward in academia. In finance and tech, people are asked to do brain teasers even after they’ve been in the field for 20 years. Some people are not cut out for the private sector job. It is a different environment. But does it justify the difference in pay? Is it resulting in brain drain we should be concerned about?
* A particle physicist spent 2 years as a postdoc, and their postdoc position extension was contingent on renewal of the grant. They got a job before the 2 years expired so it was a non-issue, but the postdoc position got eliminated after 2 years so it was the right decision to take the job. Some people can only afford postdoc for a year. Sometimes postdoc job doesn’t get extended. It happens and it becomes problematic when you are producing research. Pay is not good either.
* Materials science sector has a short postdoc term as well, and then they move on to jobs. HEP postdoc is at least 5-6 years. It is easier to go to industry from material science. Particle physicists get jobs quickly. Accelerator science is where you can do postdoc and then get a job within a couple of years.
* There are other social issues involved here. 65 used to be maximum age for professors 40-50 years ago, now it is 75 and over, which means that people are staying longer in their positions and new positions are not being created. This is one of the key things. Need to create new lines, positions, new fields.
* Immigrant postdocs vs non-immigrant have different reasons for staying and leaving.
* Another issue is people who get a job which is untenured, and they don’t make it tenured which is very frequent. There is a difference in achieving tenue between institutions. Some institutions are known for taking on assistant professors who never get tenure. And others will give it to you for sure after they hire you. Top institutions are not afraid to let their people go because they can get new people quickly. It is also good to have a well-known institution on your resume even if you need to look for another job.
* Making enemies in a department is another reason for leaving – fitting in with the culture of department as one of the hiring criteria. It can lead to bias in evaluation. Drinking as an unspoken requirement to fit the culture, as an example, is inappropriate. Hostile workplace is another reason for leaving company. Not hiring women is another unwritten policy at some places. To fix this, codes of conduct are being implemented. However, sometimes people don’t report issues out of fear. First case is very hard to make – especially for a woman.
* Action item: describe reasons for leaving academia in the paper.