

Career advice and Handbook

- Career advice
- Short discussion on Handbook

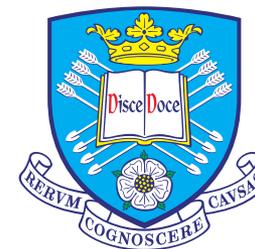
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Questionnaire – Statistics

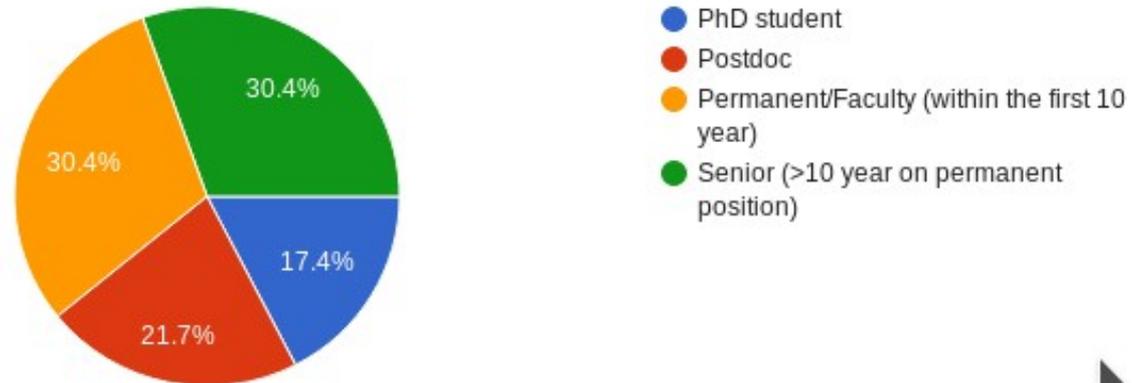
> Basics stats (=> low stats!!)

- 23 responses
- Out of which 13 were anonymous

> Nice flat distribution between different career levels

Your own career level

23 responses



Questionnaire – International answers

> Most responses from the large EU countries (not obligatory)

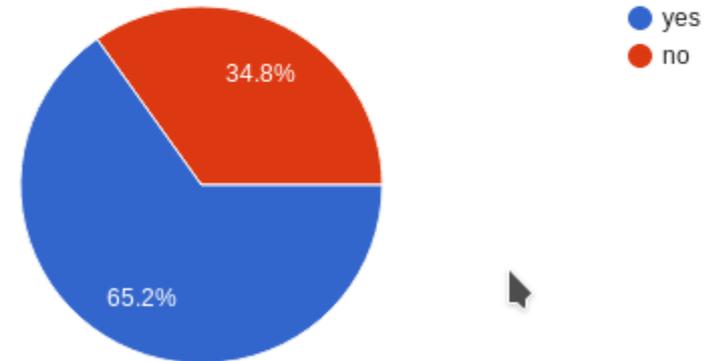
- France, Italy, Germany, Spain
- ~4 researchers from Inclusiveness countries
- + some from smaller EU country

I studied/did my PhD in my country of origin

23 responses

I am living/working in my country of origin

23 responses

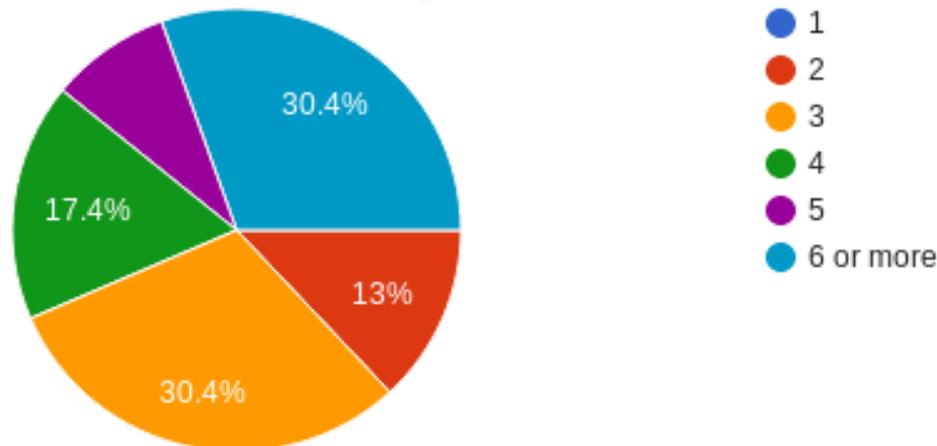


Questionnaire – Moving around

- > For sure everyone has worked for more than 1 institution
- > ~60% junior/senior staff → but only 45% of all people replying have worked in less than 4 institutions (and this includes PhD students!)
- > Slight tendency for younger people to have more institutions under their belt!

How many institutions have you worked for (including your PhD and undergraduate studies)

23 responses



Questionnaire – Inspiration

> 3 people originally planned to do something else

> Three classes of answers

- School / discovering particle physics at University level
- General interest / curiosity for nature and how it works (more senior people)
- Popular science:
 - > Dexter's Lab
 - > Stephen Hawkings
 - > Mr Tompkins (Gamow)
 - > Time life magazines about the big bang & particle reactions in the early universe

Most loved in my studies were stages of increasing level of understanding about complex matters; doing research is just like doing cross-words, but for much more complicated and much cooler problems



Questionnaire – Change throughout the years

> This makes a lot sense to order “chronologically”

> PhD students: Stress, deadlines...

- *It is full of stress. We are always in a rush to catch a non-realistic deadline which is imposed by someone who is not working in the analysis and it feels like running with no end. I would really like it if we had more time. Also, I started my PhD when there was a lot of excitement around the community in the field and as the years pass, this has lessened a lot.*
- *Phd turned out to be more wood cutting, formalities and visibility than expected.*



Questionnaire – Change throughout the years

> This makes a lot sense to order “chronologically”

> PostDocs students: deeper knowledge and some disillusionment...

- *more and more technical / deep in the details of one subject*

- *Once you are inside, the university is no different than the corporate world*



Questionnaire – Change throughout the years

- > Junior faculty: being more happy again
- > Settling into the permanence

- *One realizes with time that many times the research gets stuck at some points for long periods without relevant progress and then other times you get a good progress. In overall, it means hard work independently of whether things go well or bad. Also, very very few Eureka moments (but very satisfactory)*
- *The idyllic image of science, the one from the "movies", is not quite true. It's a tough job and you need to love it to be successful and enjoy the daily life. On average though, it is even better than what I expected when I started to walk down this path.*



Questionnaire – Change throughout the years

> Senior

- A LOT more administration!!!
- (but also – preview to the next question): a lot of freedom!

- *The personal initiative, autonomous learning and the ability of defining one personal scientific and professional plan turned out to be more important than what initially perceived during University studies.*



Questionnaire – What do you need to succeed

> A lot of different answers (shall create a word cloud)

- *Endurance and preserverance in once work, both in good and bad moments. **And a little bit of luck** (from the human and the job-market point of view).*

- From a student:

Regarding external factors, 1. a caring supervisor, 2. a concrete timeline for the phd from the beginning (even though it seems to me that this cannot happen, because it depends on the analysis group goals and pace, and also new things that arise, but I think it would be nice to have one), and 3. a group to discuss.

Regarding the personal work, questioning everything you learn and do, and this is how new ideas come. Present your work often, do not wait until you finish the whole project. Also, try to be involved in many things, as many as you can, to be as more "complete" as possible.



Questionnaire – What do you need to succeed

> A lot of different answers (shall create a word cloud)

- *Being very well organised. Working regularly and a fair amount. Trying to keep a good balance between work and private life.*

Being stubborn and not giving up, effectively communicating what you are doing, creating collaborations

excellent mentor, good support from family and friends, not being alone, and of course passion for what one does

Partly creativity and curiosity, but also a lot of resilience, on occasions low self esteem , being a white man is also a useful skill.

- From a senior:

*Given the small number of available positions in academia, I find it hard to define any recipes for success specifically there, **as sometimes luck, in terms of fortunate coincidences, may be the best ally, but it is also not one cannot rely upon.***



Questionnaire – most common mistakes

> *lack of modesty and of optimism can be an issue during interviews.*

Be distracted and change topics too fast without converging on any of them.

"trying to manage too early without putting work/actual hands-on work in -- not following up with things

being too CERN focused"

just having physics-related life and friends (hanging out only with colleagues, "living" in the office, etc)

Many students are frustrated when they realise they will have to move countries a few times if they want to pursue a career in academia. For me it was a feature of the job that I just accepted and not tried to fight (unlike students who accept to go on an unpaid postdoc only to stay at the same institution)



Questionnaire – would you like to have a career (if you could / would have to decide this again)

> Divided opinion

I like working in physics because I am mostly free to select which work I do; moreover, the work I should do is usually well-motivated and not forced down my throat (I worked outside of academia for some time)

When I look at "successful" colleagues (full professors, heads of department) I think I wouldn't like to be in their place in 20 years from now.



Questionnaire – What advise you want?

> PhDs

- How to transition to postdoc? How to choose the best post doc?

> Postdocs

- How to become permanent, how to apply for grants?

Advise on applying for funding, and on applying for jobs outside of academia. The advice I think would be the best and it's not currently available anywhere is on how to secure private funding for research (i.e. through agreements with tech companies, performing consulting activities for them, part time job etc)

> Junior

- Work-life and research-grantwriting balance



What advice you would have liked to be given?

I'd give the advice to stay relaxed and don't try to get a career in academia under all circumstances. It is a lottery, and not getting a permanent job in academia is not a failure. I met many people with burnout symptoms or complete burnout and was suffering from problems by myself. One shouldn't risk that and stay relaxed. With the job market at the moment, everybody in our field will find a decent job.

for women: be ambitious, don't stop because it's hard and that you think that other people will do better than you. Don't stop because you want or have children, it is possible to combine career in physics and family

Ask. Ask to anyone you have around questions and suggestions. Don't be shy.



What advise you would have liked to be given?

my general advise is not to put your career above your general life (ok, at some stage there are some compromises to be made perhaps), but would you really e.g. move to Siberia or rural China without speaking Russian or Chinese to pursue physics? There is a point where you might be sacrificing to much and it's good to be prepared to drop "physics"/a research career (and there are plenty of people that report that they are just as happy afterwards). If you are not prepared to drop physics, you are a prisoner of your mind (like Kafka's mouse in the Little Fable).



Give advice

a) Advice for a PhD

Talk to your supervisor. Tell her/him what works, what works well, and what doesn't work (well). Feedback in both directions is important. Try to be selective with your topic, and with the place you do your PhD. Look for places and supervisors with impact, but chemistry between supervisor/student is also important. Try to find a mentor, someone at the level of a permanent researcher or a postdoc other than your supervisor. Like the research you do, otherwise it is not the right one. There will be phases of frustration, keep going.

Do not forget to live. :)

b) Advice for a Postdoc

Find time to engage in teaching. It gives a broader view of our field and can lead to fruitful collaboration with students. Strive to win your own research funding to show you can lead independent research.

This is the most difficult phase. Scientifically the best and most prolific, but the most uncertain one, with many changes. Stay relaxed, keep your options open.

c) for junior staff

The most important thing is to find the right balance between partner/family and career. This applies already to earlier stages. For junior staff, one has to split the work time between research, grant work, sometimes teaching and on the other hand supervising the members of the group. This is a difficult task. Try to find a good balance here. This should be weighted by the demands of a tenure procedure, or the demands of finding a permanent position (which is mostly research output) if the junior position is fixed-term.

d) for senior staff

Give guidance to PhD students and do not just "delegate" this role to postdocs. Your guidance is precious and can be a life-changing experience for students. Reverse mentoring would be very interesting! Have the senior profs. listen to how the young postdocs feel.

Show responsibility for your collaborators

Anything else?

*This is actually a long questionnaire if one expands on things.
Make better questions...*

- > After having summarized everything... I do agree :-)
- > Have a nice networking dinner!



Short discussion on handbook

> All the above can still be expanded / added to under:

- <https://forms.gle/Mdt9tfnysheUvgVy5>

> Can be put into the final handbook

- Timeline ~1.5 - 2 years from now

> Timeline for LHC Yellow report short

- Need full Run-2 recommendations very very soon.



BACKUP

Backup