

The Faculty of Mathematics and Natural Sciences

Department of Mathematics

Think career

Welcome!

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April 2025



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Why are we here today?

- From 1 August 2025 – new law: «phds and postdocs will have access to career guidance *throughout* their postdoc/phd period»
- The candidate survey at UiO states that of all PhDs at our faculty
 - 28% got an offer of meeting alumni, 32% did not get the offer, but would have liked to.
 - 18% got an offer of contact with working life during their education, but 49% did not get such an offer, but would have liked it.

Plan for the day

- Statistics about Norwegian phd candidates and our own alumni
 - The alumni introduces themselves
 - Panel discussion (where you can ask questions)
 - Lunch together
 - Career possibilities in academia
 - Career learning for phds at UiO
- (You will get access to the slides after the workshop)

Let's start with some questions

Go to menti.com and use this code:

?????

Choose a box

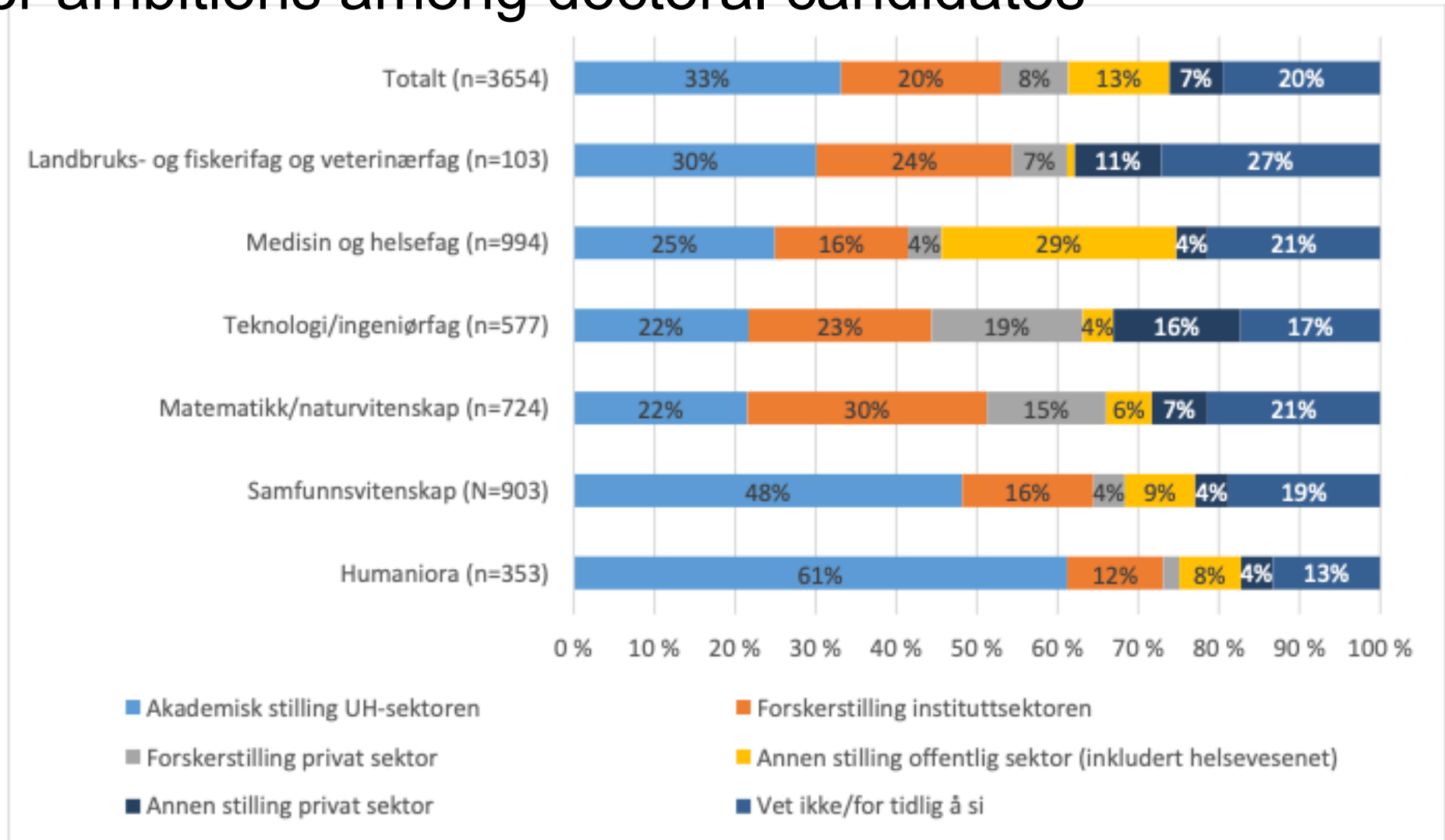
ACADEMIA RESEARCHER	ACADEMIA NON-RESEARCHER
NON-ACADEMIA RESEARCHER	NON-ACADEMIA NON-RESEARCHER

Some general results for Norwegian phd candidates

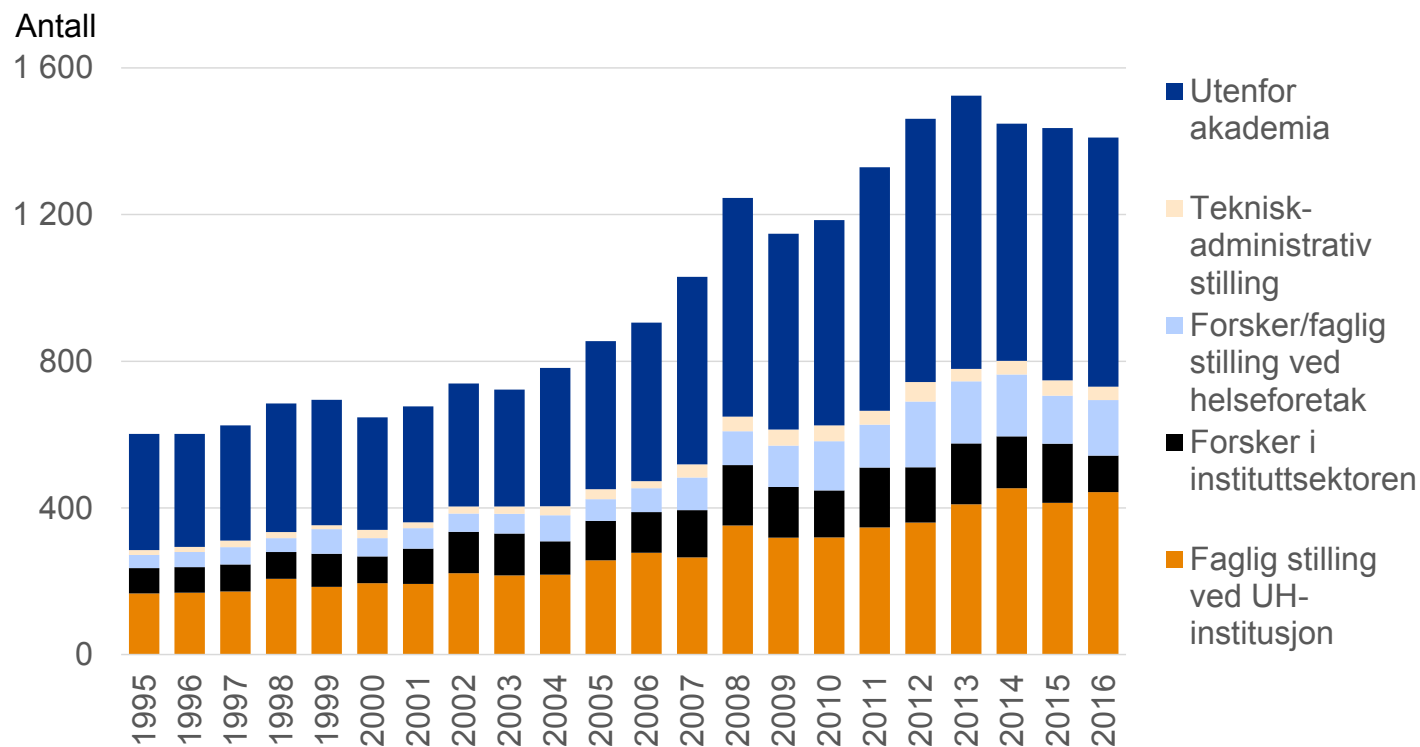
- where do they go and what do they do when they finish their degree?

Sources NIFU 2017:10 and NIFU 2020:19

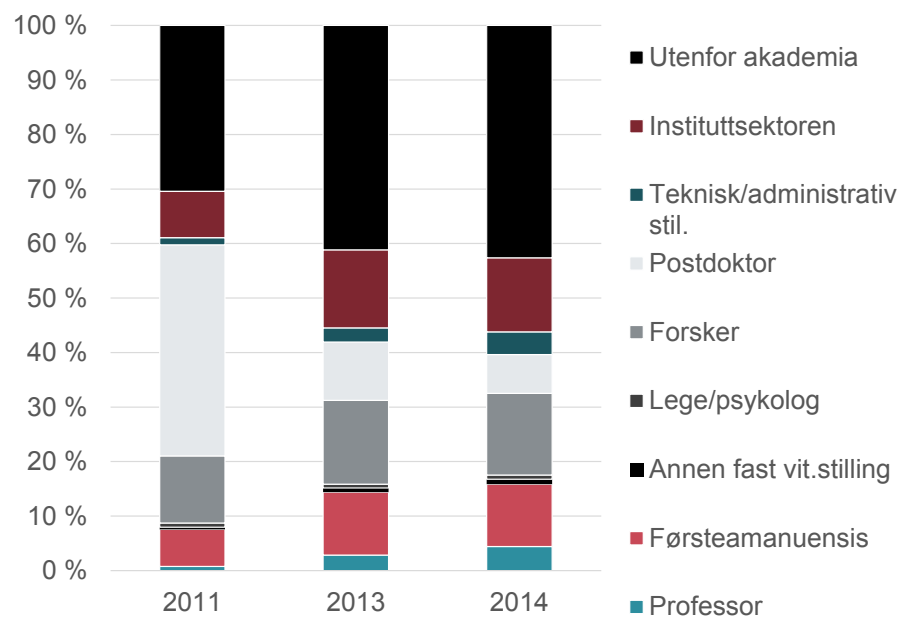
Career ambitions among doctoral candidates



Doktorander i perioden 1990-2016 etter type tilsettingsforhold i 2016



43% av postdoktorene hverken i UoH eller institutt etter 5 år



Postdoktorer som startet i 2009

Kilde: NIFU

NIFU

16

Other «fun facts»

- Temporary employment after PhD in academia is the most common reason to choose a career outside academia.
- Phds in academia have lower salary (on average) than PhDs in other sectors. (Largest gap in mathematics and natural sciences).
- Female PhDs have lower salary than male PhDs (regardless of sector).
- PhDs work more hours.

NIFU-RAPPORT

Nybakte doktorer er fornøyde

Ny rapport forteller at forskere med doktorgrad både i og utenfor akademien er godt fornøyd med både arbeidshverdag og relevans av egen utdanning.



...but still, they are happy!

...but still, they are happy!

- They are happy with
 - Being in a permanent position
 - Being able to contribute to society in a postive way
 - Having the possibility to use their competence
 - The responsibility and independence in their position.
- ...but to a less degree about their salary...

What about our own alumni?

- Survey – finished in 2023
- We contacted all PhDs graduating from our Department year 2004 ->
- 39,6% responded

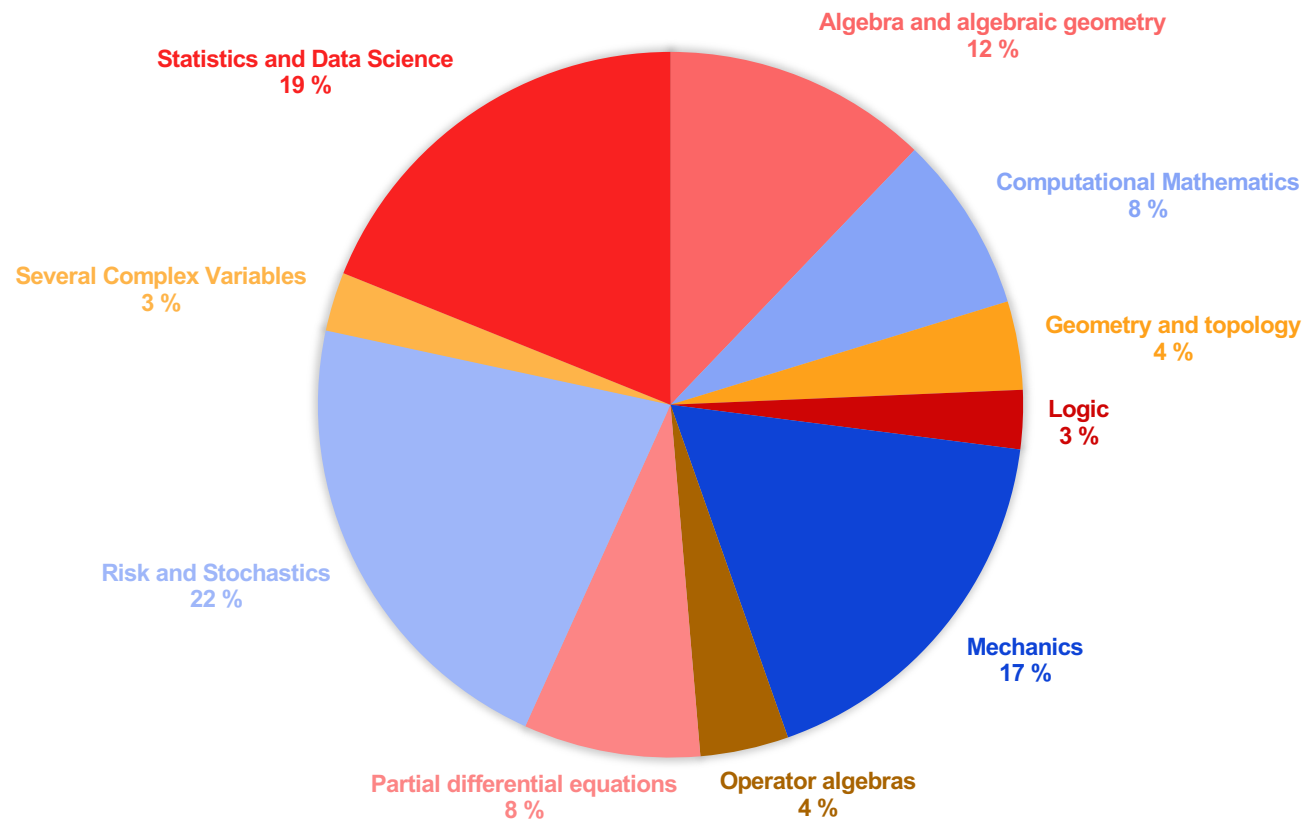
Most important results

- Over 70% of the respondees got a job before they finished their degree. (And no one waited more than 6 months after their disputation).
- Most have permanent jobs (83%)
- They think their employers are aware of the content of their education
- The education they got at UiO was useful

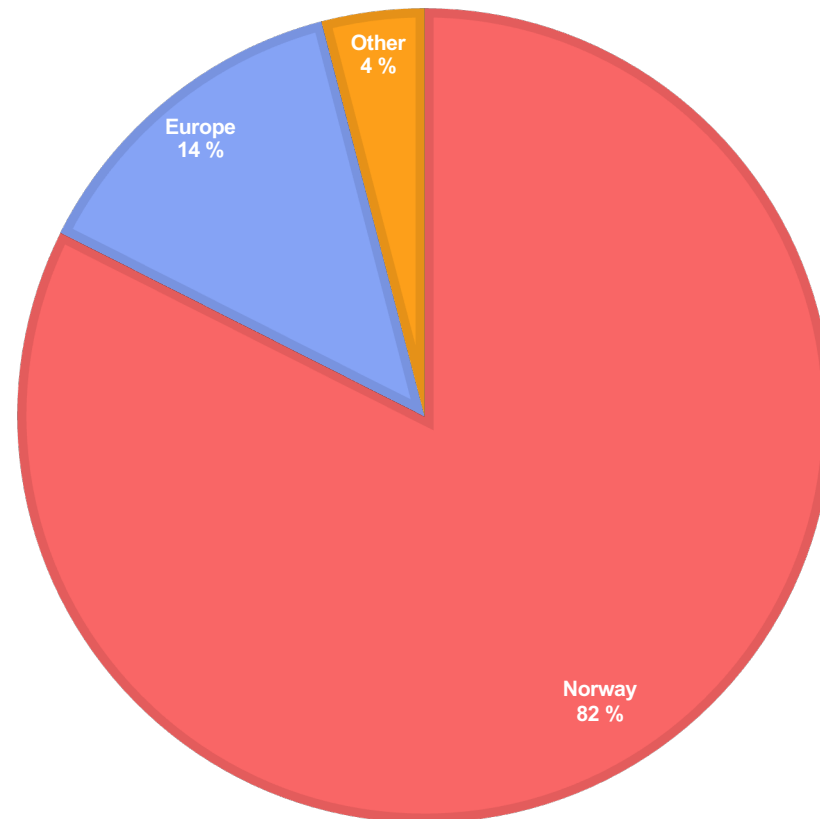
Our phd-alumni divided into boxes

ACADEMIA RESEARCHER 38 %	ACADEMIA NON-RESEARCHER 15%
NON-ACADEMIA RESEARCHER 17%	NON-ACADEMIA NON-RESEARCHER 30%

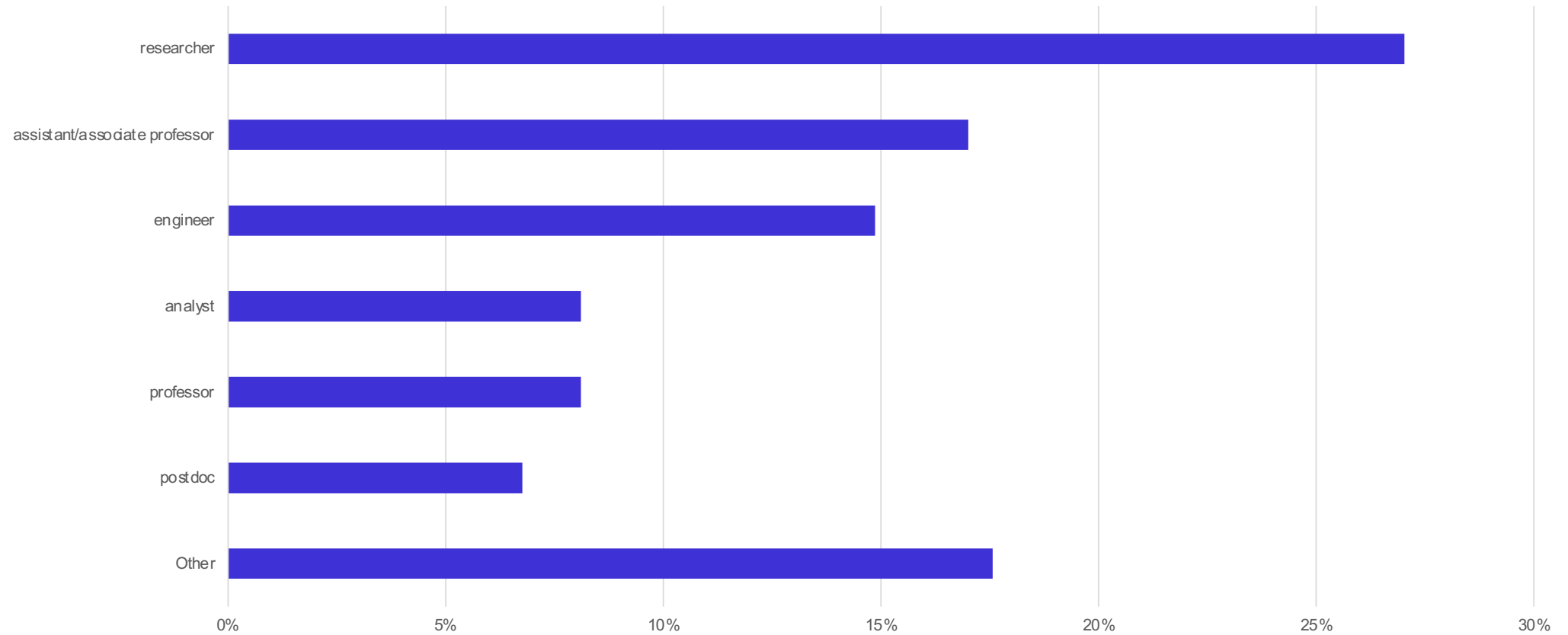
Respondees from what subject area?



where do they work?

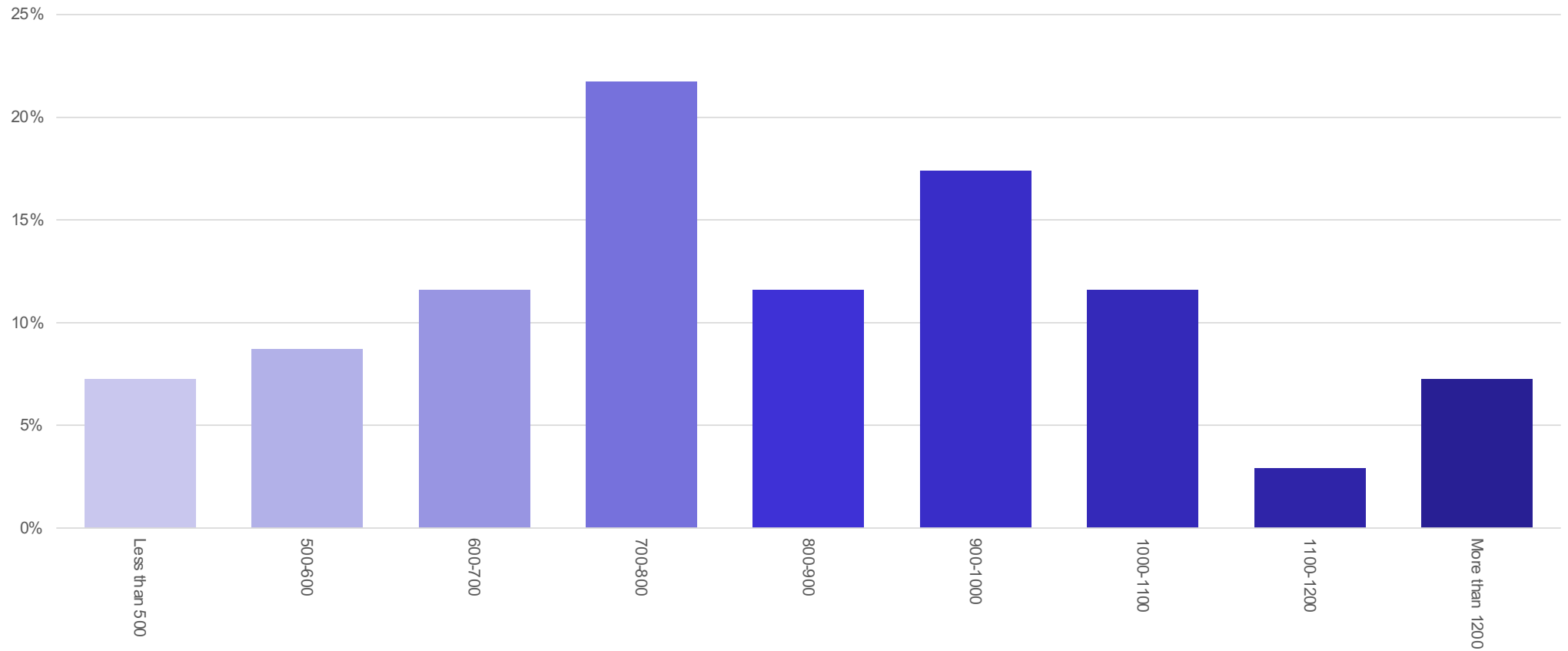


Job title

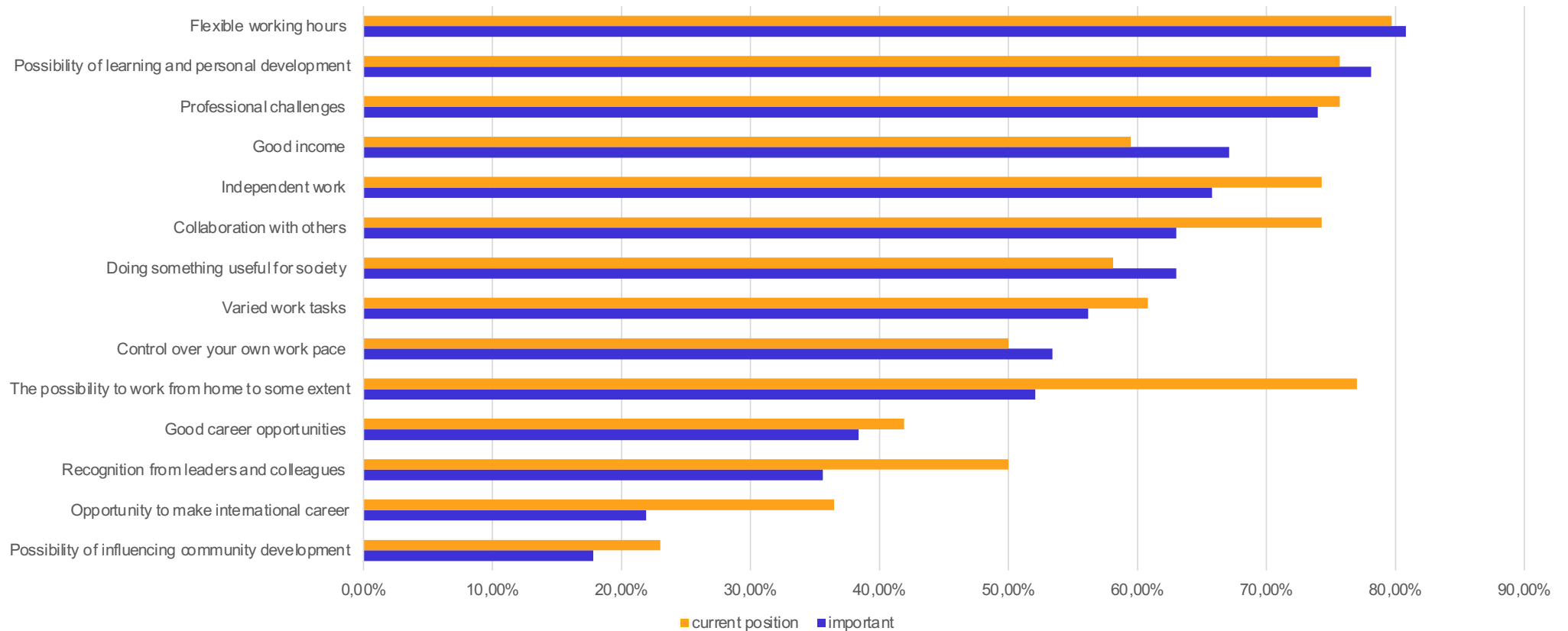


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Average annual income (in 1000 NOK)

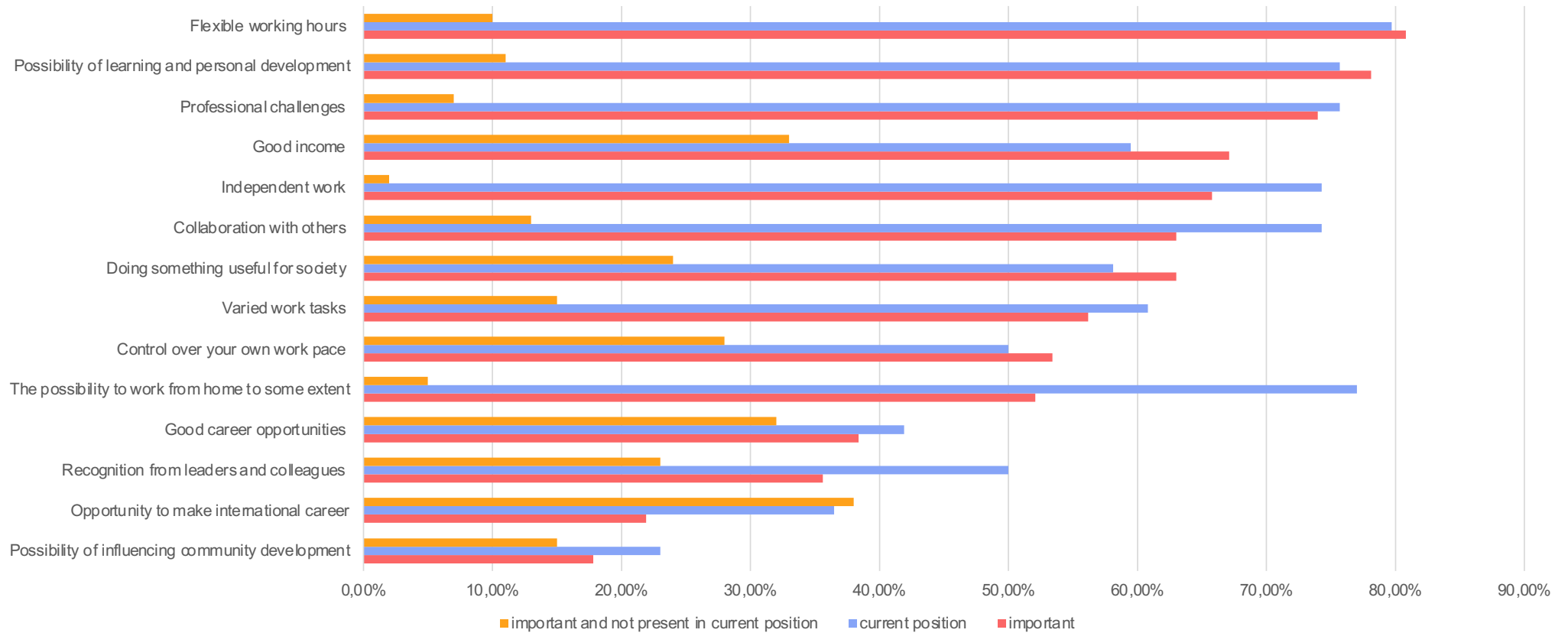


Job characteristics

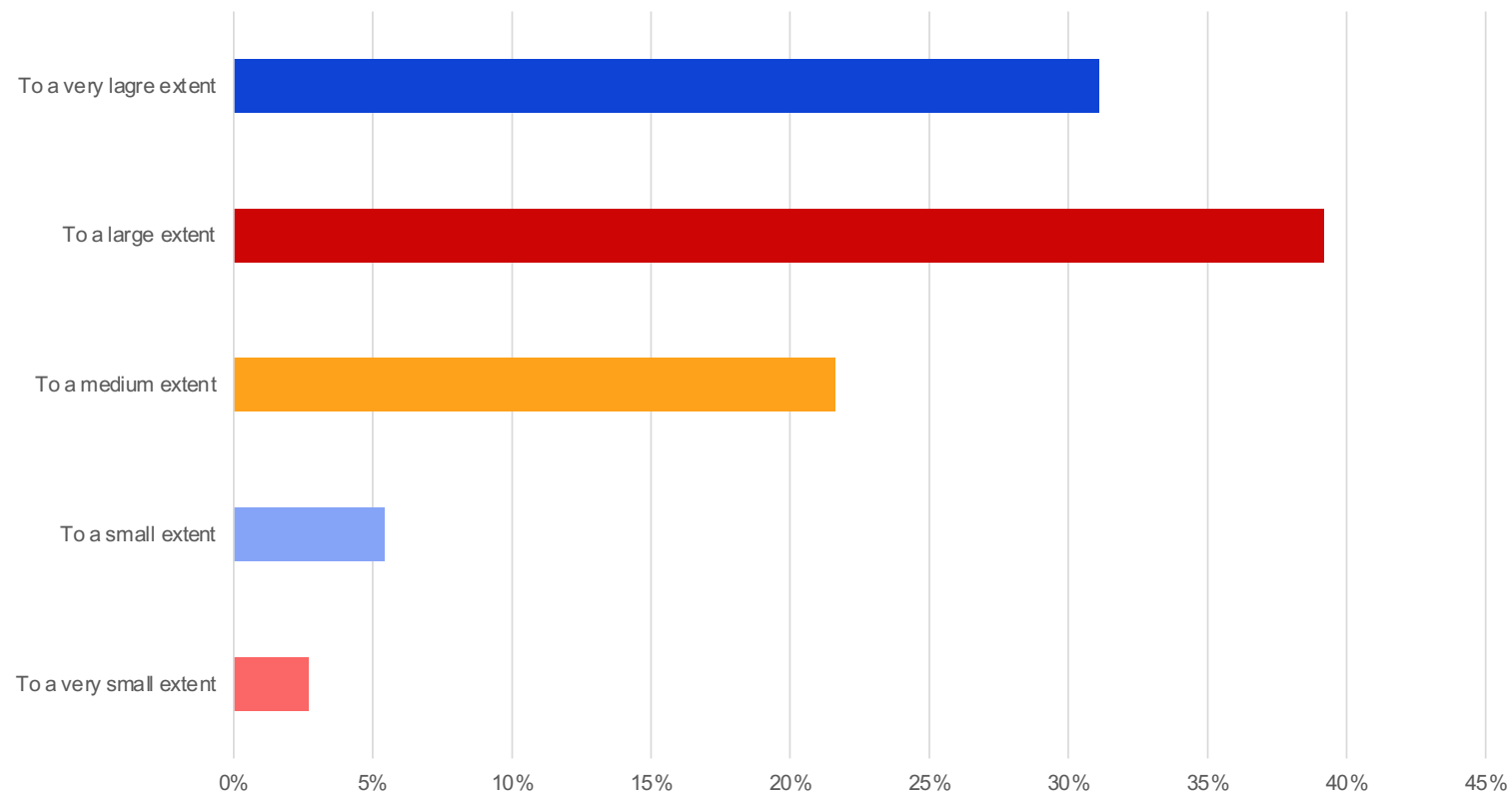


What characteristics do you value as important in a job, and which of these are present in your current position.

Job characteristics II



Employers' awareness of the content of the education



To which extent do you agree with the following statements?

less ← agree → more

- My studies helped me develop my ability for analytical thinking (98,6%)
- My studies trained me for the process of collecting and processing complex information (89,2 %)
- My studies gave me skills/competency that meets the demands of my professional life (87,8%)
- My studies helped develop my writing abilities (84,7%)
- My studies prepared me in the use of computer as a work tool (66,2%)
- My studies gave me a good practice in oral preparation (64,9%)

number in parentese: sum of replies in the categories "agree" and "totally agree"

Norwegian proficiency and usefulness for employment

- 73% of the respondents spoke Norwegian before they started their degree, and 27% did not. Of the respondents that did not speak Norwegian, 50% learned a bit Norwegian during their degree, 25 % became fluent.
- 70% of the respondents think that Norwegian language proficiency has an effect on career possibilities after a PhD degree. 19% don't know, and 11% thinks it does not affect career possibilities.

Programming skills and usefulness for employment

- 86,5% of the respondents had some IT-programming skills before starting their degree and 13,5% did not.
Of the respondents that did not have any programming skills, 60% learned a bit and 10% learned a lot of programming during their degree.
- 93% of the respondents think that programming skills influence career possibilities after a PhD degree. 3% don't know, and 4% thinks it does not affect career possibilities.

Advice from our phd-alumni

Be aware that industry is often far behind theoretically but not necessarily when it comes to solving practical problems, which could often be the main issue for a new graduate.

Oral presentation skills and writing abilities are crucial for a successful career

They should for sure get internationally connected.

.. how to be better at negotiating salary.

A solid basis in statistics is useful for almost every professional area.

Learn to program!

«PhD students need to know about their job opportunities in industry and get prepared for such jobs as well and not just for the very limited number of permanent academic jobs. Tell them about the number of faculty jobs available vs. number of phds and postdocs!»

«Most of the work you have to do yourself. If you want to improve your writing or ability to present your work, you have to ask for advise, not sit around and wait for someone (your supervisor) to discover your weaknesses (it's a bit hard to call it weakness, but anyway) and help you out.»

Questions?

