Perceptions and impacts of gender inequality in the geosciences

Analysis of a global survey
So, how did your poster presentation go?

It went great! I was busy all the time presenting the work, crowds of people came to see my poster.

Have you ever wondered if people just stop by because of your pretty face?

https://didthisreallyhappen.net/
How do our peers perceive gender equality in the geosciences?

1220 participants from geoscience academia

Survey on gender equality in earth and space sciences

This anonymous survey aims to identify the perception of scientists on gender equality in earth and space sciences. By taking the survey you agree on the publication of the results in the session 'Promoting and supporting equality of opportunities in geosciences' (https://meetingorganizer.copernicus.org/EGU2018/session/27273) at the European

Preprint on EarthArXiv
https://eartharxiv.org/3jkcp/
The bar chart shows the percentage distribution of gender across the population. Approximately 67% are female, and 33% are male.

The second bar chart categorizes the academic positions and their corresponding percentages. Here are the details:

- B.Sc. or M.Sc. student: 10.9%
- PhD student: 39.5%
- Post-Doc: 21.5%
- Assistant/Associate Prof.: 19.5%
- Full Prof.: 8.5%

The sample size for the second chart is 1080, indicating that the data is based on a subset of the population.
Mostly from Europe (53.4%) and North America (36.9%)

Hydrology (24.0%), geomorphology (8.9%), and geochemistry, mineralogy, petrology and volcanology (8.6%)
Impact of gender imbalance at scientific meetings

Does gender imbalance affect you at scientific meetings?

- **Not at all**: 8.8** **f**, 33.6** **m
- **Not really**: 24.1** **f**, 35.6** **m
- **To some extent**: 18.4** **f**, 41.2** **m
- **Yes**: 16.9** **f**, 6.5** **m

n=1220

„Don’t know“ not shown
Experiences with gender bias

Have you experienced gender bias in your institution?

- No: 40.2% (f) and 63.2% (m)
- Yes, positive and negative: 26.9% (f) and 10.4% (m)
- Yes, mostly positive: 9.5% (f) and 9.5% (m)
- Yes, mostly negative: 25.8% (f)

“mostly negative”:
- f – highest among assistant/associate/full professors
- m – highest among PhDs and postdocs

“Don’t know” not shown

n=1220
Family-related working conditions

How important are family-related working conditions of your institution?

- Rather not important: 16.5%
- Important in the future: 51.7%
- Important at the moment: 27.5%

"Don't know" not shown

n=1220
Support of gender quotas

How much do you support gender quotas for academic positions?

- Not at all or little
  - f: 26.3%
  - m: 47%

- Neutral
  - f: 28.9%
  - m: 25.1%

- Somewhat to very
  - f: 44.9%
  - m: 27.9%

f – largest approval among postdocs and undergraduates
m – strongest opposition among postdocs
Key conclusions

• **Negative gender biases** affect women twice as often as men, especially at higher career levels.
• Gender imbalance at scientific meetings affects the majority of women.
• **Family-friendly** working conditions are more important to female scientists.
• Gender quotas are not endorsed by the majority.

More results on EarthArXiv
https://eartharxiv.org/3jkcp/
Institutions

- **Training** to combat implicit bias
- Flexibility and **support for parents**
- Transparent hiring processes
- Public diversity statistics

Geoscience community

- **Open discussion** about gender equality
- More diversity at **decision-making levels**
- Transparent selection criteria for funding
- Public diversity statistics