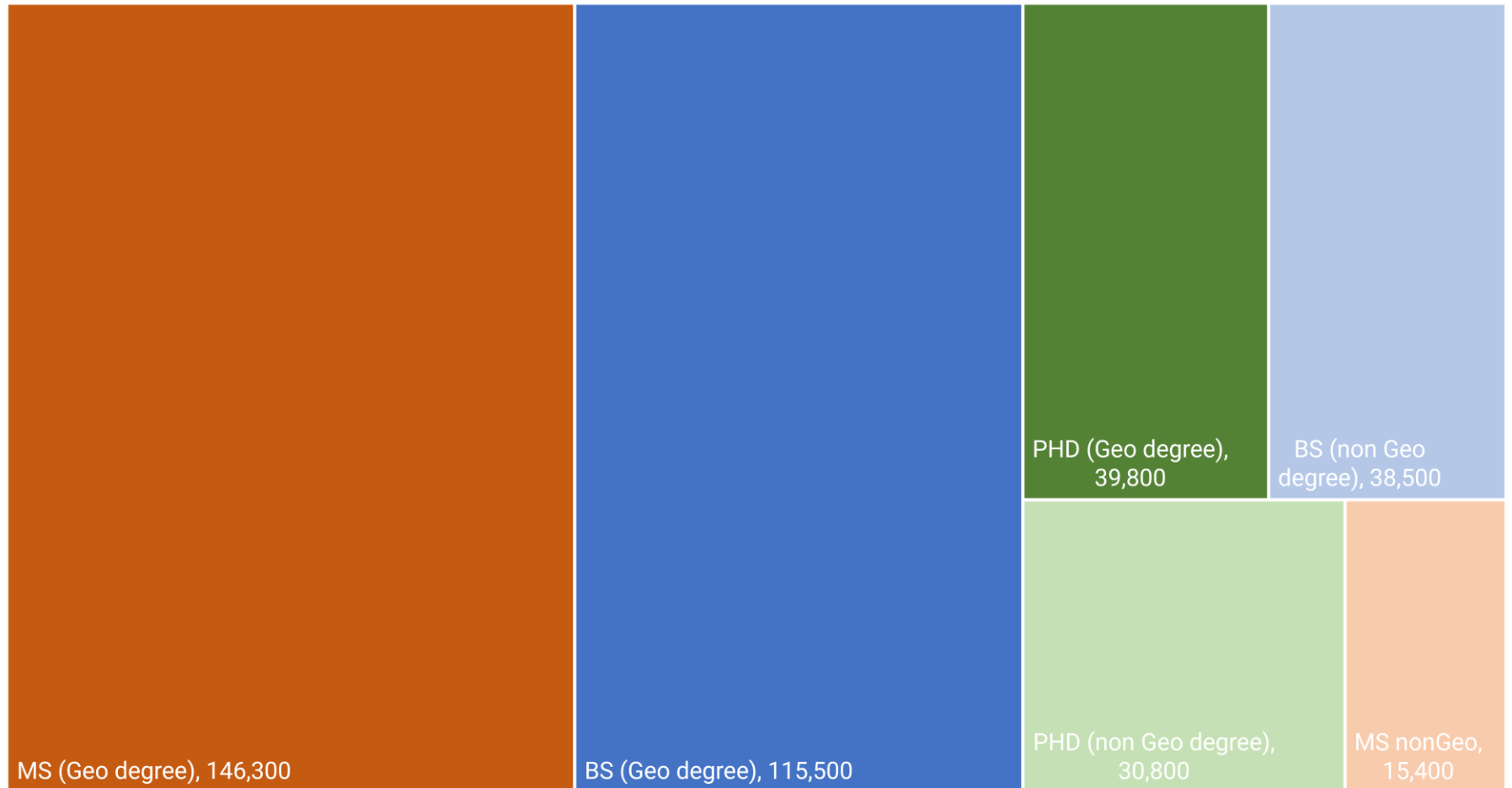


# Status of Geoscience Employment and Graduate Outcomes

Christopher Keane  
American Geosciences Institute  
23 May 2022

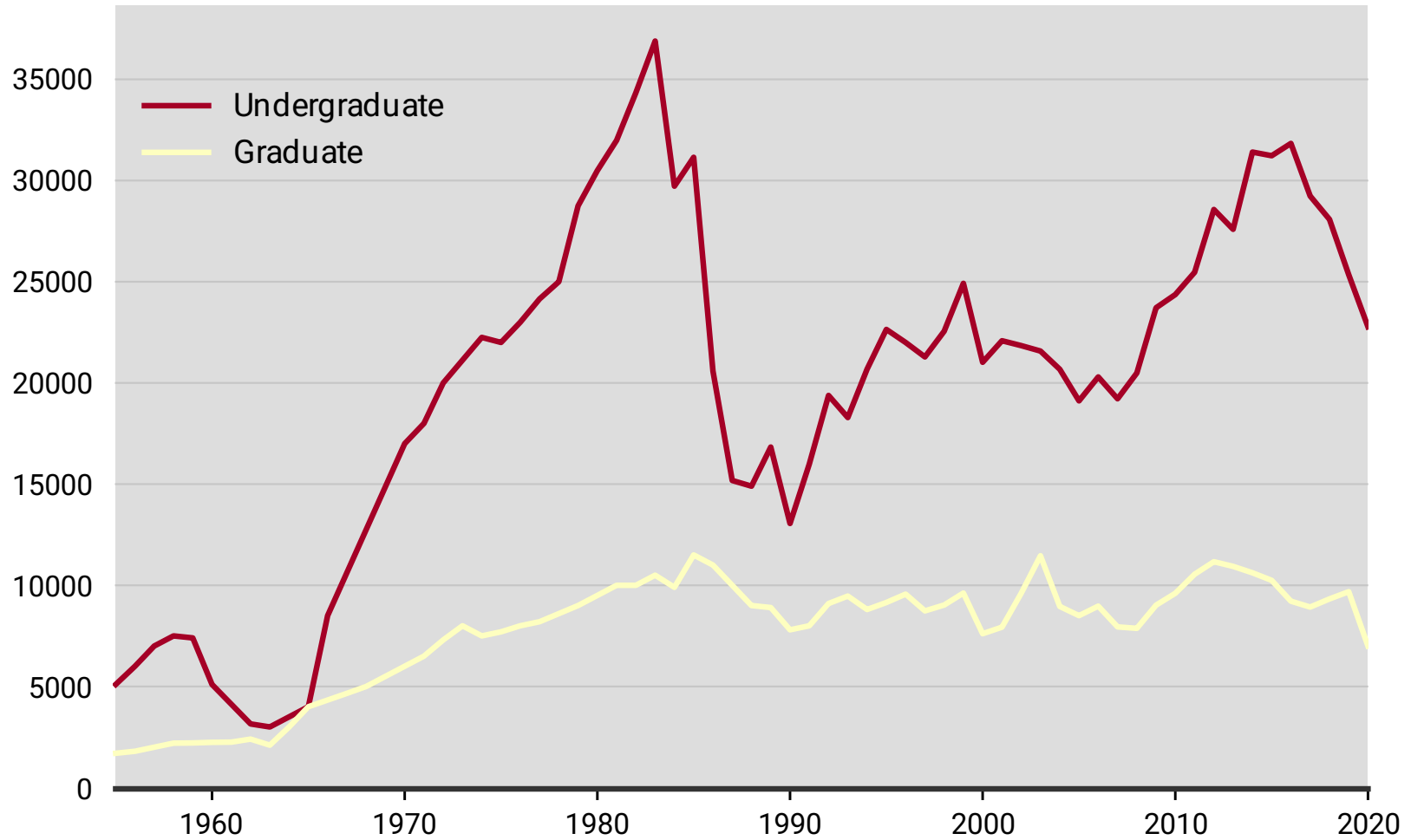


## US Geoscience Employment by Highest Degree Level, 2017



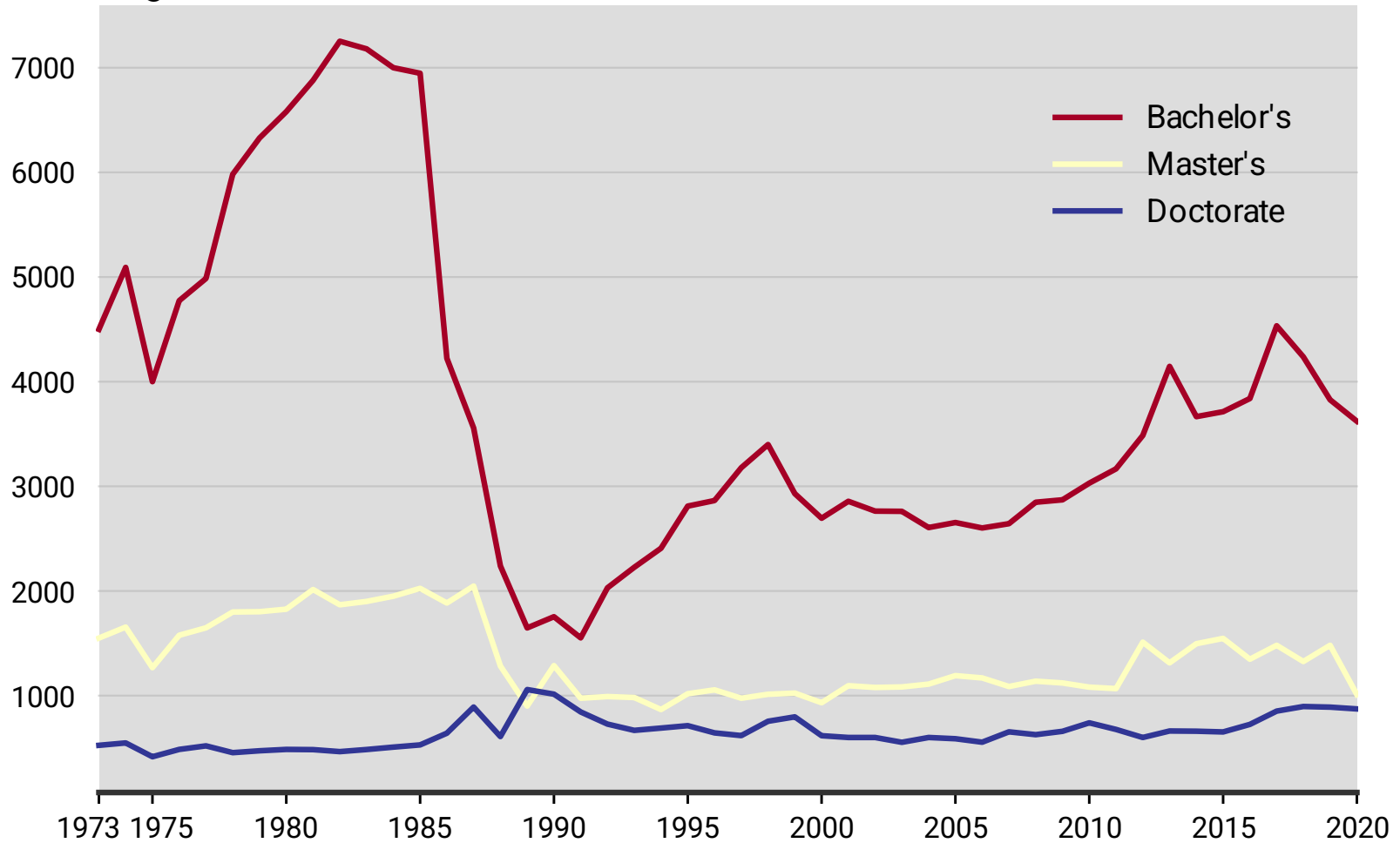
# Geoscience Enrollment in the United States, 1955-2021

Students enrolled



# Geoscience Degrees Awarded in the United States, 1973-2020

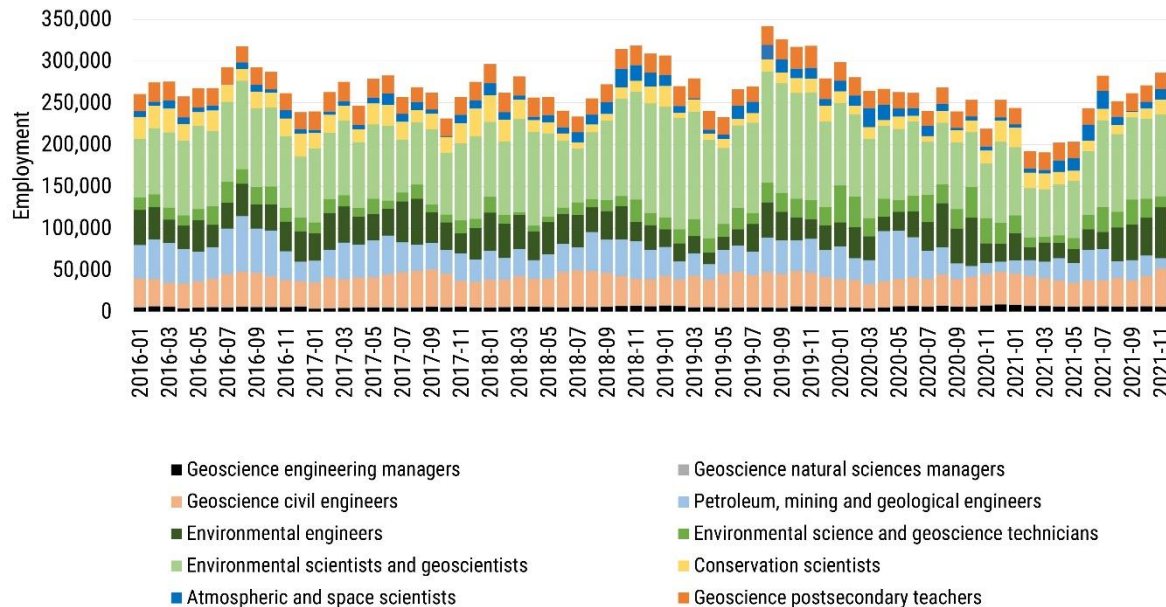
Degrees awarded



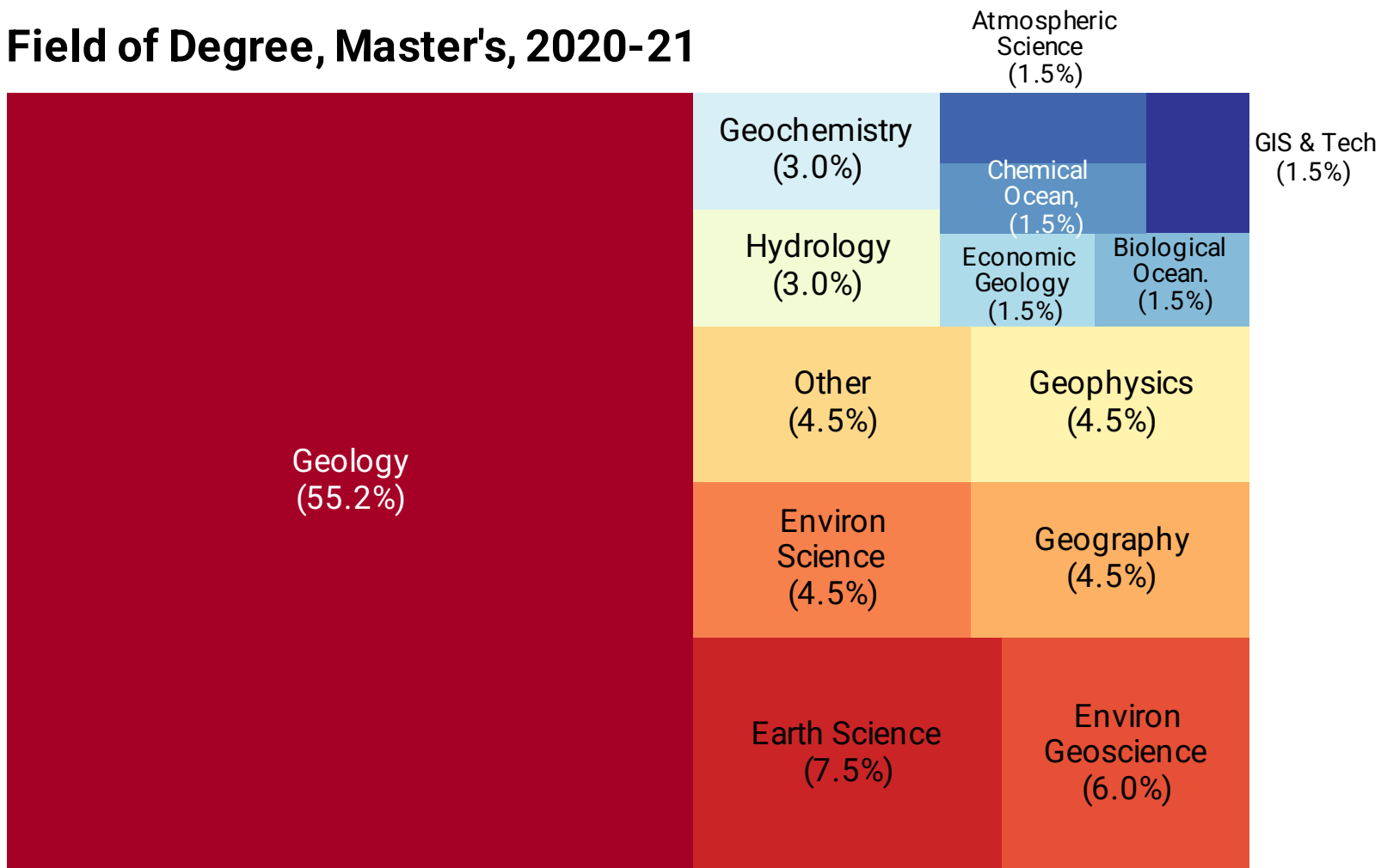
# Employment in the Pandemic

- 88% of geoscience employers received government assistance
- Effective geoscience unemployment rate was 4%.

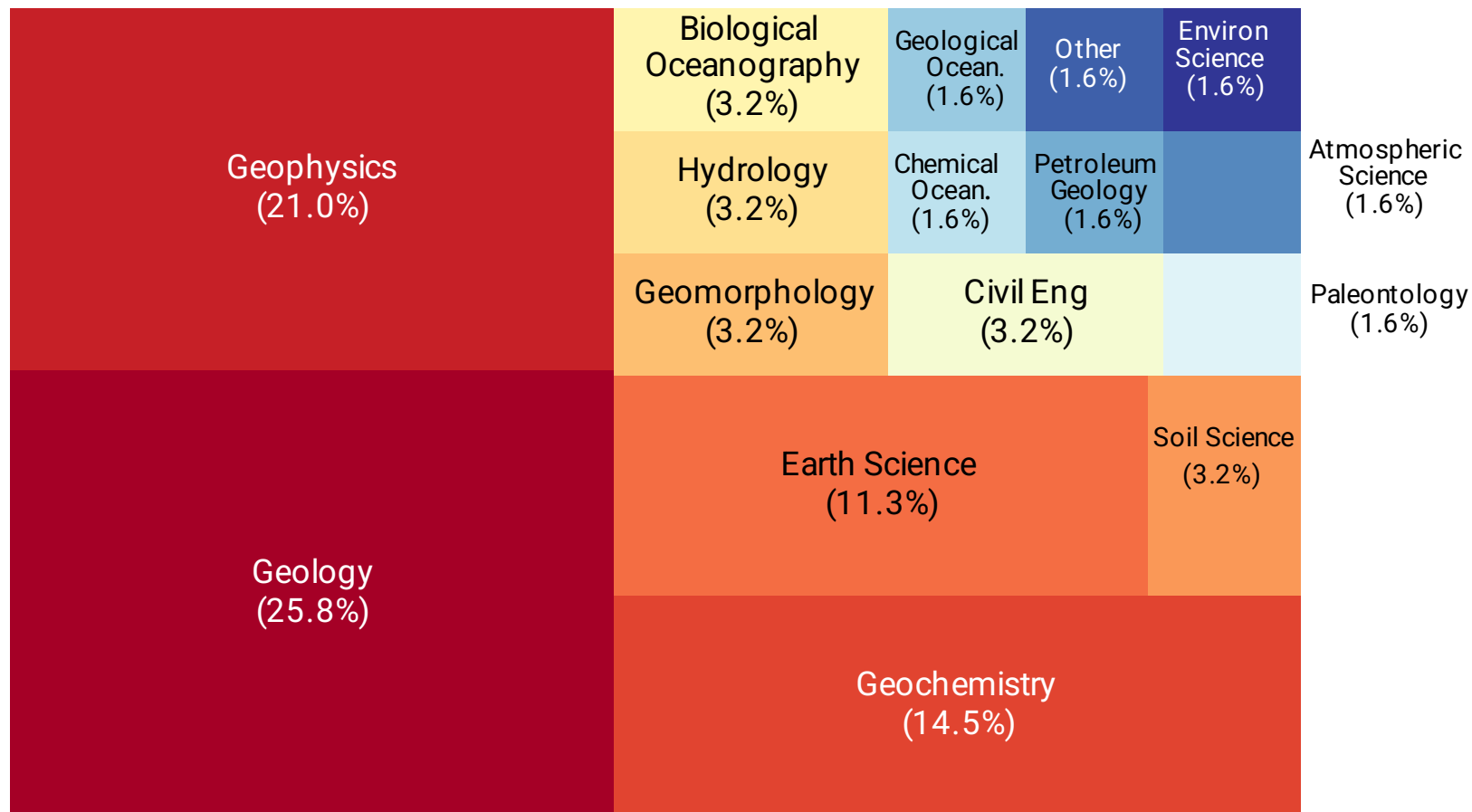
Monthly geoscience employment



# Field of Degree, Master's, 2020-21

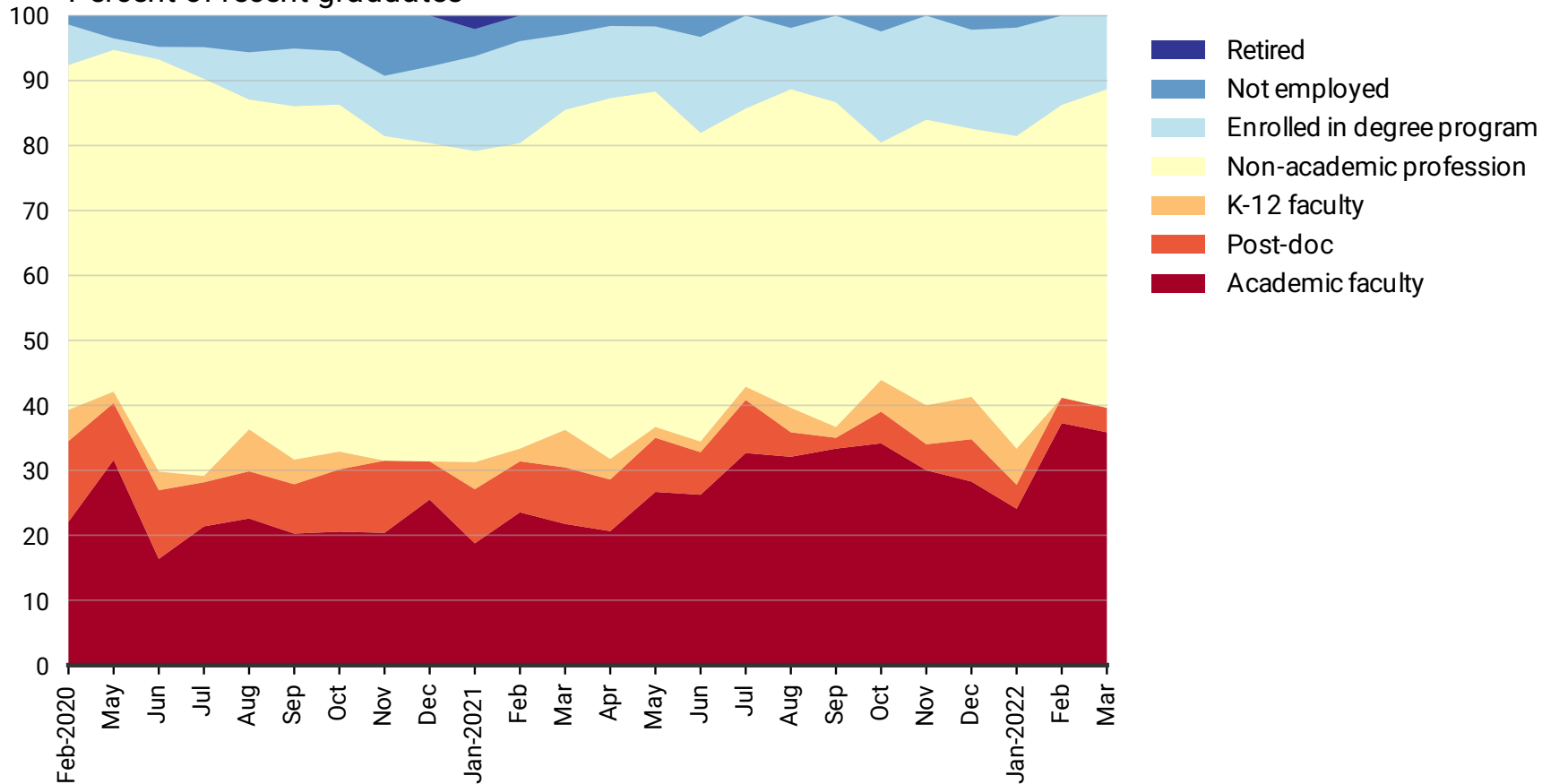


## Field of Degree, Doctorates, 2020-21



# Occupational status of 2014-2018 geoscience graduates

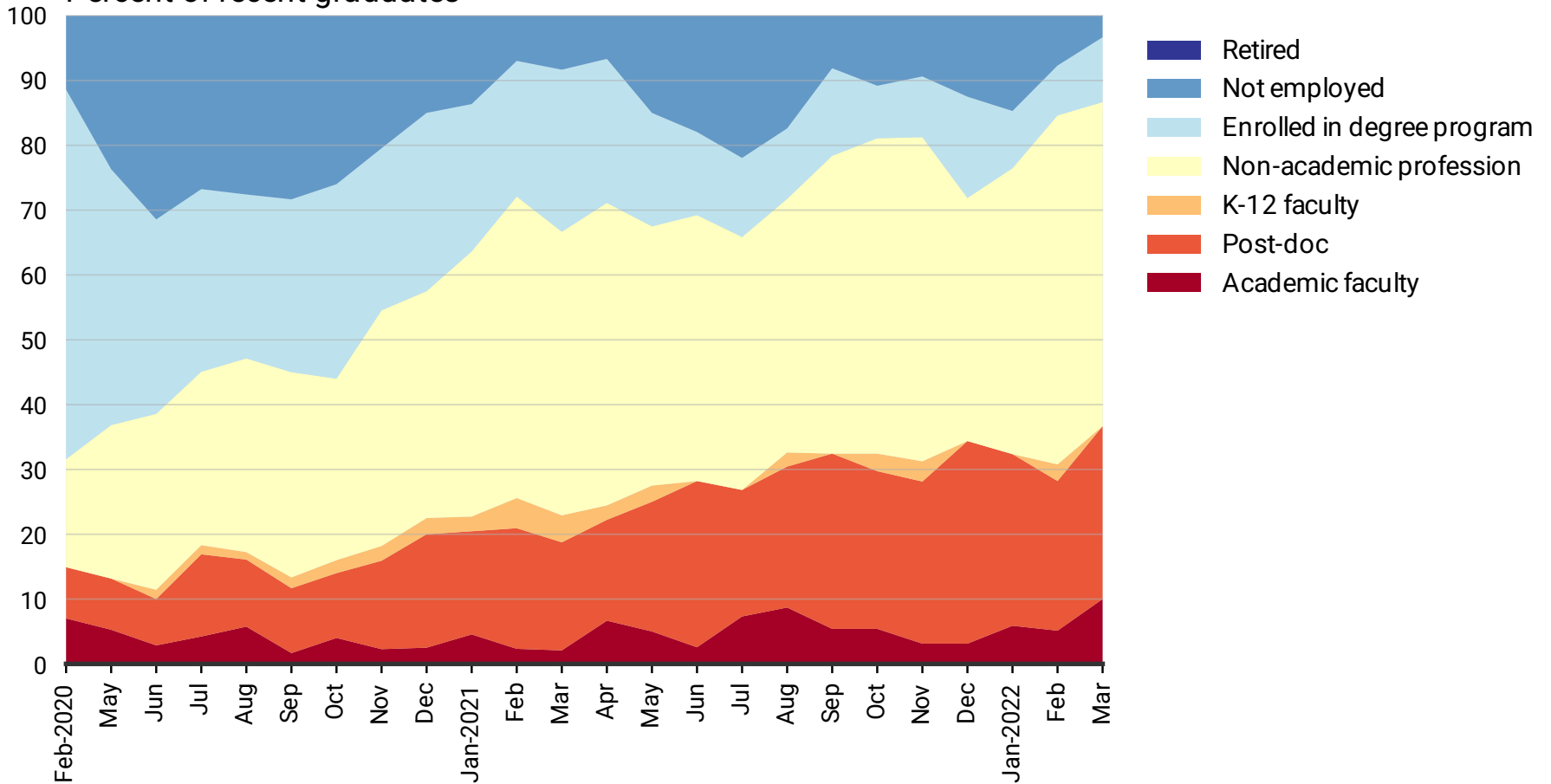
Percent of recent graduates





# Occupational status of 2019-2021 geoscience graduates

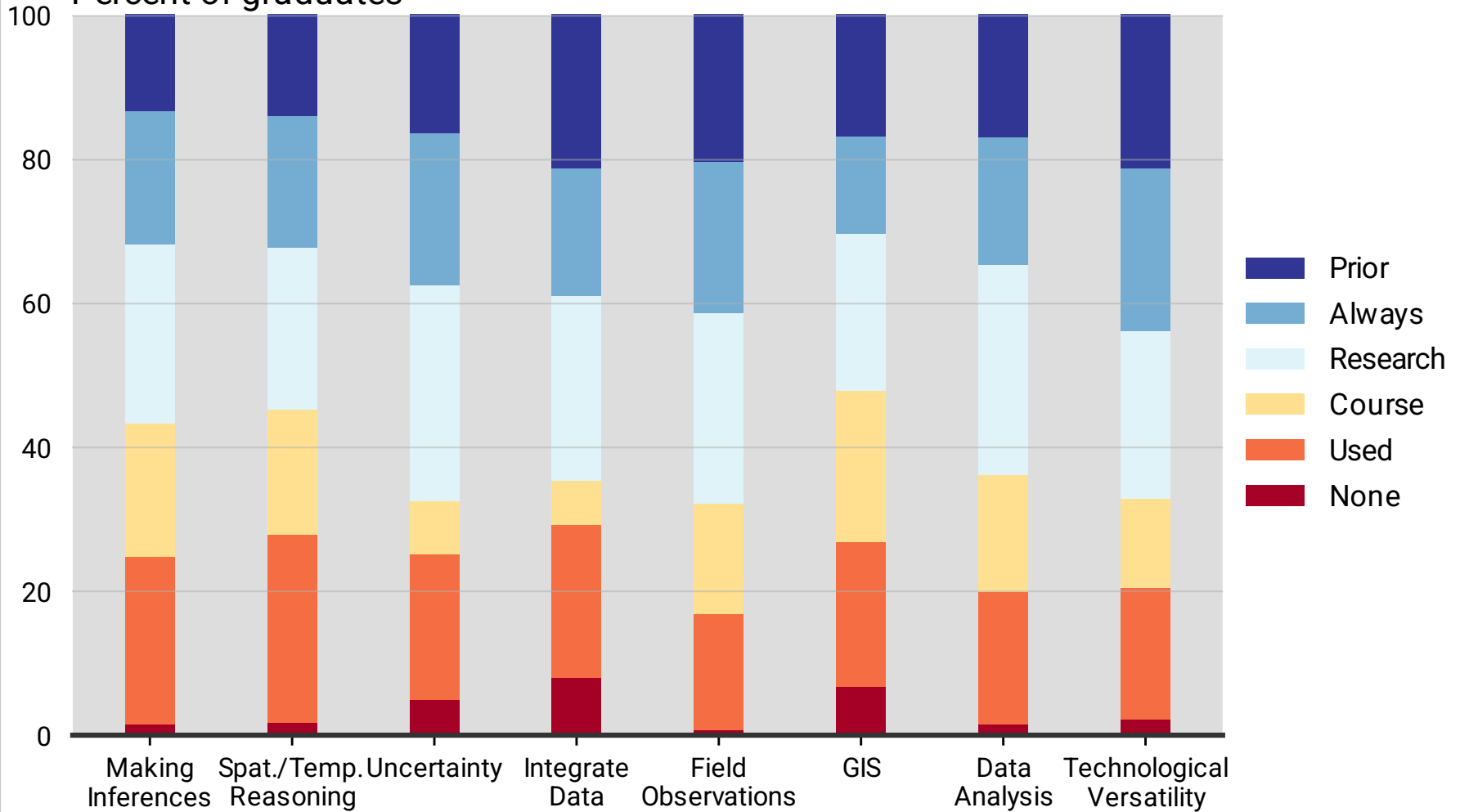
Percent of recent graduates





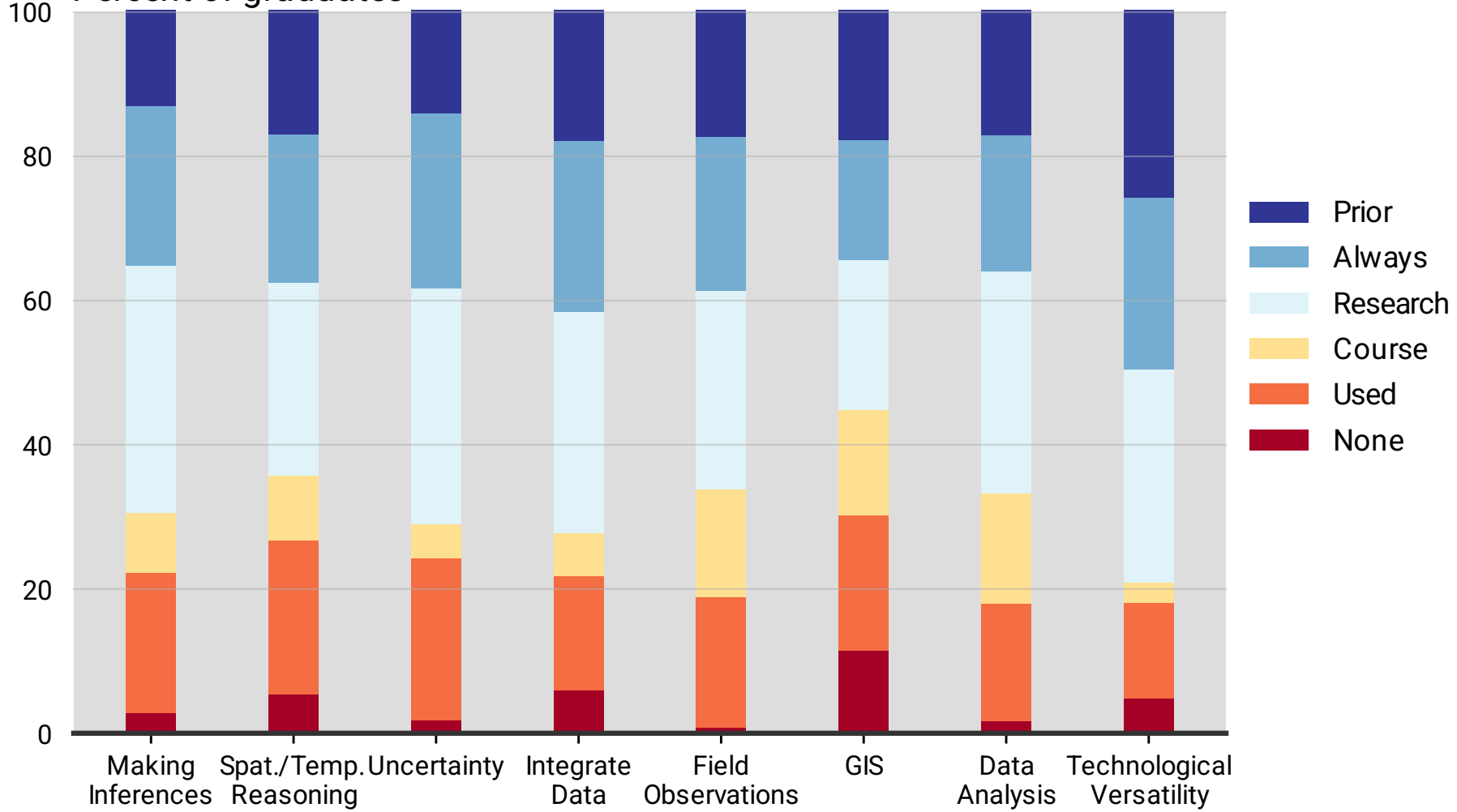
# Geoscience Skill Intensity - Master's, 2020-21

Percent of graduates



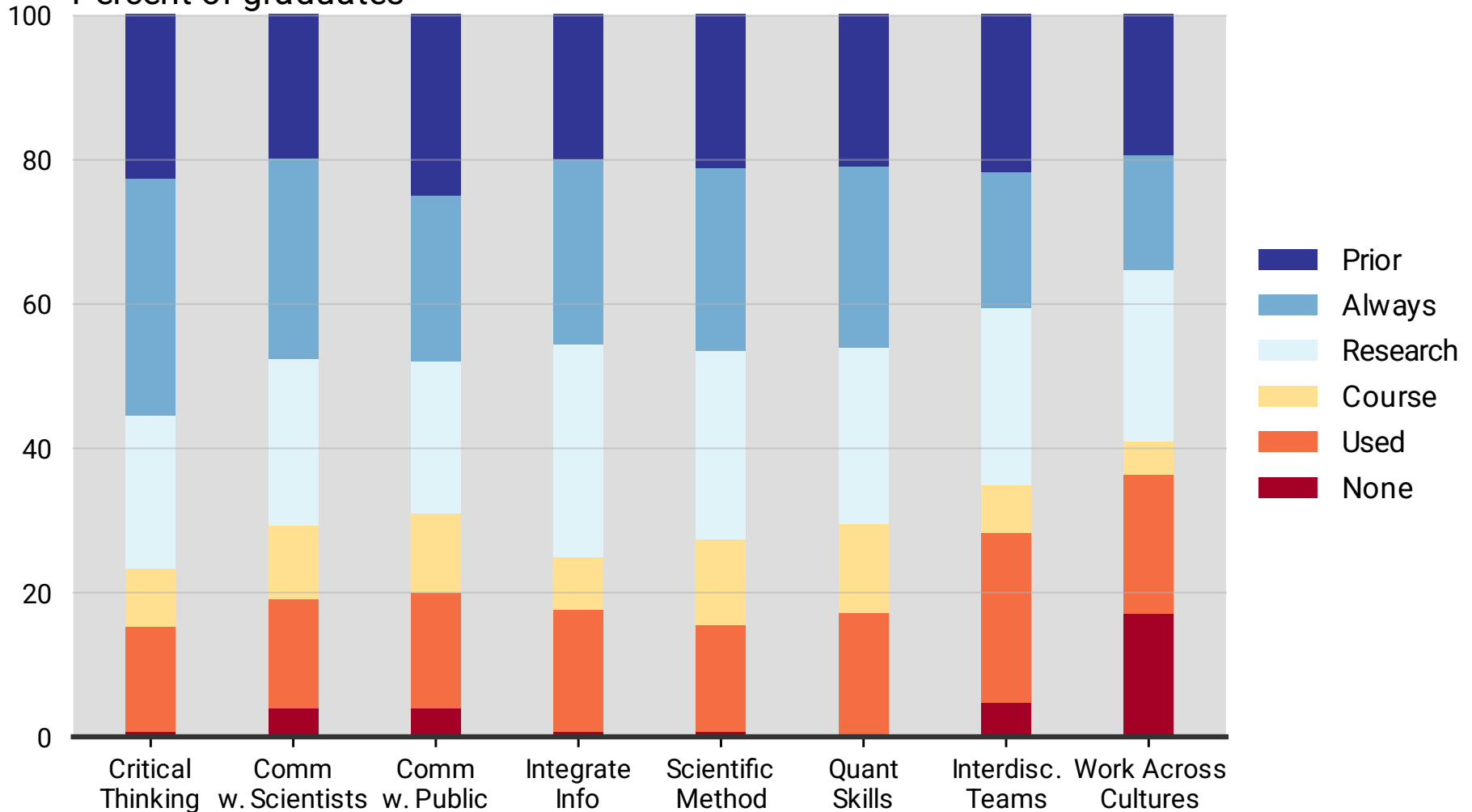
# Geoscience Skill Intensity - Doctorates, 2020-21

Percent of graduates



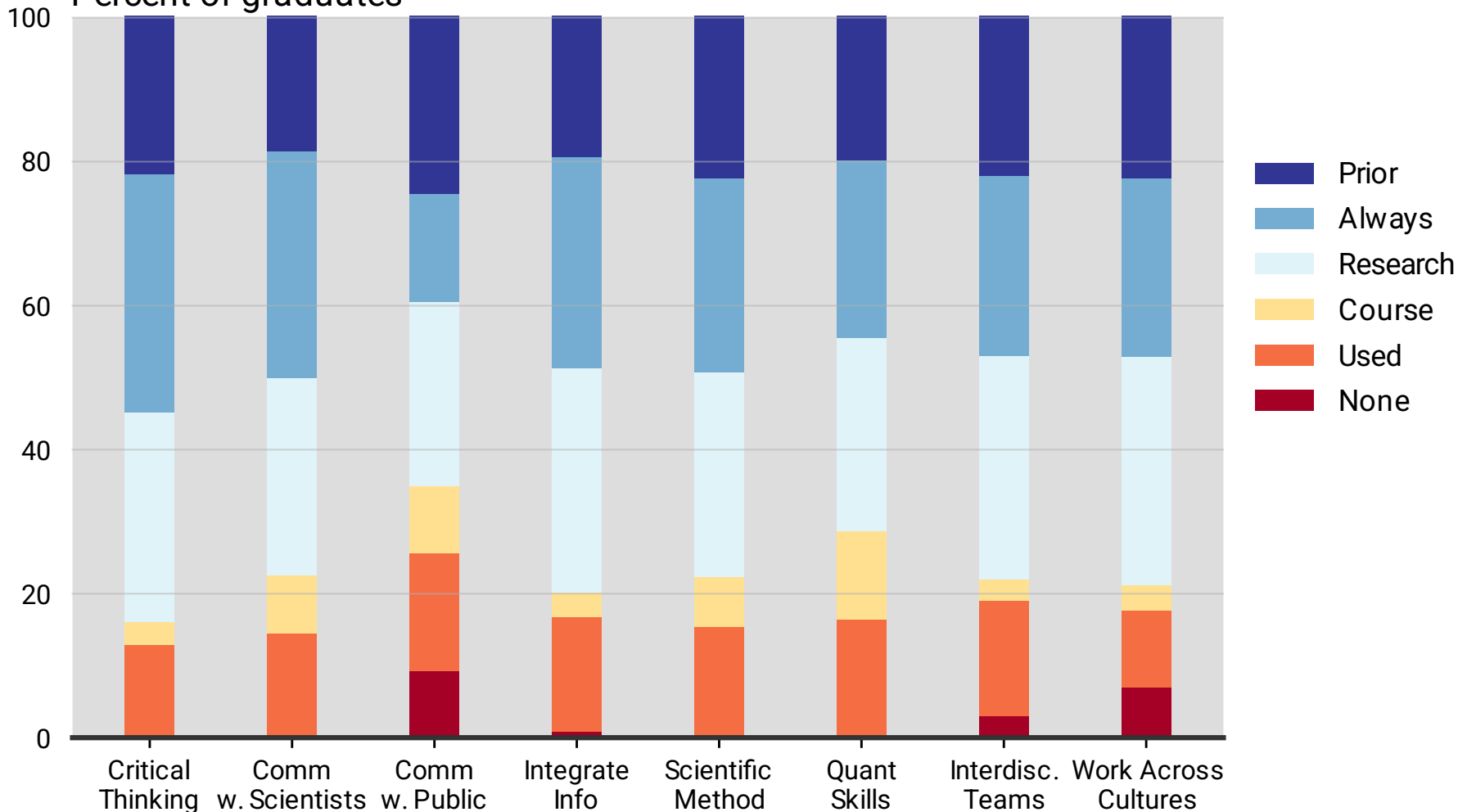
# Science Skill Intensity - Master's, 2020-21

Percent of graduates



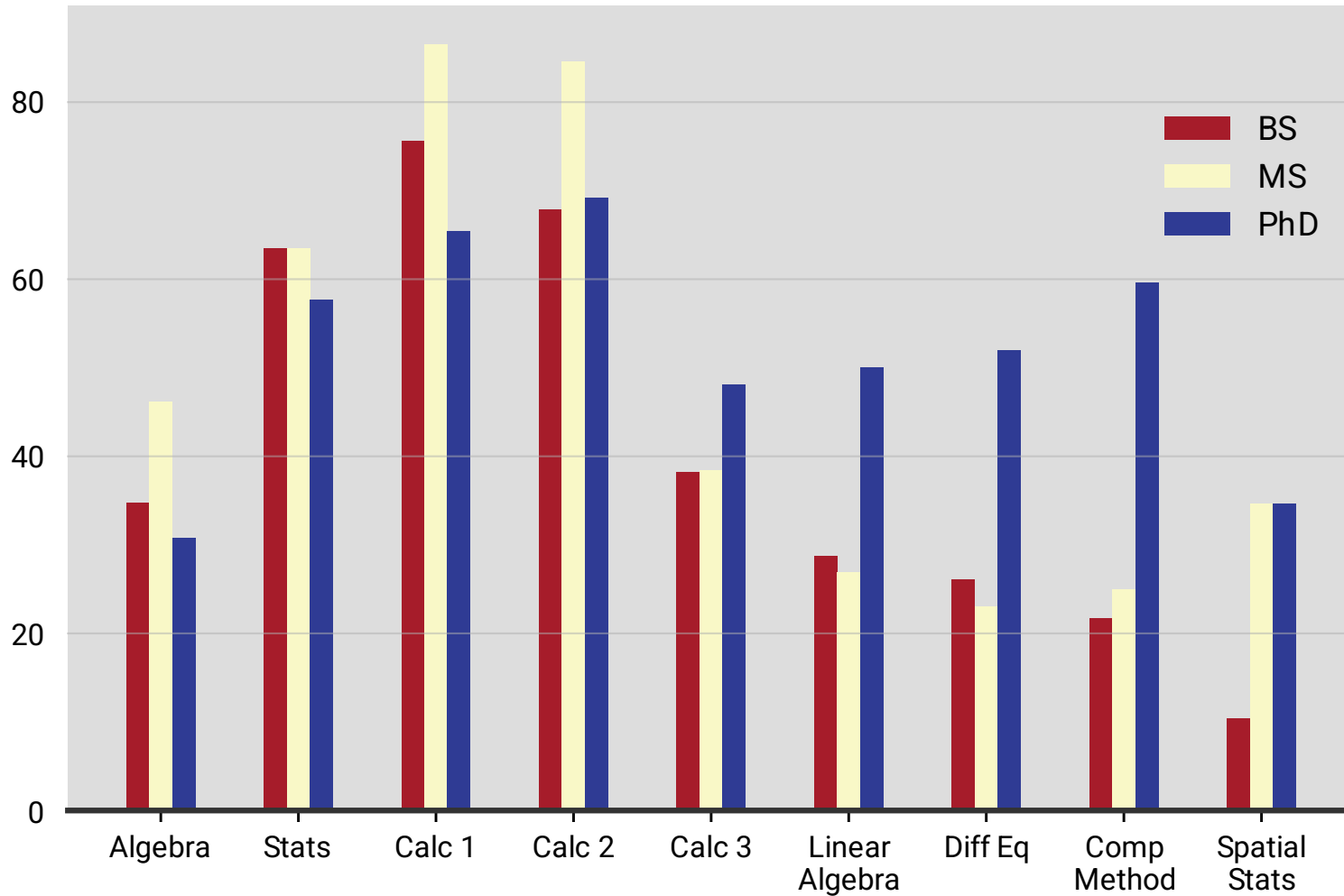
# Science Skill Intensity - Doctorates, 2020-21

Percent of graduates



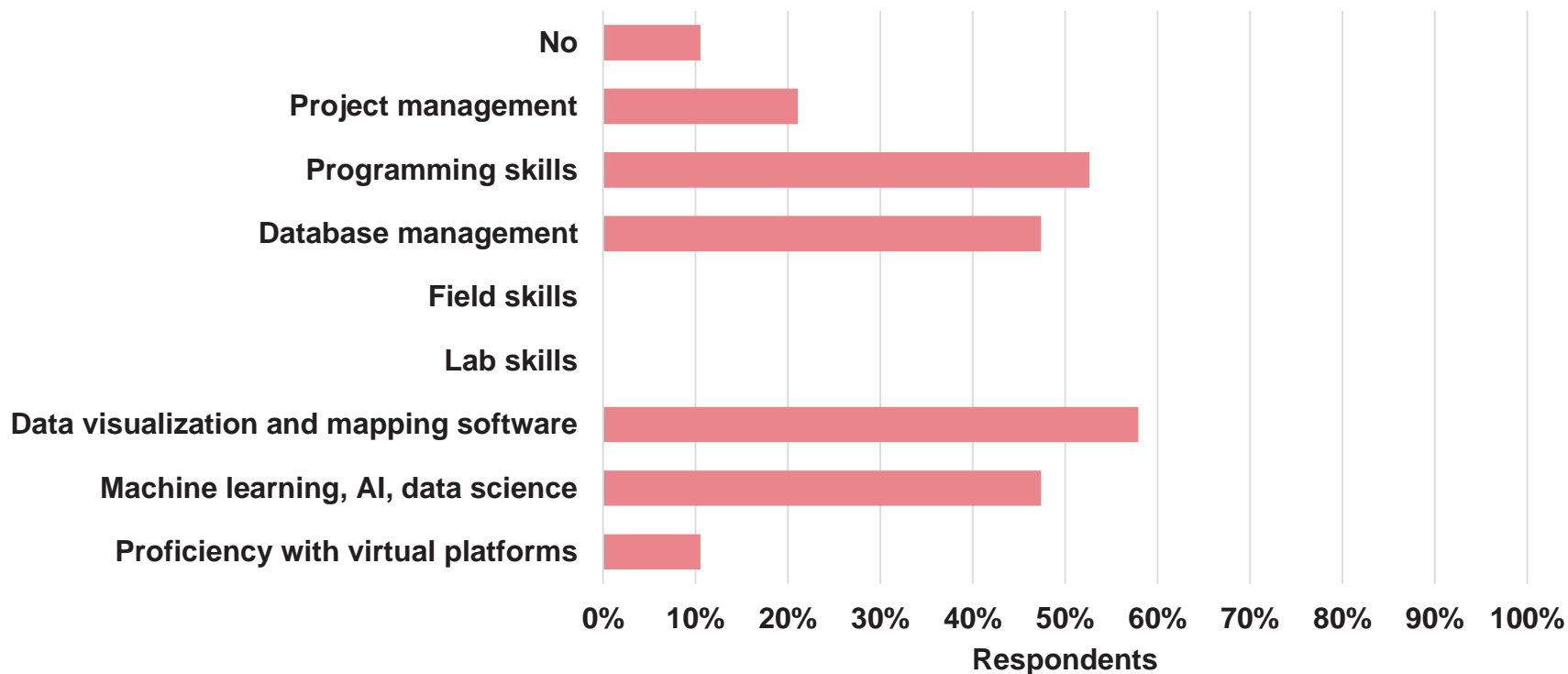
# Quantitative Skills by Degree Level, 2020-21

Percent of graduates



# COVID-Era Graduates Skills Reflection

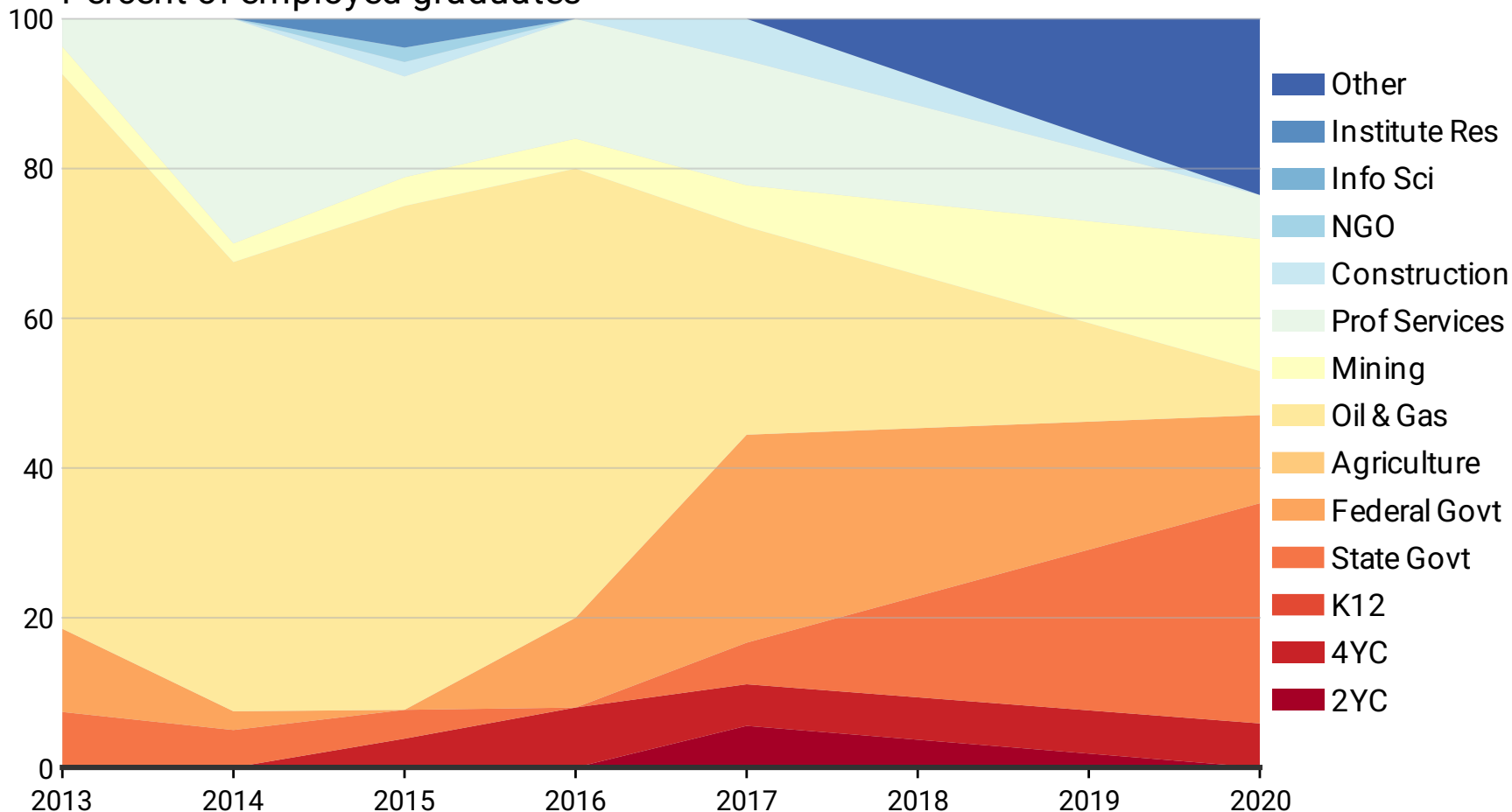
## Skills Wished had Gained



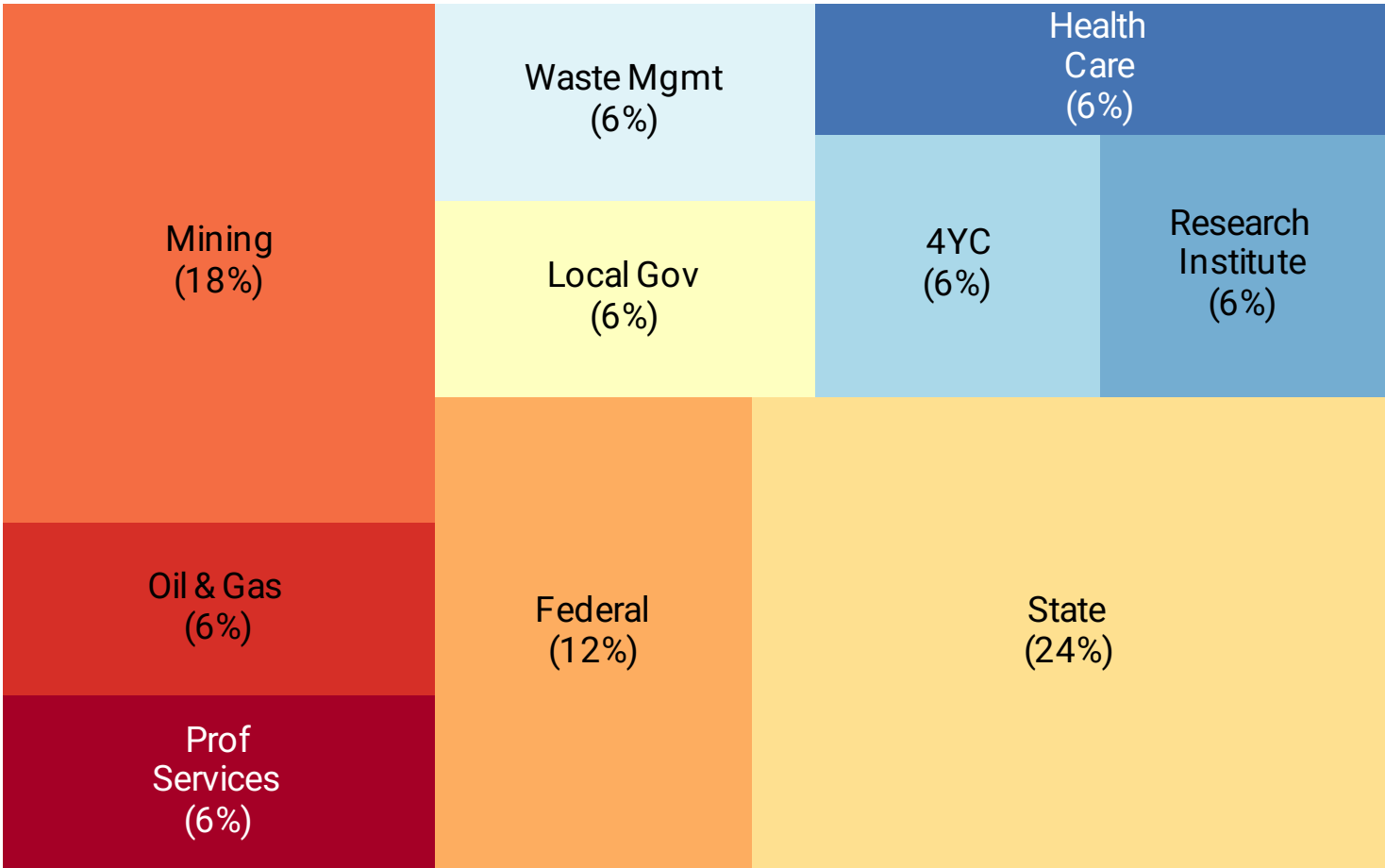


# Employment Sectors of Master's Graduates, 2013-2020

Percent of employed graduates

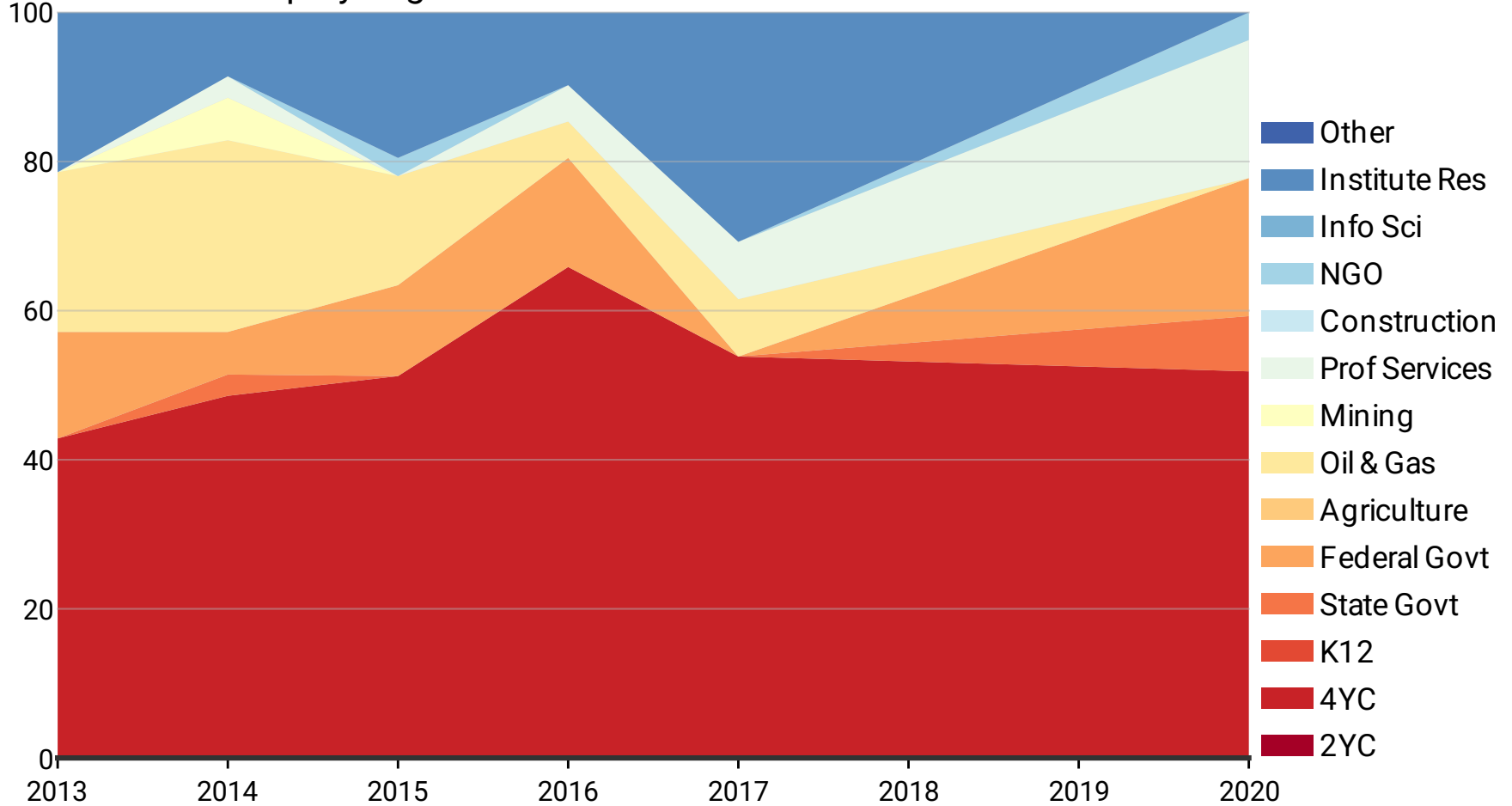


# Employment Sectors of Master's Graduates, 2020-21

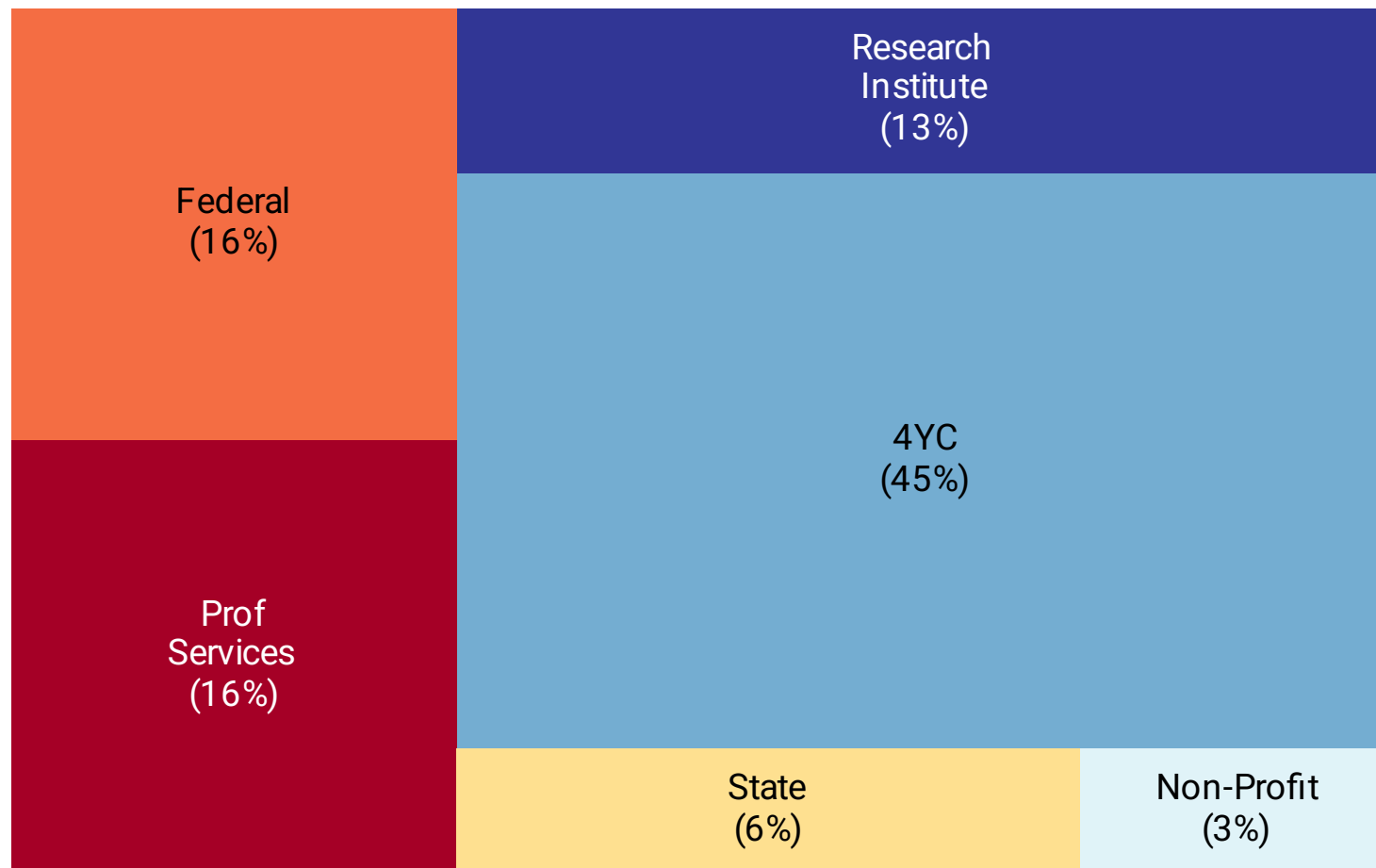


# Employment Sectors of Doctorate Graduates, 2013-2020

Percent of employed graduates



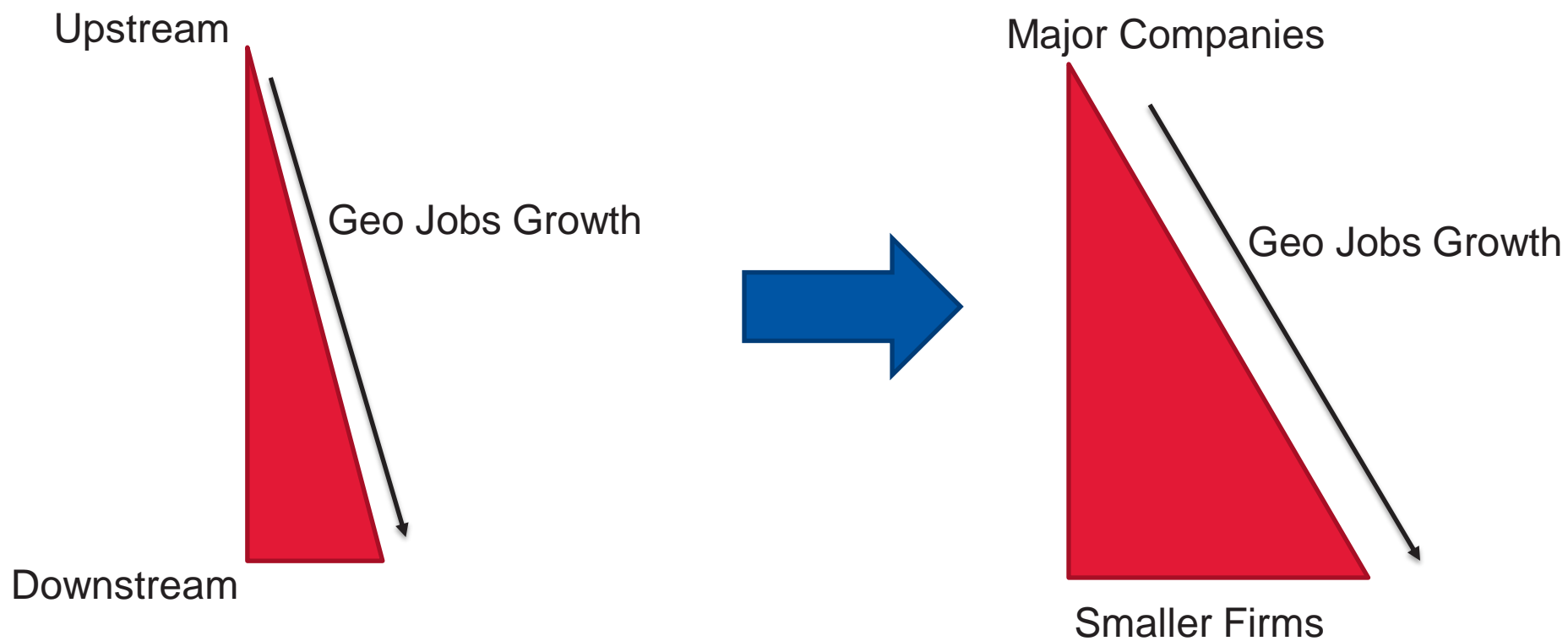
# Employment Sectors of Doctoral Graduates, 2020-21



# Macro Drivers Into the Future



# Geoscience Goes Gig-lite



# Other Apparent Factors

- AI/ML greatly reducing middle-skill geo jobs
  - Seismic/Strat Interpreters
  - Loggers
- Spread of fixed-price contracts
  - Shifting risk to smaller firms
  - Demanding higher skills/agility for increasing margin
- Increase in the singleton geoscientist
- Geosciences reluctance to be solution providers
  - Skillfulness and innovative thinking are winning traits

