

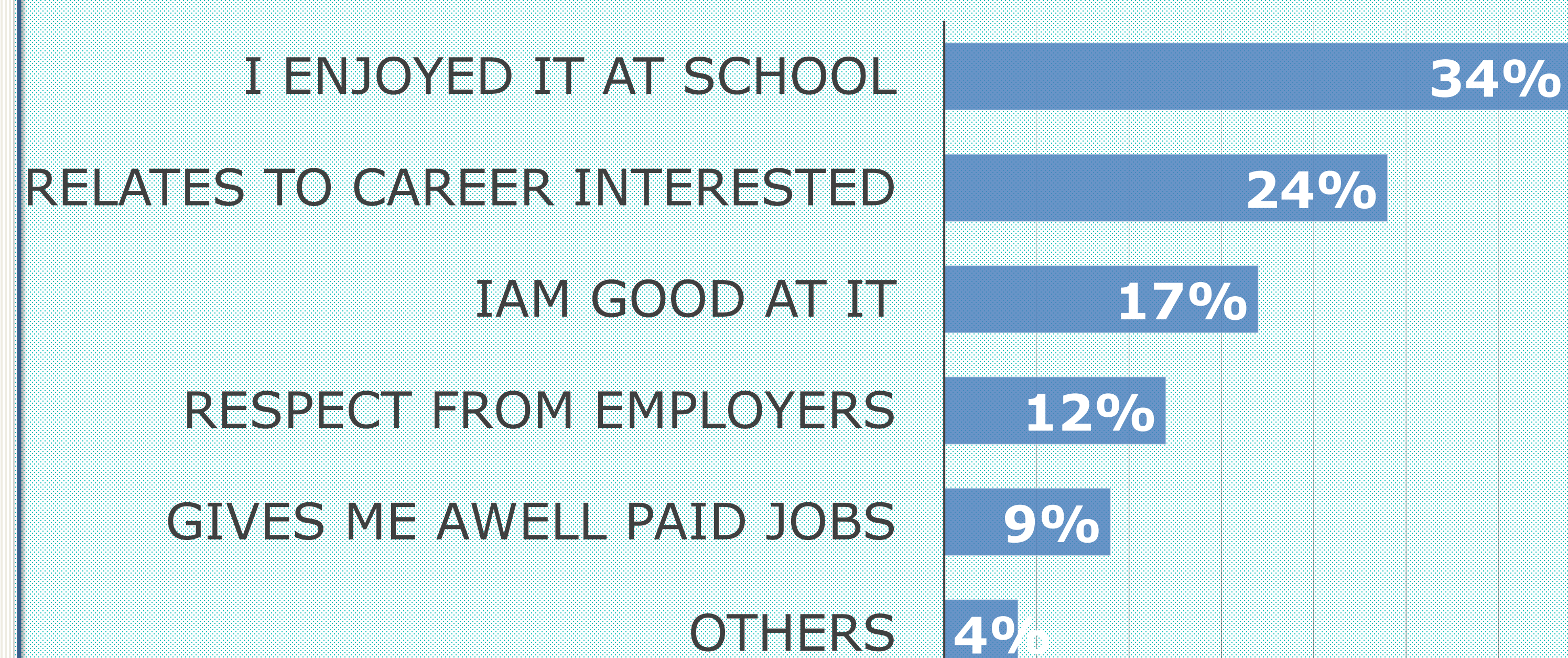
RECRUITING CHEMISTS OF THE FUTURE: WHY DO STUDENTS CHOOSE TO MAJOR IN CHEMISTRY VERSUS OTHER STEM SUBJECTS?

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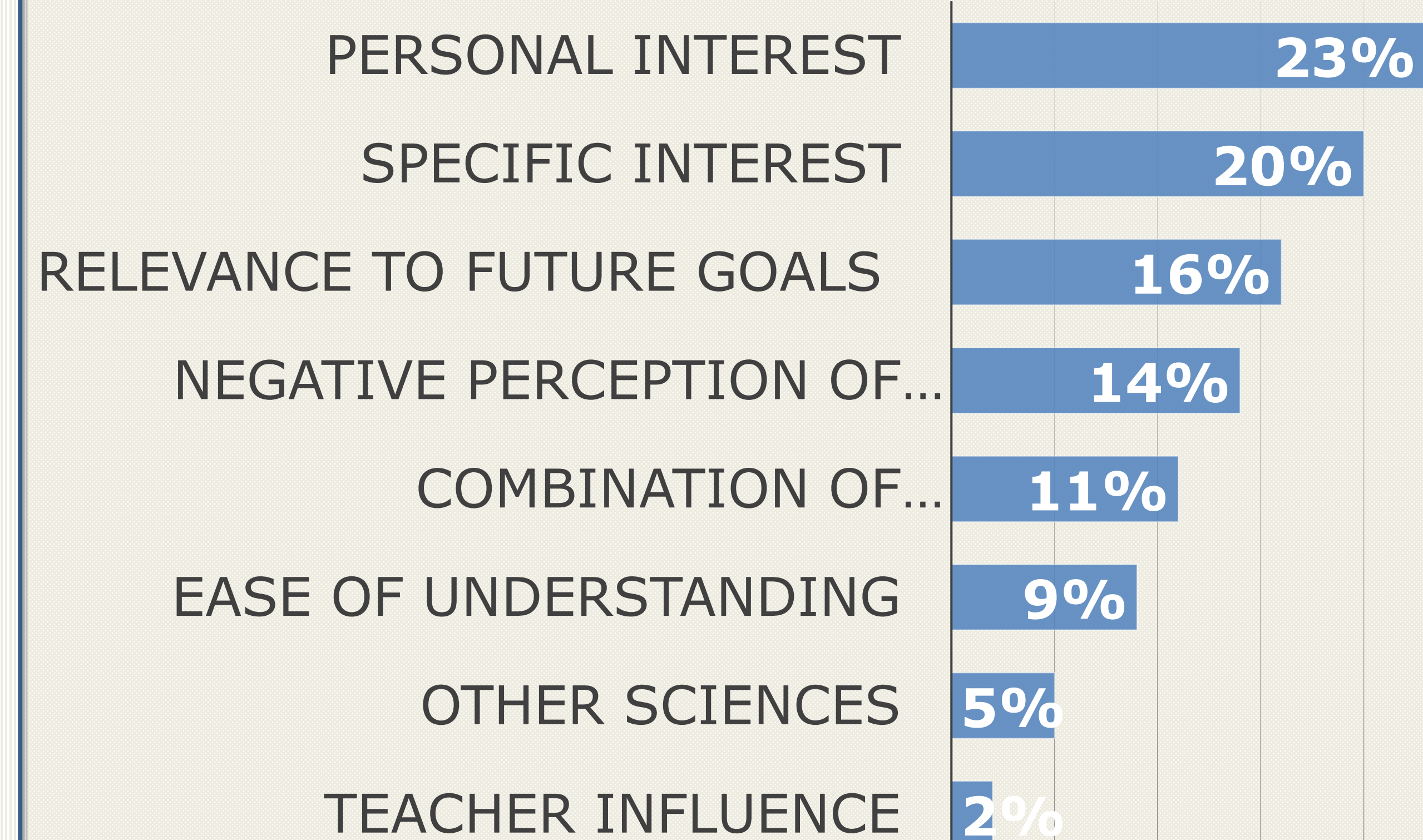
Background

- Encouraging STEM participation is crucial, but chemistry lags behind other sciences¹.
- Between 1996 and 2007 budgetary constraints and a decline in applications led to the closure of 26 chemistry departments².
- Decline in the number of chemistry undergraduates threatens £50 billion UK chemical industry and jobs³.

Pre- pandemic motivation chemistry majors



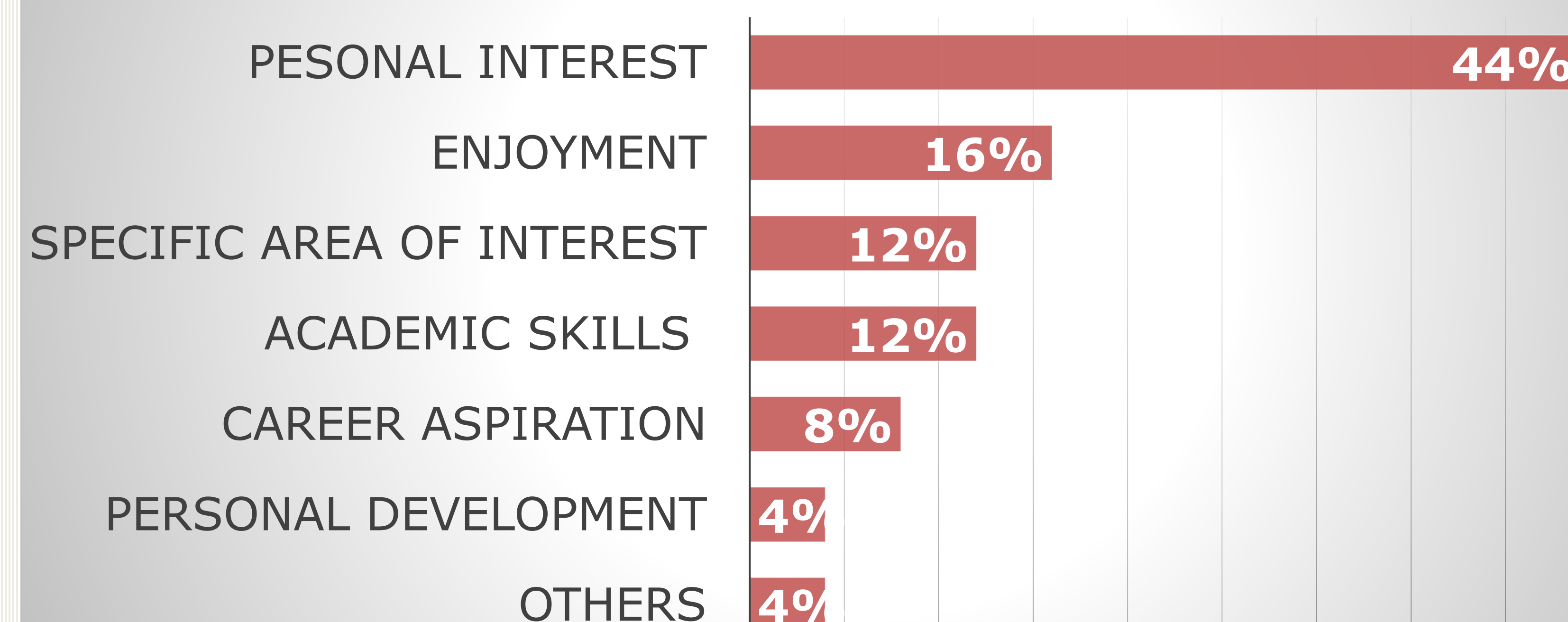
Pre- pandemic motivation biology majors



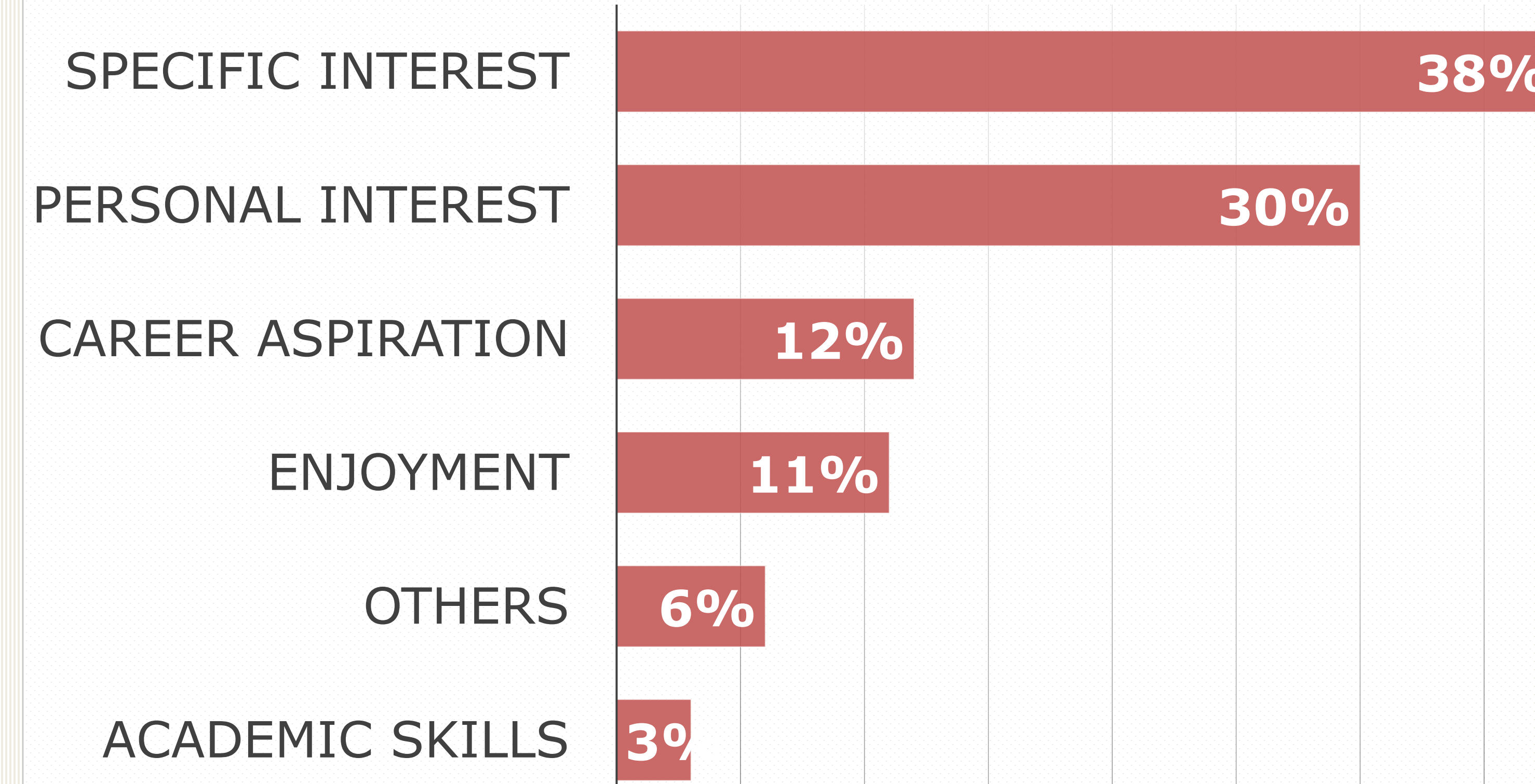
Methodology

- Survey of 381 first year science students at the University of Glasgow.
- The sample included both pre-covid (2019-2020) (n=226) and post-covid (2022-2023) (n=155) respondents.
- Data analyzed in SPSS and thematically.

Post-pandemic motivation chemistry majors



Post-pandemic motivation biology majors



Research questions

Why did you choose your major subject?

In what area would you like to work/study further when you graduate ?

Personal interest, enjoyment
and career goals

24% chemists unsure , 3% biologists uncertain

Shift in attitude

- %enjoying chemistry declined (34%-16%)
- Chemistry career follow decreased (24%-8%)
- Personal and specific interest for biology increased 30%,38%.

Conclusion & Implication

- During pandemic, Interest in biology increased.
- Students need more education about jobs that use chemistry.

Future work

- Student perceptions of chemistry and factors influencing their choices in Scotland and Nigeria.
- Suggest best way to recruit chemists of the future.

References

- 1 <https://cen.acs.org/education/undergraduate-education/British-students-decline-study-chemistry/97/i40> visited on 22nd August 2022
- 2 <https://edu.rsc.org/analysis/declining-university-chemistry-applications/3009543.article> visited on 26th August 2022
- 3 <https://www.theguardian.com/education/2019/aug/31/students-shun-chemistry-degrees-university-applications-fall> visited on 31st August 2022

