

SUSTAINABILITY SKILLS SURVEY 2022-23

RESEARCH INTO STUDENTS' EXPERIENCES OF TEACHING AND
LEARNING ON SUSTAINABLE DEVELOPMENT

HIGHER EDUCATION REPORT



STUDENTS
ORGANISING FOR
SUSTAINABILITY
UNITED KINGDOM

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Acknowledgements

Thanks to the universities, colleges and students' unions across the UK for their efforts in publicising the survey to their students. And thanks also to the students who took part in the research, which helps to develop and improve our work in this area.

Summary

Summary

A national online survey was completed by over 9303 students in October and November 2022 to build on the data gathered research carried out since 2010-11. The research continues to track student experiences and expectations around teaching and learning for sustainability. The research includes areas of questioning on student experiences of learning about key topics encompassed by sustainability as well as understanding in better detail their experiences of accumulating skills that can contribute to sustainability. This summary highlights the latest results from this longitudinal study.



89% say they agree their place of study should actively incorporate and promote sustainable development



82% would like to see sustainable development actively incorporated and promoted through all courses



67% say sustainable development is something they would like to learn more about

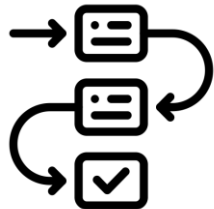
Looking at specific 'skills' related to sustainable development reveals variation in (recognition of) coverage during their time in higher education so far...



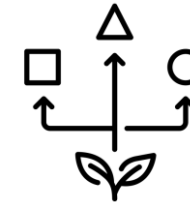
64% say 'considering ethical issues linked to their subject' has been covered during their time in higher education so far



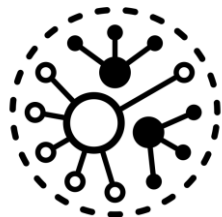
42% say 'understanding how human activity is affecting nature' has been covered during their time in higher education so far



53% say 'planning for the long term as well as the short term' has been covered during their time in higher education so far



34% say 'using resources efficiently to limit the impact on the environment and other people' has been covered during their time in higher education so far



54% say 'solving problems by thinking about whole systems' has been covered during their time in higher education so far



36% say 'the causes of inequality' have been covered during their time in higher education so far

Most respondents understand sustainable development along the lines of the 1987 Brundtland definition



Commonly used words for defining sustainable development

Sustainability Skills Survey 2022-23

"I want to learn how to reduce my carbon footprint as well as how I can push major corporations to do the same."

"I want to adopt to a sustainable lifestyle as well as find out ways in which I can make my future work trajectory align with sustainability goals I have for myself with respect to the environment."

"As we move further into a world or greater uncertainty, I feel that there is more requirement for current generations to lay stable foundations for future generations to have a more certain future. I would like to know better how to do that in my present and future areas of study."

"As someone with shared heritage from third world countries bearing the brunt of environmental damage, I have learned firsthand that cause and effect isn't linear but cyclical in this aspect, with industries in the "first world" drastically affecting the environment in the "global south" and "third world." I would therefore like to learn how change can be made across both spheres while accounting for the vastly different circumstances that present in both."

"As someone who is part of a new generation of professionals, I need to make sure I have sustainable development on my mind when I eventually end up in decision-making positions"

"As a prospective business manager, sustainable development should be integral to running a business, and therefore is something that is necessary for a business owner to be knowledgeable about"

"Climate change is an issue that is incredibly concerning to my generation. I do worry that the constant need for growth in our economy is having a detrimental impact on our planet and consequently will cost it dearly. The only way, in my opinion to keep developing society further is to do so in a way that doesn't costume mass amounts of resources and replenishes our environment."

Motivations for learning about sustainable development

Respondents recognise the action taken by their institution to address negative impacts, and report a positive influence on their own attitudes and behaviours



75% agree that ‘My place of study takes action to limit the negative impact it has on the environment and society’

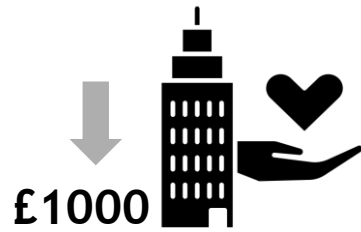


68% agree that ‘being a student at my place of study encourages me to think and act to help the environment, and other people’

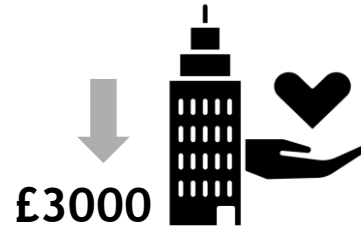


69% say their students’ union has encouraged them to think and act to help the environment and other people the most

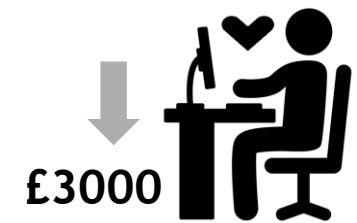
Looking beyond their time in education respondents show a desire to work for companies that perform strongly in relation to sustainable development, and in roles that contribute positively in this area



75% would accept a salary £1000 lower than average to work in a company with a good social and environmental record



54% would accept a salary £3000 lower than average to work in a company with a good social and environmental record



51% would accept a salary £3000 lower than average to work in a job that contributes to positive social and environmental change

Introduction - Objective, methodology and survey details

1

Introduction - Objective, methodology and survey details

This report presents research designed to investigate higher education students' experiences of teaching and learning on sustainable development. The research aimed to assess:

- student attitudes to sustainable development issues;
- student definitions of sustainable development;
- student aspirations towards learning about sustainability and expectations of their place of study;
- student aspirations for sustainability in employment after their time in education.

The data presented in this report builds on the data gathered through ten years of previous research and continues to track changes in demand amongst students across the UK. In 2015-16 (year 6) the research was updated to include new areas of questioning on student experiences of learning about key topics encompassed by sustainability, as well as understanding in better detail their experiences of accumulating skills that can contribute to sustainability. The updated survey has been repeated since 2015-16 and this report focuses on the results since the update.

The 2022-23 online survey was completed in October and November 2022 by students across the UK studying in higher education. Over 9303 respondents completed the survey, which was promoted on a national basis through the TOTUM student cardholder database and through local promotions by universities and students' unions.

The survey was incentivised with a £500 prize draw and was promoted as a 'skills survey', making no mention of sustainability, to avoid attracting only respondents with a prior interest in the subject. Additionally, the terms 'sustainability' and 'sustainable development' were not used until the penultimate section of the survey to avoid influencing respondent understanding.

The survey results have been weighted according to gender to reflect available statistics for students in Higher Education available through the Higher Education Statistics Agency. A full breakdown of respondent characteristics can be found in section 2. This report presents the findings for student studying higher education courses only.

Throughout the report, where analysis has revealed statistically significant differences between groups of respondents, these have been outlined.

Significant differences are reported at 99% confidence level unless specified otherwise.

This report presents the findings in the following areas:

- Expectations for teaching and learning for sustainability
- Experiences of teaching and learning for sustainability
- Sustainability skills beyond education

Sustainability 'skills'

To help assess respondent experiences of teaching and learning, the survey includes questions linked to a number of 'skills' that can be associated with achievement of sustainable development. The skills include:

Skills for sustainable development...

Looking at global problems from the perspective of people from around the world

Considering ethical issues linked to your subject

The causes of inequality in the world

Understanding how to create change

Understanding how human activity is affecting nature

Challenging the way we do things now (like business, politics, education)

Solving problems by thinking about whole systems - including different connections and interactions

Communicating complex information clearly and effectively to different types of people

Using resources efficiently to limit the impact on the environment and other people

Looking at a problem using information from different subjects or disciplines

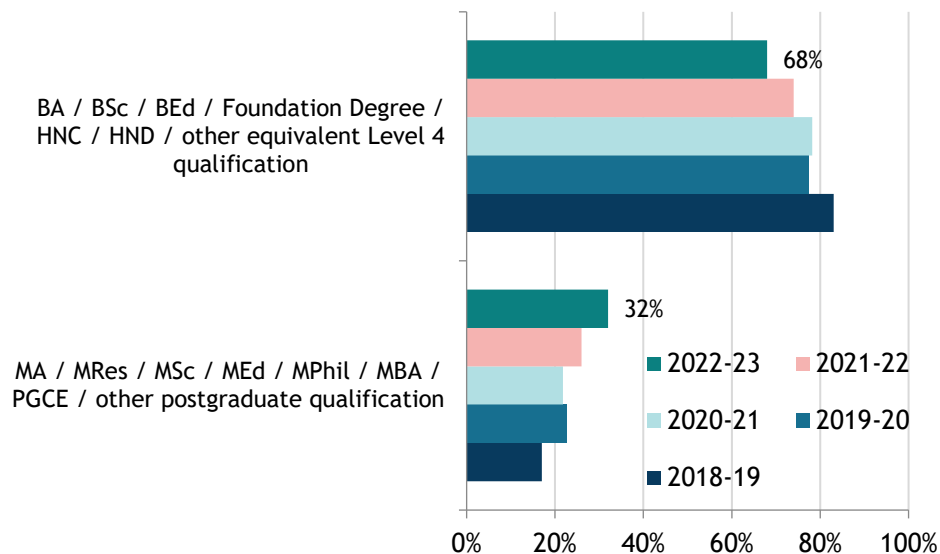
Planning for the long term, as well as the short term

The respondents

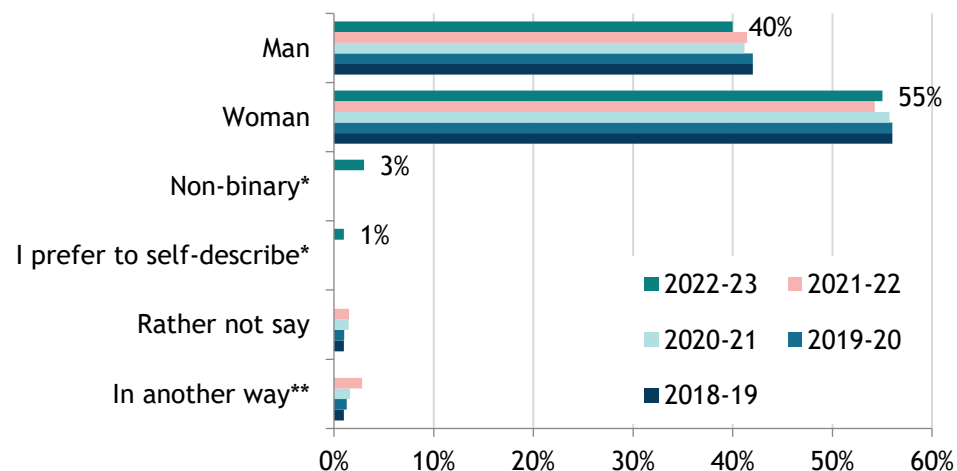
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Respondent demographics

LEVEL OF STUDY

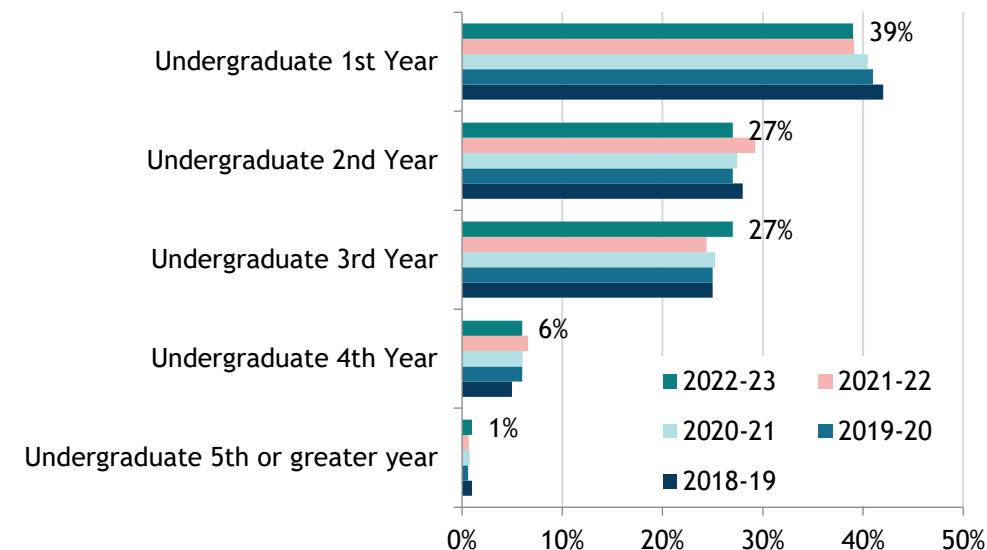


GENDER

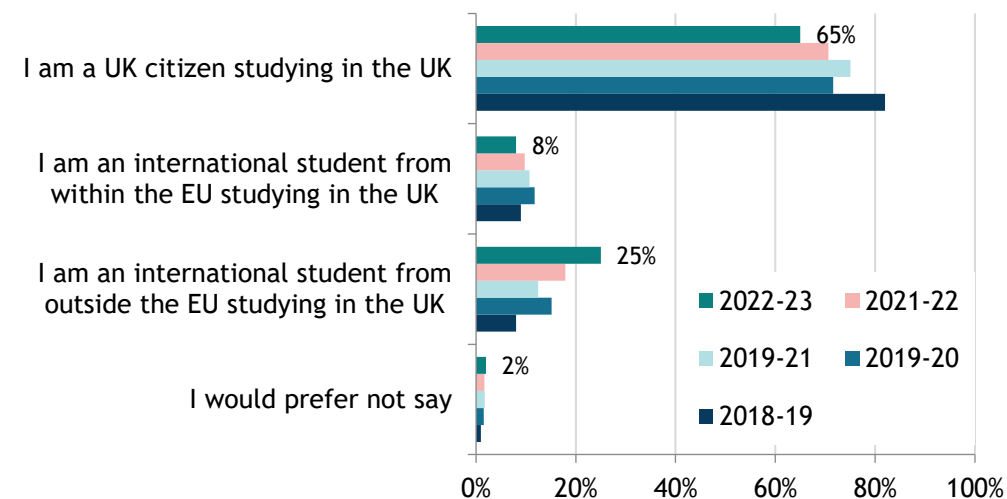


* Please note, answer option added in 2022-23. ** Please note, answer option removed in 2022-23.

YEAR OF STUDY (UNDERGRADUATES)



NATIONALITY

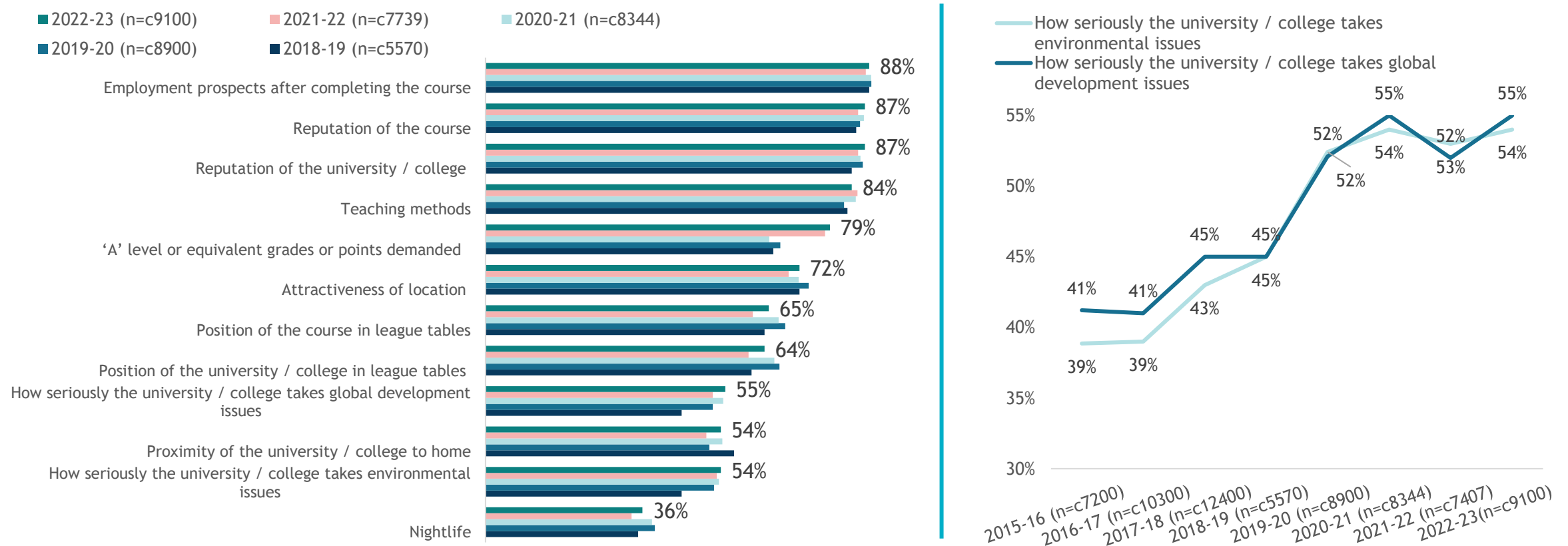


Expectations for teaching and learning for sustainability

3

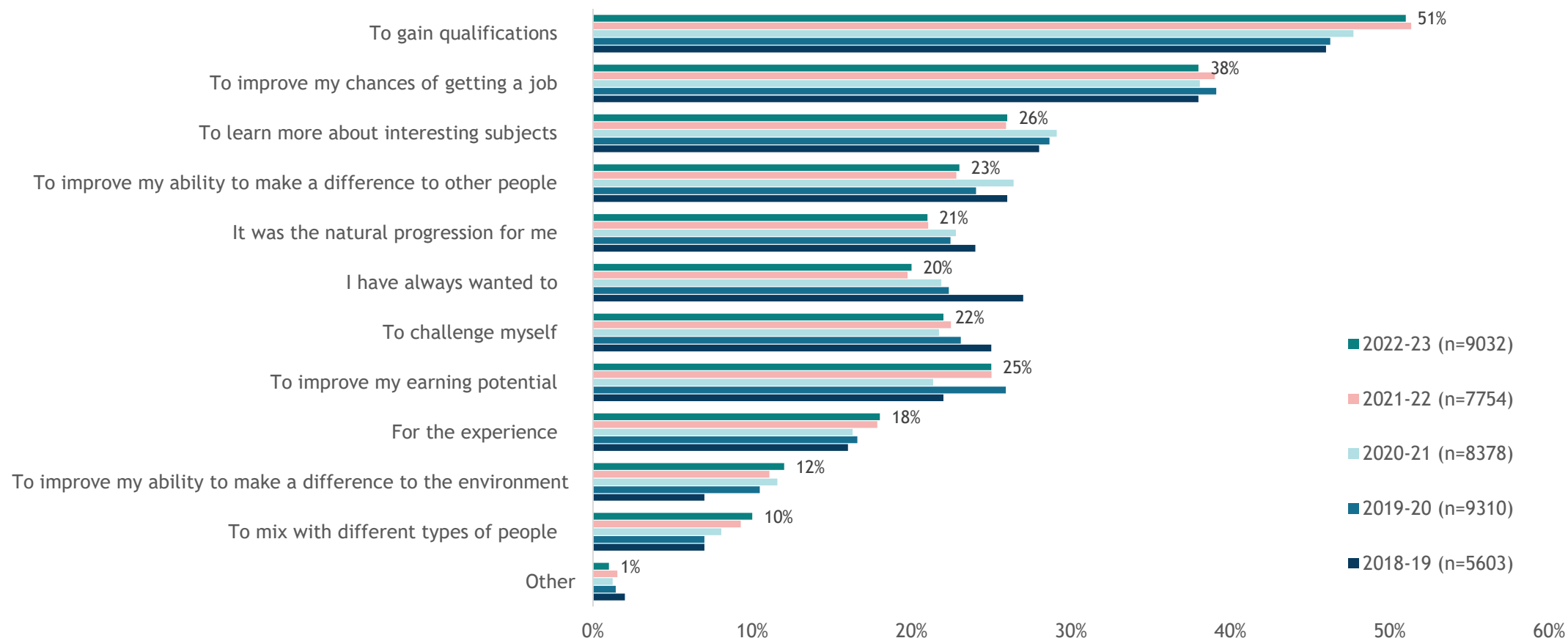
What factors influence choice over place of study?

Respondents were asked to identify how important a range of factors were to their decision on where to apply to study. Primary motivations for respondents include, employment prospects on completion of their course reputation of their course and institution and the teaching methods used. However, over half (54%, n=4862) of respondents were influenced by the action their place of study takes on environmental issues. A similar proportion of respondents report they are motivated by how seriously their university or college takes global development issues (55%, n=4934). These motivations have significantly increased over the course of this research. International students from outside the EU are most likely to say how seriously the university / college takes global development issues (76%, n=1712) and environmental issues (71%, n=1590) are most likely to influence their choice.



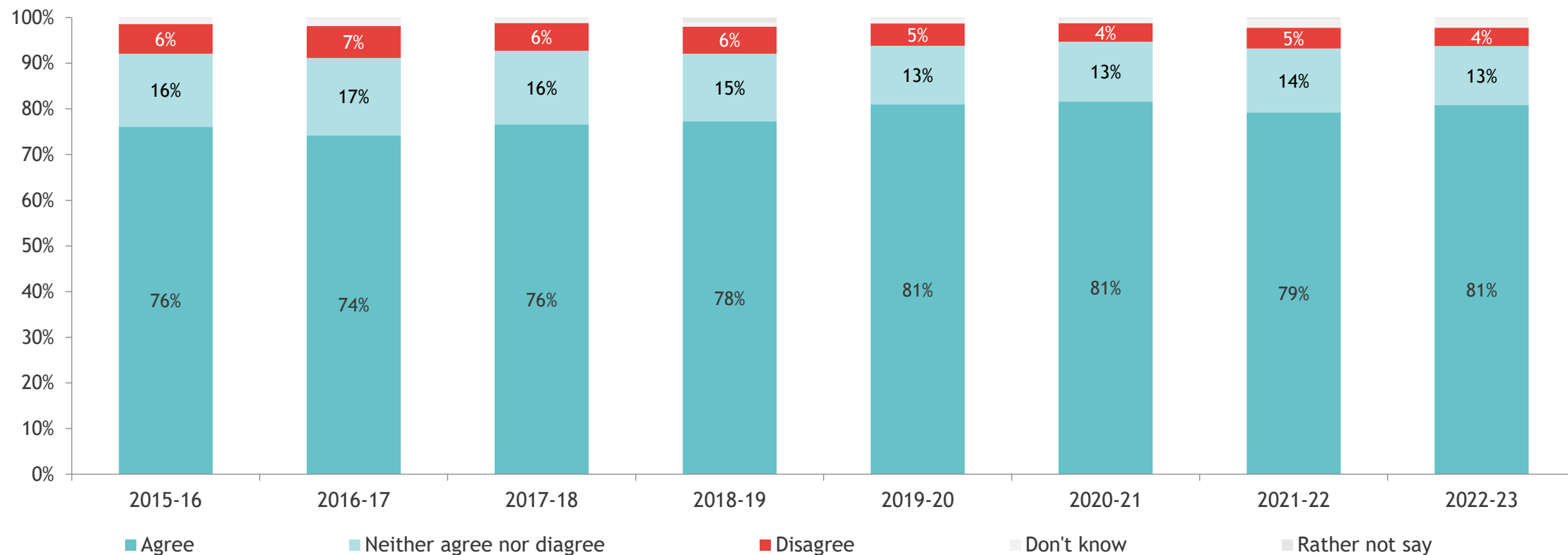
What influences choice of subject or course?

Respondents were asked the main reasons they chose the course they are currently studying. For higher education respondents, the primary motivations are to gain qualifications (51%, n=4623) and to improve their chances of getting a job (38%, n=3434). A relatively lower number of respondents cite improving their ability to make a difference to other people or the environment as a main reason why they chose their course (23%, n=2073 and 12%, n=1113 respectively).



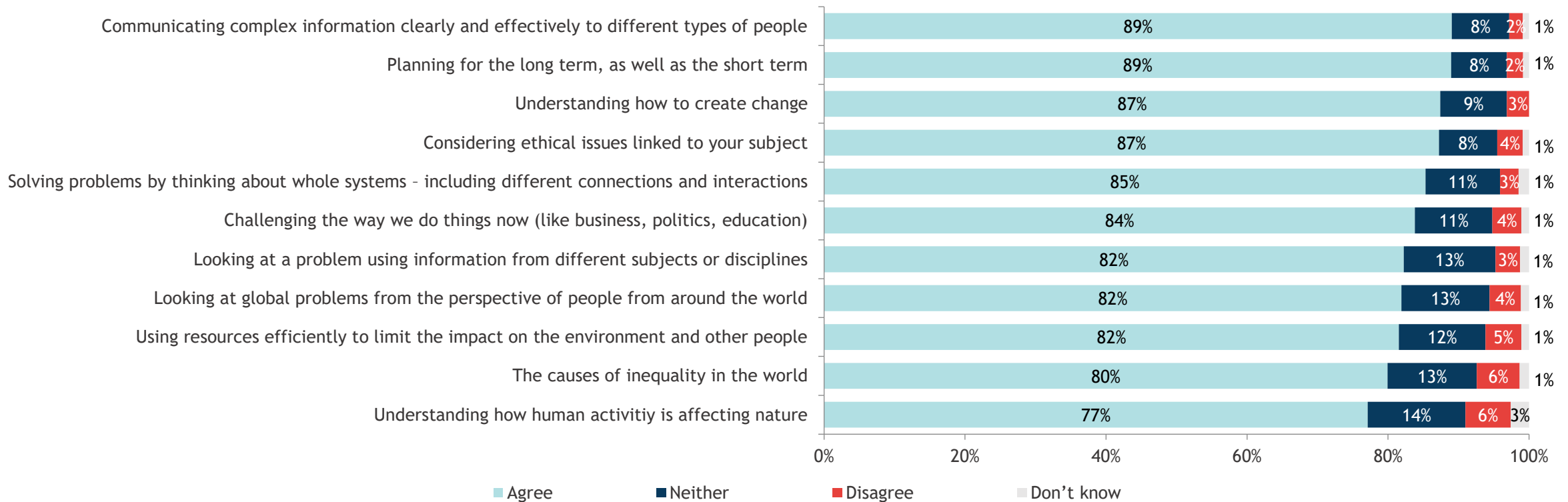
Do students expect places of study to develop students' sustainability skills as part of courses?

Overall, a majority respondents agree that places of study should be obliged to develop students' social and environmental skills as part of the courses they offer (81%, n=7285).



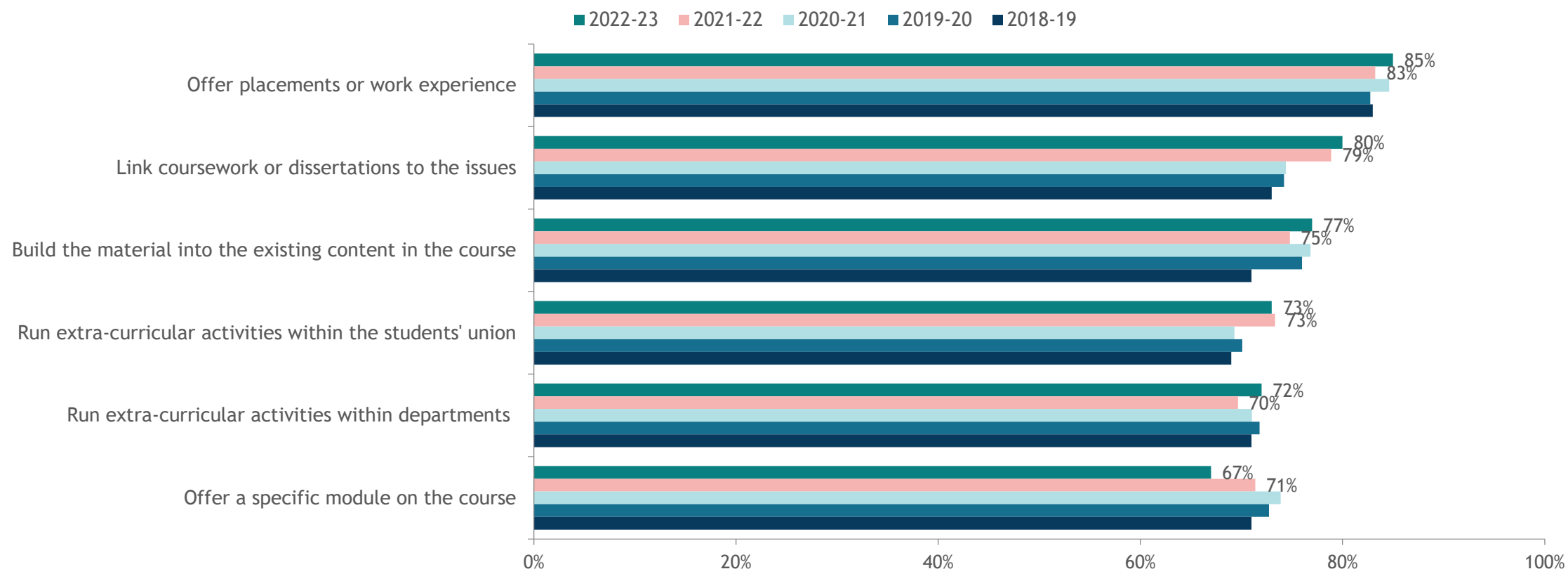
How important to students is learning skills and knowledge linked to environmental issues?

Respondents were asked to reflect on how important learning these skills, attributes and knowledge is at their place of study. Skills and knowledge most important to learn for students is communicating complex information clearly to different types of people (89%, n=8021), planning for the long term as well as the short term (89%, n=8008), understanding how to create change (87%, n=7800) and considering ethical issues linked to their subject (87%, n=7856).



How should sustainability skills be developed and included in courses?

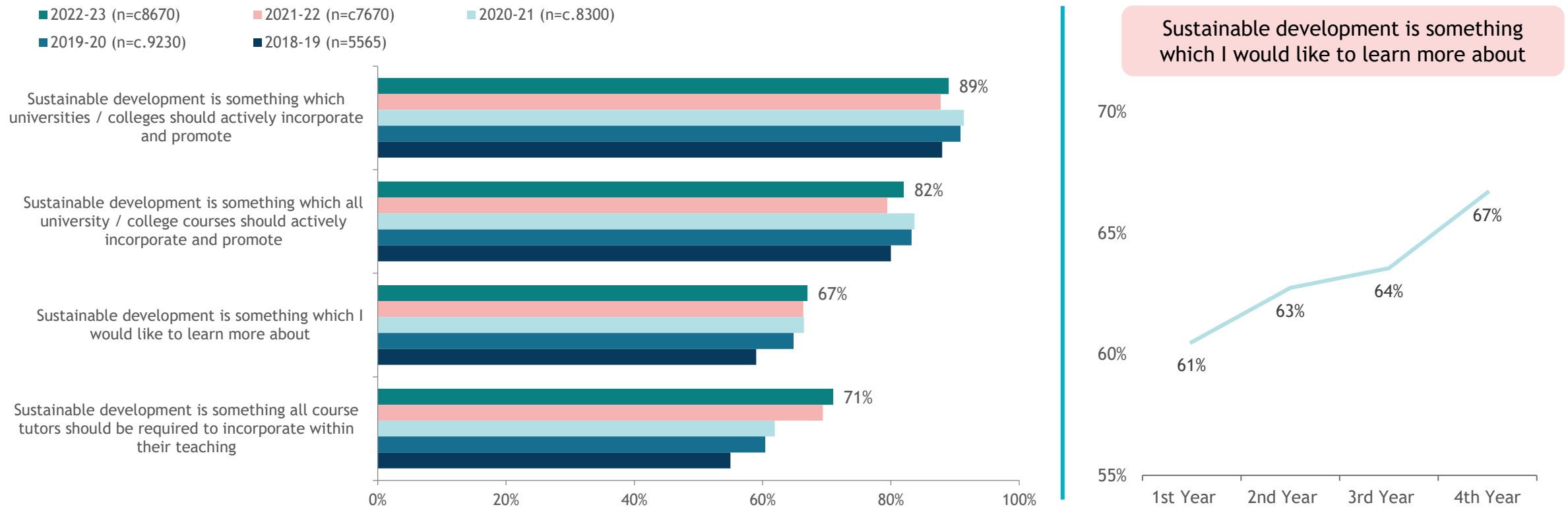
When asked to consider the relevance of different ways of including the development of skills and knowledge to help other people and the environment within their courses, respondents showed a preference for learning through placements or work experience (85%, n=7673). Linking to coursework and dissertations (80%, n=7227) and building material into existing course content (77%, n=6884) were also seen as relevant methods of including skills and knowledge for sustainability.



Please note, slightly different wording used in previous years.

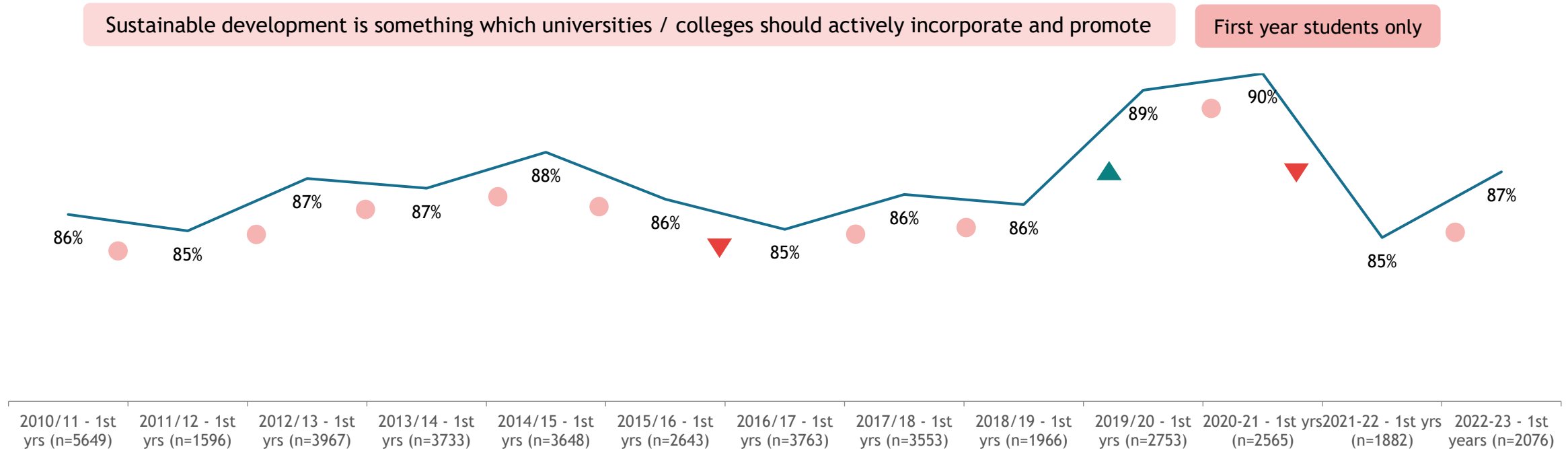
Do students expect universities / colleges to take action on sustainability?

As with previous rounds of research, there is overwhelming agreement that sustainable development is something that universities and colleges should actively incorporate and promote with 89% (n= 7988) saying they agree with this statement. 82% (n= 7378) also agree that sustainability is something all courses should actively incorporate and promote, and 71% (n= 6385) agree that course tutors should be required to incorporate sustainable development within their teaching. Two thirds agree that sustainable development is something they would like to learn more about (67%, n=5968). International students from outside of the EU are most likely to agree that sustainable development is something they would like to learn more about (78%, n=1740). As with previous years, demand for learning more about sustainability increases as students progress through their university experience.



What expectations do students have for their university?

The majority of students agree that sustainable development is something they think their university or college should actively incorporate and promote. The chart below focuses specifically on 1st year student responses and has previously shown a consistent and continuing demand for action on sustainable development by their institution throughout the first eleven years of research. This year shows no significant difference from last year's figure.



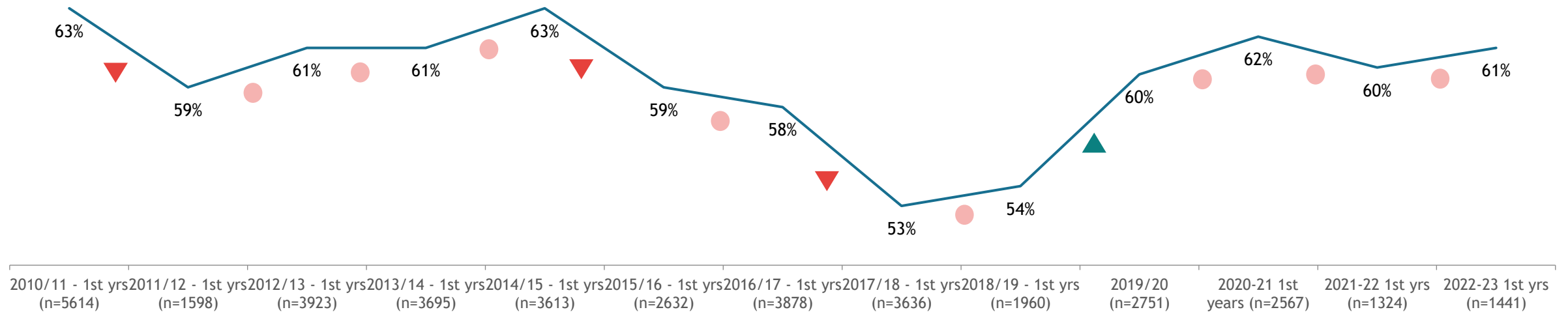
Each year of study is compared to the preceding year to identify any significant differences with the following symbols identifying any significant change in reported agreement: ● No change compared to the previous year, ▲ Significant increase compared to the previous year, ▼ Significant decrease compared to the previous year.

Do students want to learn more about sustainability?

The chart below focuses specifically on 1st year student responses and continues to show a relatively consistent demand for learning about sustainable development throughout the research, with 61% of respondents saying they would like to learn more the topic (n=1441) in 2022-23. There are some small but significant variations in agreement that sustainable development is something that 1st year respondents want to learn more about, as identified for each research year below, in the chart, but not in the last four years of the research.

Sustainable development is something which I would like to learn more about

First year students only



Each year of study is compared to the preceding year to identify any significant differences with the following symbols identifying any significant change in reported agreement: ● No change compared to the previous year, ▲ Significant increase compared to the previous year, ▼ Significant decrease compared to the previous year.

Why do students want to learn more about sustainable development?

Respondents were also asked to reflect on why they wanted to learn more about sustainable development. The first 300 completed responses were coded and show that the most common reason respondents reported was due to anxiety and concern about the environment and climate change, finite resources and future generations. Also common was due to having a lack of knowledge on sustainable development or wanting to learn more about a specific aspect or in general. There was also a view that it was important to know more due to have greater personal impact or have the knowledge to make changes to their day to day lives. Mentions of the relevance of the concept to their course or their future career are also high.

Anxiety / concern about the environment / future	83
Lack of knowledge/ to further and use knowledge	59
Make personal changes/ have personal impact	49
Career and course aspirations/relevance	48
Global/societal impact	29

“I am intrigued as to how this could apply to my field of study (biomedicine), and how this applies to existing corporations. I.e., is a company paying to offset its carbon footprint actually beneficial? Or should they strive to be carbon neutral? for future generations”

“I want to learn how to reduce my carbon footprint as well as how I can push major corporations to do the same.”

“So I can make a positive difference to the world around me: the environment, living spaces for people etc. I mean to encourage positive and constructive change for a long - term effect.”

“As we move further into a world or greater uncertainty, I feel that there is more requirement for current generations to lay stable foundations for future generations to have a more certain future.”

“It’s important to know what we can do to protect the earth that we live on”

“I believe that the more we are all educated on how to make a difference, the more of a difference we can make.”

What actions would students like to see their place of study take for sustainable development?

Respondents were also asked to consider more broadly what actions they would like to see their university take to improve its performance on sustainable development. The first 300 responses were coded and revealed that many students perceive the incorporation of sustainability within formal and informal curricula as an important sustainability action required at their institutions and many have no further suggestions as to sustainability action to be taken.

Incorporation of sustainability within the formal curriculum	77
No further suggestions including those who already believing the university is doing enough on sustainability	68
Develop / provide opportunities for students related to sustainability (extra-curricular)	37
General awareness-raising and information provision	32
Improve energy / building performance, including transitioning to cleaner energy sources	19
Waste and recycling improvements including reduction of plastic usage	14
Improve communications on sustainability action within the institution	12
More responsible partnerships / products for learning / sale of products	12
Improve food sustainability	5
Take action on carbon / climate change / divestment	5
Take action to improve / protect biodiversity and green spaces	3
Partnerships / engagement with local community / different groups in society	3

“To give training to all staff, faculties and students about sustainable development and conduct various initiatives and campaigns to increase awareness about the same. Moreover, the place of study should practically adopt these actions (eg. solar panel roofs, rainwater harvesting system in buildings, efficient energy use, etc.) and involve everyone in creating a positive impact.”

“I would like to see a massive reduction in plastic usage, meat products. I want to have access to lots of talks from professionals across fields. I want workshops often and readily available that teach me small skills that I can incorporate into my own life to make a difference.”

“I think we already do lots, I love our green spaces and I hope we can see more green energy being used as well.”

“I think it would be good to see individual lecturers within their modules, mention some form of sustainable development, ethical issue or discussion about sustainability and how that effects them day-to-day in the decisions they make when it comes to research etc. I think it would be helpful to me as a student to know that those are conversations being had and that when it comes to research, to planning out experiments etc that those are things to be conscious of.”

Experiences of sustainability in education

4

What do students understand the term sustainable development to mean?

When asked to define sustainable development in their own words HE respondents see it as being a long term process that should allow resources to be available in the future while also allowing the needs of the current generation to be met. Continual development is a key idea mentioned, in addition to the idea that resources should be used efficiently and not exhaustively, using materials and processes that are more environmentally friendly. The definitions largely tie in with the 1987 Brundtland definition of sustainable development.



Development that does not exceed, and plans to not exceed, available resources and is planned to consider the needs of the environment and of people.”

“Something that functions well without taking from other systems e.g., environment.”

“Sustainable development is encouraging good, positive growth and development of the environment as well as eco-friendly living spaces/areas that are durable and are withstanding for a long period of time. For generations and generations.”

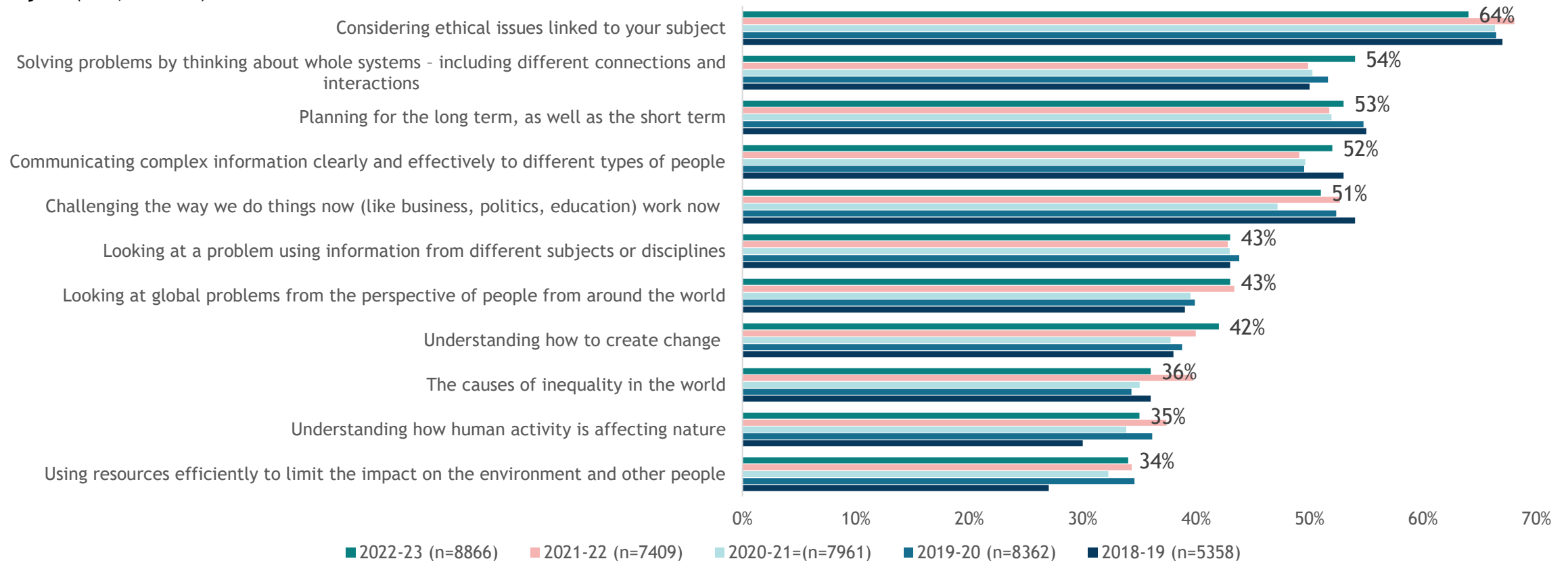
“Development that meets the needs of the present, without compromising the ability of future generations to meet their own needs.”

“I understand sustainable development to mean the improvement and guarantee of life quality globally in a way which is not only minimally destructive towards environments, ecologies, and ecosystems, but is promoting the recovery of natural resources and soils.”

“I think In some aspects, it’s about economic growth but a huge part is about inclusion and environmental protection without those factors we can’t really think about developing something that sustainable both now and long term.”

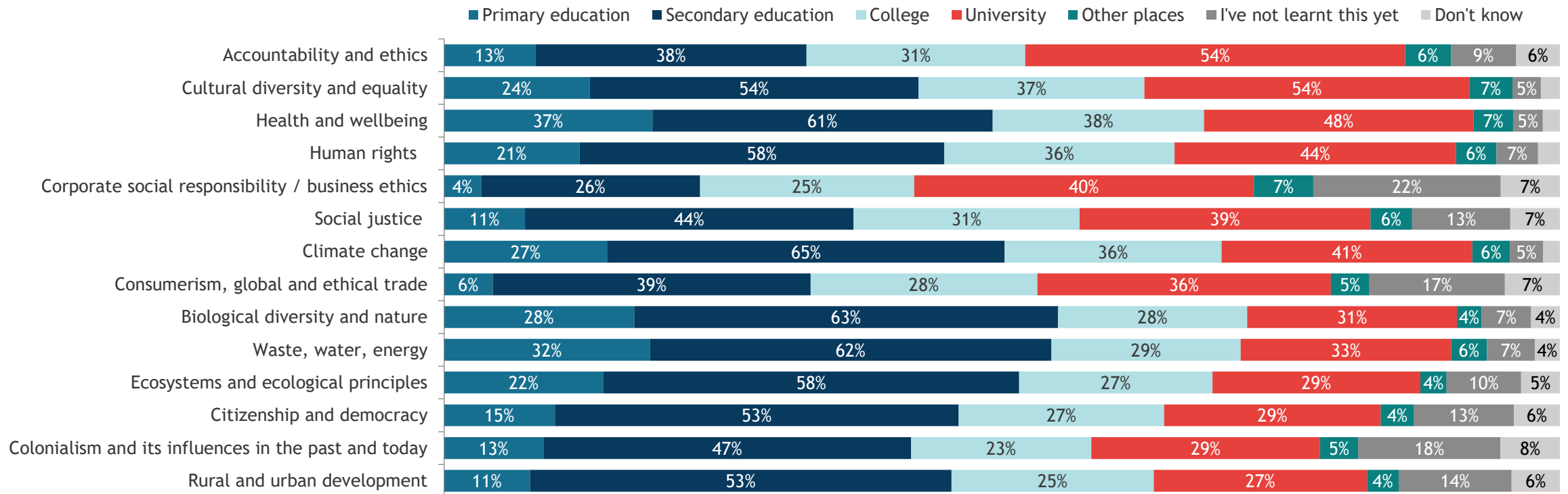
To what extent are students experiencing teaching and learning of sustainability skills and knowledge in higher education?

Overall respondents say their teaching covers a wide range of skills and knowledge associated with sustainability. Most commonly, HE respondents report coverage of 'considering the ethical issues linked to their subject' (64%, n=5651) and 'solving problems by thinking about whole systems - including different connections and interactions' (54%, n=4755) HE respondents. Students who are UK citizens are more likely to have considered ethical issues linked to their subject (70%, n=4022).



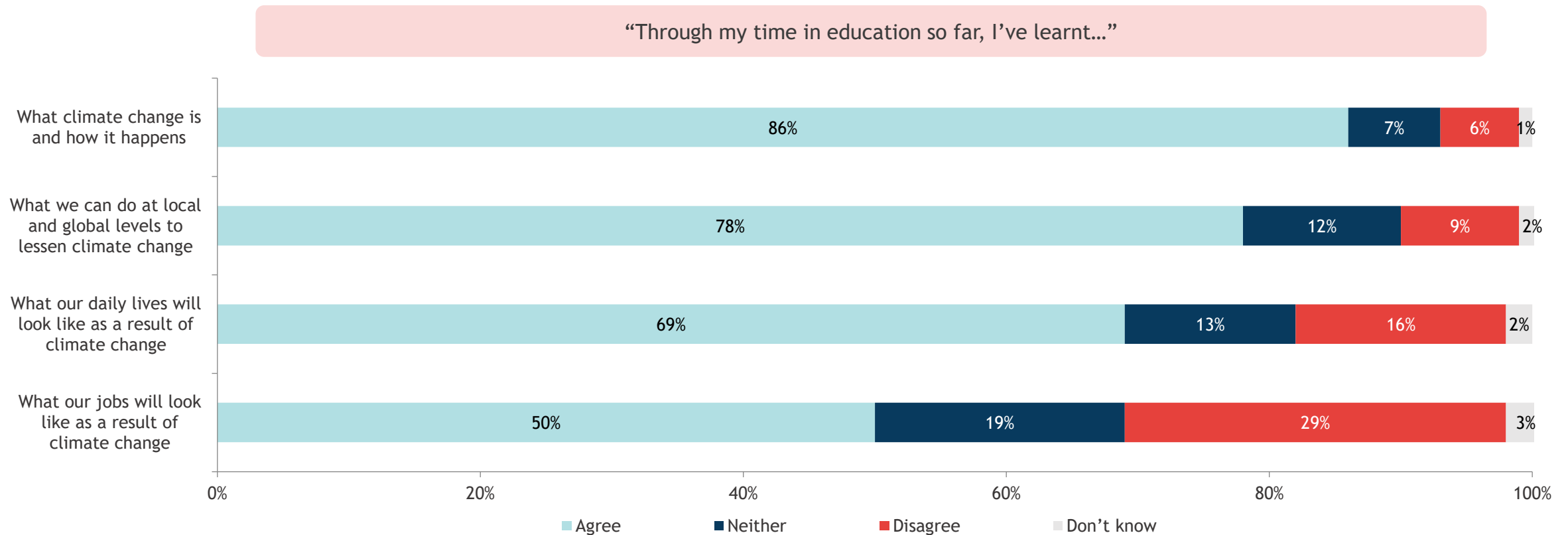
What teaching and learning on sustainability have students experienced through their time in education so far?

Respondents were also asked to reflect on their journey through education so far and identify at which stage issues relating to sustainability have been covered by the teaching. Higher education respondents report that most of the teaching they have received on sustainability issues occurred during secondary education, for example 65% (n=5773) of respondents say climate change was covered at this point. However, it is worth bearing in mind that almost a quarter of respondents are 1st year undergraduates and therefore will have been exposed to limited teaching at the time of research. Issues which are reported as having the highest level of coverage during their time at university include accountability and ethics (54%, n=4685) and cultural diversity and equality (54%, n=4741).



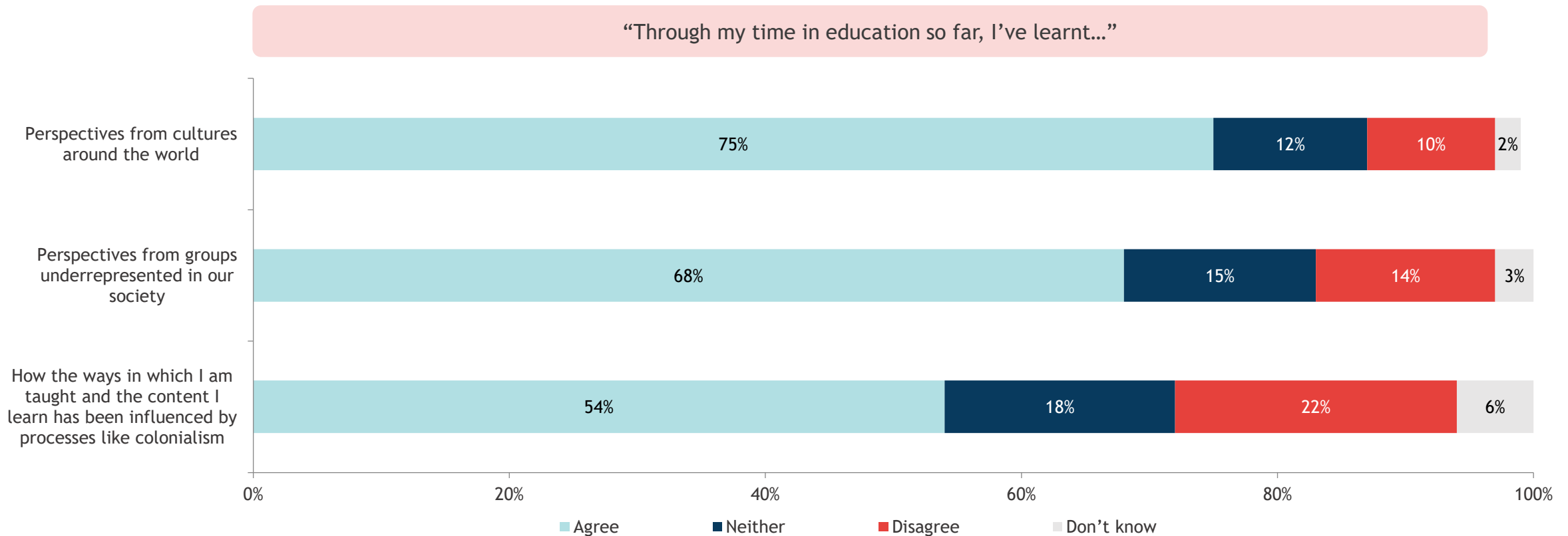
What experiences do students have of learning linked to climate change?

Respondents were asked to reflect on their experiences of learning linked to climate change during their time in education. 86% (n=7601) of students report learning about what climate change is and how it happens and 78% (n=6927) report learning about what we can do at local and global levels to lessen climate change. Almost two thirds of students (29%, n=2576) in HE report not learning about what jobs will look like as a result of climate change.



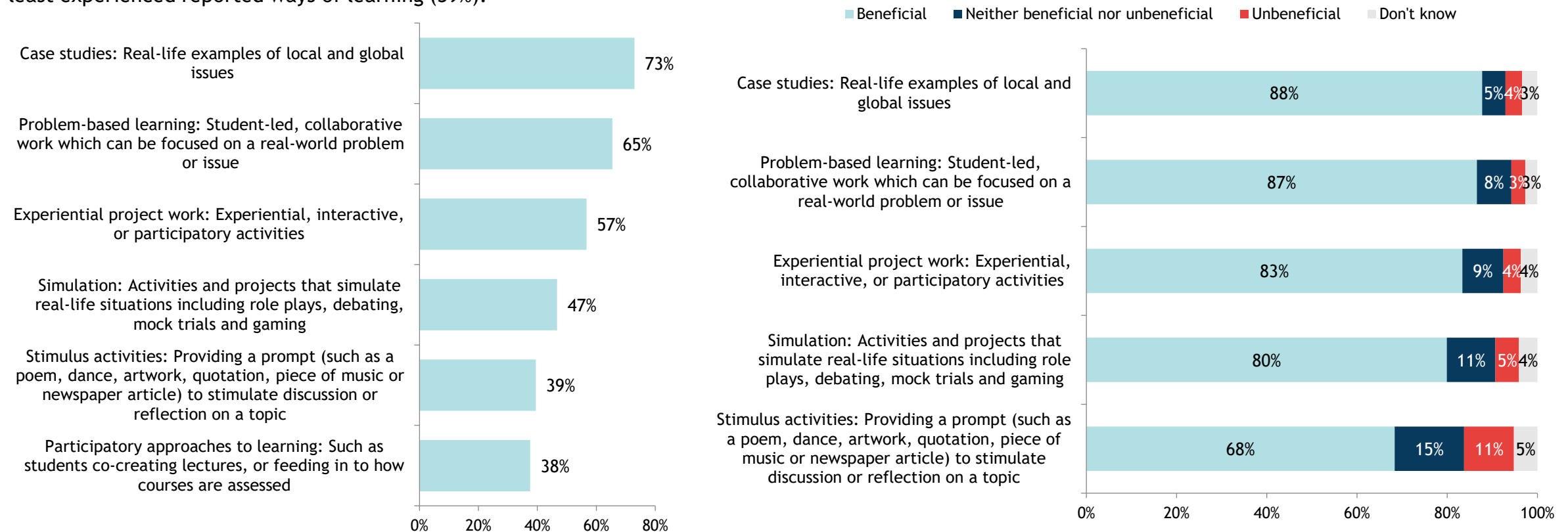
What experiences do students have of learning linked to colonialism?

Respondents were asked to reflect on their experiences of learning linked to colonialism during their time in education. Three quarters of respondents (75%, n=6717) report learning about perspectives from cultures around the world during their time in education so far. Over two thirds of students (68%, n=6052) report learning about perspectives from groups underrepresented in our society. Over half (54%, n=4781) of students report learning how the ways in which they are taught and the content they learn has been influenced by processes like colonialism.



What types of learning for sustainability have students experienced?

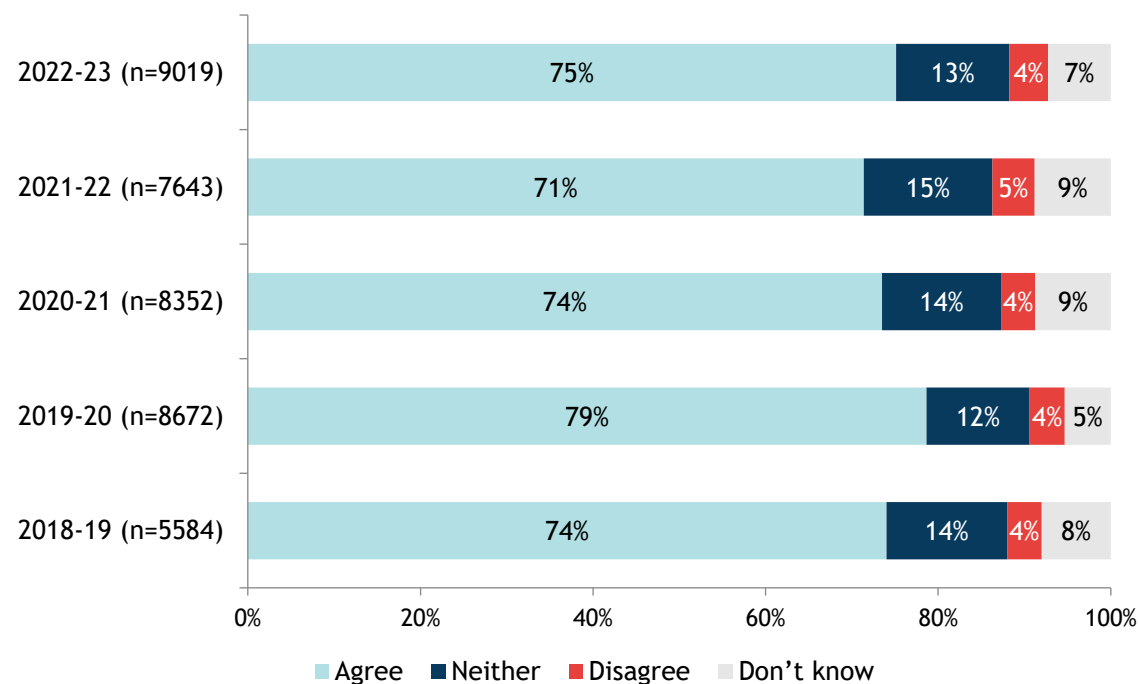
Respondents most commonly report learning about skills and knowledge related to the environment through case studies (73%), problem-based learning (65%) and experiential project work (57%). In terms of how useful these ways of learning are to develop their skills and knowledge on issues related to the environment, the most beneficial methods are reported to be case studies, with 88% (n=7002) reporting case studies to be beneficial, and problem-based learning, with 87% (n=6708) reporting it to be beneficial. Stimulus activities are least reported as being beneficial (68%, n=4744) with it also being one of the least experienced reported ways of learning (39%).



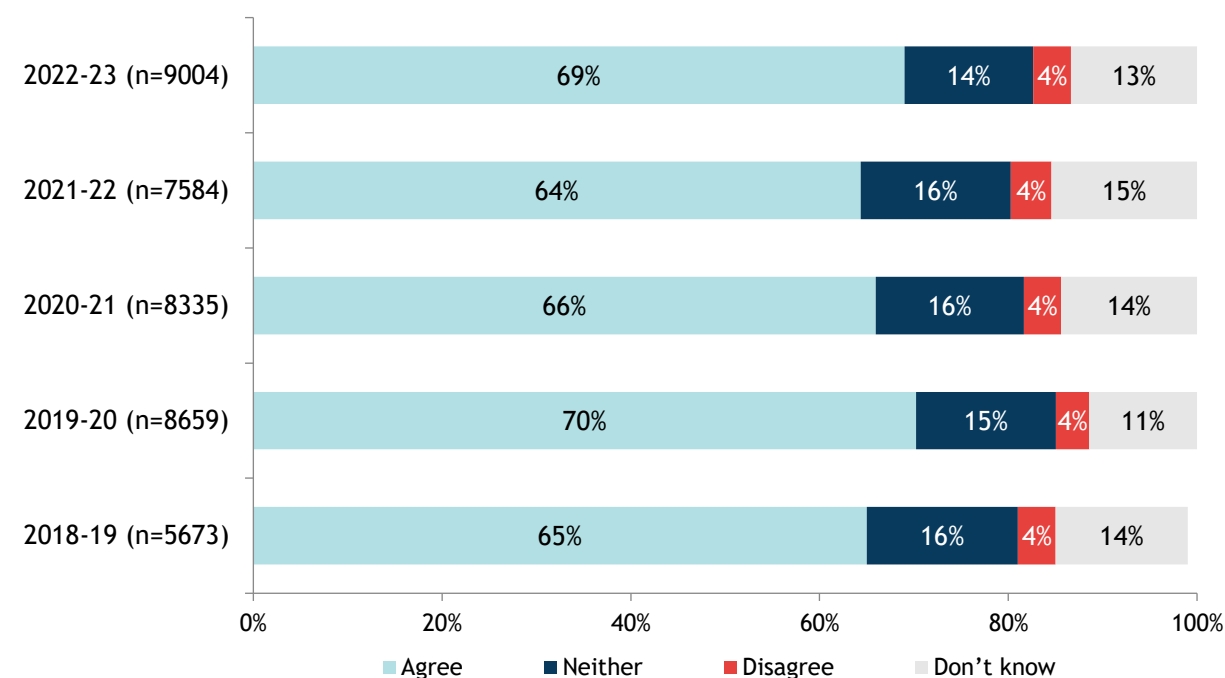
What impression do students have of their place of study in terms of action for sustainability?

Overall, respondents have a positive view of their institutions and students' unions in terms of the action they take to reduce negative impacts on the environment and society. Three quarters of HE respondents (75%, n=6732) agree that their university is taking action in this area. Over two thirds (69%, n=6155) agree their students' union (SU) is also taking action in this area, however there is also a lack of awareness with 13% (n=1193) saying they don't know if this is something their SU is doing.

“My place of study takes action to limit the negative impact it has on the environment and society”

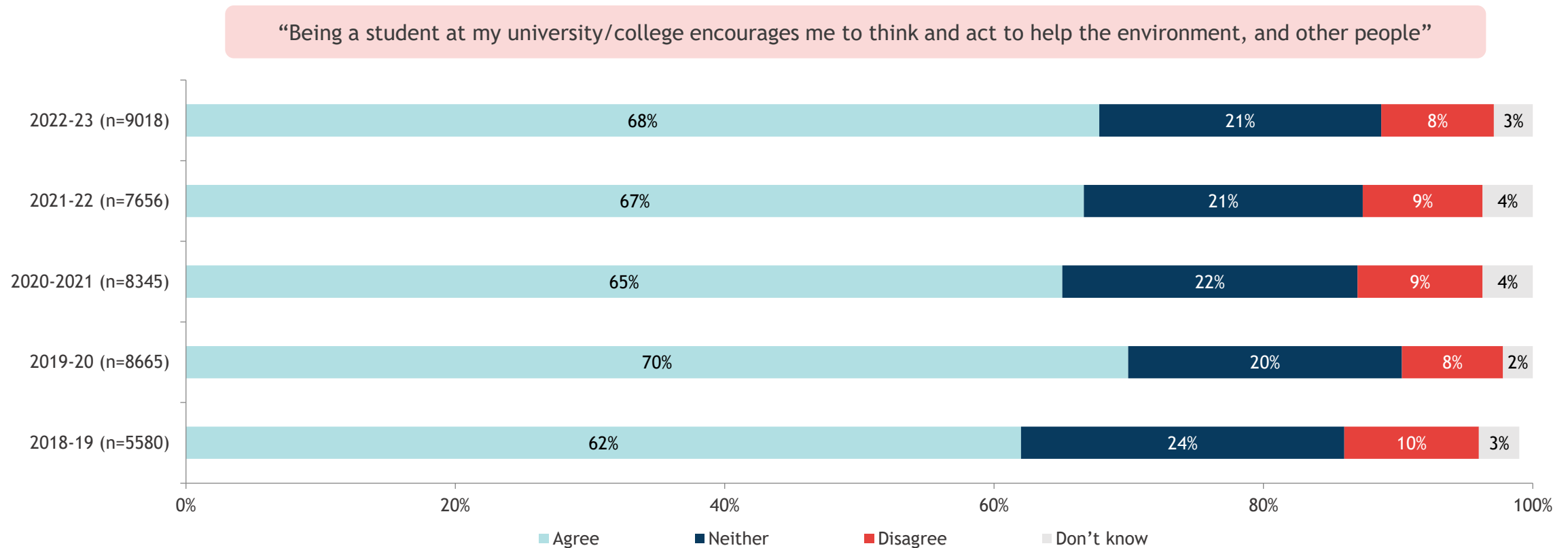


“My students' union takes action to limit the negative impact it has on the environment and society”



What impression do students have of their place of study in terms of action for sustainability?

Respondents were asked to reflect on the impact their current place of study has had on their personal attitudes and actions to help the environment and other people. Over two thirds in HE (68%, n=6076) agree that being a student at their university or college encourages them to think and act to help the environment and other people.



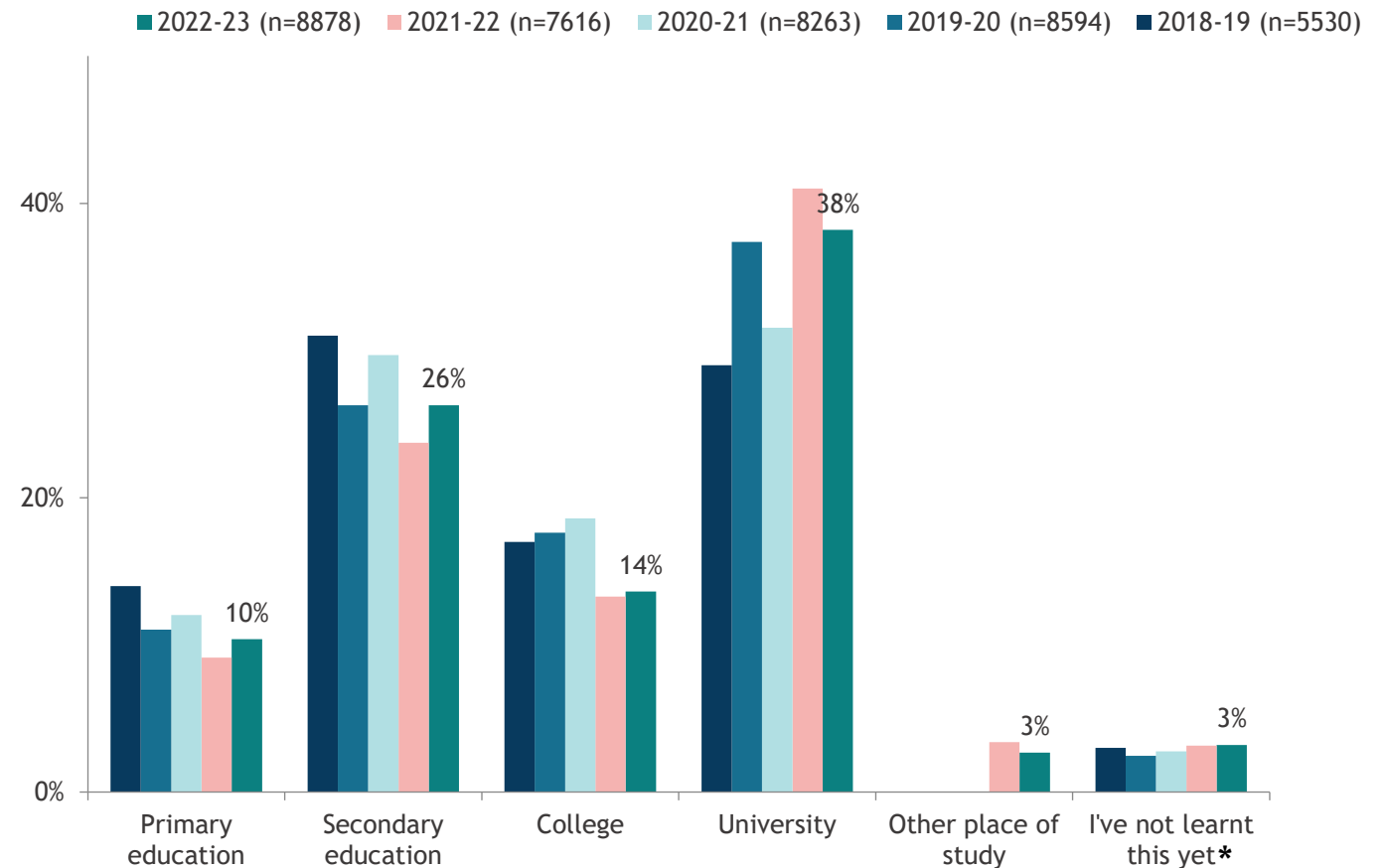
Which place of study is perceived as having the greatest influence on students to take action to help the environment and other people?

Respondents were also asked to reflect on their experiences in education so far and identify which place of study has had the greatest influence on them in terms of encouraging them to act to help the environment and other people.

HE respondents most frequently identify their university education as the place of study which encouraged them to act the most (38%, n=3391). The proportion identifying time at university as the strongest influence slightly decreased from 2021-22 but has increased compared to previous years.

Secondary education is reported as being the strongest influence for a quarter of HE respondents (26%, n=2333).

* Please note, answer option added in 2021-22.

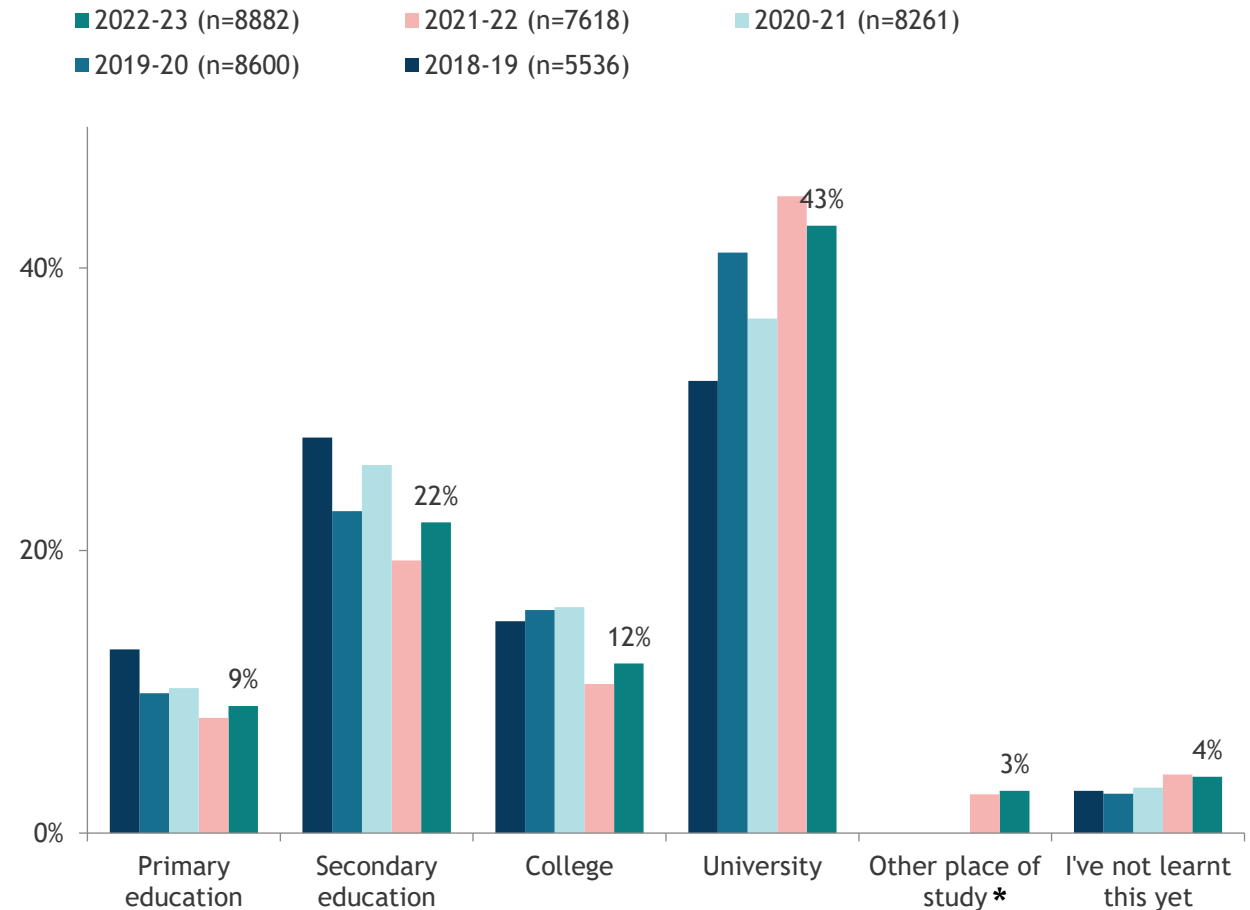


Which place of study is perceived as taking the greatest action on sustainability?

Respondents were asked to reflect on their experiences in education so far and identify which place of study took the most action to reduce its negative impact on the environment and society.

HE respondents are most likely to state that their current place of study, university, is taking the most action in comparison to previous places of study (43%, n=3827). This represents a slight decrease from last year but continues the long-term increasing trend.

* Please note, answer option added in 2021-22.



What impact has learning about sustainability issues had?

Respondents were also asked to reflect on how learning about sustainability issues has impacted them personally, in terms of their day-to-day lifestyle, but also considering their values and aims for future careers. The first 300 responses were coded and revealed that for HE respondents, learning about these issues has encouraged them to think about things differently, changed their perspective and improved them as people. Respondents also noted that learning about sustainability issues has increased their awareness of these issues and helped improve their knowledge and understanding, leading them to take action in their daily lives to reduce their impact. A number of respondents didn't feel that learning had impacted them at all, others identified that most of their learning on the issues covered by the survey had come through general life experience rather than through formal education, either because it was lacking or insufficient.

Changed values / views / outlook on life	88
Better understanding of issues and impacts	81
Prompted more personal action related to sustainability	44
No impact/Not sure	33
Influenced career or study aspirations	26
Impact has come from outside education settings	16
Triggered desire to do or learn more	16
Became more worried about the issues	4

"I have learnt all these things outside of education and training as part of my life-long involvement in campaigning for a better world."

"I have made changes to my diet and consumption of goods; such as cutting palm oil and most meat out of my diet, only buying second-hand clothing where I can. Recycling as much as possible, reducing energy usage. I want my future career to be in a role that reflects my personal values and is part of a company that strives for environmental protection."

"It made me sad to learn some of things, to think that people and the planet are treated in those ways. But I'm still glad I learnt it, so I was made aware of what's happening in the world."

"It makes me consider these issues when buying products and services, and when making changes to my personal behaviour."

"It's given me a better awareness on the impact I have in the wider world, and the way in which that reflects back on me, enabling me to take better care of myself and the world around me."

"I value community development and would choose to work with projects with sustainable values rather than pursue a career with an unethical organisation."

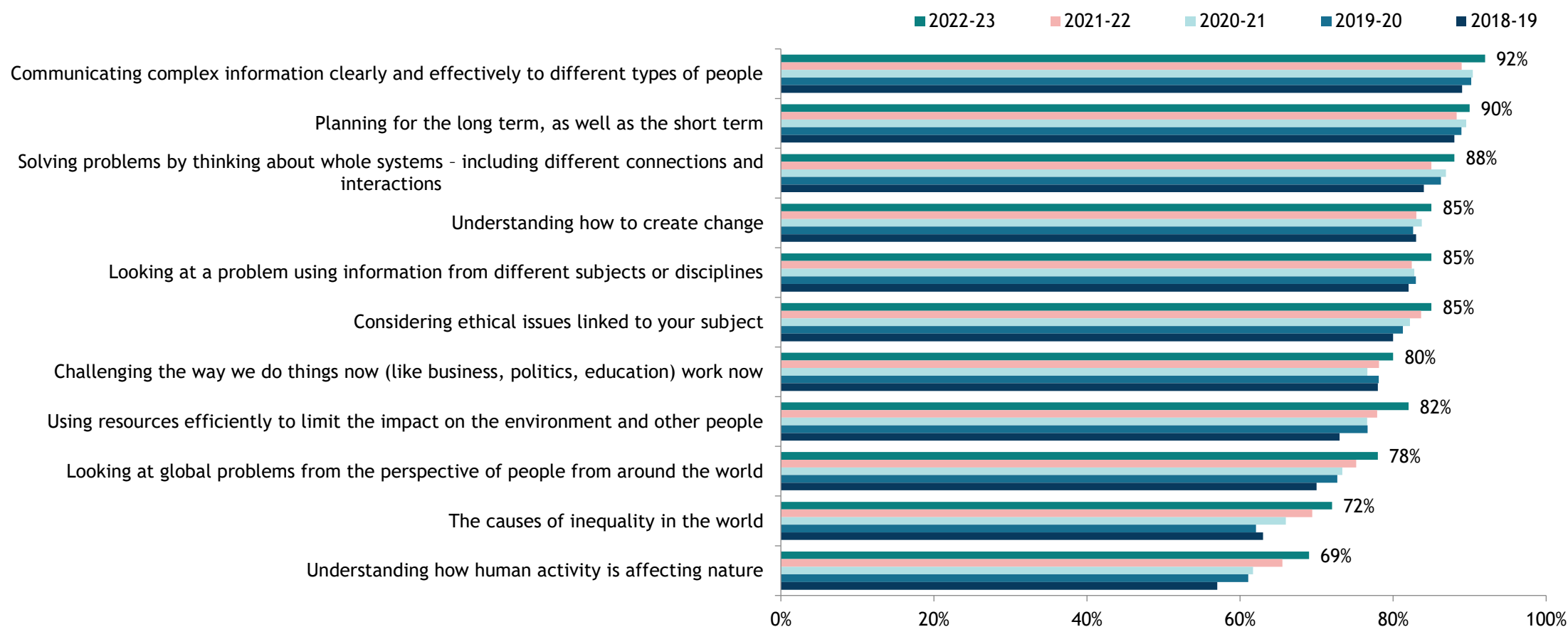
"Learning about these issues has led to me taking time out of my personal life to learn more about these issues."

Sustainability skills beyond education

5

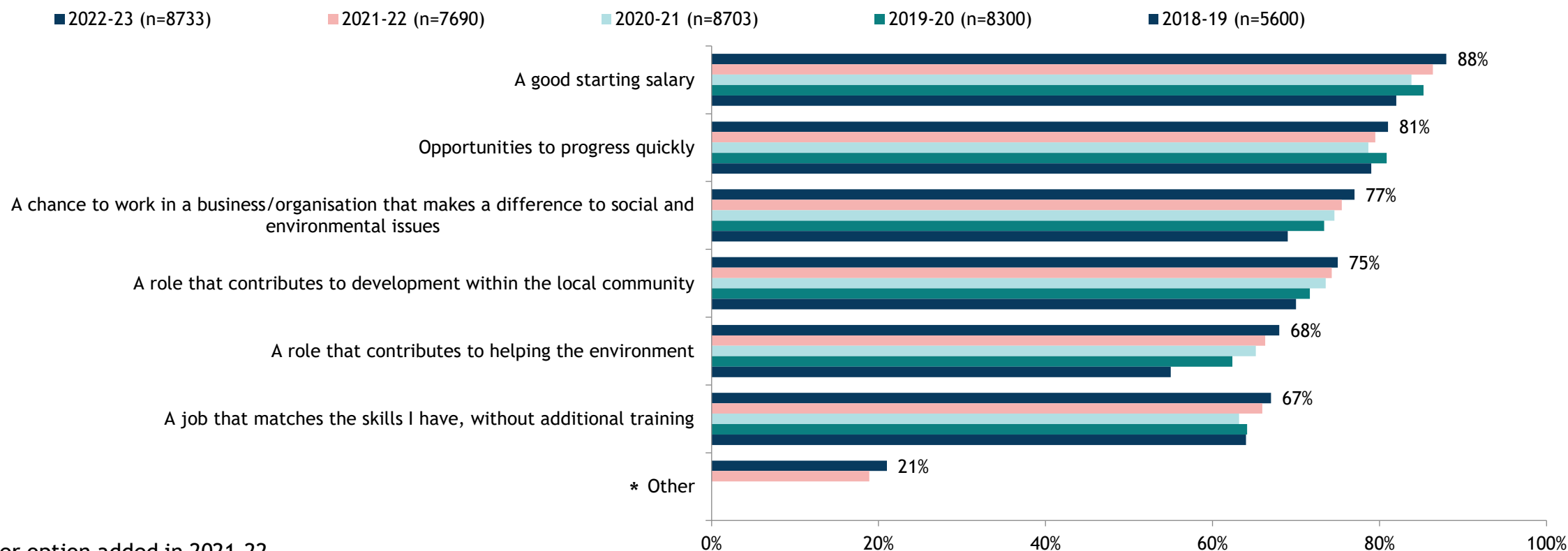
How important are sustainability skills to future employers?

HE respondents were asked to consider how important sustainability related skills and knowledge are to their future employers. The most important skills are perceived as being the ability to communicate complex information clearly and effectively to different types of people (92%, n=8262) and planning for the long term, as well as the short term (90%, n=8105). Having an understanding of how human activity is affecting nature is least likely to be seen as being important for future employers (69%, n=6217), however the proportion who have rated this ability as important is increasing year on year.



What factors are important when considering what jobs to apply for?

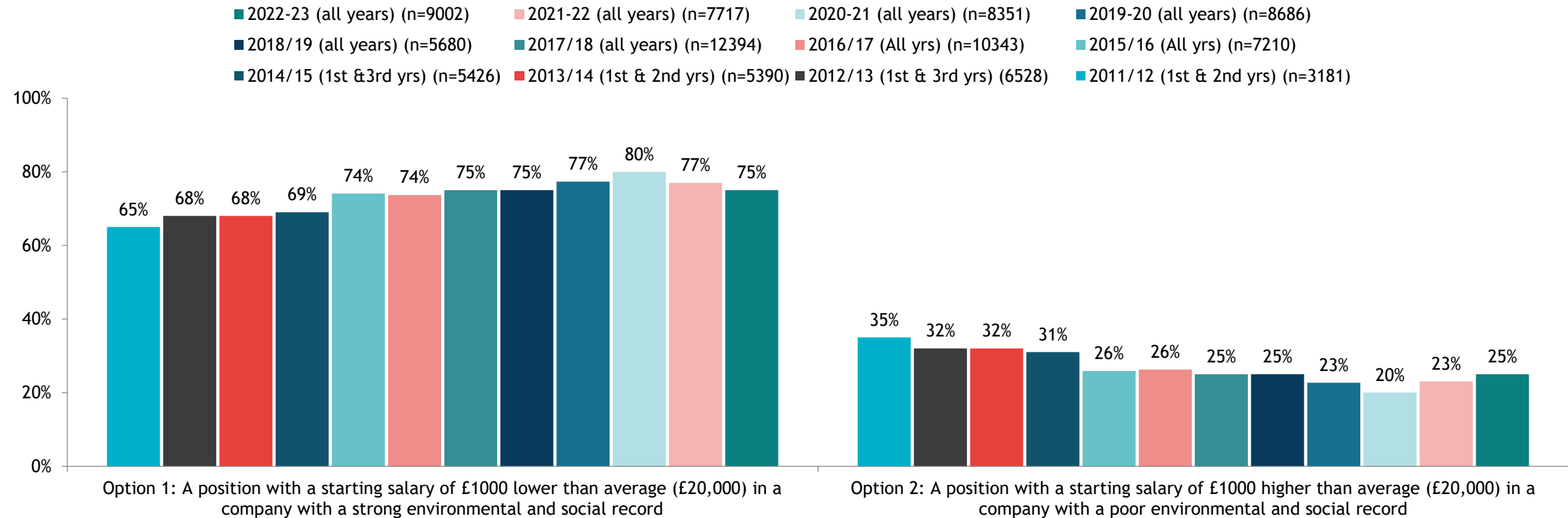
Respondents to the survey reported that a good starting salary (88% respondents (n=7944) and opportunities to progress quickly (81%, n=7225) are important factors when considering what jobs to apply for. Over three quarters of respondents in HE, 77% (n=6863) said the chance to work in business or organisation that makes a difference to social and environmental issues would be an important factor to consider when applying for jobs. A similar proportion also reported that the chance to work in a role that contributes to development in the local community would be an important consideration (75%, n=6707). The stated preference for working in a role that contributes to helping the environment has shown no significant change since 2021-22.



* Answer option added in 2021-22.

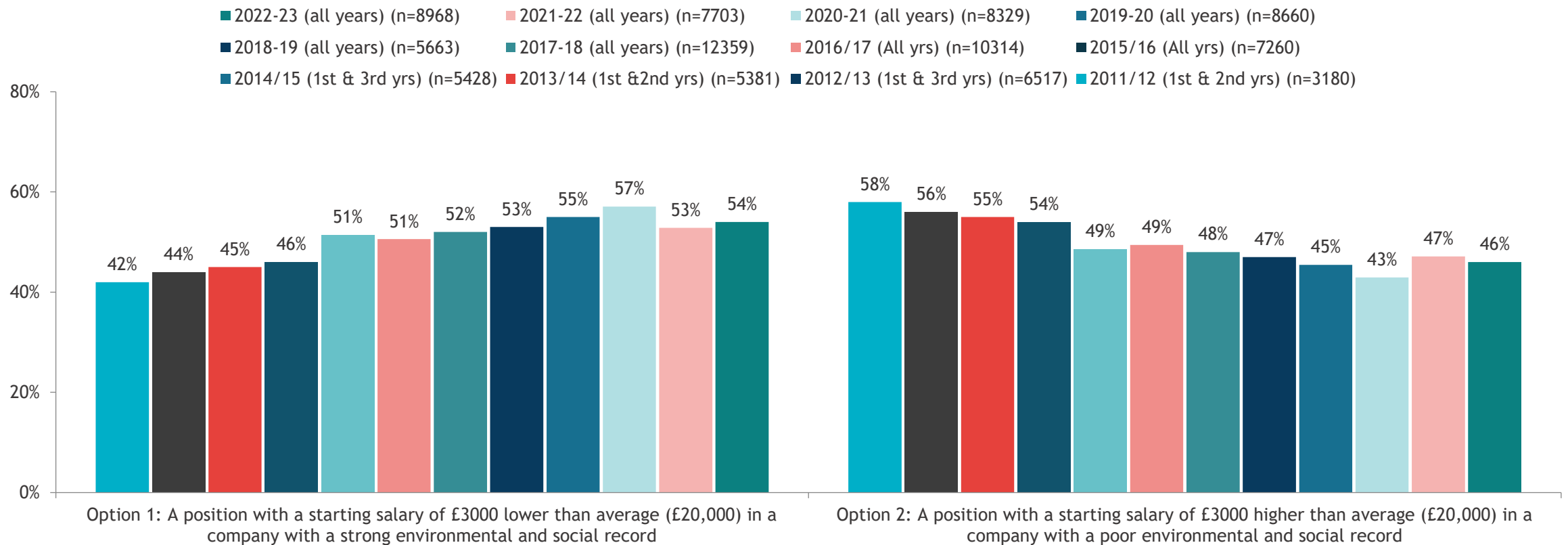
What desire do students have to work for employers with positive social and environmental credentials?

Three quarters of HE respondents completing the survey in 2022-23 say they would opt for a reduction in starting salary of £1000 in order to work for a company with a strong social and environmental record (75%, n=6753), which is a decrease in respondents compared to 2021-22 results but similar to previous years. Respondents identifying as women are significantly more likely to say they're willing to make this sacrifice (79%, n=3933) compared to respondents identifying as men (70%, n=2525).



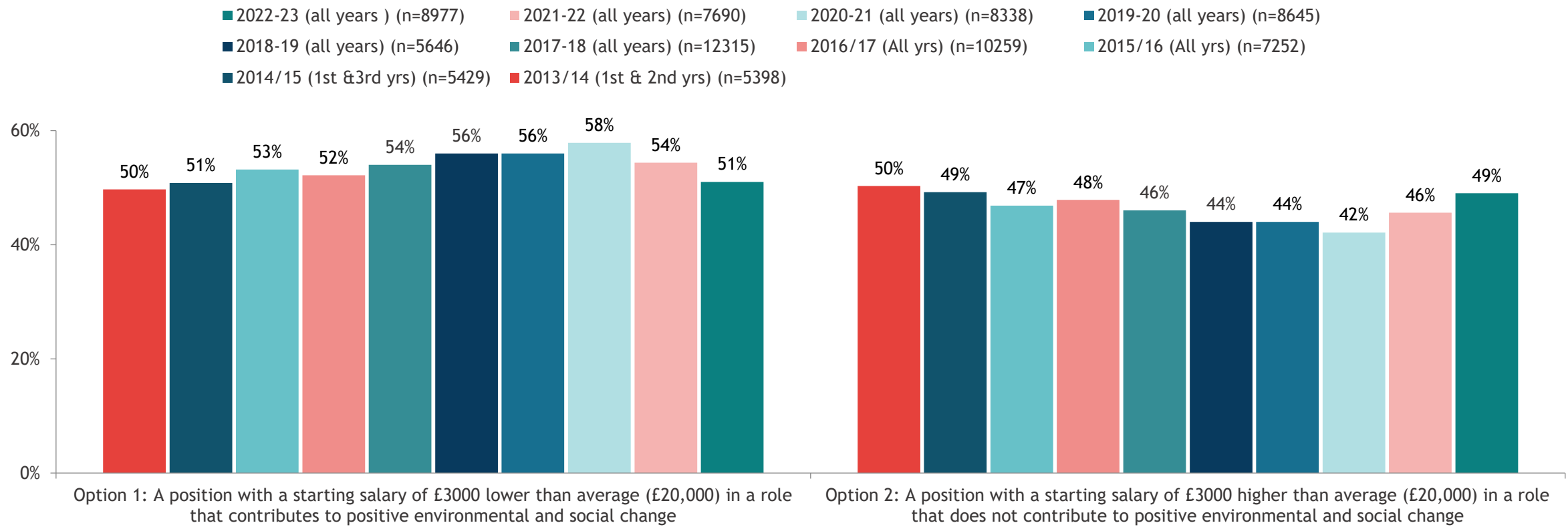
What desire do students have to work for employers with positive social and environmental credentials?

When asked to consider a salary sacrifice of £3000 from an average starting salary, over half of HE respondents (54%, n= 4823) in 2022-23 indicated they would be willing to make this sacrifice for a position in a company with a strong environmental and social record. This is similar to responses seen in previous years and slightly higher than 2021-22. Respondents identifying as women are also more likely to make this £3000 sacrifice for a position in a company with a strong environmental and social record compared to men respondents (56%, n=2794 compared to 50%, n=1811). The proportion of women willing to make this sacrifice has increased since 2021-22 results.



What desire do students have to work in roles that contribute to positive social and environmental credentials?

Just over half of HE respondents report that they would be willing to make a sacrifice of £3000 from their starting salary for a specific role that contributes to positive environmental and social change (51%, n=4549). As with the other choice options presented to respondents, women respondents are significantly more likely to state a willingness to accept a salary sacrifice of £3000 for a role that makes a positive contribution compared to men respondents (54%, n=2683 compared to 46%, n=1669).



For further research on sustainability and students by SOS-UK,
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