

# Sustainable Urban Futures

## Impact report 2024

A cross-disciplinary summer residential for Y12s from widening participation backgrounds to explore interdisciplinary courses through the lens of global sustainable development. Aspirational and confidence-boosting to encourage Y12s to apply to Cambridge or other leading universities.



CHURCHILL COLLEGE  
UNIVERSITY OF CAMBRIDGE



**Isaac  
Newton  
Trust**

## Summary

In August 2024, the Sustainable Urban Futures residential returned to Churchill College, bringing together 41 Year 12 students from widening participation backgrounds. The programme, now in its second year, maintained its focus on addressing UN SDG 11: creating safe, inclusive, and sustainable cities. Through a cross-disciplinary approach, students engaged with current research, explored real-world challenges, and worked in teams to design innovative solutions to global sustainable development challenges.

A key aim of the programme was to demystify the Cambridge experience. By engaging with current students, attending workshops, and exploring college life, participants gained valuable insights into university life, breaking down misconceptions and increasing confidence in applying to competitive institutions like Cambridge.

This year, the programme also fostered greater engagement with staff and academics across disciplines, enhancing its reach and impact. The enthusiasm from both participants and facilitators underscores the potential for making this an annual fixture in our outreach calendar, and funding dependent, we would love to offer this opportunity again in summer 2025.

This report outlines the highlights, learnings, and measurable impacts of the programme. Evaluation was conducted immediately following the residential (32 out of 41 students responded) and revisited in early 2025 to assess longer-term outcomes, with hugely positive findings on Russell group offers and Oxbridge applications.

We are proud to share our learnings, particularly on recruiting and supporting a diverse cohort, with other colleges and initiatives receiving WPIF funding. Our continued goal is to ensure that students from all backgrounds feel welcomed, inspired, and empowered to pursue opportunities that align with their aspirations to tackle global challenges.

## Participant profile

**73%**

Self-Identify as belonging to an underrepresented ethnic group (9.8% of this is Chinese)

**37%**

Identified in the Cambridge Uni APP as underrepresented ethnic groups, including Pakistani and Black

**15%**

Free school meals

**2**

Young carers



**“The highlight of my week was being in an academic environment surrounded by people my age who shared similar interests and aspirations”**

Alesha, Y12 from Derby

## Immediate & longer term Impact

**100%**

Feel more positive that they personally can make a difference to sustainable development (Aug 2024)

**93%**

Applied to Oxford or Cambridge.

[Of those who responded to our 6-month survey, 27/29]

**92%**

Hold an offer from a Russell Group University

[6-month survey, 23/25]

**5**

Holding Oxbridge offer & 1 Aug pool

Variety of subjects: Architecture, Engineering, Sciences, Geography  
[Email check-in the day after offers released 31/1/25]

**“[What did you gain from the residential:] Definitely making new friends and interacting with new people all at once. However, this experience has made me so much more confident in approaching people and even getting prepared for uni life.”**





## IN-DEPTH

The following pages look in more detail at each aspect.

What was great and we would look to keep.

What we learnt to improve future programmes



**sustainable  
urban  
futures**

# Who went?

The 2024 Sustainable Urban Futures residential hosted 41 Year 12 students, carefully selected to reflect a diverse and inclusive cohort. We received 83 applications and offered places to 42 students, including two additional places from what we originally thought we could host. While recruitment filled quickly due to an earlier launch, outreach to local schools in the wider Cambridgeshire area revealed challenges in identifying students who met the A-level grade criteria.

To maintain diversity, we aimed to accept no more than two students per school and gave priority to institutions with limited history of sending pupils to Oxbridge. This approach ensured a broad mix of perspectives and experiences among participants, many of whom came from backgrounds underrepresented in higher education.

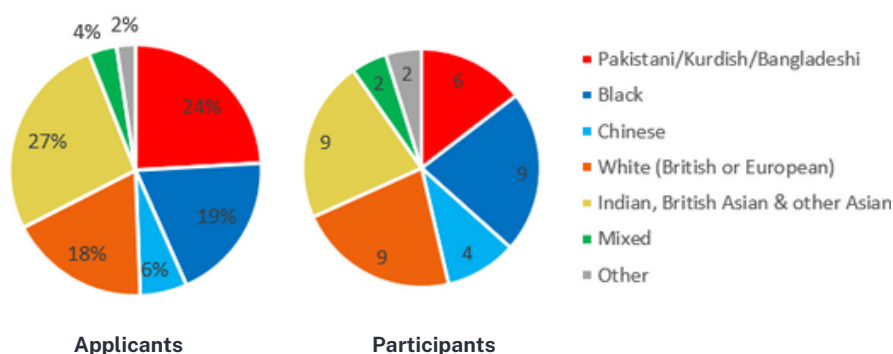
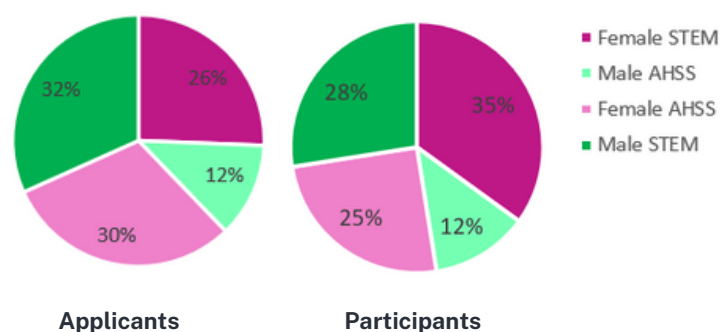
**For around 20% of attendees, this was their first time staying away from home or traveling independently, marking a significant step in their personal development.** We used targeted advertising through the College website, School Liaison networks, and social media platforms like Instagram and TikTok to make the opportunity accessible and appealing to students.

Overall, participants viewed the application process positively, appreciating its clarity and fairness in identifying determined and curious individuals. This feedback, coupled with insights from this year's recruitment, will help us further refine our approach to supporting diverse cohorts in the future.

## Gender

For 2024, we aimed for a gender-balanced cohort and the final cohort broadly reflected the applicant pool, with slight differences due to some applicants not meeting the required grade criteria. The gender mix contributed positively to the programme, fostering collaboration in both practical and academic activities.

In STEM subjects, we were pleased to see strong female representation. Female applicants made up 58% of total STEM applicants, significantly higher than the University of Cambridge's 42% female applicants to STEM courses (2023 admissions).



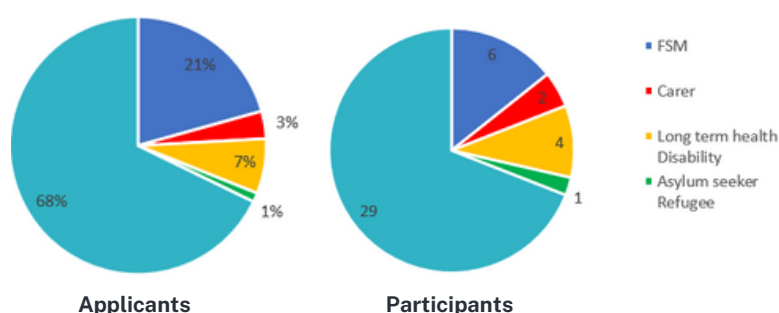
## Ethnicity

SUF attracted a diverse group of participants, aligning with the University of Cambridge's Access and Participation Plan (APP) objectives. This included underrepresented groups such as Black-British, Bangladeshi, and Pakistani students, addressing barriers like lower sense of belonging and limited access to guidance on higher education pathways.

## Other WP flags

Our original criteria included not only those with WP flags themselves, but also schools which had a high proportion of pupils with Free School Meals/Pupil Premium and Ethnic minorities. Or a very high proportion of one of these alone.

This aligns with the selection criteria of Engineering UK, and cast a broader net, appreciating those in schools with large WP cohorts will necessarily impact all pupils.





# The programme & UCAS

The residential included a mixture of academic sessions, University Applications, and Social/Free. Student feedback on the timetable was positive with some suggestions including: starting breakfast later, having more free time activities, and less time allotted to certain activities where participants finished early. Others requested more sessions and more free time!

We wanted to strike a balance between academic and extracurricular, whilst leaving time to relax and discover who they are in this new context. Overall we think we got this about right and would act on the more specific feedback such as session length, breaks, and variety of extracurricular sessions to improve for future residentials.

## Thursday 22<sup>nd</sup> August

Time	Activity	Place
07:30 - 08:45	<b>Breakfast</b>	Dining Hall
09:00 - 11:00	<b>Session:</b> Geopolitics. Environmental justice, Unrepresented Nations and Peoples Organization (Nneka and Chris)	JC Hall
11:00 - 11:30	<b>Break</b>	
11:30 - 13:00	<b>Session:</b> 'Twelve Questions: Poetry, Migration, and Race' (Professor Bhanu Kapil)	JC Hall
13:00 - 13:45	<b>Lunch</b>	Dining Hall
13:45 - 15:00	<b>Session:</b> Sustainable Transport (Dr Khashayar Kazemzadeh)	JC Hall
15:00 - 17:00	<b>Free time / Games afternoon</b> OPTIONAL Activities (Please sign up in advance): <ul style="list-style-type: none"><li>- Library Tours at 15:00, 15:30 &amp; 16:00</li><li>- Biodiversity Tour of College at 15:00 -16:30: 'The Secret Life of Bees' – Assembling a Beehive and learning how they live (Grounds and Gardens team)</li></ul>	
17:00 - 18:00	<b>Session:</b> Admissions Q&A – 'How to make a Competitive University Application' and Student Finance Presentation (Churchill Admissions team)	JC Hall
18:00 - 19:30	<b>Dinner:</b> Pizza making (or takeaway pizza in case of wet weather)	JC Lawn/JC Hall
19:30 - 20:30	<b>Wide game</b> , organised by student helpers	Meet at Hepworth
<b>Retire to rooms for 22:45 curfew/room checks</b>		

### Sessions included:

- Geopolitics
- Poetry
- Sustainable Transport
- Engineering
- Psychology
- Climate Change decision making

Timetable excerpt on the left.

## Immediate feedback on programme

### On the range of sessions

- Students enjoyed a mix of sessions, including STEM (e.g., civil engineering, shelter building) and non-STEM (e.g., poetry, psychology of spaces). Many appreciated how sessions like psychology and poetry provided a creative or reflective break from STEM-focused activities.
- Humanities-focused sessions, like geopolitics and Cambridge's flawed history, were also valued for broadening perspectives.

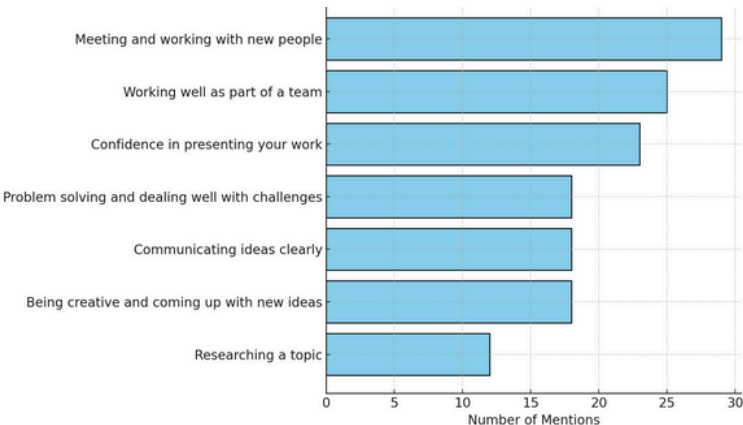
### On the style of learning

- Interactive, hands-on, and creative elements stood out as key factors in successful sessions. Activities that required collaboration, debate, or problem-solving were particularly well-received.
- Sessions that demonstrated real-world applications of knowledge, such as engineering experiments or designing solutions for informal settlements, were especially impactful.

## Focus on University Applications

The admissions team ran a session on university applications, covering the Cambridge process and student finance. This was an important topic for students from widening participation (WP) backgrounds, helping them understand financial options and support. This session was really engaging, judging by the number of questions that students asked. To be able to address all of them, Jonathan Padley our lead admissions tutor offered an extra drop-in session during the free-time later in the week to answer more questions!

### Areas cited as being the biggest contributions to UCAS:



## Impact of SUF on University Applications

Participants overwhelmingly agreed that taking part in SUF helped with aspects of their university applications. Key areas of support included refining personal statements, discussing topics in interviews, and influencing their choices of universities and courses. The experience provided both content and confidence to strengthen their applications.

*“Definitely helped me with my application. It was great to talk about in my personal statement, and I was asked about it in my Cambridge interview!”*

*“Sustainability formed part of my personal statement from another project I completed, and writing about SUF allowed me to expand my ideas further.”*

*“Yes, I talked about it during my interview and the techniques we used when doing research for our project.”*

## University Application Snapshot

93%

Participants who applied to Oxford (9 known) or Cambridge (18 applicants).  
6-month data (27/29)

### Diverse range of courses applied for

**Cambridge**  
Engineering  
Geography  
English Literature  
Physical Nat Sci  
Architecture  
Psychology

**Oxford**  
Foundation Year PPE  
Maths and Computer Science  
Engineering  
Biomedical Sciences  
Physics

97%

Intending to apply to university  
(Aug 2024 survey)

68.8%

Intending to apply to Oxbridge  
(Aug 2024 survey)



# Highlights

## 6 months on: Highlights

Six months after the residential, participants were surveyed again to reflect on their experience. The feedback revealed key themes, including the excitement of socializing with like-minded individuals, engaging in hands-on activities, and gaining a taste of university life.

*"My highlight was the engaging work we did on sustainability. The hands-on activities stimulated our minds but also allowed us to enjoy ourselves. **The people I met were probably the main highlight though—we still have a group chat where we all talk frequently!**"*

*"Experiencing the university lifestyle—accommodation, food, and everything Cambridge had to offer—was unforgettable."*

*"Opportunities to speak to the fellows at the college"*

*"Meeting new people and working on projects together on important current topics was an amazing experience."*

## 6 months on: Top skills

Six months after the residential, participants identified key skills they developed during the programme. Prominent themes included problem-solving, teamwork, communication, and building confidence in presenting and interacting with diverse groups of people. These skills were seen as valuable not only for their immediate experiences but also for university interviews and future aspirations.

*"Problem solving and dealing with challenges helped me think more critically about concepts and anticipate drawbacks before presenting my ideas. This skill was especially helpful during university interviews."*

*"Presenting my work with confidence was such a valuable skill because opportunities to develop this are rare unless you actively seek them out."*



# Learnings

## Implementation of 2023 Learnings: Organisation

We learned a lot from the 2023 programme and used that feedback to improve the experience for participants and make the programme run more smoothly. Key learnings from the 2023 residential highlighted the need for stronger administrative support and more efficient processes during recruitment and the programme itself. To address this, the College appointed an outreach and admissions assistant, whose involvement during student recruitment and the residential week significantly improved response times, reduced staff stress, and ensured smoother operations.

The responsibility for obtaining teacher references was shifted to applicants. This simplified the process and reduced administrative workload. Pre-week Zoom sessions were added and all successful applicants and their parents invited. This served as a valuable point of contact, providing a familiar face, an opportunity to ask questions, and clearer logistical details to help participants feel prepared. Efforts were also made to enhance group interaction during these calls, however, this aspect was less successful. We would aim to retain them as information sessions but reduce the burden on students to meet new people for the first time on zoom!

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## Learnings from 2024 feedback: pre-week

Some participants suggested that we could increase Programme Visibility on social media. We did promote via a video on youtube and TikTok, but will work with our comms team to try and make this better reach pupils.

Pre-week communications: While many participants found the 2 Zoom sessions useful, feedback indicated that much of the information could be consolidated. In future we would do 1 zoom session focusing on getting to know each other and addressing practical questions, and circulate logistical details by email.

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## Learnings: Academic sessions

The academic programme received overwhelmingly positive feedback, with 95% of attendees saying they would recommend the residential to younger pupils at their school. While students appreciated the broad approach, many expressed a desire to focus more deeply on their specific areas of interest, highlighting the challenge of balancing diverse academic preferences within the general structure of the programme. This could be addressed by either repeatedly clearly communicating the programme's broad focus to students beforehand or, with significantly increased funding and capacity, introducing parallel AHSS and STEM streams, though this would alter the programme's current structure and feel.

Several participants felt that the poetry and migration activity, were out of place and did not align with the residential's theme of sustainable development. There was a preference for more sessions focused on renewable energy, effective housing, and climate change. This indicates more the mindset of students that are focused on technological solutions to what is a social and interdisciplinary challenge. While technical solutions are crucial, addressing sustainability also requires understanding its social, political, and ethical dimensions. This feedback highlights the need to better communicate the importance of these broader perspectives in the programme and find ways to integrate them seamlessly into the overall academic structure to enhance their relevance and impact.

Excursions and Museums: Students suggested focusing on one museum to allow more time for in-depth exploration. We will take this on for any future programme.

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## Learnings: Facilities and experience

Accommodation: Several students expressed a preference for all having en-suite facilities. This is not really possible given the accommodation that we have in college. However, is a learning for what the expectations of future students are, that college and Cambridge in general may not necessarily be able to provide currently.

Food: Some students said an improvement would be to serve their own portions was recommended to reduce waste and cater to individual preferences. This isn't the system in hall, but we will communicate clearly that they can ask for less of anything.



# Budget

## Original budget vs spend

The 2024 budget was planned and improved based on lessons from 2023. Key adjustments included budgeting for a new temporary administrative and outreach assistant position to support the recruitment process and assist during the residential week, significantly easing workload and improving responsiveness.

Additional provisions included allocating more for transport, accommodation and food to accommodate rising costs. we integrated travel logistics into pre-residential Q&A sessions on Zoom to better inform participants and allow for advance booking of train tickets, saving where possible. Knowing the travel expenses in advance of the week was really helpful as meant we could reallocate some budget to activities to further enhance experience, and accommodate an additional local student.

Much equipment, including for the shelter-building activities was possible to re-use, supplementing with additional equipment where this had been used, damaged, or would enhance experience. This kept costs manageable. Contingencies for unexpected expenses, such as emergency transport or additional snacks, were also factored in. We slightly exceeded expected spending in this area, so would budget more in future.

We slightly underestimated the conferencing costs of food and accommodation as there has been large increases in these. However, we also had 41 participants, which increased this slightly.

With £300 remaining, with permission we will allocate it toward developing future sustainability-focused outreach activities.

Type	Description	£	WPIF - Budget	WPIF - Spending
Salary	Project Management & development (10% FTE day per week). *50% met by Chu Coll	10000*	5000	5000
	Oureach administrative support *50% met by Chu Coll	6000*	3000	3000
Intern	10 week summer intern: resource creation/testing (£3000 bursary + £1500 accom subsidy) **met by Chu Coll	4500**	0	
Activities	Replacement of consumables used in residential 2023 (stationary, lanyards, extracurricular and shelter building) and development of replacement academic activities	500	500	1223
Training	Venue and refreshments for facilitator training (1 day room hire £382) **met by Chu Coll	382**		
Residential	Student helpers for 5-day residential	1644	1644	1210
	Conferencing: Includes food and accommodation	12168	12168	13548
	Pupil and facilitator travel on public transport	4050	4050	1863
Evaluation	Evaluation and promotion, Web-based resources	500		315
TOTAL			26362	26159

\*Denotes costs met by Churchill college, contingent on the award being successful.

\*\*Denotes ≥50% met by Churchill College

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## Additional resource - student interns

One additional resource that we got for this project was a 10-week EPSRC summer intern (£4500 stipend), and 1 STEM widening participation intern in addition to 1 summer bursary funded by Churchill. While the 2 additional interns were working on different outreach development projects, all 3 interns assisted during the week and with preparation in the run up.

The 2 non-Churchill interns really took to the role, and actually took on running one session on geopolitics! This got great feedback as participants loved learning with students close to their own age, and it really brought the activity to life!

# Benefits for current students

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## In praise!

We were supported by six student helpers, including three interns and three additional helpers working exclusively during the residential week. Their involvement was invaluable, offering participants a friendly and approachable connection to current university life. Interacting with these students was a highlight for many participants, giving them a genuine insight into what it's like to study at Cambridge while fostering a welcoming and supportive atmosphere. For the student helpers, the residential provided a valuable opportunity to develop leadership, communication, and mentoring skills.

### How were the student helpers?

*“Amazing! Special shoutout to Chris for telling us all about what it's like to be an engineer, and for him and Nneka running the geopolitics session”*

*“Absolutely amazing, very insightful, helpful and engaging. They definitely made this experience a lot more friendly.”*

*“Very nice and helpful! I learnt more about college life, what certain degrees are like and their experiences at Cambridge.”*







**NOISE POLLUTION!**

- **matched pairs**
  - ↳ use two very similar people with essentially only the variable different
- **same person longitudinally**
  - ↳ use people near construction and ask them during and after the construction to compare their wellbeing
- **qualitative assessment**
  - ↳ an assessment by a psychologist that would determine their wellbeing
- **quantitative assessment**
  - ↳ a wellbeing quiz with a numerical scale that can be compared
  - ↳ How often are you stressed? Never Rarely Sometimes Often Always
  - ↳ How well are you sleeping?
  - ↳ How often do you go outside for leisure activities?
  - ↳ How often do you feel exhausted?
  - ↳ How often do you feel relaxed?

**Limitations**

- variables we cannot control (when you are near the noise)
- quota sampling limitations
- research bias
- when the construction occurs
- changes in the subject's lives
- whether subjects are used to noise
- where you work

- use RStudio to process/analyse data

*(a baseline assessment of variables)*

