



MIT Research Information Session

In collaboration with WISE, AtkinsRéalis, and
STEM Ambassadors

Monday 30 September 2024
4PM – 4:45PM



Housekeeping

- This webinar will be recorded & shared after the event.
- Delegate sound and video is restricted during the presentations.
- If you have any practical questions regarding sound/ video please ask these questions in the chat and a member of staff will respond.
- You can ask written questions for the speakers using the chat function throughout.
- Sound and video will be unlocked for the Q&A. Please raise your hand if you would like to ask a question.
- You are welcome to use reactions and share comments in the chat in Teams throughout.



Agenda

- 16:00** WISE Welcome
Shamineh Mavalvala, WISE
- 16:02** Who are STEM Ambassadors?
Yasmin Khan, STEM Ambassadors
- 16:07** Why your school should sign-up for this research project
Nagisa Tadjfar and Kartikeya Vira, MIT Economics
- 16:35** Q&A
- 16:40** Next steps and Closing remarks
- 16:45** Finish

Stem Ambassadors Programme

Volunteers to Enhance Teaching and Learning

Yasmin Khan
Project Officer






What is the STEM Ambassadors Programme?

- Volunteers
- Share knowledge, experiences & skills
- Range of STEM-related disciplines
- Promote STEM subjects & careers
- Enhanced DBS or PVG checked



What do STEM Ambassadors do?

 STEM activities	Support with or deliver workshops, enrichment days, exhibitions, STEM fairs or STEM Clubs	Judge school STEM competitions	Bring specialist equipment for young people to experience	Host a school trip
 Careers support	Give careers talks or help at careers fairs	Host a workplace visit or work experience	Speed networking with pupils, parents and teachers	Help students with mentoring, mock job interviews and CV writing
 Wider school & college support	Develop and run CPD for educators or talk to a teacher to help with any questions	Provide support and advice for governors, headteachers and senior leaders	Develop curriculum, resources and activities	Develop connections with local businesses

What do STEM Ambassadors do?



What are the benefits?

94% of educators said it **improved students' enthusiasm for STEM** and **improved students' career aspirations in STEM**

Supports **Gatsby Benchmarks**.

“The STEM Ambassadors inspired the girls in under-represented STEM subjects, such as physics, by showing them how they connect with issues girls care about and their gateway to interesting careers.”

“It has definitely helped learners to realise the scope of different careers within STEM and it led to them doing more research in their own time and linking it to their learning in class.”

Impact for young people

Before they had met a STEM Ambassador:



Impact for young people

After they had met a STEM Ambassador:



Supporting ambitious university applications: A large-scale intervention with Year 12/13 students



Meet the research team



Nagisa Tadjfar

Economics PhD candidate - Massachusetts Institute of Technology

BS in Materials Engineering & Physics - Massachusetts Institute of Technology

→ Researches topics in attainment of disadvantaged groups in STEM, gender earnings gaps, social learning in university decisions

Kartik Vira

Economics PhD candidate - Massachusetts Institute of Technology

MA in Economics - Trinity College, Cambridge

→ Researches topics in attainment of disadvantaged groups in STEM, behavioral decision making, social learning in university decisions



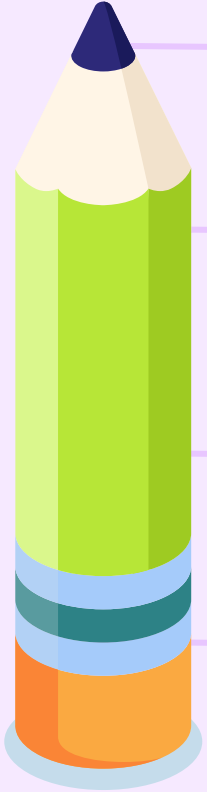
Students underaim when making university decisions

- **Large gaps along gender and socioeconomic lines** in propensity to attend courses with high earnings potential, even after accounting for academics
- After accounting for test scores, **women attend degrees that are 8 percentiles lower in potential earnings** than men—equivalent to £25,800 per year at the median¹
- On average, **28% of students in the UK attend the modal university attended by other students** in their school
- **Student decisions are heavily influenced** by education decisions of family members and other students at their school

¹"Matching in the Dark? Inequalities in Student to Degree Match" (Campbell et al. 2022)



How can our programme help with this?



Information tailored specifically to students

- Our 1-hour alumni-led workshop will provide customised information about different university options based on students' goals and their school's history

Exposure: stories and tips from real university students

- Our programme gives students the opportunity to hear from a diverse set of university students with details on their experience applying to university

Mentorship

- One-on-one matching with a university student mentor to learn more about specific universities of interest and ask questions to prepare students for university

Subsidised university visits

- We will reimburse students for up to £75 for transportation costs to visit a university of their choice for Open Days, Offer Holder Days, or other visits

Your school can participate in either or both of our waves



1

Autumn 2024

Workshop dates: October - November

Participants: Year 13 students

Summer 2025

Workshop dates: May - June

Participants: Year 12 students

2

Programme timeline (Wave 1)



Oct - Nov 2024

- In-person workshops + surveys
- Share benchmarking insights with schools
- Match students with mentors

Jan - May 2025

- Subsidised visits to universities

Oct - Jan 2024

- Students have one-on-one calls with mentors
- Subsidised visits to universities
- Students prepare applications

May - Aug 2025

- Analyse final student application decisions, offers, and attendance
- Share programme results and success metrics with stakeholders

Programme timeline (Wave 2)



May - June 2025

- In-person workshops + surveys
- Share benchmarking insights with schools
- Match students with mentors

Oct - Jan 2026

- Students prepare applications

July - Oct 2025

- Students have one-on-one calls with mentors
- Subsidised visits to universities
- Students prepare applications

May - Aug 2026

- Analyse final student application decisions, offers, and attendance
- Share programme results and success metrics with stakeholders

Programme overview



Customised information

Workshops with tailored information about university applications and videos from students who are well-suited academically



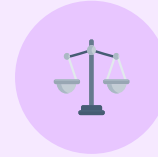
University student mentors

Participating students will be matched with university student mentors for one-on-one calls to discuss applications, campus life, and answer any questions



Subsidised visits to universities

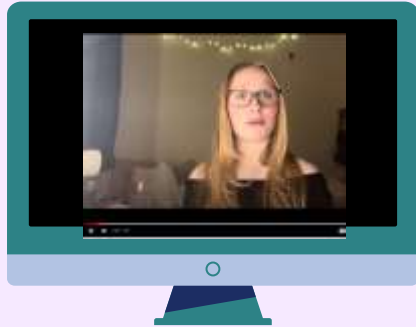
Participating students will be offered up to £75 in cost of transportation to visit a university of their choice (for Open Days, Offer Holder Days, or other visits)



Programme evaluation

Assessment of which interventions were most successful in expanding choice horizons

Students will gain access to our rich pool of mentors



We have a pool of over 50 mentors, including graduates of 26 universities and counting!

Mentor videos

→ Our mentors and school alumni have recorded conversational 3-4 minute videos discussing their experience applying for uni, and life at their university

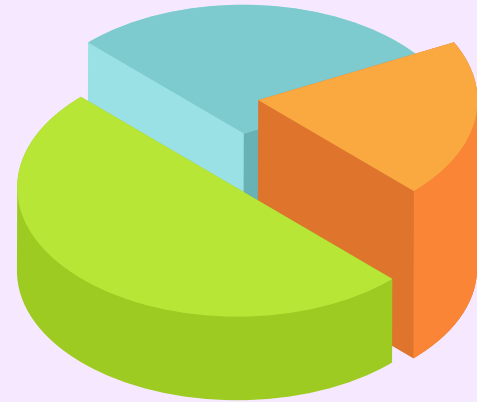
Mentor matches and calls

→ Mentors will be matched with students interested in their university, and will have a call with them to answer questions about the university and their course

- Imperial
- Cambridge
- UCL
- York
- Edinburgh
- Warwick
- KCL
- LSE
- Bath
- Leeds
- Sheffield
- Surrey
- Bristol
- Glasgow
- Newcastle
- Nottingham
- Southampton
- St Andrews

Our team can bring key insights on your students

- **Rigorous analysis of historical school data** on post-18 destinations + benchmarking to other schools and national patterns
 - Are your students undermatching?
 - Who is most vulnerable to undermatching at your school?
 - Other insights on students' destinations
- **Novel survey data on how your students make university choices**
 - What and who are the key drivers of your students' choices?
 - What factors matter to them when choosing where to go to university and what to study?
- **Quantitatively identify the most effective strategy** to expose students to a broad range of universities and encourage ambitious applications



Frequently asked questions

Which of my students are eligible to participate?

- Our fall programme is open to any Year 13 students who are at least *considering* university
- Our summer programme is open to any Year 12 students who are at least *considering* university
- Participating students must also have consent forms signed by both students and parents in advance



How will you collect consent and distribute the initial survey?

- Participating schools will be asked to distribute consent forms to parents and students ahead of the workshop
- Participating schools will then distribute consenting students the initial survey at least a few days ahead of the workshop

How will you match students to mentors?

- At the end of the workshop, students will be asked about which university they are most excited about/would like a mentor from; eligible participants will then be matched with a mentor from that university if one is available

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What content will the 1-hour workshops cover? What is the format?

FAQ: What content will the 1-hour workshops cover? What is the format?

- **General information** about the university application process, making choices for applications and offer responses, and life at university
- **Specific information** relating to your school's destinations, based on data from your school
- Workshops to be presented by **school alumni** or STEM Ambassadors based on our materials
- **Follow-up survey** at the end of the workshop



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What is the role of randomisation in the study?

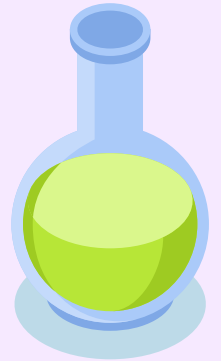
FAQ: What is the role of randomisation in the study?

Why randomise?

- Randomisation is a widely adopted methodology used in studies such as clinical trials, public programmes, and other social science interventions
- Most rigorous way to quantify the effectiveness of different components of a study relative to a control group

How will this be implemented?

- Participating students in your school will be randomised into treatment groups and a control group
- All participants will take part in the workshop and complete surveys
- Videos, mentors, and subsidised visits will be offered to a randomly chosen set of students within each school. The control group will be the students who only take part in the workshop.
- Most of the participating students in your school will **not be in the control group** - the majority will get at least one of the other components



FAQ: What will you ask students in the initial survey?

- Students will be asked what sources of information they intend to consult when choosing a university
- Which factors matter most for their decision
- Expectations about campus life, fitting in, and academics at different universities
- Expectations about their chances of receiving an offer from various courses



Key next steps for interested schools



❑ Sign up at these links

Fall 2024 (Year 13): <https://tinyurl.com/MITWiseFall24>

Summer 2025 (Year 12): <https://tinyurl.com/MITWiseSummer25>

Or email ntadjfar@mit.edu & kvira@mit.edu with any questions.

❑ Execute data use agreement

Once your date is confirmed, MIT's legal team will set up a formal data use agreement (this can be modified to accommodate any legal constraints your school may face). The data use agreement will detail the historical and current Y12/13 student variables we need to proceed with the programme.

❑ Find alumni speakers for the workshop

Reach out to 1-2 alumni from your school to attend the school in-person to present the workshops based on our materials. We will coach these alumni on how to deliver the workshops.

Note: If you are unable to find alumni, we will have a STEM Ambassador lead the workshop.



Q & A



**Thank
You**