Gender pathways into engineering and technology overview

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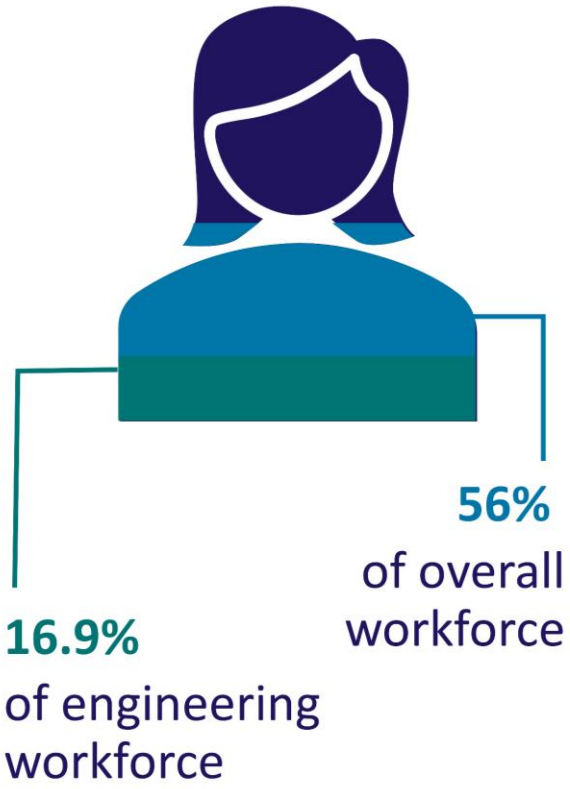
Need for this work

- Women are the most under-represented group in engineering
- Girls' perceptions of engineering differ from a young age – just 12% of girls agree being an engineer fits well with who they are compared with 38% of boys (Science Education Tracker, 2023)
- There has been a decline in young people's interest in science, especially in 11- to 14-year-old girls



SPOTLIGHT ON GENDER GAP

% OF WOMEN / GIRLS

ENGINEERING AND TECH WORKFORCE	16.9%
ENGINEERING T LEVELS	12%
ENGINEERING APPRENTICESHIPS	20%
ENGINEERING DEGREES (UNDERGRADUATES)	18%
PHYSICS A LEVEL	24%
MATHS A LEVEL	37%
PHYSICS GCSE	48%
MATHS GCSE	50%

Women and girls are the most underrepresented group

Establishing the work

The **Gender pathways into engineering and technology project** was established in Autumn 2024 by EngineeringUK, WISE, BCS, the Chartered Institute for IT, Royal Academy of Engineering and the Women's Engineering Society (WES)

This leading core group now includes British Science Association, Capital City College, Digital<ALL>, Orbyts, Professor Louise Archer (UCL) and Tech She Can

The collective mission is to **significantly increase the number of girls in education pathways to engineering and technology at age 18**

Methodology

- **Systemic approach** looking holistically at influencing factors
- **Evidence-driven** mapping the multitude of factors influencing STEM education and perceptions of engineering and technology careers, identifying promising practices, and highlighting evidence of what works in this space
- **Collaborative** more than 40 organisations brought together

The Collective

Task and finish groups

Six task and finish groups have been established to drive collective impact:

1. **Curriculum and assessment** – led by BCS (The Chartered Institute for IT), RAEng and EngineeringUK
2. **Equity and STEM research and change centre** – led by Professor Louise Archer, UCL
3. **Peer mentoring** – led by Digital<ALL> and Capital City College
4. **Project based learning** – led by the British Science Association and Orbyts, UCL
5. **Whole school approach to gender equity and inclusive practice** – led by EngineeringUK and Tech She Can
6. **AI for gender inclusive careers support in schools –** leader TBC

Public and policy affairs activity strand – works alongside the above

Achievements so far

- **Curriculum and assessment** – curriculum content producers guide to inclusive content is in final draft ready for testing and plan for next steps
- **Equity and STEM research and change centre** – roundtable with c20 stakeholders and conversations with several funders
- **Peer mentoring** – literature review of peer mentoring impact on girls started
- **Project based learning (PBL)** – literature review on the impact of project-based learning on girls, funded by UCL has been drafted + quality assurance framework for those delivering PBL
- **Whole school approach to gender equity and inclusive practice** – RCT of the approach soon to be published and currently planning routes to scale for the work
- **AI for gender inclusive careers support in schools**

Gender pathways and The Code

- We recognise the Tomorrows Engineers Code community as a key way in which evidence will translate into practice
- We will keep the Code community updated on outputs and outcomes
- Express interest in joining a task and finish group if you feel you can contribute

Today

- An opportunity for you to feed into the Gender pathways work – to help us build some of the task and finish group approaches

- An opportunity to hear about the Gender pathways collective approach and for us to collectively reflect on any cross-learning