

EMPOWERING WOMEN IN STEM: SKILLS FOR THE FUTURE

Minutes



Date	6 May 2025
Time	10:00 – 11:00
Venue	Portcullis House Meeting Room M and via Zoom
Chair	Catherine Fookes, Co-Chair of the Women and Work APPG and MP for Monmouthshire
Speakers	Sonya Barlow, Award Winning Entrepreneur, Broadcaster and Author Shraddha Kaul - Director of Growth and External Affairs, Progress Together
Theme/ Background information	Women and girls have historically faced significant barriers to entering and succeeding in STEM fields, a challenge that persists despite advancements. As science and technology become increasingly integral to our lives and economies, the gender disparity in these sectors represents not only an issue of fairness but a missed opportunity for innovation, economic growth, and societal progress. This session focussed on practical steps to address the gender imbalance, particularly equipping women and girls with the skills they need to thrive in STEM careers. Tackling this issue requires a holistic approach, involving collaboration across education, industry, and government. It's not just about creating opportunities; ensuring women have the resources, training, and support to progress and succeed throughout their careers is equally critical.

The session was opened by Catherine Fookes MP, Co-chair of the APPG, who began by introducing herself and outlining the theme of the meeting: Empowering women in STEM: skills for the future. She acknowledged that although progress has been made, there is still a significant amount of work to be done to ensure women can thrive in STEM fields. She shared a personal reflection, noting that both of her sons are currently studying STEM subjects at university. She was pleasantly surprised to see more women in these courses than she had expected. However, she observed that this increased representation in education is not yet translating into comparable employment outcomes for women in STEM careers.

Catherine went on to provide an overview of her professional background before entering Parliament. She served as the CEO of the Women's Equality Network Wales and was Chair of the Welsh think tank, Fabians Cymru. After this introduction, she handed over to the session's first speaker, Sonya Barlow.

Sonya explained her background, stating that she is a Pakistani British woman who moved to the UK when she was four and that her understanding of work life balance stemmed from her family and school life. She went on to obtain a business degree from university. She applied for graduate roles and was eventually made redundant during the pandemic. She went on to launch a consultancy and mentorship programme five years later.

Sonya reflected on her early experiences and highlighted the lack of role models for girls in schools as a significant barrier. She emphasised the importance of workplace volunteering to help young people understand how industries are evolving and what skills are needed. She explained that although she enjoyed subjects such as maths, chemistry, and physics, she didn't fully understand the career opportunities these subjects could lead to, which made it harder to pursue them confidently.

Sonya stated that once she began applying for graduate roles, she noticed that girls and women were not being taught what their skills are. She stated that data shows that even when women enter the workplace, they fall off the career ladder because they do not have the support systems that they need.

Catherin thanks Sonay for her remarks, then introduced the session's second speaker, Shraddha Kaul.

Shraddha explained how AI is transforming the STEM sector. She shared that only 8% of the sector have actually scaled and one in five trust their management to actually guide them. She added that there is an opportunity gap of access that must be acted on now.

Shraddha identified sponsorship as a particularly powerful tool. She explained that unlike mentorship, sponsorship is not just about guidance; it involves actively championing individuals and helping them access opportunities. She pointed out that many women in STEM struggle not only with self-belief but also with the lack of clear pathways to progress.

Catherine asked how sponsorship differs from apprenticeships, wondering whether it involves financially supporting someone through university. Shraddha clarified that sponsorship is not necessarily about providing financial backing, but rather about advocacy, using one's influence to open doors for someone you believe in.

Catherine invited attendees to ask questions, first asking Sonya how can the sector get young women interested in STEM and keep them interested? Sonya stated that there is a need to be more intentional with women who want to enter and stay in the sector, and that women in STEM could benefit from support through mentorship programmes. Furthermore, Sonya asked whether businesses are doing enough to showcase the positive work they're doing to support women in STEM. She described a career programme model that helps match individuals based on three existing skills and three they want to develop. This is followed by mentorship and interview opportunities with employers. Sonya also noted that there is a general lack of awareness among the public about the competitive salaries available in STEM careers.

Prerana Issar (Sainsburys) highlighted the scale of stem opportunities in the retail sector which employs 4 million people in the UK. She added that retail organisations are engaging with schools to demonstrate the mass opportunities it offers. She asked whether the Government is developing a skills strategy and what the role of women would be feeding into this?

Lydia Marquez, a mechanical engineer, highlighted the gender imbalance in engineering degrees and questioned how curriculum design could better support diversity. She observed that the competitive nature of STEM education and careers often doesn't align with learning preferences more common among girls. Lydia also pointed out that while subjects like maths and physics are prerequisites for engineering, girls tend to shy away from physics due to deeply ingrained perceptions and a lack of relatable role models. If girls don't see engineers in their own social circles, they are less likely to consider those careers themselves.

Dr Nina Burrowes (The Consent Collective) asked about the extent to which sexual harassment is stopping women from entering the STEM sector and causing them to exit the sector? She added

that her organisation has seen women leaving the sector due to sexual harassment and incidents not being handled well. Lydia Wakefield responded by discussing how gender differences begin as early as age three. She described her own experience with her son, noting that boys are encouraged to take risks while girls are socialised to be quiet and play safely. She emphasised how this early conditioning can influence career choices later in life. Lydia also spoke candidly about the emotional toll of constantly having to assert her place in male-dominated spaces and the fatigue that comes with it.

Liisa Antola (ABI) supported Lydia's points and added that the issue is systemic. She warned against relying on women to always advocate for themselves, arguing instead that the system itself needs to change to be more supportive.

Sonia offered an international perspective by mentioning Saudi Arabia's recent decision to include AI in its national skills curriculum. She then shared a personal experience of leaving her job in tech due to harassment. Catherine asked her how such issues can be tackled effectively. Sonia replied that current systems, such as reporting harassment through HR only to have it relayed back to line managers, are ineffective. She argued for a complete redesign of workplace policies and suggested that structural change must be prioritised over superficial fixes or middle management buy-in.

Shraddha concluded this part of the discussion by reiterating the importance of challenging systemic issues and unconscious assumptions that continue to hold women back.

Catherine closed the session by reiterating the government's commitment to halving violence against women and girls within the next decade. She emphasised that this commitment must extend to workplaces as well, ensuring that women are safe, supported, and empowered across all sectors. Catherine lastly commented that it would be great to see a dedicated skills strategy that specifically addresses the inclusion of women in STEM.

Catherine expressed her gratitude to everyone for their attendance.

The Secretariat contacted the Department for Education shortly after the session.

The Deputy Director, Skills Strategy and Delivery, responsible for the Post-16 Education and Skills Strategy, responded to say that the Department is currently developing a white paper on this, which will cover the English skills system (as skills is a devolved matter), linked with the upcoming Industrial Strategy white paper, and building on the Immigration white paper published last week.

Further detail on the direction of travel of the post-16 strategy can be found on Minister Smith's speech to the AoC conference in November last year: [Skills Minister's keynote address to the Association of Colleges - GOV.UK](#).

Chat Comments:

Nina Charalambous

Morning all, I am Nina, Senior Policy Advisor at Speakers for Schools. I wanted to share our new programme which is relevant to this conversation. We are the largest provider of work experience for state schools in the UK and we have recently launched our IntoTech programme, which will create 95,000+ opportunities for underrepresented young people in particular girls and those from lower socioeconomic backgrounds in the tech sector. More info here: <https://www.speakersforschools.org/news/new-partnership-aims-to-transform-the-uk-tech-sector-by-boosting-diversity-and-social-mobility/> and do get in touch if you want to know more.

Sophie Hulm, CEO, Progress Together

[RISE with AI: Get your workforce AI-ready for the future of financial services - Progress Together](#)

Wade, Jessica A F

What about trying to communicate how exciting science and engineering are?! This discussion seems to focus heavily on tech and finance (and salaries?), but science is much bigger than that and is the solution to most of the world's most pressing challenges (climate crisis, public health, inequality). Also there hasn't been much discussion about the curriculum and the experiences of young women in the classroom? We know the UK has a huge shortage of skills specialist physics and maths teachers, and that the quality of teaching has a huge influence on girls' subject choices.

Dawn Bonfield

There is a lot of good work taking place specifically on this topic by a consortium of Professional Engineering Institutions, WES, WISE, and EngineeringUK called Gender Pathways Into Engineering and Technology which is worth checking out. <https://www.engineeringuk.com/driving-change/growing-the-future-workforce/gender-pathways-into-engineering-and-technology/>

Sophie Hulm, CEO, Progress Together

From the report linked above. The benefits of gen AI are not reaching the workforce uniformly. Employees from lower socio-economic backgrounds* face limited access to AI tools and training, exacerbating existing inequalities. Only 38% of financial services employees from lower socio-economic backgrounds have access to AI tools, compared to 48% of their counterparts from higher socio-economic backgrounds (3). This gap threatens to widen disparities in career mobility and opportunity, particularly as roles most susceptible to AI-driven transformation—such as administrative and customer service positions— are predominantly occupied by employees from lower socio-economic backgrounds. This is not just a talent challenge, it could pose long-term strategic risks.

Wade, Jessica A F

The focus should be on **quantum** tech alongside AI. It's a big focus of the UK's science strategy, massively exciting/inspiring for young people, and hugely dominated by men (maybe even more so than AI).

Nina Charalambous

<https://www.gov.uk/government/publications/ai-opportunities-action-plan/ai-opportunities-action-plan> might be helpful

Barbara Ruffett

Thank you Dr Nina Burrowes. Sexual harassment is a huge challenge in STEM from university to senior leadership in work. It's prevalent in construction and engineering

Dr Nina Burrowes_The Consent Collective

Happy to connect if addressing sexual harassment is a priority for anyone
nina@consentcollective.com www.consentcollective.com

Sophie Hulm, CEO, Progress Together

Page 35 includes policy suggestions, if of help when feeding back to Jacqui Smith [Accenture Rise with AI: Prepare Your Workforce for the Future of Financial Services in the UK](#)

Salma Siddiqi

My name is Salma, I am the co-founder of Natural You. a health tech startup. and a former tech consultant for Capgemini. I led an IWD event in Parliament 2018 discussing exactly the same as we are today - women in STEM, their retention and return to work. The stats have changed positively by a small margin - we need to think about national initiative strategies to tackle this

Prerana.Issar CPO @ Sainsbury's

Leadership culture is THE key to addressing sexual and other forms of harassment. Employees at all levels need to know there are consequences for behaving inappropriately.

Prerana.Issar CPO @ Sainsbury's

Women in exec roles who have decision making roles in policies are key

Sophie Hulm, CEO, Progress Together

Good point about engaging line managers / middle managers. This report may be of interest. Lots of nuggets of practical recommendations [VOICE: A Blueprint for Inclusion in Financial Services - PRACTICE - Progress Together](#)

Dr Nina Burrowes_The Consent Collective

We find that a skills based approach works best for the harassment that is preventable - people need the interpersonal skills to reflect, step in, and give/receive feedback. Most people want to play their part in this type of culture change but they are afraid of doing/saying the wrong thing and making it worse - so they do nothing or escalate to HR.

Wade, Jessica A F

Great points Nina, it's particularly bad in subjects like physics (up to 75% of all undergrads): <https://journals.aps.org/prper/abstract/10.1103/PhysRevPhysEducRes.15.010121> . A problem in academia is that when people behave badly (bullying, SH), they just get responsibilities they didn't really want anyway (e.g. teaching, supervision) taken away from them. They don't ever really get in trouble.. usually the victims are the ones who leave.