

RSE: Tapping All Our Talents Review 2018

NUS Scotland submission

Introduction and summary

NUS Scotland represents around 500,000 students in Scotland through our member college and university students' associations. We work to promote, defend and extend the rights of students and to champion strong students' associations. We welcome the opportunity to respond to the RSE's call for evidence as part of the Tapping All Our Talents Review 2018.

Progress since 'Tapping All Our Talents' report

Since the publication of the Tapping All Our Talents in 2012, a number of positive steps have been taken by the Scottish Government to tackle gender inequality in STEM education and careers. For example:

- The Scottish Government's STEM Education and Training Strategy includes a range of positive actions, including the use of role models in education; dedicated resource to tackle unconscious bias; public engagement campaigns; and increasing apprenticeship opportunities.
- The Commission for Developing Scotland's Young Workforce report, has led to the development of Gender Action Plans (GAPs) by the Scottish Funding Council for Scotland's colleges and universities; and we are working to make sure that the student voice is heard throughout the process of creating GAPs. Skills Development Scotland has also put in place targets to tackle gender imbalances on some Modern Apprenticeship frameworks.
- The Scottish Government has committed to expanding free early learning and childcare, from 600 hours to 1,140 hours per year by 2020.
- We welcome the ongoing commitment of the Scottish Government to fund organisations like Equate Scotland to support recruitment, retention and return of women where they are under-represented in STEM workplaces; and initiatives like CareerWISE, which provides female undergraduates with paid work placements with STEM employers.

Other positive sectoral work is ongoing. For example:

- Since 2008, NUS Scotland has partnered with [Equate Scotland to create the Interconnect network](#) to support women studying in STEM by providing opportunities to meet other women studying similar subjects at other institutions; network with women qualified and working in STEM, and build links with STEM employers.
- sparqs and NUS Scotland are currently delivering a [joint project to develop student engagement in Gender Action Plans \(GAPs\)](#), the learning from which will be shared across the sector.
- The [Equality Challenge Unit's Athena SWAN Charter](#), which was established to advance careers of women in STEM employment and higher education research, has grown significantly since 2012 – from 5 departmental awards in 2012 (three silver) to 73 in 2018 (5 silver, one gold), across 14 universities.
- NUS Scotland's [#InspireHerFuture campaign](#) was designed to inspire and empower women students in areas where they are under-represented. The campaign built on the #ThisAyrshireGirlCan campaign, which was led by former NUS Scotland's Women's Officer Angela Alexander when she was a sabbatical officer at Ayrshire College Students' Association.



- In 2016 NUS Scotland published [the 'Bairn Necessities' report](#), which sets out a range of recommendations to improve accessibility of childcare to make education more accessible for students parents, and ensure post-16 education meets their needs.

Ongoing challenges

While there are examples of good work being taken forward, we remain a long way off achieving gender equality in our STEM education and skills system. Gendered segregation is visible throughout all levels of the educational and skills journey. Research by Girl Guiding found that the career ambitions of girls as young as seven are already affected by societal gender norms¹. These stereotypes later affect both subject and career choice. NUS Scotland believes that it is important that we identify and work to address barriers to both education and employment, since underrepresentation at these levels is reflected in later employment.

Colleges and universities

Latest figures show that at Scotland's colleges and universities women continue to be under-represented across STEM subjects. In apprenticeships too, women are under-represented in STEM fields.

- In 2015-16, across all enrolments, just 14.7 per cent of STEM credits were delivered to females in Scotland's colleges. For the 16-24 cohort, the proportion is just 11.7 per cent.
- At the university level, while women made up 58.7 per cent of all Scottish-domiciled undergraduate entrants (SDUE) in 2015-16, the proportion drops to just 36.6 per cent for STEM courses. This represents a marginal increase from 2011-12 from 57.5 per cent of all SDUE, and 35.2 per cent of SDUE studying STEM courses.²
- HESA staff record statistics show women remain under-represented at senior staff positions at our universities. In 2016-17, women accounted for just 23.7 per cent of Professors, and just 31.1 per cent of other senior academic positions. At some institutions, there were no women professors³.

Apprenticeships

As noted in the Commission for Developing Scotland's Young Workforce report, there are clear gender inequalities within vocational education and apprenticeships. As a snapshot, the most recent Modern Apprenticeship statistics, produced by Skills Development Scotland, show that of all MA starts in Q3 2017/18, just 36 per cent were women⁴. In 'Construction & Related' apprenticeships – the largest framework grouping, accounting for 25 per cent of all MA starts – women made up just 1.5 per cent of all starts. In 'Engineering & Energy Related' MA starts, women account for just 6 per cent of all starts.

Employment

The gender disparity that exists within STEM education, is compounded in the world of work. Indeed, the 'leaky pipeline' effect is evident through education and beyond. The Royal Society of Edinburgh's 2012

¹<https://www.girlguiding.org.uk/globalassets/docs-and-resources/research-and-campaigns/girls-attitudes-survey-2016.pdf>

²http://www.sfc.ac.uk/web/FILES/corporatepublications_sfccp042017/SFCCP042017_GAP_technical_report.pdf

³http://www.heraldscotland.com/news/16140727.Scottish_universities_accused_of_ingrained_sexism_over_promotion_prospects_for_women/

⁴<https://www.skillsdevelopmentscotland.co.uk/media/44291/modern-apprenticeship-statistics-up-to-the-end-of-quarter-3-2017-18-updated.pdf>



'Tapping All Our Talents' report found that 73 per cent of female graduates did not go on to work in STEM, compared to 48 per cent of male graduates.⁵ This is in turn reflected by women being under-represented in senior roles in later employment.

Next steps

In terms of political uptake of gender equality as an issue significant progress has been made since 2012, with a range of positive changes having been pursued by the Scottish Government. Across the further and higher education sectors too, there are examples of good practice. However, it remains the case that women are under-represented in our colleges, universities, in modern apprenticeships, and in the world of work in STEM areas.

In response to the consultation on the Scottish Government's STEM: education and training strategy, NUS Scotland called for a range of actions, to improve representation of women in STEM:

- Universities and colleges should be expected to play a role in careers information, advice and guidance for school pupils, including using mentors.
- Pupils should have the opportunity to engage with universities and colleges much earlier in their education, including through joint courses and modules.
- Universities and colleges should have much clearer and stronger targets in Outcome Agreements related to improving diversity at a subject-level as well as at an institution level, and link this to GAPs and wider equality and diversity strategies.
- Institutions should commit to policies that support women researchers and provide greater promotion opportunities and career development.
- The SFC should introduce a duty, via Outcome Agreements, on institutions/departments to publish their recruitment patterns by protected characteristic, and where applicable to publish plans to bring greater equality across protected characteristics in terms of recruitment.
- Universities should investigate and remove any structural barriers to women's participation in research and encourage more women to move from undergraduate to postgraduate, and take 'position action' measures where necessary.
- Universities should be asked to act to improve recruitment and retention rates of underrepresented groups at postgraduate level – potentially through Outcome Agreements.

The 2012 Tapping All Our Talents report set out a range of recommendations to increase the proportion of women in STEM. NUS Scotland believes that prioritisation of the following recommendations would make a meaningful difference to increase the numbers of women pursuing and succeeding in STEM education:-

- Improvements in provision of high quality, accessible childcare
- For universities and research institutes to attain Athena SWAN Silver Award.

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⁵http://www.equatescotland.org.uk/wp-content/uploads/2016/07/tapping_talents.pdf

