

GM4WOMEN2028

EDUCATION GROUP BRIEFING NOTE 2022

2020 Scorecard:

- 17% of 1st year engineering and technology undergraduates at a GM university are women. (HESA 2017/18)
- 2% of under-19yr old apprentices in ‘Construction and the Built Environment’ in GM are women (DoE, 2018/19)

2021 Scorecard:

- Data on 1st year engineering and technology undergraduates at a GM university unavailable at time of publishing
- 1% of under-19yr old apprentices in ‘Construction and the Built Environment’ in GM are women (DoE, 2019/20)

Undergraduate degree subject choices:

This year, we are unable to present the data relating to women studying Engineering and Technology degrees at a Greater Manchester university. Due to unplanned and prolonged maintenance of the database from which our data is sourced⁴, we have been unable to retrieve the most recent figures. However, the trend of the previous three years’ data is indicative of very slow movement with this indicator.

STEM aspirations of young people 14-18 from a gender lens

We report on a survey conducted by Dr Maria Pampaka and Dr Diane Harris (The University of Manchester) that took place on the last pre-COVID academic year (Feb-May 2019) with a sample of young people aged 14-18 years, just about to make, or will have just made, a decision about their future educational/professional trajectory. With a sample of over 3500 students (60% female) from 41 schools around England (including Greater Manchester) we explored students’ academic aspirations, key factors determining choices of engineering degrees and vocational engineering courses, and the interplay of gender, ethnicity and social background on the decision-making process.

The results highlight significant gender differences in relation to aspiring to go to university and also career related aspirations (Figure 1). In response to the question “Which of the following do you intend to do when you finish your current qualification?” the majority of responders answered with ‘start a degree (at university), however more female than male students choose this option.



⁴ <https://www.iisc.ac.uk/heidi-plus/planned-maintenance>

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Choosing to study for a higher or degree apprenticeship was slightly more preferable to the male responders than the female responders.⁵

There were a significant portion of responders who were considering options which didn't involve further study (gap year and employment) with females showing a greater interest in taking a gap year (around a quarter of female responders) and working in a part-time role (around a third of female responders).

There are also notable differences in the preferred topics of those young people (1441 female and 854 male) who reported they would like to go to university (Figure 2).

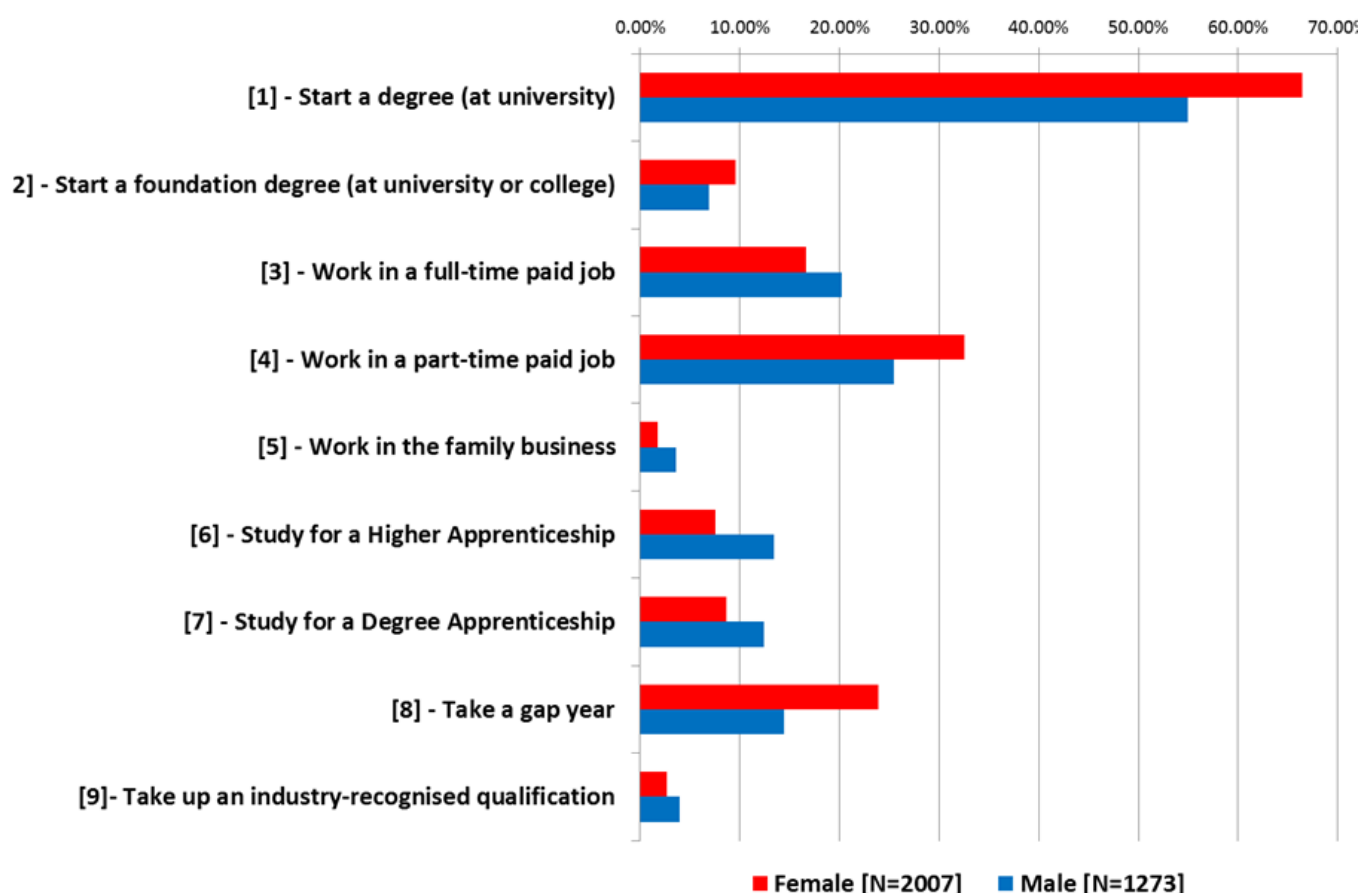


Figure 1: Distribution of responses to the question “Which of the following do you intend to do when you finish your current qualification” (multiple answers allowed), by gender.



⁵ <https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships>

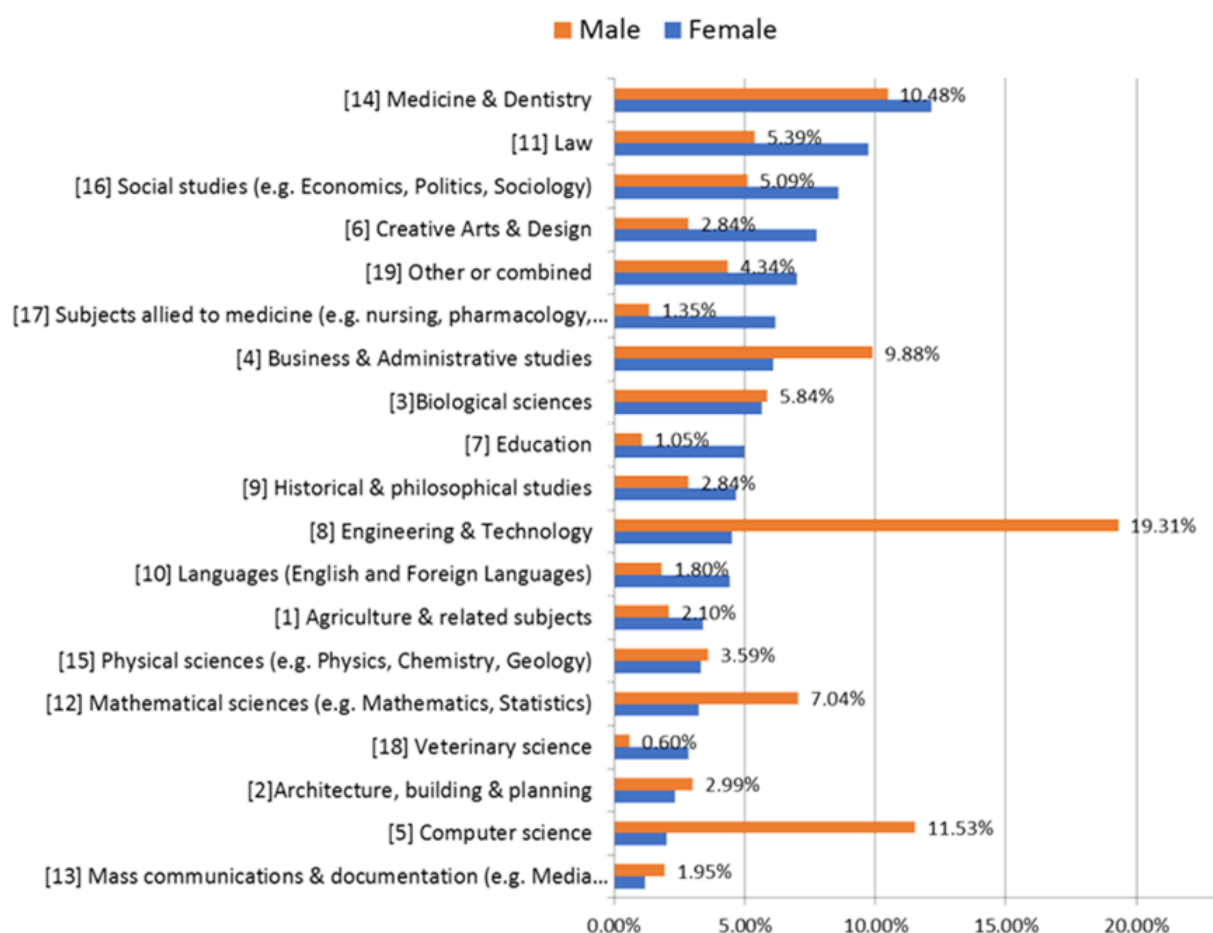


Figure 2: University choices (HESA categories) of those students reporting they want to go to University, by gender, ordered based on female choices.

Apprenticeships subject choices:

Women taking on apprenticeships in 'Construction and the Built Environment' has shown very little movement across the four years of analysis².

We acknowledge that these data encompass a large group of people and may hide the extent of the barriers for women and girls in the region. Data disaggregated by borough can offer further insight into the disproportionate engagement of women with post-16 training (Table 1).



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	% female									
	Bolton	Bury	Manchester	Oldham	Rochdale	Salford	Stockport	Tameside	Trafford	Wigan
Apprentices under 19yrs										
Agriculture, Horticulture & Animal Care	-	-	-	-	-	-	100%	-	-	0%
Arts, Media & Publishing	-	-	-	-	0%	-	-	-	-	-
Business, Administration & Law	46%	43%	59%	50%	50%	53%	50%	57%	43%	53%
Construction, Planning & the Built Env.	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%
Education & Training	100%	-	-	100%	-	-	-	-	-	-
Engineering & Manufacturing Technologies	0%	0%	0%	0%	12%	5%	15%	0%	0%	21%
Health, Public Services & Care	100%	100%	70%	82%	100%	69%	100%	93%	94%	67%
Information & Communication Technology	42%	0%	0%	0%	0%	0%	40%	20%	0%	20%
Leisure, Travel & Tourism	100%	-	-	0%	100%	67%	0%	20%	-	0%
Retail & Commercial Enterprise	50%	64%	67%	73%	75%	64%	69%	64%	60%	67%
Totals	46%	48%	55%	52%	51%	42%	44%	47%	47%	50%

Table 1: The percentage of female under-19 apprentices, within each Greater Manchester borough

We will also draw out intersectional data of gender with other characteristics to assess any trends.

For both these areas of focus we are aware and appreciative of the many expert organisations and individuals that offer fantastic hands-on career events and present a diversity of role models. So, we have set out to explore what other action is needed to encourage gender diversity in traditionally male-dominated subjects. Here we look at the overall education environment and consider where barriers may disproportionately impact girls.

Challenging sexism

The GM4Women 'Education' group will be supporting actions which challenge sexism and sexual harassment. UK Feminista, in collaboration with the National Education Union, researched the prevalence of sexism, sexual harassment and stereotypes in schools and found an alarmingly high rate of incidence. Following the publication of this research, Feminista UK and the NEU have developed a series of resources to support schools address sexism, sexual harassment and stereotypes with their students.

An additional driver for schools to challenge and educate students on sexism, has been the 2021 report from Ofsted, the Office for

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Standards in Education, Children's Services and Skills. Starting in 2019, Ofsted conducted their own review through a series of school inspections, focus groups and testimonials, and discussions with staff.

GM4Women2028 are keen to help champion this agenda and explore how schools in the region are using these resources. We are particularly interested in seeing the impact of the work and whether this is sufficient to change mindsets, empower students to challenge undesirable conduct and facilitate a safe and inclusive school environment

Peer support

Attracting women and girls into traditionally male-dominated subject may be partly be influenced by their experience of inclusion within those cohorts. Informal feedback from students suggests how being outnumbered can be a barrier to learning, even if the subject is of interest. The Institute of Physics (IOP) presented the positive impact of a case study, where a school implemented a gender-balance in their classes. Where girls were in the extreme minority, classes were created to include all the girls in the same (mixed gender) group. The school reported increased attendance, confidence and improved attainment amongst the girls⁶. A similar example, taken from higher education, was implemented in Computer Science at The University of Manchester⁷, whereby students were allocated to tutorial and study groups to ensure that no lone-female groups were achieved as far as was possible.

We would like to explore the benefit of these actions further by hearing from schools and students to learn:

- Whether gender-balanced grouping would be welcomed
- What barriers would prevent gender-balanced grouping
- Whether gender-balanced grouping has already been trialled and what the impact was.

We would be very keen to hear from schools who are interested in participating in this exploration or who have experience of good practice which we can share across the region.

To receive updates and opportunities from the Education Group,

please contact Sarah Mohammad-Qureshi at

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⁶ <https://education.gov.scot/improvement/Documents/sci38-case-studies.pdf>

⁷ <https://www.staffnet.manchester.ac.uk/media/corporate/staffnet/services/equality-and-diversity/content/files/Bronze-The-University-of-Manchester-School-of-Computer-Science-040517.pdf>

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