

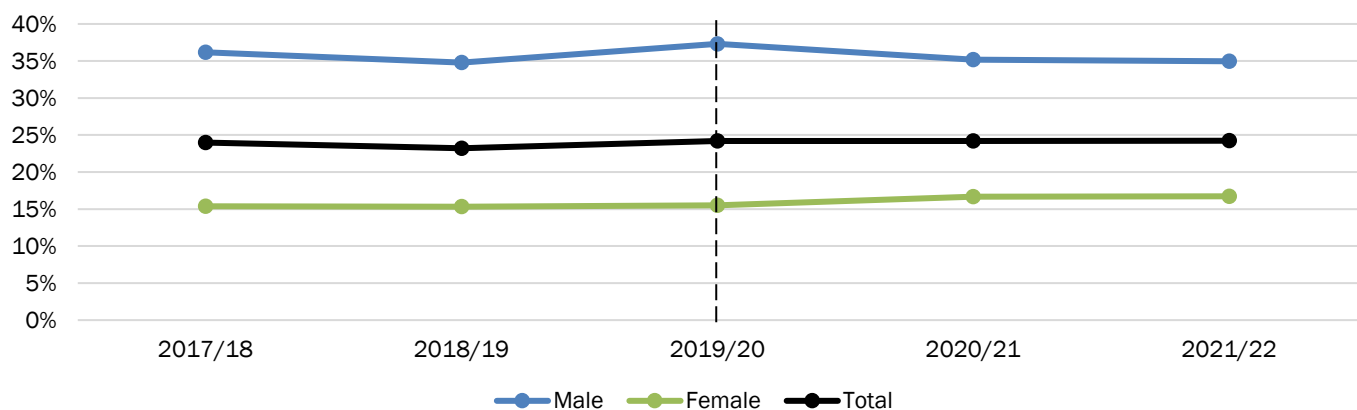
## Higher Education Statistical Fact Sheet 9: First Degree and Postgraduate Students with Narrow STEM Qualifications gained at NI HEIs (10X Strategic Goal) – 2017/18 to 2021/22

In March 2022, the Department for the Economy (DfE) published [Skills for a 10X Economy - Skills Strategy for Northern Ireland](#), which set out three strategic goals designed to deliver against the Department’s new economic vision [A 10X Economy – Northern Ireland’s decade of innovation](#).

Of these goals, Strategic Goal 1 is concerned with “increasing the proportion of individuals leaving Northern Ireland higher education institutions with first degrees and postgraduate qualifications in Narrow STEM subjects”. The baseline was set at the 2019/20 proportion of 24%, with a target of 27% by 2030.

- In 2021/22, 24% of students leaving NI HEIs gained first degree and postgraduate qualifications in Narrow STEM subjects; unchanged from the previous year and the 2019/20 baseline (Table 1).
- Although the proportion gaining Narrow STEM qualifications has not changed, the underlying number of NI HEI students with Narrow STEM qualifications has increased by 840 (3,565 to 4,405) from the 2019/20 baseline, with non-Narrow STEM qualifications also increasing over this period (Table 1).
- Males were twice as likely (35%) as females (17%) to gain first degree or postgraduate Narrow STEM qualifications at NI HEIs in 2021/22, which has changed little from the previous years (Table 1).
- The most popular Narrow STEM subjects at NI HEIs for first degree and postgraduate qualifiers in 2021/22 were Computing (33%) and Engineering and Technology (24%) (Table 2).
- For males, over two thirds of the relevant Narrow STEM qualifications were in Computing (41%) and Engineering and Technology (30%). Females were most likely to qualify in Psychology (30%), with a smaller proportion qualifying in Computing (20%) and Engineering and Technology (15%) (Table 2).

**Percentage of 'first degree' and 'postgraduate' students gaining qualifications at NI HEIs in Narrow STEM subjects by sex – 2017/18 to 2021/22**



**Table 1. Number (and %) of 'first degree' and 'postgraduate' students gaining qualifications at NI HEIs in Narrow STEM subjects by sex – 2017/18 to 2021/22**

Year	10X Narrow STEM Qualifications						All First Degree and Postgraduate Qualifications
	Male (with %)		Female (with %)		Total (with %)		
2017/18	2,085	36%	1,250	15%	3,330	24%	13,885
2018/19	2,185	35%	1,410	15%	3,595	23%	15,495
2019/20	2,190	37%	1,375	16%	3,565	24%	14,750
2020/21	2,650	35%	1,825	17%	4,475	24%	18,480
2021/22	2,620	35%	1,790	17%	4,405	24%	18,185

Source: Higher Education Statistics Agency (HESA)

**Table 2. Proportion of Narrow STEM qualifiers ('first degree' and 'postgraduate') at NI HEIs by subject area and sex – 2019/20 to 2021/22**

Subject Area	2019/20			2020/21			2021/22		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Biological and sports sciences	14%	21%	17%	12%	16%	14%	11%	15%	13%
Psychology	3%	27%	12%	4%	29%	14%	4%	30%	14%
Physical sciences	7%	8%	7%	6%	6%	6%	6%	7%	6%
Mathematical sciences	4%	5%	4%	4%	4%	4%	4%	4%	4%
Engineering and technology	31%	13%	24%	32%	14%	25%	30%	15%	24%
Computing	35%	18%	29%	37%	22%	31%	41%	20%	33%
Geography (natural sciences)	5%	8%	6%	4%	9%	6%	4%	8%	6%

Source: Higher Education Statistics Agency (HESA)

- Among NI HEI graduates, NI domiciled students (27%) continued to be more likely than those from elsewhere (19%) to gain a first degree or postgraduate qualification in a Narrow STEM subject in 2021/22 (Table 3).
- The overall number of 'non-NI domiciled' first degree and postgraduate qualifiers has increased by 60% since the baseline year (from 3,385 to 5,415) (Table 3). This increase is mainly due to international students enrolled on non-STEM Business and Management courses at Ulster University's Birmingham and London campuses. This may potentially have an impact on progression towards the 27% target in the coming years.
- Between 2017/18 and 2021/22, the number of Narrow STEM postgraduate qualifications more than doubled, from 790 to 1,815, alongside a smaller increase in first degree qualifications, from 2,540 to 2,590. Although this period saw the Narrow STEM share of postgraduate qualifications increase from 17% to 21%, it remained lower than that of first degrees (27% on average) (Table 4).

**Table 3. Number (and %) of 'first degree' and 'postgraduate' students gaining qualifications at NI HEIs in Narrow STEM subjects by country of domicile – 2017/18 to 2021/22**

Year	10X Narrow STEM Qualifications						All First Degree and Postgraduate Qualifications		
	NI (with %)		Non-NI (with %)		Total		NI	Non-NI	Total
2017/18	2,860	25%	475	18%	3,330	24%	11,295	2,585	13,885
2018/19	3,015	25%	580	18%	3,595	23%	12,295	3,200	15,495
2019/20	2,925	26%	640	19%	3,565	24%	11,365	3,385	14,750
2020/21	3,650	25%	825	20%	4,475	24%	14,415	4,070	18,480
2021/22	3,390	27%	1,020	19%	4,405	24%	12,770	5,415	18,185

Source: Higher Education Statistics Agency (HESA)

**Table 4. Number (and %) of 'first degree' and 'postgraduate' students gaining qualifications at NI HEIs in Narrow STEM subjects by level of study – 2017/18 to 2021/22**

Year	10X Narrow STEM Qualifications						All First Degree and Postgraduate Qualifications
	First degree (with %)		Postgraduate (with %)		Total (with %)		
2017/18	2,540	28%	790	17%	3,330	24%	13,885
2018/19	2,575	27%	1,020	17%	3,595	23%	15,495
2019/20	2,505	28%	1,060	19%	3,565	24%	14,750
2020/21	2,750	26%	1,725	22%	4,475	24%	18,480
2021/22	2,590	27%	1,815	21%	4,405	24%	18,185

Source: Higher Education Statistics Agency (HESA)

**Table 5. Number (and %) of 'first degree' and 'postgraduate' students gaining qualifications at NI HEIs in Narrow STEM subjects by mode of study – 2017/18 to 2021/22**

Year	10X Narrow STEM Qualifications						All First Degree and Postgraduate Qualifications
	Full-time (with %)		Part-time (with %)		Total (with %)		
2017/18	2,965	27%	370	12%	3,330	24%	13,885
2018/19	3,060	26%	535	14%	3,595	23%	15,495
2019/20	3,130	28%	435	13%	3,565	24%	14,750
2020/21	3,545	26%	930	20%	4,475	24%	18,480
2021/22	3,520	25%	885	22%	4,405	24%	18,185

Source: Higher Education Statistics Agency (HESA)

**Table 6. Number (and %) of Northern Ireland domiciled 'first degree' and 'postgraduate' students gaining qualifications at NI HEIs in Narrow STEM subjects by disability status – 2017/18 to 2021/22**

10X Narrow STEM Qualifications										
Disability status	2017/18		2018/19		2019/20		2020/21		2021/22	
Disability declared	350	26%	415	26%	460	28%	650	28%	600	26%
No disability declared	2,980	24%	3,180	23%	3,105	24%	3,825	24%	3,755	24%
Total <sup>1</sup>	3,330	24%	3,595	23%	3,565	24%	4,475	24%	4,405	24%

Source: Higher Education Statistics Agency (HESA)

**Table 7. Number (and %) of Northern Ireland domiciled 'first degree' and 'postgraduate' students gaining qualifications at NI HEIs in Narrow STEM subjects by Northern Ireland Multiple Deprivation Measure (NIMDM) quintiles – 2017/18 to 2021/22**

10X Narrow STEM Qualifications										
MDM Quintile	2017/18		2018/19		2019/20		2020/21		2021/22	
Q1 (Most deprived)	365	24%	425	26%	375	25%	480	25%	450	26%
Q2	545	26%	555	26%	545	25%	675	25%	595	26%
Q3	600	26%	610	24%	625	26%	775	25%	700	26%
Q4	710	26%	710	24%	700	26%	835	25%	830	27%
Q5 (Least deprived)	640	24%	715	24%	675	26%	885	26%	810	27%
Total	2,860	25%	3,015	25%	2,925	26%	3,650	25%	3,390	27%

Source: Higher Education Statistics Agency (HESA)

Note that NIMDM information is available for NI domiciled qualifiers only, so the proportions and figures presented for the total will not match those that relate to all qualifiers.

<sup>1</sup> Note that those whose disability status is unknown are not presented separately but are included in the total.

## Notes:

1. In March 2022, the Department for the Economy (DfE) published [Skills for a 10X Economy - Skills Strategy for Northern Ireland](#), “which sets out three strategic goals which, cumulatively, aim to address the skills imbalances in our economy and improve social inclusion and wellbeing across our society” and “are designed to deliver against” the Department’s new economic vision [A 10X Economy – Northern Ireland’s decade of innovation](#). Strategic Goal 1 aims to increase the proportion of individuals leaving NI HE institutions with first degrees and postgraduate qualifications in Narrow STEM subjects, from the 24% baseline of 2019/20 to the target of 27% by 2030.
2. As Strategic Goal 1 relates only to students receiving first degree and postgraduate qualifications, the stated proportions will differ from the Narrow STEM proportions published in our existing [qualifications bulletin](#).
3. The outbreak of the COVID-19 pandemic was declared by the World Health Organisation in March 2020, just over halfway through the 2019/20 academic year, and impacted on qualifications in several ways during the rest of that academic year and into 2020/21. These included course extensions, delays in awards in 2019/20 and the subsequent reporting of these awards in 2020/21. The figures presented in this bulletin, in particular time series analyses, should be viewed in the context of these past pandemic-related issues and care taken with the wider interpretation of the statistics.
4. 2019/20 saw the introduction of a new subject coding system, the Higher Education Classification of Subjects (HECoS). This replaced the previous subject coding system, the Joint Academic Coding System (JACS). The JACS Narrow STEM related courses presented for the years 2017/18 to 2018/19 include: Biological Sciences (including Psychology); Physical Sciences (including Physical Geography); Mathematical Sciences; Computer Science; and Engineering and Technology. CAH Narrow STEM related courses include: Biological and sports sciences; Psychology; Physical sciences; Mathematical sciences; Engineering and technology; Computing; and Geography, earth and environmental studies (natural sciences).
5. Due to changes in subject coding, Narrow STEM qualifiers broken down by subject area are only presented for the years 2019/20 to 2020/21.
6. More detailed information on both the Covid-19 impact and changes to subject coding can be found in Annex C of the 2021/22 [Qualifications Gained at UK Higher Education Institutions: Northern Ireland Analysis](#).
7. Figures are rounded to the nearest 5. Due to rounding, figures may not sum to totals. Percentages are based on unrounded figures and rounded to the nearest integer.

## Links:

More detailed statistics are available in open data format at the following link: [Higher Education Statistical Factsheets](#)

Additional Higher Education statistics are available from: [Higher Education Statistics and Research](#)