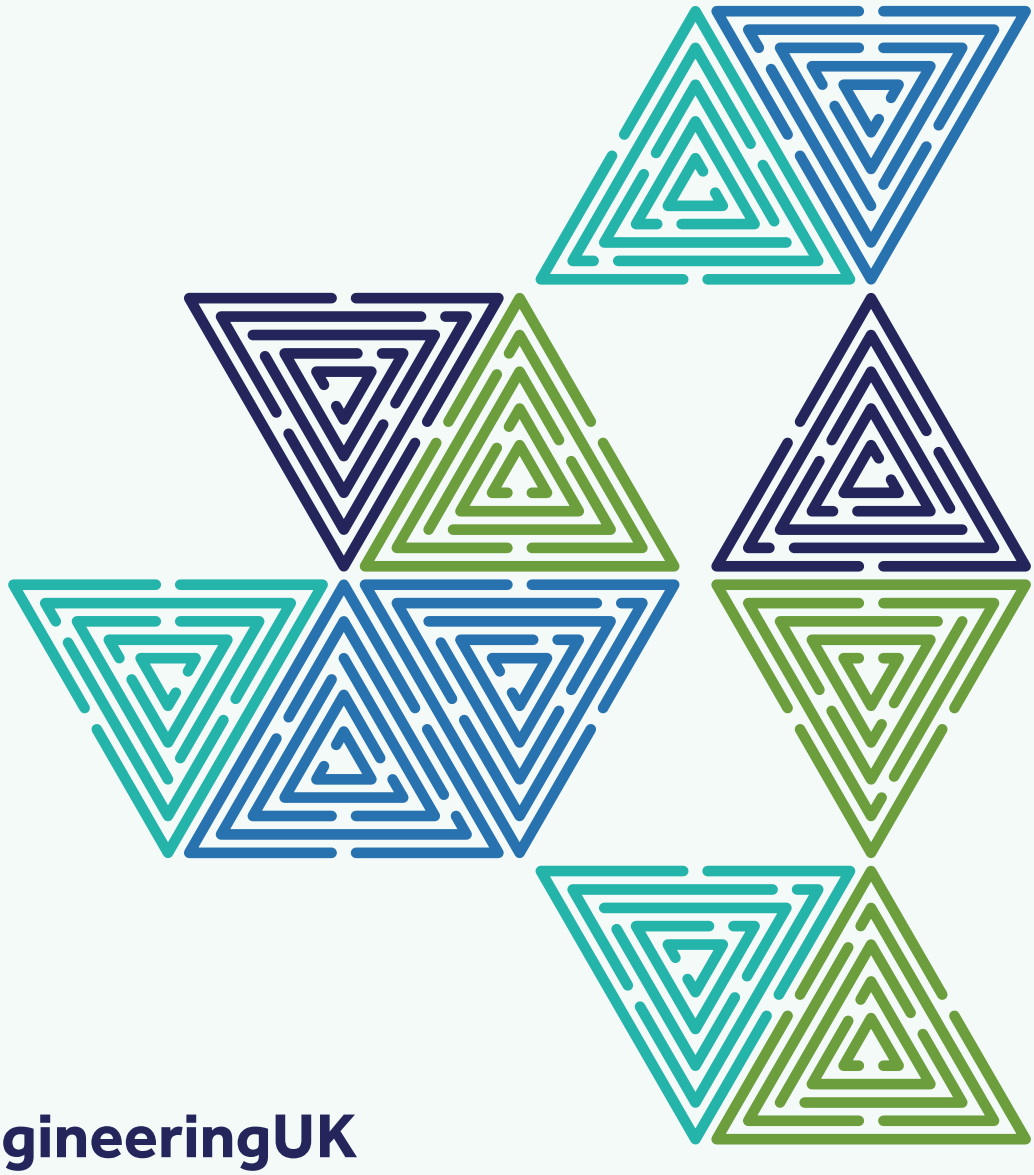
ENGINEERING & TECHNOLOGY IN HIGHER EDUCATION

Subject breakdown



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INSPIRING FUTURES TOGETHER

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Contents

Introduction

In the main 'Engineering and tech in Higher Education' report, we explored who is studying engineering and technology in higher education. Engineering and technology, however, is a vast, ever-changing discipline, ranging from electronics to artificial intelligence, from space, to production.

In this complementary report, we look at the top 13 most popular engineering and technology subjects in more detail. We have selected these 13, as each has 5,000+ student entrants. For each subject we will look at demographic characteristics, the class of degree obtained and the percentage currently in employment. Please see our 'Engineering and tech in Higher Education' report for more details on our methodology.

We already know further support is needed to ensure engineering and technology is accessible to all young people. Acknowledging the differences between these engineering and technology subjects ensures this support can be both informed and targeted.

Gender

Chemical engineering was the first degree subject[1] with the highest percentage of women (32.5%). There were differences at postgraduate level though - information systems had the highest percentage at 43.4%. The first degree subject with the smallest percentage was mechanical engineering at only 12.6%, 7.8pp below the average for all engineering and technology (20.4%).

Ethnicity

Half of computer science first degree students were from a UK minority ethnic (UKME) group (50.2%), whilst computer games and animation had the smallest percentage at only 1 in 5 (20.6%). This is 20.4pp below the average for all engineering and technology (40.1%). For postgraduates, the subject with the highest percentage of UKME groups was information technology (46.2%).

Disability

Computer games and animation, whilst having the smallest percentage of UKME groups had the highest percentage of disabled first degree students at nearly a third (31.8%). This was also the case for postgraduates at 20.9%. Electrical and electronic engineering had the smallest percentage of disabled first degree students at 11.4%, which was also below average for all engineering and technology subjects (15.4%).

[1] First degree undergraduate - students participating in their first programmes of study in a subject leading to qualifications at first or foundation degree level. A 'first degree' is more commonly known as a bachelor's degree.

Engineering and technology subjects at a glance

There are 13 engineering and technology subjects with over 5,000 entrants. These range from computer science with 44,270, to chemical, process and energy engineering with 5,250.

Between 2019/20 and 2023/24, several subjects have seen year-on-year increases in the number of students, regardless of the level of study. These include: production and manufacturing engineering, aeronautical and aerospace engineering, computer science, software engineering and artificial intelligence.

For the remainder of subjects whether there was an increase or decrease in the number of students depended on the level of study. For example, whilst there has been a decrease in the number of students studying civil engineering at first degree and other undergraduate level[2], there was an increase in postgraduates. For computer games and animation, there was an increase in student numbers for all levels of study apart from other undergraduate students (table 1).

Table 1: Number of students by engineering subject from 2019/20 to 2023/24, by level of study

Engineering subject	Level of study	Academic Year				
		2019/20	2020/21	2021/22	2022/23	2023/24
Aeronautical and aerospace engineering	First degree	3,745	3,845	3,730	3,765	3,945
	Other undergraduate	80	120	90	85	105
	Postgraduate (research)	170	230	170	165	170
	Postgraduate (taught)	1,090	1,100	1,085	1,035	1,120
Artificial intelligence	First degree	525	715	670	720	965
	Other undergraduate	-	5	15	115	55
	Postgraduate (research)	85	140	135	160	175
	Postgraduate (taught)	1,330	2,485	3,175	4,265	4,515
Chemical, process and energy engineering	First degree	2,925	2,825	2,505	2,405	2,510
	Other undergraduate	80	100	160	125	110
	Postgraduate (research)	510	575	540	490	515
	Postgraduate (taught)	2,025	2,035	2,420	2,510	2,115
Civil engineering	First degree	5,720	5,500	5,575	5,115	5,215
	Other undergraduate	475	355	380	325	305
	Postgraduate (research)	435	515	415	460	445
	Postgraduate (taught)	3,120	3,290	3,650	3,990	3,325
Computer games and animation	First degree	4,850	4,745	4,250	5,175	5,150
	Other undergraduate	140	95	100	115	120

[2] These are degrees with qualification aims equivalent to and below first degree level and can include Higher National Diplomas (HND), foundation courses at higher education level, National Vocational Qualifications (NVQs)/Scottish Vocational Qualification (SVQ) at NQF levels 4 and 5, professional qualifications at undergraduate level and non-formal undergraduate qualifications. Click here to view HESA's full definition: Definitions and data standards | HESA

	Postgraduate (research)	20	15	15	20	25
	Postgraduate (taught)	705	695	885	1,030	1,130
Computer science	First degree	18,360	20,250	19,465	21,845	24,275
	Other undergraduate	1,020	1,160	890	1,675	1,755
	Postgraduate (research)	1,390	1,455	1,295	1,280	1,440
	Postgraduate (taught)	9,905	12,930	13,740	16,430	16,800
Electrical and electronic engineering	First degree	6,175	6,240	5,930	6,000	5,760
	Other undergraduate	1,025	885	735	795	850
	Postgraduate (research)	845	930	835	745	800
	Postgraduate (taught)	4,105	4,420	4,985	5,245	4,705
Engineering (non-specific)	First degree	6,295	6,220	5,885	5,975	5,345
	Other undergraduate	1,470	1,380	1,500	1,625	1,445
	Postgraduate (research)	820	885	775	880	885
	Postgraduate (taught)	2,630	2,980	3,695	4,470	3,570
Information systems	First degree	765	795	755	725	700
	Other undergraduate	120	80	125	70	125
	Postgraduate (research)	85	125	95	105	120
	Postgraduate (taught)	2,920	3,870	5,655	6,760	6,200
Information technology	First degree	3,555	3,475	3,070	3,655	3,745
	Other undergraduate	695	845	720	800	1,000
	Postgraduate (research)	30	40	40	45	30
	Postgraduate (taught)	705	975	1,695	2,065	1,740
Mechanical engineering	First degree	8,450	8,795	8,395	8,300	8,270
	Other undergraduate	540	465	415	515	450
	Postgraduate (research)	520	590	440	425	455
	Postgraduate (taught)	2,385	2,330	2,385	2,340	2,435
Production and manufacturing engineering	First degree	2,530	2,430	2,350	2,675	2,730
	Other undergraduate	130	195	265	280	180
	Postgraduate (research)	235	265	235	260	235
	Postgraduate (taught)	2,555	2,855	3,535	3,525	2,805
Software engineering	First degree	4,215	5,265	5,335	6,125	6,790
	Other undergraduate	40	130	85	235	180
	Postgraduate (research)	40	35	40	40	55
	Postgraduate (taught)	2,840	3,705	4,220	5,250	5,205

Aeronautical and aerospace engineering

In 2023/24, there were 5,340 entrants studying aeronautical and aerospace engineering in higher education. This was made up of 3,945 first degree undergraduates, 105 other undergraduate students, along with 1,290 postgraduate students (taught and research).

Undergraduate first degree entrants

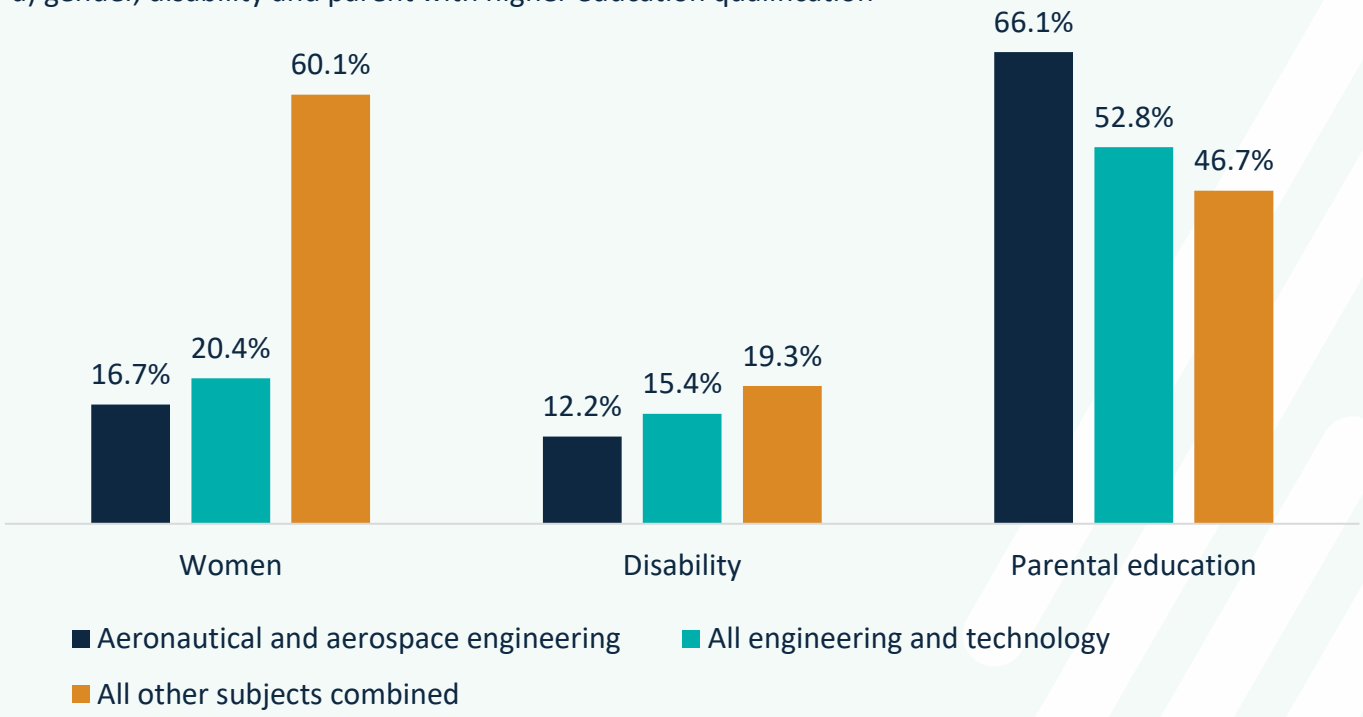
Aeronautical and aerospace engineering was the 9th most popular choice for undergraduate first degrees in engineering and technology in 2023/24. This was equivalent to 4.9% of all engineering and technology entrants at this level. Of these:

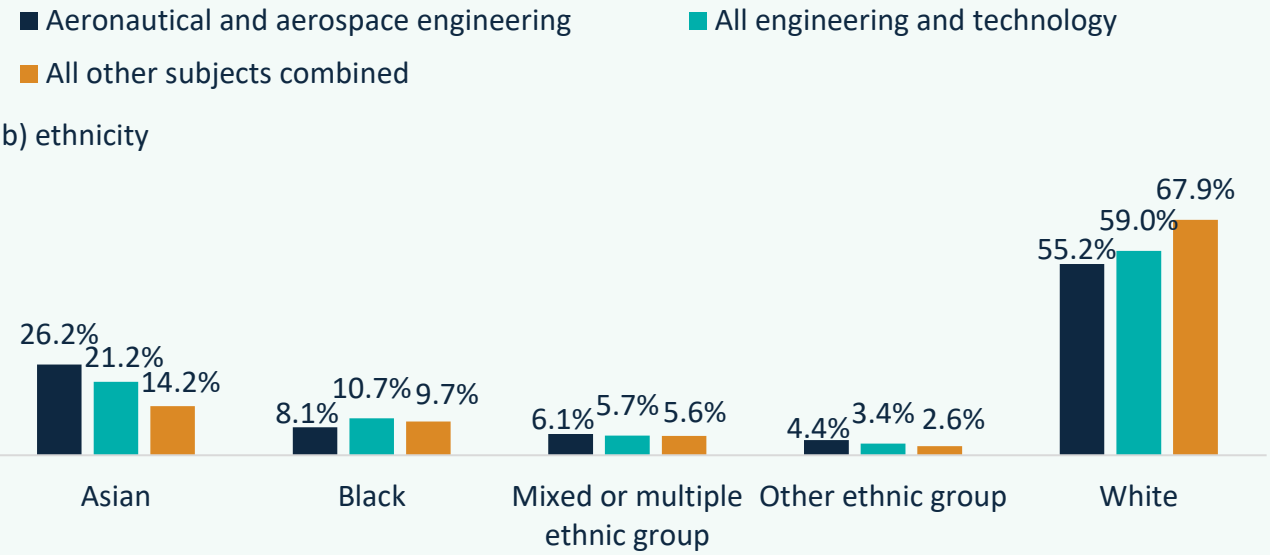
- 16.7% were women
- 44.8% were from a UKME group
- 12.2% had a known disability
- 11.1% were from low higher education participation areas (POLAR4 quintile 1)
- 79.4% were from the UK, 2.9% from the EU and 17.6% were from the rest of the world

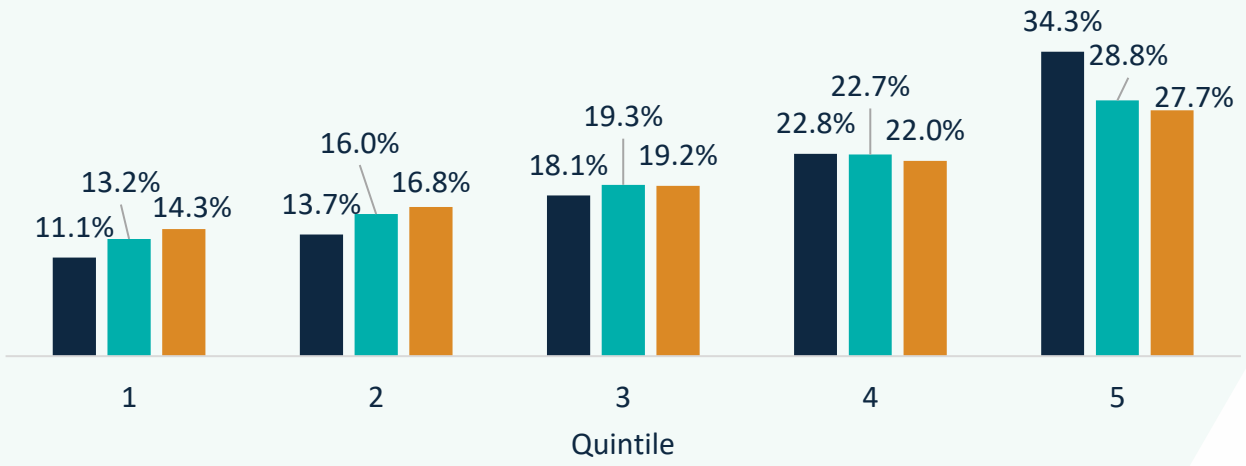
Aeronautical and aerospace engineering had the highest percentage of first degree students with a parent who also had a higher education qualification. At two-thirds (66.1%), this was 13.3pp higher than the average for all engineering and technology subjects and 19.4 pp above all other subjects (figure 1).

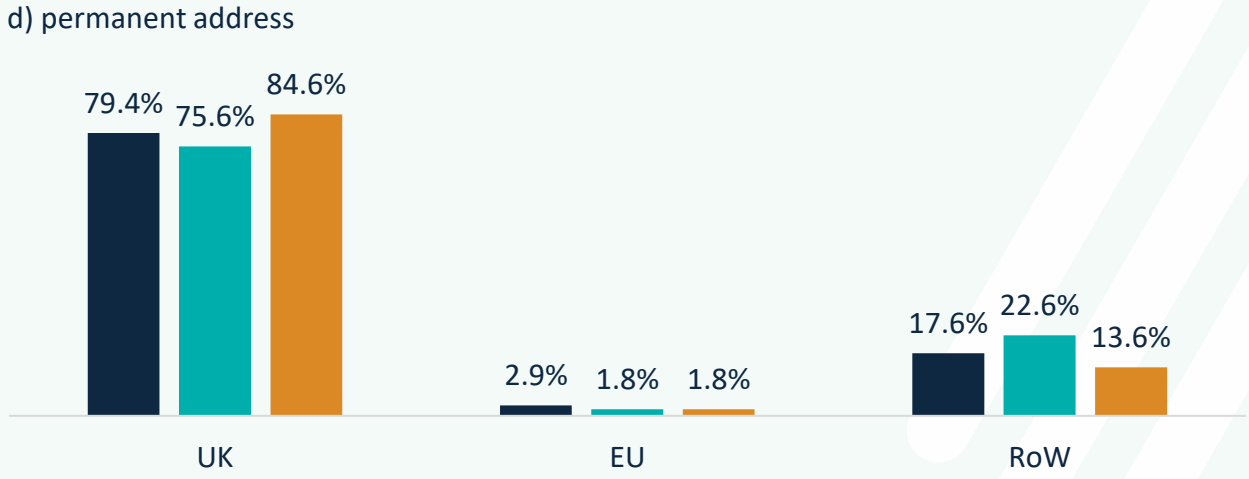
Figure 1: Characteristics of undergraduate entrants

a) gender, disability and parent with higher education qualification




Aeronautical and aerospace engineering
All engineering and technology
All other subjects combined
b) ethnicity
26.2%
21.2%
14.2%
8.1%
10.7%
9.7%
6.1%
5.7%
5.6%
4.4%
3.4%
2.6%
55.2%
59.0%
67.9%
Asian
Black
Mixed or multiple ethnic group
Other ethnic group
White


c) Socioeconomic status (POLAR4)
11.1%
13.2%
14.3%
13.7%
16.0%
16.8%
18.1%
19.3%
19.2%
22.8%
22.7%
22.0%
34.3%
28.8%
27.7%
1
2
3
4
5
Quintile


d) permanent address
79.4%
75.6%
84.6%
2.9%
1.8%
1.8%
17.6%
22.6%
13.6%
UK
EU
RoW

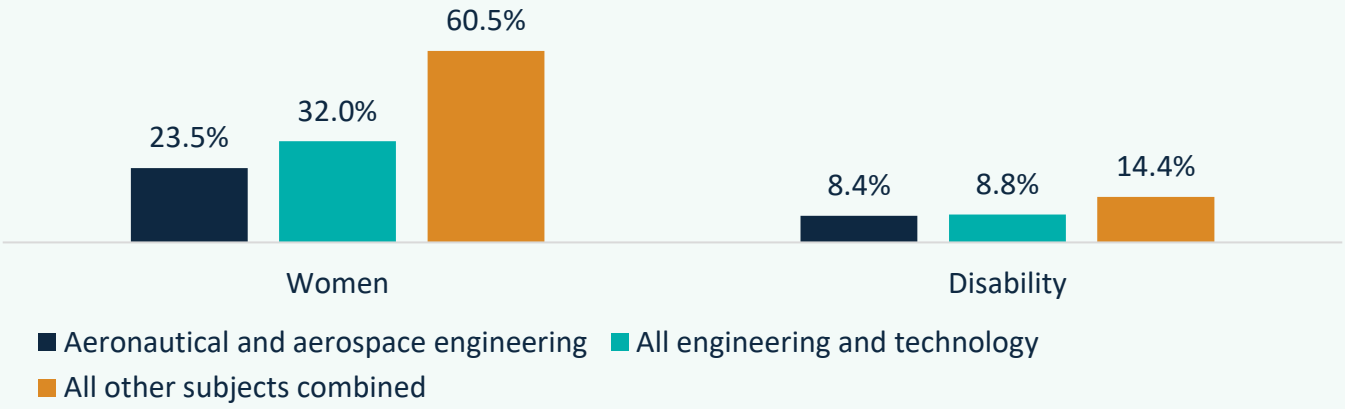
Postgraduate degree entrants

Aeronautical and aerospace engineering was the 12th most popular postgraduate degree among engineering and technology subjects. Of these:

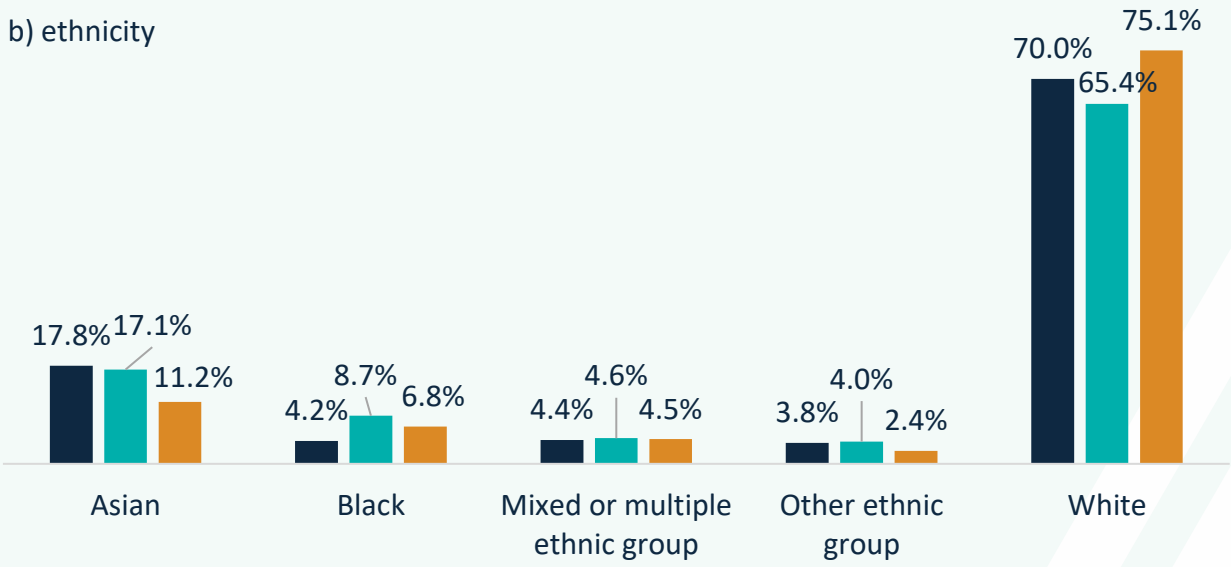
- 23.5% were women
- 8.4% were known to have a disability
- 30.1% were from a UK minority ethnic group (UKME) (figure 2)

Figure 2: Characteristic of postgraduate degree entrants

a) gender and disability



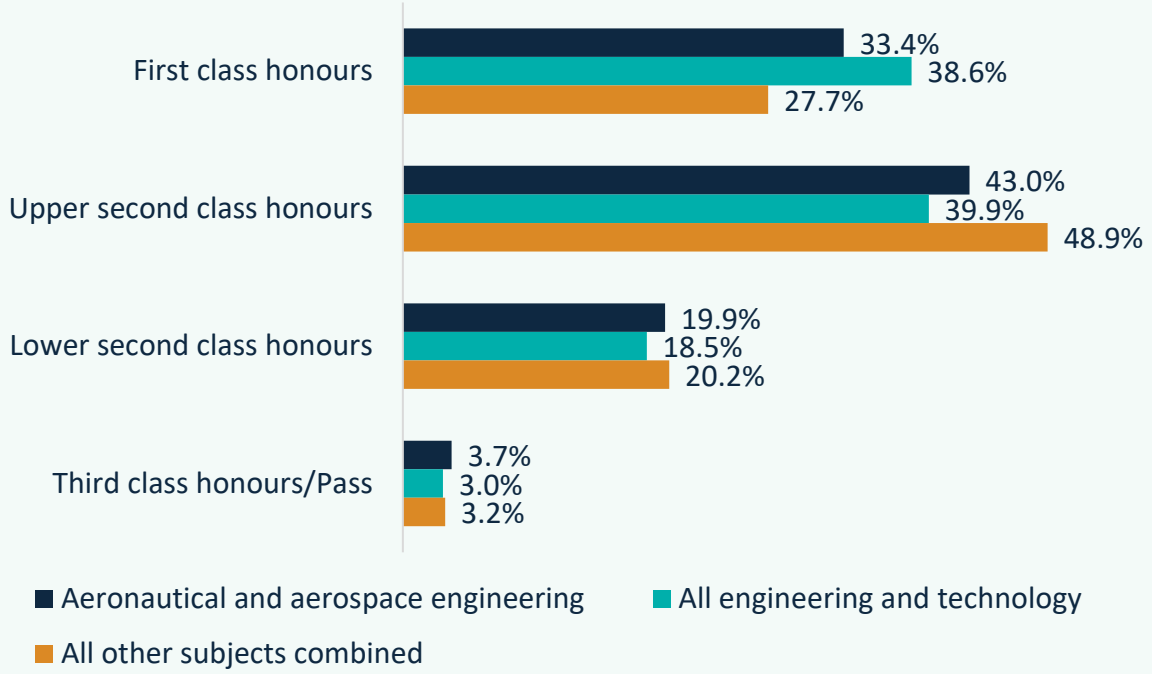
b) ethnicity



Undergraduate first degree qualifiers

Aeronautical and aerospace engineering first degree qualifiers were the least likely to obtain a first class honours at a third (33.4%) compared to the other engineering and technology subjects included in this report. The majority obtained an upper second class honours (43.0%), which was above the average for all engineering and technology at 39.9% (figure 3).

Figure 3: Aeronautical and aerospace engineering results, 2023/24

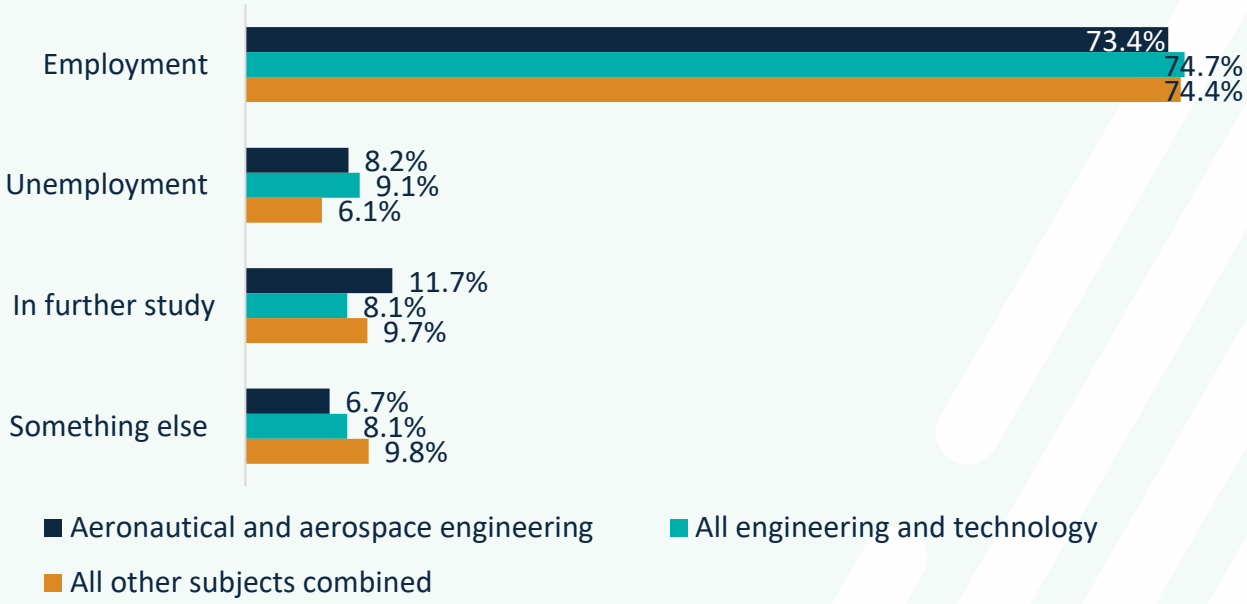


Graduate outcomes

73.3% of students who graduated from aeronautical and aerospace engineering degrees in 2022/23 were in employment 15 months after graduating. Of these, 63.6% were working in an engineering and technology occupation, which is above average for engineering and technology graduates (59.7%).

Aeronautical and aerospace graduates were the most likely to be in further studies at over 1 in 10 (11.7%). 8.2% were unemployed and looking for work. For unemployment, this is slightly below average for all engineering and technology graduates (9.1%) (figure 4).

Figure 4: Outcomes for aeronautical and aerospace graduates



Artificial Intelligence

In 2023/24, there were 5,710 entrants studying artificial intelligence in higher education. The majority of those studying artificial intelligence were postgraduates with 4,690 studying either taught or research postgraduate degrees. A further 965 were first degree students and 55 were studying AI in other undergraduate courses.

Undergraduate first degree entrants

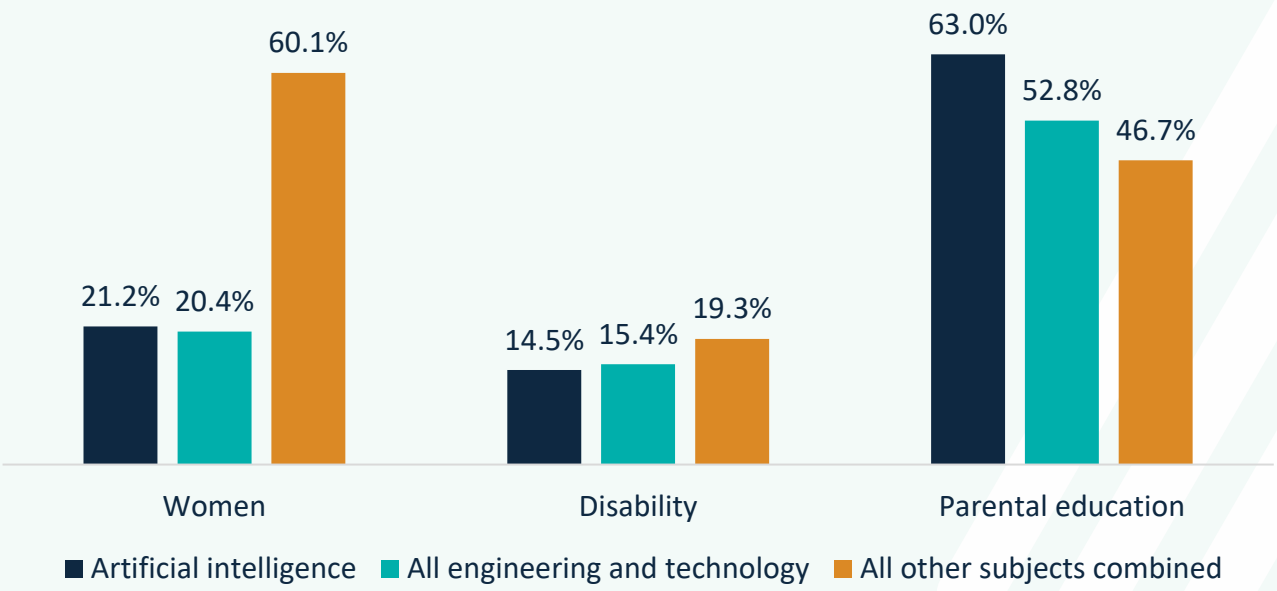
Artificial intelligence was the 13th most popular choice for undergraduate degrees in engineering and technology in 2023/24 and far more popular amongst postgraduates. This was equivalent to 1.2% of all engineering and technology entrants at first degree level. Of these:

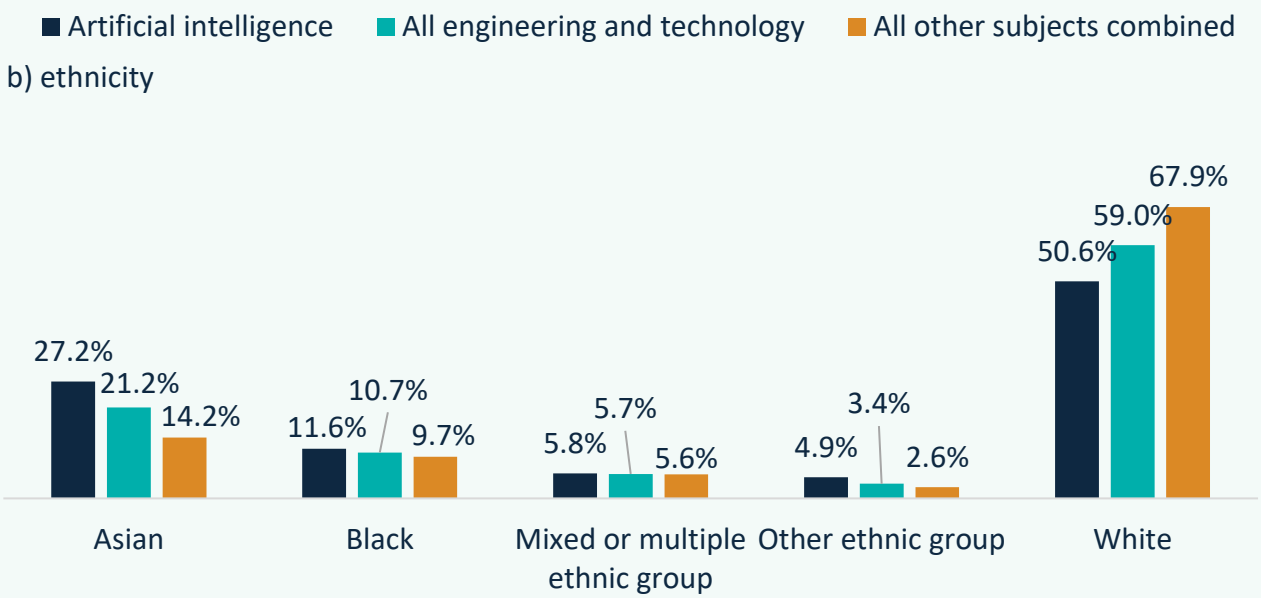
- 21.2% were women
- 49.5% were from a UKME group
- 14.5% had a known disability
- 13.3% were from low higher education participation areas (POLAR4 quintile 1)
- 57.3% were from the UK, 1.5% from the EU and 41.3% were from the rest of the world

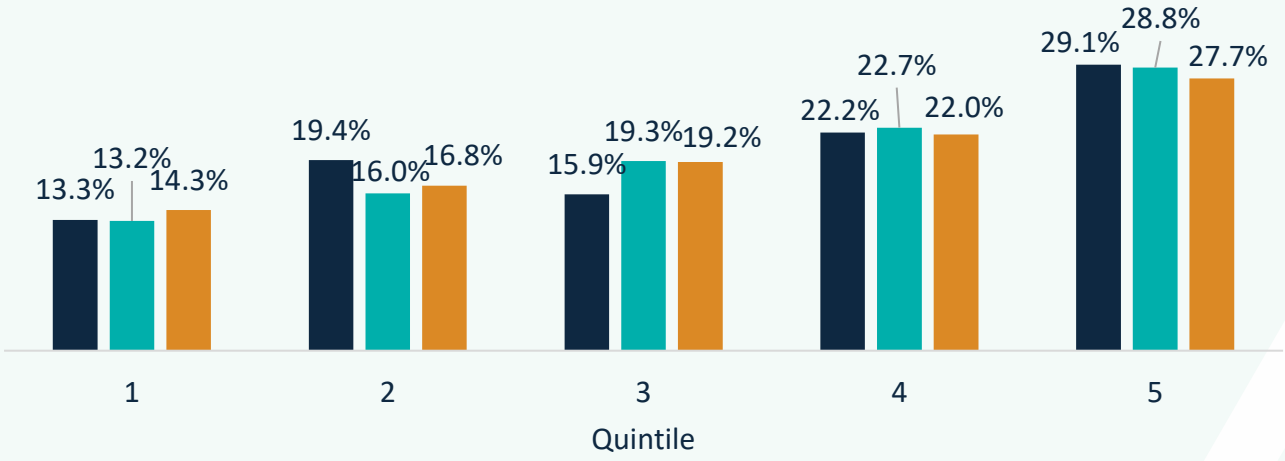
Compared to other engineering and technology subjects at this level of study, artificial intelligence had the highest percentage of international students (RoW) at 4 in 10 (41.3%). It also had the highest proportion of students from an 'other ethnic group' at 4.9%, compared to 3.4% for all engineering and technology subjects (figure 5).

Figure 5: Characteristics of undergraduate entrants

a) gender, disability and parent with higher education qualification




Artificial intelligence
All engineering and technology
All other subjects combined
b) ethnicity
27.2%
21.2%
14.2%
11.6%
10.7%
9.7%
5.8%
5.7%
5.6%
4.9%
3.4%
2.6%
50.6%
59.0%
67.9%
Asian
Black
Mixed or multiple ethnic group
Other ethnic group
White


c) socioeconomic status (POLAR4)
13.3%
13.2%
14.3%
19.4%
16.0%
16.8%
15.9%
19.3%
19.2%
22.2%
22.7%
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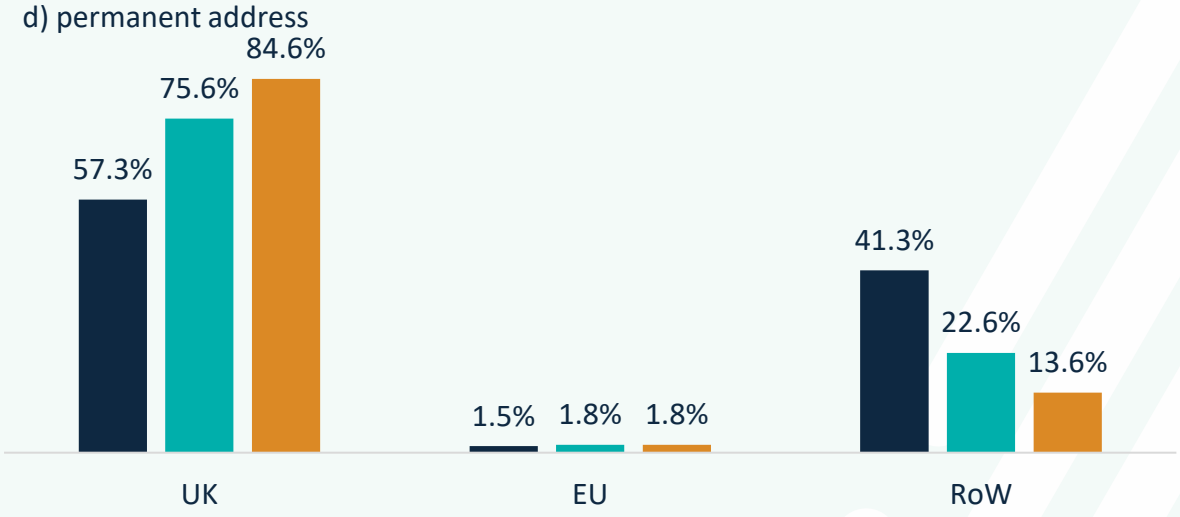

d) permanent address
57.3%
75.6%
84.6%
1.5%
1.8%
1.8%
41.3%
22.6%
13.6%
UK
EU
RoW

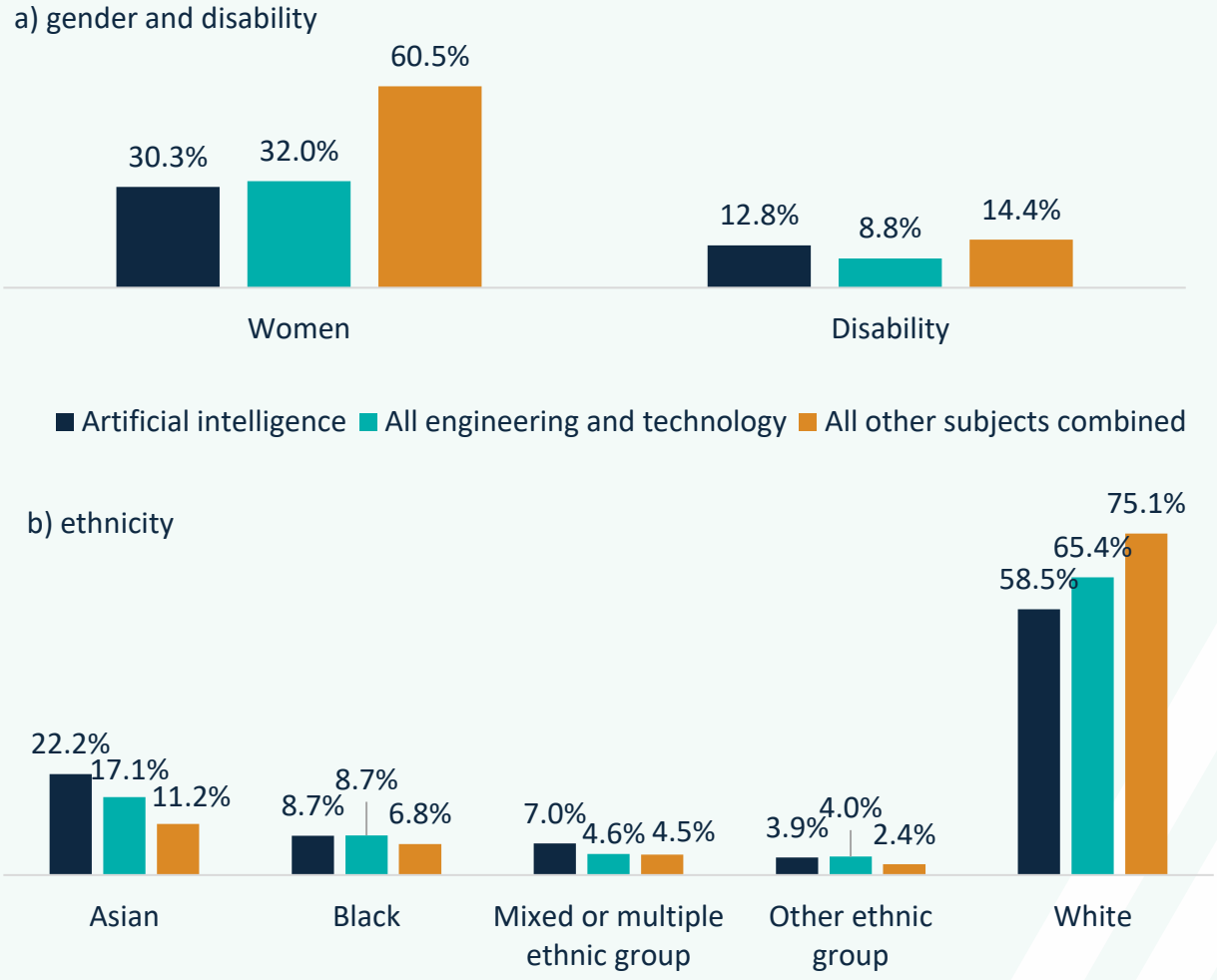
Postgraduate degree entrants

Artificial intelligence was the 8th most popular postgraduate engineering and technology subject. Of these:

- 30.3% were women
- 12.8% had a known disability
- 41.7% were from a UKME group

Artificial intelligence had the highest percentage of Asian students at postgraduate level at over 1 in 5 (22.2%). This is compared to the average of 17.1% for all engineering and technology combined at postgraduate level (figure 6).

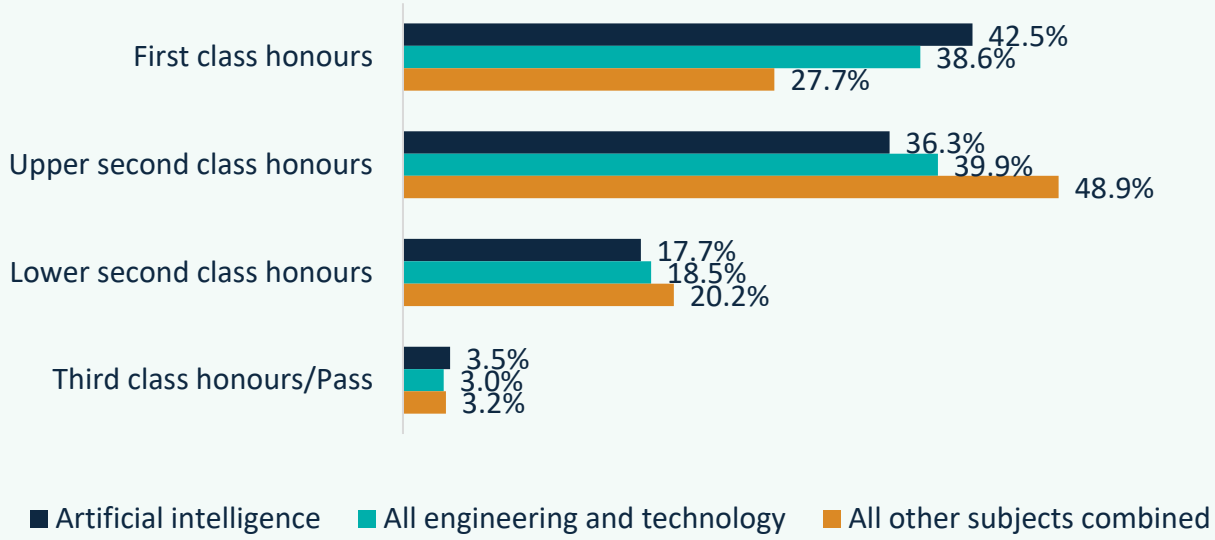
Figure 6: Characteristic of postgraduate degree entrants



Undergraduate first degree qualifiers

More than 4 in 10 artificial intelligence first degree qualifiers (the majority) achieved a first class honours (42.5%). Over a third obtained an upper second class honours at 36.3%. The percentage of lower second class honours in artificial intelligence was slightly below the average for all engineering and technology (17.7% compared to 18.5%). Only 3.5% obtained third class honours (figure 7).

Figure 7: Artificial intelligence results, 2023/24

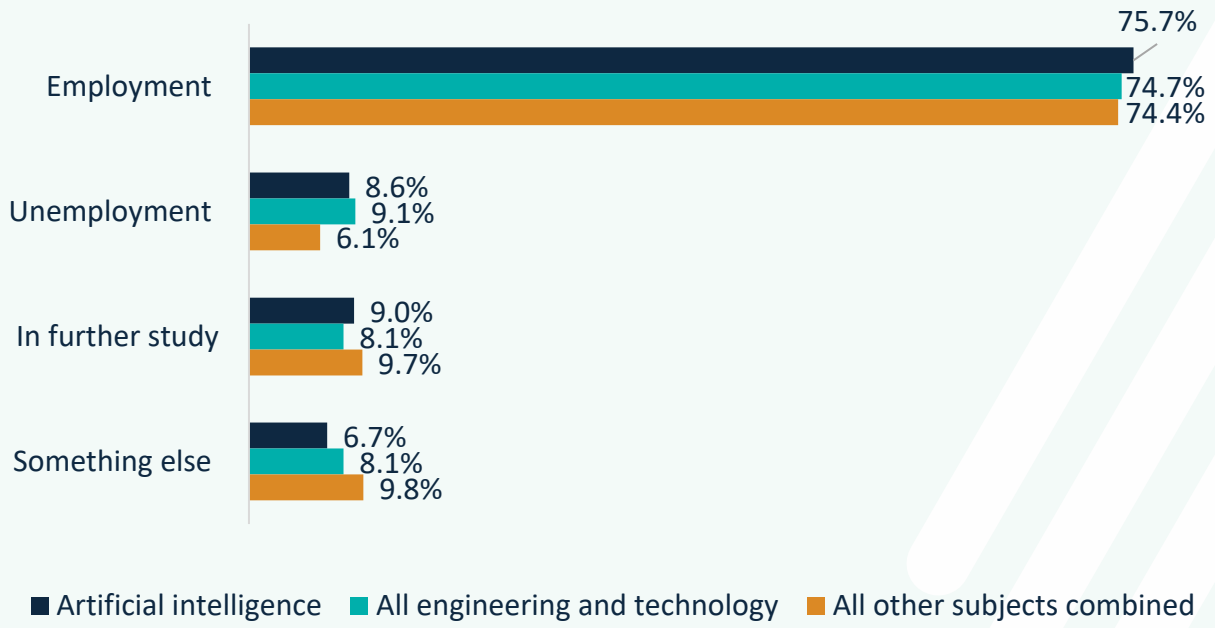


Graduate outcomes

Three-quarters of students who graduated from artificial intelligence degrees in 2022/23 were in employment 15 months after graduating (75.7%). Of these, 57.4% were working in an engineering and technology occupation, which is below average compared to all engineering and technology subjects (59.7%).

9.0% had gone on to further study and 8.6% were unemployed and looking for work. For unemployment, this is slightly below average for all engineering and technology graduates.

Figure 8: Outcomes for artificial intelligence graduates



Chemical, process and energy engineering

In 2023/24, there were 5,250 entrants studying chemical, process and energy engineering in higher education. This was made up of 2,510 first degree undergraduates, 110 studying other undergraduate courses and 2,630 postgraduate students (taught and research).

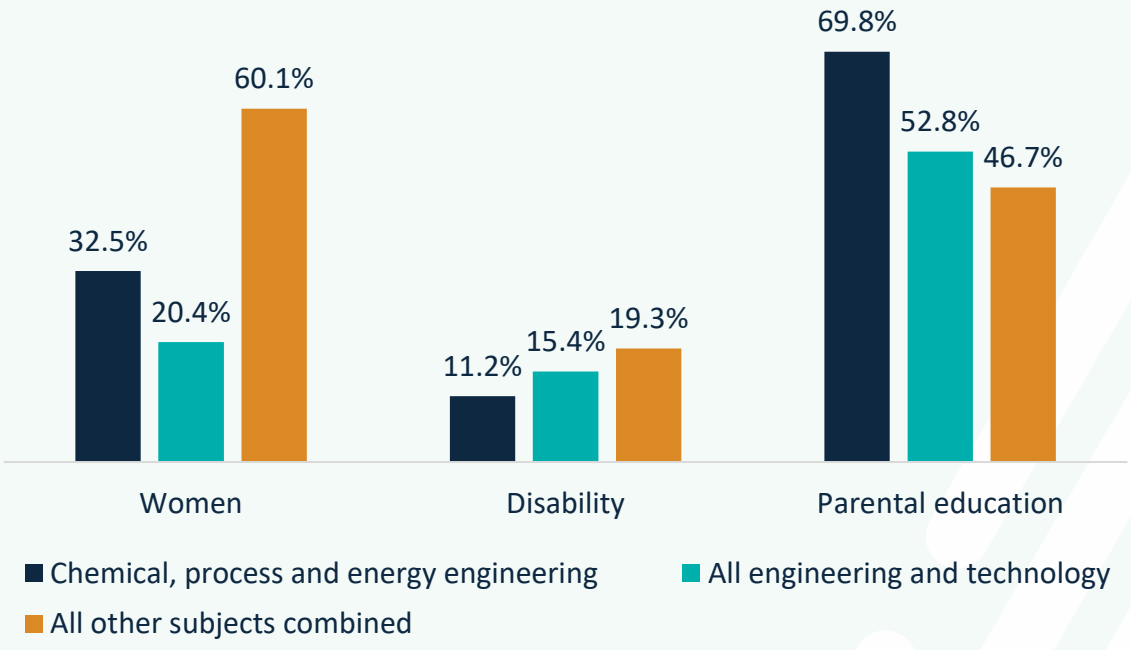
Undergraduate first degree entrants

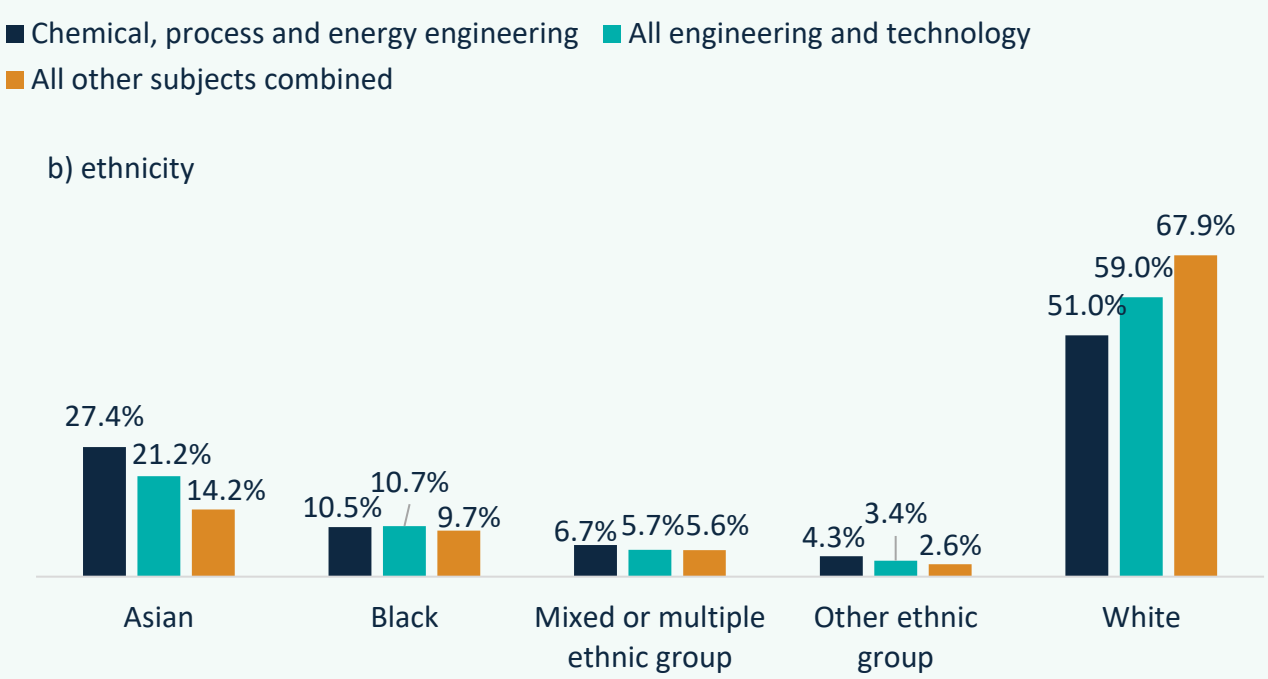
Chemical, process and energy engineering was the 11th most popular choice for undergraduate degrees in engineering and technology in 2023/24. This was equivalent to 3.1% of all engineering and technology entrants at this level. Of these:

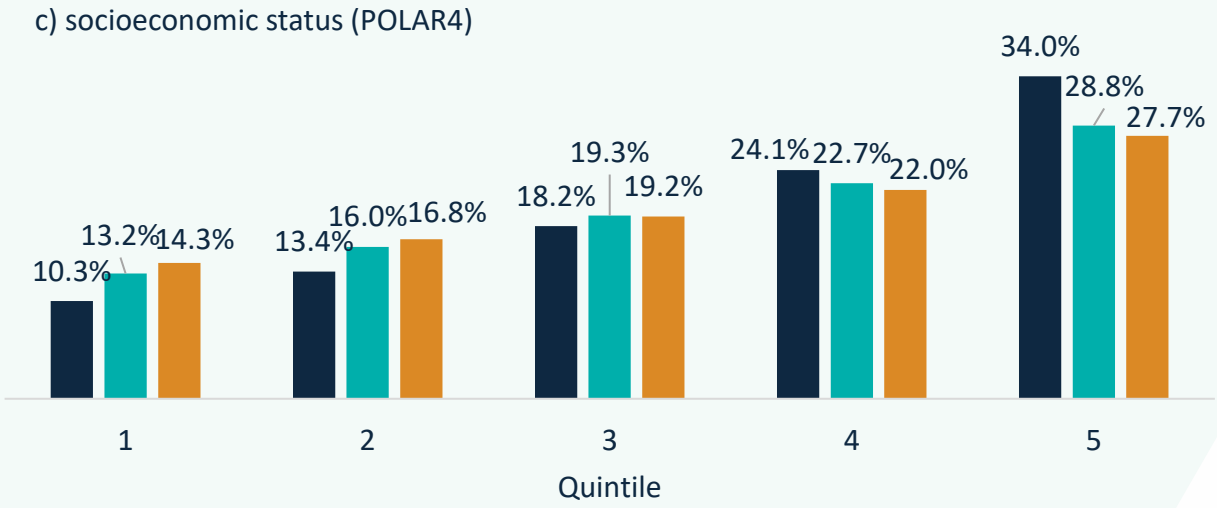
- 32.5% were women
- 48.9% were from a UKME group
- 11.2% had a known disability
- 10.3% were from low higher education participation areas (POLAR4 quintile 1)
- 71.5% were from the UK, 3.4% from the EU and 25.1% were from the rest of the world

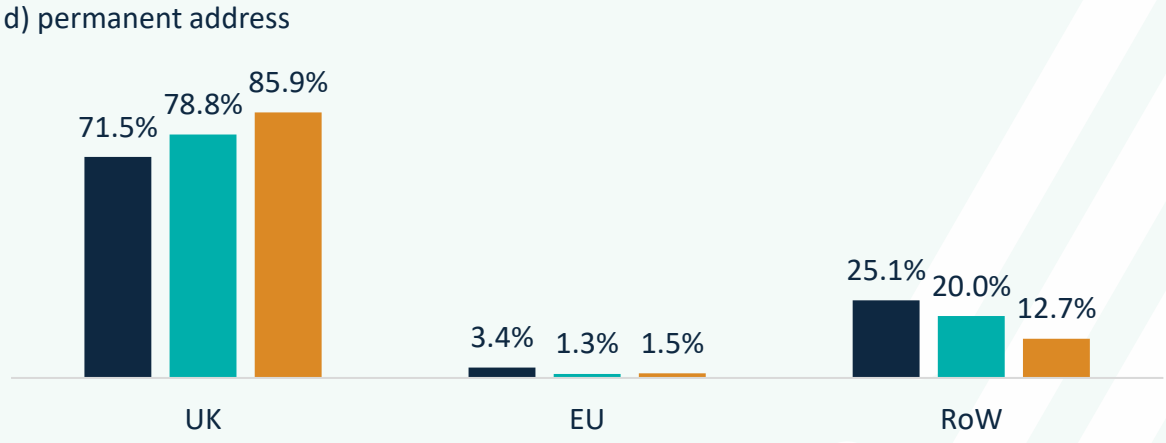
Alongside civil engineering and compared to other engineering and technology subjects, 'chemical, process and energy engineering' had the lowest percentage of disabled students at this level. Only 1 in 10 (11.2%) had a disability. It also had the smallest proportion of students from the least advantaged areas of the UK, also at 1 in 10 (10.3%). It did, however, have the highest percentage of women at nearly a third. It also had the highest percentage of Asian and Mixed or multiple ethnic group students at over a quarter (27.4%) and 6.7% respectively. This is compared to 21.2% and 5.7% for all engineering and technology subjects (respectively) (figure 9).

Figure 9: Characteristics of undergraduate entrants




Chemical, process and energy engineering
All engineering and technology
All other subjects combined
b) ethnicity
27.4%
21.2%
14.2%
10.5%
10.7%
9.7%
6.7%
5.7%
5.6%
4.3%
3.4%
2.6%
51.0%
59.0%
67.9%
Asian
Black
Mixed or multiple ethnic group
Other ethnic group
White


c) socioeconomic status (POLAR4)
10.3%
13.2%
14.3%
13.4%
16.0%
16.8%
18.2%
19.3%
19.2%
24.1%
22.7%
22.0%
34.0%
28.8%
27.7%
1
2
3
4
5
Quintile


d) permanent address
71.5%
78.8%
85.9%
3.4%
1.3%
1.5%
25.1%
20.0%
12.7%
UK
EU
RoW

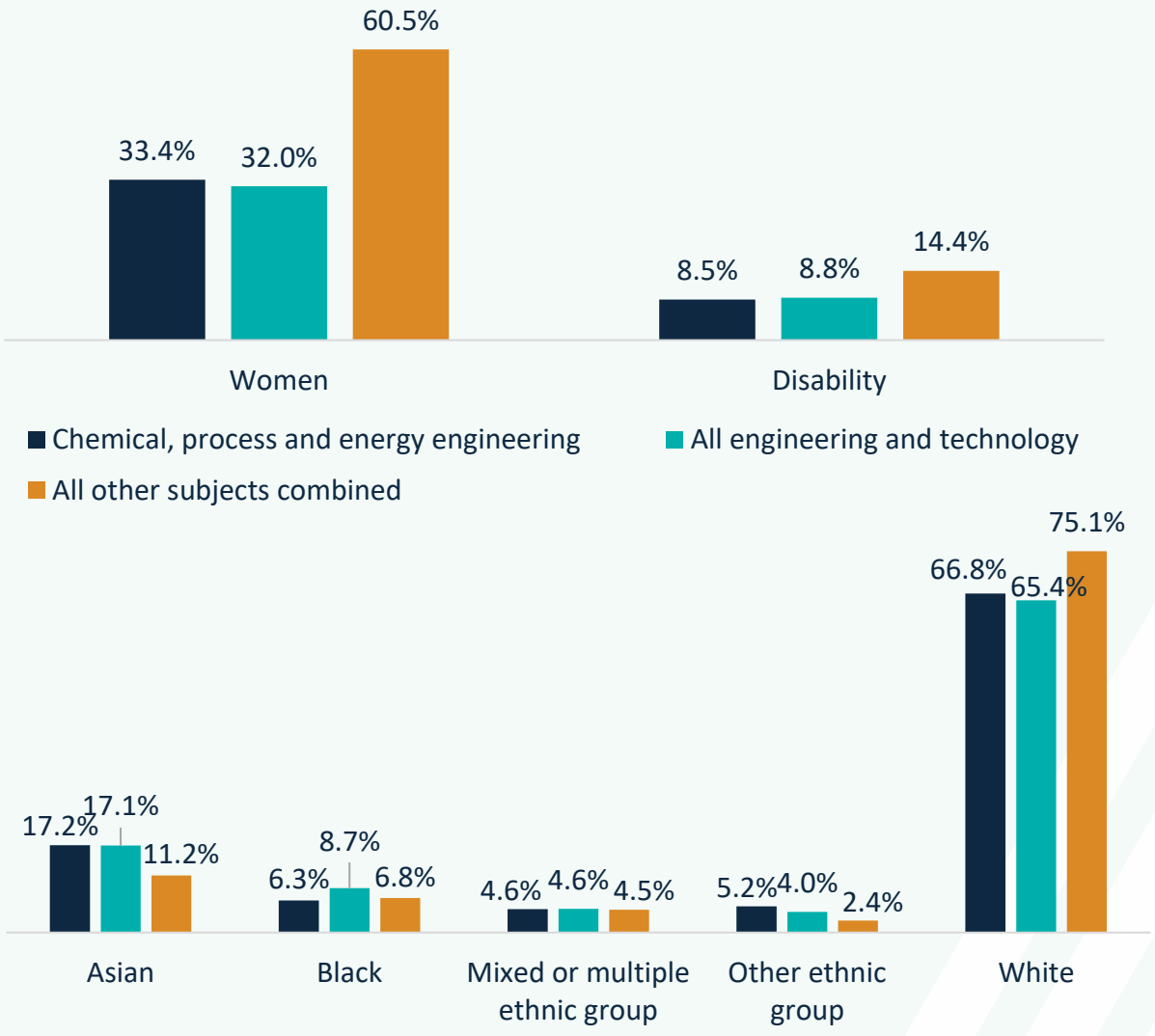
Postgraduate degree entrants

Chemical, process and energy engineering was the 6th most popular engineering and technology subject amongst postgraduate entrants. Of these:

- 33.4% were women
- 8.5% were known to have a disability
- 33.3% were from a UKME group.

At postgraduate level, chemical, process and energy engineering had the highest percentage of students from an 'other ethnic group' at 5.2%. This is compared to the average of 4.0% for all engineering and technology subjects (figure 10).

Figure 10: Characteristic of postgraduate degree entrants

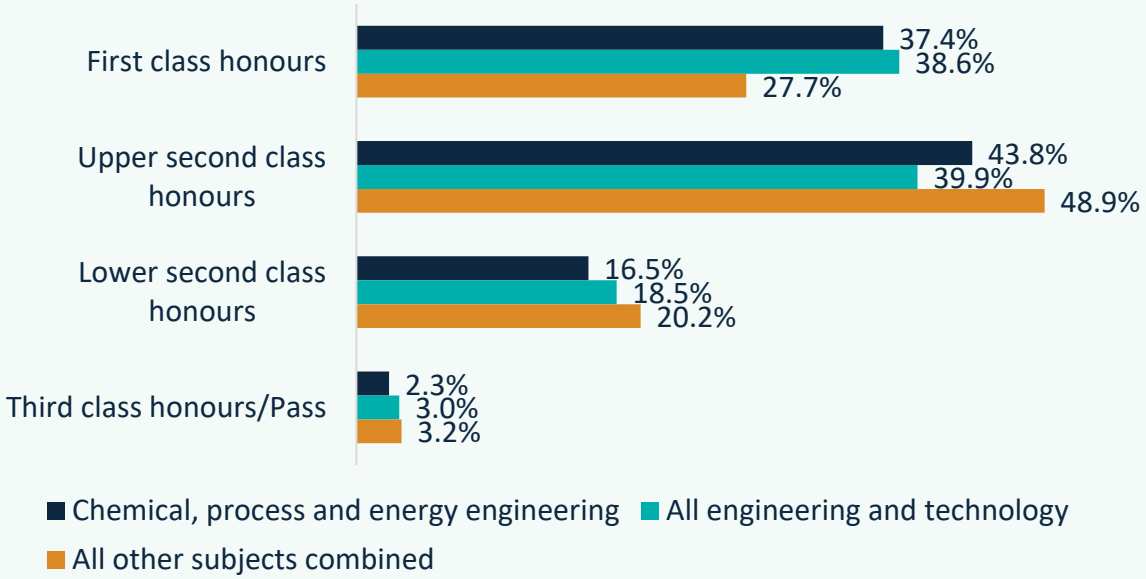


Undergraduate first degree qualifiers

37.4% of chemical, process and energy first degree qualifiers achieved a first class honours. Chemical, process and energy first degree qualifiers were the most likely to achieve an upper

second class honours at 43.8%, compared to other engineering and technology subjects. This was 3.9 pp higher than the average for all engineering and technology.

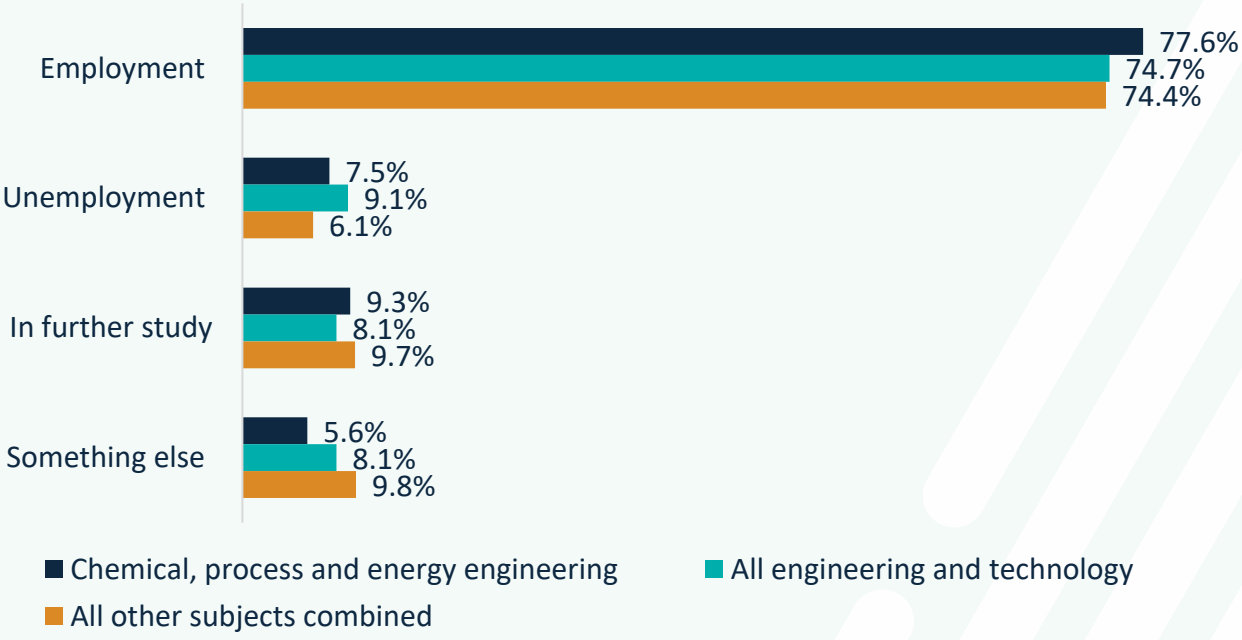
Figure 11: Chemical, process and energy results, 2023/24



Graduate outcomes

Over three-quarters of students who graduated from chemical, process and energy engineering degrees were in employment 15 months after graduating (77.6%). This is above the average for all engineering and technology graduates combined (74.7%). Over half were working in an engineering and technology occupation (57.3%) which is below average compared to all engineering and technology subjects (59.7%). 7.5% were unemployed and looking for work.

Figure 12: Outcomes for chemical, process and energy engineering graduates



Civil engineering

In 2023/24, there were 9,290 entrants studying civil engineering in higher education. This was made up of 5,215 first degree students and 305 other undergraduates, along with 3,770 postgraduate students (taught and research).

Undergraduate first degree entrants

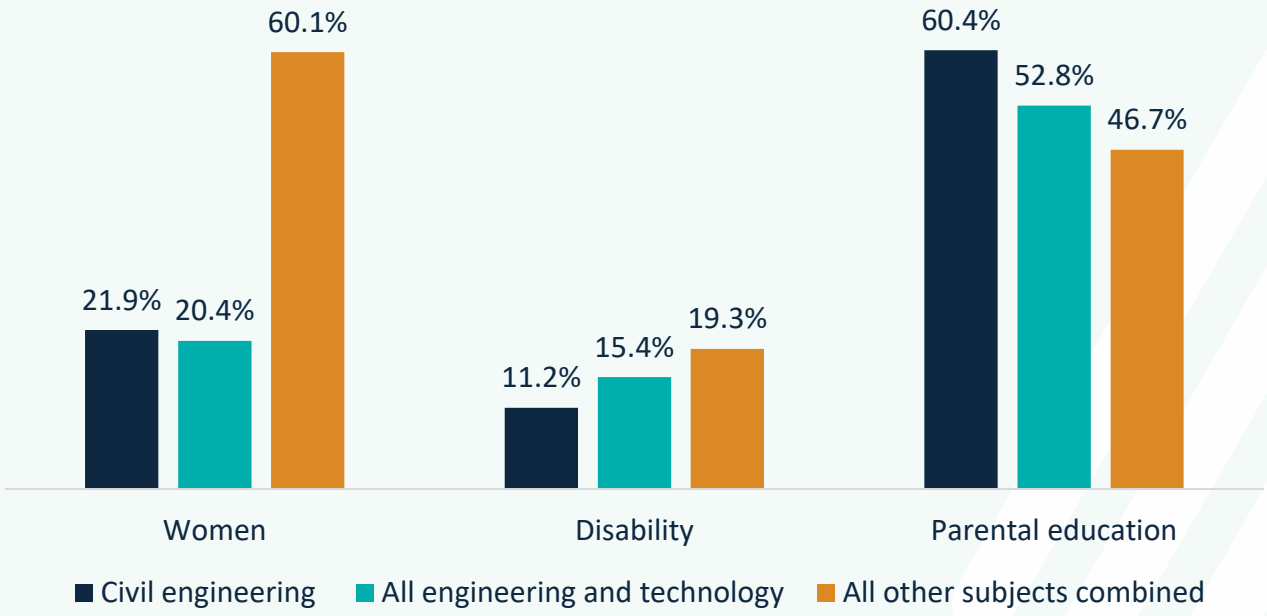
Civil engineering was the 6th most popular choice for first degree undergraduate entrants in engineering and technology in 2023/24. This was equivalent to 6.5% of all engineering and technology entrants at this level. Of these:

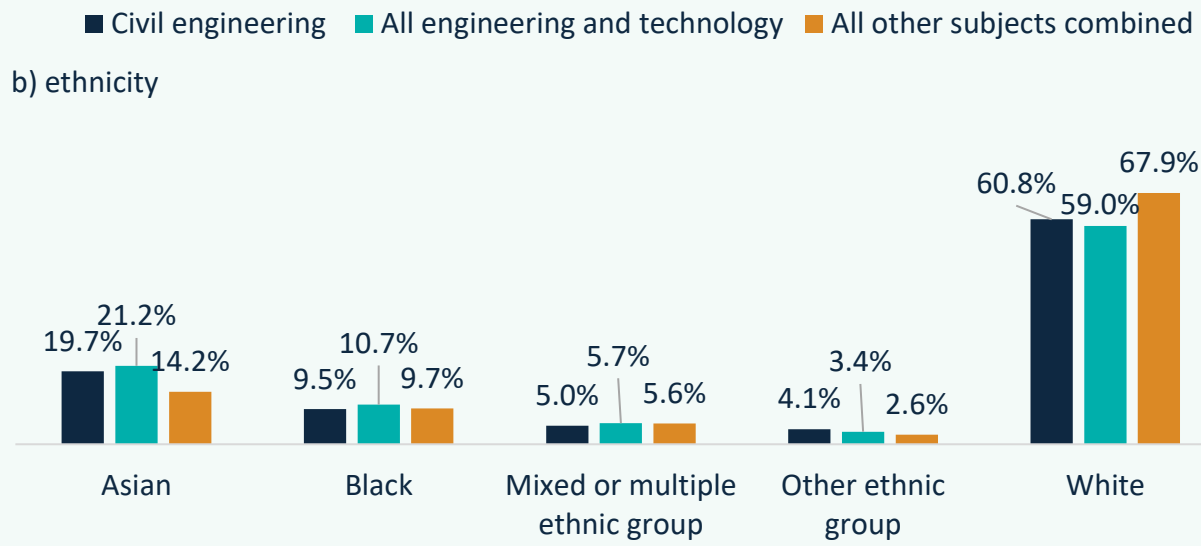
- 21.9% were women
- 38.3% were from a UKME group
- 11.2% had a known disability
- 11.2% were from low higher education participation areas (POLAR4 quintile 1)
- 77.0% were from the UK, 1.2% from the EU and 21.8% were from the rest of the world

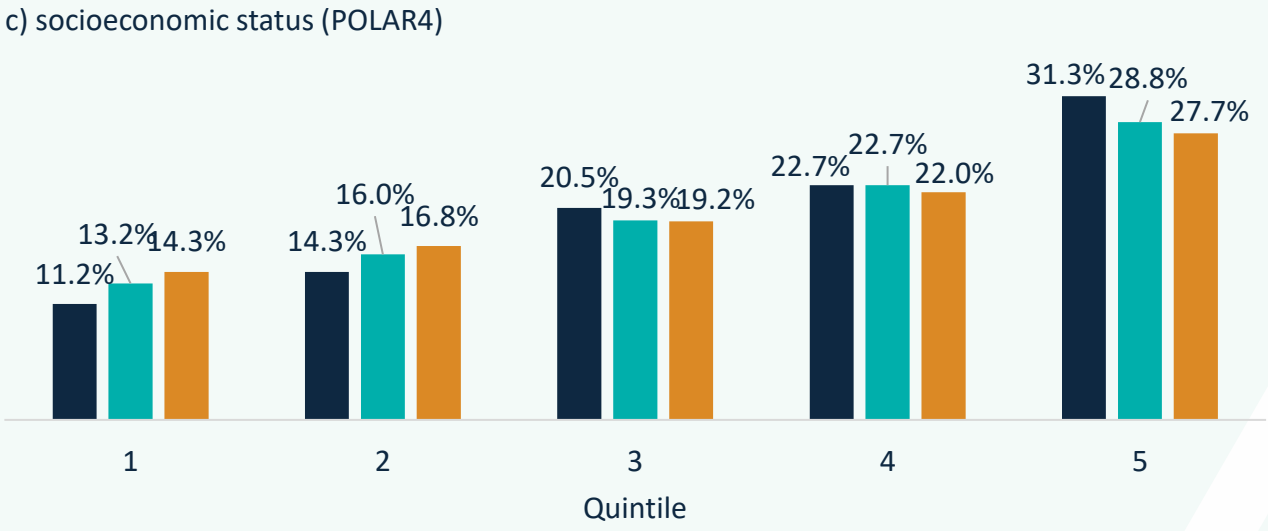
Alongside 'chemical, process and energy engineering', civil engineering had the smallest proportion of disabled students across the engineering and technology subjects featured in this report. This was at just over 1 in 10 (11.2%), compared to 15.4% for all engineering and technology (figure 13).

Figure 13: Characteristics of undergraduate entrants

a) gender, disability and parent with higher education qualification




Civil engineering
All engineering and technology
All other subjects combined
b) ethnicity
19.7%
21.2%
14.2%
9.5%
10.7%
9.7%
5.0%
5.7%
5.6%
4.1%
3.4%
2.6%
60.8%
59.0%
67.9%
Asian
Black
Mixed or multiple ethnic group
Other ethnic group
White


c) socioeconomic status (POLAR4)
11.2%
13.2%
14.3%
14.3%
16.0%
16.8%
20.5%
19.3%
19.2%
22.7%
22.7%
22.0%
31.3%
28.8%
27.7%
1
2
3
4
5
Quintile


d) permanent address
77.0%
78.8%
85.9%
1.2%
1.3%
1.5%
21.8%
20.0%
12.7%
UK
EU
RoW

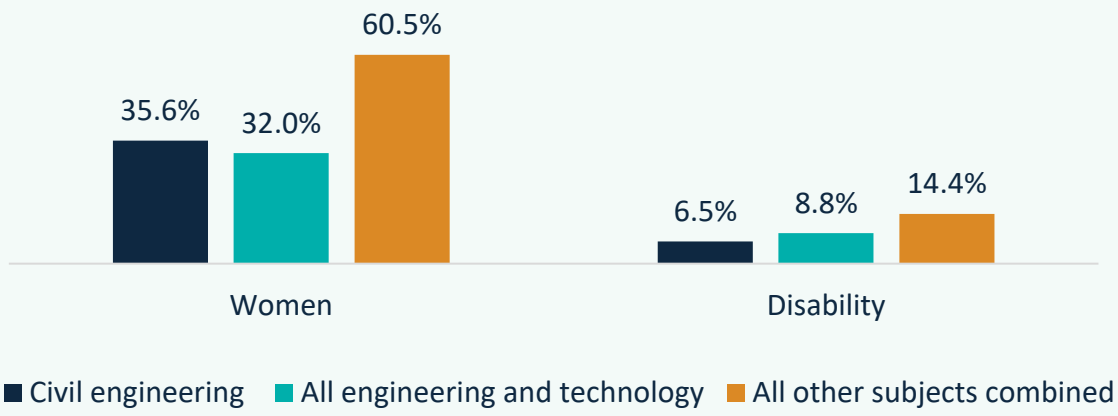
Postgraduate degree entrants

Civil engineering was the 4th most popular engineering and technology subject amongst postgraduate entrants. Of these:

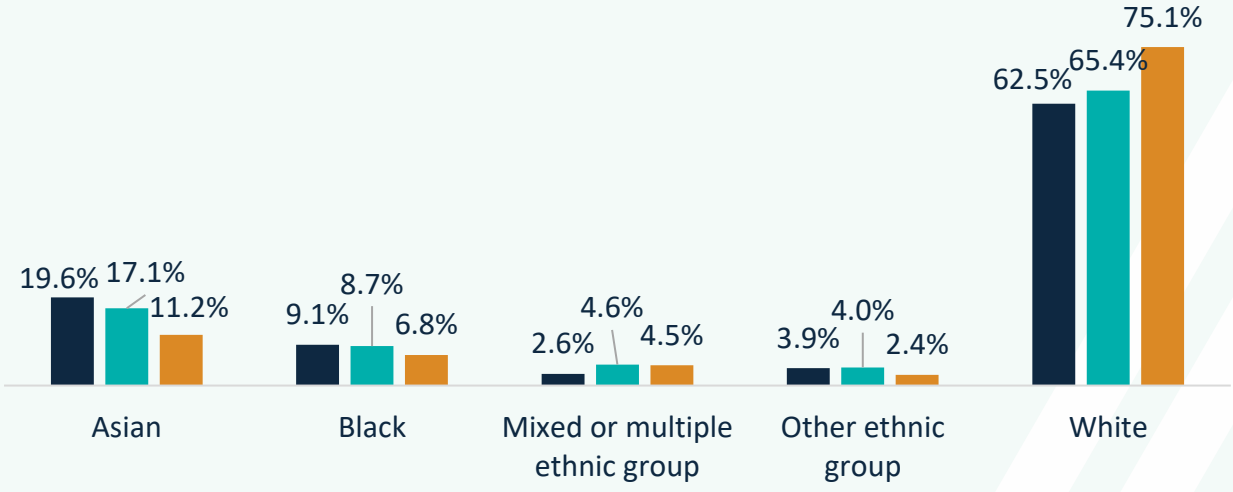
- 35.6% were women
- 6.5% had a known to have a disability
- 35.1% were from a UKME group (35.1%)

Figure 14: Characteristic of postgraduate degree entrants

a) gender and disability



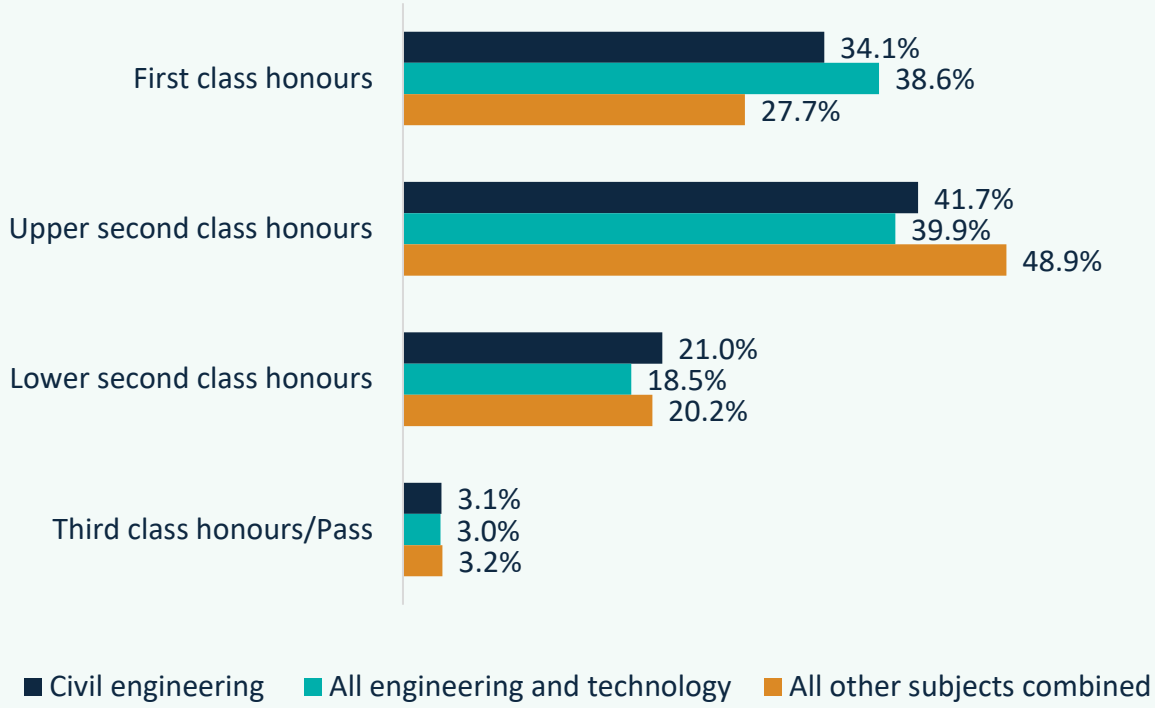
b) ethnicity



Undergraduate first degree qualifiers

More than a third of civil engineering first degree qualifiers achieved first class honour (34.1%). The majority though, obtained an upper second class honour (41.7%). The percentage of lower second class honours in civil engineering was above average compared to the total for engineering and technology at 1 in 5 (21.0%).

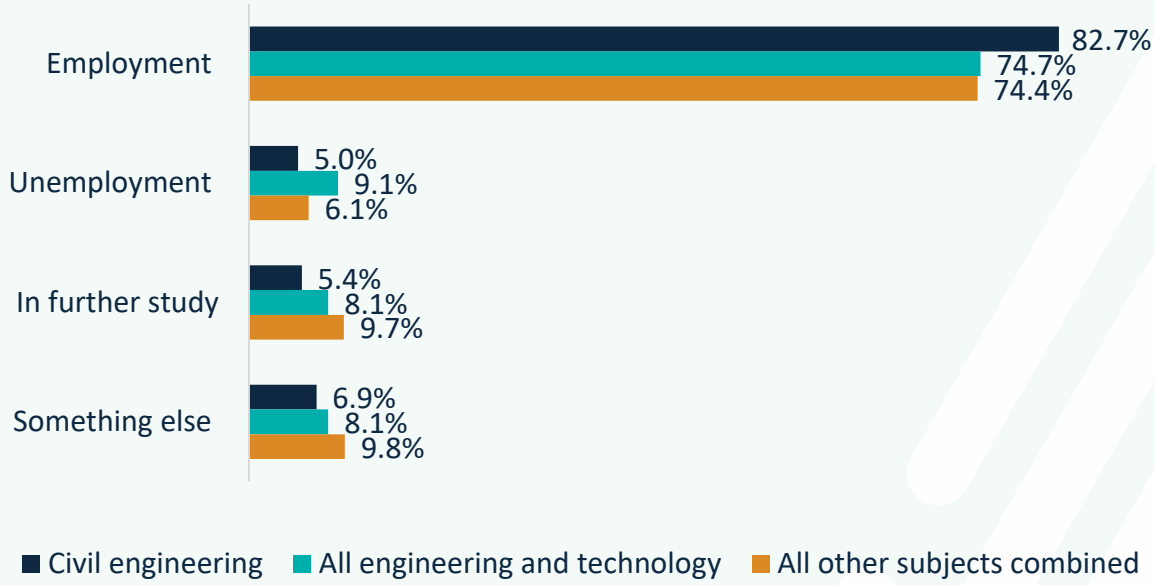
Figure 15: Civil engineering results, 2023/24



Graduate outcomes

For civil engineering, 4 in 5 were employed 15 months after graduating (82.7%). Of these, just under three quarters (73.2%) were working in engineering and technology occupations. This is above average compared to all engineering and technology subjects (59.7%). A similar percentage were in unemployment or further study (5.0% and 5.4% respectively).

Figure 16: Outcomes for civil engineering graduates



Computer games and animation

In 2023/24, there were 6,425 entrants studying computer games and animation in higher education. This was made up of 5,150 first degree and 120 other undergraduates students, and only 1,155 postgraduate students (taught and research).

Undergraduate first degree entrants

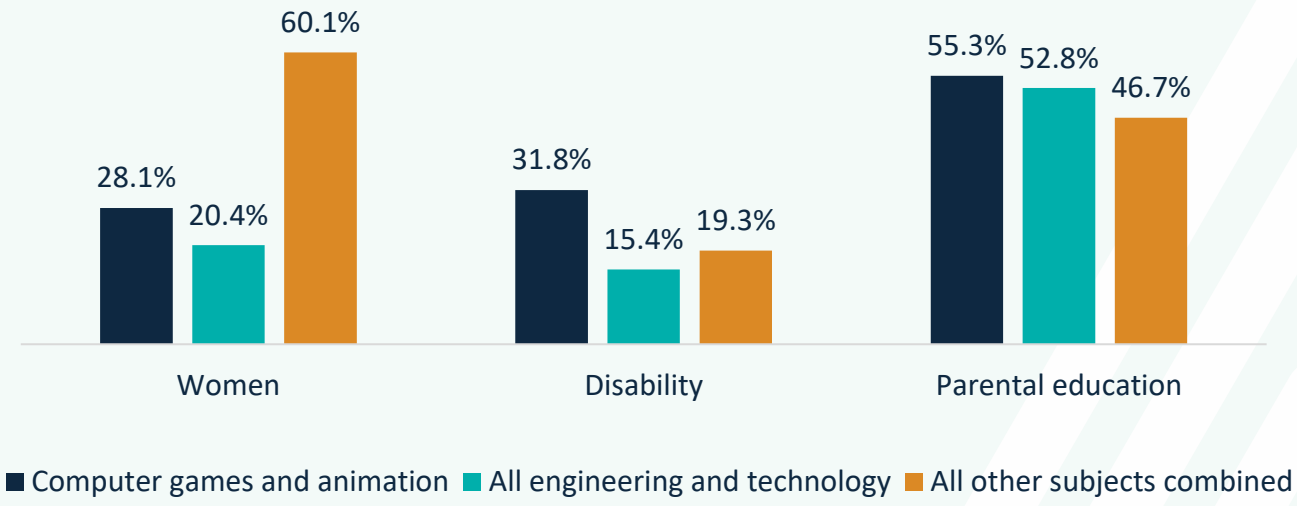
Computer games and animation was the 7th most popular choice for first degree undergraduate entrants in engineering and technology in 2023/24. This was equivalent to 6.4% of all engineering and technology entrants at this level. Of these:

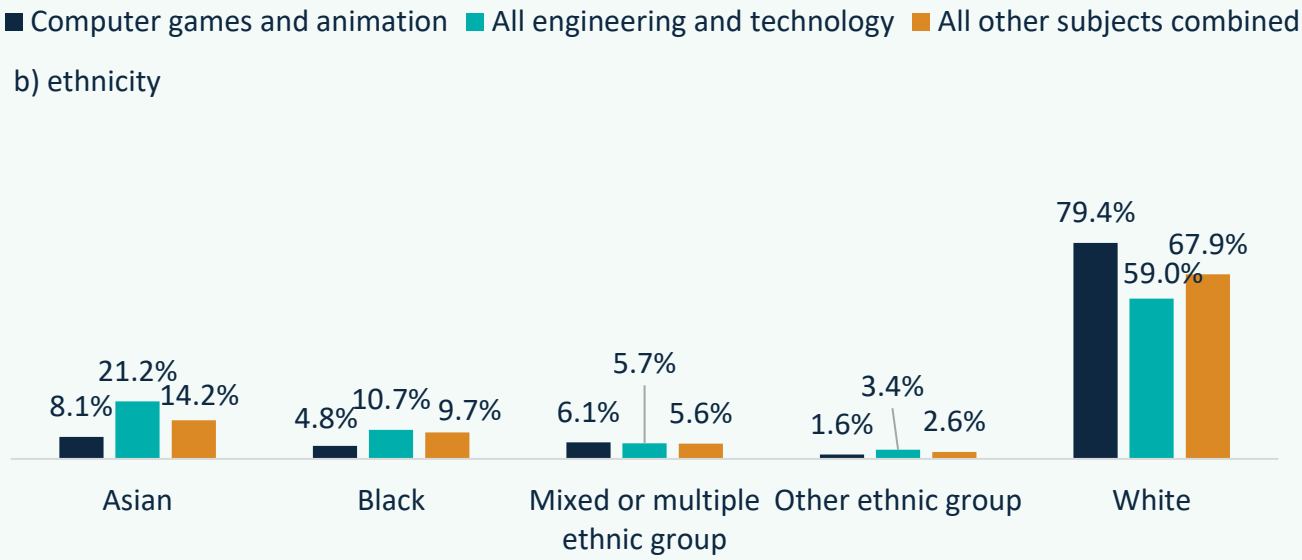
- 28.1% were women
- 20.6% were from a UKME group
- 31.8% had a known disability
- 19.6% were from low higher education participation areas (POLAR4 quintile 1)
- 87.8% were from the UK, 1.6% from the EU and 10.6% were from the rest of the world

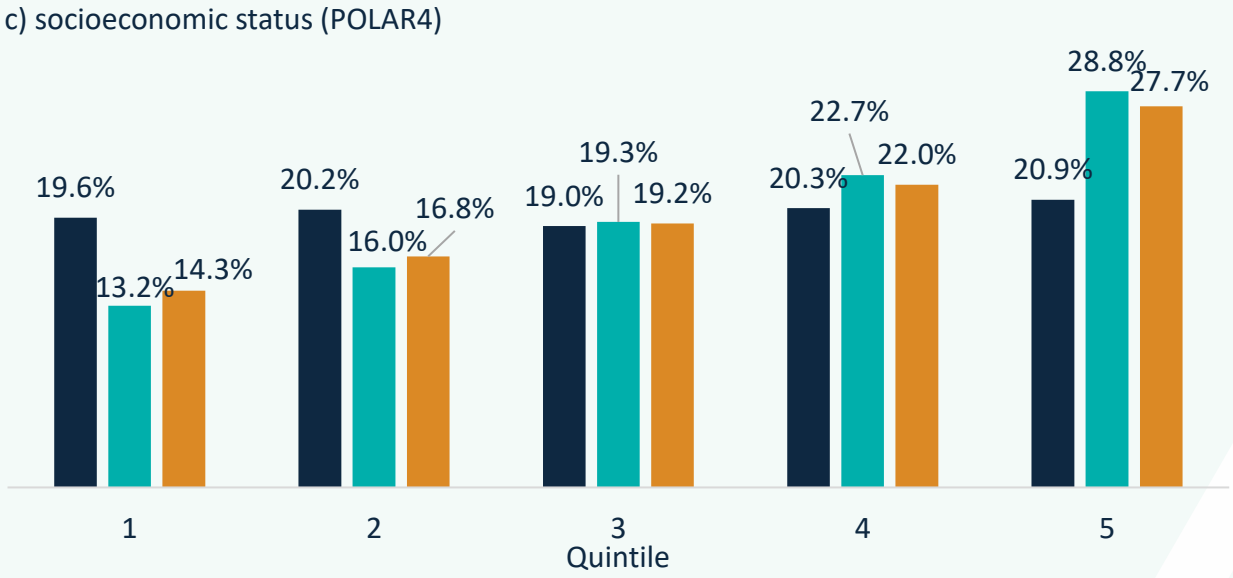
At this level, computer games and animation had the smallest percentage of UKME groups at only 1 in 5 (21.3%). This is compared to 4 in 10 across for all engineering and technology subjects (41.0%). It also had the smallest proportion of international students from RoW at only 1 in 10 (10.6%). It did, however, have the highest percentage of disabled first degree students at 1 in 5 (20.6%).

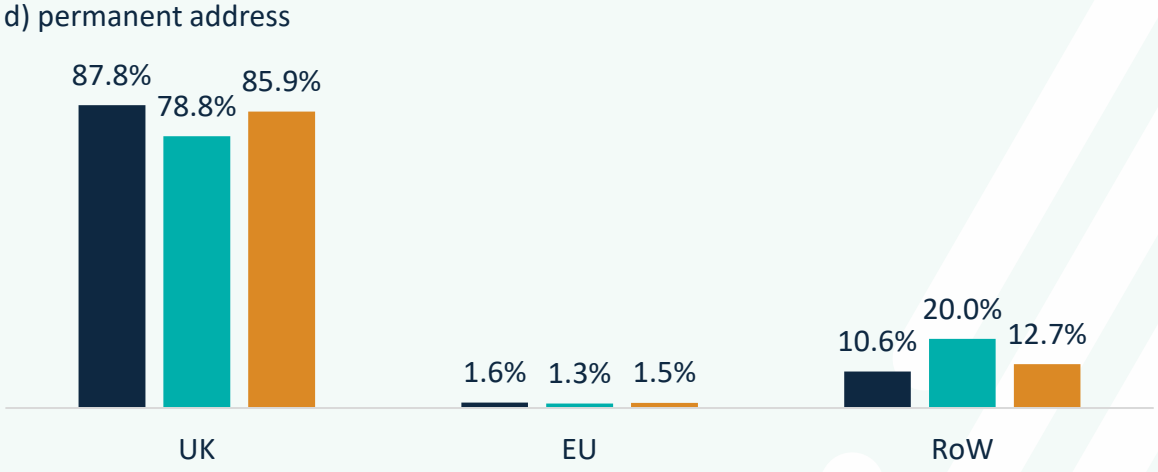
Figure 17: Characteristics of undergraduate entrants

a) gender, disability and parent with higher education qualification




Computer games and animation
All engineering and technology
All other subjects combined
b) ethnicity
8.1%
21.2%
14.2%
4.8%
10.7%
9.7%
6.1%
5.7%
5.6%
1.6%
3.4%
2.6%
79.4%
59.0%
67.9%
Asian
Black
Mixed or multiple ethnic group
Other ethnic group
White


c) socioeconomic status (POLAR4)
19.6%
13.2%
14.3%
20.2%
16.0%
16.8%
19.0%
19.3%
19.2%
20.3%
22.7%
22.0%
20.9%
28.8%
27.7%
1
2
3
4
5
Quintile


d) permanent address
87.8%
78.8%
85.9%
1.6%
1.3%
1.5%
10.6%
20.0%
12.7%
UK
EU
RoW

Postgraduate degree entrants

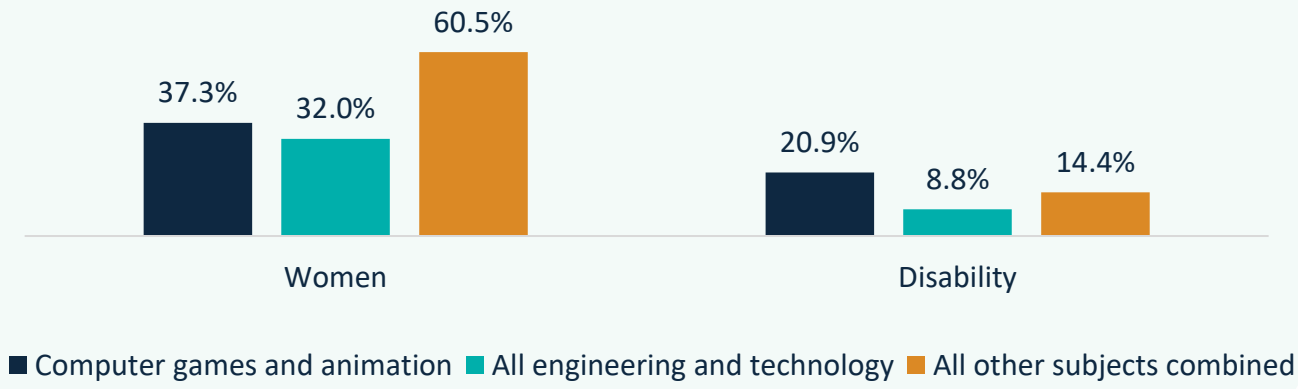
Computer games and animation was the 17th most popular engineering and technology subject amongst postgraduate entrants. Of these:

- 37.3% were women
- 20.9% had a known disability
- 21.3% were from a UKME group

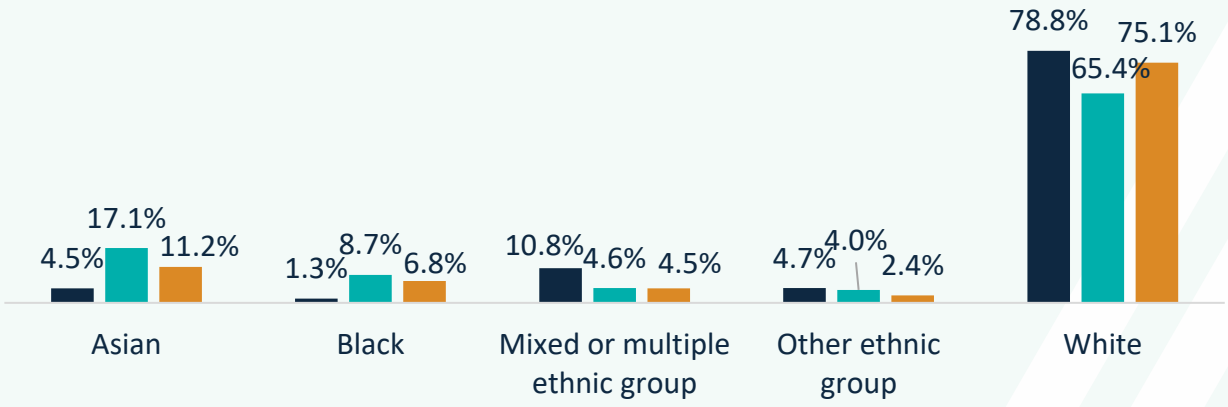
At a postgraduate level, computer games and animation had the highest percentage of Mixed or multiple ethnic group students at 1 in 10 (10.8%). This is compared to an average of 4.6% for all engineering and technology subjects (figure 18).

Figure 18: Characteristic of postgraduate degree entrants

a) gender and disability



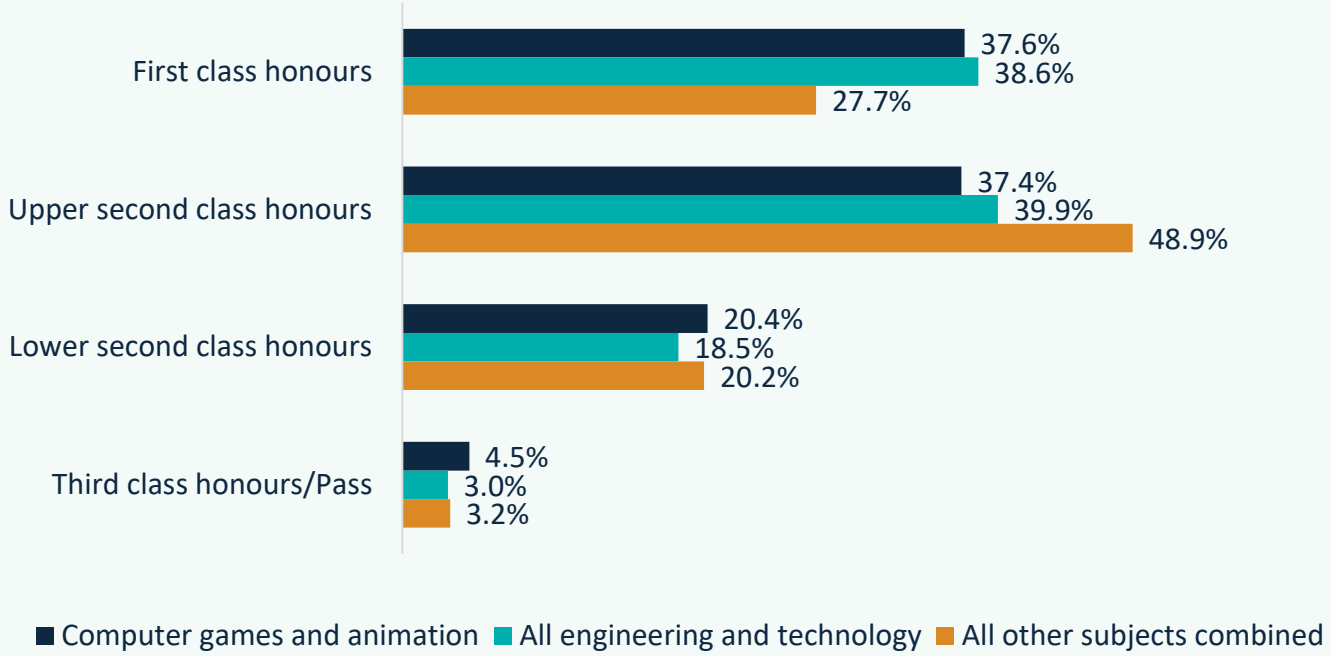
b) ethnicity



Undergraduate first degree qualifiers

Almost an equal proportion of computer games and animation first degree qualifiers obtained first class honours (37.6%) as an upper second class honour (37.4%). In both cases, this was below the average for all engineering and technology first degree qualifiers and offset by a higher percentage obtaining a lower second class honours. 1 in 5 achieved a lower second class honours, compared to 18.5% for all other engineering and technology qualifiers.

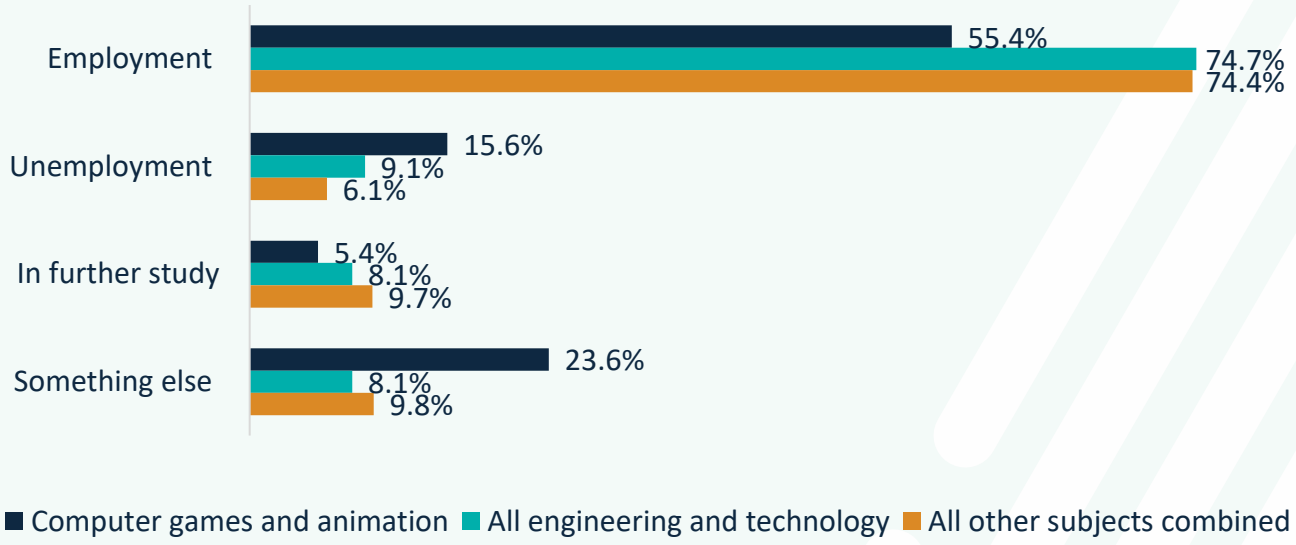
Figure 19: Computer games and animation results, 2023/24



Graduate outcomes

15 months after graduating, just over half of computer games and animation graduates were in employment (55.4%). In addition, 28.5% of these were working in engineering and technology occupations. Both general employment and employment in engineering and technology occupations are below average compared to all engineering and technology subjects (74.7% and 59.7% respectively). 15% of computer games and animation graduates were unemployed and looking for work and nearly a quarter were doing something else (23.6%) (figure 20).

Figure 20: Outcomes for computer games and animation graduates



Computer science

Computer science was the most popular engineering and technology subjects at all levels of study. In 2023/24, there were 44,270 entrants studying computer science in higher education. This was made up of 24,275 first degree and 1,755 other undergraduates students, and only 18,240 postgraduate students (taught and research).

Undergraduate first degree entrants

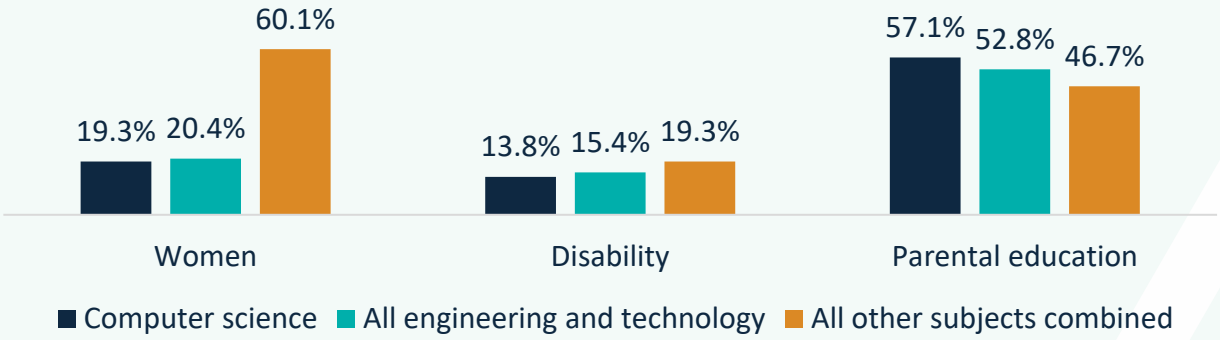
Computer science was the most popular engineering and technology subject for first degree undergraduate entrants, equivalent to 30.2% of all engineering and technology entrants at this level. Of these:

- 19.3% were women
- 50.2% were from a UKME group
- 13.8% had a known disability
- 12.2% were from low higher education participation areas (POLAR4 quintile 1)
- 71.1% were from the UK, 1.6% from the EU and 27.3% were from the rest of the world

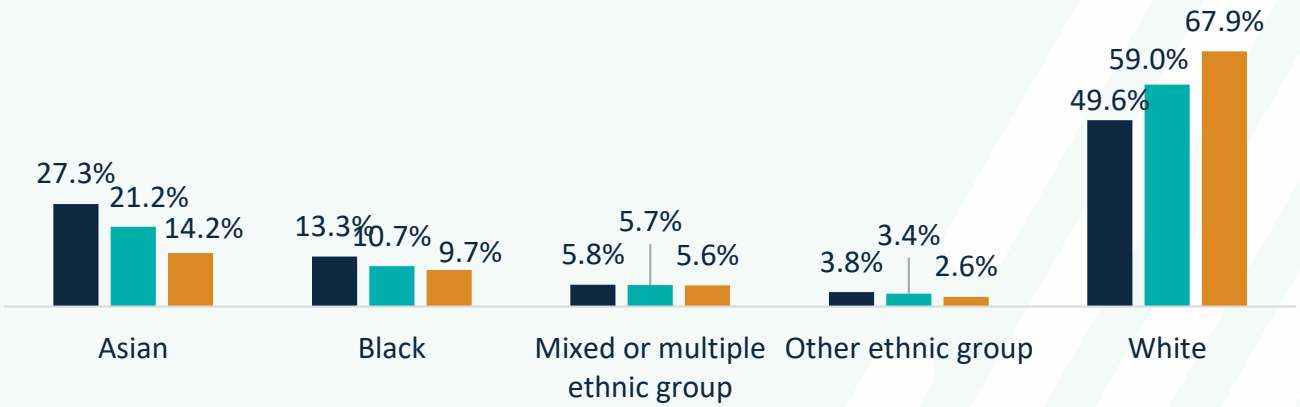
Computer science had the highest percentage of students from a UKME group. All UKME groups were overrepresented compared to the average for all engineering and technology subjects.

Figure 21: Characteristics of undergraduate entrants

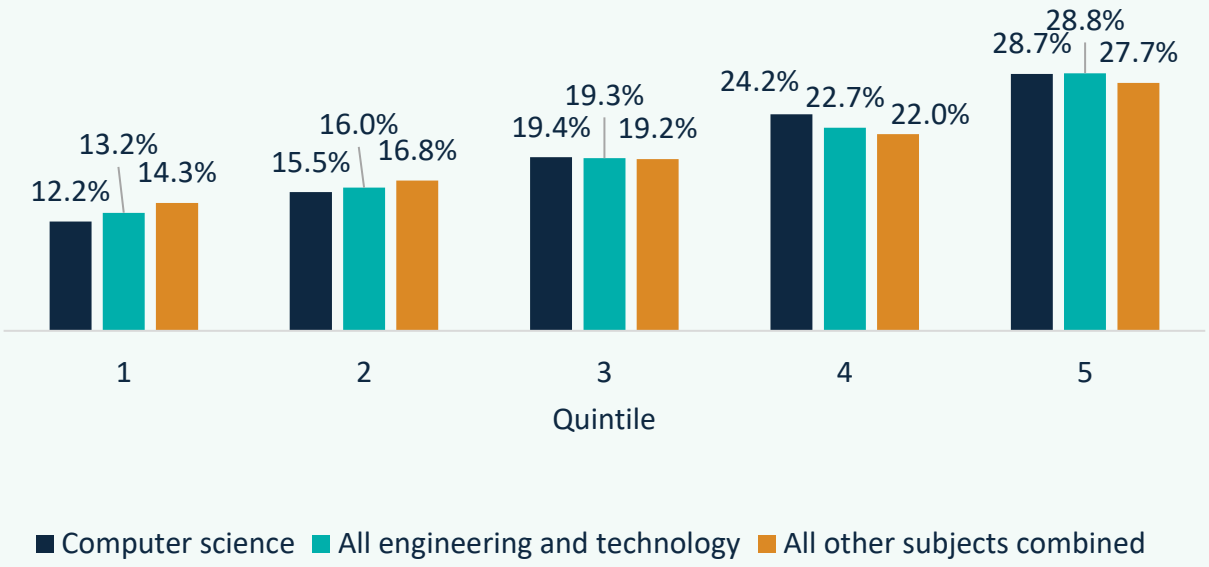
a) gender, disability and parent with a higher education qualification



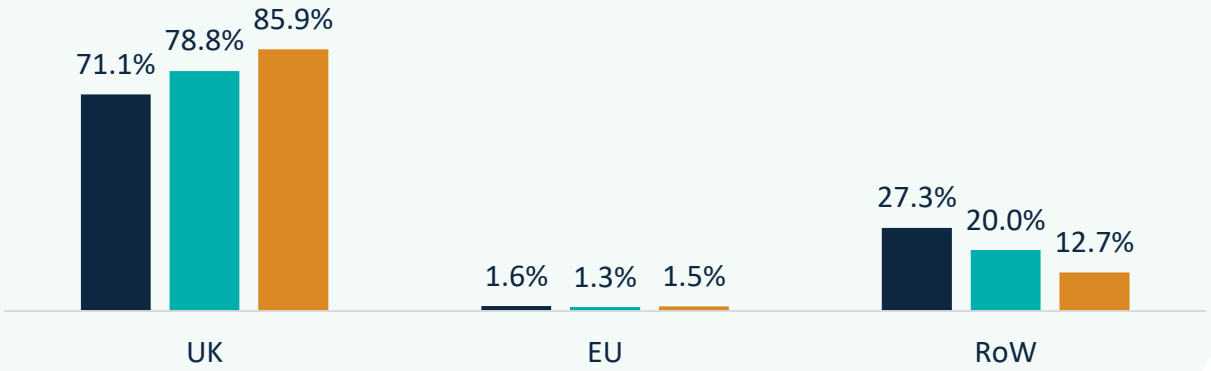
b) ethnicity



c) socioeconomic status (POLAR4)



d) permanent address

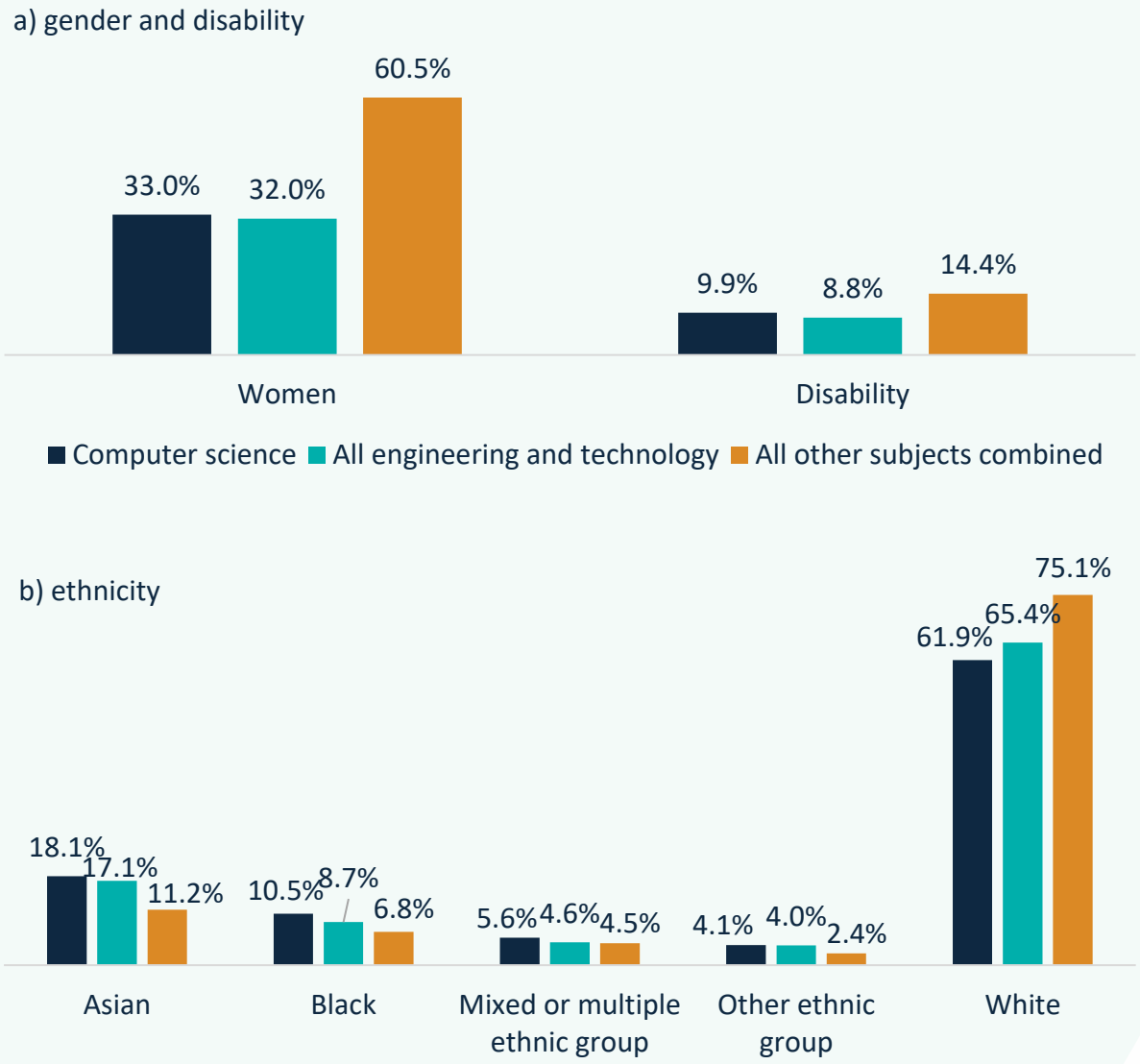


Postgraduate degree entrants

Computer science was the most popular engineering and technology subject amongst postgraduate entrants. Of these:

- 33.0% were women (33.0%)
- 9.9% had a known disability
- 38.2% were from a UKME group

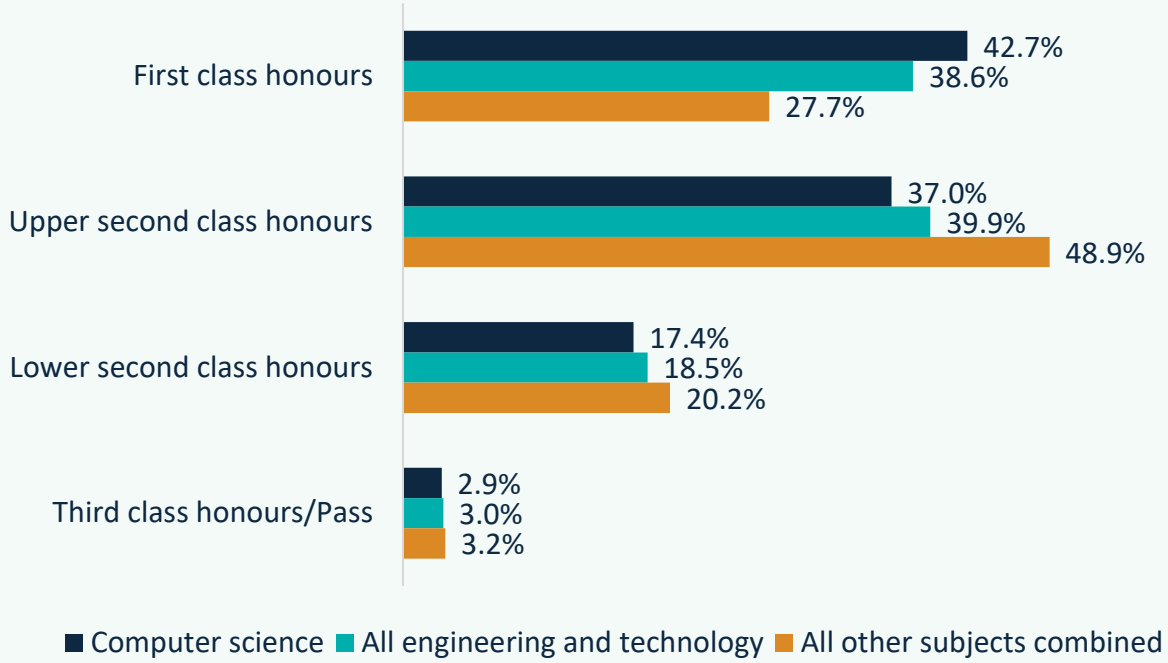
Figure 22: Characteristic of postgraduate degree entrants



Undergraduate first degree qualifiers

The majority of computer science first degree qualifiers achieved a first degree at over 4 in 10 (42.7%). This was above average compared to all engineering and technology subjects. Over a third also achieved an upper second class honours at 37.0%. The percentage who achieved a lower second class honours was also below the average for engineering and technology subjects at 17.4% (figure 23).

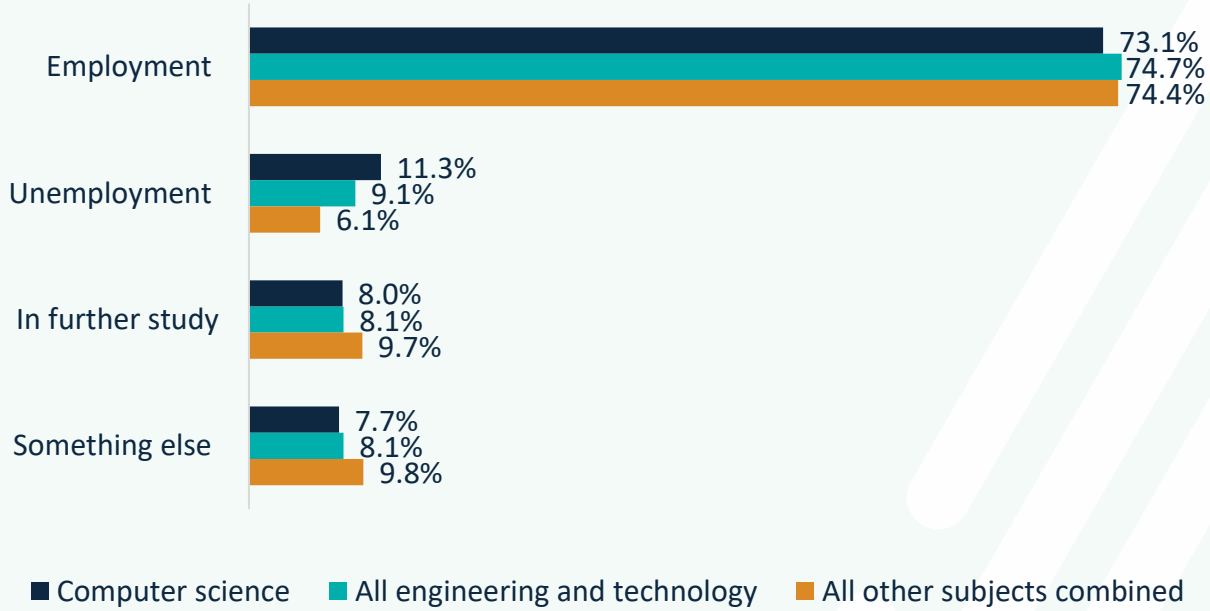
Figure 23: Computer science results, 2023/24



Graduate outcomes

Nearly three-quarters of computer science graduates were in employment 15 months after graduating (73.1%). A further 11.3% were unemployed and looking for work and an additional 8.0% were in further study. Of those in employment, 6 in 10 were working in an engineering and technology occupation (62.0%). This is above average compared to all engineering and technology subjects (59.7%).

Figure 24: Outcomes for computer science graduates



Electrical and electronic engineering

In 2023/24, there were 12,115 entrants studying electrical and electronic in higher education. This was made up of 5,760 first degree and 850 other undergraduate students, and 5,505 postgraduate students (taught and research).

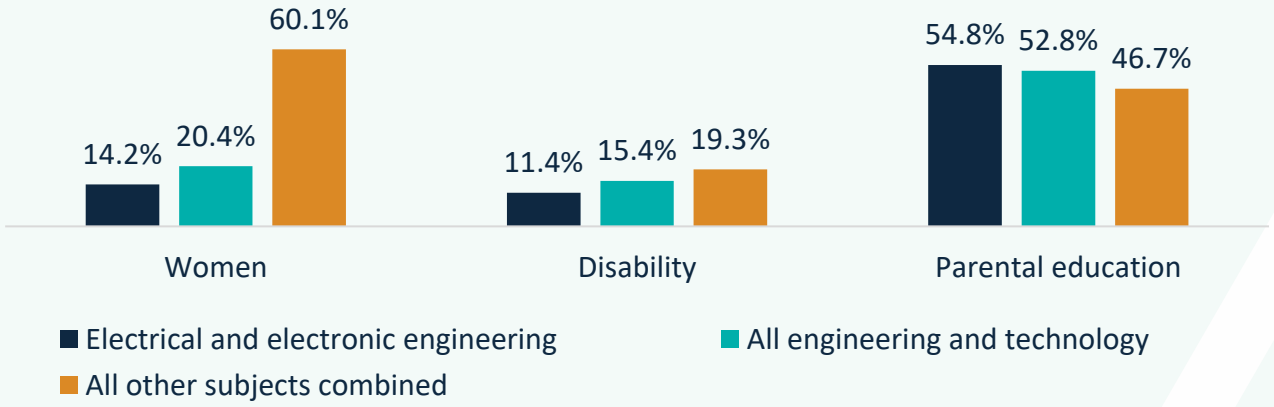
Undergraduate first degree entrants

Electrical and electronic engineering was the 4th most popular engineering and technology subject for first degree undergraduate entrants. For undergraduates this was equivalent to 7.2% of all engineering and technology entrants at this level. Of these:

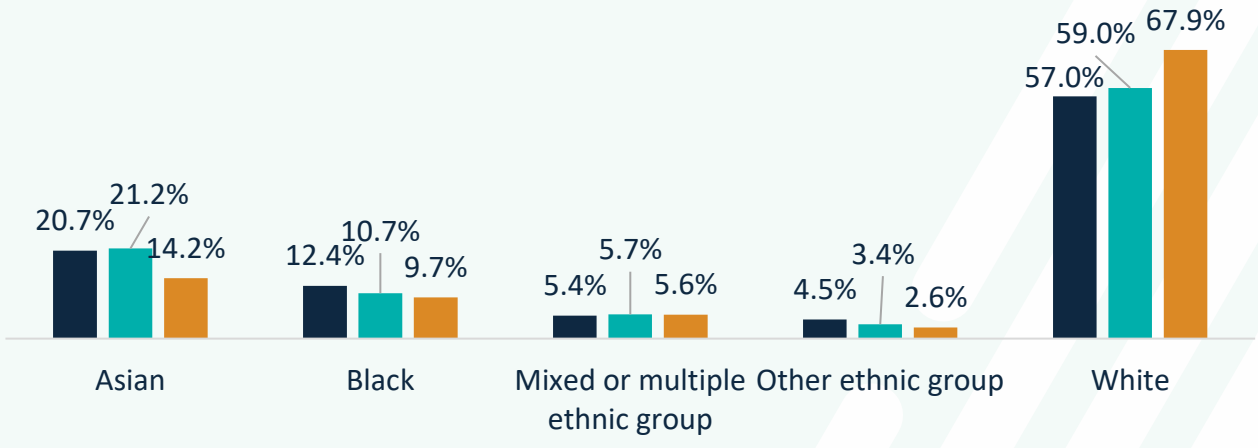
- 14.2% were women
- 43.0% were from a UKME group
- 11.4% had a known disability
- 11.5% were from low higher education participation areas (POLAR4 quintile 1)
- 63.6% were from the UK, 2.0% from the EU and 34.4% were from the rest of the world

Figure 25: Characteristics of entrant undergraduate entrants

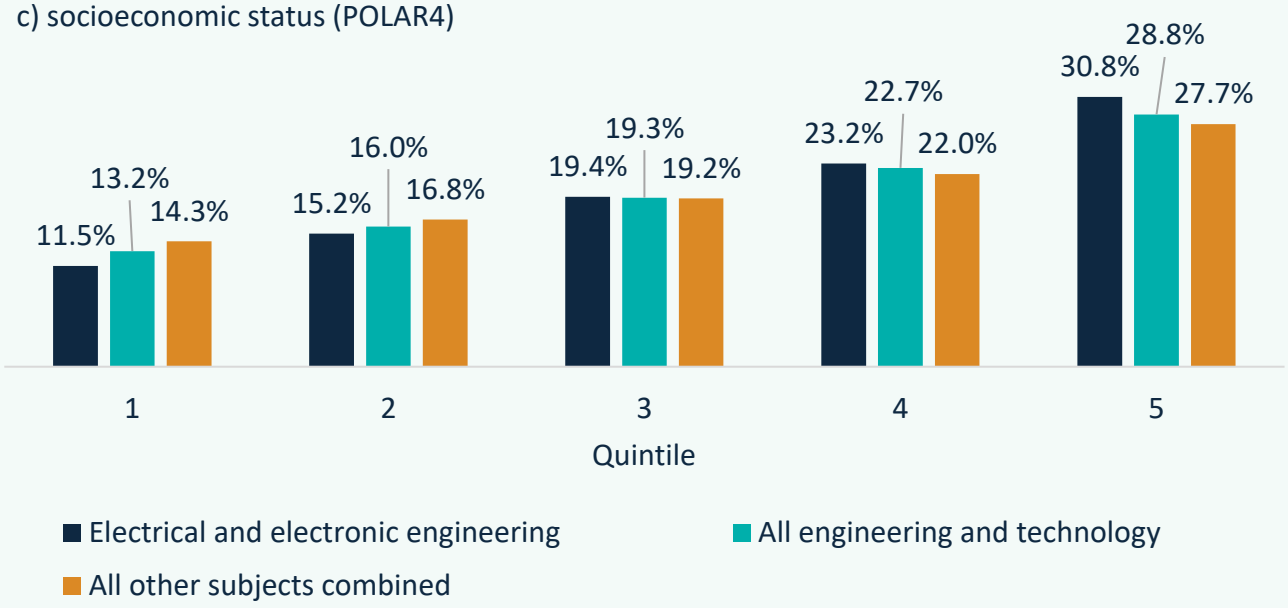
a) gender, disability and a parent with higher education qualification



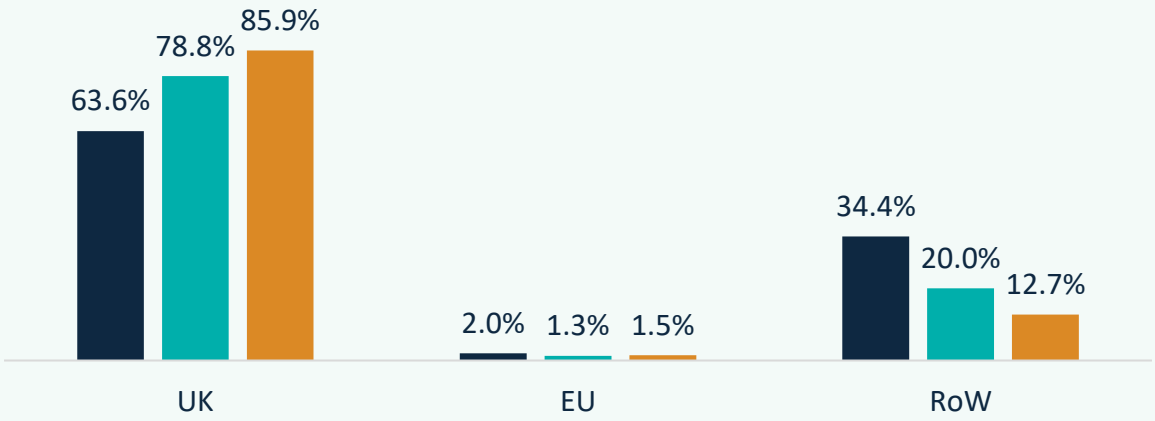
b) ethnicity



c) socioeconomic status (POLAR4)



d) permanent address



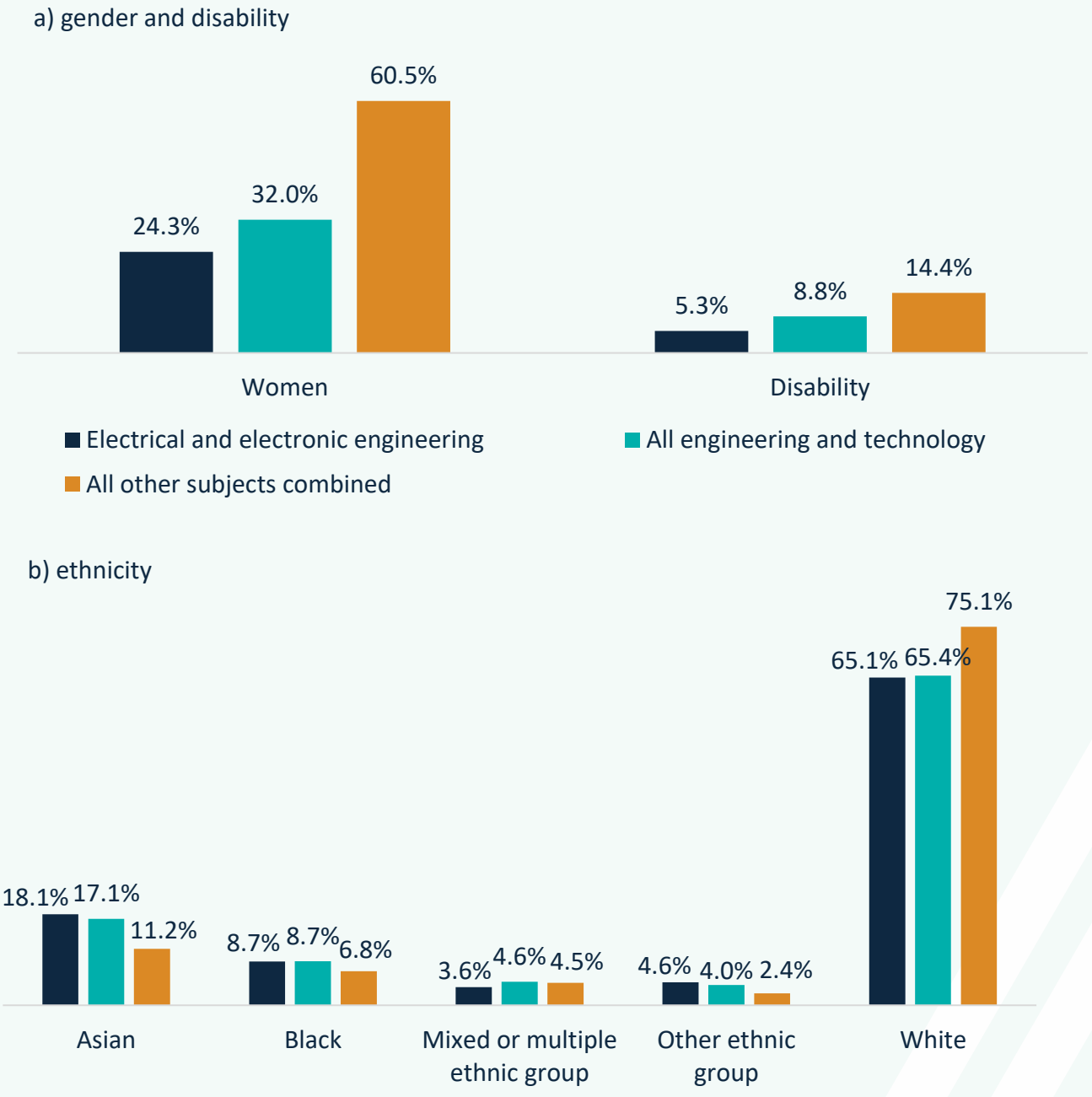
Postgraduate degree entrants

Electrical and electronic engineering was the 2nd most popular engineering and technology subject amongst postgraduate entrants. Of these:

- 24.3% were women
- 5.3% had a known disability
- 34.6% were from a UKME group

Electrical and electronic engineering had the lowest percentage of disabled postgraduates entrants at only 5.3%. This 3.5 pp below the average for all engineering and technology subjects at 8.8%. It also had the highest percentage of postgraduates from the rest of the world at three-quarters (75.8%). This is 12.0 pp higher than the average for all engineering and technology subjects (figure 26).

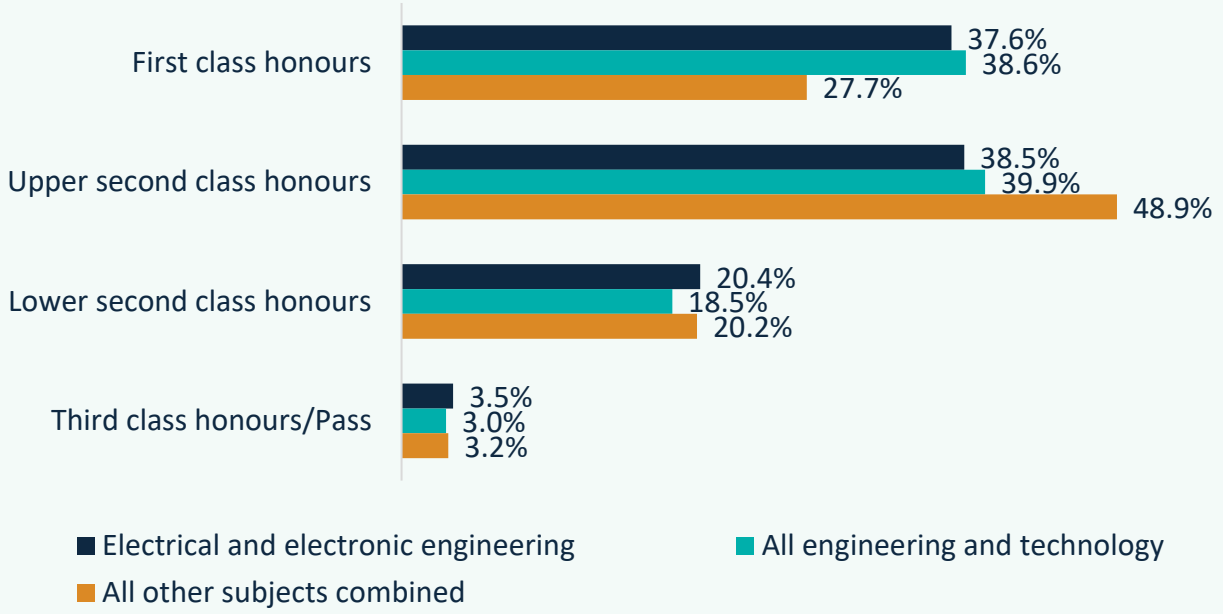
Figure 26: Characteristic of postgraduate degree entrants



Undergraduate first degree qualifiers

Nearly the same proportion of electrical and electronic engineering qualifiers achieved first class honours (37.6%) as an upper second class honours (38.5%). A further 20.4% achieved a lower second class honours (figure 27).

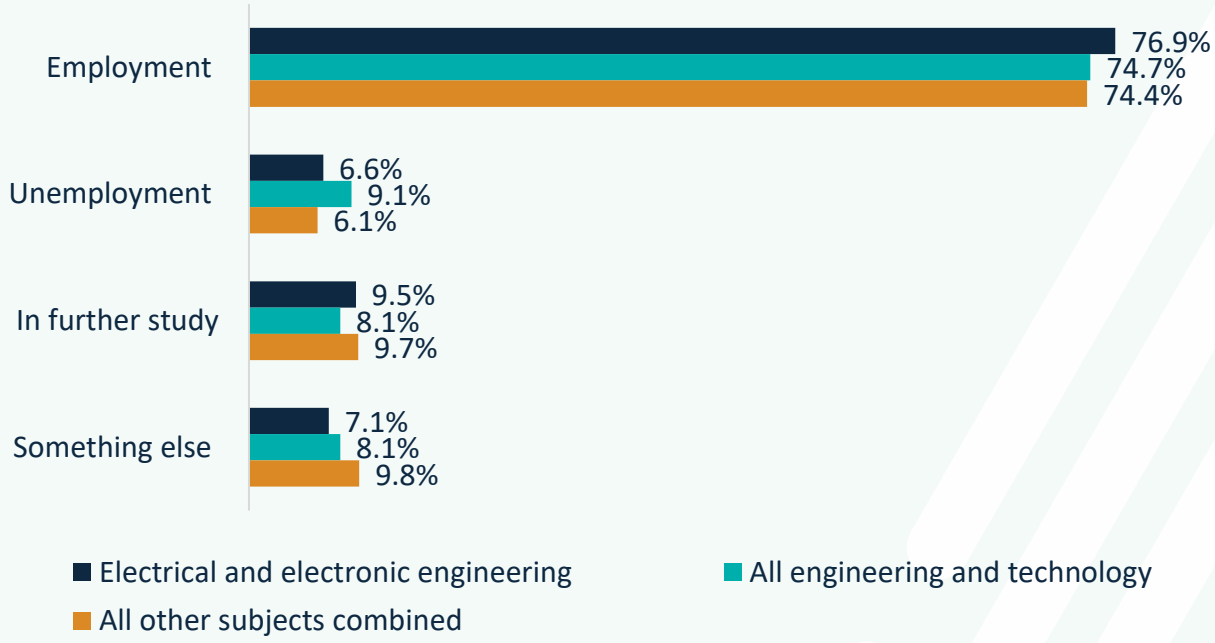
Figure 27: Electrical and electronic engineering results, 2023/24



Graduate outcomes

Over three-quarters of electrical and electronic engineering graduates were in paid employment (76.9%). Of this, 7 in 10 were working in engineering and technology occupations (70.3%), which is above average compared to all engineering and technology subjects (59.7%). Only 6.6% were unemployed and nearly 1 in 10 were in further study (9.5%).

Figure 28: Outcomes for electrical and electronic engineering



Engineering (non-specific)

In 2023/24, there were 11,245 entrants studying engineering (non-specific) degrees in higher education. This was made up of 5,345 first degree and 1,625 other undergraduates students, and only 4,455 postgraduate students (taught and research).

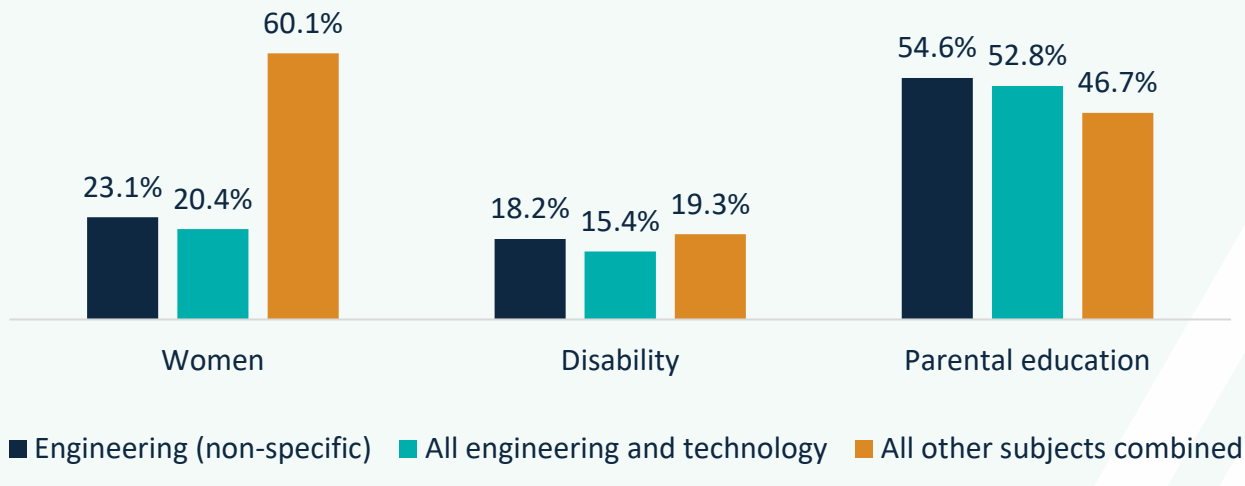
Undergraduate first degree entrants

Engineering (non-specific) degrees were the 5th most popular engineering and technology subject for first degree undergraduate entrants. For undergraduates this was equivalent to 6.6% of all engineering and technology entrants at this level. Of these:

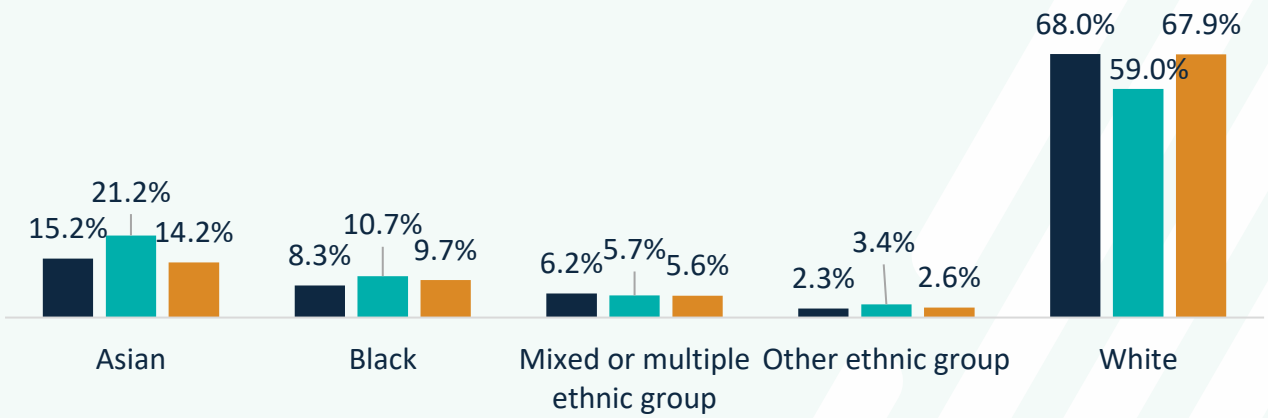
- 23.1% were women
- 32.0% were from a UKME group
- 18.2% had a known disability
- 12.9% were from low higher education participation areas (POLAR4 quintile 1)
- 84.5% were from the UK, 1.7% from the EU and 13.7% were from the rest of the world

Figure 29: Characteristics of undergraduate entrants

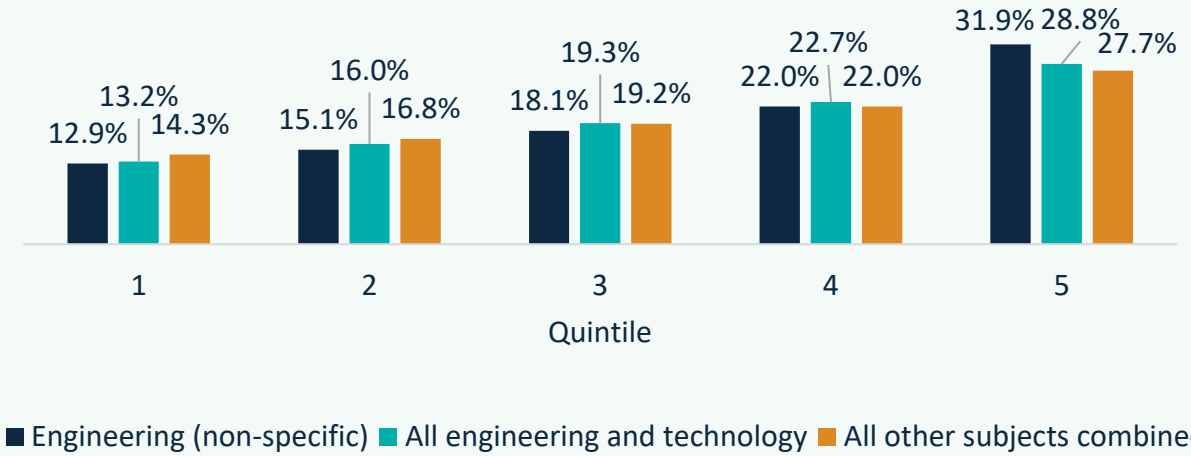
a) gender, disability and parent with higher education qualification



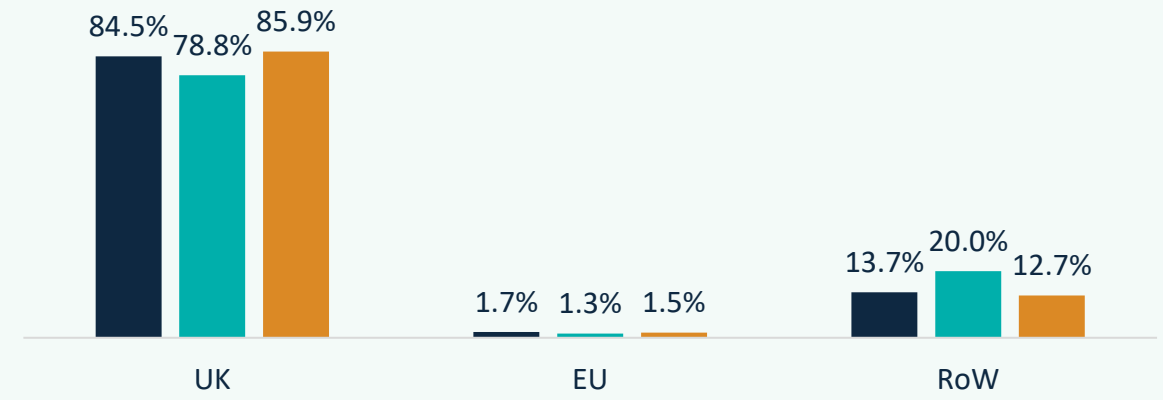
b) ethnicity



c) socioeconomic status (POLAR4)



d) permanent address

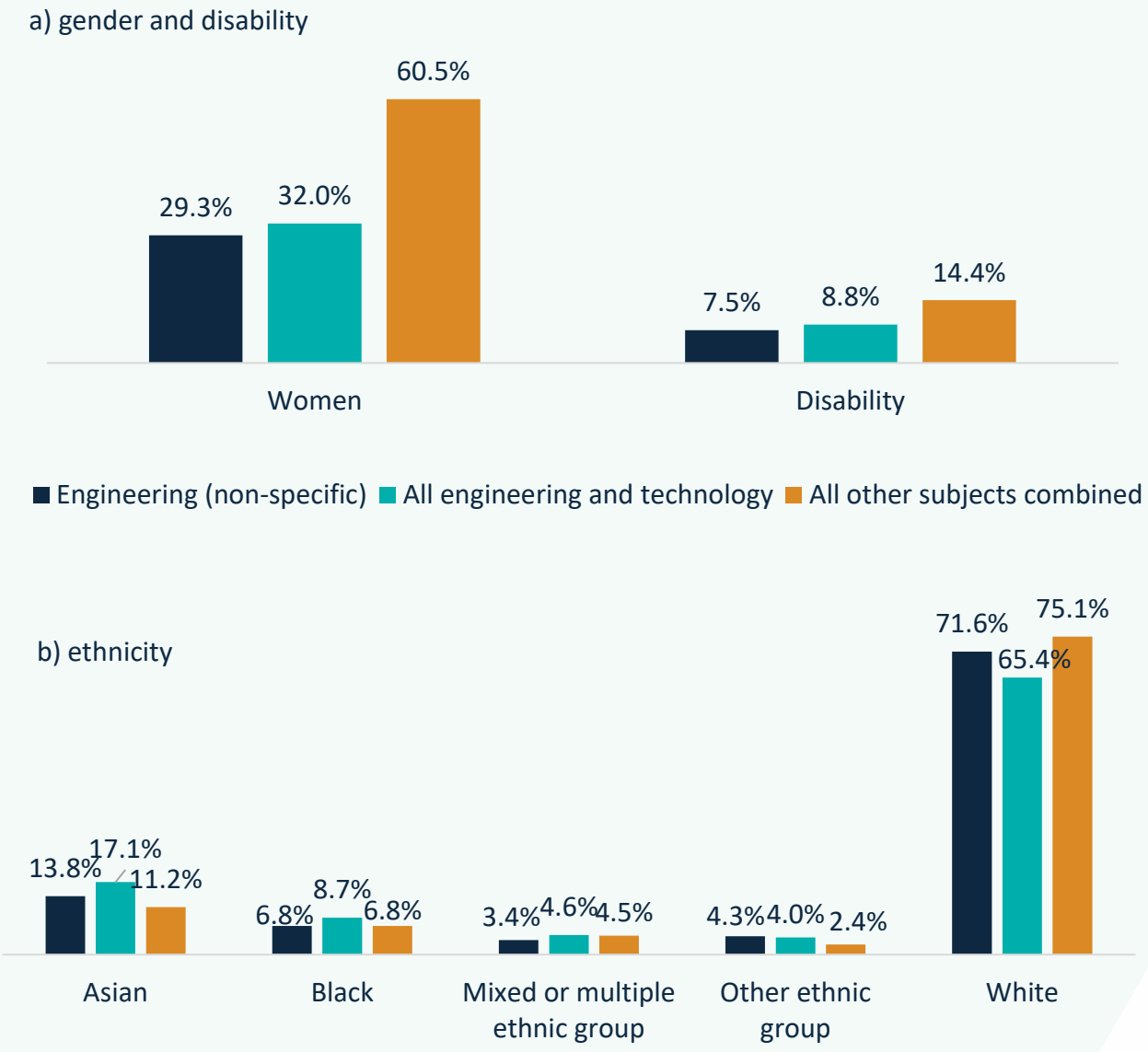


Postgraduate degree entrants

Engineering (non-specific) degrees were the 3rd most popular engineering and technology subject amongst postgraduate entrants. Of these:

- 29.3% were women
- 7.5% had a known disability
- 28.3% were from a UKME group

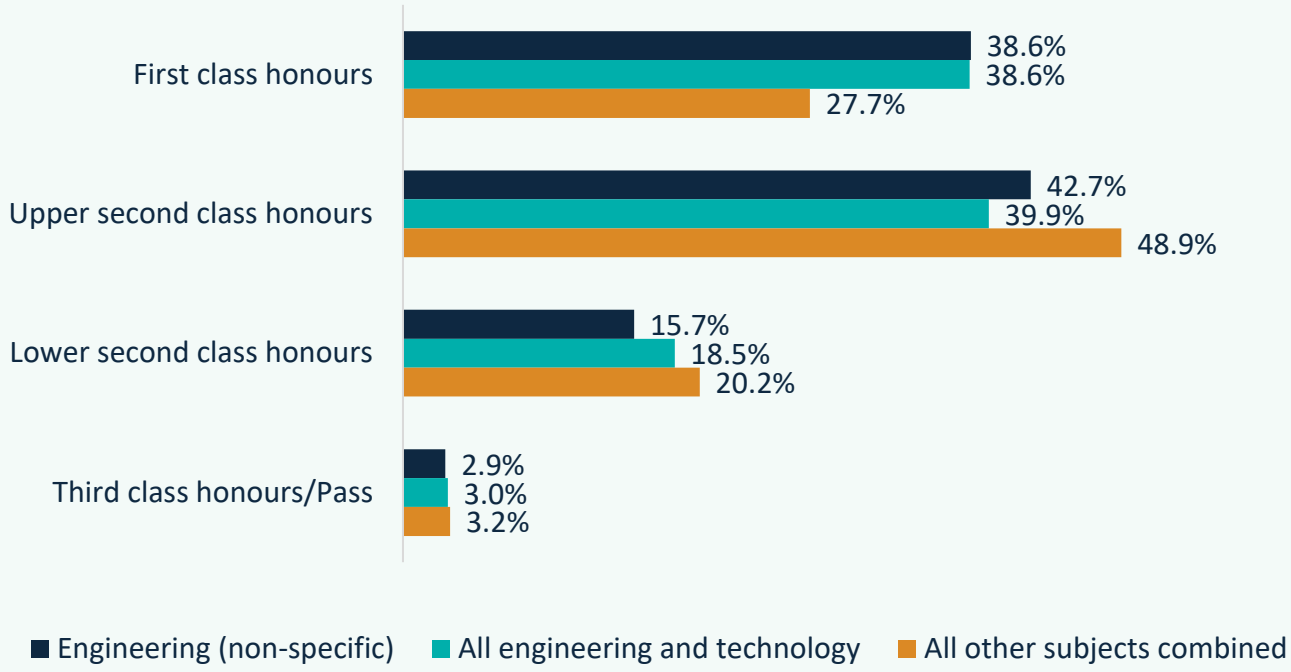
Figure 30: Characteristic of postgraduate degree entrants



Undergraduate first degree qualifiers

The majority of engineering (non-specific) first degree qualifiers obtained an upper second class honours at over 4 in 10 (42.7%). 38.6% obtained a first class honours, which was very similar to the average for all engineering and technology qualifiers at 38.6% (figure 31).

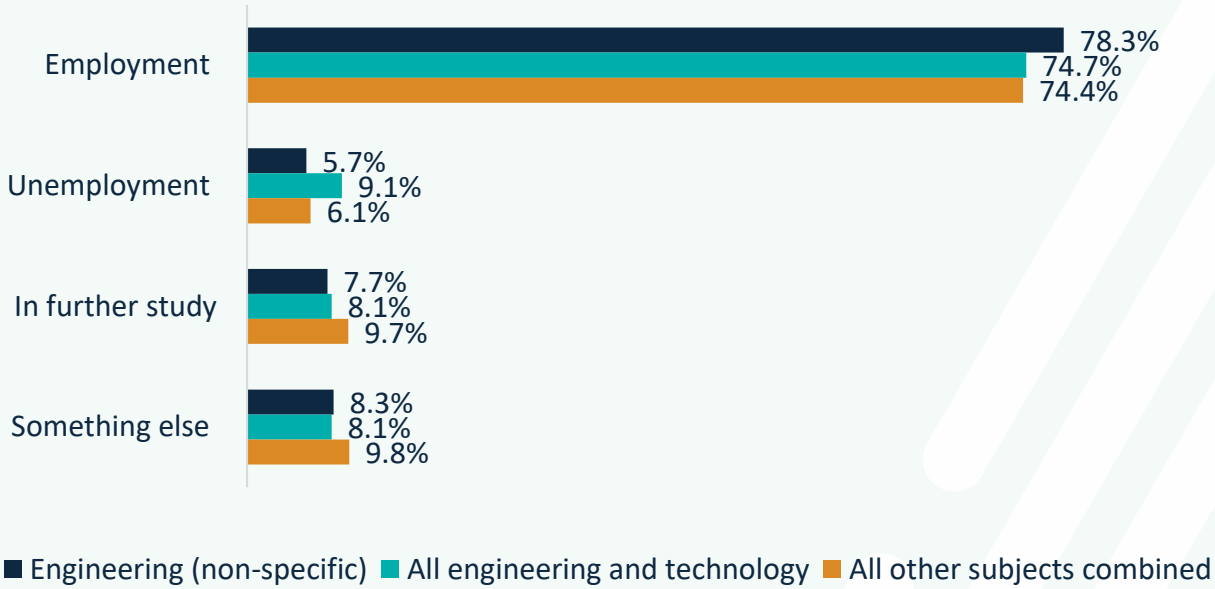
Figure 31: Engineering (non-specific) results, 2023/24



Graduate outcomes

Nearly 8 in 10 engineering (non-specific) graduates were employed 15 months after graduating at 78.3%. Of this, just over half (57.5%) were working in engineering and technology occupations, which is just below average compared to all engineering and technology subjects (59.7%). Only 5.7% were unemployed and 7.7% were in further study (figure 32).

Figure 32: Outcomes for engineering (non-specific) graduates



Information systems

In 2023/24, there were 7,145 entrants studying information systems degrees in higher education. This was made up of only 700 first degree and 125 other undergraduate students, and 6,320 postgraduate students (taught and research).

Undergraduate first degree entrants

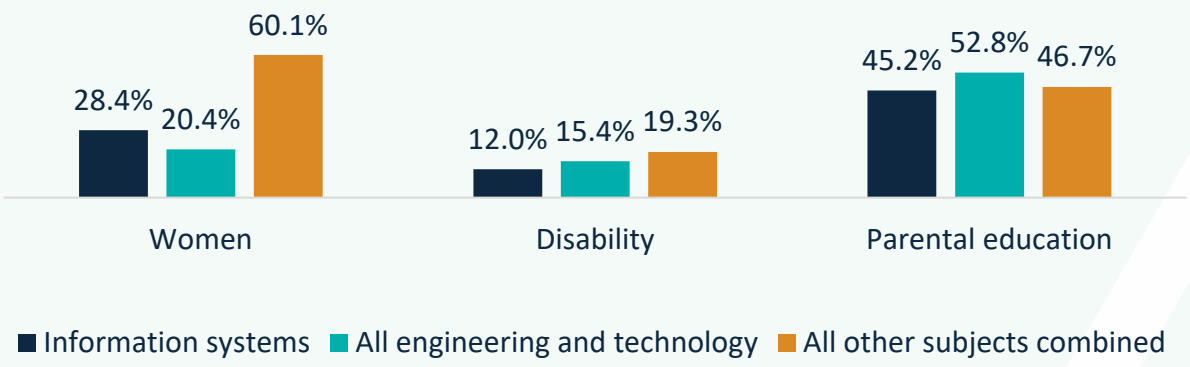
Information systems degrees were the 7th most popular engineering and technology subject for first degree undergraduate entrants. For undergraduates this was equivalent to 4.6% of all engineering and technology entrants at this level. Of these:

- 28.4% were women
- 45.2% were from a UKME group
- 12.0% had a known disability
- 11.2% were from low higher education participation areas (POLAR4 quintile 1)
- 76.6% were from the UK, 0.9% from the EU and 22.5% were from the rest of the world

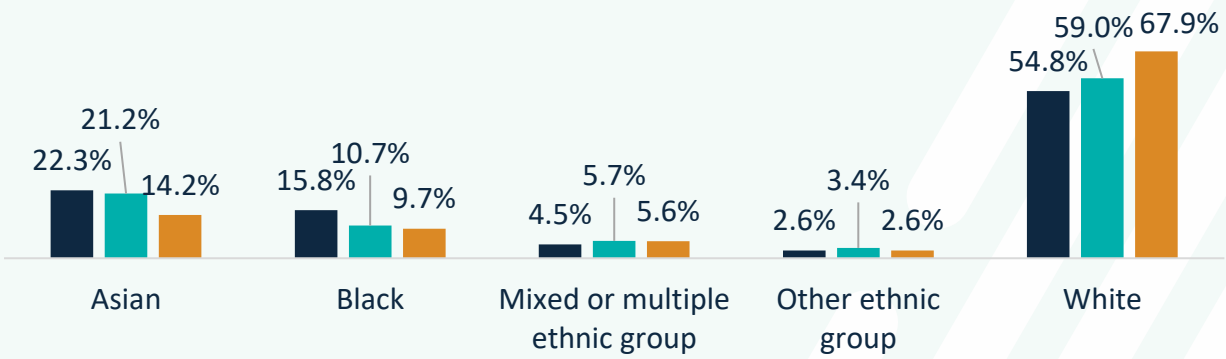
Information systems had the highest percentage of Black first degree students amongst the engineering and technology subjects included in this report. This was at 15.8%, compared to an average of 10.7% for all engineering and technology (figure 33).

Figure 33: Characteristics of undergraduate entrants

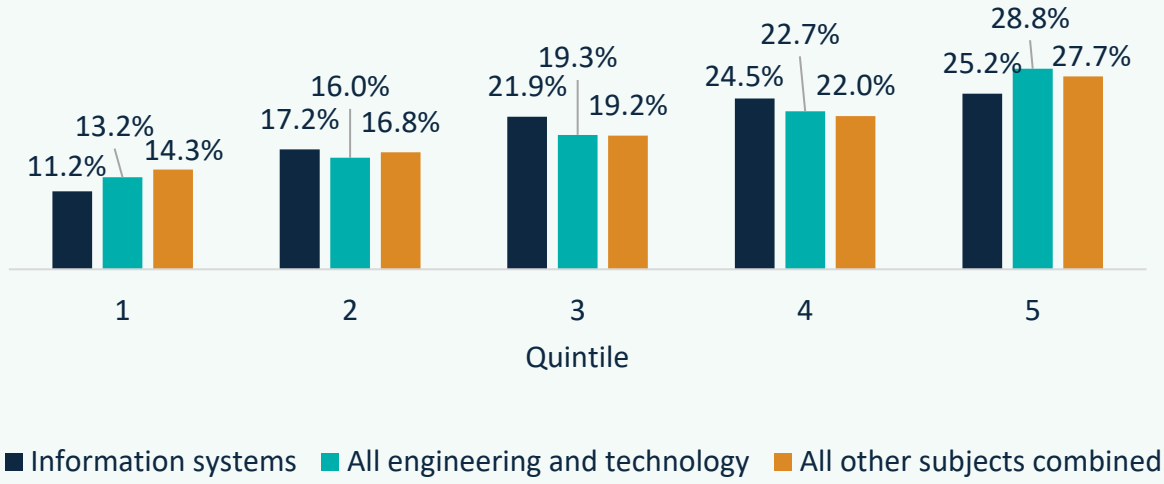
a) gender, disability, parent with a higher education qualification



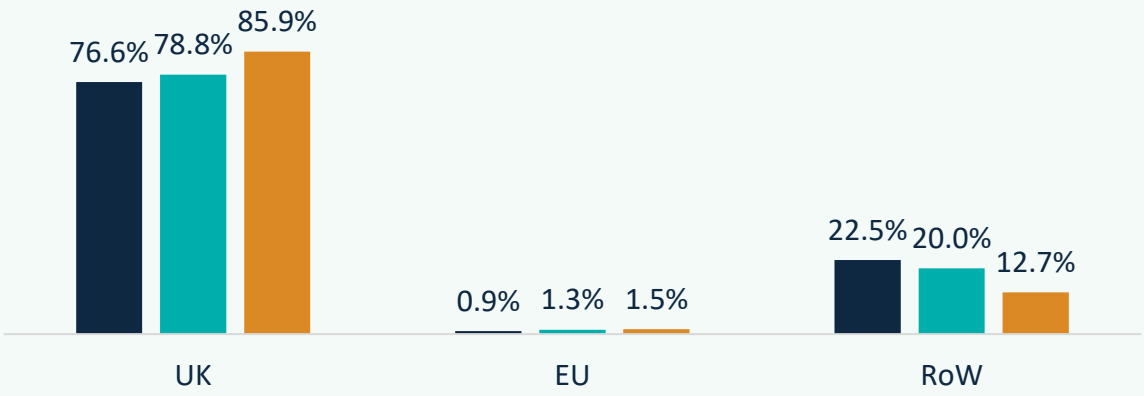
b) ethnicity



c) socioeconomic status (POLAR4)



d) permanent address



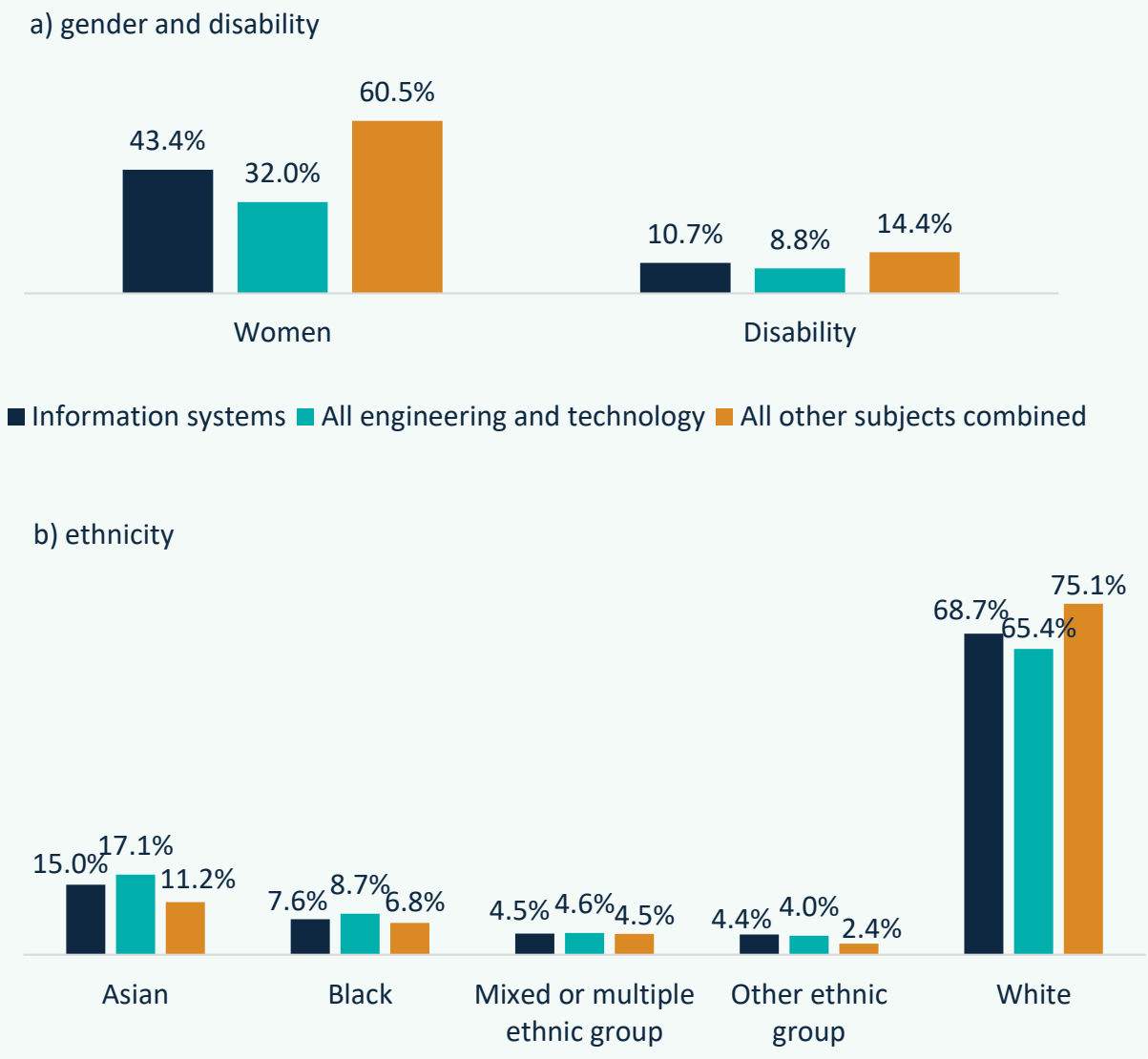
Postgraduate degree entrants

Information systems degrees were the 5th most popular engineering and technology subject amongst postgraduate entrants. Of these:

- 43.4% were women
- 10.7% had a known disability
- 31.5% were from a UKME group

Information systems had the highest proportion of women at postgraduate level at over 4 in 10 (43.4%). This is compared to an average of 32.8% for all engineering and technology subjects (figure 34).

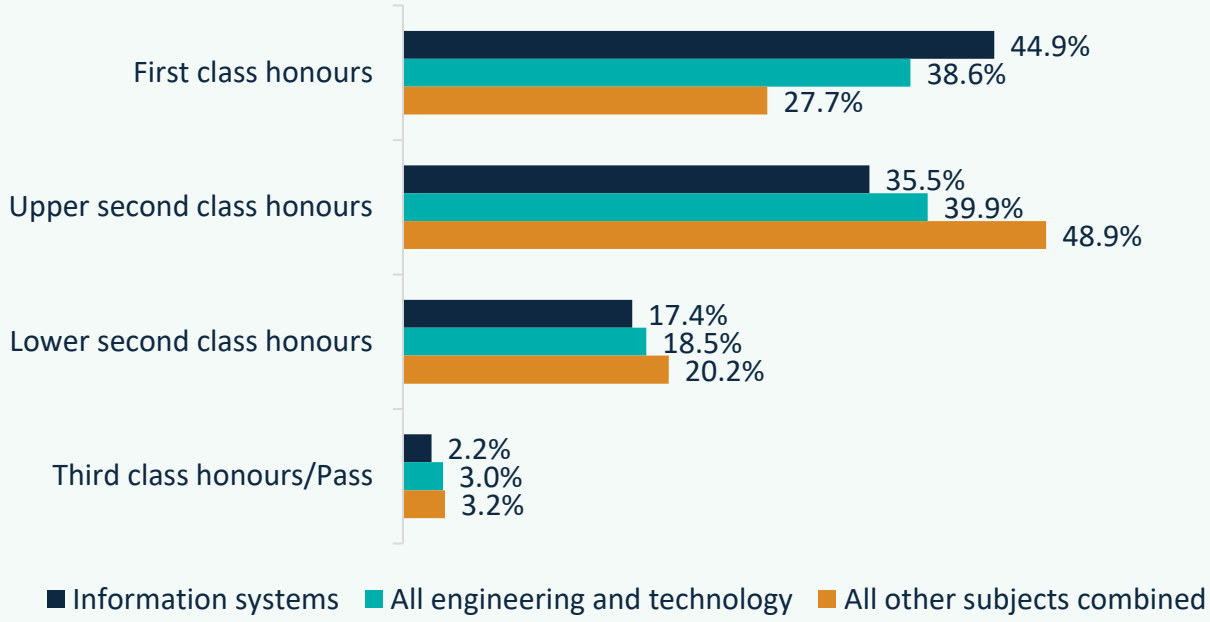
Figure 34: Characteristic of postgraduate degree entrants



Undergraduate first degree qualifiers

Over 4 in 10 achieved a first class honours at 44.9%. This was above the average for all engineering and technology at 38.6%. Over a third (35.5%) obtained an upper second class honours and 17.4% obtained a lower second class honours (figure 35).

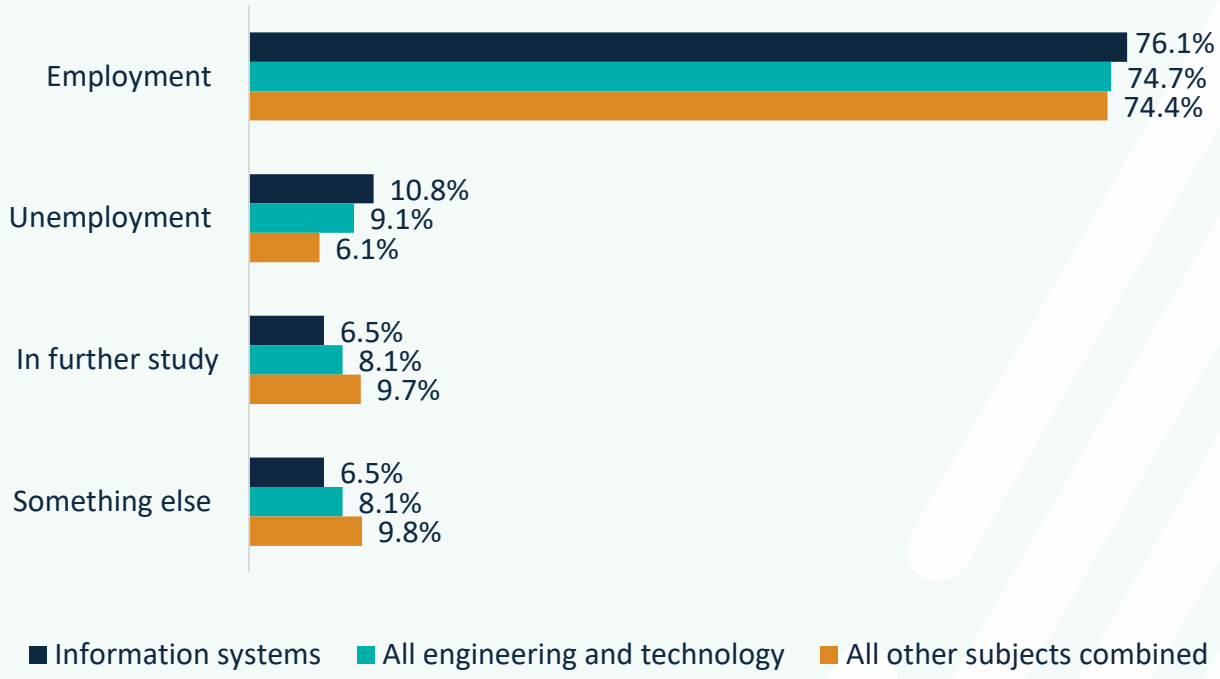
Figure 35: Information systems results, 2023/24



Graduate outcomes

Over three-quarters of information systems graduates were employed 15 months after graduating (76.1%). Of this, only a third were working in engineering and technology occupations (36.5%) which is below average compared to all engineering and technology subjects (59.7%). A further 1 in 10 were unemployed and looking for work and an equal proportion were either in further study or doing something else (6.5%).

Figure 36: Outcomes for information systems graduates



Information technology

In 2023/24, there were 6,515 entrants studying information technology degrees in higher education. This was made up of 3,745 first degree and 1,000 other undergraduate students and only 1,770 postgraduate students (taught and research).

Undergraduate first degree entrants

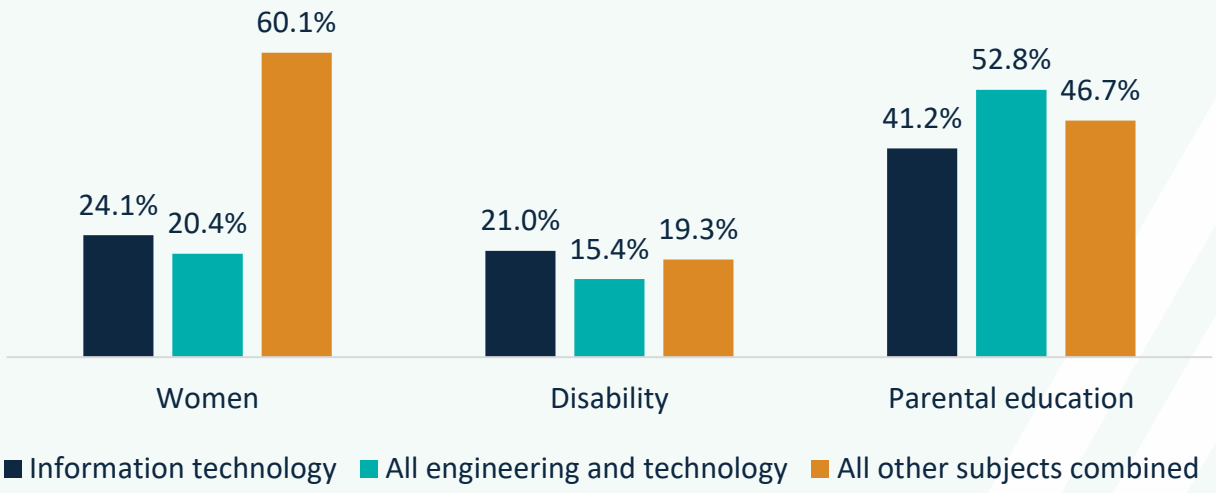
Information technology degrees were the 7th most popular engineering and technology subject for first degree undergraduate entrants. For undergraduates this was equivalent to 4.6% of all engineering and technology entrants at this level. Of these:

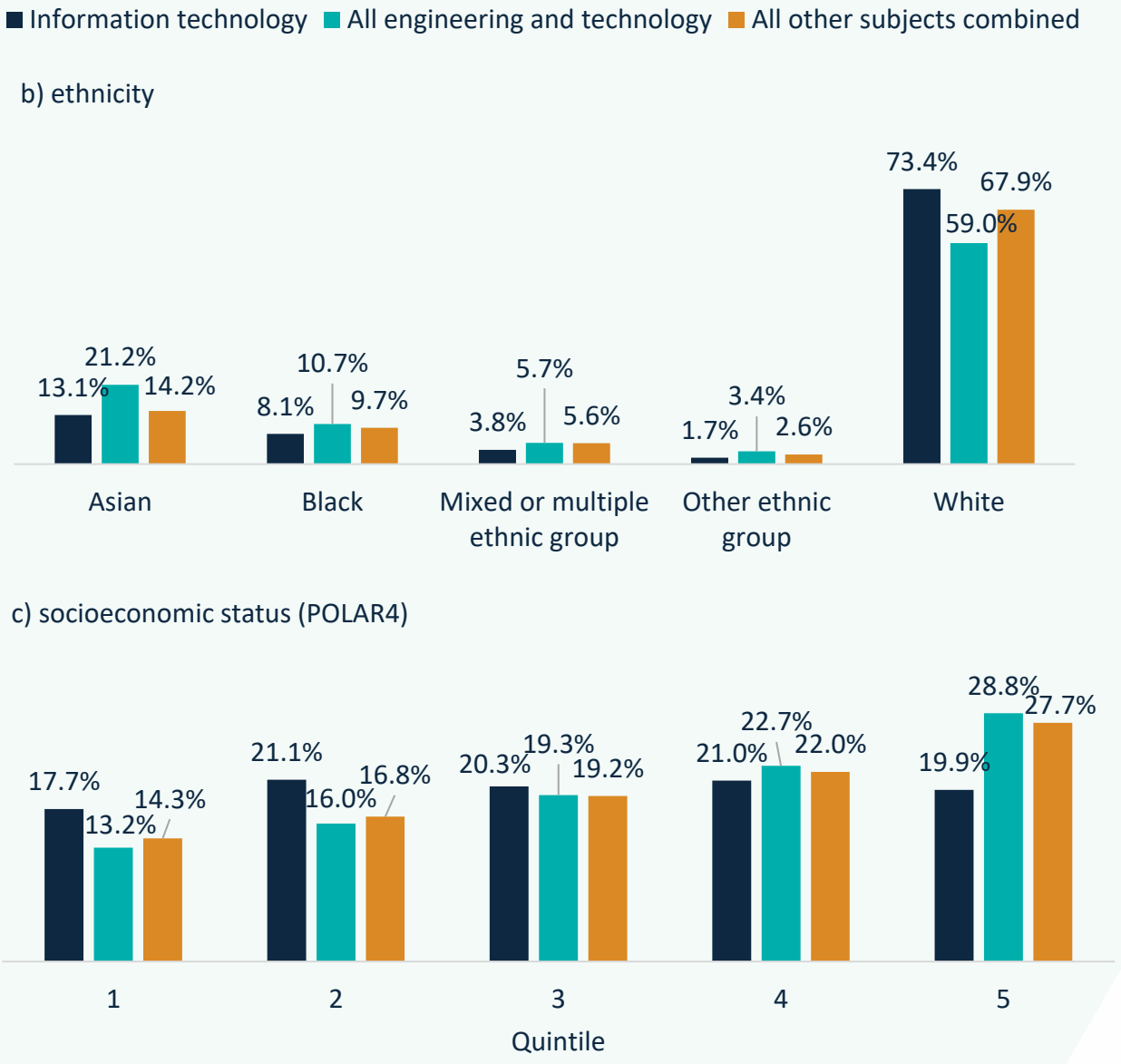
- 24.1% were women
- 26.7% were from a UKME group
- 21.0% had a known disability
- 17.7% were from low higher education participation areas (POLAR4 quintile 1)
- 85.4% were from the UK, 0.2% from the EU and 14.4% were from the rest of the world

Information technology students were the least likely to have a parent who also had a qualification from higher education at 4 in 10 (41.2%), compared to other engineering and technology subjects (figure 37).

Figure 37: Characteristics of undergraduate entrants

a) gender, disability and parent with higher education qualification




Information technology
All engineering and technology
All other subjects combined
b) ethnicity
73.4%
67.9%
59.0%
21.2%
13.1%
14.2%
10.7%
8.1%
9.7%
5.7%
3.8%
5.6%
3.4%
1.7%
2.6%
Asian
Black
Mixed or multiple ethnic group
Other ethnic group
White
c) socioeconomic status (POLAR4)
28.8%
27.7%
22.7%
21.0%
22.0%
19.3%
20.3%
19.2%
21.1%
16.0%
16.8%
17.7%
13.2%
14.3%
19.9%
1
2
3
4
5
Quintile
d) permanent address
85.4%
78.8%
85.9%
20.0%
14.4%
12.7%
0.2%
1.3%
1.5%
UK
EU
RoW

Postgraduate degree entrants

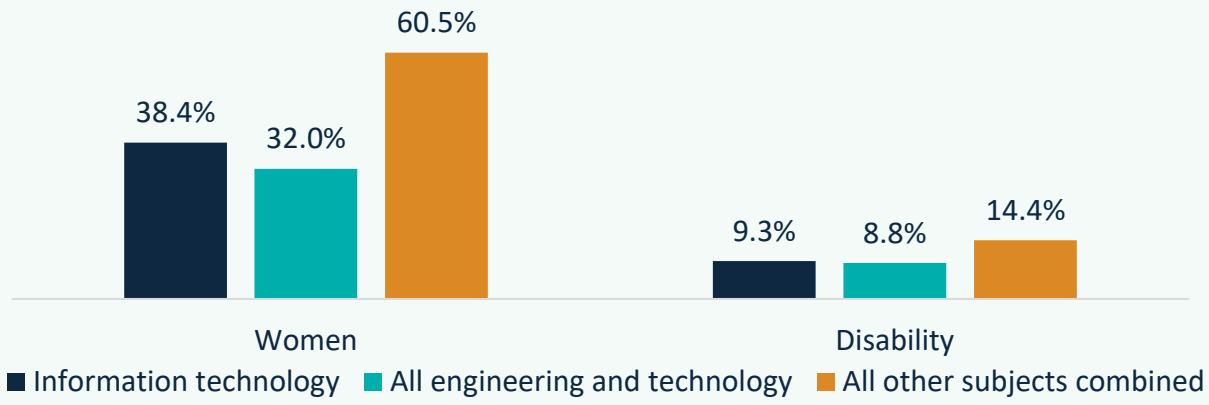
Information technology degrees were the 14th most popular engineering and technology subject amongst postgraduate entrants. Of these:

- 38.4% were women
- 9.3% had a known disability
- 46.2% were from a UKME group

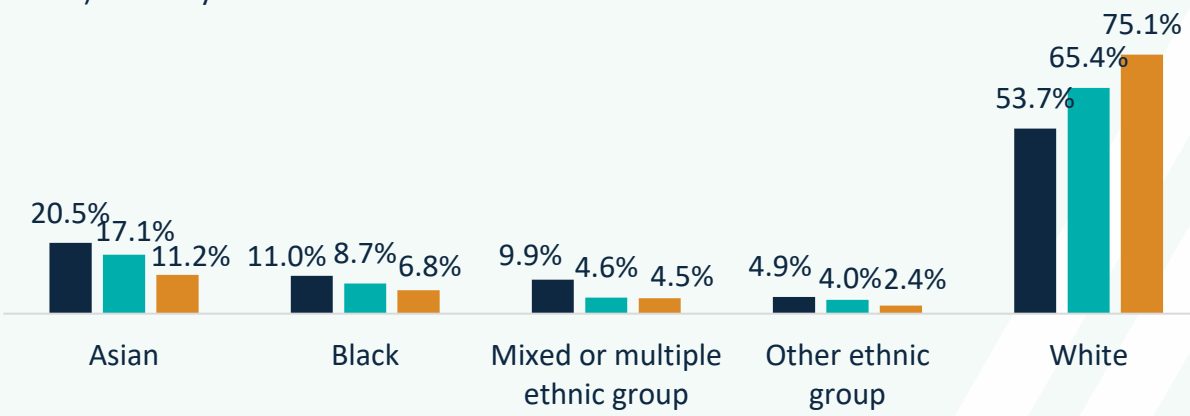
At this level, information technology had the highest percentage of UKME group students at nearly half (46.2%). This is compared to the average of a third for all engineering and technology subjects combined (34.6%). All UKME groups were overrepresented in information technology compared to the average for all engineering and technology subjects (figure 38).

Figure 38: Characteristic of postgraduate degree entrants

a) gender and disability



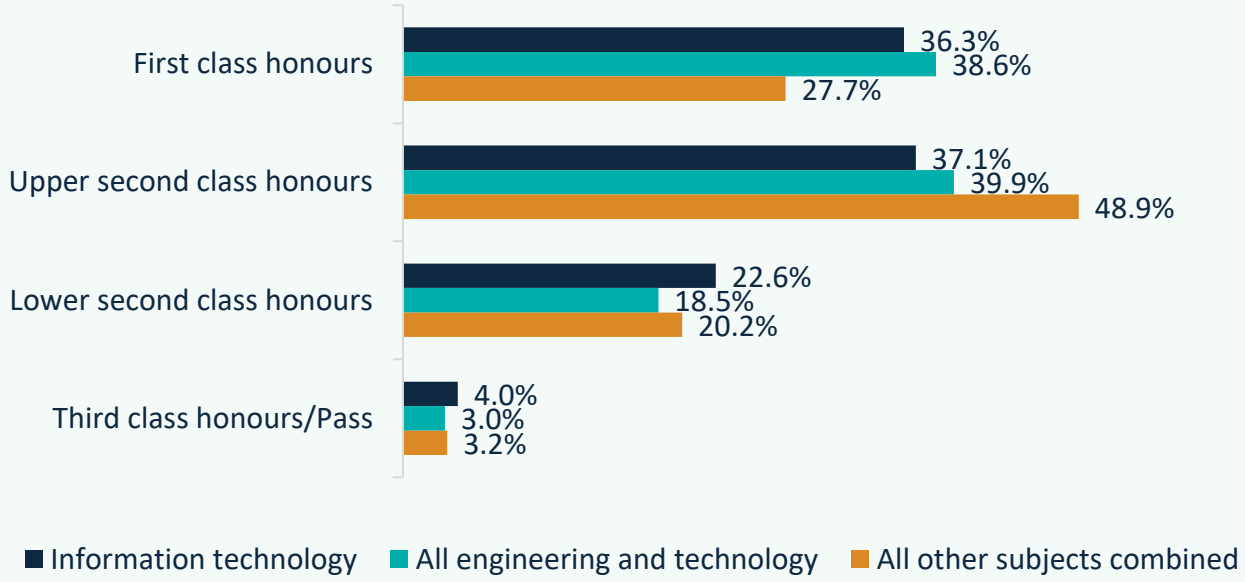
b) ethnicity



Undergraduate first degree qualifiers

An almost equal percentage of undergraduate first degree qualifiers obtained an upper second class honours (37.1%) as a first class honours (36.3%). Over 1 in 5 achieved a lower second class honours (22.6%). An additional 4.0% achieved a third class honours/pass (4.0%) (figure 39).

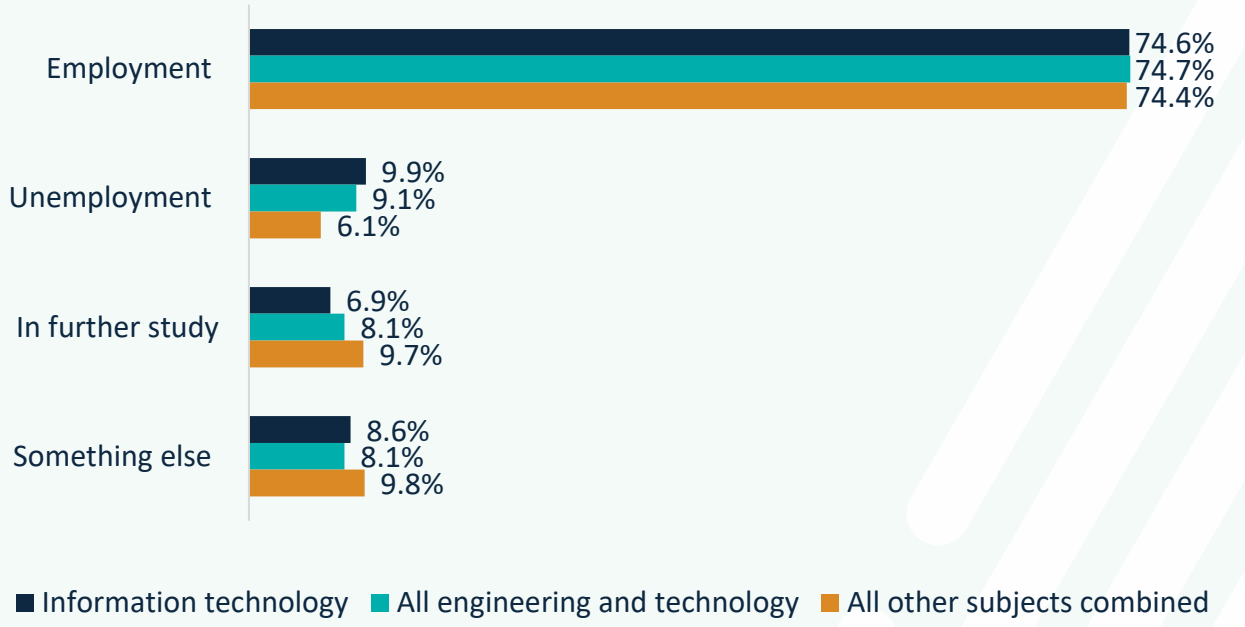
Figure 39: Information technology results, 2023/24



Graduate outcomes

74.6% were in employment after 15 months post-graduation. This is almost identical to the average for all engineering and technology subjects (74.7%) and the average for all other subjects combined (74.4%). Of the information technology graduates in employment, over half were working in an engineering and technology occupation (52.0%). This is below average compared to all engineering and technology subjects (59.7%). Nearly 1 in 10 (9.9%) were unemployed and a further 8.6% were doing something else (figure 40).

Figure 40: Outcomes for information technology graduates



Mechanical engineering

In 2023/24, there were 11,610 entrants studying mechanical engineering degrees in higher education. This was made up of 8,270 first degree and 450 other undergraduate students, and only 2,890 postgraduate students (taught and research).

Undergraduate first degree entrants

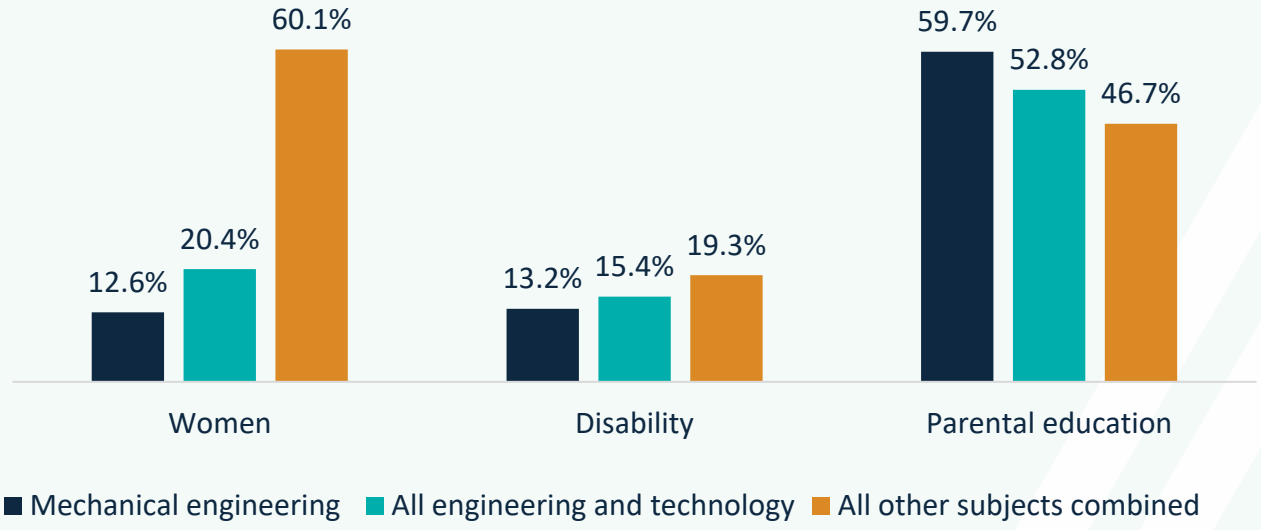
Mechanical engineering degrees were the 2nd most popular engineering and technology subject for first degree undergraduate entrants. For undergraduates this was equivalent to 10.3% of all engineering and technology entrants at this level. Of these:

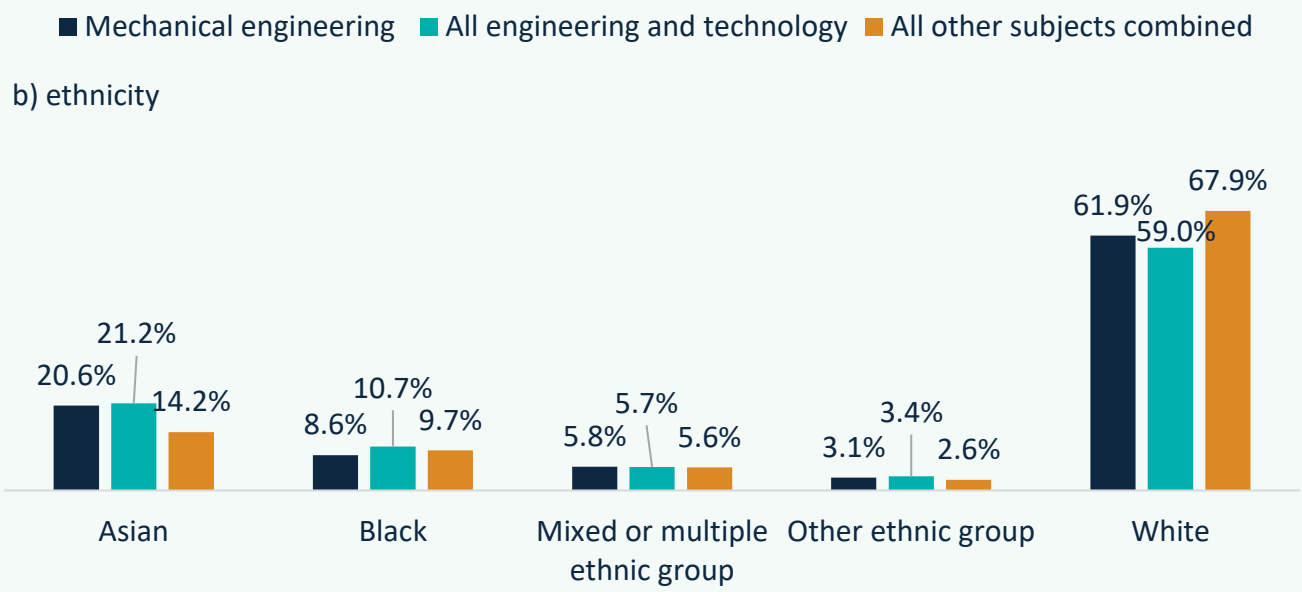
- 12.6% were women
- 38.1% were from a UKME group
- 13.2% had a known disability
- 11.2% were from low higher education participation areas (POLAR4 quintile 1)
- 76.6% were from the UK, 2.3% from the EU and 21.1% were from the rest of the world

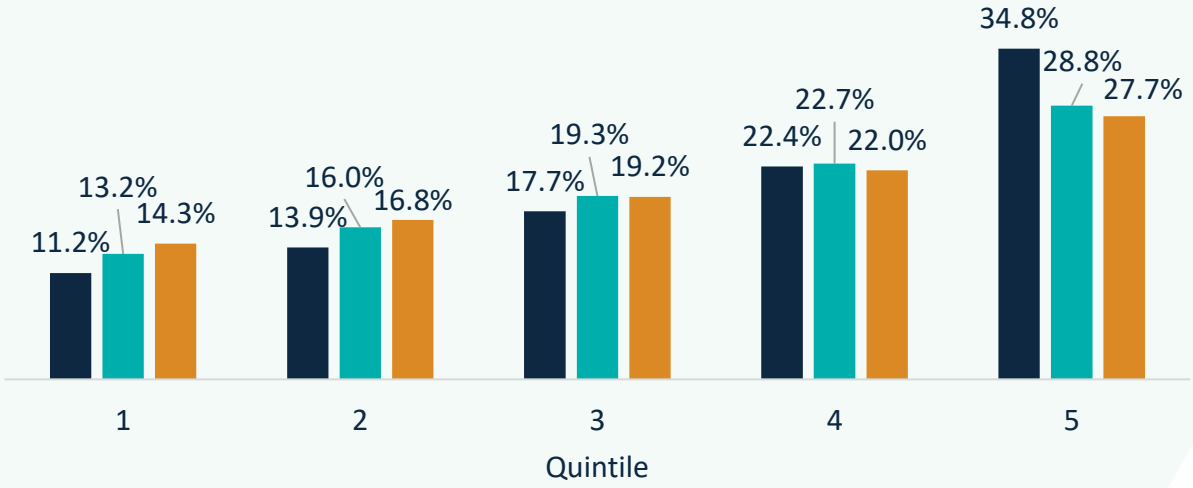
Mechanical engineering had the lowest percentage of women at just over 1 in 10. This was 7.8 pp below the average for all engineering and technology first degrees (figure 41).

Figure 41: Characteristics of undergraduate entrants

a) gender, disability and parent with higher education qualification




Mechanical engineering
All engineering and technology
All other subjects combined
b) ethnicity
20.6%
21.2%
14.2%
8.6%
10.7%
9.7%
5.8%
5.7%
5.6%
3.1%
3.4%
2.6%
61.9%
59.0%
67.9%
Asian
Black
Mixed or multiple ethnic group
Other ethnic group
White


c) socioeconomic status (POLAR4)
11.2%
13.2%
14.3%
13.9%
16.0%
16.8%
17.7%
19.3%
19.2%
22.4%
22.7%
22.0%
34.8%
28.8%
27.7%
1
2
3
4
5
Quintile


d) permanent address
76.6%
78.8%
85.9%
2.3%
1.3%
1.5%
21.1%
20.0%
12.7%
UK
EU
RoW

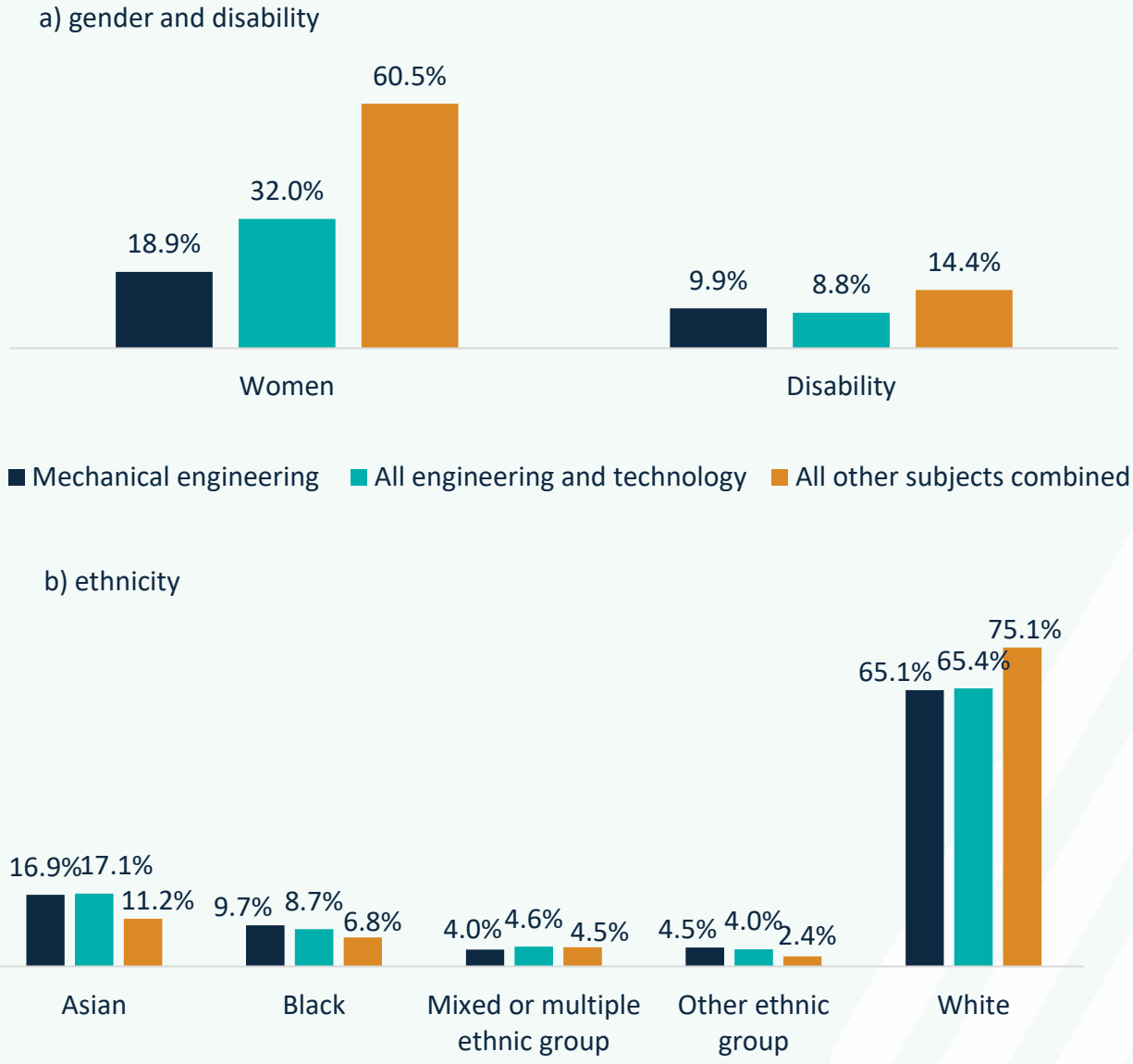
Postgraduate degree entrants

Mechanical engineering was the 7th most popular engineering and technology subject amongst graduates, equivalent to 5.7%. Of these:

- 18.9% were women
- 9.9% had a known disability
- 35.0% were from a UKME group

As with undergraduate first degrees, at postgraduate level mechanical engineering still had the smallest percentage of women at fewer than 1 in 5 (18.9%). This is 13.1 pp below the average for all engineering and technology subjects at 32.0% (figure 42).

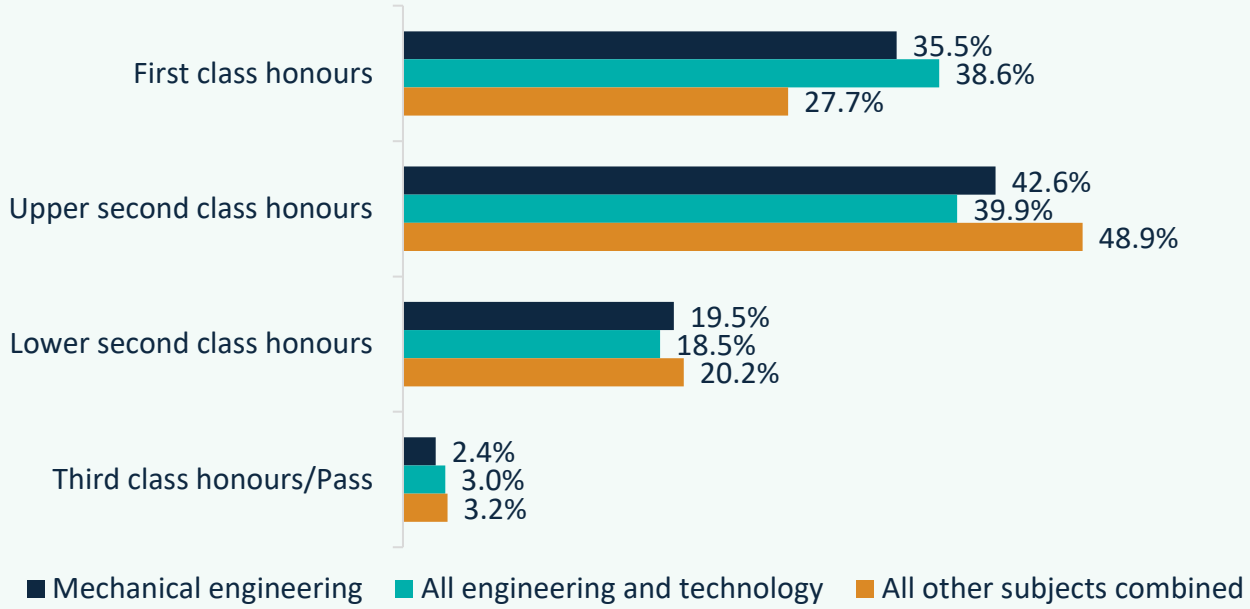
Figure 42: Characteristic of postgraduate degree entrants



Undergraduate first degree qualifiers

The majority of mechanical engineering first degree qualifiers obtained an upper second class honours at over 4 in 10 (42.6%). Over a third achieved a first class honour (35.5%) and nearly a fifth obtained a lower second class honours (19.5%) (figure 43).

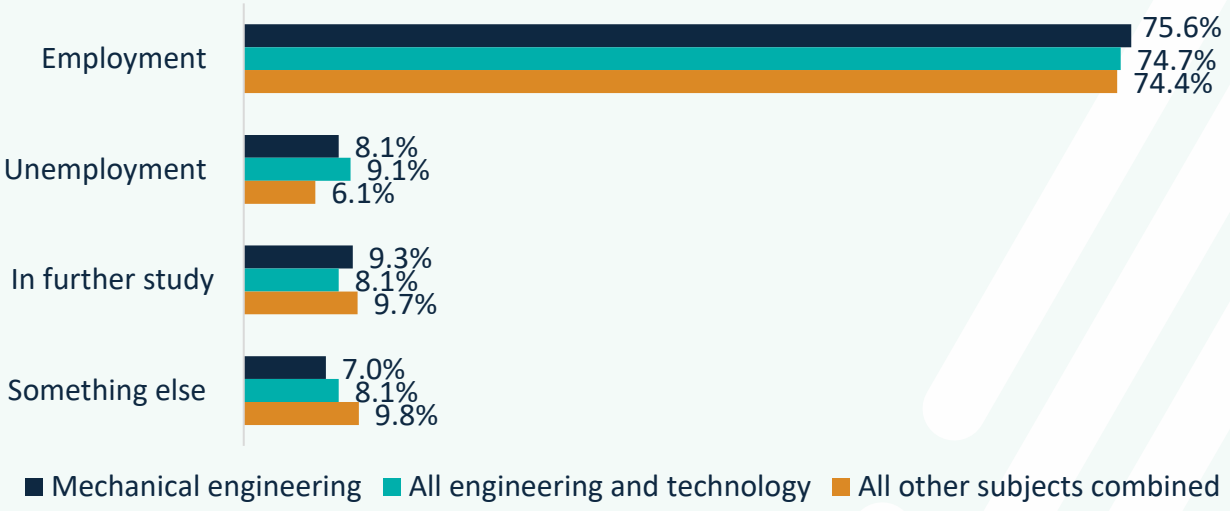
Figure 43: Mechanical engineering results, 2023/24



Graduate outcomes

Three-quarters of mechanical engineering graduates were in paid work 15 months after graduating (75.6%). Of those, nearly 7 in 10 were working in engineering and technology occupations (69.0%) which is above average compared to all engineering and technology subjects (59.7%). 9.3% were doing further studies and 8.1% were unemployed.

Figure 44: Outcomes for mechanical engineering graduates



Production and manufacturing engineering

In 2023/24, there were 5,950 entrants studying production and manufacturing engineering degrees in higher education. This was made up of 2,730 first degree and 180 other undergraduate students) and 3,040 postgraduate students (taught and research).

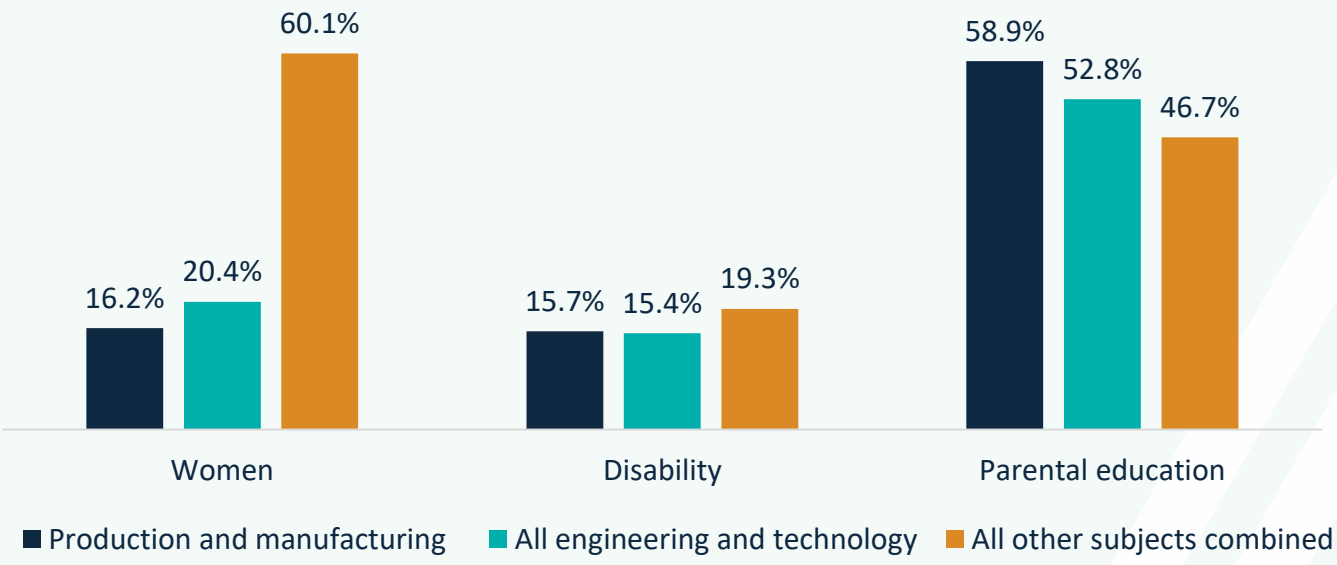
Undergraduate first degree entrants

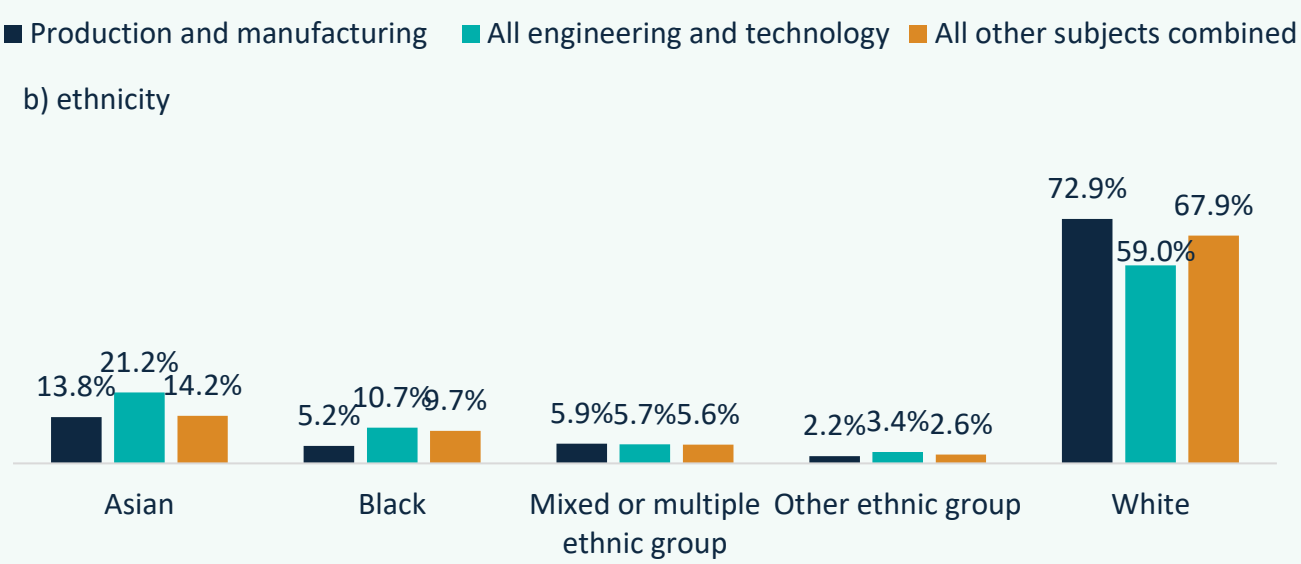
Production and manufacturing engineering was the 10th most popular engineering and technology subject amongst first degree entrants at 3.4%. Of these:

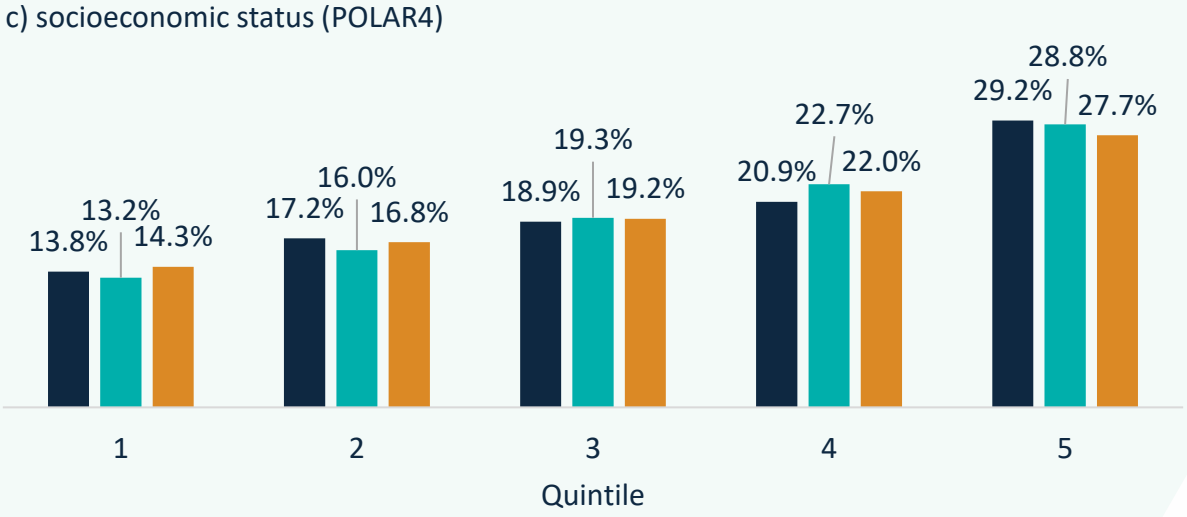
- 16.2% were women
- 27.1% were from a UKME group
- 15.7% had a known disability
- 13.8% were from low higher education participation areas (POLAR4 quintile 1)
- 76.7% were from the UK, 2.4% from the EU and 20.9% were from the rest of the world

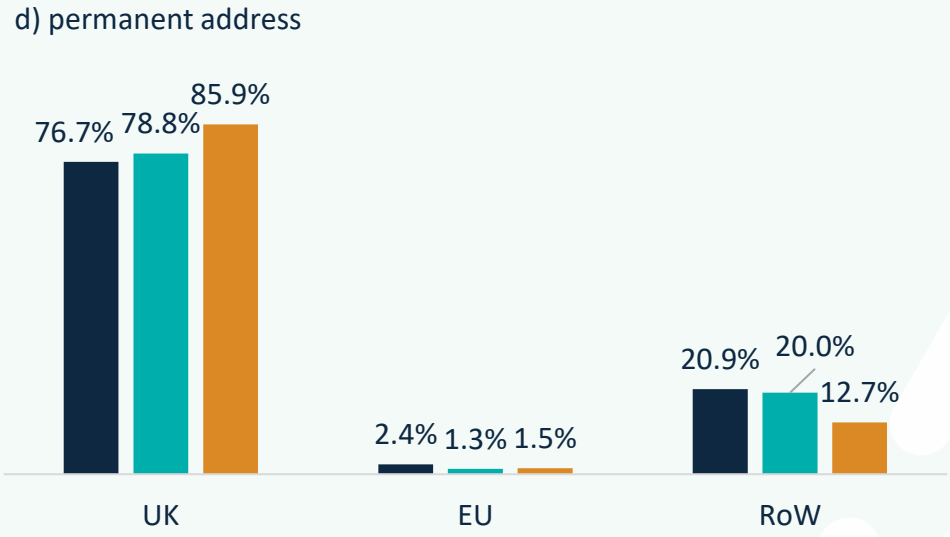
Figure 45: Characteristics of undergraduate entrants

a) gender, disability and parent with higher education




Production and manufacturing
All engineering and technology
All other subjects combined
b) ethnicity
13.8%
21.2%
14.2%
5.2%
10.7%
9.7%
5.9%
5.7%
5.6%
2.2%
3.4%
2.6%
72.9%
59.0%
67.9%
Asian
Black
Mixed or multiple ethnic group
Other ethnic group
White


c) socioeconomic status (POLAR4)
13.8%
13.2%
14.3%
17.2%
16.0%
16.8%
18.9%
19.3%
19.2%
20.9%
22.7%
22.0%
29.2%
28.8%
27.7%
1
2
3
4
5
Quintile


d) permanent address
76.7%
78.8%
85.9%
2.4%
1.3%
1.5%
20.9%
20.0%
12.7%
UK
EU
RoW

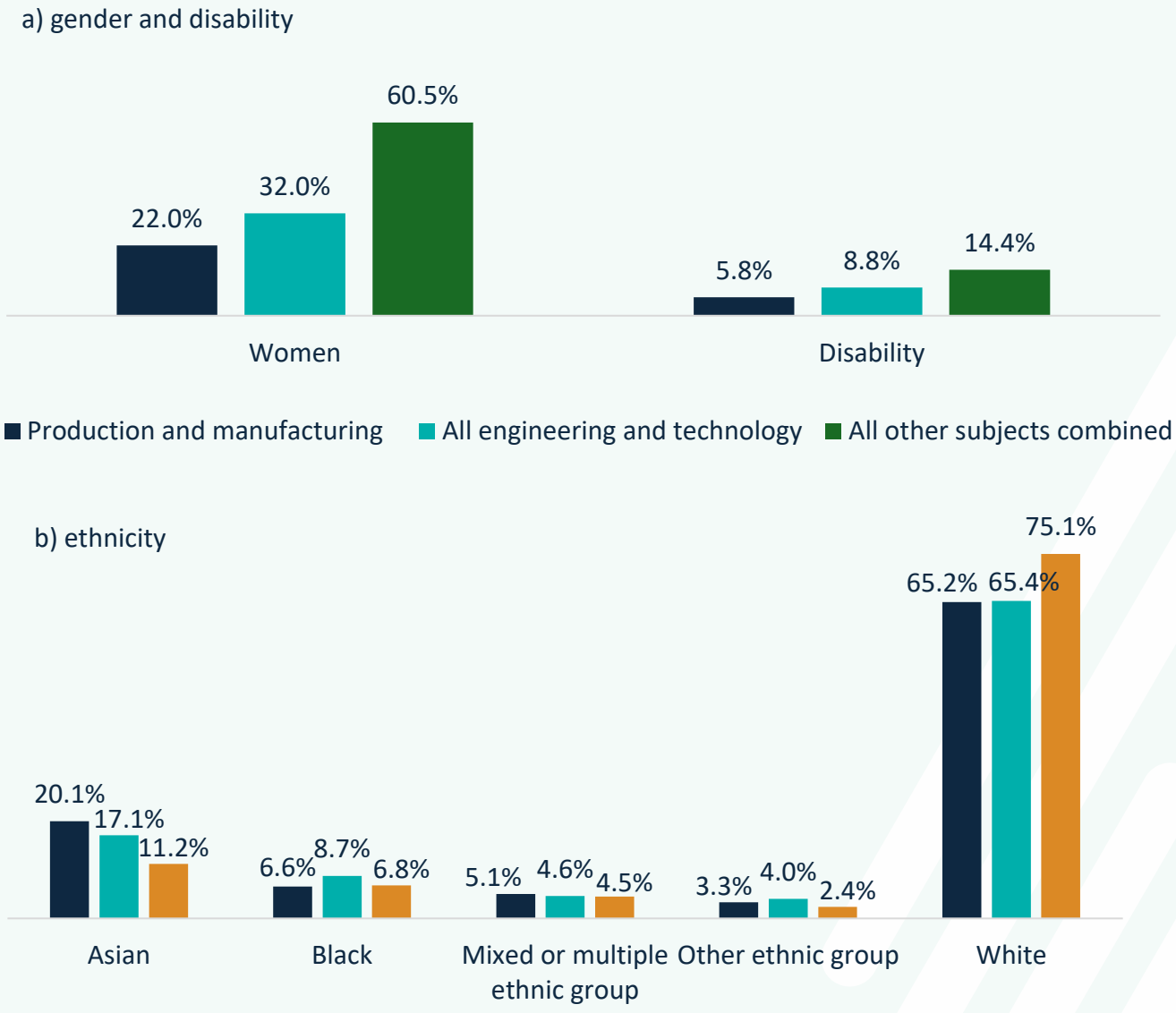
Postgraduate degree entrants

Similarly to first degree entrants, production and manufacturing engineering was also the 10th most popular engineering and technology subjects amongst postgraduates. This was equivalent to 4.2%. Of these:

- 22.0% were women
- 5.8% had a known disability
- 35.0% were from a UKME group

Production and manufacturing engineering had the second lowest percentage of disabled students at 5.8%. This is 3.0 pp below the average for all engineering and technology subjects at this level (8.8%) (figure 46).

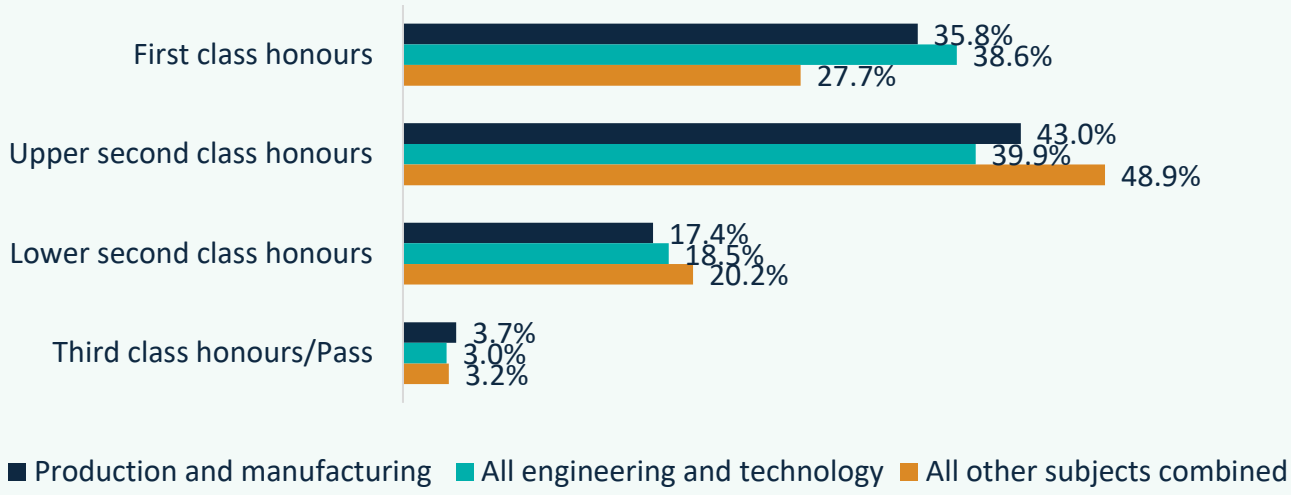
Figure 46: Characteristic of postgraduate degree entrants



Undergraduate first degree qualifiers

The majority of production and manufacturing first degree qualifiers obtained an upper second class honours at 43.0%. A further 35.8% achieved a first class honours and 17.4% obtained a lower second class honours (figure 47).

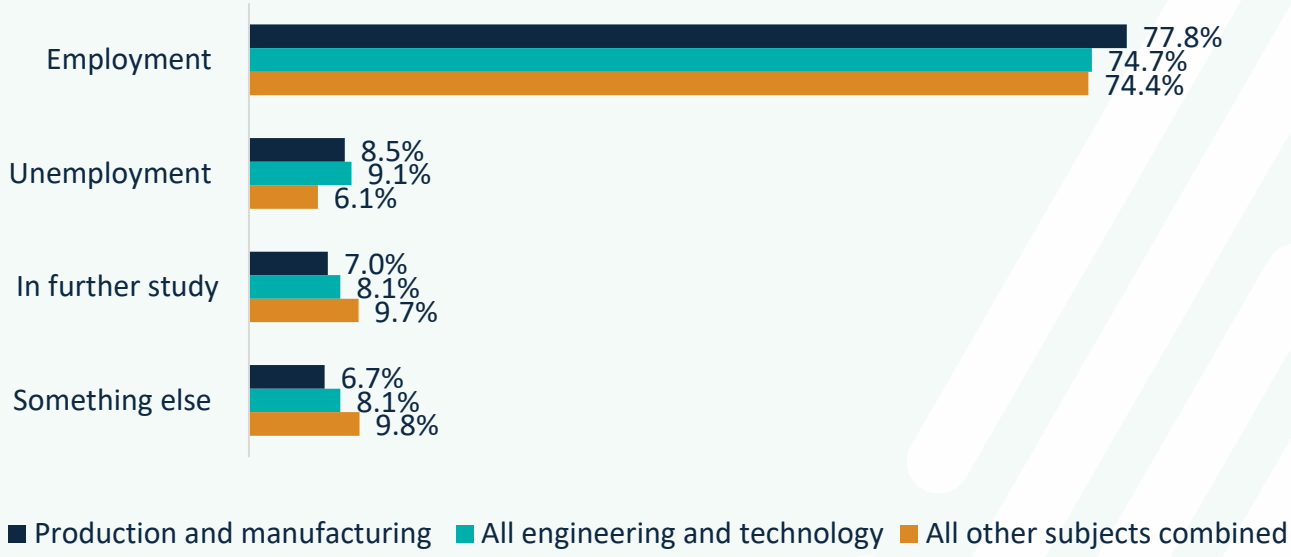
Figure 47: Production and manufacturing engineering results, 2023/24



Graduate outcomes

Over three-quarters of production and manufacturing graduates were in work 15 months after graduating (77.8%). Of these, over two-thirds were working in engineering and technology occupations (67.8%) which is above average compared to all engineering and technology subjects (59.7%). 8.5% were unemployed and an additional 7.0% were doing further studies.

Figure 48: Outcomes for production and manufacturing engineering graduates



Software engineering

In 2023/24, 12,230 entrants studied software engineering. This was made up of 6,790 first degrees and 180 other undergraduate students and 5,260 postgraduate entrants (research and taught).

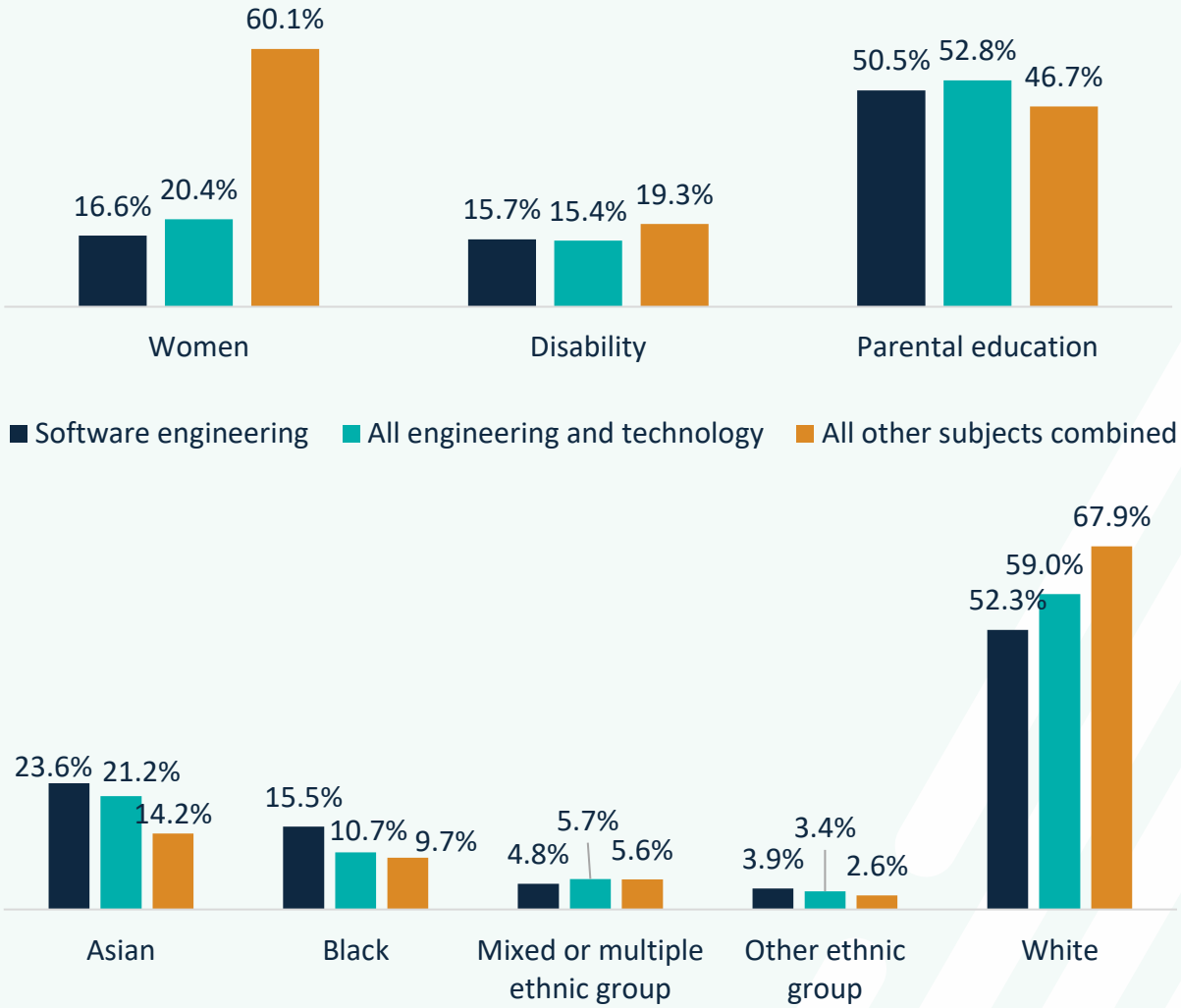
Undergraduate first degree entrants

Software engineering was the 3rd most popular subject amongst first degree entrants and was equivalent to 8.5%. Of these:

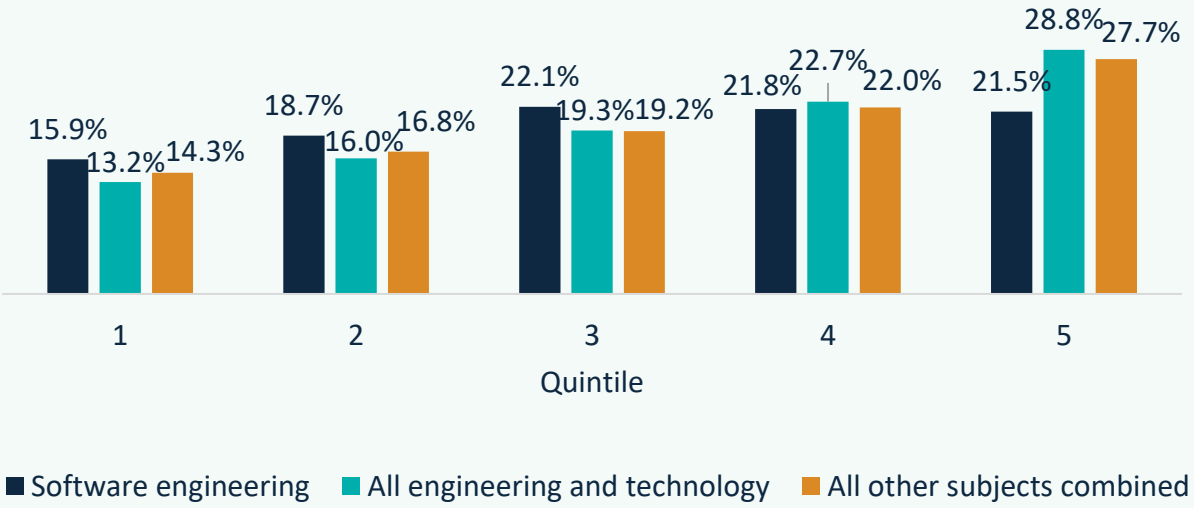
- 16.2% were women
- 27.1% were from a UKME group
- 15.7% had a known disability
- 13.8% were from low higher education participation areas (POLAR4 quintile 1)
- 76.7% were from the UK, 2.4% from the EU and 20.9% were from the rest of the world

Figure 49: Characteristics of undergraduate entrants

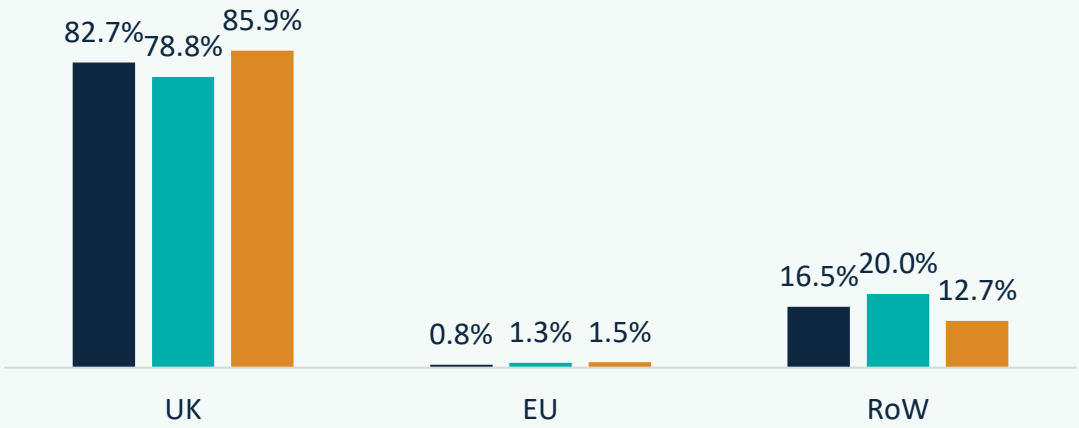
a) gender, disability and parent with higher education qualification



c) socioeconomic status (POLAR4)



d) permanent address



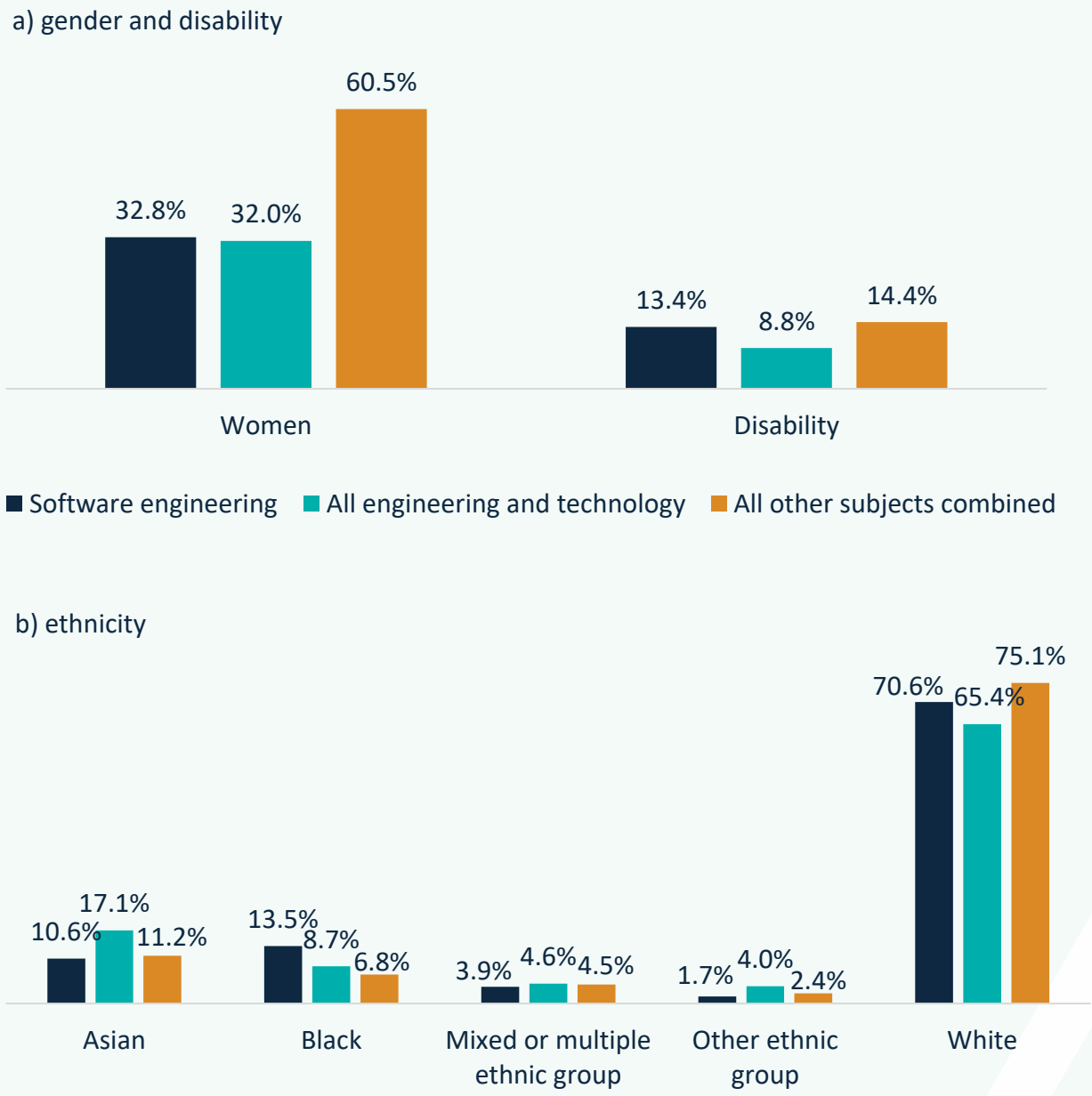
Postgraduate degree entrants

Software engineering was not as popular amongst postgraduates as it was for undergraduate first degrees in 9th place. This was equivalent to 4.6%. Of these:

- 32.8% were women
- 13.4% had a known disability
- 29.7% were from a UKME group

Software engineering at the highest percentage of Black students at postgraduate level at 13.5%. This is compared to 8.7% for all engineering and technology subjects (figure 50).

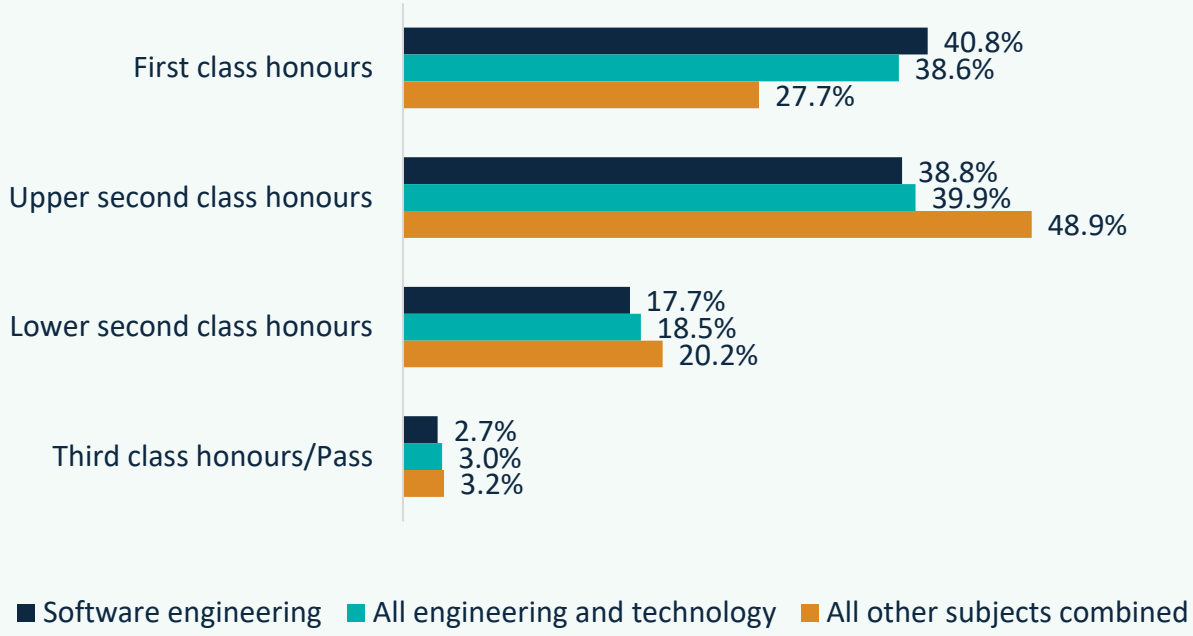
Figure 50: Characteristic of postgraduate degree entrants



Undergraduate first degree qualifiers

The majority of software engineering first degree qualifiers obtained a first class honours at 4 in 10. A further 38.8% obtained an upper second class honours and only 17.7% obtained a lower second class honours.

Figure 51: Software engineering results, 2023/24



Graduate outcomes

Exactly three-quarters of software engineering graduates were in paid work 15 months after graduation. Of these, two-thirds were working in engineering and technology occupations (66.9%) which is above average compared to all engineering and technology subjects (59.7%). More than 1 in 10 were unemployed at 11.3% and only 5.6% were doing further studies. An additional 8.1% were also doing something else.

Figure 52: Outcomes for software engineering graduates