

Disability STEM data for students and academic staff in higher education 2007/08 to 2018/19

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Executive summary

Students

The percentage of STEM entrants with a known disability is rising year on year at both first degree and postgraduate level. The percentage of STEM first degree entrants with a known disability has increased from 7.5 per cent (12,585) in 2007/08 to 15.5 per cent (33,530) in 2018/19. At postgraduate level, the percentage of STEM entrants with a known disability has increased from 6.1 per cent (3,400) in 2007/08 to 12.5 per cent (12,585) in 2018/19. Much of this growth can be attributed to the large rise in the number of STEM students reporting either a mental health condition or a specific learning difficulty.

- The percentage of entrants with a known disability is lower for students studying STEM subjects than non-STEM at both first degree and postgraduate level.
- Despite the rise in numbers with certain disabilities, those STEM students who are blind or deaf (or have a serious visual/hearing impairment) have not increased as a percentage of all STEM students over this period.
- STEM first degree students with a known disability are continuing into postgraduate level study in roughly the same proportion. There does not appear to be a drop-off of STEM students with a known disability continuing into STEM postgraduate level study.
- There is some variation in the subject areas that STEM entrants with a known disability are choosing to study at first degree and postgraduate level. In 2018/19 17.8 per cent of first degree entrants studying Biological sciences have a known disability compared with 10.9 per cent studying Medicine and dentistry subjects.
- There is variation in the male/female proportion by type of disability. In 2018/19 79.1 per cent of STEM first degree students reporting a social communication/autistic spectrum disorder are male, whilst 68.5 per cent of STEM first degree students reporting a mental health condition are female.
- There is little difference in the non-completion rate between those with a known disability and those without for STEM first degree students. For postgraduate STEM students the gap is wider – those with a known disability are more likely to leave with no award compared to those with no known disability.
- A lower percentage of STEM qualifiers with a known disability achieve first or upper second-class honours compared to STEM qualifiers with no known disability. Male STEM qualifiers reporting a social communication/autistic spectrum disorder achieve the lowest percentage of all in 2018/19.
- A higher percentage of STEM leavers with a known disability are unemployed six months after graduation compared to those STEM leavers with no known disability.
- STEM first degree and postgraduate leavers with a social communication/ autistic spectrum disorder have the highest rate of unemployment six months after leaving (2011/12 to 2016/17 combined). They also have the lowest percentage going into professional employment in 2016/17.

Staff

The percentage of STEM academic staff with a known disability is rising year on year. The percentage of STEM academic staff with a known disability has increased from 2.0 per cent (1,645) in 2007/08 to 3.8 per cent (4,465) in 2018/19.

- The percentage of academic staff with a known disability is lower for staff working in STEM than non-STEM.
- Of the different types of disabilities in 2018/19, the highest percentage of STEM academic staff reported a specific learning difficulty and the lowest percentage reported a general learning disability.
- The age group '50 and over' has the highest percentage of STEM academic staff with a known disability.
- There is variation in the subject areas that STEM academic staff with a known disability work in. In 2018/19 5.3 per cent of STEM academic staff working in Subjects allied to medicine have a known disability vs 2.7 per cent working in Agriculture & related subjects.
- STEM academic staff with a known disability are more likely to have a contract that is teaching only compared to STEM academic staff with no known disability.
- STEM academic staff with a known disability are less represented in more senior contract levels. They are less likely to hold a senior position than STEM academic staff with no known disability.

Recommendations

Recommendations drafted jointly by Jisc and the Royal Society.

1. The higher education sector should carry out further research to understand why scientists with disabilities have left STEM – for example, by talking to PhD supervisors whose students have left STEM or requesting data from university HR departments. This may include further research with researchers on teaching-only contracts, to understand the factors influencing their career choices.
2. The sector should investigate developing a sponsorship initiative or programme to enable scientists with disabilities to access the expertise and support of senior people in STEM, and broaden their opportunities to take on STEM leadership roles.
3. The higher education sector should explore making different working patterns (e.g. job-sharing) available for senior roles in STEM, which may make these roles more appealing to scientists with disabilities.
4. Further analysis should be undertaken into the proportion of people with disabilities studying and working in STEM in each of the four UK nations, and whether any differences could be shown to be linked to initiatives or types of support available in different parts of the UK.
5. Further research should be carried out into students with disabilities' engagement with STEM at primary and secondary school level, and what could be done to increase engagement.
6. The sector should investigate ways to improve support for STEM postgraduate students with disabilities to ensure they are able to complete their studies.

Introduction

This report contains analysis on UK domiciled students, graduates and leavers studying Science, Technology, Engineering and Mathematics (STEM) subjects¹, and academic staff² working in STEM at UK higher education providers from 2007/08 to 2018/19. Data is sourced from the HESA Student and Staff records.

It analyses contextual and outcomes data comparing those with a known disability with those without a known disability. It also provides further analysis broken down by type of disability.

The report uses descriptive statistics to compare cohorts and not all differences have been statistically validated.

Student data

The student data is restricted to UK domiciled first degree and postgraduate students. The analysis focuses on students studying STEM subjects, but comparison with students studying non-STEM subjects is included for context. It includes time series comparisons based on disability marker, type of disability, sex, level of study, low participation neighbourhoods (POLAR 4), Russell Group and other universities, subject area, class of first degree, non-completion and activity after graduation.

- 'Entrants' refers to first year students only. This is used for time series analysis to avoid double counting of students.
- 'Students' refers to students irrespective of which year of study they are participating in. This is normally used when looking at a single year of data or non-completion time series analysis.
- 'Qualifiers' refers to those graduates who achieved a qualification whilst at university.
- 'Leavers' refers to those graduates who completed the Destination of Leavers from Higher Education survey after graduation.
- UK domiciled refers to those students who were living in the UK three months before they commenced their studies. **All student data in the report is restricted to UK domiciled students only.**
- Analysis is restricted to first degree and postgraduate students. Other undergraduate students have not been included.
- All numbers are rounded to the nearest 5. Percentages are based on unrounded figures to 1.d.p. Percentage point differences between figures are calculated based on unrounded percentages. All percentages are based on a denominator of 22.5 or more.
- In 2018/19 data for Falmouth University, London South Bank University and the University of Worcester is not included as they did not opt-in to **Category 3 Permitted Purpose**.
- Students with a known disability may be eligible to receive Disabled Students' Allowance³ (DSA) which covers some of the extra costs they have because of a disability. Students with a known disability in this report includes both those that receive DSA and those that do not.
- Student data on disability can be collected at any point during the academic year as and when students report their disability to the university.

¹ Students studying Medicine & dentistry; Subjects allied to medicine; Biological sciences; Veterinary science; Agriculture & related subjects; Physical sciences; Mathematical sciences; Computer science; Engineering & technology; Architecture, building & planning.

² Those staff with an academic contract that is either research only, teaching only, both teaching and research, or neither teaching nor research.

³ <https://www.gov.uk/disabled-students-allowances-dsas>

Staff data

The staff data is restricted to academic staff. The analysis is focussed on staff working in STEM subjects, but comparison with staff working in non-STEM subjects is included for context. It includes time series comparisons based on disability marker, type of disability, sex, mode of employment, Russell Group and other universities, age, subject area, academic employment function, contract level and terms of employment.

- From 2007/08 to 2011/12 data was collected on what academic subject the member of staff studied. Each member of staff could have up to 2 subjects. From 2012/13 onwards data was collected on their current academic discipline. Each member of staff could have up to two subjects from 2012/13 to 2013/14, and three subjects from 2014/15 onwards.
- Each member of staff has been assigned to the working in STEM category if their first academic discipline or current academic discipline is a STEM subject. Further analysis was carried out to determine whether including academic discipline 2, and current academic disciplines 2 and 3 affected the analysis. It did not, so for simplicity and ease of reporting it was restricted to the first discipline returned in the data.
- Analysis is restricted to academic staff and excludes atypical staff⁴.
- All numbers are rounded to the nearest 5. Percentages are based on unrounded figures to 1.d.p. Percentage point differences between figures are calculated based on unrounded percentages. All percentages are based on a denominator of 22.5 or more.
- In 2018/19 data for Falmouth University, London South Bank University and the University of Worcester is not included as they did not opt-in to [Category 3 Permitted Purpose](#).

⁴ Atypical staff are those members of staff whose contracts involve working arrangements that are not permanent, involve complex employment relationships and/or involve work away from the supervision of the normal work provider.

Students

Contextual overview

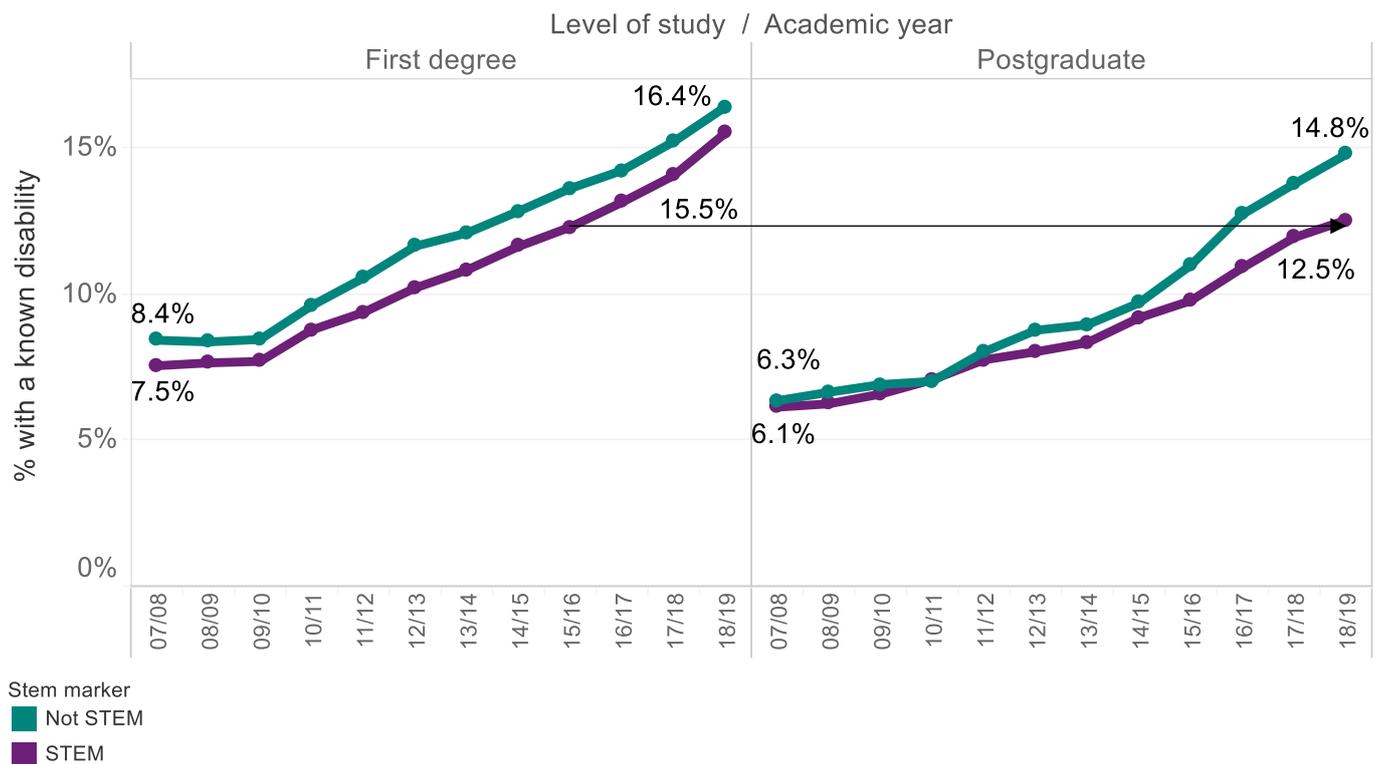
STEM subjects attract a lower percentage of entrants with a known disability⁵ than non-STEM subjects at both first degree and postgraduate level. The percentage of entrants with a known disability has risen consistently across both STEM and non-STEM subjects.

In 2018/19 the percentage of STEM first degree entrants with a known disability was 15.5 per cent (33,530) compared to 16.4 per cent (40,805) for non-STEM first degree entrants.

STEM first degree entrants with a known disability are continuing into postgraduate study. Although the percentage of STEM entrants with a known disability appears lower at postgraduate level, there is normally a three to four year time lag from when a STEM first degree entrant starts their study and when they could potentially start postgraduate study.

The percentage of STEM first degree entrants with a known disability in 2015/16 is 12.3 (26,015). The first year this cohort could typically start postgraduate study would be 2018/19 where the percentage of STEM postgraduate entrants with a known disability is 12.5 (11,835). Although there are other factors to consider, this suggests STEM first degree students with a known disability continue to postgraduate level study at roughly the same proportion. There does not appear to be a drop-off.

Chart 1 Percentage of UK domiciled entrants with a known disability by level of study and STEM marker 2007/08 to 2018/19



⁵ Disability information about the student can be collected at any point during the academic year. It is not only collected upon entry to higher education.

In 2018/19 there were more than 2.5 times as many STEM first degree entrants with a known disability than in 2007/08. For the same period there were almost 3.5 times as many STEM postgraduate entrants with a known disability. For context STEM first degree entrants have increased by 29.6 per cent, and STEM postgraduate entrants have increased by 70.1 per cent over this period.

Much of the percentage increase in STEM entrants with a known disability has been driven by the rise in the number of those reporting a mental health condition or a specific learning difficulty. There was a 1,184.0 per cent increase from 2007/08 (675) to 2018/19 (8,695) of STEM first degree entrants reporting a mental health condition and this represented 4.0 per cent of all STEM first degree entrants in 2018/19. This upward trend is also observed for non-STEM subjects, although the percentage is higher in 2018/19 (5.0 per cent, 12,440).

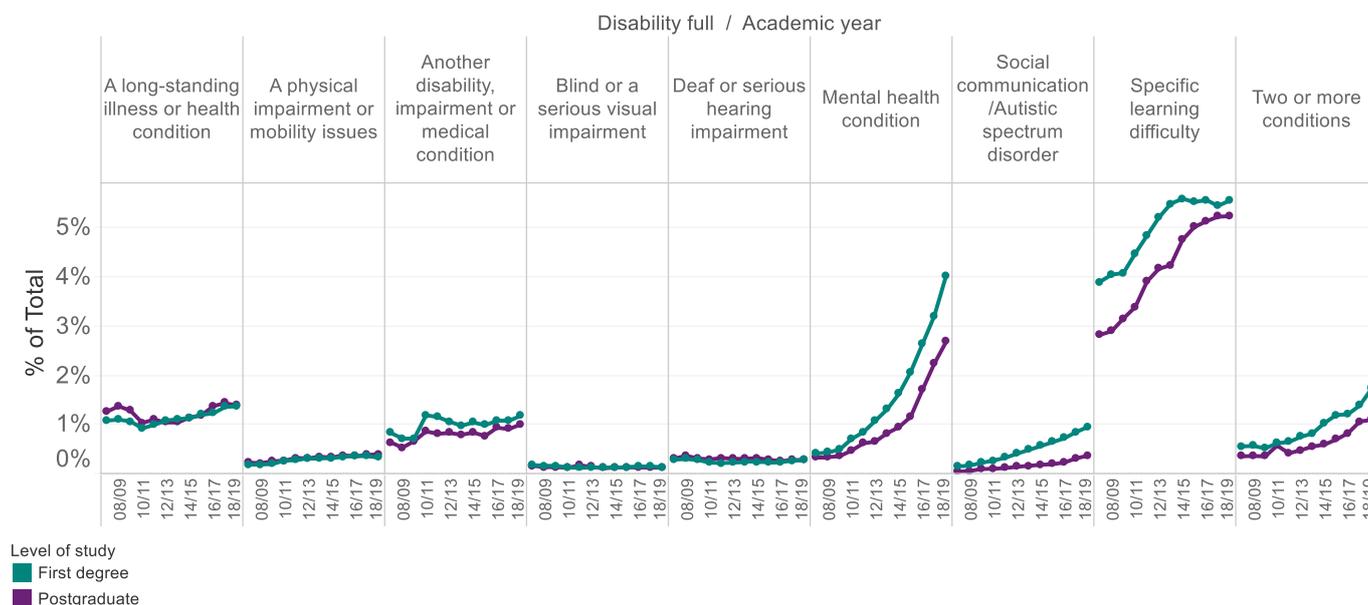
UCAS data⁶ shows that in 2018/19, 2.9 per cent (13,265) of accepted undergraduate applicants (STEM and non-STEM) reported a mental health condition, up from 0.6 per cent (2,510) in 2011/12. This compares with 4.2 per cent (23,205) of undergraduate entrants from the HESA record (STEM and non-STEM) in 2018/19.

It is hard to determine without further research whether the rise in entrants reporting a mental health condition is due to a cultural change in people’s openness towards mental health conditions, and better diagnosis and support, or whether the challenges and pressures of studying are increasing entrants’ likelihood to develop a mental health condition whilst studying.

There was also an 84.7 per cent increase from 2007/08 (6,500) to 2018/19 (12,000) of STEM entrants reporting a specific learning difficulty at first degree level and this represented 5.6 per cent of all STEM entrants in 2018/19. This trend is also observed for non-STEM subjects.

Despite the rise in numbers reporting certain disabilities, those students who are blind or have a serious visual impairment have decreased as a percentage of all students over this time period. 0.2 per cent (285) of STEM first degree entrants were blind or had a serious visual impairment in 2007/08 vs 0.1 per cent (270) in 2018/19. For those who are deaf or have a serious hearing impairment the figure was 0.3 per cent for both years (470 in 2007/08 and 590 in 2018/19).

Chart 2 Percentage of UK domiciled STEM entrants reporting specified disability by level of study 2007/08 to 2018/19⁷



⁶ <https://www.ucas.com/data-and-analysis/undergraduate-statistics-and-reports/ucas-undergraduate-sector-level-end-cycle-data-resources-2020>

⁷ Excludes personal care support which only appears in 2007/08 - 2009/10.

Overall, the proportion of STEM first degree male entrants at first degree level has reduced from 50.2 per cent in 2007/08 to 47.6 per cent in 2018/19. The corresponding figures for STEM postgraduate entrants show a reduction from 45.7 per cent in 2007/08 to 38.4 per cent in 2018/19.

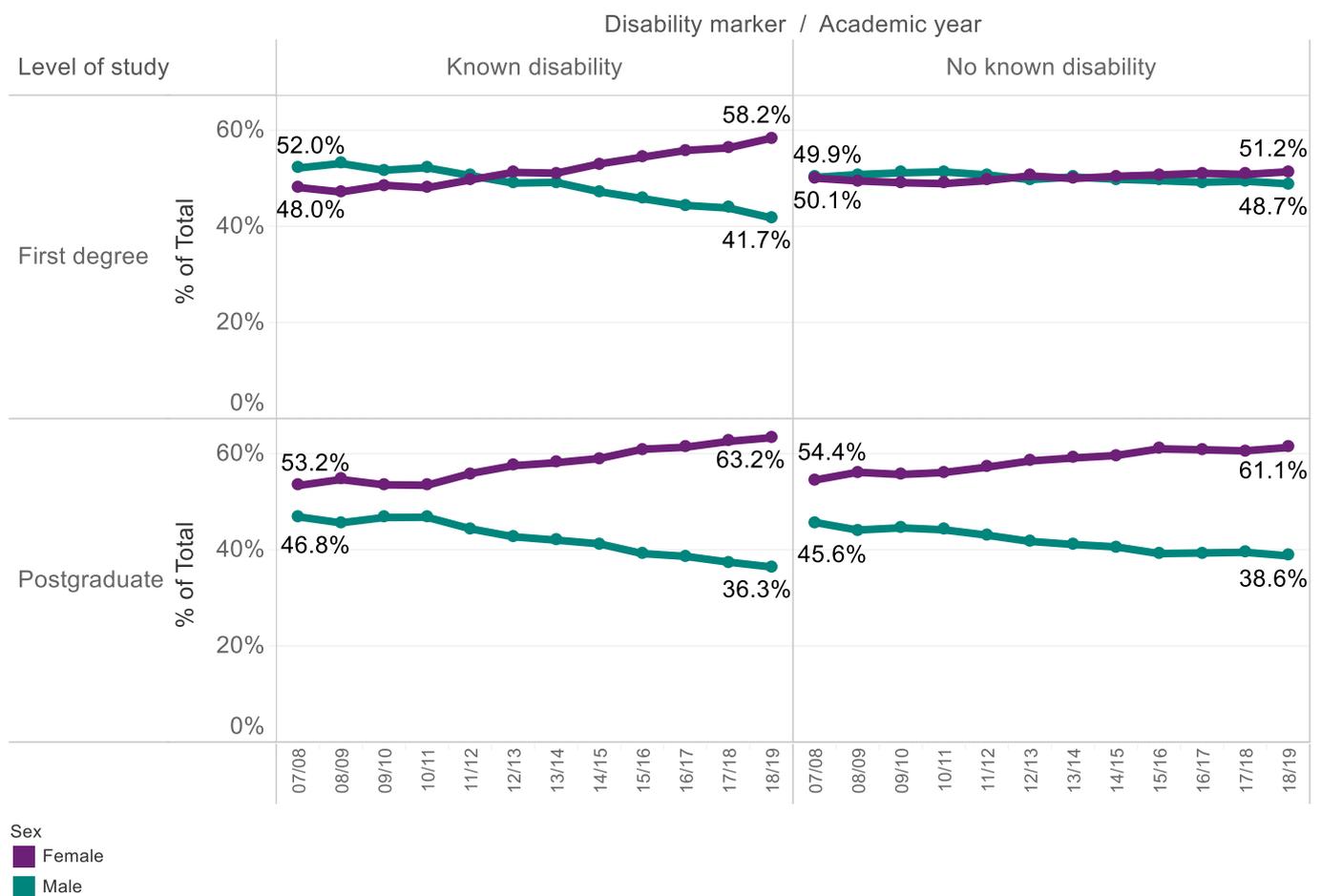
Chart 3 shows, of those STEM entrants with a known disability, the proportion of males has decreased for both first degree and postgraduate level between 2007/08 and 2018/19. In 2018/19 STEM male entrants with a known disability are outnumbered by STEM female entrants with a known disability at both first degree level (males - 13,970, females - 19,525) and postgraduate level (males - 4,300, females - 7,480).

Postgraduate level has seen the biggest decline in the proportion of STEM male entrants with a known disability, dropping by 10.4 percentage points between 2007/08 and 2018/19.

The reduction in the proportion of STEM first degree entrants with a known disability who are male can in part be explained by the large rise in the percentage of STEM females reporting a mental health condition as shown in Chart 4. This trend is also reflected in wider society⁸. In 2018/19 5.5 per cent (6,180) of STEM female first degree entrants reported a mental health condition vs 2.4 per cent (2,495) of STEM male first degree entrants.

Chart 5 shows in greater detail the breakdown by type of disability for STEM male and female entrants in 2018/19.

Chart 3 Proportion by sex for UK domiciled STEM entrants by level of study and disability marker 2007/08 to 2018/19⁹



⁸ <https://www.mentalhealth.org.uk/statistics/mental-health-statistics-men-and-women>

⁹ Due to extremely small numbers, those entrants with a sex classified as 'Other' are included in the percentage calculations, but not shown.

Chart 4 Percentage of UK domiciled STEM first degree entrants by type of disability and sex 2007/08 to 2018/19¹⁰

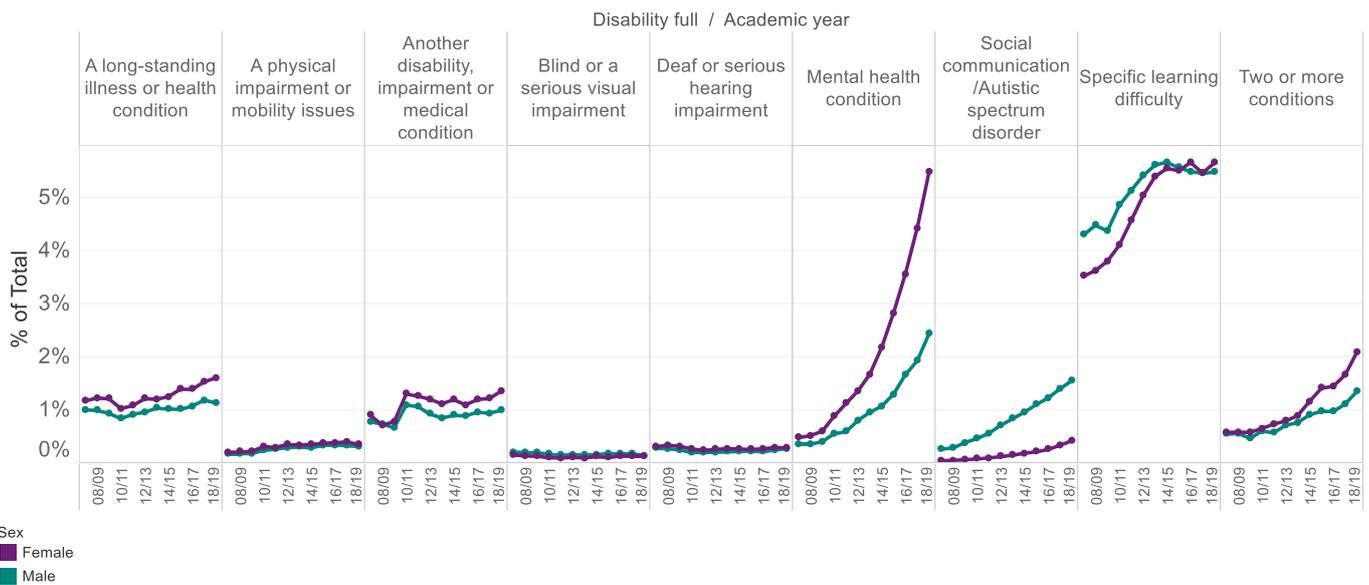
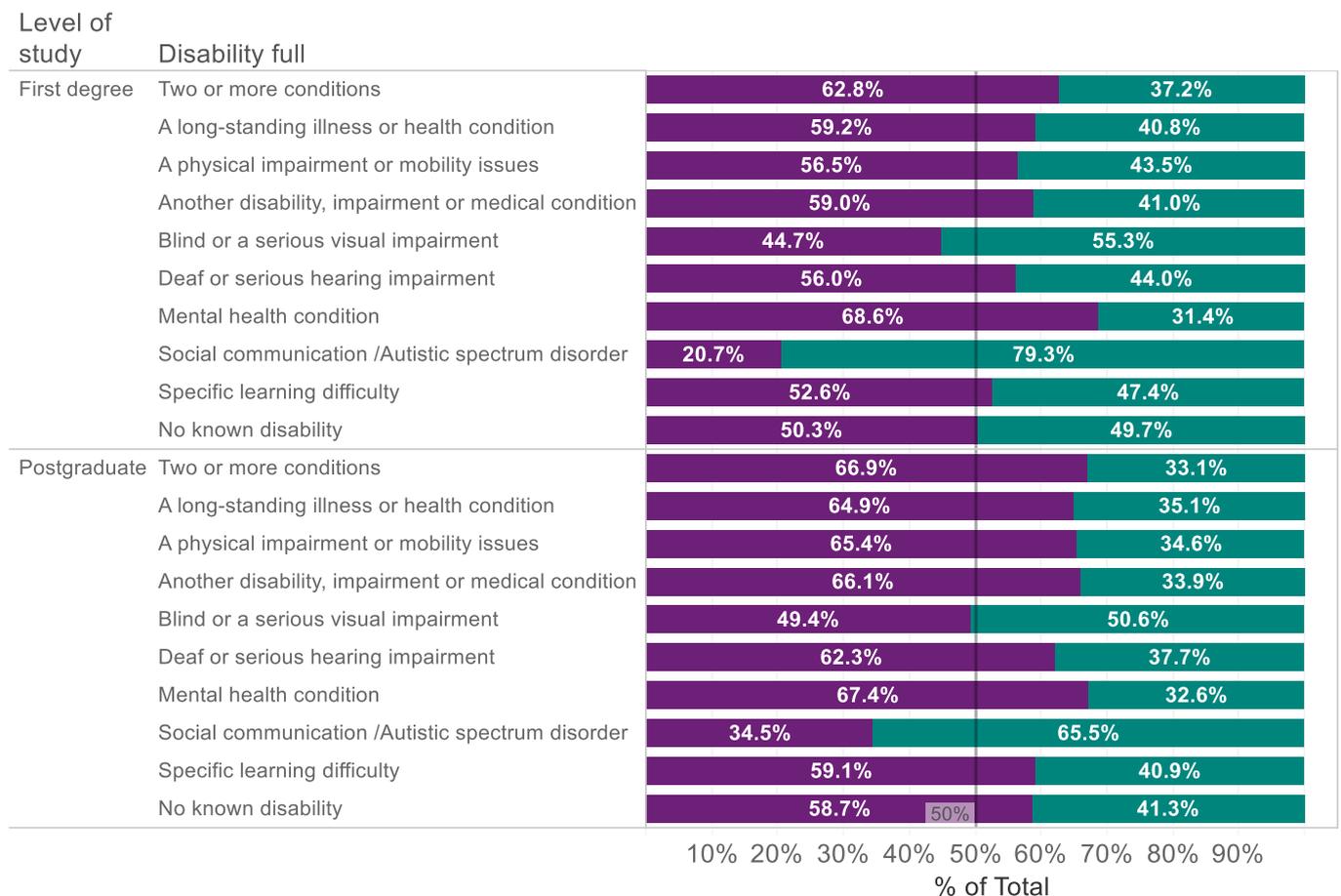


Chart 5 Proportion by sex of UK STEM students by type of disability and level of study 2018/19¹⁰



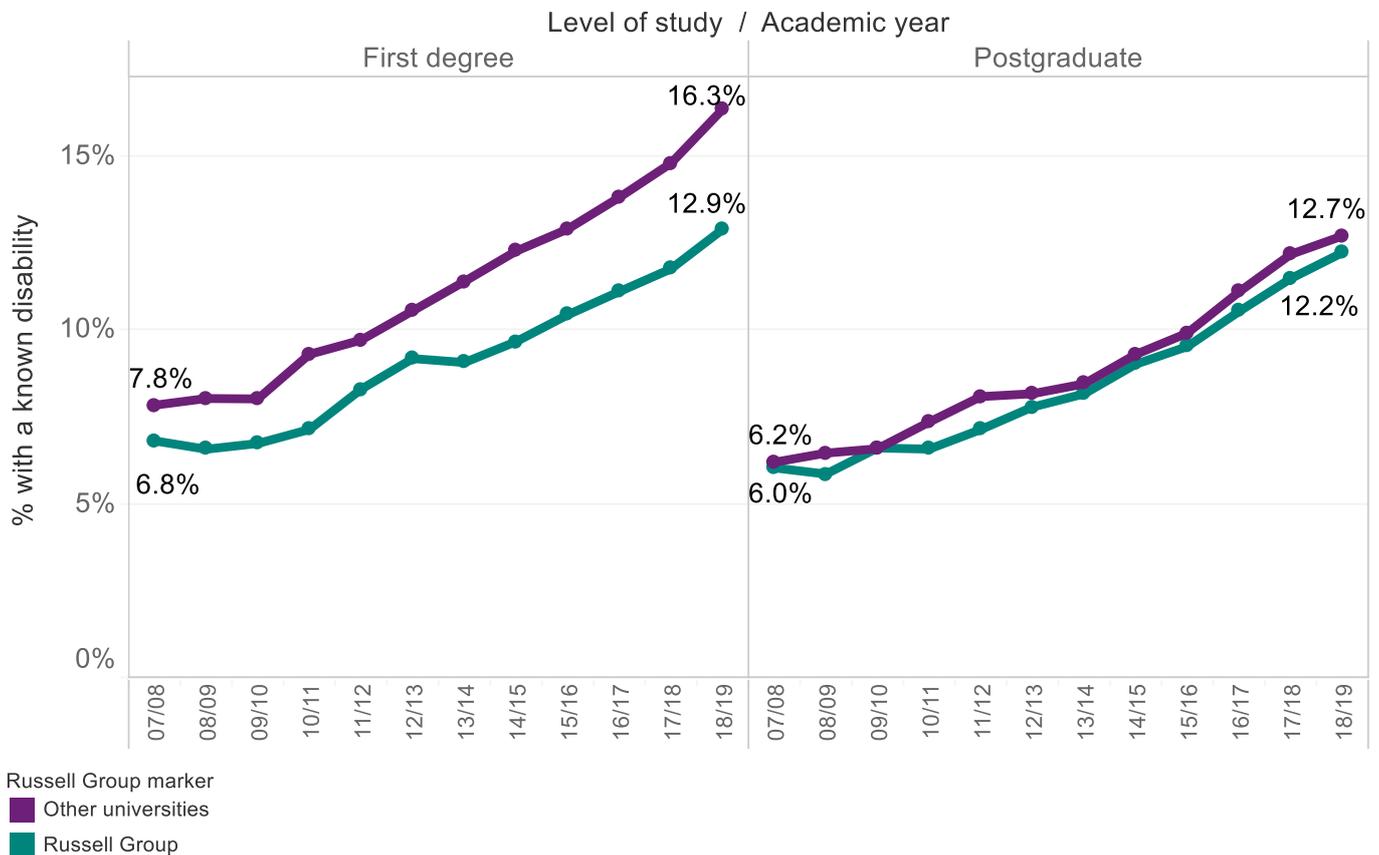
Sex
■ Male
■ Female

¹⁰ Due to extremely small numbers, those entrants with a sex classified as 'Other' are not shown.

The percentage of STEM entrants at Russell Group universities with a known disability is lower compared to other universities in 2018/19 at both first degree and postgraduate level. This trend is also observed for non-STEM subjects.

In 2018/19 the gap in the percentage of STEM entrants with a known disability between Russell Group and other universities is wider at first degree level (3.4 per cent) than at postgraduate level (0.5 per cent).

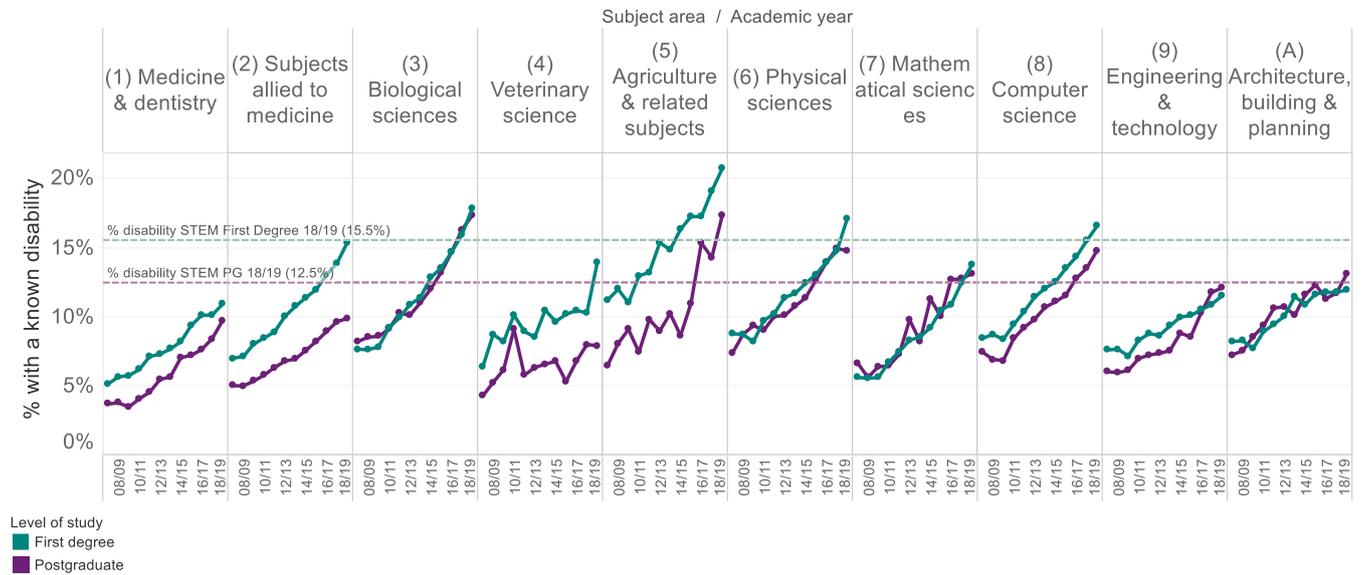
Chart 6 Percentage of UK domiciled STEM entrants with a known disability by level of study and Russell Group marker 2007/08 to 2018/19



Within Biological sciences there is a relatively high representation of STEM entrants with a known disability at both first degree and postgraduate level, whilst Medicine and dentistry shows a relatively low representation of STEM entrants with a known disability at both levels of study.

In 2018/19 17.8 per cent (10,425) of STEM first degree entrants studying Biological sciences have a known disability vs 10.9 per cent (1,005) of STEM first degree entrants studying Medicine & dentistry.

Chart 7 Percentage of UK domiciled STEM entrants with a known disability within each subject area by level of study 2007/08 to 2018/19¹¹



¹¹ Reference lines show percentage with a known disability for all UK domiciled entrants studying STEM in 2018/19 for first degree & postgraduate.

Outcomes data

Non-completion

At first degree level the percentage of STEM students leaving with no award shows no difference between those with a known disability in 2017/18 (2.9 per cent, 2,935) and those with no known disability (2.9 per cent, 16,450). At postgraduate level there is a difference, with 4.9 per cent (735) of STEM students with a known disability leaving with no award vs 4.2 per cent (4,640) with no known disability.

Chart 8 shows STEM first year, first degree students with a known disability in 2017/18 have a slightly lower non-completion rate (5.8 per cent, 1,770) compared to those STEM students with no known disability (6.2 per cent, 11,460). This trend is reversed for other years of study at first degree level.

Chart 8 Percentage of UK domiciled STEM students that left with no award by level of study, first year marker and disability marker 2007/08 to 2017/18

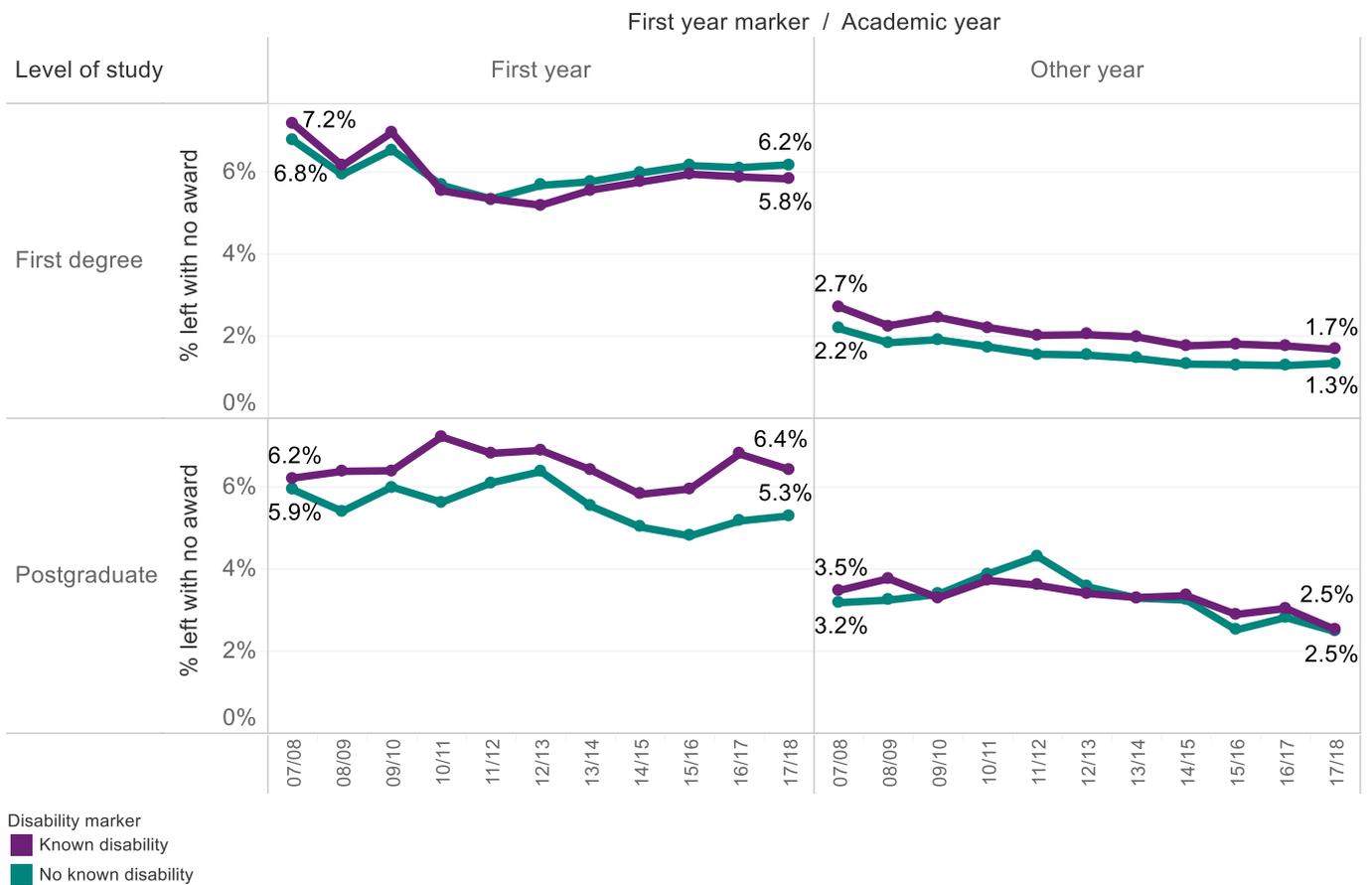
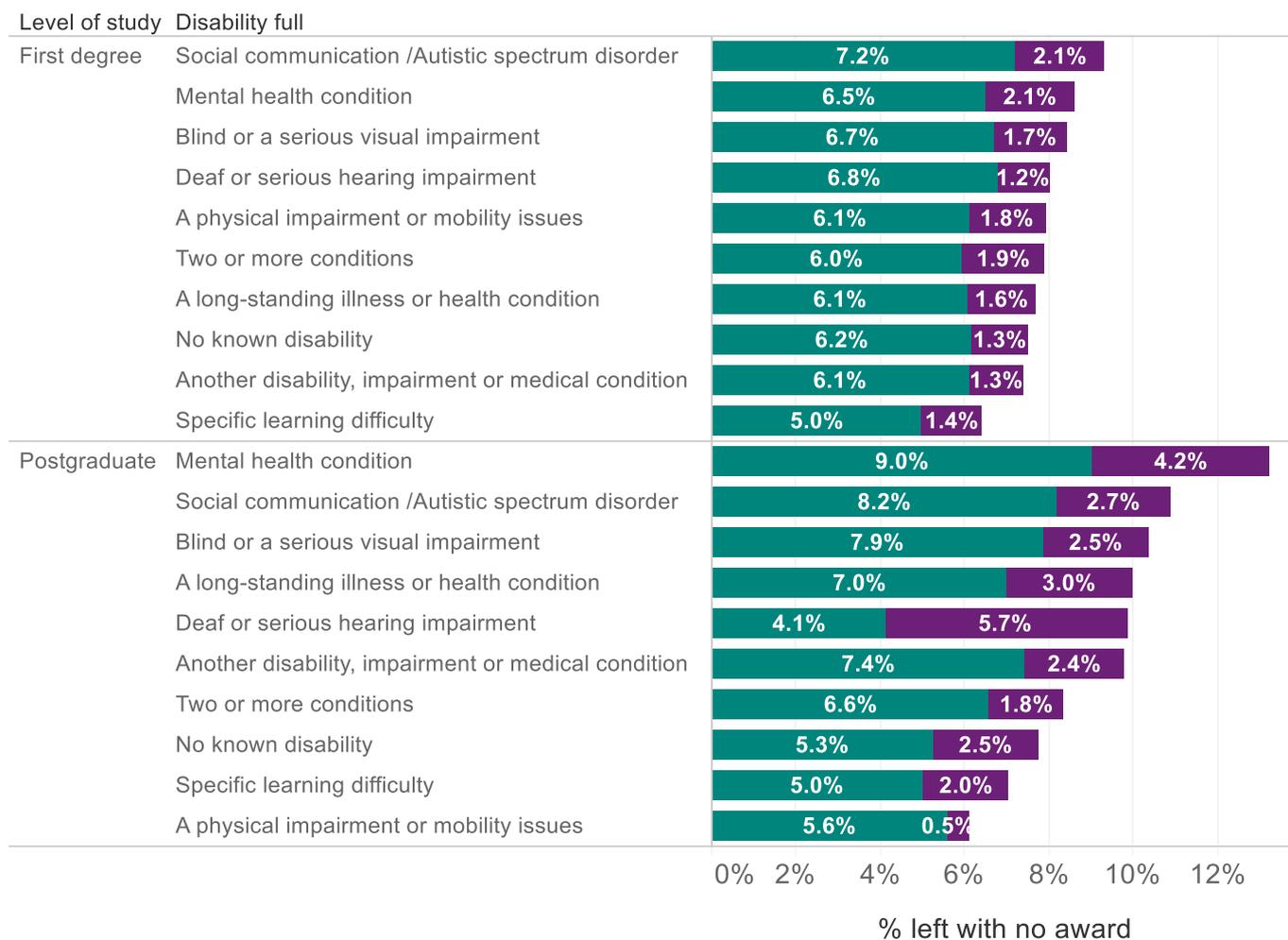


Chart 9 shows the difference in non-completion rates for STEM students by type of disability and level of study.

At first degree level in 2017/18, 7.2 per cent (130) of STEM first year first degree students reporting a social communication/autistic spectrum disorder left with no award compared with 2.1 per cent (65) of STEM other year first degree students reporting a social communication/autistic spectrum disorder. For non-STEM subjects the non-completion rates are highest for first degree students reporting a mental health condition.

At postgraduate level in 2017/18, the percentage of students leaving with no award in their first or other year is highest for those reporting a mental health condition. This is also observed for non-STEM subjects.

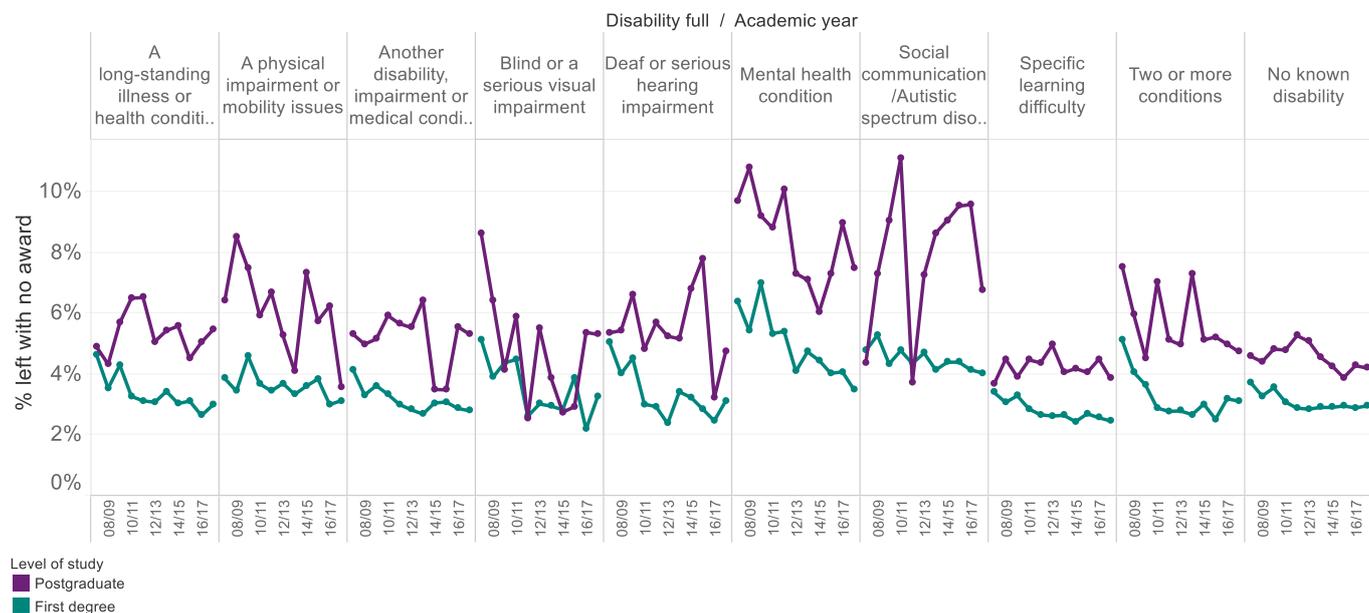
Chart 9 Percentage of UK domiciled STEM students that left with no award split by level of study and type of disability 2017/18



First year marker
■ Other year
■ First year

The following chart shows the non-completion rate by type of disability for first degree and postgraduate STEM students. Small cohorts can lead to large variations year on year so please interpret with caution.

Chart 10 Percentage of UK domiciled STEM students that left with no award split by level of study and type of disability 2007/08 to 2017/18¹²



¹² Excludes personal care support which only appears in 2007/08 – 2011/12.

Class of first degree

STEM first degree qualifiers with a known disability achieved a lower percentage of ‘good honours’ (those students that achieve first or upper second class honours) in comparison with STEM first degree qualifiers with no known disability across all years of study.

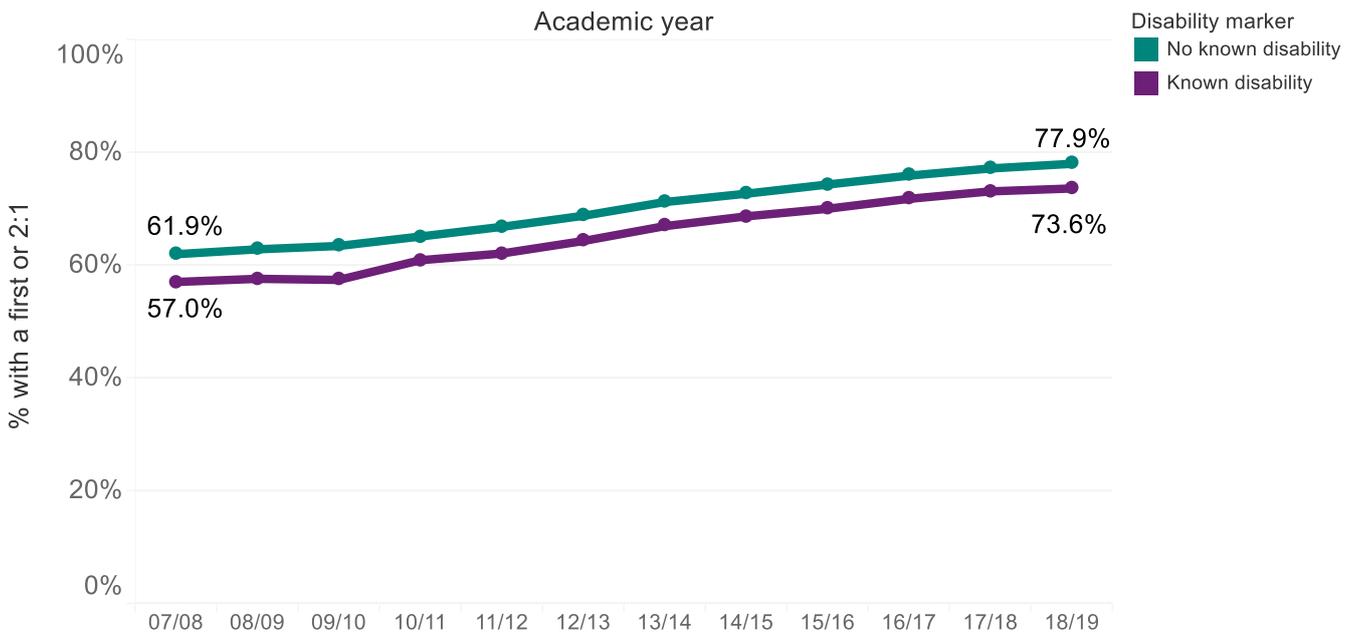
Chart 11 shows STEM first degree qualifiers with a known disability achieving ‘good honours’ have seen a 16.6 percentage point increase from 2007/08 to 2018/19 vs 16.0 for those with no known disability.

The gap has narrowed slightly from 4.9 per cent in 2007/08 to 4.4 per cent in 2018/19. These percentage differences are statistically significant at the 95% confidence level. This trend is also observed for non-STEM subjects and the gap has narrowed from 3.6 per cent in 2007/08 to 1.8 per cent in 2018/19.

When analysing the data by sex, STEM female first degree qualifiers achieve higher than STEM male first degree qualifiers for those with and without a known disability. This is consistent across all years of data and also holds true for non-STEM subjects.

The year on year increase across both cohorts reflects the trend across the sector of an increasing percentage of qualifiers achieving ‘good honours’¹³.

Chart 11 Percentage of UK domiciled STEM qualifiers that achieved first or upper second class honours by disability marker 2007/08 to 2018/19



¹³ <https://www.hesa.ac.uk/data-and-analysis/students/chart-9>

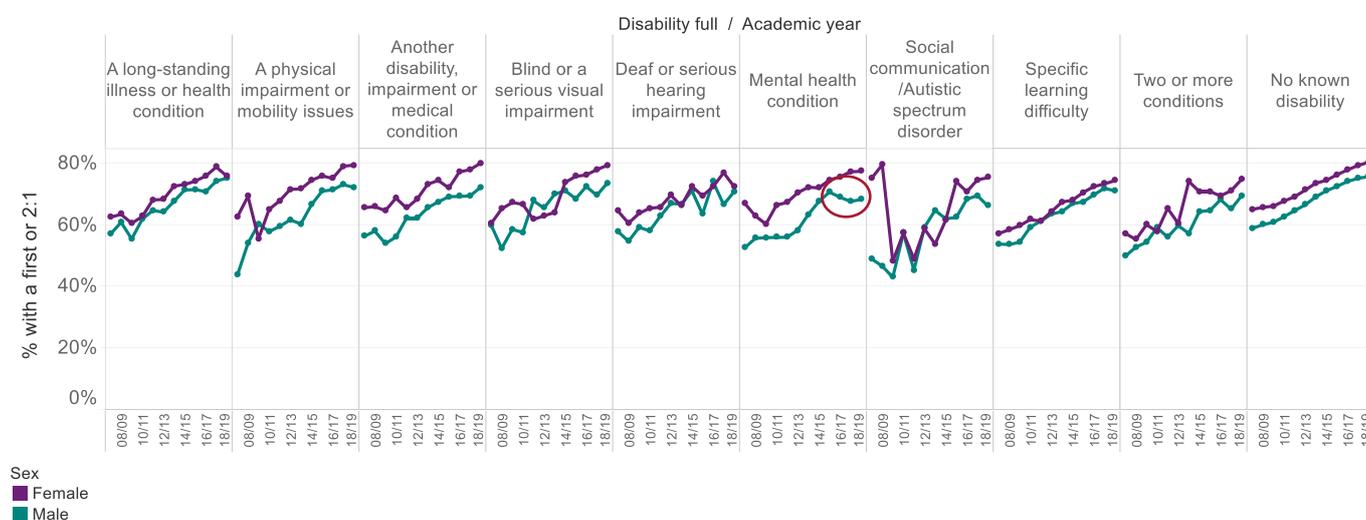
In 2018/19 a higher percentage of STEM female first degree qualifiers achieved 'good honours' compared to STEM male first degree qualifiers across all types of disabilities, and those with no known disability.

The percentage of STEM male qualifiers reporting a mental health condition that achieved 'good honours' has dropped from 70.5 percent (555) in 2015/16 to 68.1 per cent (1,045) in 2018/19 (circled in red). In comparison, STEM female qualifiers reporting a mental health condition that achieved 'good honours' has risen from 74.4 per cent (1,180) to 77.2 per cent (2,885) over the same period.

STEM male qualifiers reporting a long-standing illness or health condition achieved the highest percentage (75.1 per cent, 620) out of those with a known disability in 2018/19. This compares with 75.5 per cent (43,220) for no known disability.

Please interpret year on year changes with caution as some disability categories have small cohorts. Instead please look at the overall trend for each category.

Chart 12 Percentage of UK domiciled STEM first degree qualifiers that achieved first or upper second class honours by type of disability and sex 2007/08 to 2018/19¹⁴

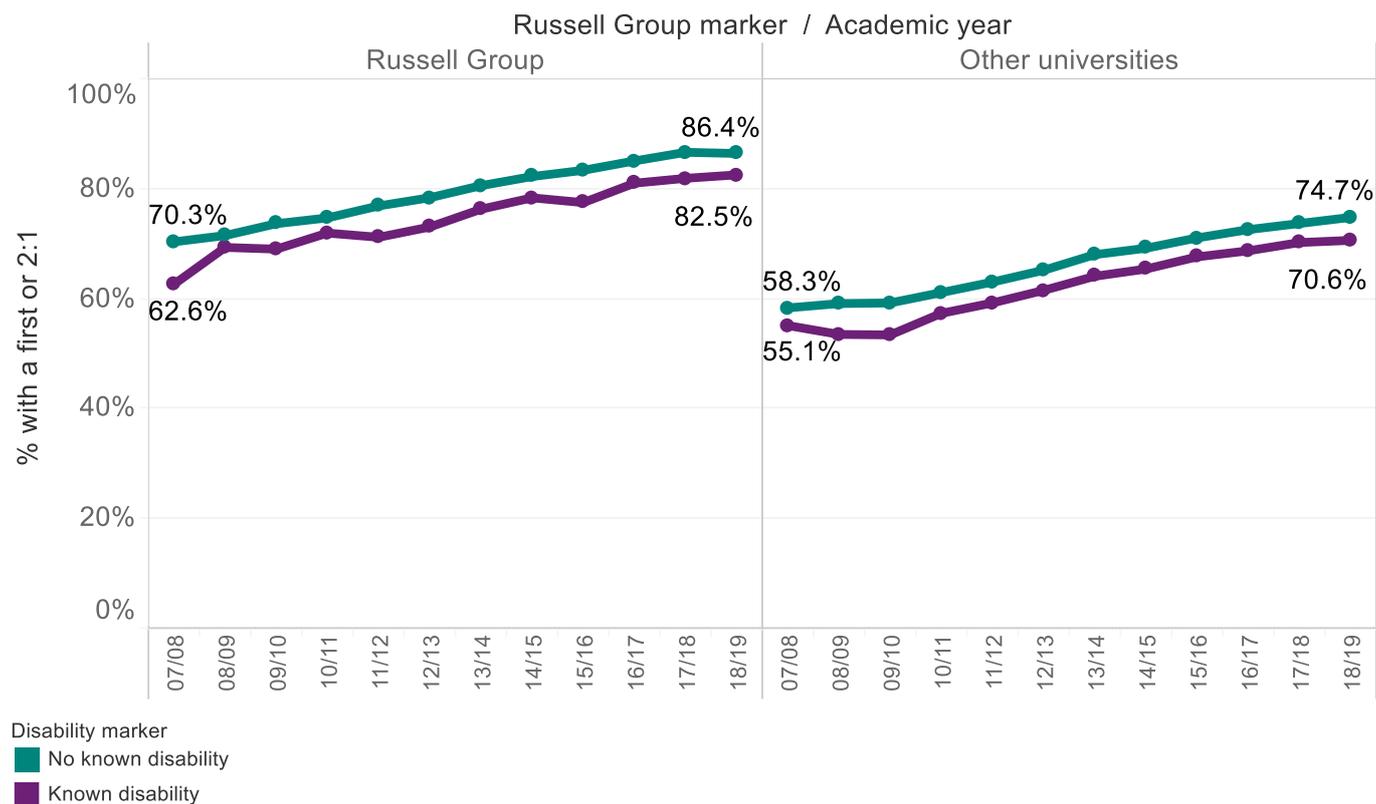


¹⁴ Excludes personal care support which only appears in 2007/08 – 2010/11. Due to extremely small numbers, those students with a sex classified as 'Other' are excluded.

The gap between STEM first degree qualifiers with and without a known disability achieving 'good honours' is lower at Russell Group universities in 2018/19 compared with other universities. This is a change from recent years. The gap at Russell Group universities is 3.9 per cent (down from 4.7 in 2017/18) vs 4.2 per cent (up from 3.5 in 2017/18) at other universities in 2018/19. These percentage differences are statistically significant at the 95% confidence level.

In comparison the gap for non-STEM subjects at Russell Group universities is 1.2 per cent vs 1.7 per cent at other universities. These percentages have both decreased compared to 2017/18, where they were 1.4 per cent and 2.4 per cent respectively.

Chart 13 Percentage of UK domiciled STEM first degree qualifiers that achieved first or upper second class honours by Russell Group marker and disability marker 2007/08 to 2018/19



Employment

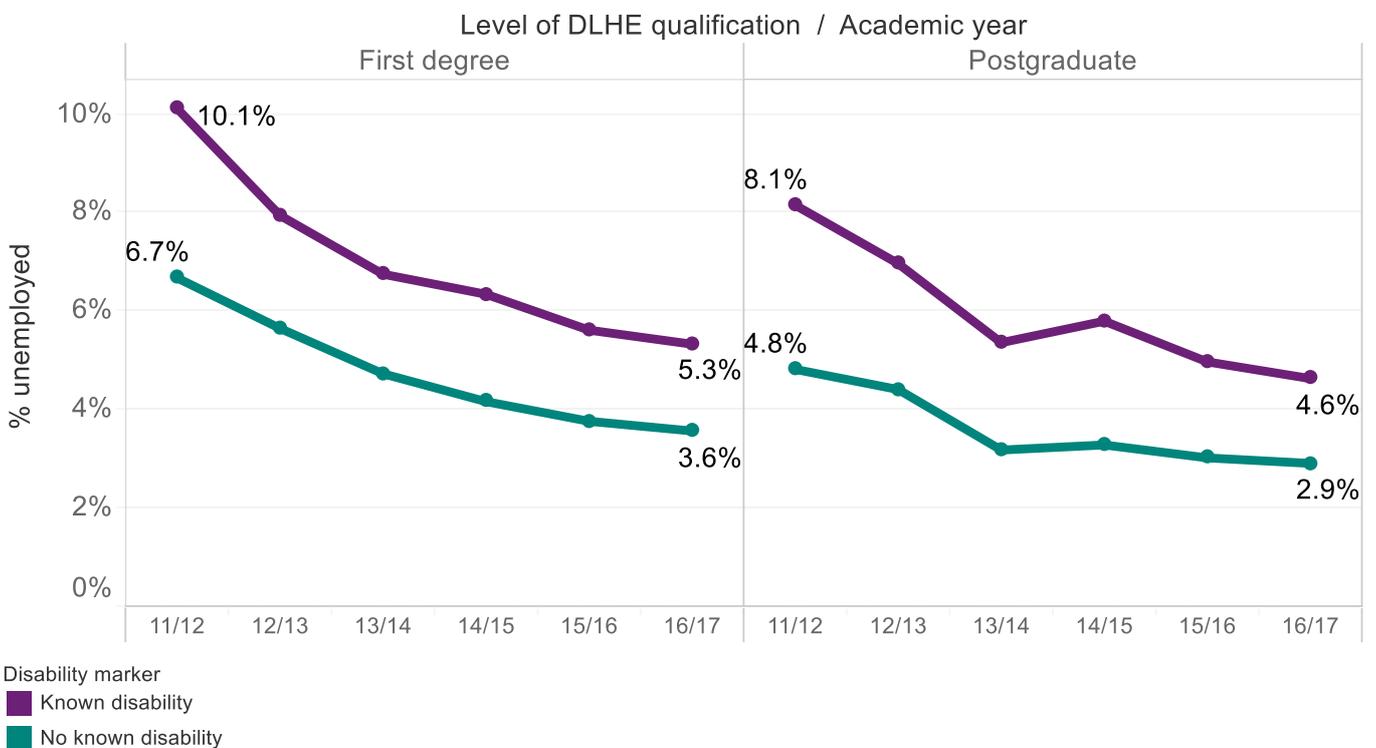
Information from this section is sourced from the HESA Destinations of Leavers from Higher Education (DLHE) survey. Please interpret small differences between cohorts with caution. Confidence intervals have not been calculated and any differences may not be statistically significant.

Graduates are surveyed 6 months after graduation and the data therefore reflects their outcomes at that point. In 2011/12 there were changes made to the DLHE survey¹⁵ so data before then may not be directly comparable. For this reason, only data from 2011/12 onwards is included.

Where appropriate, data has been combined across 2011/12 to 2016/17 to provide a more robust sample size for analysis.

Chart 14 shows that unemployment rates have fallen from 2011/12 to 2016/17 for both those STEM leavers with a known disability and those without, and the gap has narrowed over this time period for both STEM first degree and STEM postgraduate leavers.

Chart 14 Percentage of UK domiciled STEM leavers that were unemployed by level of qualification and disability marker 2011/12 to 2016/17

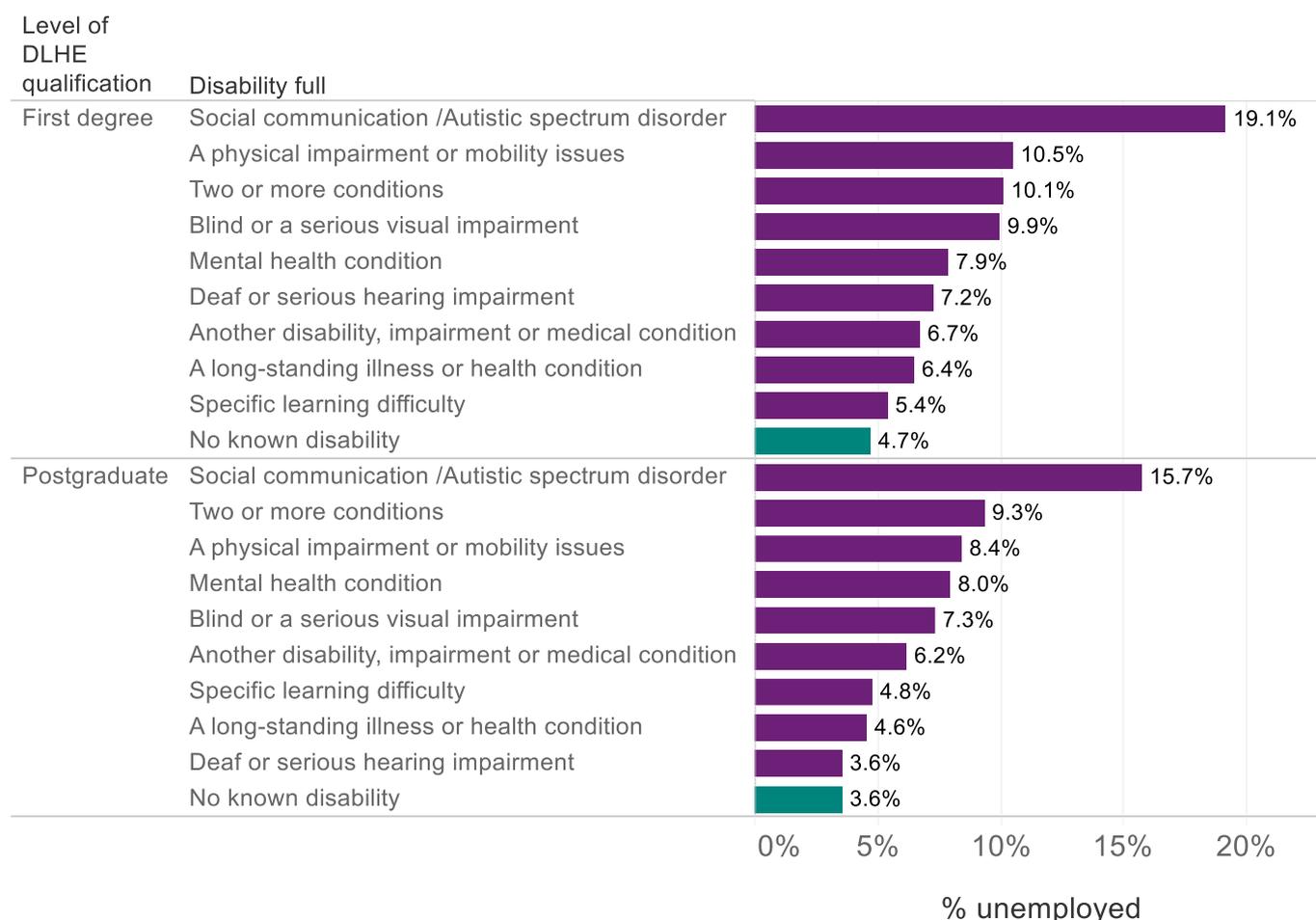


¹⁵ Before 2011/12 leavers could only return one activity. From 2011/12 leavers were able to return multiple activities and indicate which was their most important. Please see <https://www.hesa.ac.uk/collection/c11018/changesrecord.pdf> for more information about the changes.

Chart 15 shows the percentage of STEM leavers that were unemployed broken down by type of disability. The figures for 2011/12 to 2016/17 have been combined due to small cohorts for individual years. Almost 1 in 5 (19.1 per cent, 410) STEM first degree leavers and 1 in 6 (15.7 per cent, 45) STEM postgraduate leavers reporting a social communication/autistic spectrum disorder were unemployed 6 months after graduation¹⁶.

When analysing the data by sex it shows that STEM male leavers are more likely to be unemployed than STEM female leavers. This holds true for all types of disability.

Chart 15 Percentage of UK domiciled STEM leavers that were unemployed by level of qualification and type of disability 2011/12 to 2016/17 combined



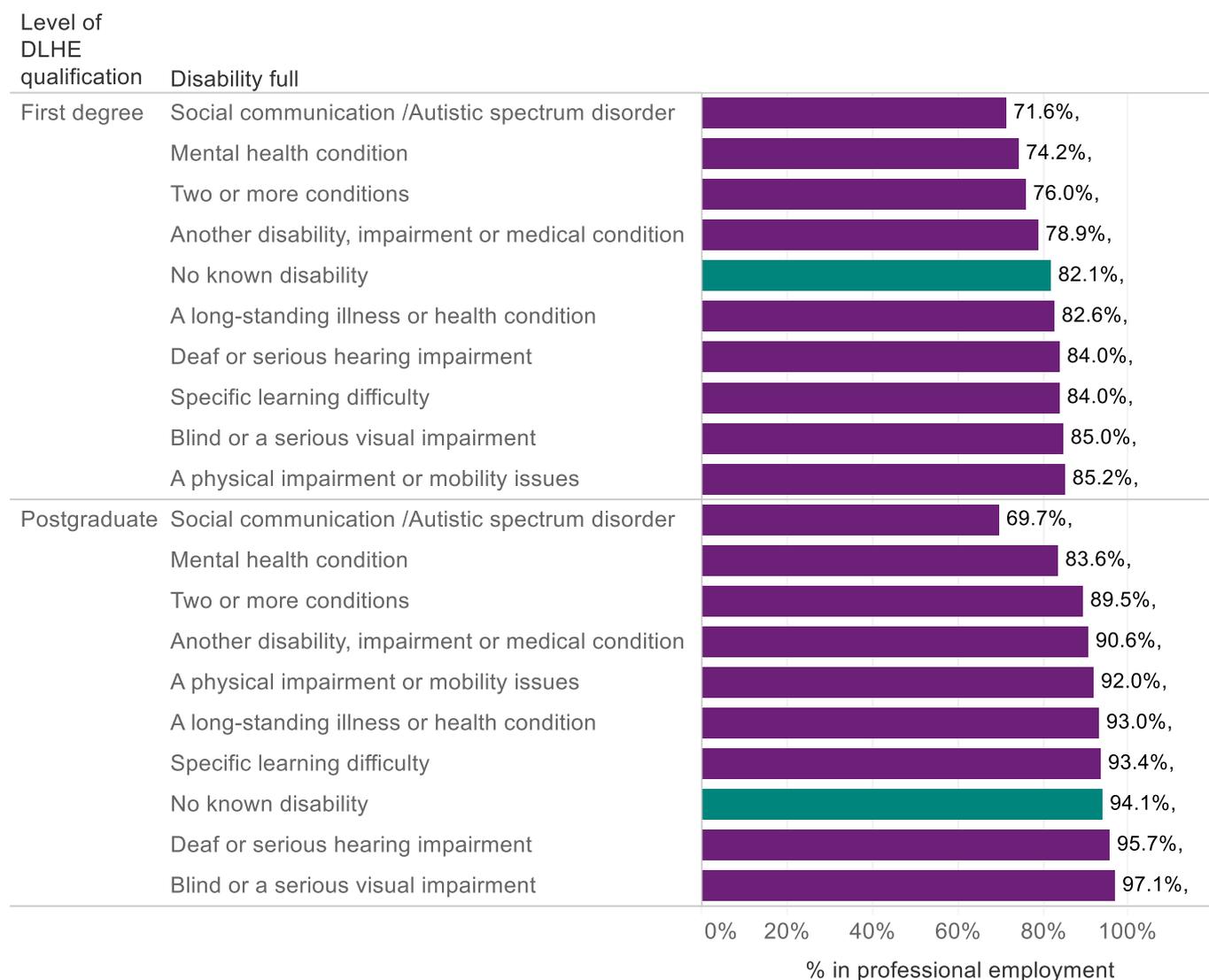
¹⁶ Please interpret small differences between cohorts with caution. Confidence intervals have not been calculated and any differences may not be statistically significant.

Between 2011/12 and 2016/17 the percentage of STEM leavers in professional employment is very similar for those with a known disability and those with no known disability at both first degree and postgraduate level.

In 2016/17 81.3 per cent (9,475) of STEM first degree leavers with a known disability were in professional employment vs 82.1 per cent (63,545) with no known disability. The gap is slightly higher at STEM postgraduate level - 91.3 per cent (2,570) for those with a known disability, vs 94.1 per cent (23,535) with no known disability.

Chart 16 provides further detail for the percentage of employed¹⁷ STEM leavers that were in professional employment six months after graduation for 2016/17, broken down by type of disability¹⁸.

Chart 16 Percentage of employed UK STEM leavers that were in professional employment¹⁹ by level of qualification and type of disability 2016/17



¹⁷ Employed includes those in full-time work, part-time work, primarily in work and also studying and primarily studying and also in work.

¹⁸ Please interpret small differences between cohorts with caution. Confidence intervals have not been calculated and any differences may not be statistically significant.

¹⁹ 'Professional employment' means jobs coded 1, 2, or 3 in the Standard Occupational Classification (SOC) 2010.

Staff

Overview

Chart 17 shows the percentage of STEM academic staff with a known disability is lower than non-STEM academic staff across all years. In 2018/19 3.8 per cent (4,465) of STEM academic staff have a known disability vs 5.0 per cent (4785) of non-STEM academic staff.

The gap between those STEM academic staff with a known disability and non-STEM academic staff has widened. In 2007/08 the gap was 0.3 per cent rising to 1.2 per cent in 2018/19.

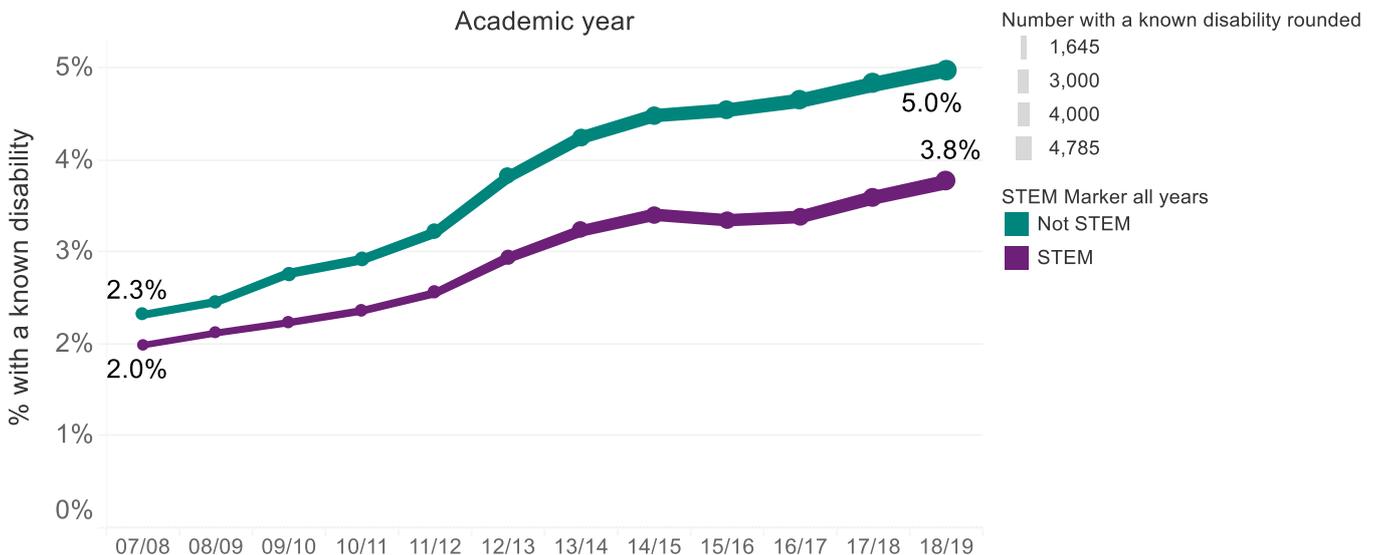
It is important to note that coverage of staff disability data within the HESA record will vary by university. Some universities will have modern self-service HR systems with staff being encouraged to update their personal information, leading to better coverage of disability data. Others may not have such systems and may not routinely encourage staff to supply this information.

This could be one reason why the disability rates are much lower for staff than students. It may also be caused by a drop-off of students with a known disability entering academic employment following postgraduate study. It may be a combination of both.

Data from the Office for National Statistics Labour Force Survey (LFS) and Family Resources Survey (FRS) suggests that around 1 in 5 (18 per cent) of working age people in the UK reported a disability in 2017/18, having increased by around 1-2 percentage points since 2013/14²⁰. Although figures from the LFS and FRS may not be directly comparable with disability data collected in the HESA Staff Record, they do share the Equality Act 2010 definition of disability. Please see here²¹ and here²² for further information on the definitions used.

Given the large disparity with the ONS figures, the analysis that follows should be treated with some caution as it may not fully represent all academic staff working in STEM with a known disability as the data can only represent those who chose to declare a disability to their employer.

Chart 17 Percentage of academic staff with a known disability by STEM marker 2007/08 to 2018/19



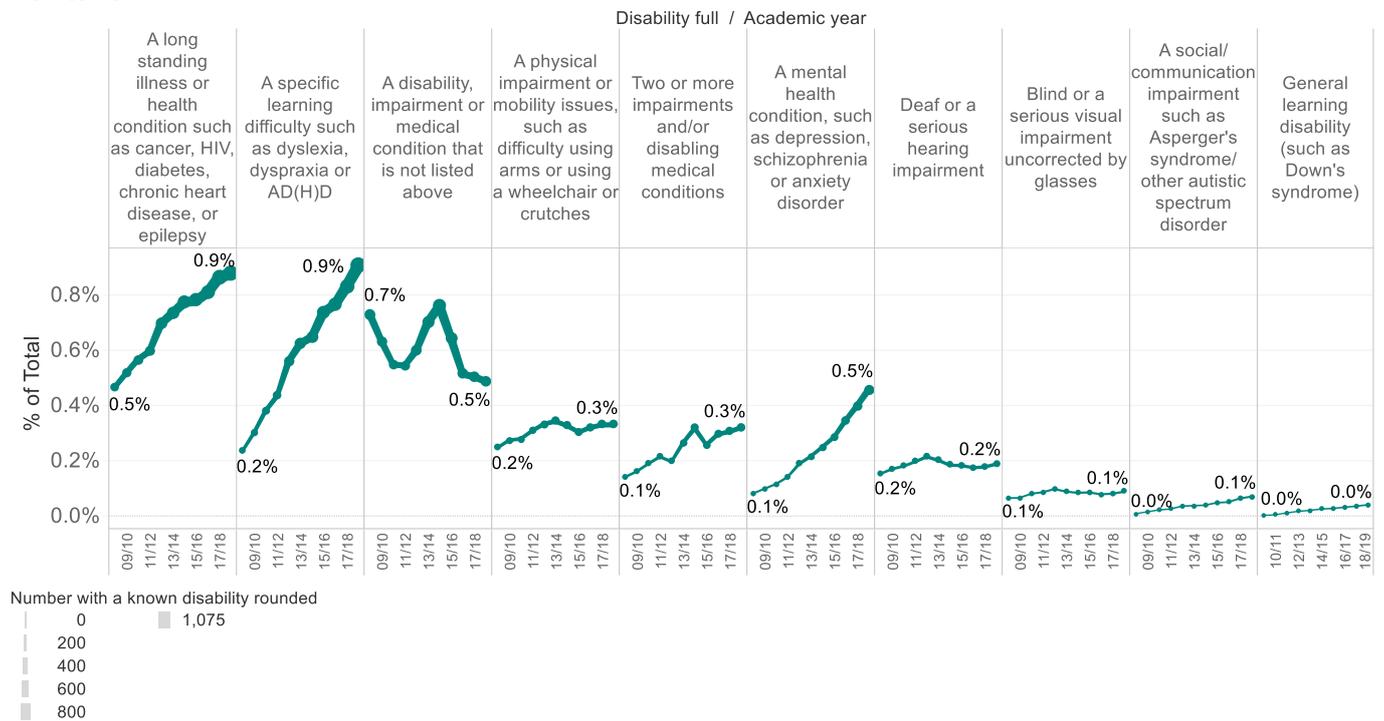
²⁰ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/875199/employment-of-disabled-people-2019.pdf

²¹ <https://gss.civilservice.gov.uk/policy-store/measuring-disability-for-the-equality-act-2010/>

²² <https://www.hesa.ac.uk/collection/c18051/a/disable>

In 2018/19 0.9 per cent (1,045) of STEM academic staff reported a long standing illness or health condition. STEM academic staff reporting a specific learning difficulty have seen the biggest percentage point increase, from 0.2 per cent (200) in 2008/09 to 0.9 per cent (1,075) in 2018/19.

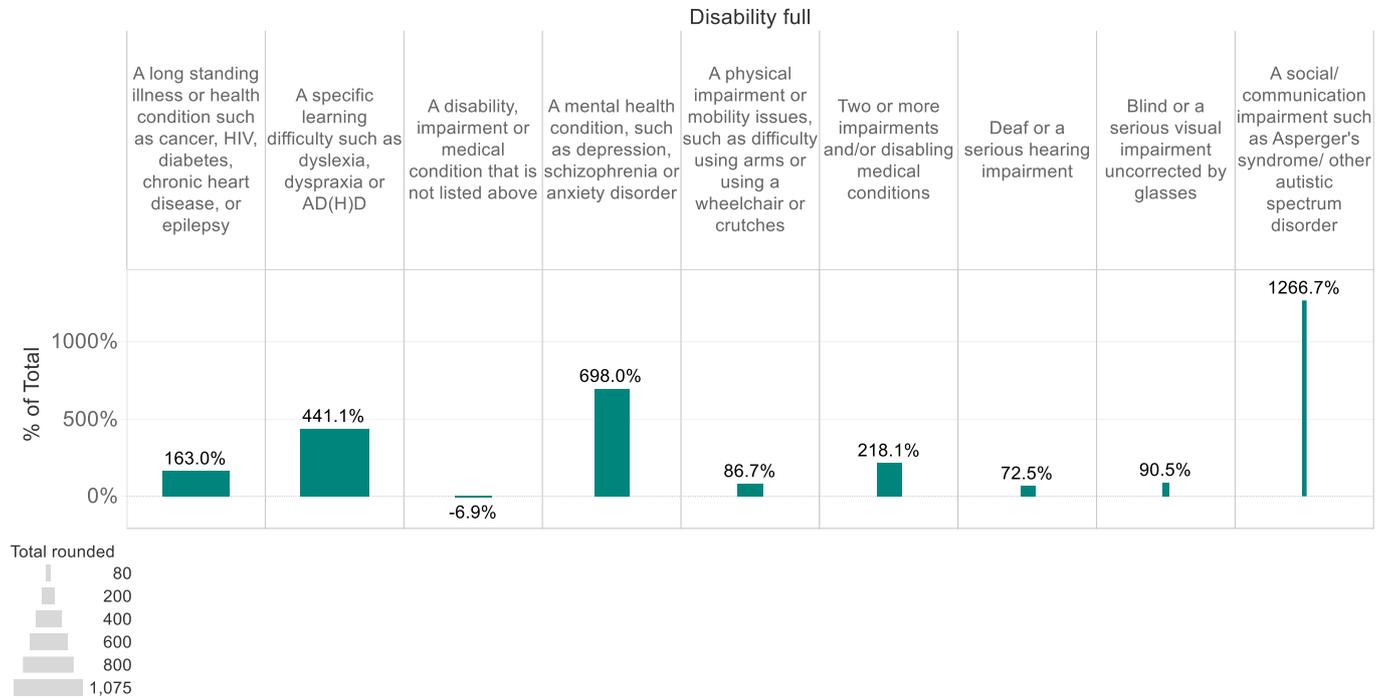
Chart 18 Percentage of STEM academic staff reporting each disability 2008/09 to 2018/19²³



²³ Breakdown by disability type was only available from 2008-09 in the HESA Staff record. Line width represents cohort size.

The following chart shows the percentage change in the number of STEM academic staff reporting each disability from 2008/09 to 2018/19. The line width represents the number of STEM academic staff reporting each disability in 2018/19.

Chart 19 Percentage change between 2008/09 and 2018/19 by type of disability for STEM academic staff²⁴

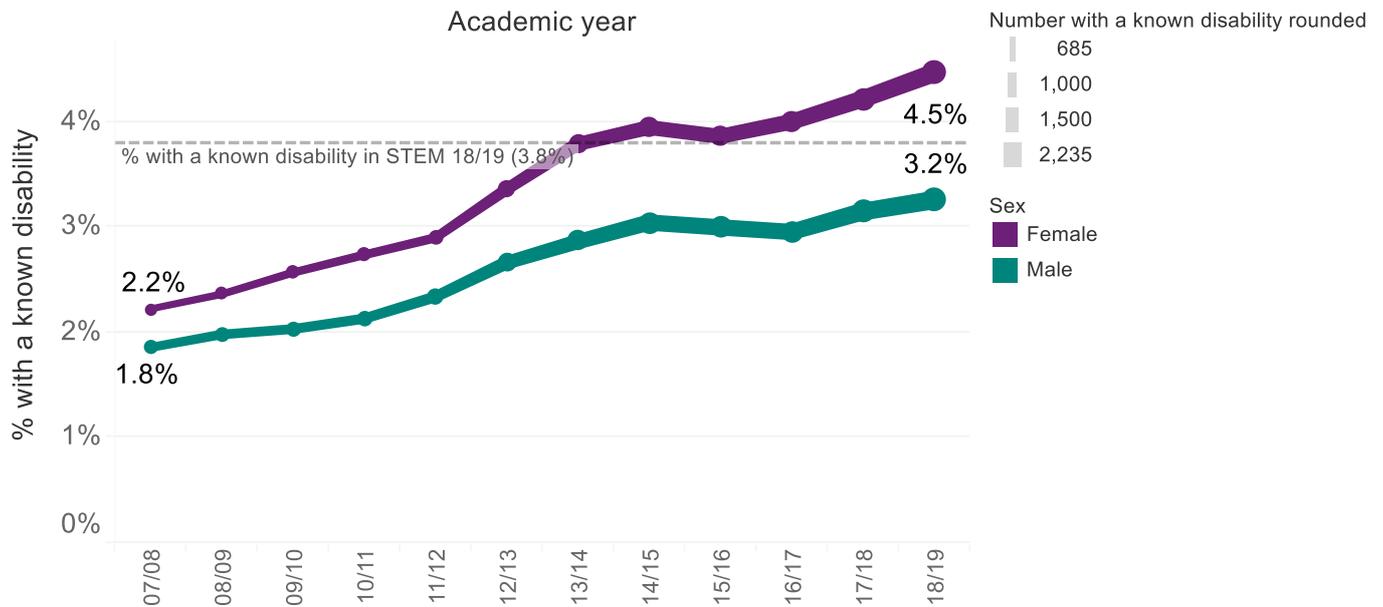


²⁴ Staff reporting a general learning disability (such as Down's syndrome) have been excluded due to small numbers.

Chart 20 shows a higher percentage of STEM female academic staff in 2018/19 have a known disability (4.5 per cent, 2,235) compared to STEM male academic staff (3.2 per cent, 2,225). This trend is also observed for non-STEM academic staff (5.4 per cent and 4.5 per cent respectively).

Overall, for STEM academic staff with a known disability in 2018/19, 50.1 per cent are female and 49.8 per cent are male²⁵.

Chart 20 Percentage of STEM academic staff with a known disability by sex 2007/08 to 2018/19²⁶



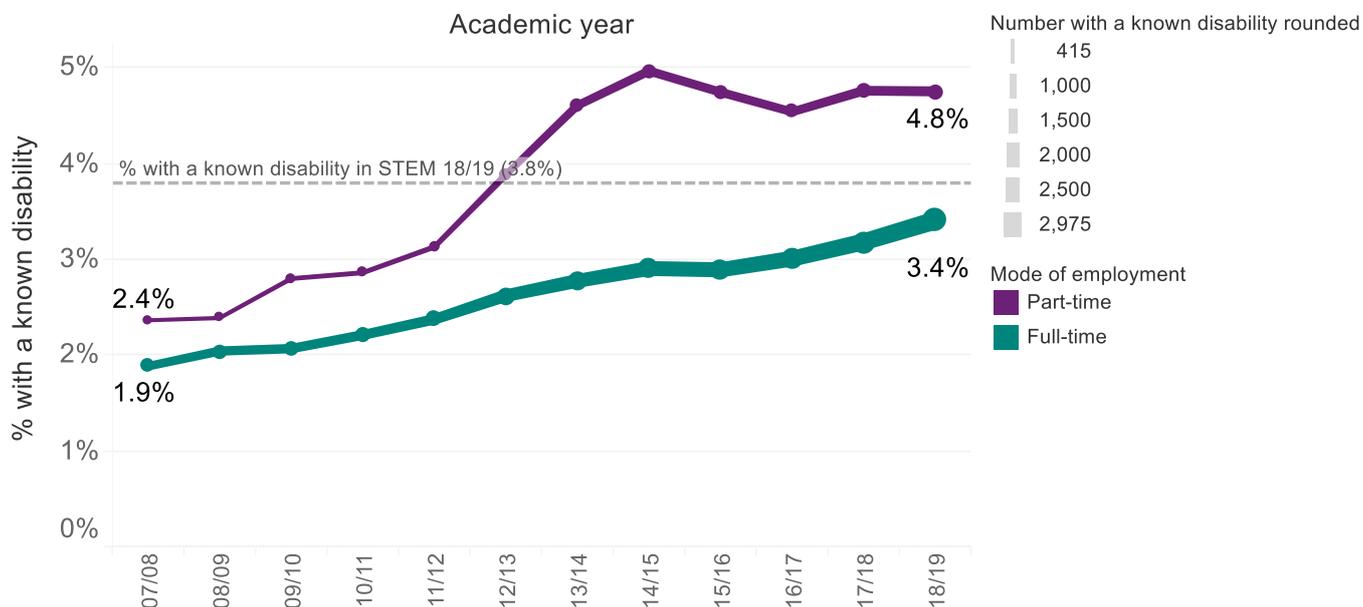
²⁵ Due to extremely small numbers, those staff with a sex classified as 'Other' are included in the percentage calculations, but not shown.

²⁶ Due to extremely small numbers, those staff with a sex classified as 'Other' are not shown.

A higher percentage of part-time STEM academic staff in 2018/19 have a known disability (4.8 per cent, 1,495) compared to full-time STEM academic staff (3.4 per cent, 2,975).

In 2018/19 two thirds of STEM academic staff with a known disability work full-time (66.6 per cent) compared to part-time (33.4 per cent).

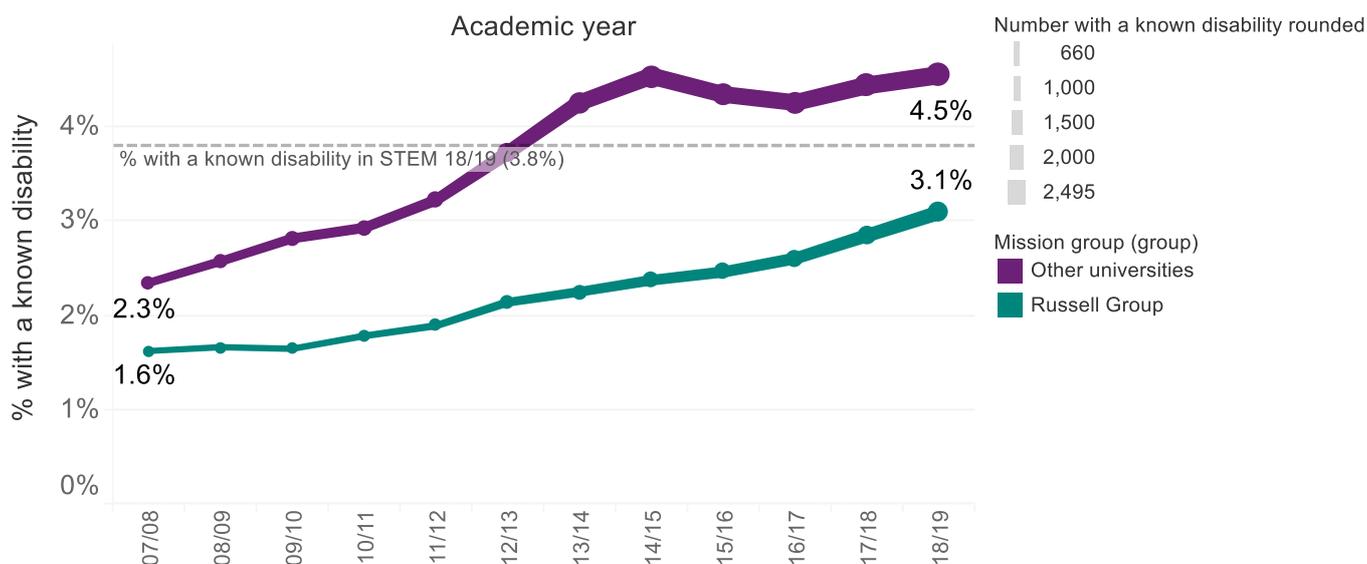
Chart 21 Percentage of STEM academic staff with a known disability by mode of employment 2007/08 to 2018/19



A lower percentage of STEM academic staff working at a Russell Group university in 2018/19 have a known disability (3.1 per cent, 1,970) compared to other universities (4.5 per cent, 2,495). This trend is also observed for academic staff working in non-STEM subjects.

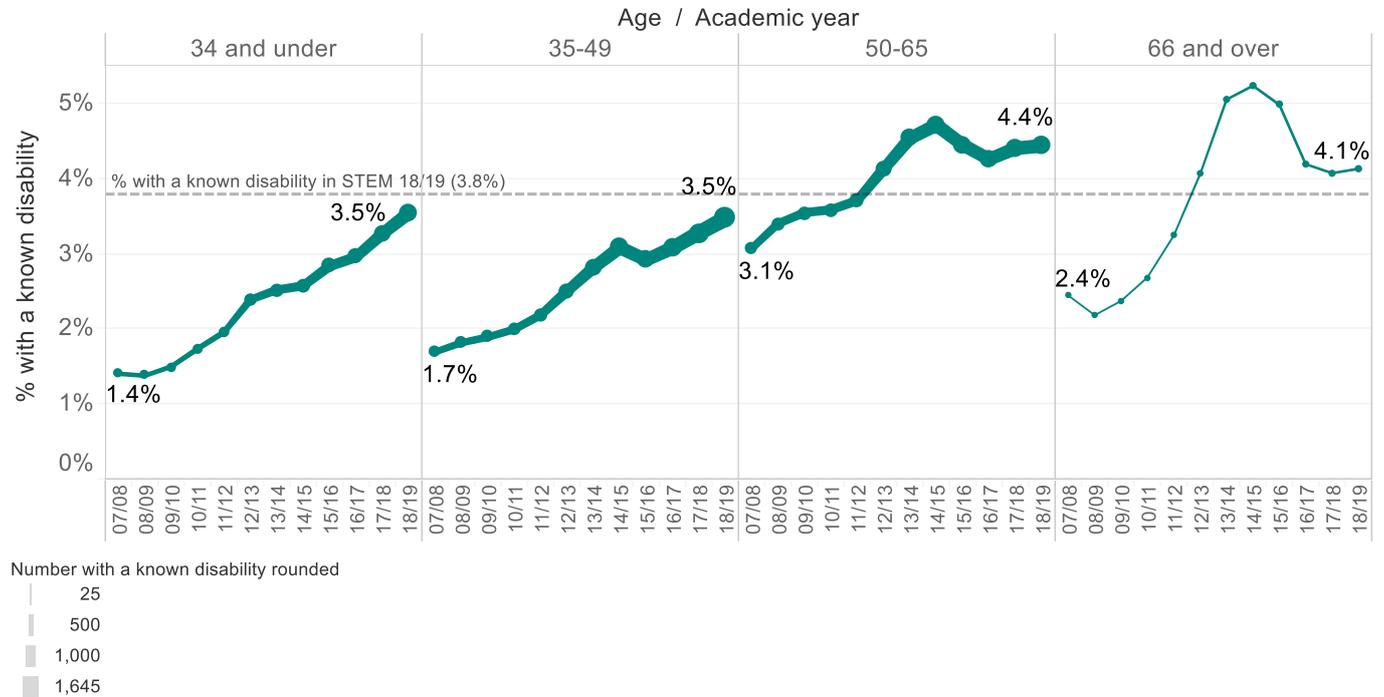
In 2018/19 44.2 per cent of STEM academic staff with a known disability work at a Russell Group university compared to 55.8 per cent working at other universities.

Chart 22 Percentage of STEM academic staff with a known disability by Russell Group marker 2007/08 to 2018/19



At age 50 and over, the percentage of those STEM academic staff with a known disability increases. 3.5 per cent (2,955) of STEM academic staff aged 49 and under have a known disability in 2018/19 compared with 4.4 per cent aged 50 and over (1,510). This trend is reflected in wider society with the percentage of people with a known disability increasing with age²⁷.

Chart 23 Percentage of STEM academic staff with a known disability within each age band 2007/08 to 2018/19



²⁷ https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/equality-and-human-rights/rb_may16_cpa_rapid_review_diversity_in_older_age_disability.pdf Please note that the definition of disability may differ to that in the HESA Staff Record.

Chart 24 shows the relative representation of academic staff with a known disability working across the STEM subject areas.

5.3 per cent (1,005) of academic staff working in Subjects allied to medicine have a known disability in 2018/19 compared to 2.7 per cent (60) in Agriculture & related subjects.

Chart 24 Percentage of STEM academic staff with a known disability by current academic discipline 1 2012/13 to 2018/19

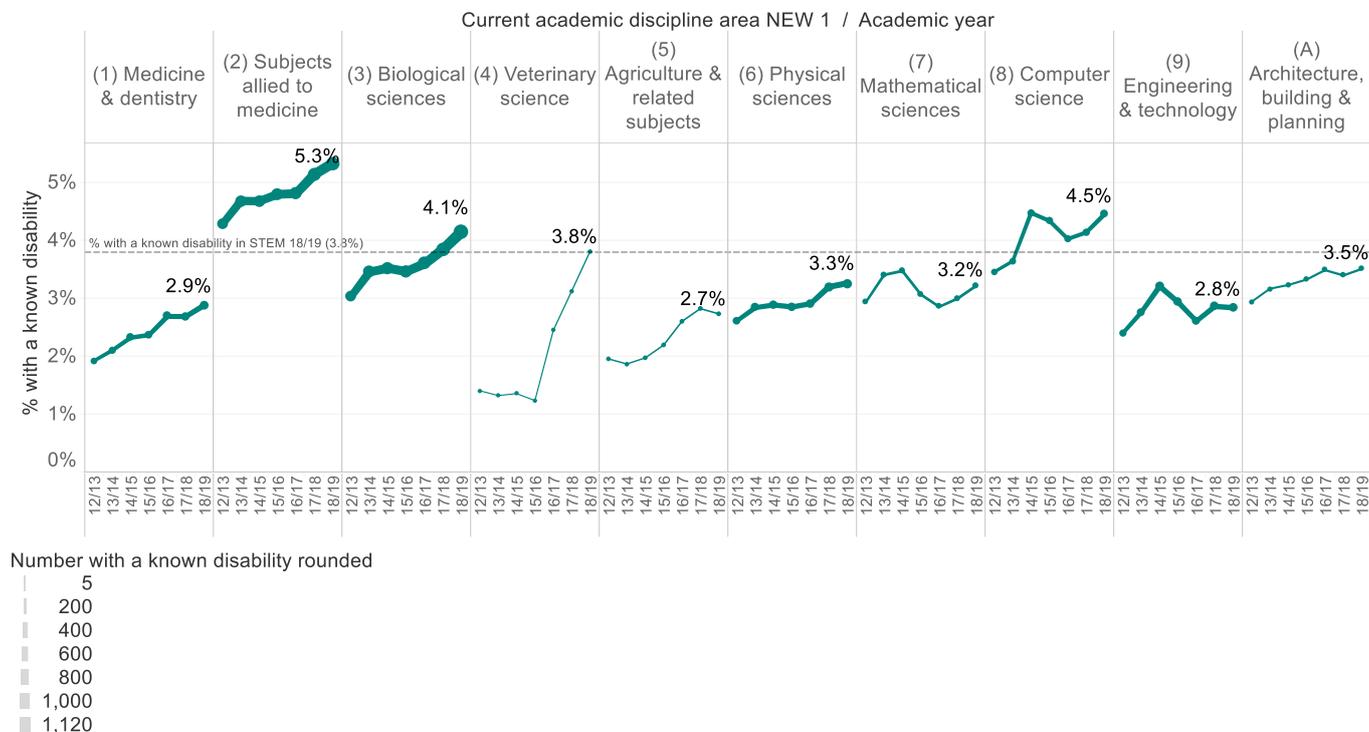
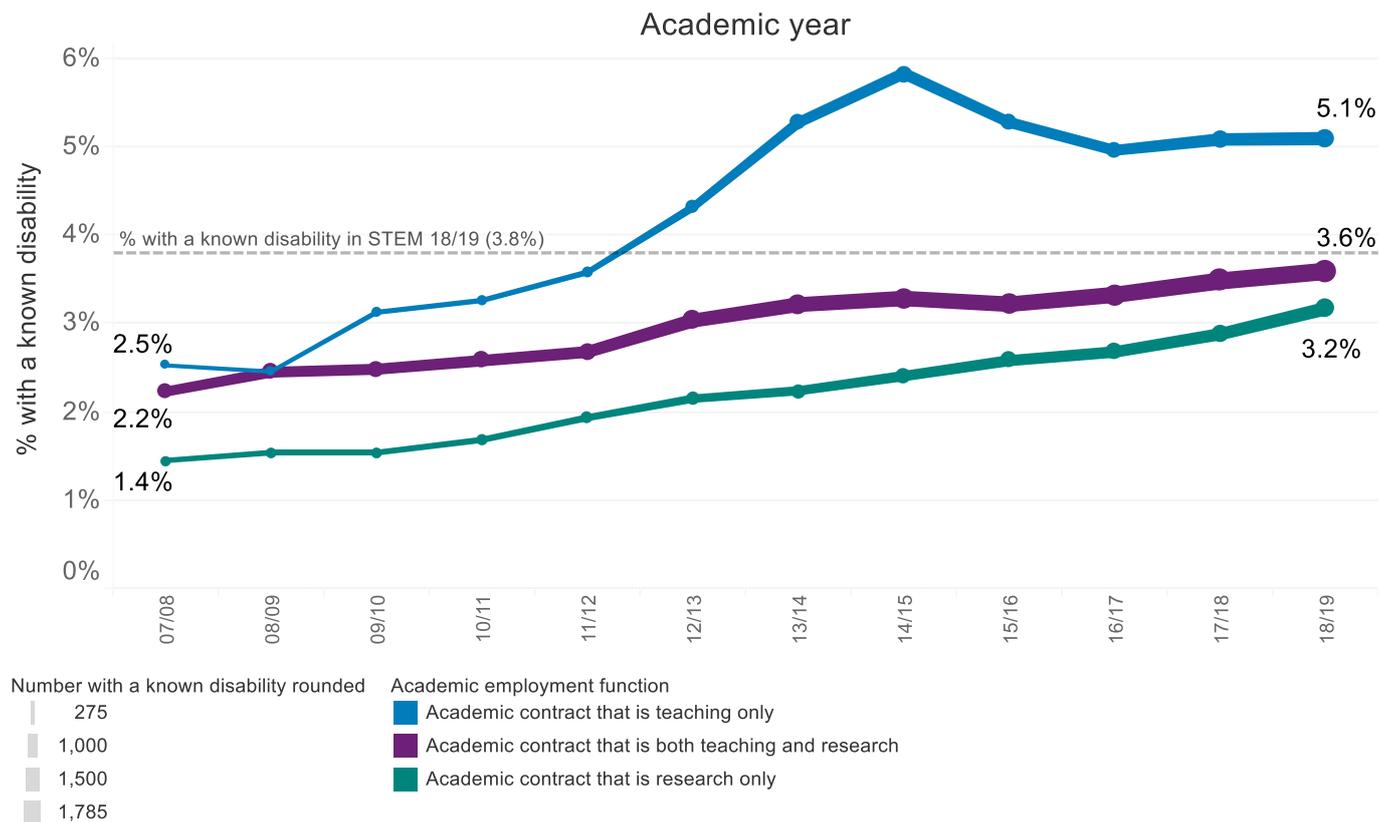


Chart 25 shows the relative representation of STEM academic staff with a known disability within each academic employment function. In 2018/19 5.1 per cent (1,325) of STEM staff with an academic contract that is teaching only have a known disability vs 3.2 per cent (1,355) with an academic contract that is research only. This trend is observed for academic staff working in non-STEM subjects, however to a lesser extent (5.3 per cent and 4.7 per cent respectively).

It shows that STEM academic staff with a known disability are more highly represented within teaching only staff compared to research only, and teaching and research staff.

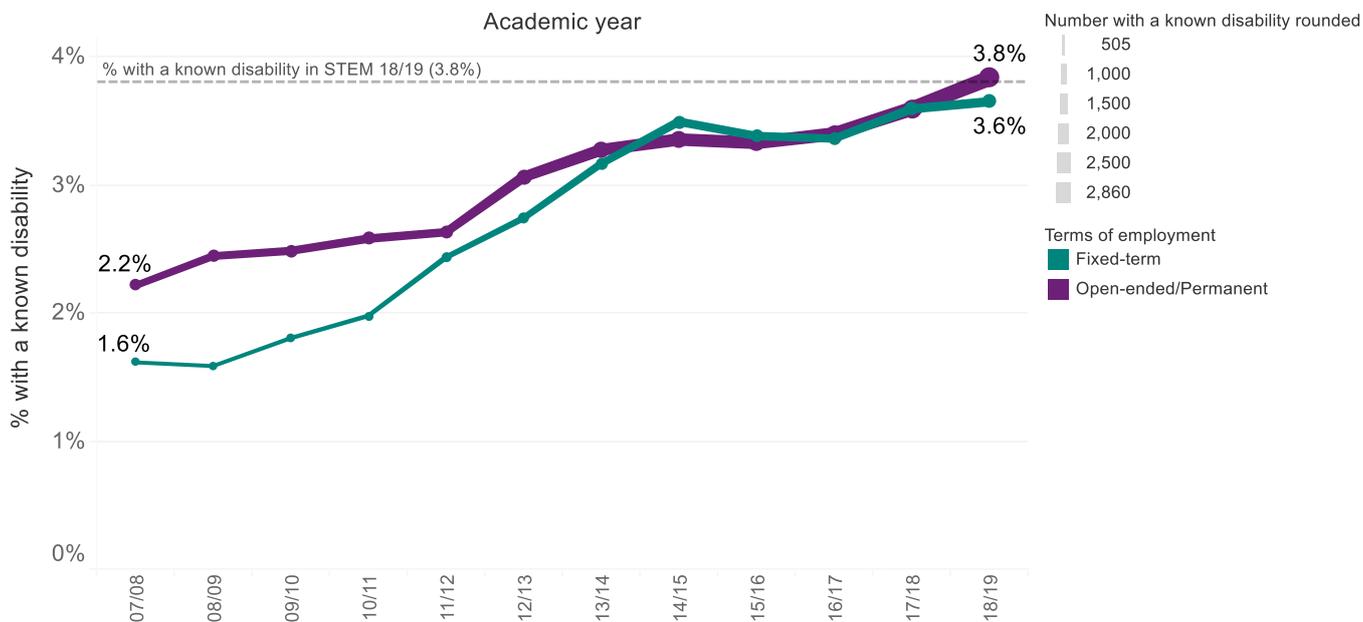
Chart 25 Percentage of STEM academic staff with a known disability within each academic employment function 2007/08 to 2018/19



A lower percentage of STEM academic staff with a fixed-term contract (3.6 per cent, 1,605) have a known disability compared to an open-ended/permanent contract (3.8 per cent, 2,860) in 2018/19. For non-STEM academic staff in 2018/19, 5.4 per cent of academic staff with a fixed-term contract have a known disability compared to 4.8 per cent with an open-ended/permanent contract.

Given that in 2018/19 3.8 per cent of STEM academic staff have a known disability they are, for the most part, just as likely to be on an open-ended/permanent contract as STEM academic staff without a known disability.

Chart 26 Percentage of STEM academic staff with a known disability by terms of employment 2007/08 to 2018/19



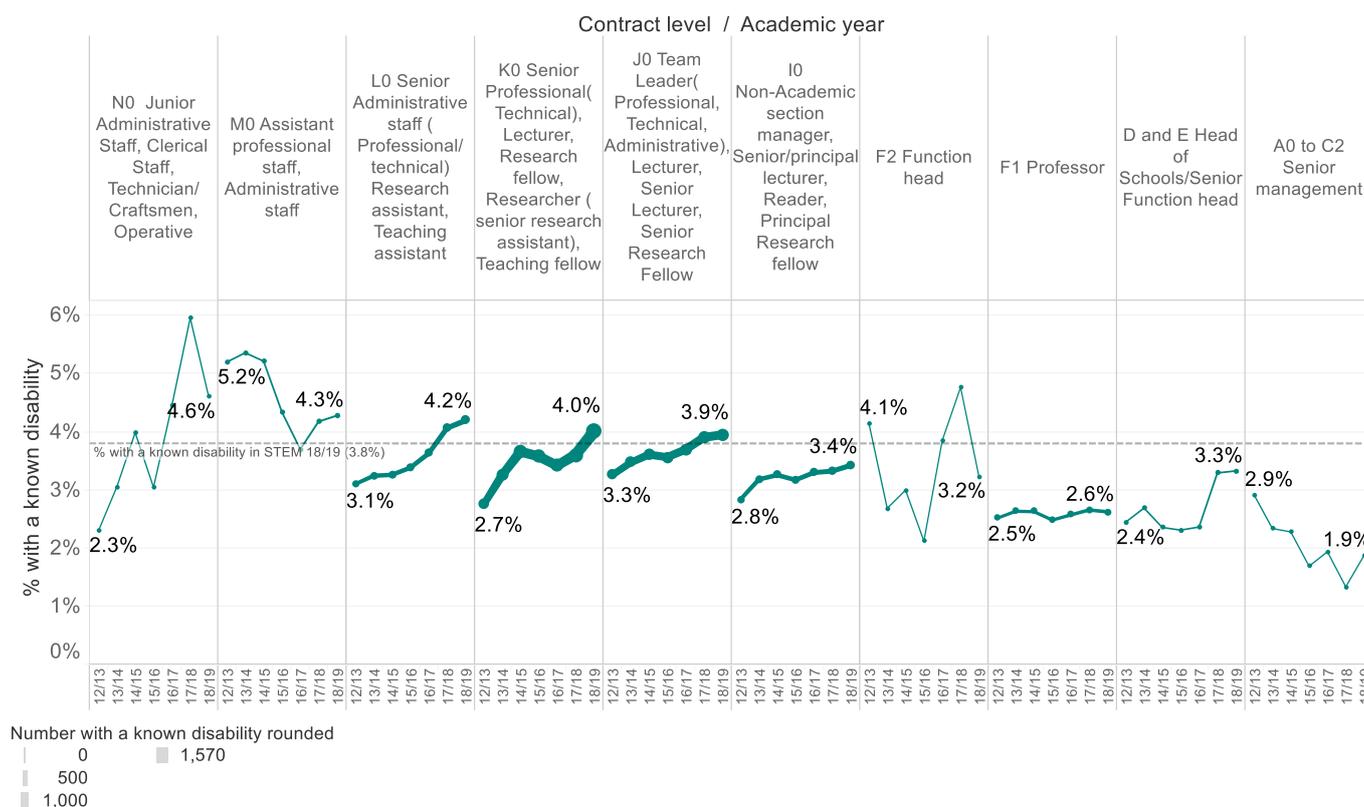
Although the percentage of people with a known disability increases with age²⁸, the general pattern shows that STEM academic staff with a known disability become less represented the more senior the contract group becomes. It also shows that the highest number of STEM academic staff with a known disability in 2018/19 is within K0 Senior Professional (1,570).

The percentage of STEM academic staff with a known disability in the most senior group decreased between 2012/13 to 2018/19 from 2.9 per cent (15) to 1.9 per cent (10).

In contrast, the percentage of STEM academic staff with a known disability in the second most senior group increased between 2012/13 to 2018/19 from 2.4 per cent (45) to 3.3 per cent (75).

Please interpret year on year changes with caution as some disability categories have small cohorts. Instead please look at the overall trend for each category.

Chart 27 Percentage of STEM academic staff with a known disability within each contract level 2012/13 to 2018/19

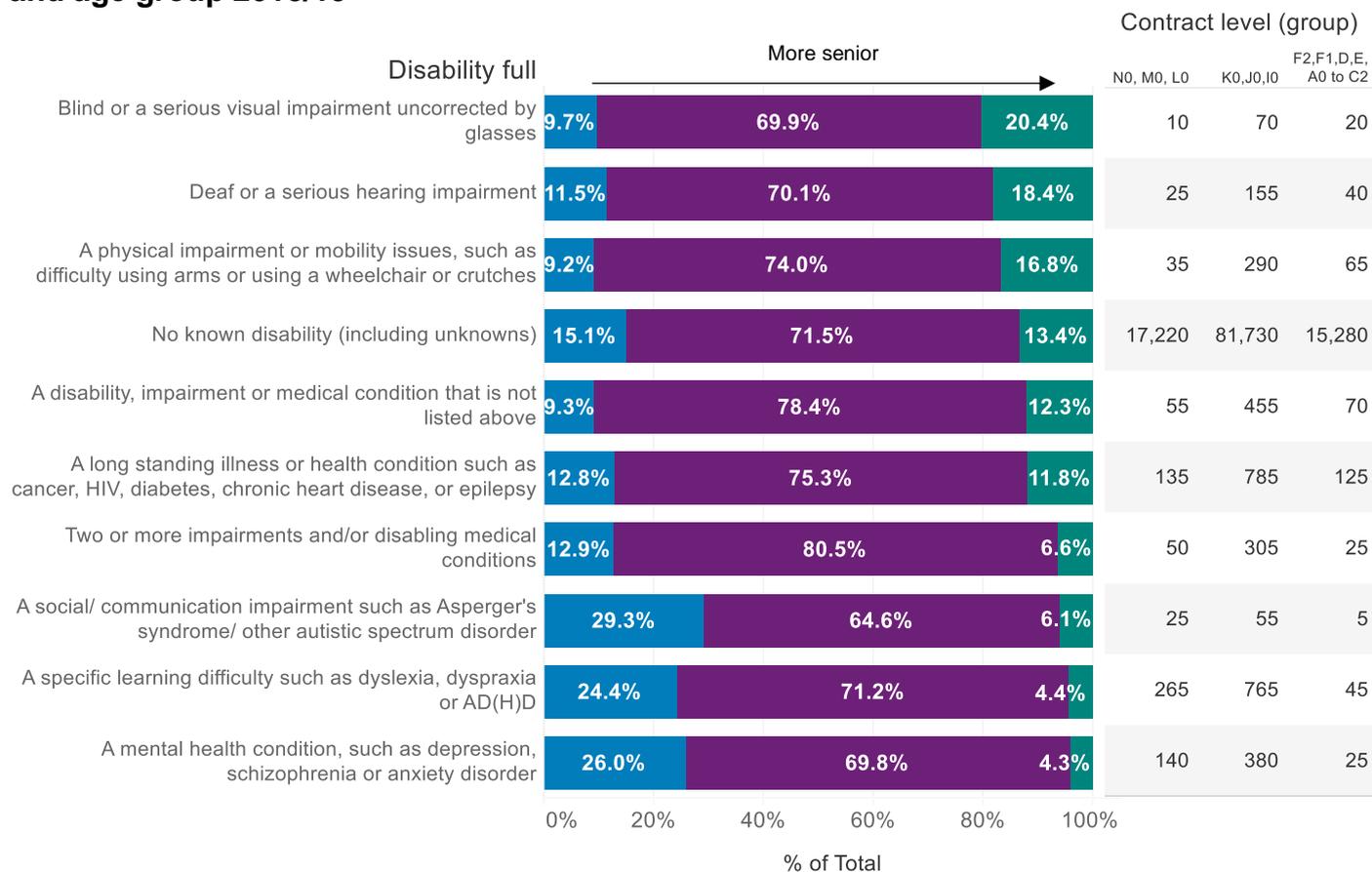


²⁸ https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/equality-and-human-rights/rb_may16_cpa_rapid_review_diversity_in_older_age_disability.pdf Please note that the definition of disability will differ to that in the HESA Staff Record.

The following chart combines the various contract levels into three groups to aid comparison with type of disability. The data shows there is disparity between the type of disability that a STEM academic staff member may report and the level they work at.

As some of the cohorts are very small, the corresponding cohort sizes are shown on the right hand side. Please interpret any differences with caution.

Chart 28 Proportion of STEM academic staff within contract groups by type of disability and age group 2018/19²⁹



Contract level (group)
■ F2,F1,D,E,A0 to C2
■ K0,J0,I0
■ N0, M0, L0

²⁹ Staff reporting a general learning disability (such as Down's syndrome) have been excluded due to small numbers.

Annex 1 HESA Student Record definition of disability 2018/19

Available entries:

- No known disability
- Two or more impairments and/or disabling medical conditions
- A specific learning difficulty such as dyslexia, dyspraxia or AD(H)D
- A social/communication impairment such as Asperger's syndrome/other autistic spectrum disorder
- A long standing illness or health condition such as cancer, HIV, diabetes, chronic heart disease, or epilepsy
- A mental health condition, such as depression, schizophrenia or anxiety disorder
- A physical impairment or mobility issues, such as difficulty using arms or using a wheelchair or crutches
- Deaf or a serious hearing impairment
- Blind or a serious visual impairment uncorrected by glasses
- A disability, impairment or medical condition that is not listed above

With the introduction of the Disability Equality Duty, and on the recommendation of the Equality Challenge Unit (ECU), HESA introduced a version of the coding frame introduced by the Disability Rights Commission (DRC). This coding frame was introduced for the 2010/11 Student record.

Only serious visual impairments are covered by the Disability Discrimination Act (DDA). For example, a person whose eyesight can be corrected through the use of prescription lenses is not covered by the DDA; neither is a simple inability to distinguish between red and green.

The same logic does not apply to hearing aids. If someone needs to wear a hearing aid, then they are likely to be covered by the DDA. However, both hearing and visual impairments have to have a substantial adverse effect on the ability to carry out normal day-to-day activities in order for a person to be covered by the DDA. For more information see the Secretary of State's Revised Guidance on the definition of disability.

Where it is not known whether or not a student has a disability, code 00 'No known disability' should be returned.

Equality Challenge Unit (ECU) suggested question:

Under the Equality Act 2010, a person has a disability 'if they have a physical or mental impairment, and the impairment has a substantial and long-term adverse effect on his or her ability to carry out normal day-to-day activities'. 'Substantial' is defined by the Act as 'more than minor or trivial'. An impairment is considered to have a long term effect if:

- It has lasted for at least 12 months
- it is likely to last for at least 12 months, or
- it is likely to last for the rest of the life of the person.

Normal day-to-day activities are not defined in the Act, but in general they are things people do on a regular or daily basis. The definition has a very wide meaning as both work, study and non –work activities are covered e.g. communicating, reading, writing, using a computer as well as washing, walking and getting dressed. 'Normal' means normal for people generally, rather than for a particular individual.

Employment case law has highlighted that work activity does not have to be 'day-to-day' but covers activities that are required to participate in professional life e.g. activities used to select individuals for recruitment and promotion.

Only serious visual impairments are covered by the Equality Act 2010. For example, a person whose eyesight can be corrected through the use of prescription lenses is not covered by the Act; neither is an inability to distinguish between red and green. The same logic does not apply to hearing aids. If someone needs to wear a hearing aid, then they are likely to be covered by the Act. However, both hearing and visual impairments have to have a substantial adverse effect on the ability to carry out normal day-to-day activities in order for a person to be covered by the Act.

Considering the above, do you have an impairment, health condition or learning difference?

Providers are expected to collect this information from students annually.

<https://www.hesa.ac.uk/collection/c18051/a/disable>

Please note that the coding frame has changed over the time period 2007/08 to 2018/19 but the data is comparable across all years.

Annex 2 HESA Staff Record definition of disability 2018/19

Available entries:

- No known disability
- Two or more impairments and/or disabling medical conditions
- A specific learning difficulty such as dyslexia, dyspraxia or AD(H)D
- General learning disability (such as Down's syndrome)
- A social/communication impairment such as Asperger's syndrome/other autistic spectrum disorder
- A long standing illness or health condition such as cancer, HIV, diabetes, chronic heart disease, or epilepsy
- A mental health condition, such as depression, schizophrenia or anxiety disorder
- A physical impairment or mobility issues, such as difficulty using arms or using a wheelchair or crutches
- Deaf or serious hearing impairment
- Blind or a serious visual impairment uncorrected by glasses
- A disability, impairment or medical condition that is not listed above
- Information refused

Disability is recorded on the basis of the member of staff's own self-assessment.

Code 00 'No known disability' should be returned when the member of staff indicates that they do not have a disability. Code 00 'No known disability' should also be used where it is not known whether or not a member of staff has a disability.

Under the Equality Act 2010, a person has a disability 'if they have a physical or mental impairment, and the impairment has a substantial and long-term adverse effect on his or her ability to carry out normal day-to-day activities'. 'Substantial' is defined by the Act as 'more than minor or trivial'. An impairment is considered to have a long-term effect if:

- It has lasted for at least 12 months
- it is likely to last for at least 12 months, or
- it is likely to last for the rest of the life of the person.

Normal day-to-day activities are not defined in the Act, but in general they are things people do on a regular or daily basis, for example eating, washing, walking, reading, writing or having a conversation.

Only serious visual impairments are covered by the Equality Act 2010. For example, a person whose eyesight can be corrected through the use of prescription lenses is not covered by the Act; neither is an inability to distinguish between red and green.

The same logic does not apply to hearing aids. If someone needs to wear a hearing aid, then they are likely to be covered by the Act. However, both hearing and visual impairments have to have a substantial adverse effect on the ability to carry out normal day-to-day activities in order for a person to be covered by the Act.

The new coding frame has been designed to ensure that higher education providers (HEPs) do not have to re-survey or re-code continuing staff members. Where for 2011/12 a staff member recorded two disabilities in DISABLE1 and DISABLE2 this should be mapped to code 08 'Two or more impairments and/or disabling medical conditions' in DISABLE.

Although there is no requirement to resurvey staff annually, HEPs should be aware that if they choose to resurvey their staff then these fields should be updated even if the member of staff declares a disability in the first instance and then not when resurveyed.

The Equality Challenge Unit (ECU) has a number of resources relating to gathering information across the protected characteristics covered by the Equality Act 2010. These resources can be found at Equality Challenge Unit .

Providers are expected to collect this information from staff annually.

<https://www.hesa.ac.uk/collection/c18025/a/disable>

Please note that the coding frame has changed over the time period 2007/08 to 2018/19 but the data is comparable across all years.