

Higher education in England 2016

Key Facts

September 2016/20



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Introduction

This updated edition of 'Higher Education in England: Key Facts' provides a statistical overview of key sector trends and developments in 2016. Using the most recent data, it draws together key findings from a range of reports published by HEFCE over the past year to provide a robust, accessible evidence base. All the data analysed in the report can be found online at www.hefce.ac.uk/analysis/HEinEngland/.

We hope that the report will be a useful resource for all those with an interest in higher education. At a time when the sector is undergoing significant reform, and as the implications for higher education of the vote to leave the European Union (EU) begin to play out, the role of well-evidenced analysis in stimulating debate and discussion, and informing policy and practice, is even more important.

Mario Ferelli Director, Analytical Services HEFCE

Summary

Undergraduate entrants

The first chapter reports on data on entrants to undergraduate courses. The numbers of full-time UK and other EU entrants in 2015-16 were estimated to be 404,000, an increase of about 4 per cent on the previous year. The total population of UK and other EU undergraduates was almost 1.1 million. However, the numbers of part-time undergraduate entrants continue to decline.

There have also been decreases in entrants to undergraduate courses from key international markets, including China and India. The latest data shows that there were annual decreases of 2.7 and 10.1 per cent respectively from these countries in 2014-15.

Postgraduate entrants

Entry to postgraduate courses is considered in Chapter 2. The number of UK and other EU entrants to taught postgraduate courses was estimated to have fallen slightly, by 0.8 per cent between 2014-15 and 2015-16, although entry numbers have been broadly stable at around 75,000 for the past four years.

About 60 per cent of all taught postgraduate students are from non-EU countries, while the proportion of taught postgraduate students who come from China has remained constant at 25 per cent. However, numbers of postgraduate entrants from other international markets has fallen. Most notably, entrant numbers from India and Nigeria saw falls of 11.0 and 8.1 per cent in 2014-15.

The numbers of entrants to postgraduate research courses continued to increase. Full-time entrants to postgraduate research courses were estimated to have increased by 5.1 per cent in 2015-16, meaning that numbers are almost 50 per cent higher than 10 years ago.

Student characteristics

The next chapter describes the UK-domiciled student population in higher education in England with regard to ethnicity, sex, age, disability and social background.

While there have been substantial improvements in widening participation and fair access over the past decade, significant disparities between groups remain. Non-white students are typically more likely to drop out and less likely to achieve a first or upper second class degree. Male and mature students and those with a known disability are also more likely not to complete their course, while students from the 40 per cent of areas with the lowest levels of higher education participation make up only 18 per cent of first degree undergraduates at high-tariff institutions.

Students by subject area

The distribution of students across subjects is described in Chapter 4. Approximately threequarters of all undergraduate students are studying subjects in the arts, humanities and social sciences, while almost one in four postgraduate students is studying a businessrelated subject.

Entrants to science, technology, engineering and mathematics (STEM) courses at both undergraduate and postgraduate level have increased substantially over the past decade, with some subjects experiencing very rapid growth. For example, entrants to undergraduate courses in chemistry and materials science have increased by 66 per cent since 2004-05.

Higher education providers

Chapter 5 shows that provision in the English sector is evolving. For the first time in 2015-16, those universities that require students to have high UCAS tariffs had more undergraduate entrants than those with low UCAS tariffs. The number of undergraduate entrants to high-tariff universities increased by 7.2 per cent between 2014-15 and 2015-16.

The chapter also looks at the provision offered by alternative providers of higher education. Although there is a small number of large alternative providers, most are very small, and more than half had fewer than 100 students claiming student support from the Student Loans Company.

The higher education workforce

For the first time, the report includes information on the higher education workforce. Chapter 6 shows that the number of people employed in universities increased by almost 10,000 in 2014-15, and is now almost 300,000. However, the data highlights issues of inequality among academic staff, with significant under-representation of women and ethnic minorities, especially in senior positions.

Research and knowledge exchange

Chapter 7 of the report focuses on university research. Research income to English higher education institutions from grants and contracts increased in 2014-15, largely due to increases in funding from research councils and the EU government. Income from collaborative research activities that involved non-academic partners has also increased sharply in the past year.

Financial health of the sector

The final chapter considers the financial health of the higher education sector in England. The latest data returned to HEFCE, which relates to the year ending July 2015, indicates that overall finances are stable, with the sector reporting an operating surplus. However, these surpluses were significantly boosted by a one-off injection of 'exceptional income' from the research and development expenditure credit scheme, while the financial performances of individual institutions across the sector continue to vary significantly. Since the data analysed in this section was returned to HEFCE prior to the EU referendum, and hence takes no account of its impact, the section concludes with consideration of the potential impact of the result on the sector.

1 Undergraduate education

Full-time undergraduate UK and other EU students

The numbers of full-time undergraduate entrants grew by 4 per cent in 2015-16 (see Figure 1). This brought the total number of entrants to around 404,000, which is 15,000 more than the previous year. Numbers of entrants in 2015-16 are now greater than in the previous peak 2011-12 academic year. However, growth may slow as UCAS reports only a 1.3 per cent increase in the number of UK and other European Union (EU) applicants to English institutions compared with 2015-16¹.

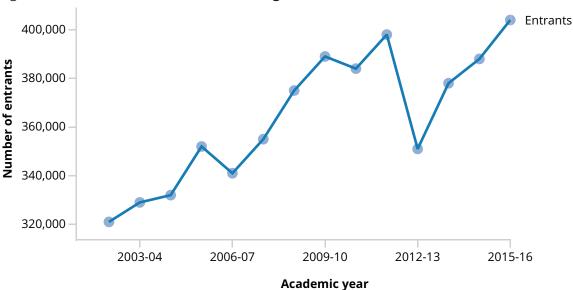


Figure 1 UK and other EU full-time undergraduate entrants

Source: Table 5, Column 2 in Higher Education Students: Early Statistics (HESES) and Higher Education in Further Education: Students (HEIFES) survey data.

All-year student numbers of UK and other EU full-time undergraduates were 3.4 per cent (36,500 students) higher in 2015-16 than in 2014-15, at 1,090,000. These students made up 57 per cent of the overall higher education student population in 2015-16. The increase in all-year numbers reflects the fact that the 2015-16 entry cohort of full-time undergraduates replaced the entry cohort in 2012-13, which was particularly low as a result of the transitional effect of the introduction of higher regulated fees in that year.

Part-time undergraduate UK and other EU entrants

Numbers of part-time undergraduate entrants have continued to decline and there was a 58 per cent (150,000 students) decrease in entrants to part-time undergraduate study since 2010-11 (see Figure 2). Between 2014-15 and 2015-16 numbers declined by 5 per cent (6,000).

¹ UCAS (2016) 'Deadline applicant statistics: Applicants at the 15 January deadline (2016 cycle). Applicants for all courses by country of domicile and provider, 2016 cycle', Table D7, <u>https://www.ucas.com/corporate/data-and-analysis/scheduled-statistical-releases</u>.

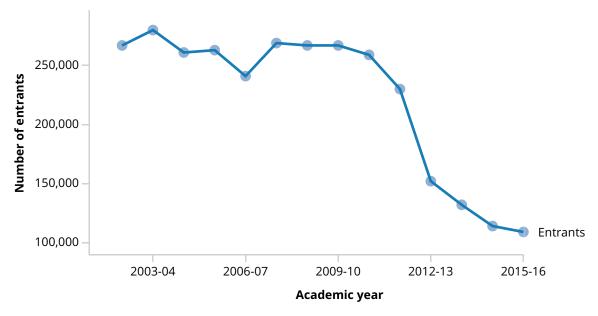


Figure 2 UK and other EU part-time undergraduate entrants

Source: Table 5, Column 2 in HESES and HEIFES data.

Using the detailed Higher Education Statistics Agency (HESA) data up to 2014-15, it can be seen that almost 90 per cent of the decline in part-time undergraduate entrants has been in courses other than first degrees. The decline in entry to other undergraduate part-time courses, including foundation degrees, HNDs and HNCs, was 64 per cent (142,400) between 2008-09 and 2014-15. The biggest falls came in 2012-13 with the introduction of higher tuition fees, but numbers starting part-time undergraduate programmes other than first degrees were declining prior to this, and entrants to all part-time undergraduate courses have continued to fall subsequent to 2012-13.

The decline in part-time entrants to first degree courses has occurred more recently, but numbers have fallen in each of the past three years. In 2014-15, numbers were 35 per cent (20,800) lower than in 2010-11, the last year to be unaffected by the fee changes.

Undergraduate EU-domiciled entrants

In 2015-16 there was a 14 per cent (3,400 entrants) increase in EU-domiciled (excluding those from the UK) full-time undergraduate entrants. At 27,000, this is 9 per cent higher than the previous peak in EU entrants in 2011-12 (see Figure 3).

The number of EU-domiciled students applying to English institutions has increased steadily since 2012-13, and reached an all-time high of 38,510 by the January 2016 UCAS deadline. This was an increase of 7.3 per cent (2,610 applicants) from the previous year².

There have been increases in entrant numbers from a wide range of EU countries. Following a period of successive declines, undergraduate entrants from Germany and France increased in number by 6.8 per cent (95 entrants) and 5.6 per cent (110 entrants) respectively between 2013-14 and 2014-15. However, this is still 41.3 per cent (1,050 entrants) and 26.0 per cent (730 entrants) fewer than in 2010-11. The largest growth in undergraduate entrants came from Italy, from where there was an increase of 28.3 per cent (370 students) between 2013-14 and 2014-15.

² UCAS (2016) 'Deadline applicant statistics: Applicants at the 15 January deadline (2016 cycle). Applicants for all courses by country of domicile and provider, 2016 cycle', Table D7, https://www.ucas.com/corporate/data-and-analysis/scheduled-statistical-releases.

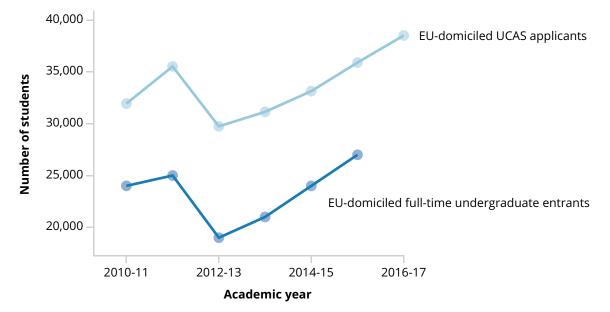


Figure 3 **EU-domiciled applicants and entrants to full-time undergraduate courses**

Source: Table 5, Column 2 in HESES and HEIFES data for entrants and Table D7 of UCAS summary statistics of applicants, January 2016.

Undergraduate international (non-EU) entrants

In 2014-15, international (non-EU) students made up 12.6 per cent of all full-time undergraduate entrants to English universities. This was down from 13.2 per cent in the previous year, but the overall proportion has been broadly stable in recent years.

Students from East Asia continue to make up the key markets for undergraduate entry to England despite falls in the numbers of students from many of these countries. China continues to be the single biggest source of international students, although the number of full-time Chinese students declined by 2.7 per cent (460 entrants) in 2014-15. There were also declines in the numbers of entrants from Hong Kong and Singapore, of 2.7 per cent (140 entrants) and 3.5 per cent (70 entrants) respectively, but there was growth of 9.3 per cent (410 entrants) from Malaysia.

Numbers of entrants from India continued the downward trajectory that dates back to 2010-11. In 2014-15 numbers of entrants from India were 10 per cent (230 students) lower than the previous year, and 33 per cent lower than in 2010-11. Numbers from Bangladesh have also fallen dramatically, by 70 per cent (590 entrants) in 2014-15, as have numbers from Sri Lanka (38 per cent or 170 entrants) such that they were 77 per cent lower in 2014-15 than in 2010-11.

Countries showing increases are generally those sending smaller volumes of students. These include the USA (up by 11 per cent, 110 students), Russia (20 per cent, 170 students) and Brazil (24 per cent, 140 students). There were large percentage increases in the numbers of students from countries in the Middle East, but these are small in absolute terms.

2 Postgraduate education

Postgraduate taught programmes

The number of UK and other EU students starting full-time postgraduate taught courses decreased, but as Figure 4 shows this has been broadly stable for the past four years. Numbers fell by 0.8 per cent in 2015-16 (around 600 entrants) compared to 2014-15. It follows a 0.4 per cent increase in 2014-15. This is the first year that students affected by the undergraduate fee reforms in 2012-13 might have progressed to postgraduate courses. The figures indicate that these reforms have not so far had a large impact on postgraduate entry.

Part-time postgraduate taught entry increased for the first time in five years. There was a 5.7 per cent rise in 2015-16 (around 3,700 entrants) compared with the previous year. This follows a 0.9 per cent decline in 2014-15 and a 2 per cent decline in 2013-14. The 2014-15 HESA data indicates that areas of earlier growth in part-time postgraduate taught entry have been driven by an increase in entrants to nursing and subjects allied to medicine. Pharmacy, pharmacology and toxicology, and engineering and technology have also seen increases in entrants.

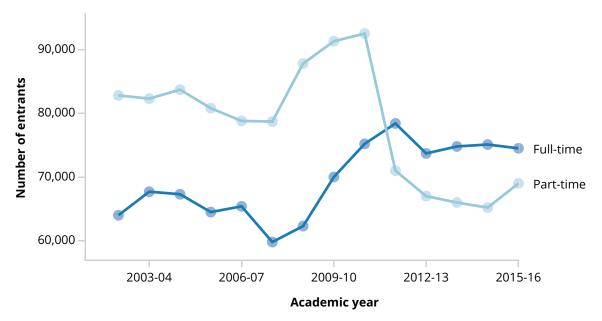


Figure 4 UK and other EU postgraduate taught entrants by mode of study

Source: Table 5, Column 2 in HESES and HEIFES data.

Postgraduate research programmes

The number of UK and other EU students starting full-time postgraduate research courses increased to a record high of 15,300. Numbers grew by 5.1 per cent in 2015-16 (around 700 entrants) compared with the previous year (see Figure 5). This follows increases of 4.6 per cent in 2014-15 and 4 per cent in 2013-14, and means that numbers are almost 50 per cent higher in 2015-16 than they were in the early 2000s.

The number of UK and other EU students starting part-time postgraduate research courses also increased. Compared to 2014-15, the numbers starting part-time research courses increased by 3.7 per cent in 2015-16 (160 entrants).

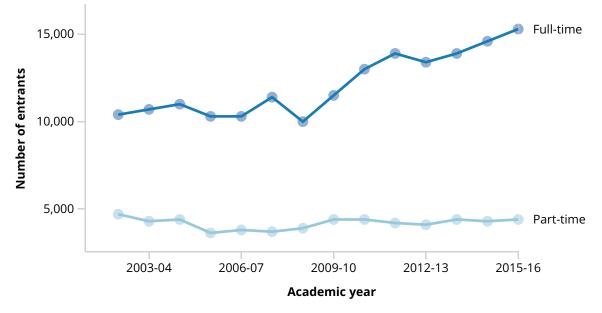


Figure 5 UK and other EU postgraduate research entrants by mode of study

Source: Table 5, Column 2 in HESES and HEIFES data.

Postgraduate international (non-EU) entrants

International students made up almost half (48 per cent) of all full-time entrants to postgraduate programmes, but numbers fell slightly in 2014-15. Overall, full-time postgraduate international entrant numbers in 2014-15 were 0.9 per cent (or 800 students) lower than in 2013-14, at 83,800. They remain, however, 4.9 per cent (or 3,900 students) higher than in 2010-11.

Since 95 per cent of international full-time entrants to postgraduate study in 2014-15 were in taught courses, they make up a greater proportion of students on these courses. In 2014-15, they made up 61 per cent of entrants to full-time taught masters courses.

China remains the single largest market for international postgraduate entry to English higher education, comprising 25 per cent of entrants into full-time taught masters programmes (see Figure 6). The growth in the number of Chinese postgraduate students was in line with the overall growth in entrants into postgraduate taught programmes: numbers increased by 2.4 per cent (690 students) in 2014-15 such that numbers were 61 per cent higher than 2010-11.

However, the proportion of students from other non-EU countries continues to decline following reductions in the numbers of entrants from some key markets. Most notably, Indian entrants were down by 11 per cent or 670 students, to 5,400 in 2014-15, while there were also decreases in the numbers of entrants from Bangladesh (down by 26 per cent or 225 students), Pakistan (down by 14 per cent or 190 students) and Nigeria (down by 8 per cent or 390 students).

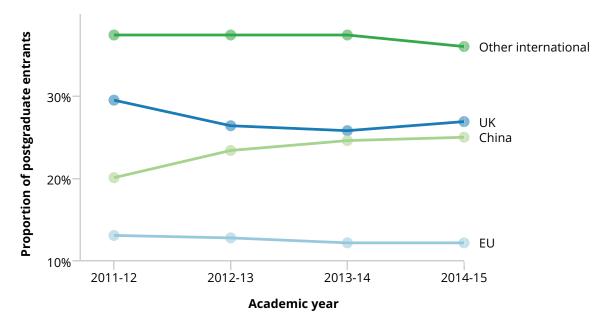


Figure 6 Full-time postgraduate entrants by domicile

Source: Analysis of the HESA standard registration population at English higher education institutions (HEIs), 2011-12 to 2014-15.

3 Student characteristics

This section considers levels of entry, non-continuation and degree outcomes for different types of student. The single biggest determinant of these is an individual's level of prior attainment. However, even controlling for this, there are significant differences across groups of students according to the characteristics of disability, sex, age and ethnicity and the place they come from.

Ethnicity

The numbers of UK-domiciled black and minority ethnic (BME) students starting full-time first degrees increased by 63 per cent in the 10 years to 2014-15, which compares with an increase in white entrants of 21 per cent over the same period (see Figure 7). Across all BME groups there were 91,500 entrants in 2014-15, who made up 28 per cent of all entrants. Across all ethnic groups, the biggest increase in entrants has been for black students. More than double the number of black students started first degrees in 2014-15 as in 2004-05.

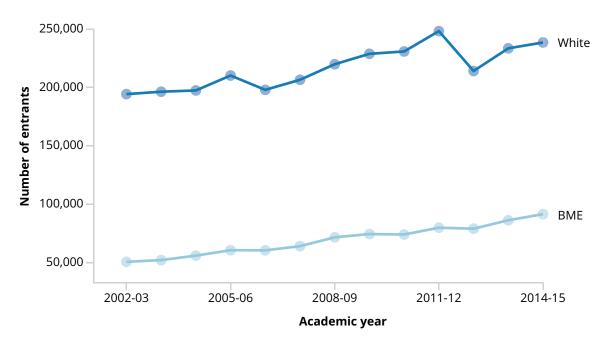


Figure 7 Full-time UK-domiciled first degree entrants by ethnicity

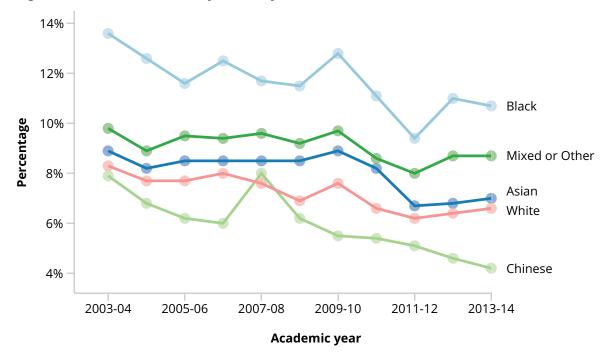
Source: HESA student record.

Setting aside first degrees, BME students made up 24 per cent of UK-domiciled entrants to other undergraduate courses in 2014-15. This proportion has stayed relatively constant over the past decade, as numbers of entrants to these courses have fallen across all ethnicities.

With regard to postgraduate study, BME graduates are more likely than white graduates to go on to taught masters. In total, 14.2 per cent of BME graduates start a taught masters within five years of completing their first degree, which compares with 12.8 per cent of white graduates. However, relatively fewer BME graduates start research courses: 1.3 per cent compared with 2.4 per cent of white graduates.

The rates at which UK-domiciled students leave their first degree after one year vary across ethnic groups, and this is shown in Figure 8. Chinese students have the lowest rates of non-continuation, while the rate for Asian students has converged towards that for white students. Although the non-continuation rate for black students has also declined over time, at 10.7 per cent for 2013-14 entrants it remains more than four percentage points higher than the rate for white students.

Figure 8 Non-continuation by ethnicity



Source: HESA Student Record. Note: Full-time UK-domiciled first degree entrants at HEFCE-funded HEIs only.

BME students are less likely to achieve a first or upper second class degree. Controlling for entry qualifications, black students are between five and 26 percentage points less likely than white students to get a higher classification degree, and Asian students are between five and 17 percentage points less likely (see Figure 9). The differences exist at all levels of entry qualifications, so are even apparent among students who enter higher education with very high prior attainment.

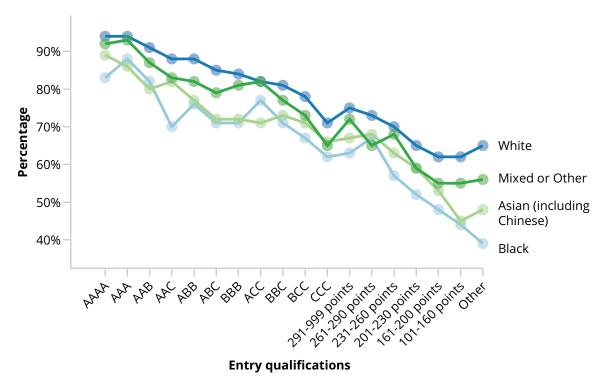


Figure 9 Percentage of first and upper seconds by ethnicity

Source: HESA Student Record 2013-14. Note: UK-domiciled first degree students at HEFCE-funded HEIs only.

Sex

The proportion of UK-domiciled students entering full-time undergraduate courses who are female has increased over time, but there are large gender disparities across subjects.

The numbers of both male and female students starting undergraduate degrees has increased over the past decade (see Figure 10). However, the increase in the number of female entrants (a 43,000 increase to 185,000 since 2004-05) has been greater than the increase in the male entrants (28,000 to 147,000). Women now comprise 56 per cent of the total full-time first degree population.

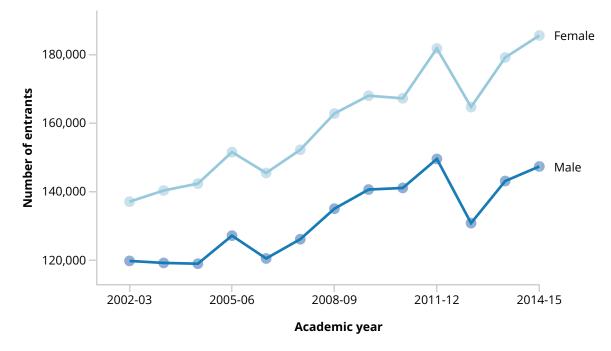


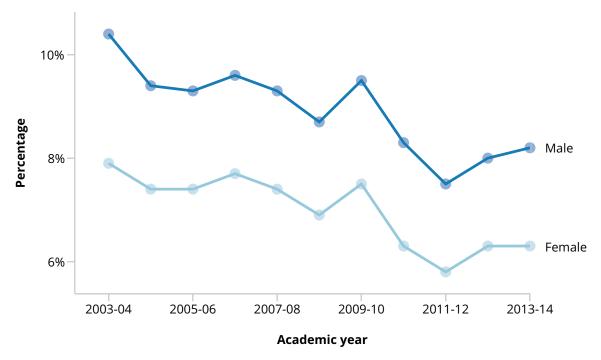
Figure 10 Full-time UK-domiciled first degree entrants by sex

Source: HESA student record.

There are large differences in the gender profiles of students across subjects, as STEM subjects continue to be male-dominated. More than 85 per cent of the students studying for undergraduate degrees in computer sciences and engineering and technology are male. However, only 15 per cent of those studying education or nursing and subjects allied to medicine are male.

Women are less likely to leave at the end of their first year than men, and more likely to achieve a first or upper second degree. Figure 11 shows that in 2013-14, 8.2 per cent of male students did not continue from the first year of their first degree. This compares with only 6.3 per cent of female students. Although non-continuation rates have fallen for all students in the past 10 years, the difference in the rates between the sexes has remained consistent at about two percentage points.

Figure 11 Non-continuation by sex



Source: HESA Student Record. Note: Full-time UK-domiciled first degree entrants at HEFCE-funded HEIs only.

For nearly all levels of prior attainment, female students have on average better degree outcomes than male students. The rate at which women achieve first and upper second class degrees is typically between two and seven percentage points higher than men (see Figure 12).

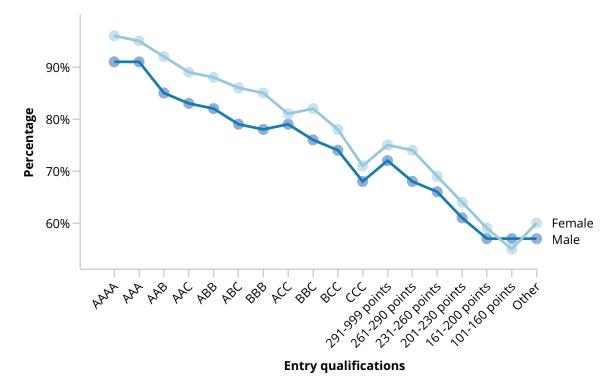


Figure 12 Percentage of first and upper seconds by sex

Source: HESA Student Record 2013-14. Note: UK-domiciled first degree students at HEFCE-funded HEIs only.

Age

The number of mature UK-domiciled students (aged 21 or over) starting full-time first degrees has steadily increased over the past decade, to a high of 68,000 in 2014-15, as shown in Figure 13. However, the number of mature part-time entrants, which had been increasing until 2011-12, fell sharply following the introduction of higher tuition fees and has continued to decrease in the years since.

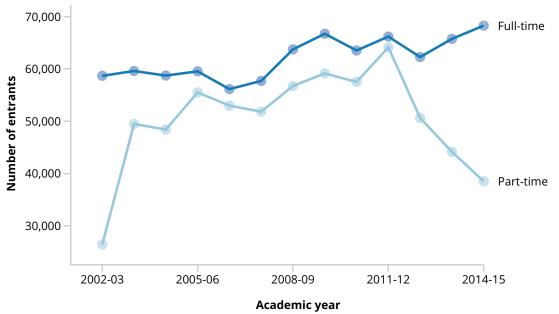
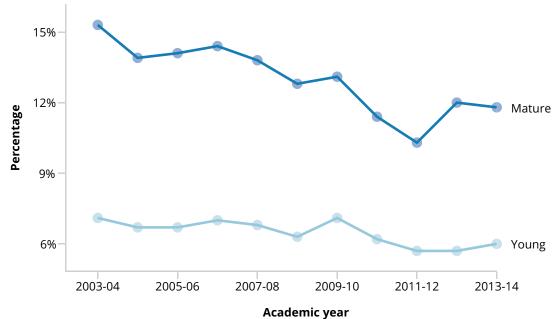


Figure 13 Mature UK-domiciled first degree entrants

Source: HESA Student Record. Note: UK-domiciled students at HEFCE-funded HEIs only.

Mature students are much more likely to leave after one year of a first degree than young students. After a period of decline, the non-continuation rate for full-time mature UK-domiciled students increased sharply in 2012-13 and, according to the most recent data, mature students are twice as likely as young students to drop out (see Figure 14). The rates in 2013-14 were 12 per cent for mature students and 6 per cent for young students.





Source: HESA Student Record. Note: Full-time UK-domiciled first degree entrants at HEFCE-funded HEIs only.

Disability

The number of UK-domiciled entrants to full-time first degree courses with a known disability was 40,500 in 2014-15, which was an increase of 42 per cent since 2010-11. About half of all students with a known disability have a specific learning disability, such as dyslexia, dyspraxia or Attention Deficit Hyperactivity Disorder. However, the numbers of students with a known mental health condition has increased by 160 per cent since 2010-11, and was 6,300 in 2014-15.

It is not possible to say to what extent these increases come from higher numbers of disabled students entering higher education as opposed to increased rates of disclosure. In either case, it means that higher education institutions are experiencing large increases in the demand for support services.

The rate at which students with a disability leave a first degree has declined over time (see Figure 15). However, the rate for other students has fallen further, so that the difference between those with and without a disability has grown. In 2003-04 the rate for students with a disability was 0.7 percentage points higher than for those without, but by 2013-14 this was 1.4 percentage points. This may be a result of more individuals with a disability being correctly identified.

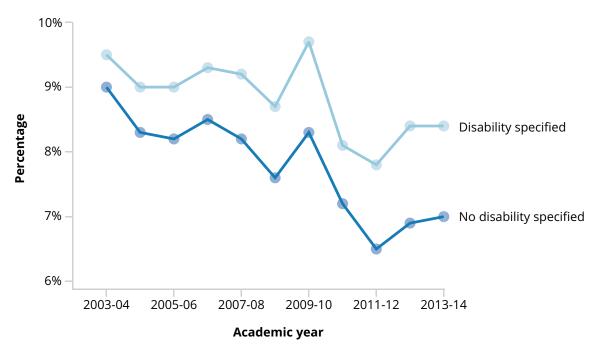


Figure 15 Non-continuation by disability

Source: HESA Student Record. Note: Full-time UK-domiciled first degree entrants at HEFCE-funded HEIs only.

Whether students with a disability achieve similar levels of degree classification as those without seems to be related to their entry qualifications. Among those entering higher education without A-levels, the proportion of students with a disability who achieved a first or upper second class degree in 2014-15 was broadly the same as those without a disability (see Figure 16). However, among those with A-levels at grades CCC or better, students with a disability were typically two to four percentage points less likely to be awarded a first or upper second class degree.

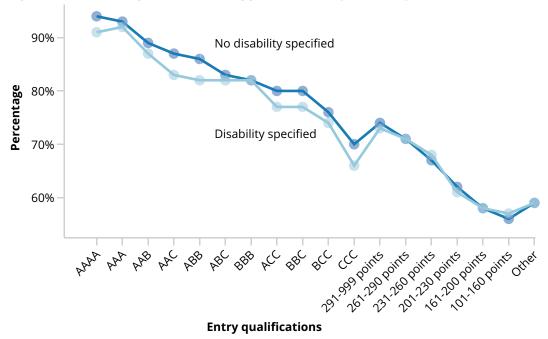


Figure 16 Percentage of first and upper seconds by disability

Source: HESA Student Record 2013-14. Note: UK-domiciled first degree students at HEFCE -funded HEIs only.

Social background

The number of UK-domiciled entrants to full-time first degrees at HEFCE-funded higher education institutions (HEIs) has increased from all Participation of Local Areas (POLAR3) quintiles, and the increase in the absolute number of entrants from each quintile is broadly similar (see Figure 17). This means that the proportion of students coming from quintile 5 (the most advantaged) declined from 34 per cent in 2004-05 to 30 per cent in 2014-15, while the proportion from quintile 1 increased from 9 to 11 per cent and that from quintile 2 from 14 to 16 per cent.

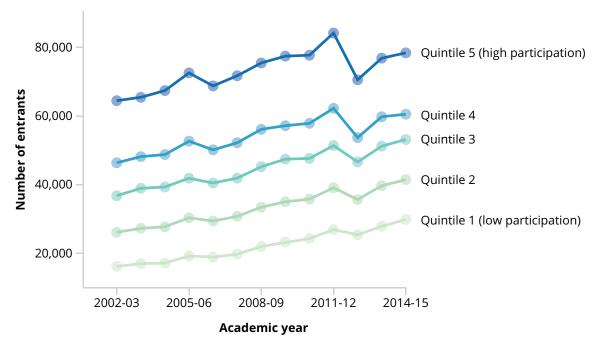
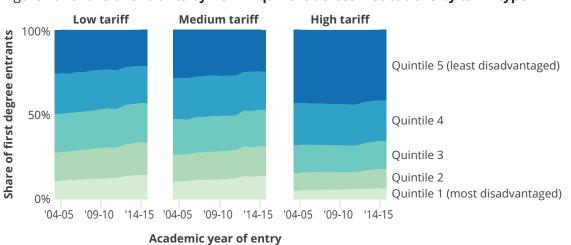
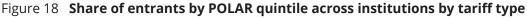


Figure 17 Young first degree entrants by POLAR quintile

Source: HESA Student Record. Note: Full-time, UK-domiciled students only.

However, the increase in entrants from different quintiles has not been evenly spread across HEIs, and there are large differences in the proportions of students from different backgrounds between types of higher education institution (HEI). Figure 18 shows that at both low- and medium-tariff HEIs the most disadvantaged students (POLAR quintile 1) made up about 14 per cent of entrants in 2014-15, but at high-tariff HEIs this was less than 7 per cent. Conversely, the least disadvantaged students (quintile 5) continue to make up 42 per cent of entrants to high-tariff universities, while the equivalent shares at low- and medium-tariff institutions have declined to 21 and 24 per cent.

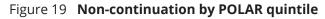


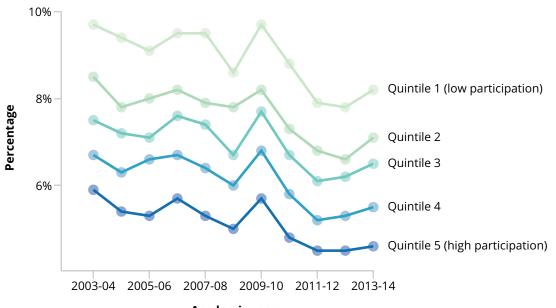


Source: HESA Student Record. Note: Full-time, UK-domiciled first degree students aged under 21. Disadvantage measured using POLAR3.

The numbers of students entering other undergraduate courses at a level below first degree are split roughly equally across quintiles. Students from quintile 1 areas made up 17 per cent of all of these entrants, while 19 per cent were from quintile 5 areas.

Disadvantaged students are more likely to leave their course of study after one year. In 2014-15 the non-continuation rate for quintile 1 students taking first degrees increased from 7.8 to 8.2 per cent (see Figure 19). The rate for quintile 5 students in 2014-15 was 4.6 per cent, and the difference between these groups has been broadly consistent over the past decade.





Academic year

Source: HESA Student Record. Note: Under-21, full-time, UK-domiciled first degree entrants at HEFCE-funded HEIs only.

4 Subjects

Full-time entrants by subject

Approximately three-quarters of all full-time entrants to undergraduate courses are studying arts, humanities and social sciences. Of the 425,000 full-time entrants to undergraduate courses in 2014-15, 313,000 entered subjects in arts, humanities and social sciences. Within this broad grouping, the most popular subject groups were business, management and administrative studies (64,000 entrants), social studies (58,000) and creative arts and design (47,000) (see Figure 20).

There were 95,000 undergraduate entrants to undergraduate courses in science, technology, engineering and mathematics (STEM) subjects in 2014-15, which was an increase of 4.2 per cent on 2013-14.

Most subject areas had an increase in the number of entrants in 2014-15 compared to 2013-14. The largest percentage increases were in chemistry and materials science (9.8 per cent), computer sciences (6.9 per cent) and psychology (5.5 per cent).

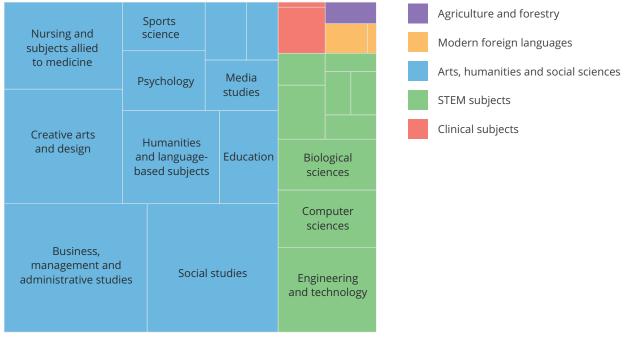


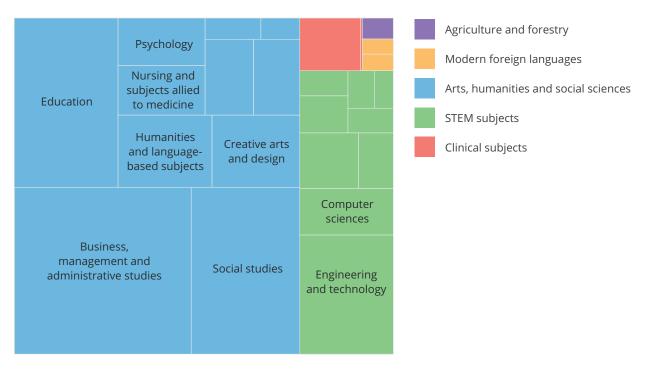
Figure 20 Entrants to full-time undergraduate courses by subject

Source: HESA Student Record. Note: HEFCE-funded HEIs only.

As with undergraduate courses, roughly three-quarters of entrants to postgraduate programmes are in subjects within arts, humanities and social sciences (see Figure 21). However, there are relatively more students in education and business, management and administrative studies, with the latter making up 23 per cent of all postgraduate entrants.

There was little change in 2014-15 to the number of entrants to the largest postgraduate subjects, but some of the smaller subjects had reasonably large growth. There were 18 per cent more entrants in sports science than in 2013-14, while there were 13 per cent more in anatomy, physiology and pathology and 9.3 per cent more in physics and astronomy.

Figure 21 Entrants to full-time postgraduate courses by subject



Source: HESA Student Record. Note: HEFCE-funded HEIs only.

The number of entrants to modern foreign languages has fallen at both undergraduate and postgraduate level. The numbers of students starting postgraduate courses in European languages was 9.9 per cent lower in 2014-15 than in 2013-14, while entrants to undergraduate courses fell by 3.4 per cent. There was also a fall in the number of entrants to non-European languages at the undergraduate level (down 5.8 per cent), although the number starting postgraduate courses was unchanged.

The teaching of European modern languages is heavily dependent on EU nationals, who make up 46 per cent of academic staff in this subject area.

Science, technology, engineering and mathematics

The number of entrants to full-time undergraduate courses in STEM subjects has increased by 26 per cent since 2004-05. The STEM subjects that that have seen the biggest increases are physics and astronomy (39 per cent more entrants in 2014-15 than in 2004-05), mathematical sciences (47 per cent more), and chemistry and materials science (66 per cent more) (see Figure 22).

There has also been a large increase in the number of entrants to biological sciences (up 52 per cent in the past decade). However, the Wakeham Review of STEM degree provision and graduate employability identified biological sciences as a subject for which there is considerable concern as the employment outcomes for these graduates were relatively poor³. The review recommended that further targeted work be undertaken to explore the reasons for this.

³ Department for Business, Innovation and Skills (2016) 'STEM degree provision and graduate employability: Wakeham review', <u>https://www.gov.uk/government/publications/stem-degree-provision-and-graduate-employability-wakeham-review</u>.

The number of entrants to computer science courses was 8 per cent lower in 2014-15 than 2004-05. The Shadbolt Review highlighted that the broad computer sciences subject area covers a wide curriculum with almost 2,000 courses offered at English HEIs⁴. Employment outcomes for computer science graduates are mixed, as they have a lower overall employment rate than other STEM subjects, but are more likely to be in professional employment.

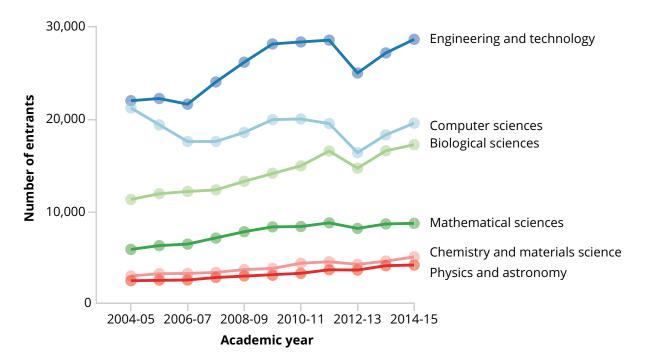


Figure 22 Entrants to undergraduate courses in selected STEM subjects

Source: HESA Student Record. Note: Full-time students at HEFCE-funded HEIs only.

The numbers of entrants to full-time undergraduate courses in engineering and technology increased by 30 per cent in the past decade, from 22,000 in 2004-05 to 28,700 in 2014-15. Approximately half of this increase is due to greater numbers of entrants to courses in mechanical, aeronautical and production engineering.

Since 2007, HEFCE has provided additional funding to help secure the provision of chemical engineering and mineral, metallurgy and materials engineering in recognition that these two subject areas are very high-cost. Numbers of undergraduate entrants to chemical, process and energy engineering have increased substantially. In 2014-15 there were 2,400 entrants compared to just 800 in 2004-05.

However, numbers of entrants into mineral, metallurgy and materials engineering have declined sharply. In 2014-15 there were only 700 entrants, which was fewer than half the number of a decade earlier.

The number of entrants to full-time postgraduate STEM courses was 30 per cent higher in 2014-15 than a decade earlier. There was a particularly large increase of 78 per cent in mathematical sciences courses. The only subject area to show a declining number of entrants over the past decade is computer science (see Figure 23).

⁴ Department for Business, Innovation and Skills (2016) 'Computer sciences degree accreditation and graduate employability: Shadbolt review', <u>https://www.gov.uk/government/publications/computer-science-degree-accreditation-and-graduate-employability-shadbolt-review</u>.

Within the engineering and technology subject area, there have been large increases in entrants to chemical, process and energy engineering and mechanical, aeronautical and production engineering, which is like the trends seen in undergraduate provision.

However, unlike at undergraduate level, entrants to postgraduate courses in mineral, metallurgy and materials engineering have not declined. This means there are now more students each year entering postgraduate courses in this subject area than undergraduate courses and it reflects the fact that these courses rely heavily on recruiting students who are not from the UK.

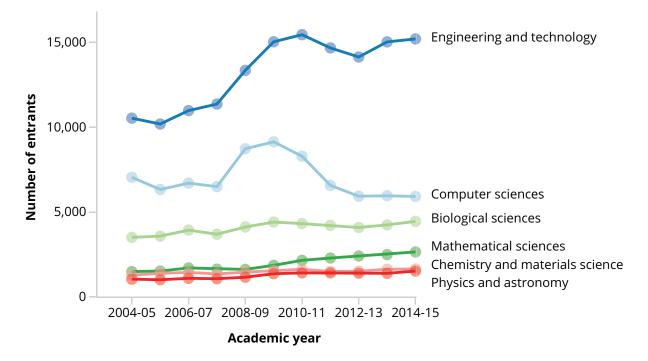


Figure 23 Entrants to postgraduate courses in selected STEM subjects

Source: HESA Student Record. Note: Full-time students at HEFCE-funded HEIs only.

5 The provision of higher education

Higher education institutions

In 2015-16, undergraduate student numbers grew fastest at institutions with high entry requirements. For a third consecutive year, the numbers of full-time UK and other EU undergraduate entrants increased at all types of higher education institution, but as Figure 24 shows the growth was not distributed evenly across institution types.

Institutions requiring a high UCAS-tariff for entry saw the largest growth in these entrants at 7.2 per cent (7,800 students). This compares with growth of 1.8 per cent (2,300 students) at medium-entry tariff institutions and 2.0 per cent (2,100 students) at low-entry tariff institutions. The growth in full-time undergraduate UK and other EU entry in 2015-16 at specialist HEIs was 5.1 per cent (1,000 students).

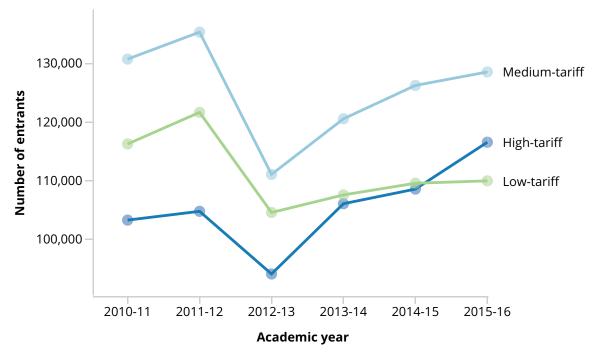


Figure 24 UK and other EU full-time undergraduate entrants in institution by tariff type

Source: Table 5, Column 2 in HESES and HEIFES data.

Further education colleges

A majority of undergraduate students in further education and sixth form colleges (FECs) are studying courses other than first degrees, such as foundation degrees, HNDs and HNCs. In 2014-15 this was around three-quarters of undergraduate students taught at FECs.

Students on undergraduate courses at colleges either register directly with the college or receive franchised provision, in which they are taught at the college while being registered at an HEI. In recent years there has been a move away from franchised provision and towards students registering directly with FECs. Since 2010-11, there has been a 48 per cent decline (5,600 students) in entrants to franchised provision, but a 57 per cent increase in entrants registered at FECs (see Figure 25)⁵. Most recently in 2014-15, there was a 5.5 per cent fall in franchised provision, and a 1.0 per cent increase in registrations, at FECs.

⁵ These figures do not include entrants to nursing courses, which is to ensure consistency following changes implemented by the Nursing and Midwifery Council in 2010 in connection with the pre-registration qualification requirements of nurses.

The numbers of entrants to other undergraduate (non-first degree) courses who were both registered and studied at an HEI fell by 8.9 per cent (1,100 students) in 2014-15. The total decline in these students since 2008-09 is 53 per cent.

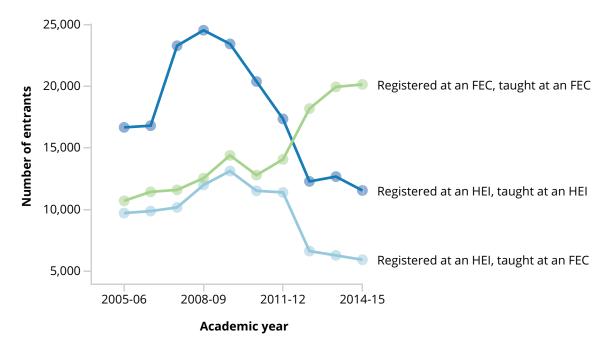


Figure 25 Full-time entrants to other undergraduate courses

Source: Analysis of the HESA standard registration population at English HEIs, and the equivalent population at English further education colleges, 2005-06 to 2014-15.

Alternative providers

An alternative provider (AP) is defined as any provider of higher education courses which:

- does not directly receive annual funding from HEFCE or its equivalent bodies in the devolved administrations
- · does not receive direct annual public funding
- is not a further education college.

As at 19 February 2016, there were 122 alternative providers with specific course designation in 2015-16. Current students at the providers can access support through the Student Loans Company, but some of these providers have courses designated for Disabled Students Allowance only. Seven APs have degree awarding powers of some description. One of these having permanent degree awarding powers.

Data from the Student Loans Company on the number of students on designated courses who claimed student support in 2014-15, presented in Figure 26, shows that the distribution of students across providers is highly skewed. A majority of providers are small. More than half of APs have fewer than 100 students, but 10 APs had more than 1000 students, and the largest had nearly 6,500 students. There may be additional students registered at these alternative providers who are not eligible to receive student support or who choose to self-finance their studies, but these students will not be shown in the Student Loans Company data.

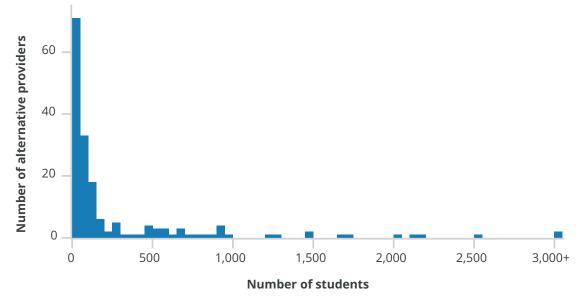


Figure 26 Distribution of students at alternative providers

Source: Student Loans Company data 2014-15.

Higher education provision at APs is mostly for full-time undergraduate programmes and is concentrated in particular subjects. Nearly half of students receiving student support in 2014-15 were studying a Higher National Diploma and almost 40 per cent a first degree.

A majority of courses designated at alternative providers are in three areas: business and management (43 per cent of students claiming student support in 2014-15), creative arts and design (16 per cent) and health and social care (7 per cent).

Students studying at APs are more likely to be mature and London-based relative to those at HEFCE-funded institutions. In 2014-15, nearly 60 per cent of those students at APs who claimed student support were aged over 25.

More than half of APs are based in London, which is reflected in their student populations. Around 55 per cent of students are London residents before they start their course.

6 The higher education workforce

A total of 295,000 staff were employed by English higher education institutions in 2014-15 on permanent, open-ended or fixed-term contracts. The number of academic staff increased by 4.0 per cent (about 5,300) from the previous year so that 47 per cent of all staff were employed on academic contracts (see Figure 27). The remaining 53 per cent of all staff were employed on professional and support contracts, and the number of these staff increased by 2.8 per cent (4,300) from 2013-14.

In addition to these staff, a further 70,000 academic staff were employed in 2014-15 on atypical contracts, which was unchanged from the previous year⁶. Data is not collected for professional and support staff on atypical contracts.

The proportion of academic staff on full-time contracts in 2014-15 was 79 per cent, while 71 per cent of professional and support staff were full-time. A majority of academic staff are employed on teaching and research contracts (56 per cent), but this proportion has declined since 2010-11 (61 per cent) as numbers of teaching-only (15 per cent in 2014-15) and research-only contracts (28 per cent) have increased since 2010-11.

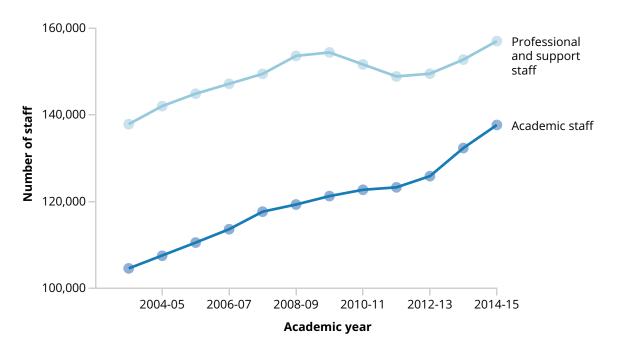


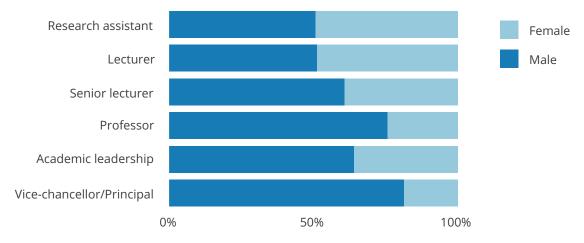
Figure 27 Number of staff employed at HEFCE-funded HEIs

Source: HEFCE analysis of staff employed at HEFCE-funded HEIs: Trends and profiles.

The ratio of male to female lecturers is relatively equal, but as academic positions become more senior the proportion of women declines, as shown in Figure 28. In 2014-15, 49 per cent of lecturers were female, but the proportion declines with seniority. Only 39 per cent of senior lecturers were female and just 24 per cent of professors were female. Women were also under-represented in positions of academic leadership (36 per cent), especially among vice-chancellors and principals (18 per cent).

⁶ HESA defines typical contracts as those with working arrangements that are not permanent, involve complex employment relationships or involve work away from the supervision of the normal work provider.

Figure 28 Proportion of staff employed by gender



Source: HEFCE analysis of HESA staff data 2014-15.

Among academic staff who are UK nationals, ethnic minorities are under-represented at all levels of academic position (see Figure 29). In 2014-15, only 9 per cent of UK lecturers were from ethnic minorities. The proportion is similar at more senior positions with 8 per cent of professors being from ethnic minorities.

The proportion of staff who are non-white increases when all nationalities are considered, but less so at more senior academic positions. Only 2 per cent of vice-chancellors and principals are from ethnic minorities.

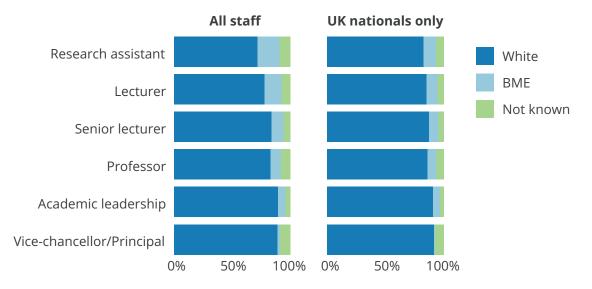


Figure 29 **Proportion of staff by ethnicity**

Source: HEFCE analysis of HESA staff record 2014-15

7 Research and knowledge exchange

Research quality

Approximately one-third of research activity conducted by UK universities was judged to be world-leading in the 2014 Research Excellence Framework (REF2014). The research from 154 UK universities was peer-reviewed by 36 panels comprising UK and international experts and external users of research. The panels judged 30 per cent of the submitted work to be 'world-leading' (4*) and a further 46 per cent to be 'internationally excellent' (3*). World-leading research was found across different types of university with three-quarters of institutions having at least 10 per cent of their work graded as 4*. The top quarter had at least 30 per cent graded as 4*.

A total of 6,975 impact case studies were submitted to REF2014. These describe the impact of research undertaken in UK higher education institutions. The proportion of case studies judged to have outstanding (4*) impact was 44 per cent, while a further 40 per cent were judged to have very considerable (3*) impact. The case studies record that the impact from research in UK universities is global. Almost all countries in the world are referenced in at least one impact case study. Excluding the UK, the countries with most references are the United States, Australia and Canada, but many of the poorest countries and those with conflicts are also impacted, including Afghanistan, South Sudan and Syria.

Research funding

Research income to English HEIs from grants and contracts increased by 15.4 per cent (£645 million) in real terms to £4.8 billion in 2014-15 (see Figure 30). This increase was in large part attributable to Research and Development Expenditure Credits (RDEC) from HM Revenue and Customs, which generated £431 million of income in 2014-15. This was a one-off increase, as from 1 August 2015 universities and charities became ineligible for RDEC. Excluding RDEC, the real-terms increase in research income was 5.1 per cent or £214 million.

Research Councils continue to be the single largest source of research income. This increased by 7.0 per cent (£95 million) in 2014-15. Funding from EU sources increased by 5.6 per cent (£36 million) in 2014-15. Excluding RDEC, funding from the EU makes up almost 16 per cent of all research income, which is up from 8 per cent in 2005-06.

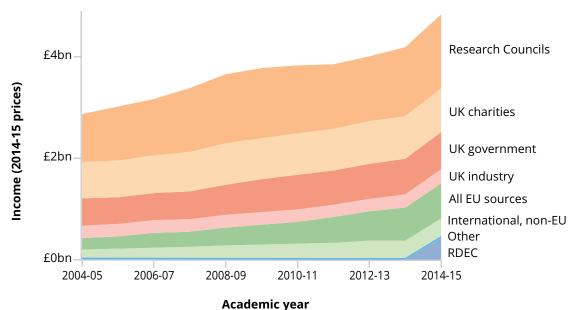


Figure 30 External research grants and contracts income

Source: HESA Finance Statistics Return.

Knowledge exchange

The World Economic Forum Global Competitiveness Index 2015-16 ranked the UK fourth for university-business collaboration on research and development for the second consecutive year. This is behind only Switzerland, the USA and Finland, and ahead of Germany (10th), Canada (19th), Australia (21st) and France (29th).

English HEIs increased their income from business and community sources to more than £3.4 billion in 2014-15, an increase of 4.6 per cent in real terms (see Figure 31). This was driven in large part by increases in income from collaborative research, which grew by 9.0 per cent in real terms in 2014-15. This represents an increase in income from research projects that have public sponsorship and at least one other external non-academic partner.

Increases in income were also generated from continuing professional development and continuing education courses, facilities and equipment-related services, and regeneration and development programmes.

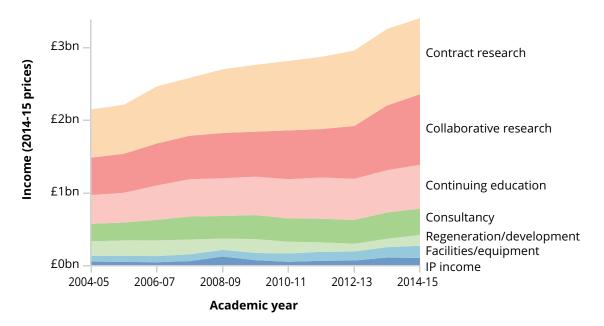


Figure 31 Knowledge exchange income

Source: HESA Higher Education-Business Community Interaction Survey.

8 Financial health of the sector

This chapter considers the sector's financial health using the most recent data reported to HEFCE, which relates to the year ending July 2015. A comprehensive analysis of this data can be found in the report 'Financial health of the higher education sector: Financial results and TRAC outcomes 2014-15' (HEFCE 2016/04). However, this data was returned prior to the EU referendum, the result of which will inevitably have implications for the sector, and these are considered in the final section of this chapter.

Operating surpluses and financial sustainability

The financial health of HEFCE-funded higher education institutions in England continues to show a sound position overall, according to data reported to HEFCE relating to the year ending July 2015. At the sector level, the financial outturn improved on the results reported in 2013-14 and those projected by HEIs in July 2015. However, the financial performances of individual institutions across the sector continue to vary significantly (see Figure 32).

Overall, the sector reported operating surpluses of £1.6 billion (5.8 per cent of income), which were £608 million higher than the level reported for 2013-14 (3.9 per cent of income). However, these surpluses were boosted by a one-off injection of 'exceptional income' derived from RDEC. Without this, HEFCE estimates that operating surpluses would be £1.2 billion (4.3 per cent of income).

Total sector borrowing and the sector's liquid funds increased to £7.8 billion and £8.3 billion respectively, producing a net cash position of £0.5 billion at 31 July 2015. This is relatively small compared with an overall income of £27.7 billion, and represents a fall from the levels reported at 31 July 2014 and 31 July 2013, which were £1.0 billion and £1.1 billion respectively.

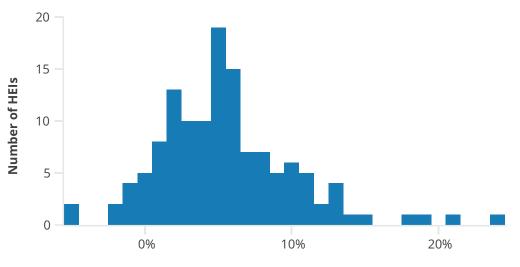


Figure 32 Operating surpluses as a percentage of total income

Operating surplus as a percentage of total income

Source: HEFCE 2016/04.

Although the overall financial position is currently sound, there is a sector-wide sustainability gap of £522 million. This is the difference between the level of surplus achieved by the sector and the level required to cover its full economic costs. Excluding RDEC, the sustainability gap is £860 million, equivalent to 3.2 per cent of income.

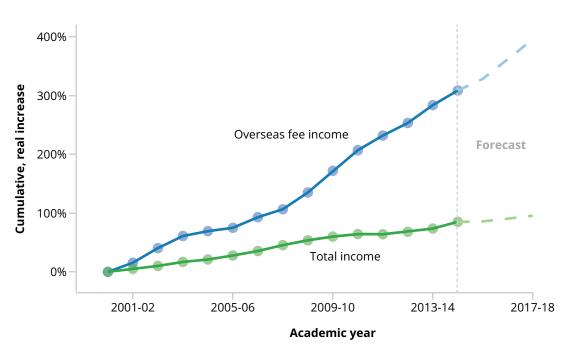
The sector's surpluses on non-publicly funded teaching and other activities were insufficient to support the shortfall on its research activity. The shortfall in the recovery of the full economic costs of the sector's research activity, excluding RDEC income, came to £2.8 billion.

In the medium to long term, the sector needs to generate larger surpluses to make progress towards covering the full economic costs of all its activities and remain financially sustainable.

International fee income

The income generated through tuition fees from international (non-EU) students increased by 8.1 per cent (£267 million) between 2013-14 and 2014-15 to reach £3.6 billion (see Figure 33). Overseas student numbers (across all years of study) also grew in 2014-15, rising 1.9 per cent compared with 2013-14, although these were 2.2 per cent lower than expected by institutions. This indicates that the majority of income growth was due to the effect of higher fees as opposed to growth in the overseas student population (a pattern we have seen following the introduction of higher home and EU fees).

Total income from international (non-EU) tuition fees in 2014-15 represented around 26 per cent of all tuition fee and education contract income reported by English institutions in 2014-15. By 2017-18 the sector expects this to grow to £4.6 billion (around 28 per cent of tuition fee and education contract income). A key challenge for the sector will be its ability to achieve plans for growth in the overseas student market, which is a significant source of income for many institutions. A downturn in overseas student recruitment increases the risk of financial instability in the sector.





Source: HEFCE 2016/04.

Capital expenditure

Rising student expectations resulting from higher fees encourage institutions to invest more in infrastructure (buildings, equipment, and digital technology). In 2014-15, the sector reported capital expenditure of £3.6 billion, an increase of 9.4 per cent compared with 2013-14 (see Figure 34). Even higher levels of investment are projected by the sector over the next three years, with the largest capital investment expected in 2015-16, totalling £5.0 billion.

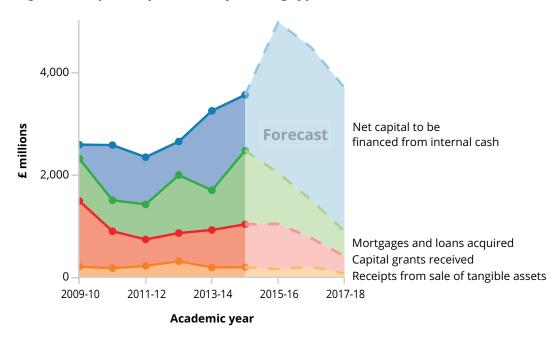


Figure 34 Capital expenditure by funding type

Source: HEFCE 2016/04.

In the current climate of lower public capital funding, institutions are increasingly reliant on generating increased cash reserves or increasing borrowing to deliver their capital investment programmes. In 2014-15, the sector reported that it used £1.1 billion from its own cash reserves (equivalent to 3.9 per cent of total income) and borrowed an additional £1.4 billion to help fund capital expenditure during the year. This caused total sector borrowing to rise to £7.8 billion at the end of July 2015 (equivalent to 28.1 per cent of income).

Investment in infrastructure is particularly important given that the Estates Management Statistics show that, as at 31 July 2014, the sector still needed to invest £3.5 billion to restore its non-residential estate. This cost reflects the investment required to restore the estate to a sound baseline condition and is not the same as the investment required to bring the estate up to the standard required to satisfy rising student expectations.

EU referendum

The financial data analysed above was submitted to HEFCE before the EU referendum on 23 June. The UK's vote to leave the EU will have implications for aspects of the higher education sector, although it is too early to know exactly what will happen or what will arise in negotiation.

In outline, the higher education sector in England may be impacted through direct implications on funding accessible from membership of the EU, such as research funding, European Structural and Investment Funds, and on fees from EU students. Key facts on these, as they applied to the sector in 2014-15, are below. Indirect implications may also arise for the way that English HEIs collaborate with other EU countries, and for wider collaboration internationally.

Key facts

(These relate to 2014-15, and may not accurately represent the full cycle of funding from EU initiatives.)

Movement of people

- Student numbers 83,809 students (full-time equivalent), approximately 6.5 per cent of total home and EU students. Fee income from EU students is estimated to represent approximately £604 million, 2.2 per cent of total income (2014-15).
- Staff 22,780 staff come from EU member states, accounting for 16.6 per cent of the total staff.

Research activity

• EU research and other associated EU income £688 million, 2.5 per cent of total income in 2014-15 (£642 million, 2.5 per cent, in 2013-14).

EU regeneration and development funding

(For instance European Structural Investment Funding)

- The sector benefits from being able to access EU grant funding to assist the EU in strengthening the economic, social, employment and educational opportunities between its member states.
- The sector reported income of £61 million in 2014-15 (£51 million in 2013-14).

Borrowing and capital development

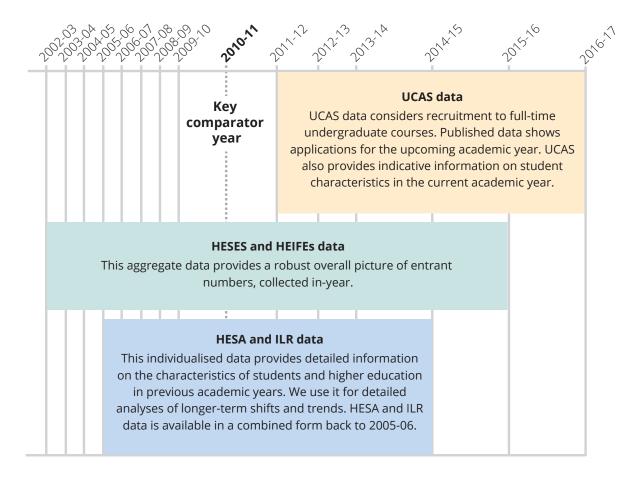
- The sector's pre-referendum expectations were for its borrowings to rise to £9.2 billion by the end of 2017-18 (29.8 per cent of total income). A national economic downturn and any perceived downgrading of credit ratings for the HE sector will inevitably impact on the availability and cost of borrowing, which might in turn cause individual HEIs to amend their investment plans. At the present time the financial markets continue to take confidence in the strength of the sector although, as might have been expected, they are demonstrating some caution in the immediate aftermath of the referendum vote.
- The UK HE sector has, in the recent past, benefited from favourable lending from the European Investment Bank. The sector's future access to this lending, post exit, remains uncertain.

In a letter on 12 August, HM Treasury sought to reassure the sector that, in relation to Horizon 2020 EU research funding, the scheme remains open to the sector while the UK is a member of the EU and the Treasury will underwrite the payment of awards even when projects continue beyond the UK's departure from the EU. In relation to EU Structural and Investment Funds, in the short term, multi-year projects agreed or in place, and projects to be signed before the autumn statement, will be fully funded even when these projects are scheduled to continue beyond the UK's departure from the EU. The Treasury further assured the sector that, in the medium term, it will work with partners to put in place arrangements for considering projects that might be signed after the autumn statement, but while the UK remains a member of the EU. The Government is hoping that these statements will provide the UK HE sector and its collaborating EU partners with confidence in continuing to bid together for competitive EU funds.

Note on data sources

Data in our analyses comes from the three main sources shown in Figure 35.

Figure 35 Data sources



This student data provides us with information about higher education provision in higher education institutions and sixth form and further education colleges. Because of differences in data sources and availability of data, alternative providers are not included in analyses unless specified.

Other sources of information used in this report are acknowledged in the relevant sections.

Annex A: Additional data

Table 1 Students registered at publicly funded English higher education providers, 2010-11 to 2015-16

Mode and level of study, and student domicile		2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Full-time	Undergraduates – UK and other EU	935,705	977,205	968,010	971,470	965,080	998,365
	Undergraduates – International	96,040	103,155	106,050	111,855	116,190	119,475
	Subtotal: Full-time undergraduates	1,031,745	1,080,365	1,074,060	1,083,325	1,081,270	1,117,840
	Postgraduates – UK and other EU	110,475	118,570	117,130	119,210	120,165	121,260
	Postgraduates – International	84,485	94,825	97,435	102,735	105,555	106,850
	Subtotal: Full-time postgraduates	194,960	213,395	214,570	221,945	225,720	228,110
Part-time	Undergraduates – UK and other EU	360,910	353,000	275,835	245,165	226,730	214,515
	Undergraduates – International	11,975	10,550	8,680	9,060	8,870	6,715
	Subtotal: Part-time undergraduates	372,885	363,550	284,515	254,230	235,600	221,230
	Postgraduates – UK and other EU	167,810	159,385	145,885	138,885	136,325	138,575
	Postgraduates – International	16,250	14,990	15,555	14,635	13,075	14,320
	Subtotal: Part-time postgraduates	184,060	174,375	161,440	153,520	149,405	152,890
Total		1,783,650	1,831,680	1,734,585	1,713,020	1,691,995	1,720,075

Source: Tables 1 and 2, Column 4 in HESES and HEIFES data. A headcount measure of students registered at publicly-funded English higher education institutions and further education colleges. Note: 'EU' = 'European Union'.

Table 2 Entrants registered at publicly funded English higher education providers, 2010-11 to 2015-16

	Mode and level of study, and student domicile 2010-11 2011-12 2012-13 2013-14 2014-15 2015-16						
	it domicile	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Full- time	Undergraduates – UK and other EU	383,760	397,720	351,130	378,395	388,340	403,565
	Undergraduates – International	n/a	n/a	49,530	50,920	52,955	51,560
	Subtotal: Full-time undergraduates	n/a	n/a	400,660	429,310	441,300	455,125
	Postgraduates – UK and other EU	88,170	92,340	87,040	88,725	89,660	89,820
	Postgraduates – International	n/a	n/a	79,205	80,005	83,440	83,915
	Subtotal: Full-time postgraduates	n/a	n/a	166,245	168,730	173,100	173,735
Part- time	Undergraduates – UK and other EU	258,885	229,835	151,810	132,185	114,440	108,740
	Undergraduates – International	n/a	n/a	5,895	4,645	5,910	3,865
	Subtotal: Part-time undergraduates	n/a	n/a	157,705	136,830	120,350	112,605
	Postgraduates – UK and other EU	96,905	75,220	71,090	70,365	69,495	73,385
	Postgraduates – International	n/a	n/a	4,980	4,360	3,660	4,045
	Subtotal: Part-time postgraduates	n/a	n/a	76,070	74,720	73,155	77,430
Total	UK and other EU	827,715	795,110	661,070	669,665	661,940	675,515
	International	n/a	n/a	139,610	139,930	145,965	143,385

Source: Table 5, Column 2 in HESES and HEIFES data. Note: 'EU' = 'European Union'.

Annex B: Abbreviations

AP	Alternative provider
BME	Black and minority ethnic
EU	European Union
FEC	Further education college
HEI	Higher education institution
HEIFES	Higher Education in Further Education: Students survey
HESA	Higher Education Statistics Agency
HESES	Higher Education Students Early Statistics survey
POLAR	Participation of Local Areas
RDEC	Research and Development Expenditure Credits
STEM	Science, technology, engineering and mathematics
REF	Research Excellence Framework

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