# **PRE-RELEASE VERSION**



(2015 cycle, January deadline)

UCAS Analysis and Research 30 January 2015



### Key findings

### JANUARY DEADLINE APPLICATION RATES PROVIDE THE FIRST RELIABLE INDICATION OF YOUNG DEMAND FOR FULL-TIME UNDERGRADUATE HIGHER EDUCATION

- UCAS is the organisation responsible for managing applications to higher education courses in the UK. People who submit their applications to UCAS by the 15 January deadline are considered 'on-time' for the large majority if courses. Application rates for those who submit their applications to UCAS by the 15 January deadline give the first reliable indicator of young demand for full-time higher education in England, Wales and Northern Ireland.
- In Scotland there is a substantial component (around one third of young full-time higher education) where admissions are not processed through UCAS. Consequently, for Scotland, this report reflects the trends in applications that are recruited through UCAS and not, as elsewhere in the UK, full-time undergraduate study in general.

### APPLICATION RATES FOR 18 YEAR OLDS FROM ALL COUNTRIES OF THE UK INCREASED TO NEW HIGHS

- In 2015, 18 year olds from across the UK were more likely to apply to higher education than in any previous year, as application rates at the January deadline were at the highest levels recorded: 35 per cent in England, 48 per cent in Northern Ireland, 32 per cent in Scotland and 31 per cent in Wales.
- The application rate from English 18 year olds in 2015 increased by 0.6 percentage points compared with 2014, a slightly lower increase than the increases in 2013 and 2014.

### APPLICATION RATES FOR YOUNG COHORTS INCREASED TO HIGHEST EVER LEVELS IN ENGLAND, SCOTLAND AND WALES

- Overall young demand for higher education can be measured through cohort rates that report the proportion of the cohort of young people that have applied either aged 18 or, a year later, aged 19. They give a fuller picture of young demand that is not affected by changes in the decision of the age of first applying to higher education.
- Cohort application rates for those aged 18 in 2014 and 19 in 2015 increased in England to 44 per cent, in Scotland to 37 per cent and in Wales to 38 per cent. In Northern Ireland the cohort application rate was broadly unchanged from the previous year at 54 per cent.



# APPLICATION RATES INCREASED FOR 18 AND 19 YEAR OLDS, BUT FELL FOR OLDER AGE GROUPS IN ENGLAND

- Application rates are much lower for older age groups and it is harder to interpret trends, especially at the January deadline as proportionally more applications from older age groups are received later in the cycle than for young applicants.
- In England, application rates increased for 18 and 19 year olds, but fell for older age groups. This was the first reduction in application rates for those aged between 20 and 29 since 2012, and the first since 2013 for applicants aged 30 to 60. The falls in application rates in 2015 for these groups followed increases in 2014.

# LARGE DIFFERENCES IN APPLICATION RATES BETWEEN ENGLISH REGIONS BUT MOST INCREASED IN 2015

- Application rates increased for all English regions in 2015 with the exception of the North West, where rates remained the same as 2014. The largest increase in 2015 was for London where 18 year olds became 4 per cent more likely to apply to higher education. The lowest increases were in the East Midlands, West Midlands, the North East and the South East where 18 year olds became 1 per cent more likely to apply in 2015.
- The highest application rate was for 18 year olds from London (44 per cent in 2015) where 18 year olds were a quarter more likely to apply to higher education than 18 year olds from England as a whole. In 2015, the North East region of England had the lowest application rate (31 per cent). 18 year olds in London were over 40 per cent more likely to apply to higher education than those living in the North East.
- Since 2006, regions in the North of England and London experienced the greatest proportional increases in application rates for 18 year olds (over a third). Over the same period the South West and South East had the smallest proportional increases in application rates for 18 year olds (23 per cent). The East Midlands also had a small proportional increase and is now one of only three English regions where application rates are less than 33 per cent.

### WIDE VARIATION IN APPLICATION RATES ACROSS PARLIAMENTARY CONSTITUENCIES WITH RATES IN SOME CONSTITUENCIES OVER THREE TIMES HIGHER THAN IN OTHERS

- In 2015, 18 year old application rates across parliamentary constituencies varied from 18 per cent to 65 per cent. Large variations between application rates were found within each of the four UK countries, and within each of the nine English regions.
- In around half of all parliamentary constituencies between 30 and 40 per cent of the 18 year old population applied in 2015. A small number of constituencies had application rates less than 20 per cent, or higher than 60 per cent.

• Since 2006, the 18 year old application rate increased in the vast majority of constituencies. In around one in five constituencies the application rate increased by at least 50 per cent over the period.

### APPLICATION RATES OF DISADVANTAGED 18 YEAR OLDS ACROSS THE UK CONTINUED TO INCREASE

- In 2015 application rates of 18 year olds living in disadvantaged areas in all countries of the UK increased to the highest levels recorded. The application rates from the most disadvantaged areas were 21 per cent in England, 25 per cent in Northern Ireland, 16 per cent in Scotland and 19 per cent for Wales.
- Between 2014 and 2015, 18 year olds living in disadvantaged areas in England became 3 per cent more likely to apply, 9 per cent more likely in Northern Ireland, 2 per cent more likely in Scotland and 2 per cent more likely in Wales.
- Compared to 2006, 18 year olds living in disadvantaged areas across the UK were substantially more likely to apply for higher education in 2015. In England they were 72 per cent more likely, Northern Ireland 36 per cent more likely, Scotland 63 per cent more likely and Wales 39 per cent more likely.
- Differences in application rates between advantaged and disadvantaged areas have reduced over the past decade, reduced further in 2015 and were at the lowest level recorded. In 2006 advantaged UK 18 year olds were 3.7 times more likely to apply than disadvantaged 18 year olds. In 2015 this ratio fell with advantaged UK 18 year olds being 2.4 times more likely to apply than disadvantaged UK 18 year olds. A similar fall is seen for each country of the UK.

### DIFFERENCE IN APPLICATION RATES BETWEEN MEN AND WOMEN IN 2015 IS THE HIGHEST ON RECORD

- Across the UK, young women are more likely to apply than young men, and the difference in application rates between them is now the highest ever recorded. In England the application rate of young women grew five times more than the rate for men, meaning that young women are now 36 per cent more likely to apply than young men.
- In Wales the difference in application rates between young women and young men is also the highest on record, while in Northern Ireland the difference is largest recorded since 2009.
- Young women are more likely to apply than men across all backgrounds, but to a greater extent in disadvantaged areas. In disadvantaged areas in England young women are 57 per cent more likely to apply than young men, while in advantaged areas young women are 24 per cent more likely to apply than young men.



### REAPPLICATION RATES OF UNPLACED 18 YEAR OLDS REMAINED HIGH IN 2015

- Around 15 to 20 per cent of 18 year old UK applicants are typically unplaced at the end of an application cycle.
- The proportion of these unplaced applicants who reapplied in the 2015 cycle is 48 per cent in England, 48 per cent in Wales, 35 per cent in Scotland and 38 per cent in Northern Ireland.
- These reapplication rates are similar to levels in recent cycles and substantially higher than levels typical for cohorts that were 18 in 2006 and 2007.
- In England, reapplication rates decreased slightly while the 18 year old acceptance rate for this cohort increased slightly. The proportion of 18 year olds who, having applied in 2014, were either accepted in 2014 or reapplied in 2015 has remained at 92 per cent for the second consecutive year.
- In England, 2015 reapplication rates for those unplaced aged 18 in 2014 holding AAA or above (84 to 89 per cent) were higher than for those unplaced holding AAB (75 per cent), ABB (73 per cent), or BBB (70 per cent). Reapplication rates for each of these grade profiles are similar to recent cycles.

### JANUARY DEADLINE APPLICATION RATES TAKE ACCOUNT OF POPULATION CHANGES AND GIVE THE FIRST RELIABLE MEASURE OF YOUNG DEMAND FOR HIGHER EDUCATION

- January deadline application rates are the first reliable indicators of changes in demand for higher education from the UK.
- Application rates the proportion of the population who apply are the best measures of changes in application behaviour as they account for the size of the population.
- The 18 year old population is estimated to have increased in size in 2015 by 13,000 in England, 600 in Northern Ireland, 200 in Wales, but reduced by 1,100 in Scotland. These increases in England, Northern Ireland and Wales are set against a longer term trend of a decreasing 18 year old population, and there are now 4 to 7 per cent fewer 18 year olds in each country across the UK than there were in 2009.
- The January deadline application rates for 18 year olds are a particularly important indicator, since they have generally not had the opportunity to apply in earlier cycles and nearly all of their applications are made by this point.
- Almost all applications for full-time undergraduate study provided in England, Northern Ireland and Wales are included in these figures. In Scotland there is a substantial component of full-time higher education (around one third of young full-time higher education) where admissions are not processed centrally through UCAS. Consequently, this report reflects the trends in applications to the higher education provision that is recruited through UCAS and not, as elsewhere in the UK, full-time undergraduate study in general.



### Introduction

Applications for entry to higher education through UCAS provide the first measures of the demand for full-time undergraduate study. People who submit their applications to UCAS by the 15 January deadline are considered 'on-time' applicants for the large majority of courses. These deadline applicants account for the majority (typically 85 per cent) of all UK domiciled applicants in a cycle and almost all (typically 97 per cent) of 18 year old UK domiciled applicants. Their numbers can be used to measure trends in demand for this type of higher education.

In England, Northern Ireland and Wales the applicants, and acceptances, recorded through UCAS represent the overwhelming majority of full-time undergraduate higher education. In Scotland there is a substantial component of full-time higher education (around one third of young full-time higher education) where admissions are not processed centrally through UCAS. Consequently the levels and trends for demand for full-time undergraduate higher education in Scotland in this report reflect that for the provision that is recruited through UCAS and not, as elsewhere in the UK, full-time undergraduate study in general.

One way to measure demand for higher education from the UK is through application rates. These report the proportion of a group of the population that make an application. As such they directly measure demand in terms of the propensity to apply to higher education. The advantage of using application rates is that they show trends in this measure of demand without being affected by year to year changes in the population size. This is important as changes in the population size can have a substantial effect on applicant numbers, often as large as any change in application rate, and the demographic trends for different age groups can be in different directions.

The population estimates used for the application rates in this report are based on Mid-Year Estimates and National Population Projections published by the Office for National Statistics (ONS) and based on the 2011 Census.

The main analysis looks at trends in the application rate of 18 year olds; by country, region and parliamentary constituency; area-based background; and sex. This age group has the highest application rate to UCAS; they account for around half of UK applicants at the January deadline, and (in previous cycles) nearly all of the cycle total is recorded by the January deadline. They are a particularly important group when using application rate trends to assess demand for higher education; they will not have had a previous opportunity to apply to higher education and so their trends can be assessed without making allowance for application or entry rates in previous cycles.

After 18 year olds, the next largest age specific application rate from the UK is for those aged 19. This rate is more difficult to interpret since it is influenced by the application and acceptance rate of 18 year olds in the previous cycle. Whereas 18 year olds are usually applying for higher education for the first time, 19 year olds typically fall into one of two categories, applying for the first time or reapplying after having already made an application aged 18. Therefore the demand by country at age 19 is investigated through application rates for 'first-time' applicants, and the overall young demand by country is reported



through cohort rates that measure the proportion of a young cohort that have applied either aged 18 or aged 19.

The January deadline is also the first opportunity to assess the extent to which unplaced 18 year old applicants from the previous cycle have made another application ('reapplication') through UCAS. These reapplication rates give another indicator of demand for higher education and are examined by country of domicile and by A level grades held. Reapplication rates can vary quite considerably from cycle to cycle, but when considered alongside the acceptance rate in the previous cycle give rise to a measure of persistent demand that is relatively consistent from cycle to cycle.

Application rates by country for older age groups are also reported. These are more complex to interpret as they have the potential to be affected by changes in the entry rate at earlier ages. Changes in the set of courses covered by the January deadline in the 2010 cycle can affect the trend for older age groups so the analysis of these age groups uses a subset of applicants to courses less affected by these changes.

Data files to allow the replication of all the figures in this report are available with this publication on the UCAS website.



### Application rates of 18 year olds by country

January deadline 18 year old application rates (the proportion of the 18 year old population making an application through UCAS by the UCAS January deadline) by UK country are shown in Figure 1. The 2015 application rates in all four countries are the highest recorded in the period.

In 2015, the application rates of 18 year olds in England (35.4 per cent), Wales (30.9 per cent), Scotland (32.3 per cent) and Northern Ireland (48.1 per cent) who applied for full-time higher education through UCAS by the January deadline all reached the highest levels recorded since 2006.

In England in 2015, application rates increased by 0.6 percentage points (1.8 per cent proportionally) from 2014. This is the third successive increase (although slightly lower than the typical annual increases between 2006 and 2011) in the application rate following a decrease in 2012 (coinciding with the introduction of higher and more variable tuition fees).

Application rates in Wales remained broadly the same from cycle to cycle between 2010 and 2013, but increased in 2014 by the greatest percentage point increase (1.2 percentage points) and proportional increase (4.3 per cent) since 2009. The increase in 2015 of 0.8 percentage points (2.7 per cent proportionally) suggests a return to the trend of annual increases of around 1 percentage point that were typical prior to 2011.

In Scotland, application rates have changed little since 2010 (the increase in 2010 coincided with more HE in Scotland using UCAS, generally not all HE in Scotland uses UCAS). In 2015 the application rate increased by 0.9 percentage points (2.8 per cent proportionally), the largest increase since 2010. In 2015 around 120 courses at Scottish providers which were previously part of the UCAS Teacher Training scheme (UTT) moved into the UCAS scheme. However the inclusion of these courses does not materially affect the trend in application rates in Scotland.

Following a small decrease in 2014, application rates in Northern Ireland increased again by 0.9 percentage points (1.8 per cent proportionally). Generally, since 2010 the application rates from Northern Ireland have been around the same level (around 46-48 per cent) although there was a decrease in 2012 at the same time that application rates in England decreased.





### Figure 1 January deadline application rates for 18 year olds by country

#### Table 1 January deadline application rates for 18 year olds by country

|                  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| England          | 27.2% | 28.1% | 29.2% | 30.3% | 33.4% | 34.2% | 32.5% | 33.5% | 34.8% | 35.4% |
| Northern Ireland | 42.3% | 41.9% | 41.6% | 44.1% | 47.1% | 47.6% | 46.3% | 47.6% | 47.2% | 48.1% |
| Scotland         | 26.7% | 25.7% | 26.1% | 26.9% | 30.6% | 30.5% | 30.6% | 30.7% | 31.4% | 32.3% |
| Wales            | 26.7% | 25.9% | 26.8% | 28.2% | 29.3% | 29.5% | 29.1% | 28.9% | 30.1% | 30.9% |



### Application rates of 18 year olds by region

The 18 year old population of England (around 600k) far exceeds the populations of Scotland (around 60k), Northern Ireland (around 25k) and Wales (around 35k). This larger population size allows the subdivision of application rates for England by region.

The regional population estimates used here differ from those used in previous reporting of application rates. Here we use regional population estimates based on aggregating together small area population estimates available from ONS, which have the advantage of being consistent with the national level population estimates. This means that the application rates for the 2014 and earlier cycles will not match those reported previously.

Figure 2 shows the 18 year old application rate for applicants from the regions of England. In all regions the application rate has increased since 2006 and, in general, each region reflects the national trend of increases or decreases. For instance the application rate in 2012 falls across all regions and generally increases in subsequent cycles. The highest application rate in each year in the period is from London (43.8 per cent in 2015). For most of the period the lowest application rate was from the North East (ranging from 23.7 per cent in 2006 to 31.1 per cent in 2015), but in 2013 and 2014 the lowest application rate was from the South West (30.5 per cent in 2014). This variation across regions means that, in 2015, 18 year olds from London are (proportionally) 41 per cent more likely to apply compared to 18 year olds from the North East. The greatest proportional increase in the application rate over the period is from the Yorkshire and The Humber region (38 per cent proportional increase: from 24.4 per cent in 2006 to 33.7 per cent in 2015) and the smallest proportional increase is from the South East region (23 per cent proportional increase: from 29.5 per cent in 2006 to 36.1 per cent in 2015).





#### Figure 2 January deadline application rates for English 18 year olds by region

A large part of the year-to-year changes in each region's application rate are a reflection of the national trend. Therefore, a clearer picture of how application rates by region are changing relative to each other is given by taking away the effect of the national trend. This is done in Figure 3 which uses the same application rates by region but shows them indexed to the national average, so that an index of 100 represents the 18 year old application rate for the whole of England that year. For example, in 2015 the application rate in London is 23 per cent higher (proportionally) than the national average, and therefore 18 year olds from London are around a quarter more likely to apply compared to 18 year olds from England as a whole.

Since 2006, the application rate in the North West has increased from being around 3 per cent (proportionally) below the national average, to being higher than the national average in 2015. The Yorkshire and The Humber region has also seen a steady increase relative to the national average, increasing from 10 per cent below the national average in 2006 to 5 per cent below in 2015.

In contrast, over the same period, the application rate from the South East has changed from being 8 per cent above the national average to being just 2 per cent above it. The application rates from the South West and East Midlands have also seen a steady decrease relative to the national average. In the South West the application rate has changed from being 6 per cent below the national average to being 11 per cent below, while for the East Midlands the application rates have changed from being 5 per cent lower than the national average in 2010 to being more than 10 per cent lower in 2015. These changes mean that application rates in the South West and East Midlands are now among the lowest in the country, alongside the North East.

Some of these changes have reduced or reversed the relative application rate differences between regions over the period. In 2006, 18 year olds in the South East were 12 per cent more likely to apply to higher education than those living in the North West; in 2015 there was almost no difference in application rates between these two regions. In 2006, 18 year olds in the South West were 5 per cent proportionally more likely to apply to higher education than those living in Yorkshire and the Humber. In 2015 this has been reversed to 18 year olds from Yorkshire and the Humber being 7 per cent (proportionally) more likely to apply than those in the South West.





The geographical patterns of English regional application rates, together with application rates for countries elsewhere in the UK (for the most part demand for HE in further education colleges in Scotland is not recorded), can be shown on maps. Figure 4 maps the 2015 application rates for 18 year olds. The maps used (see Thomas, B. and Dorling, D., 2007, *Identity in Britain: A cradle-to-grave atlas*, Bristol: Policy Press) are designed so that the size of each area approximates the size of its population and their arrangement approximates the geographical locations of the areas. Amongst these units of English regions and other UK countries, Northern Ireland (48.1 per cent) and London (43.8 per cent) have the highest application rates amongst their 18 year old populations in 2015. Wales (30.9 per cent), the North East (31.1 per cent), the South West (31.5 per cent) and the East Midlands (31.7 per cent) are the regions where application rates are lowest in 2015.



#### Figure 4 January deadline application rates in 2015 for UK 18 year olds by region and country

The geographical patterns of proportional changes in application rates between 2006 and 2015 are shown in Figure 5. Three regions, Yorkshire and The Humber, the North West and London, have seen the highest proportional increases, with application rates in each of these regions increasing by at least 34 per cent. The North East and the West Midlands have also seen high proportional increases of almost a third. Wales and Northern Ireland saw the lowest proportional increases over this period (14-16 per cent).

Figure 5 Proportional change in January deadline application rates between 2006 and 2015 for UK 18 year olds by region and country



Figure 6 shows the proportional change in 18 year old application rates in 2015 compared with the previous cycle. The greatest proportional increase is for 18 year olds from London who are 4 per cent more likely to apply in 2015 than 2014. Scotland, Yorkshire and the Humber, Wales and the South West have also seen high proportional increases (3 per cent) in 2015. The smallest proportional increases are for 18 year olds from the East Midlands, North East, West Midlands and the South East (all increased by only 1 per cent proportionally) while the application in the North West remained the same (-0.1 per cent proportionally).

### Figure 6 Proportional change in January deadline application rates between 2014 and 2015 for UK 18 year olds by region and country





### Application rates of 18 year olds by parliamentary constituency

There are 650 parliamentary constituencies in the UK (533 in England, 59 in Scotland, 40 in Wales and 18 in Northern Ireland). Parliamentary constituencies are much smaller than regions, with typically just over 1,000 18 year olds and are designed to have a more uniform population size than other geographies. This makes them a particularly suitable smaller geographical unit for reporting application rates.

Figure 7 shows 18 year old application rates for all the parliamentary constituencies in the UK. In this map each parliamentary constituency is shown as a circle, where the size of each circle approximates the size of the constituency's 18 year old population and their arrangement approximates the geographical locations of the constituencies.

18 year old application rates by constituency vary between 18 per cent and 65 per cent, with those living in constituencies with the highest application rates over three and a half times more likely to apply than those living in constituencies with the lowest rates. The pattern of application rates across constituencies mirrors those seen across regions, with many constituencies in London, the South East and Northern Ireland having the highest rates, and constituencies in the East Midlands, South West and North East having the lowest application rates.

However there is considerable variation across constituencies within regions. In the East of England (the region with the largest variation) the application rates range from 19 per cent to 58 per cent, meaning those living in constituencies with the highest application rates within the East of England are over three times more likely to apply than those living in constituencies with the lowest rates within that region. Scotland also has a wide spread of application rates at constituency level, ranging from 22 per cent to 60 per cent.

Other regions show less variation. In the North East those living in constituencies with the highest application rates are less than twice as likely to apply as those living in constituencies with the lowest rates (rates in the North East range between 24 per cent and 43 per cent). In Northern Ireland those living in the constituencies with the highest application rates are around 60 per cent more likely to apply than those living in constituencies with the lowest rates.

In Wales application rates varied between 20 and 52 per cent, meaning that those living in the constituencies with the highest application rates were two and a half times more likely to apply than those living in constituencies with the lowest rates.



# Figure 7 January deadline application rates in 2015 for UK 18 year olds by parliamentary constituency



Parliamentary constituency application rates are also shown in the histogram below (Figure 8). Each constituency in the United Kingdom is represented by a square (coloured according to the country in which the constituency is located). Almost half of constituencies have 18 year old application rates that fall within a ten percentage point band (between 30 and 40 per cent). A small number of constituencies have application rates less than 20 per cent, or higher than 60 per cent. The UCAS 18 year old application areas, since for the most part HE provided by Scottish colleges is not included in UCAS data.

### Figure 8 Distribution of January deadline application rates in 2015 for UK 18 year olds by parliamentary constituency



The relatively small 18 year old population within constituencies (around 1,000) means that the changes in application rates are subject to more year to year variation than application rates from areas with larger populations. Looking at changes over a longer period, where underlying changes may be greater, can reduce this (Figure 9). Between 2006 and 2015 application rates increased in 97 per cent of constituencies. The proportional application rate increase varied considerably between constituencies, with just under a fifth increasing by at least 50 per cent, and in a small number (1 per cent) the application rate doubled.

The constituency level increases tend to reflect the patterns seen by region, so that constituencies in the North of England and London tend to have larger increases in application rates.

Figure 9 Proportional change in January deadline application rates between 2006 and 2015 for UK 18 year olds by parliamentary constituency



Figure 10 shows how, in a small number of constituencies, the application rate decreased between 2006 and 2015, and that these constituencies tend to have lower than average application rates in 2015. For three quarters of the 20 constituencies where application rates decreased over the period, the 2015 application rate was less than the UK average of 35 per cent.

Application rates increased by more than 50 per cent between 2006 and 2015 in just under a fifth of constituencies. Over two thirds of these constituencies have application rates in 2015 that are below the UK average of 35 per cent.

Figure 10 Distribution of January deadline application rates in 2015 for UK 18 year olds by parliamentary constituency grouped by proportional application rate change since 2006





### Application rates of 18 year olds by sex

The trend in January deadline application rates for 18 year olds by sex are shown for each country in Figures 11 to 14. The application rates for women are substantially higher than those for men in all countries of the UK.

In England, in 2015, 41.0 per cent of 18 year old women applied to higher education, an increase of 1.1 percentage points (2.6 per cent proportionally) since 2014. In comparison only 30.2 per cent of men applied, almost the same application rate as 2014 (+0.2 percentage points 0.6 per cent proportionally). This divergence in the application rates in 2014 means that women in England are 36 per cent more likely to apply for higher education at age 18 than men, the greatest proportional difference in demand between young men and women seen in this period.

In Northern Ireland, the application rate for 18 year old women increased by 2.6 percentage points to 56.1 per cent in 2015. The application rate for men was 40.3 per cent in 2015, a decrease of 0.7 percentage points, and the second successive year that the rate decreased. The combined pattern of changes in application rates for women and men mean the proportional difference in application rates between women and men increased, with women in Northern Ireland now 39 per cent more likely to apply at age 18 than men.

The proportional difference in application rates between women and men in Scotland in 2015 remained similar to that in 2014, at around 49 per cent. Prior to this, the proportional difference was around 44 per cent in 2012 and 2013. In 2015, the application rate for 18 year old women from Scotland was 38.8 per cent (+1.0 percentage points compared to 2014), while the application rate for 18 year old men from Scotland was 26.1 per cent (+0.7 percentage points compared to 2014). For Scotland, there was a significant widening of the gap in application rates between women and men in 2010. This coincided with the integration of the Scottish nursing admissions system (CATCH) into UCAS.

In Wales, the proportional difference in application rates between women and men is higher, at just over 50 per cent in 2015, the highest difference recorded in this period. This proportional difference has increased from 42 per cent in 2014 due to a 1.9 percentage point increase in the application rate from 18 year old women to 37.3 per cent, combined with a small decrease of 0.1 percentage points in the application rate for 18 year old men to 24.8 per cent.



Figure 11 January deadline application rates of 18 year olds from England by sex

Figure 12 January deadline application rates of 18 year olds from Northern Ireland by sex





### Figure 13 January deadline application rates of 18 year olds from Scotland by sex

Figure 14 January deadline application rates of 18 year olds from Wales by sex





### Application rates of 18 year olds from disadvantaged and advantaged areas

The POLAR classification developed by the Higher Education Funding Council for England (HEFCE) classifies small areas across the UK into five groups according to their level of young participation (entry at age 18 or 19) in higher education. Each of these groups represents around 20 per cent of young people and are ranked from quintile 1 (areas with the lowest young participation rates, considered as the most disadvantaged) to quintile 5 (highest young participation rates, considered most advantaged).

Application rates are very closely related to young participation rates so that application trends by the POLAR groupings can be subject to distortions across the POLAR definition window boundaries (see paragraph 51 in HEFCE 2010/03, <u>www.hefce.ac.uk</u>) which complicates the interpretation of historical trends, especially for quintiles 1 and 5. When previously reporting application rates we have used the POLAR2 grouping (definition window for 18 year olds 2000-2004) in order to reduce the impact of this effect on the analysis. In this report we have used the POLAR3 grouping (definition window for 18 year olds 2005-2004) rather than the POLAR2 grouping ince any distortions across the definition window are sufficiently far back in time that they will not complicate the analysis of current trends.

Population estimates have been created for each of the POLAR3 groups using small area population estimates for each of the four UK countries. These have been revised to be consistent with the national level population estimates.

Figure 15 shows the application rates of 18 year olds from the most disadvantaged areas (quintile 1). The annual populations in this group are relatively small in Northern Ireland (around 3,500), Scotland (around 6,000) and Wales (around 9,000) so that their application rate trends are subject to more year to year variation than for England (typical population size of around 125,000).

All four countries show a substantial increase in the application rates from the most disadvantaged group over the period. In England, the application rate of 18 year olds from the most disadvantaged areas has increased from 12.2 per cent in 2006 to 21.0 per cent in 2015. This means that 18 year olds living in the most disadvantaged areas in England are 72 per cent more likely to apply to higher education in 2015 than nine years ago.

A similar pattern is evident across other countries of the UK: 18 year olds from the most disadvantaged areas of Northern Ireland were 36 per cent more likely to apply in 2015 than in 2006, 63 per cent more likely in Scotland and 39 per cent more likely in Wales. In all four countries of the UK the application rate from disadvantaged areas is at record levels, 21.0 per cent in England, 25.4 per cent in Northern Ireland, 15.6 per cent in Scotland and 18.9 per cent in Wales.

In 2015, the application rate from disadvantaged areas increased by 0.6 percentage points in England, 2.1 percentage points in Northern Ireland, 0.4 percentage points in Scotland and 0.4 percentage points in Wales. These increases mean that 18 year olds from disadvantaged areas in England are 2.9 per cent more likely to have applied by the January deadline in



2015 compared with 2014, 9.0 per cent more likely in Northern Ireland, 2.4 per cent more likely in Scotland and 2.4 per cent more likely in Wales.

The application rates of 18 year olds from the most advantaged grouping (quintile 5) are shown in Figure 16. The annual populations in this group are relatively small in Northern Ireland (around 7,000), Scotland (around 19,000) and Wales (around 6,500) so that their application rate trends are subject to more year to year variation than for England (typical population size of around 135,000).

The proportional changes in the application rates for this group over the period are much smaller than for quintile 1, but there were small increases in the application rates from the most advantaged areas in Northern Ireland, Scotland and Wales in 2015. In England, the application rate for the most advantaged group in 2015 has decreased by 0.2 percentage points, and is lower than in 2010 and 2011. There had been a steady rise in the application rate from these areas in England during the period 2006 to 2011, which was followed by a 3.1 percentage point decrease in 2012.

In 2015, the application rates from the most advantaged areas in all countries were between 2.4 and 3.0 times as great as the application rates from the most disadvantaged areas. In England, 18 year olds from the most advantaged areas were 2.4 times more likely to apply to higher education than those from the most disadvantaged areas in 2015. In 2006, 18 year olds from the same areas in England were 3.8 times more likely to apply than those from the most disadvantaged areas. 18 year olds living in advantaged areas in England remain much more likely to apply to higher education, but this difference has substantially reduced across the period, driven by an increase in application rates in the most disadvantaged areas.

| POLAR3 Q1        | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| England          | 12.2% | 13.0% | 14.0% | 15.2% | 18.0% | 18.6% | 17.9% | 18.9% | 20.4% | 21.0% |
| Northern Ireland | 18.7% | 17.4% | 16.9% | 17.8% | 23.6% | 22.0% | 22.6% | 23.2% | 23.3% | 25.4% |
| Scotland         | 9.6%  | 9.0%  | 9.2%  | 9.8%  | 13.4% | 12.1% | 13.0% | 13.2% | 15.3% | 15.6% |
| Wales            | 13.6% | 12.6% | 13.9% | 14.4% | 15.9% | 16.6% | 16.8% | 16.5% | 18.5% | 18.9% |
| ИК               | 12.3% | 12.9% | 13.9% | 15.0% | 17.8% | 18.3% | 17.7% | 18.6% | 20.1% | 20.7% |
| POLAR3 Q5        | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |
| England          | 45.8% | 46.3% | 47.2% | 48.5% | 50.7% | 51.8% | 48.7% | 49.1% | 50.8% | 50.6% |
| Northern Ireland | 57.4% | 59.0% | 58.9% | 61.7% | 62.1% | 63.5% | 62.4% | 64.7% | 62.3% | 63.2% |
| Scotland         | 43.1% | 40.6% | 41.0% | 41.5% | 45.2% | 45.8% | 45.6% | 45.9% | 45.5% | 46.2% |
| Wales            | 45.1% | 46.1% | 44.8% | 43.9% | 45.6% | 46.9% | 46.8% | 46.9% | 46.7% | 47.3% |
| ИК               | 46.0% | 46.2% | 46.8% | 48.1% | 50.4% | 51.4% | 48.9% | 49.3% | 50.5% | 50.5% |
| Ratio Q5:Q1      | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |
| England          | 3.8   | 3.6   | 3.4   | 3.2   | 2.8   | 2.8   | 2.7   | 2.6   | 2.5   | 2.4   |
| Northern Ireland | 3.1   | 3.4   | 3.5   | 3.5   | 2.6   | 2.9   | 2.8   | 2.8   | 2.7   | 2.5   |
| Scotland         | 4.5   | 4.5   | 4.4   | 4.2   | 3.4   | 3.8   | 3.5   | 3.5   | 3.0   | 3.0   |
| Wales            | 3.3   | 3.7   | 3.2   | 3.1   | 2.9   | 2.8   | 2.8   | 2.8   | 2.6   | 2.5   |
| UK               | 3.7   | 3.6   | 3.4   | 3.2   | 2.8   | 2.8   | 2.7   | 2.7   | 2.5   | 2.4   |

# Table 15/16 January deadline application rates for 18 year olds from POLAR3 quintile 1 (most disadvantaged areas), POLAR3 Q5 (most advantaged areas) and Q5:Q1 application rate ratio







Figure 16 January deadline application rates by country for 18 year olds (most advantaged areas, POLAR3 quintile 5)





# Application rates of English 18 year olds from disadvantaged and advantaged areas by sex

Figure 17 shows the application rates of 18 year olds from the most disadvantaged areas (quintile 1) in England defined using the POLAR3 version of the HEFCE classification. The application rates of 18 year olds from the most advantaged areas (quintile 5) in England are shown in Figure 18. The population sizes by background and sex in the other countries of the UK are much smaller and this means that application rates are more variable year to year.

Within England, 18 year old women are much more likely to apply to higher education than men in both advantaged and disadvantaged areas. The proportional differences are largest in the most disadvantaged areas where, in 2015, women are 57 per cent more likely to apply compared with advantaged areas where they are 24 per cent more likely to apply.

In disadvantaged areas in England the application rates increased for both 18 year old men (0.3 percentage points, 2 per cent proportionally) and women (0.8 percentage points, 3 per cent proportionally). In advantaged areas in England the application rate for 18 year old men fell to by 0.6 percentage points (half a per cent proportionally) while the application rate for women increased by 0.2 percentage points (1 per cent proportionally).







Figure 18 January deadline application rates for English 18 year olds (most advantaged areas, POLAR3 quintile 5) by sex





### 19 year old 'first-time' application rates by country

After 18 year old application rates, the next largest age specific application rate from the UK is for those aged 19. This rate is more difficult to interpret since it is influenced by the application and acceptance rate of 18 year olds in the previous cycle. Whereas 18 year olds are usually applying for higher education for the first time, 19 year olds typically fall into one of two categories, applying for the first time or reapplying after having already made an application aged 18.

The 'first-time' application rates at age 19 year only include those applicants who did not apply in the previous cycle. Unlike the application rate for 19 year olds as a whole, they are not directly influenced by the acceptance rate of 18 year olds in the previous cycle. However, they may be sensitive to changes in the application rate at age 18, since if the application rate at age 18 increases substantially it may result in a smaller pool of potential applicants to apply for the first time at age 19. Figure 19 shows the 'first-time' 19 year old application rates. Generally, this application rate increased between 2007 and 2010 in all four countries, and then fell in 2011.

First-time 19 year old application rates are higher in England than elsewhere in the UK. The first-time application rate increased between 2007 and 2010 to 9.2 per cent. It then reduced by 0.5 percentage points in 2011 and a further 1.3 percentage points in 2012 to 7.5 per cent. This rate increased in both 2013 (up 1.2 percentage points) and in 2014 (up 0.7 percentage points). In 2015, it increased further to reach a new record high of 9.5 per cent, up 0.2 percentage points from the previous year. This increase follows a large increase in application rates at age 18 for the same cohort of young people in 2014.

In Wales, the rate was barely changed in both 2011 and 2012 (down 0.1 percentage points in both years), and then increased in both 2013 (up 0.7 percentage points) and in 2014 (up 0.5 percentage points) to reach a new high of 7.6 per cent. In 2015 the rate decreased by 0.2 percentage points to 7.4 per cent.

A similar trend appeared in Northern Ireland, but the decreases in 2011 (down 0.3 percentage points) and 2012 (down 0.5 percentage points) were greater; and the subsequent increases greater also (up 0.5 percentage points in 2013 and up 1.2 percentage points in 2014) resulting in the highest recorded rate in 2014 of 6.2 per cent. In 2015 the rate remained at 6.2 per cent.

In Scotland – where the measure will not include most demand for higher education provided at further education colleges – the first-time 19 year old application rate has been increasing gradually over the period; apart from an elevated demand in 2010 which reversed in the following cycle, and has not been matched since. In 2015, the first-time application rate of 19 year olds in Scotland is 5.1 per cent.





### Figure 19 First-time application rates of 19 year olds by country



### Cohort demand for higher education covering 18 and 19 year olds

Applicant decisions about whether to apply at age 18 or 19 can vary from year to year. Material changes in the balance of applying at age 18 versus age 19 can make it more difficult to interpret trends for single age groups as an indicator of demand from young people as a whole.

One measure that is not influenced by the decision to apply at age 18 or age 19 is the cohort application rate. Each cohort includes all young people aged 18 within a particular academic year. The cohort application rate is the proportion of that cohort that applies for higher education either at age 18 or, a year later, at age 19 - people who apply in both years are only counted once. With this construction the rate is not affected if applicants decided to apply at age 18 instead of 19, or if changes in the acceptance rate of 18 year olds leads to more or fewer reapplicants the next year.

To calculate cohort rates an additional year is needed so that the cohort has had the opportunity to apply at age 19 as well as age 18. In this report we can look at cohort demand up to and including the cohort that were 18 in 2014 ("the 2014 cohort") and applied for the first time at age 18 in 2014 or the first time aged 19 in 2015.

The proportion of the English young people that applied for higher education by the age of 19 (Figure 20) increased steadily from 33.4 per cent for those aged 18 in 2006 to 42.2 per cent for those aged 18 in 2010. There were small decreases in the cohort rate of 0.5 percentage points for both the 2011 cohort (where 19 year old applicants experienced higher and more variable fees for the first time) and for the 2012 cohort (where 18 year old applicants experienced higher and more variable fees for the first time). For the cohort that were aged 18 in 2013 the cohort rate increased by 1.6 percentage points, more than reversing the decreases in the rate seen for the previous two cohorts in England to 42.9 per cent. The 2012, 2013 and 2014 cohorts were each subject to higher fee arrangements whether they applied aged 18 or aged 19. There was a trend of increasing rates between each of these cohorts of around 1.5 percentage points. For the young cohort from England that were aged 18 in 2014 the rate increased to 44.4 per cent, the highest on record.

A similar pattern was seen in Northern Ireland leading to a rate of application to higher education of 54.0 per cent for the cohort who were aged 18 in 2013. For those aged 18 in 2014 the cohort rate fell by 0.5 percentage points to 53.5 per cent.

In Wales and Scotland, cohort application rates are lower than elsewhere (the Scottish rate will not include applications to HE in many in further education colleges in Scotland), but have increased over the period. In Scotland the rate increased by 0.9 percentage points to 37.2 per cent. In Wales the rate increased by 1.1 percentage points from the previous cohort to 37.6 per cent. These increases mean than the 2014 cohort rates are the highest recorded for Wales and Scotland.





### Figure 20 Cohort application rates by age 19 by country



### Reapplication rates of previously unplaced 18 year old UK applicants

Almost all 18 year old applicants from the UK apply through UCAS for the first time. At the end of the application cycle most of these applicants will have been placed. A minority of these applicants – typically 15 to 20 per cent – will be unplaced at the end of the cycle.

Some of these unplaced 18 year old applicants reapply the following cycle, aged 19. The proportion of the unplaced applicants who reapply in this way is the reapplication rate. Trends in this statistic can indicate both the extent of remaining demand for entry into higher education at the end of the original cycle, together with how applicants view the relative attractions of entering higher education in one cycle compared to the next.

Figure 21 shows the reapplication rates for unplaced 18 year olds by UK country of domicile. The rates are referenced by the cycle in which they were unplaced; for example, the proportion of unplaced 18 year old applicants from the 2014 cycle who reapply aged 19 in the 2015 cycle is shown against 2014.

Reapplication rates increased for all countries for those unplaced in the 2009 and 2010 cycles, mirroring the fall in acceptance rates for 18 year olds in those cycles. The reapplication rates in 2011 of 18 year olds unplaced at the end of the 2010 cycle were 50.5 per cent in England, 45.2 per cent in Wales, 37.7 per cent in Scotland and 36.9 per cent in Northern Ireland. For those unplaced in 2011, the reapplication rate (in 2012) in England fell by 7.9 percentage points, consistent with both the increase in the acceptance rate in 2011 and the reduction in English application rates seen in 2012.

The 2015 cycle reapplication rates for those aged 18 in 2014 in England are 47.6 per cent (-1.0 percentage point), Northern Ireland 37.7 per cent (+1.3 percentage points), Scotland 35.4 per cent (-0.4 percentage points) and Wales 47.6 per cent (+0.1 percentage points). The reapplication rates from those aged 18 in 2014 are within 3 percentage points of the values from those aged 18 in 2010 within each country, but substantially higher than the reapplication rates from those aged 18 in 2006 and 2007.









### Interaction between the acceptance rate of 18 year olds and the reapplication rate

The acceptance rate for 18 year old applicants has varied from cycle to cycle, with part of this variation relating to the number of places effectively available in higher education. Consequently it is likely that the reapplication rate and the acceptance rate in the previous cycle may be associated.

Figure 22 shows the acceptance rate for English 18 year old applicants in each cycle (left axis) and the reapplication rate of those who are not accepted (right axis, shown against the cycle that they were unplaced). Both the acceptance rate and reapplication rate have varied considerably across the period. However, a combination of these measures (the proportion of 18 year old applicants who are either accepted or immediately reapply the next cycle) gives a statistic that is more constant. This measure describes the proportion of applicants who either translate their application into entry or, if not, have the persistence of demand to immediately seek to do so the next cycle.

This statistic can be interpreted as a measure of degree of persistence in demand for higher education amongst those who have already applied. The stability of this statistic at around 90 per cent of applicants over the measured period (despite large fluctuations in application, acceptance and reapplication rates) is suggestive that a steady proportion of those 18 year olds who apply will tend to persist in their applications to higher education. In particular, any increase in the 18 year old acceptance rate towards 90 per cent may lead to fewer 19 year old reapplicants.

However, 18 year olds from the 2012 and 2013 cycles experienced increased acceptance rates and increased reapplication rates. This is especially notable for 18 year olds that applied in 2013 where the acceptance rate increased by 2.1 percentage points to 84.5 per cent, yet the reapplication rate of the smaller unplaced population also increased slightly (to 48.6 per cent) and is substantially higher than when the acceptance rate was last at this level (2009, acceptance rate 83.5 per cent, reapplication rate 44.5 per cent). This increase in both the acceptance rate and the reapplication rate caused the measure of persistent demand to rise to 92 per cent for 18 year olds that applied in 2013.

In the last cycle, acceptance rates for 18 year olds increased (+0.3 percentage points to 84.8 per cent) and reapplication rates for 18 year olds decreased (-1.0 percentage points to 47.6 per cent). This increase in the acceptance rate and decrease in the reapplication rate have combined to cause the measure of persistent demand to remain at a similar level to the previous cycle at 92 per cent, the highest on record, for 18 year olds that applied in 2014.









### Reapplication rates by selected A level grade profiles

The majority of unplaced 18 year old applicants will have been awarded qualifications in the cycle that they applied. This allows the reapplication rates to be considered against the qualification level held by the unplaced applicants. Figure 23 shows the reapplication rates of English domiciled applicants who were holding selected qualification levels at the end of the previous cycle when they were unplaced. The qualification groups are based on the highest three A level grades held. A smaller proportion, typically around 10 per cent, of 18 year old applicants holding the grade profiles shown are unplaced at the end of the cycle; typically there are between 350 and 1,000 unplaced applicants in each of these grade profiles each cycle.

The reapplication rates of unplaced applicants holding these A level grade profiles are higher than those for unplaced English 18 year old applicants as a whole. Reapplication rates are similar for each grade profile in 2010, but diverge into two groups from 2011 onwards, with rates generally higher for those with higher grade profiles. Reapplication rates increased in 2011 for those aged 18 achieving AAA and above; between 84 and 89 per cent of those unplaced in 2011 that held at least AAA reapplied in the following cycle, compared to between 73 and 78 per cent of those unplaced in 2010. For those aged 18 achieving AAB or below, the reapplication rates decreased in 2011 to between 70 and 75 per cent, compared to between 76 and 80 per cent in 2010. Reapplication rates for both groups stayed relatively constant from 2011 onwards.

The reapplication rates in 2015 for those unplaced in 2014 were higher for those holding higher grade profiles, and are broadly similar to the rates in 2011, 2012 and 2013.









### Application rates by age

Interpreting application rate trends as a measure of demand for higher education for age groups older than age 18 is more difficult than it is for those aged 18. The link to the background population is less clear (for example, a large and changing proportion will already have higher education qualifications) and the applicants themselves will, in many cases, have had previous opportunities to apply.

A lower proportion of total applicants in older age groups apply by the January deadline, making January deadline rates a less complete measure of demand, and this proportion has changed through time. In particular, some of the changes to the coverage of the UCAS application scheme, such as the changing of the deadline for Route B courses (mainly art and design), the integration of the nursing application schemes, and the inclusion of some courses previously part of the UCAS Teacher Training scheme (UTT) in 2015, have a much larger effect on older age groups. For this reason this section examines application rates using a reduced set of applicants with time-series consistent course choices.

Figures 24 to 27 show the application rate from all age groups from each country in turn. Application rates vary substantially across the age groups; for example in England 18 year olds have an application rate around 10 times greater than 20 year olds, a hundred times greater than 25 to 29 year olds and a thousand times greater than 40 to 60 year olds. To accommodate this range, and to allow the assessment of proportional changes, the rates are shown on a logarithmic axis.

The pattern of application rates across age groups and countries is mixed. In England the 18 and 19 year old application rates increased in 2015, but rates for the older age groups fell. This is the first reduction in application rates for those aged between 20 and 29 since 2012, and the first since 2013 for applicants aged 30 to 60. The falls in application rates in 2015 for these groups follow increases in 2014.

In Northern Ireland the application rates for 18 and 19 year olds increased. Application rates also increased for 22 year olds, 24 year olds and those aged 30 to 39, while the rates for other age groups fell. In Scotland application rates increased for all age groups except those in the 23 year old and 25-29 age groups, while in Wales only the 18 and 20 year old age groups had increases.





### Figure 24 January deadline application rates from England by age









### Figure 26 January deadline application rates from Scotland by age

Figure 27 January deadline application rates from Wales by age





#### Annex A: 18 year old population context

Over half of all UK applicants at the January deadline are aged 18. This analysis uses country-specific age definitions that align with the cut off points for school/college cohorts within the different administrations of the UK. For the 2015 cycle England and Wales ages are defined on the 31 August 2015, for Northern Ireland on the 1 July 2015 and for Scotland on the 28 February 2016. Defining ages in this way matches the assignment of children to school cohorts and means that the group of applicants treated as 18 year olds in each country will generally be applying to UCAS for the first time.

The population estimates are based upon ONS Mid-Year Estimates and National Population Projections controlled to UK countries (published in December 2013). For 16 to 20 year olds the estimates are obtained by aging 15 year olds from the appropriate number of years earlier. This approach avoids the estimates being susceptible to changes in net migration (including overseas students) during these ages. Older ages are obtained from the Mid-Year Estimates and National Population Projections without aging. In both cases the estimates are adjusted from age at mid-year to age on the country-specific reference dates using the monthly distribution of births. Analysis of application rates by area-based background are supported through small area population estimates available from the Office for National Statistics, National Records for Scotland, and Northern Ireland Statistics and Research Agency. These small area population estimates have been revised to be consistent with the national level population estimates.

Figure 28 shows the population of the 18 year old cohort by UK country for the cohorts covered in this report. England is shown on a separate axis (left hand side) to the other countries of the UK. On the basis used in this report the 2015 18 year old cohort size to nearest thousand (proportion of UK cohort) is 643,000 (84 per cent) for England, 25,000 (3 per cent) for Northern Ireland, 60,000 (8 per cent) for Scotland and 38,000 (5 per cent) for Wales. The relatively large size of the cohort in England (10 to 25 times that of the other UK countries) means that some analysis, such as application rates by background and sex, are easier to interpret for England than for the other countries where small base population sizes introduces appreciable year-to-year variations.

Figure 29 shows these same figures indexed to the size of the 2009 cohort being 100 to show the trends in cohort size between the different countries more clearly. Since 2009 the size of the cohort has reduced for each country and each cycle. In the 2015 cycle the 18 year old cohort changes (proportionally) against the 2014 cohort by +2.1 per cent in England, +2.3 per cent in Northern Ireland, -1.8 per cent in Scotland and +0.5 per cent in Wales. These different changes include a component resulting from the different age reference dates.

In 2015, the 18 year old cohort in England is 3.7 per cent smaller (-24,600) compared to 2009, 4.5 per cent smaller (-1,200) in Northern Ireland, 7.2 per cent smaller (-4,700) in Scotland and 6.5 per cent smaller (-2,600) in Wales. This is a reduction across the UK of around 33,000 since 2009, 4.1 per cent proportionally. If the observed 2015 application



rates were to be applied to a population of the same size as the 2009 cohort then there would have been around 12,000 more 18 year old applicants in 2015.



Figure 28 Population estimates for 18 year olds by country of the UK

Figure 29 Population estimates for 18 year olds by country of the UK (indexed to 2009=100)





#### Incorporating revised population estimates

The population estimates used in this report are based on ONS Mid-Year Estimates and National Population Projections, which have been revised in light of the 2011 Census.

The 15 year old population in these estimates (apportioned to school cohorts, rather than age at mid-year) is of particular interest, since it is this group that is aged to give the core 18 year old estimates (the 'derived' 18 year old estimates). This group is aged, rather than the 18 year olds being used directly, to avoid inaccuracies that can relate from varying numbers of non-UK domiciled 18 year olds being resident at age 18 (for example, international students).

The use of these estimates results in a difference in the direction of population change for derived 18 year olds between 2013 and 2014 (based on the 15 year olds in 2010 and 2011); the ONS Mid-Year estimates show a 0.5 per cent increase in the population between these years, while trends derived from other administrative population sources (including school statistics and benefit records) show a one per cent decrease. In each case the derived 18 year old population estimates show the 18 year old population to have risen between 2013 and 2014, compared to the other administrative sources which show the population to have fallen.

The difference in these trends is due to the revision of the Mid-Year Estimates to be consistent with the 2011 Census. These estimates cover all ages and, because of the estimation methods involved in the Census are intended to be most accurate for age bands rather than single years of age<sup>1</sup>. The ONS have advised that adjustments to the 2011 Census to account for missing data are thought to have led to a small over-estimation of the number of 15 year olds, and under-estimation of the number of 16-19 year olds, predominately those aged 16<sup>2</sup>.

This effect for 15 and 16 year olds in 2011 will mostly affect the number of 18 year olds in the derived estimates used in this work for 2013 and 2014. To minimise this issue, the derived estimates are based on the revised estimates but with an adjustment for 15 year olds in 2010 (who are based on 16 year olds in the 2011 Census) and 15 year olds in 2011 (based on 15 year olds in the 2011 Census). For these years an adjustment is made so that the proportional changes in the population across 2009, 2010 and 2011 match those

<sup>&</sup>lt;sup>1</sup> See the Section D of the technical notes in the Department for Education Statistical First Release Participation in education, training and employment by 16-18 year olds in England (https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/209934/Participation SFR\_\_\_end\_2012 - FINALv2.pdf)

<sup>&</sup>lt;sup>2</sup> See <u>http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-user-guide/guality-and-methods/guality/guality-notes-and-clarifications/index.html</u>

observed for the total number of UK 15 year old school pupils<sup>3</sup>. That is, the revised estimates of 15 year olds in 2009 (based, in part, on 17 year olds in the 2011 Census) are taken as correct and then the 2010 and 2011 figures derived by proportional changes from that figure. This adjustment results in the derived 18 year old population for 2013 being 0.1 per cent lower than when based on the (unadjusted) revised Mid-Year Estimates, while for 2014 they are 1.6 per cent lower.

Because the ONS Mid-Year population estimates for 2015 are unlikely to be materially affected (as 2011 census population estimates for 14 year olds, who would be aged 18 in 2015, are unaffected by adjustments to account for missing data) they are not adjusted, and comparison between these estimates and the total number of UK 15 year old school pupils show a similar proportional increase in the population between 15 year olds in 2011 and 2012 (18 year olds in 2014 and 2015).



#### Figure 30 ONS 15 year old Mid-Year population estimates with and without adjustment

<sup>&</sup>lt;sup>3</sup> Numbers given in Table 5 of the Education and Training Statistics for the UK: 2013 (<u>https://www.gov.uk/government/statistics/education-and-training-statistics-for-the-uk-2013</u>) published by the Department for Education. Adjustment applied to derived figures on same age definition.