# UC/S

# How have applications for full-time undergraduate higher education in the UK changed in 2012?

UCAS Analysis and Research, July 2012

## **Key Findings**

## Analysis of 18 million applications since 2004 to detect changes in UK applications for 2012

Applications for entry to HE through UCAS provide the first measures of the demand for full-time undergraduate study. This analysis uses application, population and 2012 tuition fee data to assess changes in behaviour amongst applicants from the UK.

#### Young application rates decline for England

The application rate of 18 year olds from England has fallen by around one percentage point in 2012 against a recent trend of annual increases of a similar amount. This suggests that around one young applicant in 20 who might have been expected to apply in 2012 did not do so – approximately 15,000 applicants.

#### Young application rates continue on trend for country flows with unchanged fees

In Northern Ireland, Scotland and Wales applicants to courses in their own countries have similar tuition fee levels to 2011. In these countries, the young application rates for study in their own countries have broadly continued their recent trends. Young people from Wales applying to courses outside of Wales have similar tuition fees to previous cycles, and their application rate to study outside of Wales has continued to increase. The application rate of young people from Scotland and Northern Ireland to study outside of their home country, where fees have increased, has fallen.

#### Application rates for older age groups in England show larger declines

English people in age groups older than age 18 are between 15 and 20 per cent less likely to apply in 2012 than in 2011, representing around 30,000 fewer applicants than if application rates had remained at their 2011 levels. For some of these older age groups part of this fall may be accounted for by the higher acceptance rate in the 2011 cycle. For instance, for 19 year olds in 2012, the increase in the acceptance rate of 18 year olds in 2011 would account for just under half the fall. These falls also follow unusually large increases in application rates in 2009 and 2010 for some age groups. Application rates for older age groups from Northern Ireland, Scotland and Wales do not show declines in 2012.

#### Large differences in application rates between backgrounds

Over the past decade application rates for young people from all backgrounds have increased, with the largest increases for young people from the most disadvantaged backgrounds. The differential between the young application rates from advantaged and disadvantaged areas has reduced over the period but remains large. Young people living in the areas with the lowest overall participation in HE (a commonly used measure of disadvantage) have application rates of 19 per cent compared to 54 per cent for those living in the areas with the highest overall participation in HE.

#### Greater declines in application rate between 2011 and 2012 for the more advantaged

Application rates for young people from more advantaged backgrounds fell by more between 2011 and 2012 than those from less advantaged backgrounds. However, the trend has been for larger

increases for those from less advantaged backgrounds. Taking this into account, the proportional fall relative to this trend becomes more similar for those from both advantaged and disadvantaged backgrounds.

#### Majority of applications from England are to courses with a tuition fee of £9,000

Most courses applied to by English applicants have tuition fees (before any fee waivers or other support) at or near the maximum £9,000. The average 2012 tuition fee applied to by English applicants is £8,527 and the average proportion of their choices to £9,000 courses is 56 per cent.

#### No substantial move towards or away from higher fee courses

Linking courses in earlier cycles to courses offered in 2012 enables us to assign a 2012 tuition fee to application choices made in previous cycles. For both young and older English applicants, the pattern of 2012 applications in terms of the 2012 tuition fee is substantially the same as the pattern of applications made in earlier cycles. Therefore, there has been no substantial move towards or away from higher fee courses compared to choices made by young applicants in previous cycles.

#### No substantial changes in tuition fee of courses applied to across backgrounds

Applicants from more disadvantaged backgrounds apply to courses in 2012 with lower tuition fees than those from advantaged backgrounds: around £200 lower on average. However, looking at the pattern of applications from previous cycles (in terms of what their 2012 tuition fee would have been) shows that this differential has always been present and that it does not change substantially in 2012. Therefore, applicants from both advantaged and disadvantaged backgrounds are making much the same choice of courses in 2012 as applicants from those groups in previous cycles.

#### Application rate of disadvantaged to higher tariff institutions unchanged in 2012

The application rate of disadvantaged young people in England to higher tariff institutions in 2012 is materially the same as in 2010 and 2011, following increasing application rates since the 2006 cycle. Virtually all such higher tariff institutions charge the maximum tuition fee rate of £9,000.

#### No increases in the share of applications for live-at-home study in 2012 across UK

Around 20 per cent of applications from young applicants in England, Northern Ireland and Wales, and around 40 per cent for young applicants from Scotland, are for courses where they have indicated they intend to study whilst living at home. These proportions are materially unchanged in 2012 for applicants from England, Northern Ireland and Scotland. The proportion for young applicants in Wales declines in 2012, continuing a recent trend.

#### No substantial change in applications by graduate salaries reported for courses

Information sources available to applicants show that the historic graduate starting salary of courses vary by subject and institution from around £15,000 to £30,000. Young English applicants have not substantially changed their choices in 2012 in terms of the expected graduate salaries.

## Summary

# Analysis of 18 million applications since 2004 to detect changes in UK applications for 2012

1. This analysis addresses questions of how the level and nature of applications to higher education (HE) have changed in the 2012 cycle. It is based on 18 million UCAS course choices made by UK domiciled applicants between 2004 and 2012.

2. These are combined with population estimates so that application rates, the proportion of a group of the population who apply, can be calculated and changes in behaviour distinguished from changes in the population.

3. Tuition fees (as displayed to applicants by institutions for individual courses) are used as one measure to investigate the nature of applications. These fees relate to the domicile of the applicant and before any fee waivers or other financial support that may vary by domicile or individual background.

4. Particular attention is given to young (18 year old) applicants from England applying to English institutions as they experience higher and more variable tuition fees throughout the UK in 2012, without having had the opportunity of applying for higher education at a lower fee level in previous years.

#### Young application rates decline for England

5. Young (18 year old) people from England applying to HE in 2012 face substantially higher tuition fees than previously, wherever they study in the UK. Their application rate to HE has fallen by around one percentage point against a recent trend of annual increases of a similar amount. This suggests around one young applicant in 20 who would have been expected (had recent application trends continued) to apply in 2012 did not do so - approximately 15,000 applicants.

#### Young application rates continue on trend for country flows with unchanged fees

6. In Northern Ireland and Scotland, applicants face higher fees than in previous cycles if they study outside of their own country, but similar levels if they study within their own country. The young application rates from people in Northern Ireland and Scotland to courses within their own country are unchanged or show slight increases. Where there are substantial application rates to courses in other countries, these have fallen.

7. Applicants from Wales face similar tuition fees to previous cycles, wherever they choose to study. Most young applicants from Wales apply to courses in Wales or England and these trends have continued unchanged in 2012. In particular the application rate to institutions in England has continued to increase.

#### No signs of applicants applying a year earlier than usual in 2011

8. If people who would usually have applied to HE in the 2012 cycle decided to apply a year earlier in the 2011 cycle instead then we would expect to see an above-trend increase in the application rate for the 2011 cycle. There is no sign of such an increase for either young or old age groups across the UK.



Figure 1 Application rates for 18 year olds to institutions in their country of domicile

Figure 2 Application rates for 18 year olds to institutions outside of their country of domicile



#### Large differences in application rates between backgrounds

9. Over the past decade application rates for young people from all backgrounds have increased, with the largest increases for young people from the most disadvantaged backgrounds. The application rates of young people living in the most disadvantaged fifth of areas in terms of HE entry have increased by, proportionally, over 60 per cent between 2004 and 2012. The differential between the young application rates from advantaged and disadvantaged areas has reduced over the period.

10. Despite this, young application rates remain highly differentiated by background. Young people living in the areas with the lowest overall participation in HE (a commonly used measure of deprivation) have application rates of 19 per cent compared to 54 per cent for those living in the areas with the highest overall participation in HE. Similarly, those living in the lowest income areas have application rates in 2012 of 23 per cent compared to 48 per cent for their peers living in the highest income areas.

#### Greater declines in application rate between 2011 and 2012 for the more advantaged

11. The application rates for young people from all backgrounds have fallen in 2012 with the largest declines, both proportionally and in percentage points, for those from the most advantaged backgrounds. Application rates for the most advantaged fifth of areas have fallen by 2-3 percentage points compared to falls of 0.1-0.2 percentage points in the most disadvantaged areas. This result is the same when we measure advantage using areas ranked by either participation in HE or the proportion of children in low income households.

12. Since 2006, application rates for disadvantaged groups have increased more than for those from advantaged groups. The application rates for young people from different backgrounds in 2012 are lower than might be expected had recent differential trends continued, and the proportional falls against this expectation are more similar across backgrounds.



Figure 3 Application rates for English 18 year olds for areas grouped by young HE participation rates (POLAR2, Quintile 5 (Q5) = highest participation areas)

#### Application rates for older age groups in England show larger declines

13. English people in age groups older than age 18 are between 15 and 20 per cent less likely to apply in 2012 than in 2011, representing around 30,000 fewer applicants than if application rates had remained at their 2011 levels. For some of these older age groups part of this fall may be accounted for by the higher acceptance rate in the 2011 cycle. For instance, for 19 year olds in 2012, the increase in the acceptance rate of 18 year olds in 2011 would account for just under half the fall. These falls also follow unusually large increases in application rates in 2009 and 2010 for some age groups. Application rates for older age groups from Northern Ireland, Scotland and Wales do not show declines in 2012.



#### Figure 4 Application rates by age from England

#### Majority of applications from England are to courses with a tuition fee of £9,000

14. There is a material range in 2012 in the tuition fees of courses applied to by English applicants. However, most courses are at or near the maximum  $\pounds$ 9,000 and the extent of the range is a relatively small proportion of the tuition fee. Courses at  $\pounds$ 9,000 receive 59 per cent of all English applications, those around £8,500, 22 per cent, those around £8,000, 10 per cent and those around £7,500, 4 per cent.

15. The majority of applications by English domiciled applicants in 2012 are to courses with a tuition fee of £9,000. The average tuition fee applied to by English applicants is £8,527 and the average proportion of their choices to £9,000 courses is 56 per cent.



#### Figure 5 Distribution of 2012 English applications by tuition fee of course

#### No substantial move towards or away from higher fee courses

16. Linking courses in earlier cycles to courses offered in 2012 enables us to assign a 2012 tuition fee to application choices made between 2004 and 2012. Measuring the average of this linked 2012 tuition fee and the proportion of choices to £9,000 courses gives a measure of how the profile of courses applied to through time has varied in terms of the 2012 tuition fees.

17. For young English applicants the average tuition fee of courses applied to in 2012, and the proportion of choices to £9,000 courses, is substantially the same as in previous cycles. There has been no substantial move towards or away from higher fee courses compared to choices made by young applicants in previous cycles. Looking closely at the changes for 2012 shows an increase of around £10 (0.1 per cent) in the average tuition fee of courses applied to and an increase of one percentage point in the proportion applying to £9,000 courses compared to 2011. This is in contrast to recent cycles where there has typically been a slight shift in applications to courses which have (in 2012) lower tuition fees.

18. If this trend were expected to continue, then the changes observed in 2012 would be equivalent to around one applicant in 40 changing all of their choices from £8,200 to £9,000 courses with the remaining applicants making the same choices as before. Alternatively, the observed change may be caused by the one in twenty young English applicants estimated to be missing from the 2012 cycle compared to what would have been expected if recent application rate trends had continued. If these 'missing' applicants had applied to courses with an average tuition fee some £400 lower than other applicants (around £8,200) then their removal would lead to the changes observed. It is also possible that institutions may have changed the range of courses they offer or how they present them. However, this analysis rules out the possibility that there has been any substantial shift towards or away from any courses on account of their higher fees under the new arrangements.

19. For older English applicants there is no deviation from trend in the tuition fee of courses applied to.



Figure 6 Average 2012 tuition fee of courses applied to by English applicants to English institutions

Figure 7 Proportion of English applicants applying to courses at English institutions with 2012 tuition fee at £9,000



#### The average 2012 tuition fee of courses applied to varies across applicant groups

20. Groups of applicants have often shown different profiles of applications, for example, by the nature of courses applied to in previous cycles. A new way of characterising applicants' choices in 2012 is by the tuition fee of the course. As with other measures, the average tuition fee of courses applied to by English applicants in 2012 varies across groups of applicants. Younger applicants and those from backgrounds with higher levels of educational, income or occupational advantage apply to courses with higher average fees (around £200), and make more choices to £9,000 courses, than older applicants or those from disadvantaged backgrounds.

21. The average tuition fee applied to by 18 year old applicants is £8,632, for 19 year olds £8,484 and around £8,300 to £8,400 for older age groups. The proportion of choices to £9,000 courses is 63 per cent for 18 year olds, 53 per cent for 19 year olds and around 40 to 50 per cent for older age groups.

22. Young English applicants from areas with low entry rates to HE or low household incomes typically apply to courses with an average tuition fee of around £8,500 (50-55 per cent of choices to  $\pm$ 9,000 courses). Young English applicants from areas with high entry rates to HE or high household incomes apply to courses with an average tuition fee of around £8,700 (around 70 per cent of choices to  $\pm$ 9,000 courses).

23. English applicants from older age groups from areas with low incomes or low proportions of HE qualified adults apply to courses with an average tuition fee of around £8,300 (around 40 per cent of choices to £9,000 courses). In areas with high incomes, or high proportions of HE qualified adults the average fee for courses applied to by older applicants is around £8,450 (52 to 56 per cent to £9,000 courses).

#### No substantial change in tuition fees of courses applied to across backgrounds

24. Applicants from different backgrounds do not show substantial changes in the average tuition fee of the courses they apply to between the 2011 and 2012 cycles. That is, applicants from both advantaged and disadvantaged backgrounds are making much the same choice of courses (in terms of their 2012 tuition fee) as applicants from these groups in previous cycles. This result is consistent across background groups defined through education, income and occupation measures. However, young applicants from all backgrounds show a small shift towards higher fee courses in 2012. This effect is not observed for older applicants.

Figure 8 Average 2012 tuition fee of courses applied to by 18 year old English applicants to English institutions for areas grouped by young HE participation rates (POLAR2, Quintile 5 (Q5)= highest participation)



Figure 9 Average 2012 tuition fee of courses applied to by 18 year old English applicants to English institutions for selected parental job title classifications



#### Average tuition fees vary across groups of institutions

25. Institutions whose accepted applicants have, on average, higher tariff points from the qualifications they hold, have higher tuition fees. The average tuition fee of courses applied to by English applicants at the higher tariff third of institutions is £8,978, and 97 per cent of the applications to those institutions are for courses with a tuition fee of £9,000. For medium tariff institutions the average fee of courses applied to is £8,778 (68 per cent of applications at £9,000). For lower tariff institutions the average fee is £8,172 (26 per cent of applications at £9,000).

## Application rates to higher tariff institutions increase by less and are more differentiated than applications to all institutions

26. The young English application rate to higher tariff institutions has increased by less, and the difference between the application rate from advantaged and disadvantaged areas is greater, than for applications to all institutions.

#### Application rate of disadvantaged to higher tariff institutions unchanged in 2012

27. The application rate of disadvantaged young people in England to higher tariff institutions is materially the same in 2012 as for the previous two cycles, following increasing application rates since the 2006 cycle.

28. The application rate for advantaged young people to higher tariff institutions is lower in 2012 than for 2011 but within the range of application rates seen for this group over recent cycles.

Figure 10 English 18 year old application rates to higher tariff institutions for areas grouped by young HE participation rates (POLAR2, Quintile 5 (Q5)= highest HE participation rates)



Figure 11 English 18 year old application rates to higher tariff institutions for areas with lowest levels of young HE participation (POLAR2, Quintile 1)



#### No increases in the share of applications for live-at-home study in 2012 across UK

29. Around 20 per cent of applications from young applicants in England, Northern Ireland and Wales, and around 40 per cent for young applicants from Scotland, are for courses where they have indicated they intend to study whilst living at home. These proportions are materially unchanged in 2012 for applicants from England, Northern Ireland and Scotland. The proportion for young applicants in Wales declines from 16 per cent to 14 per cent to 2012, continuing a recent trend and consistent with a greater proportion of Welsh applicants applying to courses in England.

#### No substantial change in applications by graduate salaries reported for courses

30. Information sources available to applicants show that the historic graduate starting salary of courses vary by subject from around £15,000 to £30,000. The average graduate salary of courses applied to by young English applicants has been in a narrow range around £18,800 since 2004. There is a slight increase against trend (£65) in 2012 but this is very small relative to variation between subjects and within the range seen in recent cycles.

## Figure 12 Average anticipated graduate salary of courses applied to by English 18 year olds to English institutions



### Introduction

31. Applications for entry to HE through UCAS provide the first measures of the demand for fulltime undergraduate study. Analysis of these applications can answer two sets of questions: how is the overall level of demand for HE changing; and how is the nature of that demand, in terms of type of HE applied for, changing. The *Analysis of UCAS January deadline application rates by country* published by UCAS in January addressed the first set of these questions by looking at trends in the level of demand from the UK for HE at the main January application deadline. The analysis used population-based application rates as a direct measure of individual propensity to apply to HE. This report extends that analysis of application rates and addresses the second set of questions by investigating whether the nature of demand for HE is changing. It uses the details of the 18 million applications made from the UK since 2004 and uses new methods of linking courses through time to give a sensitive analysis of the trends in the nature of those applications over recent cycles.

32. The tuition fee and student support arrangements for UK domiciled applicants to UK full-time undergraduate HE are different for entry into the academic year 2012-13 compared to recent years. The maximum tuition fee has increased; there is a greater range of tuition fees across, and within, institutions; the terms of repayment have changed, and the relationship between the fee charged and the interactions of country of domicile and country of study has changed. In addition the nature and level of financial support for students has changed and some new arrangements have been introduced for the control of student numbers, including the introduction of a link to entry qualifications for English institutions.

33. These changes to the balance of financial cost and support for entering HE, and how they are perceived, suggest a greater potential for change against trend in the level and nature of applications than in previous years. One hypothesised response is that applicants change the nature of their applications to reduce perceived costs of studying. For example, by choosing lower fee courses, changing country of study, or studying where they can live at home. Another is that they change their choices to maximise the perceived resourcing, quality or future returns from their course. For example, by choosing higher fee courses, preferring institutions with high entry requirements, or choosing subjects with higher anticipated future salaries. In both cases it is possible that any response may be differentiated by background, particularly by advantage, including financial, educational or occupational advantage.

34. These questions are answered by three sets of findings in this analysis. The first set looks at the evidence for changes in the nature of applications by country of study, background, age, whether there is a stated intention to study whilst living at home, and the type of institution in terms of the average strength of qualifications held by its acceptances. The second set starts by describing the pattern of the 2012 tuition fee arrangements in terms of the how they are experienced through the choices of applicants from different domiciles and backgrounds. How the nature of applications has responded to the variable fee level in England is analysed; including by income, education and occupation backgrounds. The third set of findings examines whether applicant choices have moved towards subjects of study with higher reported salaries in response to the higher level of fees.

#### Changes in tuition fees in 2012

35. The tuition fee for a course depends on both the country of domicile of the applicant and the country of the institution. For applicants planning to start their courses from autumn 2012 the impact of the combination of domicile country and institution country is greater than in previous years. The greatest changes in 2012 are as follows:

- English and Northern Irish applicants to Scottish institutions: 2011 up to £1,820, 2012 up to £9,000
- English and Scottish applicants to English, Welsh and Northern Ireland institutions: 2011 up to £3,375, 2012 up to £9,000
- Northern Irish applicants to English and Welsh institutions: 2011 up to £3,375, 2012 up to £9,000
- Welsh applicants to Scottish institutions: 2011 up to £1,820, 2012 up to £3,465

36. Scottish applicants continue to be able to study at a Scottish institution and not be liable for a tuition fee. Welsh applicants continue to be able to study at any UK institution and be liable for a maximum of £3,465 (the inflation-only rise over the 2011 fee of £3,375). Northern Irish applicants continue to be able to study at a Northern Ireland institution and be liable for a maximum of £3,465 (the inflation-only rise over the 2011 fee of £3,375).

37. Looking at this from the perspective of a 2012 applicant comparing countries of study, each English applicant and Welsh applicant will experience the same fee whichever country of the UK that they choose to study in, whereas each Scottish applicant and Northern Irish applicant will be liable for a much reduced tuition fee if they choose to remain in their country of domicile.

38. In 2011 each English applicant, Welsh applicant and Northern Irish applicant was liable for a maximum tuition fee of £3,375 in all countries of study apart from Scotland where the fee was £1,820. For each Scottish applicant there was no tuition fee if they chose to study in Scotland and a maximum of £3,375 outside of Scotland.

	Country of Domicile	Country of Institution			
		England	Northern Ireland	Scotland	Wales
2012	England	9,000	9,000	9,000	9,000
	Northern Ireland	9,000	3,465	9,000	9,000
	Scotland	9,000	9,000	0	9,000
	Wales	3,465	3,465	3,465	3,465
2011	England	3,375	3,375	1,820	3,375
	Northern Ireland	3,375	3,375	1,820	3,375
	Scotland	3,375	3,375	0	3,375
	Wales	3,375	3,375	1,820	3,375
Difference	England	5,625	5,625	7,180	5,625
	Northern Ireland	5,625	90	7,180	5,625
	Scotland	5,625	5,625	0	5,625
	Wales	90	90	90	90

#### Table 1: Maximum tuition fees in 2011 and 2012 by country of domicile and institution

#### Outline of analysis method

39. The main analysis data set reflects applications made by UK domiciled applicants to UCAS by March 24 covering the 2004 to 2012 cycles. Applicants are considered 'on time' for the majority of courses offered through UCAS if they apply by the January deadline. Relatively few UK domiciled applicants will apply between these dates but using the March 24 as the reference point has an advantage for the detailed analysis of the nature of applications. Prior to 2010 the majority of courses in the Art and Design subject area had a distinct application process with a main deadline of March 24. In 2010 this distinction was removed for the large majority of these courses. The effect of this on the time series of application rates of 18 year olds in January deadline analysis was investigated and found to be insignificant. However, when looking at the nature of applications in terms of, for example, subject group or fee level, the risk of distortion is higher. By using the March 24 reference point figures, the effect of this change on the time series is minimised.

40. The long time series is vital for understanding trends in applications to HE but inevitably brings some issues of interpretation relating to changes to the scope of the UCAS data over this period. The most significant of these result from the integration of the Nursing and Midwifery Admissions Service in the 2008 cycle. The results in this report were replicated for a restricted subset of applicants that excluded applications to subject areas or institutions where the scope of the data had changed over the period. If the findings were materially unchanged then the full data was used for the analysis. If there is a difference (for example, in the analysis of choice of subject with respect to salary expectation) the restricted subset is used.

#### Tuition fees for courses in 2012

41. Institutions provide UCAS with details of the courses that they intend to offer to applicants. This information includes the tuition fee, including how it varies by the domicile of the applicant. Where fee information for a course cannot be assigned directly from the data an estimate is made from fee information for other similar (by subject and type) courses at the same institution. The fee information used is that which was current on the reference point of March 24. There is no material difference to the fee values recorded in this data based between this reference point and the early January period when most of the applications would have been submitted.

42. The fee information for each course is then combined with choices of the applicants and the correct fee value for the domicile of the applicant selected. This is termed the 'tuition fee' - that is the fee that an applicant from that domicile would see as the headline fee regardless of whether they would be liable for the full amount or whether their government would pay directly for all or part of the fee. This value does not take into account any fee waivers or other forms of support that may be provided.

#### Linking courses through time to assign 2012 fees to earlier cycles

43. A key question for the analysis is whether the nature of applications made has changed in respect of the different fees being charged for 2012 entry. One way of approaching this is to assign courses from earlier cycles the 2012 fee values, so that any change in the nature of choices with respect to the 2012 fee pattern can be reported directly.

44. The best assignment of a 2012 fee value to a course from earlier cycles is obtained through a multi-stage matching process. This matching proceeds from unambiguous matches on the full set of course details (course code, full course title, etc) through a progressive loosening of matching requirements. For instance, if a course from a previous cycle is no longer offered by an institution in 2012 then an average fee (weighted by distribution of 2012 choices) for courses within that same subject group at that institution is used.

45. For cycles recent to 2012 the overwhelming majority of courses are assigned 2012 fee values unambiguously. For older cycles where more time has elapsed there is greater scope for some of the details to have changed and greater proportion of courses are matched to a set of 2012 courses within a subject area at an institution. However, since there is relatively little fee variation within institutions it is unlikely that this introduces significant distortions to the analysis. Key results (such as the trend by background in average fee of courses applied to) were checked for robustness against a parallel analysis restricted to just those courses that could be securely linked across the entire analysis period and found to be materially unchanged.

#### Application rates and populations

46. One way to measure the level of overall demand, or demand for a particular type of HE is through application rates. These report the number of applicants (possibly to a particular type of HE) from a group divided by the size of that group in the population. As such they directly measure demand in terms of the propensity to apply to a particular type of HE.

47. 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.

48. The population estimates are based upon Office for National Statistics Mid-Year Estimates and National Population Projections. For 18 to 21 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.

49. The 18 year old population estimates for advantaged and disadvantaged areas use these estimates in conjunction with the small area population estimates produced by the Higher Education Funding Council for England (HEFCE) in their work on young participation.

#### Age groups

50. The analysis uses country-specific age definitions. These help in detecting changes in the level or nature or applications that are in response to factors (such as tuition fees) that change between entry years and so have their greatest resolution against school cohorts. For England and Wales ages are defined on the 31 August, for Northern Ireland on the 1 July and for Scotland on the 28 February the following year. Defining ages in this way matches the assignment of children to school cohorts.

51. Often the analysis concentrates on changes in the level and nature of demand for HE from 18 year olds. There are two analytical reasons for the focus on this group. The first is that, when ages are defined with respect to school cohorts, the 18 year old group is unique in generally not having had a previous opportunity to apply to HE. This makes the interpretation of trends for this group much less affected by temporary effects resulting from, for example, the bringing forward of entry to HE or a change in the number of unplaced applicants from the previous cycle.

#### Defining advantage and disadvantage

52. The analysis considers the trends in applications to HE by applicant background. There are three measures used to describe advantage/disadvantage, based on the postcode of the applicant:

- Participation levels in HE (POLAR2)
- Percentage of children living in low income households (IDACI)
- Average household income (derived from PayCheck data from CACI)

53. The POLAR2 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 in HE. 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).

54. The Income Deprivation Affecting Children Index (IDACI) is an index of deprivation that is calculated as the proportion of children under the age of 16 in an area that live in low income households. This is calculated from a measure of area which covers a greater number of households than the postcode area. The IDACI quintiles divide the areas into five roughly equal sized groups by young people. IDACI quintile 1 is defined as the areas with the greatest proportion

of children living in low income households, and therefore the most disadvantaged areas. At the other extreme IDACI quintile 5 is defined as the areas with the smallest proportion of children living in low income households, and therefore the most advantaged areas on this definition.

55. Income areas are defined using an area based measure of estimated median household income<sup>1</sup>. Each income area contains approximately one third of households and are defined as follows: lowest income areas have median income of £23,200 or less; middle income areas have median income greater than £23,200 and less than or equal to £35,400; and higher income areas have median income greater than £35,400.

#### Measures

56. Application rates are constructed as the number of applicants divided by the number estimated to be in the population. Where an application rate is calculated for a subset of applications (for example, for live at home study, or to institutions in the applicant's own country) the number of applicants used is that where they have made at least one application to that subset.

57. Statistics of applications (such as shares having a particular property and average tuition fees) are reported in two ways depending in the context. Usually the interest is in understanding applicant behaviour so the share of application reported is the average of the share of applications for each applicant (rather than the share of all applications). Therefore, the average is adjusted so that applicants who use all of their five choices are not over-represented in the average value compared to applicants who make just one or two choices. There was a reduction in the number of choices that applicants can make, from six to five, in 2008. This can potentially affect some measures based on the proportion of choices to a particular type of course but has had only small effects on the statistics used in this report and therefore is not adjusted for.

58. Sometimes the interest is more in the pattern of the statistic across a property of the applications themselves rather than the type of applicant. In these cases, for example the share of applications to £9,000 courses by type of institution, a simple unweighted share of applications is calculated.

59. Some measures record the proportion of applications to £9,000. These statistics are defined as applications to courses with recorded tuition fees of £8,900 or above. This range is chosen to eliminate possible bias through time in these measures. The matching process used to assign 2012 fees to earlier courses sometimes has to take an average across more than one 2012 course and this can result in fee values that are fractionally less than £9,000. This is more likely to occur for more distant cycles so this convention is used to avoid introducing a bias from this effect without introducing any material alteration in the statistic for the 2012 cycle.

<sup>&</sup>lt;sup>1</sup> This is based on PayCheck data supplied by CACI <u>http://www.caci.co.uk/paycheck.aspx</u>

#### Has there been a change in the nature of applications?

60. This section looks at the nature of applications in the 2012 cycle in the context of recent trends. It looks at the evidence for changes in the nature of applications by country of study, background, age, whether there is a stated intention to study whilst living at home, and the type of institution in terms of the average strength of qualifications held by its acceptances.

#### Young application rates by country of domicile

61. The application rate of 18 year olds ('young application rate') is much higher than for any other age group. These applicants would not generally have had a previous opportunity to apply and so act as a particularly important indicator of annual changes in demand for HE. In recent cycles typically 98 per cent of total applicants in a cycle from this age group will have applied by the March deadline (compared to 97 per cent by the January deadline).

62. For all countries young application rates have generally increased over the past five years. There is no sign of any above trend increases in application rates in 2011 that would have resulted from people who would normally apply at age 19 (in 2012) applying at age 18 (in 2011) instead.

63. For 2012 the application rates for Scotland and Wales have increased slightly or stayed broadly the same, the rate for Northern Ireland has declined slightly (but within the range of expected variability given its relatively small population). For England the application rate decreases by just over one percentage point in 2012 compared to 2011 value, with this difference representing around 7,000 applicants.

64. The fall seen in the young participation rate in 2012 is against a trend since 2006 of increases of at least one percentage point a year. If it is assumed that the recent trend of a one percentage point increase each year in England would continue in 2012 then the observed decrease of around one percentage point would represent a fall in the application rate against this assumption of around two percentage points which is, proportionately, just over a five per cent decrease. Therefore, around one person in 20 who would have been expected to apply if the recent trend of increasing application rates was maintained for 2012 did not do so, approximately 15,000 applicants. However, it is also the case that the level of the young application rate for England in 2012 is not inconsistent with the longer term trend across the period.



#### Have applicants changed the country of institution they are applying to?

65. The tuition fee for a course depends on both the country of domicile of the applicant and the country of the institution. For applicants planning to start their courses from autumn 2012 the impact of the combination of domicile country and institution country is greater than in previous years.

66. Since 2008 each UCAS application includes up to 5 course choices, prior to this it was possible to make up to 6 choices. Each applicant has the potential to spread their choices over institutions in more than one country. In the UCAS data, country of domicile is defined by the declared area of permanent residence.

67. To evaluate whether applicants have changed the country of institution that they are applying to we have looked at two different measures. Firstly, the average share of application choices to institutions in domicile country is calculated over the period 2004 to 2012 for UK 18 year old applicants for each country. This looks at the spread of country choice at the point of application. Secondly, the 18 year old application rates within and between countries are compared to see if there have been any significant shifts compared to the longer term trend. The application rates are calculated as at least one choice to the country of interest.

68. The share of applications by English applicants to English institutions has historically been very high (around 95 per cent) and in 2012 is unchanged from 2011.

69. The share of applications by Scottish applicants to Scottish institutions has historically been very high (around 95 per cent). In 2012 there has been a small (1.3 percentage point) increase compared with 2011.

70. For Northern Irish applicants there has been a small year on year decrease in share of applications to Northern Ireland institutions each year (apart from 2009) during the period 2004-2011. In 2012 the share increased by 5 percentage points, reversing the very gradual decline in share of applications seen in recent years.

71. Amongst Welsh applicants there was an increase in the share of applications to Welsh institutions between 2004 and 2009. Every year since then the share has declined, with 2012 continuing this trend.



Figure 14 Share of applications of 18 year olds to institutions in country of domicile

72. English applicants in 2012 are facing substantially higher fees than previously, wherever they study in the UK. The application rates of people from England to English institutions follow a similar pattern to the overall English application rates, that is there has been a fall of 1 percentage point compared with recent increases of around 1 percentage point per year. The application rates of people from England to institutions outside England are relatively small (around 6 per cent) and change very little in 2012.

73. In Northern Ireland and Scotland applicants face higher fees than previous cycles if they study outside of their own country but similar levels if they study within their own country. The application rates of people in Northern Ireland and Scotland to courses within their own country have increased very slightly (around 0.5 percentage points) in 2012. The application rates of people from Northern Ireland to courses outside of their home country have decreased by just under 4 percentage points compared with recent rises of just under 2 percentage points each year. The application rates of people from Scotland to courses outside of their home country are relatively small (around 3.5 per cent) and have dropped by about 0.5 percentage points in 2012.

74. Applicants from Wales face similar tuition fees to previous cycles, wherever they choose to study. Their application rates have continued the recent trend of decreasing for courses within Wales and increasing for courses outside Wales (in most cases in England).



Figure 15 Application rates for 18 year olds to institutions in their country of domicile

Figure 16 Application rates for 18 year olds to institutions outside of their country of domicile



#### Young application rates by advantaged and disadvantaged backgrounds in England

75. Young application rates declined for England in 2012. Using detailed population estimates for small areas it is possible to analyse whether this reduction in application rates differs across groups who live in areas that are advantaged or disadvantaged in terms of HE entry or household income.

76. The following figures show the trends in application rates for young people in England by two area-based measures of advantage. The first groups young people into five quintiles by the level of HE participation of their neighbourhood. Each of these groups represents around 20 per cent of young people (typical population size of around 140,000) 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).

77. Over the past decade application rates for young people from all backgrounds has increased, with the largest increases for young people from the most disadvantaged backgrounds. The application rates of young people living in the most disadvantaged fifth of areas in terms of HE entry have increased by, proportionally, over 60 per cent between 2004 and 2012.

78. Despite these larger increases for the more disadvantaged areas, young application rates remain highly differentiated across this grouping. Young people living in the most disadvantaged fifth of areas by entry to HE have application rates in 2012 of 19 per cent whereas those in the most advantaged fifth of areas are nearly three times higher at 54 per cent.

79. The application rate trends for each group are similar and reflect the nature of the trend for England as a whole. There is no sign of above trend application rates in 2011 (which would result from people applying to HE a year earlier than usual) from those living in either advantaged or disadvantaged areas.

80. The application rates for young people from all backgrounds fall in 2012 with the largest declines, both proportionally and in percentage points, for those from the most advantaged backgrounds. Application rates for the most advantaged fifth of areas have fallen by just under 3 percentage points (proportional fall of around 5 per cent) compared to falls of 0.2 percentage points (proportional fall of around one per cent) in the most disadvantaged areas.

81. The second figure shows the application rate trends for young people across, as before, five roughly equal sized groups but in this case the groups are formed by reference to the proportion of children living in low income households. This classification results in a slightly lower degree of differentiation in terms of application rates: the 2012 application rate of young people in the lowest income areas (23 per cent) is higher than that of the lowest HE entry areas, and the application rate in areas with the lowest proportion of lower income households (48 per cent) is lower. However the general pattern of results (no above trend increase in 2011, falls for all groups in 2012, largest falls for the advantaged groups) are consistent between the classifications.

Figure 17 English 18 year old application rates for areas grouped by young HE participation rates (POLAR2, Quintile 5 (Q5)= highest participation areas)



Figure 18 English 18 year old application rates for areas grouped by proportion of children living in lower income households (IDACI Quintile 5 (Q5)= lowest proportion of lower income)



82. Although it is clearly the case that there are larger falls in application rates between 2011 and 2012 for the more advantaged groups this is in the context of different recent rates of increase between advantaged and disadvantaged groups. In particular the application rate of those from disadvantaged areas has been increasing at a greater proportional rate than those from advantaged backgrounds. If these recent trends were assumed to continue for the 2012 cycle then it would lead to an expectation (against this assumption) of larger proportional increases for the more disadvantaged groups.

83. The following figures reproduce the application rate trends for the HE participation and lowerincome household groups together with a linear extrapolation of the application rate trend from the 2006 to 2011 cycles. The application rate axis is logarithmic so that similar proportional changes have a similar visual impression. They confirm that the more advantaged groups have the larger proportional falls in application rates compared to 2011. They also suggest that, taking into account the higher rate of increase of disadvantaged application rates since 2006, the proportional fall relative to recent trends becomes more similar for those from both advantaged and disadvantaged backgrounds. Figure 19 English 18 year old application rates for areas grouped by young HE participation rates (POLAR2, Q5 (blue, high) to Q1 (red, low)), with linear extrapolation of 2006-2011 trend



Figure 20 English 18 year old application rates for areas grouped by proportion of children living in lower income households (IDACI, Q5 (blue, high) to Q1 (red, low)), with linear extrapolation of 2006-2011 trend



#### Application rates for older age groups by country

84. Interpreting application rate trends for age groups older than 18 is more difficult than for 18 year olds. The link to the background population is less clear. For example, a substantial (and itself changing) proportion will already have already entered HE or be holding HE qualifications). It is also possible for the rate in any one particular year to be affected by changes in the decision to apply, and the proportion of applicants who are unplaced, from the previous year.

85. Using applications data from the March deadline gives a fuller picture of application rate trends for older age groups than January deadline data since appreciable numbers apply between the January and March deadlines (typically an additional 5 to 20 per cent of applicants depending on the age group and country). The later deadline date also avoids some of the changes to the UCAS processes through time that particularly affect trends for older applicants. The integration of the applications to nursing courses during the time series can affect application rates for older age groups so applications to these courses are removed from the results in this section.

86. The following figures show the application rates of 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 24-29 year olds and a thousand times greater than 40-60 year olds. To accommodate this range, and to allow the assessment of proportional changes, the rates are shown on a logarithmic axis.

87. All countries show a similar pattern of younger age groups having much higher application rates than older age groups. Generally the application rates for all age groups in all countries have increased over the period, with notably strong increases for some age groups in the 2009 and 2010 cycles, with some year to year variability in the rates from the smaller countries (as would be expected from their relatively small, low hundreds, number of applicants in some of the age groups). There is no sign of material above-trend increases in the application rates in 2011 that would be expected if applicants had substantially changed their behaviour and applied a year earlier than they usually would. In England, where the change in arrangements between 2011 and 2012 is particularly marked, the application rates of most older age groups in 2011 increased by less than their recent trend.

88. The application rates of all age groups in England decline in 2012. The application rates for older age groups in Northern Ireland, Scotland and Wales do not show a clear pattern of declines for 2012 and are generally at values consistent with their recent trends.

89. The proportional fall in the application rate between 2011 and 2012 for the older age groups in England is fairly uniform at between 15 and 20 per cent, which is around three times larger than the 2011 to 2012 application rate fall for 18 year olds. This equates to around 30,000 fewer applicants aged 19 and above than would have been the case if the application rates in 2012 were the same as 2011, with around half this total from the 19 year old age group.

90. It is harder to assess the change in the application rates for older age groups in England against an expected trend. In particular many of the older age groups experienced unusually large year to year proportional changes in their application rates of between 10 and 40 per cent in both the 2009 and 2010 cycles – if this was a transient effect then part of the decline for 2012 may be a reversion to more typical levels of application. Although there is no sign applications that would usually be expected from older age groups in 2012 were made in 2011 instead, it is the case that the

acceptance rate for applicants increased in 2011 against a recent trend of sharp falls. This would be expected to reduce the application rate for older age groups in 2012. For instance, for 19 year olds in 2012, the increase in the acceptance rate of 18 year olds in 2011 would account for just under half the fall



Figure 21 Application rates by age from England (excluding nursing applications)

Figure 22 Application rates by age from Northern Ireland (excluding nursing applications)





Figure 23 Application rates by age from Scotland (excluding nursing applications)

Figure 24 Application rates by age from Wales (excluding nursing applications)



#### Have applicants changed their intentions to study whilst living at home?

91. There are many reasons why an applicant may choose to live at home, and it has been suggested that the increase in tuition fees could lead to a greater likelihood to live at home in order to reduce living expenses.

92. During the UCAS process applicants are asked whether they are planning to live at home for each of the institution choices that they make. Since 2008 this question has been asked in the following way:

93. Live at home – Please choose 'Yes' if you are planning to live at home when you study or 'No' if you will need accommodation information from the university/college.

94. There is nothing binding about the response to this question, and it is likely that applicants will not have made a final decision about living at home at this stage. However, it does give an indication of their intention at the time of application.

95. To investigate whether there has been a change in intention to live at home in response to the change in tuition fees we have looked at the average share of application choices with the stated intention to live at home amongst 18 year old applicants.

96. Around 20 per cent of applications from young applicants in England, Northern Ireland and Wales and around 40 per cent of applications from young applicants in Scotland, are for courses where they have indicated they intend to study whilst living at home.

97. These proportions are materially unchanged in 2012 for applicants from England, Northern Ireland and Scotland. The proportion for young applicants in Wales declines from 16 to 14 per cent, continuing the recent trend and consistent with a greater proportion of Welsh applicant applying to courses in England. There is no evidence of a greater intention to live at home for young applicants in 2012.


Figure 25 Proportion of young applications with intention to live at home

## Have young English applicants altered the nature of institution that they apply to?

98. The trends in application rates considered so far have covered applications to all institutions. Often there is an additional interest in the type of institution being applied to. One way of grouping institutions is by the average attainment level shown on entry by their entrants. Classifications of institutions on this dimension have been used in England to look at trends in fair access and social mobility.

99. In England, those institutions with the highest levels of attainment amongst their entrants typically charge the maximum tuition fee, therefore there is a specific interest in whether the application rates to these institutions have been differentially affected by the new tuition fee arrangements both overall and by applicants from different backgrounds

100. In this section, we form a grouping of institutions based on the average levels of attainment of their accepted applicants (summarised through UCAS tariff points) as an analogue to existing measures based on entrants used for statistics on fair access and social mobility. The average tariff score per applicant for each institution (based on UK domiciled 18 year old acceptances from the 2004 to 2011 cycles) is used to divide the institutions into three tariff groups with roughly equal numbers of accepted applicants over the time period. The highest average tariff score group of institutions contains 40 institutions where the average tariff of accepted applicants is greater than 390 tariff points: applications to this subset of institutions with higher average tariff score for their acceptances ('higher tariff') is used as the basis for the analysis in this section.

101. This section looks at the trends in application share and application rates to higher tariff institutions for English applicants as a whole and by two measures of disadvantage, POLAR2 and IDACI. The POLAR2 classification classifies small areas across the UK into five groups according to their level of young participation in HE. The Income Deprivation Affecting Children Index (IDACI) is an index calculated from the proportion of children under the age of 16 in an area that live in low income households.

102. The average English applicant share of applications to higher tariff institutions gradually decreased between 2008 and 2011, but has increased slightly in 2012. The English application rate to at least one higher tariff institution in 2012 is similar to that in 2011 (decreased by 0.3 percentage points), compared to the overall application rate that has decreased in England by 1 percentage point.



Figure 26 Share of English 18 year old applications to higher tariff institutions

Figure 27 English 18 year old application rates to higher tariff institutions



103. As seen with the overall application rates, the application rates to at least one higher tariff institution of English 18 year olds are highly differentiated by level of HE participation in the applicant's neighbourhood (measured by POLAR2 quintile). Application rates to higher tariff institutions are particularly high in POLAR2 Q5, the most advantaged areas, compared to the other four quintiles. Unlike the overall application rates there has not been a strong underlying upward trend in application rates to higher tariff institutions in recent years, although there has been some increase in POLAR2 Q1 (most disadvantaged areas). There is no substantial change to application rates to higher tariff institutions in 2012.

Figure 28 English 18 year old application rates for areas grouped by young HE participation rates (POLAR2, Quintile 5 (Q5)= highest HE participation rates)



Figure 29 English 18 year old application rates to higher tariff institutions for areas grouped by young HE participation rates (POLAR2, Quintile 5 (Q5)= highest HE participation rates)



104. Looking more closely at the most disadvantaged (POLAR2 Q1) and most advantaged (POLAR2 Q5) areas we can make a more detailed assessment of the overall trends and the picture in 2012.

105. Young application rates in England to higher tariff institutions from neighbourhoods with low HE entry (POLAR2 Q1) are relatively low (6-8 per cent). However between 2004 and 2010 there was a gradual increase in these rates. The application rate is materially the same in 2012 as in the previous two cycles.

106. In high HE entry areas of England (POLAR2 Q5, most advantaged) the young application rate to higher tariff institutions have varied between 36 and 37 per cent. There has been a decrease in the rate in 2012, but it is not substantial relative to variations seen over recent years.

Figure 30 English 18 year old application rates to higher tariff institutions for areas with lowest levels of young HE participation (POLAR2, Quintile 1)



Figure 31 English 18 year old application rates to higher tariff institutions for areas with the highest levels of young HE participation (POLAR2, Quintile 5)



107. As well as considering the background of applicants by the level of HE entry in their neighbourhood, we also considered the proportion of children living in low income household in their areas (IDACI). As with POLAR2 quintiles, areas are split into five roughly equal sized groups with Q1 including the areas with the highest proportion of children living in low income households (most disadvantaged) and Q5 covering the areas with the lowest proportion of children living in low income households.

108. As seen with the POLAR2 quintiles, the application rates to higher tariff institutions are relatively flat in recent years particularly in the areas that are most advantaged (IDACI Q5). There is less differentiation in application rates between Q5 and Q1 using this classification, but there is still a substantial difference; with the most advantaged areas having considerably higher application rates (around 30 per cent) than the most disadvantaged areas (around 10 per cent).

109. There has been an upward trend in application rate to higher tariff institutions from the most disadvantaged areas (IDACI Q1). However, it does not appear as if there has been any substantial change to these patterns in 2012.

Figure 32 English 18 year old application rates for areas grouped by proportion of lowerincome households (IDACI, Quintile 5 (Q5)= lowest proportion of lower income)



Figure 33 English 18 year old application rates to higher tariff institutions for areas grouped by proportion of lower-income households (IDACI, Quintile 5 (Q5)= lowest proportion of lower income)



110. Looking more closely at the most disadvantaged (IDACI Q1) and most advantaged (IDACI Q5) areas we can make a more detailed assessment of the overall trends and the picture in 2012.

111. This reveals an extremely similar picture to the close examination of the POLAR2 quintiles. That is there was a gradual increase in the application rates to higher tariff institutions in the areas with the highest proportion of children living in low income households between 2004 and 2010. The application rate is materially the same in 2012 as in the previous two cycles, around 10.5 per cent.

112. In areas of England with the lowest proportion of children living in low income households (POLAR2 Q5, most advantaged) the young application rate to higher tariff institutions have varied between 30 and 32 per cent. There has been a decrease in the rate in 2012, but it is not substantial relative to variations seen over recent years.

Figure 34 English 18 year old application rates to higher tariff institutions for areas with highest proportion of lower-income households (IDACI, Quintile 1)



Figure 35 English 18 year old application rates to higher tariff institutions for areas with the lowest proportion of lower-income households (IDACI, Quintile 5)



# Have applicants changed their choices in terms of 2012 tuition fees?

113. This section describes the pattern of the 2012 tuition fee arrangements in terms of the how they are experienced through the choices of applicants from different domiciles and backgrounds. How the nature of applications have responded to the variable fee level in England is analysed; including by income, education and occupation backgrounds.

## The distribution of tuition fees in 2012

114. Describing the applications of English students by tuition fees can be done from using the data provided by institutions and displayed to applicants through the UCAS Course Search. This analysis is particularly reliable for two reasons: English institutions, where most English applicants apply, do not have a fee structure differentiated by domicile and for institutions outside of England the tuition fee for English students is listed in an unambiguous fashion.

115. For applicants from other domiciles the tuition fee is more difficult to analyse in terms of what the applicant will actually be liable to pay. For instance most courses that are listed with a tuition fee of £9,000 for English applicants will also be advertised as £9,000 for Welsh applicants, even though the Welsh Assembly will pay the difference in any fee over £3,465. This approach has not been universally applied. For example, some courses in Scottish institutions will be listed with a tuition fee of £1,820 for Scottish applicants, even though the Scottish Government will pay this amount directly to the institution on the entrant's behalf. However, many courses in Scottish institutions are advertised as £0 for Scottish applicants. The situation is clearer for applicants from Northern Ireland but here the measures of the fee distribution overwhelming reflect the balance of application to between courses in Northern Ireland and elsewhere in the UK.

116. For these reasons the analysis of tuition fee in the following sections looks at either English applicants, or applications to English institutions, and concentrates on the changes in applications by fee within the large English domiciled to English institution application set where the changes from the previous arrangements, both in terms of level and variability are most marked.

117. All the tuition fee analysis uses the listed tuition fee and as such cannot take into account any fee waivers or other forms of financial support than may be offered to some applicants. For English institutions, OFFA statistics from 2012 Access Agreements show that institutions plan to set these to average around £600 in total per entrant.

## Fee distribution of applications from English applicants in 2012

118. The following figure shows the distribution of English applications by the tuition fee of the course applied to (in £500 bands centred on the value shown). As such it represents the profile of tuition fees 'experienced' by applicants through their applications – the extent to which it will reflect the distribution of tuition fees that accepted applicants become liable for will depend on the balance of offers and outcomes in the rest of the application cycle.

119. The majority of applications are to courses with fees at £9,000 (59 per cent). But there is variation in the fee of courses applied to: 22 per cent of applications are to courses at our around £8,500, 10 per cent to courses at our around £8,000, 4 per cent of applications are to courses at  $\pounds$ 7,500. Fewer than 4 per cent of applications are to courses at  $\pounds$ 7,000 or below.

120. The average fee of all applications made by English applicants is £8,580 (this differs from the average fee applied to by applicants reported in the following section as applicants can make differing numbers of choices).



#### Figure 36 Distribution of 2012 English applications by tuition fee of course

## Average tuition fee applied to by English applicants

121. The following table contains two key statistics that relate to the tuition fee for choices made by English applicants in 2012. These are the average applicant tuition fee applied to by applicants and the average proportion of an applicant's choices that are to courses with a tuition fee at £9,000. These figures are reported for selected groupings of applicants using measures of background appropriate to the age group.

122. The average tuition fee of courses applied to by English applicants in 2012 varies across groups of applicants. Younger applicants and those from backgrounds with higher levels of educational, income or occupational advantage apply to courses with higher average fees (£200-£300) and make more choices to £9,000 courses than older applicants or those from disadvantaged backgrounds.

123. The average tuition fee applied to by 18 year old applicants is £8,632, for 19 year olds £8,484 and around £8,300 to £8,400 for older age groups. The proportion of choices to £9,000 courses is 63 per cent for 18 year olds, 53 per cent for 19 year olds and around 40 to 50 per cent for older age groups.

124. Young English applicants from areas with low entry rates to HE or low household incomes typically apply to courses with an average tuition fee of around £8,500 (50-55 per cent of choices to  $\pm$ 9,000 courses). Young English applicants from areas with high entry rates to HE or high household

incomes apply to courses with an average tuition fee of around £8,700 (around 70 per cent of choices to £9,000 courses).

125. English applicants from older age groups living in areas with low incomes or low proportions of HE qualified adults apply to courses with an average tuition fee of around £8,300 (around 40 per cent of choices to £9,000 courses). In areas with high incomes, or high proportions of HE qualified adults the average fee for courses applied to by older applicants is around £8,450 (52 to 56 per cent to £9,000 courses).

		Average tuition fee	Proportion at £9,000 (%)
All applicants (England domiciled)		8,527	56
Women		8,523	55
Men		8,534	58
Age	17 and under	8,764	78
	18	8,632	63
	19	8,484	53
	20	8,330	46
	21	8,357	48
	22	8,406	52
	23	8,414	52
	24	8,414	51
	25-29	8,397	49
	30-39	8,364	44
	40 and over	8,265	41
All (18 year olds)		8,632	63
POLAR2 quintiles (18 year olds)	Q1	8,467	49
	Q2	8,538	55
	Q3	8,592	59
	Q4	8,663	65
	Q5	8,747	72
IDACI quintiles (18 year olds)	Q1	8,530	55
	Q2	8,555	57

		Average tuition fee	Proportion at £9,000 (%)
	Q3	8,605	61
	Q4	8,660	64
	Q5	8,714	69
Paycheck groups (18+ year olds)	Lower income areas	8,506	54
	Medium income areas	8,599	60
	Higher income areas	8,700	68
All (21+ years)		8,372	48
Paycheck groups (21+ year olds)	Lower income areas	8,320	44
	Medium income areas	8,371	48
	Higher income areas	8,426	52
qAHE (21+ years)	Q1	8,282	39
	Q2	8,327	44
	Q3	8,370	48
	Q4	8,403	50
	Q5	8,460	56

#### Average tuition fee of applications across types of courses

126. The following table reports simple averages of the tuition fee and proportion of English applications to courses at £9,000 across different types of courses.

127. Courses at institutions with higher average entry qualifications held by acceptances overwhelmingly have tuition fees at £9,000.

		Average tuition fee	Proportion at £9,000 (%)
All choices (England domiciled applicants)		8,580	59
Institution country	England	8,574	58
	Northern Ireland	8,397	80
	Scotland	8,540	66
	Wales	8,856	90
Institution selectivity	Lower tariff	8,172	26
	Medium tariff	8,778	68
	Higher tariff	8,978	97
Selected qualification types	Foundation Degree	6,933	17
	Higher National Diploma	6,364	4
	Honours Degree	8,650	60

# How have applicants from different domiciles changed their choices to English institutions in terms of 2012 tuition fees?

128. A key question is whether the nature of applications made has changed compared with recent years in respect of the different fees being charged for 2012 entry. One way of approaching this is to assign courses from earlier cycles the 2012 fee values, so that any change in the nature of choices with respect to the 2012 fee pattern can be reported directly.

129. The best assignment of a 2012 fee value to a course from earlier cycles is obtained through a multi-stage matching process. This matching proceeds from unambiguous matches on the full set of course details (course code, full course title, etc) through a progressive loosening of matching requirements. For instance, if a course from a previous cycle is no longer offered by an institution in 2012 then an average fee (weighted by distribution of 2012 choices) for courses within that same subject group at that institution is used.

130. For cycles recent to 2012, the overwhelming majority of courses are assigned 2012 fee values unambiguously. For older cycles where more time has elapsed there is greater scope for some of the details to have changed and greater proportion of courses are matched to a set of 2012 courses within a subject area at an institution. However, since there is relatively little fee variation within institutions it is unlikely that this introduces significant distortions to the analysis. Key results (such as the trend by background in average fee of courses applied to) were checked for robustness against a parallel analysis restricted to just those courses that could be securely linked across the entire analysis period and found to be materially unchanged.

131. The course choices of all applicants to English institutions are subject to the higher variable fee regime. The full English tuition fee is payable by the Scottish and Northern Ireland applicants. Only Welsh applicants are not liable for the full English tuition fee. However, the advertised level of the fee could be used by all applicants to value the course. For these reasons, the results reported in this section are restricted to applications to English institutions only.

132. In order to evaluate the response to the higher and more variable fee regime within English institutions we have looked at two measures. The first is the average English tuition fee for course choices at English institutions and the second is the average proportion of course choices at English institutions where the English tuition fee is £9,000.

133. In recent years the average tuition fee of courses applied to by 18 year old English applicants at English institutions has been decreasing slightly year on year (around £10 per year). In 2012 there was a small increase (around £10, 0.1 per cent) to the average tuition fee, in contrast to the downward trend since 2007. If this trend was expected to continue then the changes observed would be equivalent to around one applicant in 40 changing all their choices from £8,200 to £9,000 courses with the remaining applicants making the same choices as before.

134. Alternatively the observed change may be caused by the assumed depletion of the 2012 applicants through the one in twenty applicants estimated to be missing from the reduction in the application rate against trend. If these missing applicants would have applied to courses with an average tuition fee some £400 lower than other applicants (around £8,200) then their removal would lead to the changes observed.

135. Around half of young applicants from Northern Ireland make at least one choice to an English institution. The average 2012 tuition fee for these applicants has remained reasonably steady over recent years and there is no change in 2012.

136. The application rate to English institutions from young applicants living in Scotland is relatively low (around 1 in 10 applicants) and this year it has decreased further. On average those applicants from Scotland that do apply to courses in England choose courses with relatively high tuition fees (on average more than £8,800). In 2012 there has been an increase in the average tuition fee of these applicants of around £30. Therefore although young Scottish applicants are less likely to apply to English institutions in 2012, on average when they do they have chosen slightly higher tuition fee courses.

137. Welsh applicants do not experience the rises in tuition fee because the maximum that they will be liable for is £3,465. They are the only UK group of young applicants whose application rate to English institutions has risen in 2012. The average tuition fee of applicant course choices has remained unchanged in 2012 following a recent trend of small decreases each year. Therefore the course choices in 2012 are for a similar spread of 2012 tuition fees as those in 2011.

138. The trends in the proportion of course choices at English institutions where the tuition fee is £9,000 mirror those of the average tuition fee.







Figure 38 Proportion of 18 year old applications to courses with 2012 tuition fee of £9,000

139. In general the trend in tuition fee for older (19+ years) applicants to English institutions is similar to the trends for 18 year old applicants. The overall level of average tuition fee is lower than amongst 18 year old applicants and less variable between the countries. For 2012 there has been a continuation of the recent trend for lower average 2012 tuition fees (in contrast to the small increase seen for 18 year olds).



Figure 39 Average 2012 tuition fee of courses applied to by applicants aged 19 and over to English institutions.

Figure 40 Proportion of applications from applicants aged 19 and over to courses with 2012 tuition fee of £9,000



# How have applicants from different backgrounds altered their choices to English institutions in terms of 2012 tuition fees?

140. Applicants from England are the only group that do not have an alternative to applying within the higher and more variable tuition fee regime in 2012. Applicants from Scotland and Northern Ireland can choose courses with substantially lower tuition fees by applying to institutions in their home countries, and applicants from Wales will experience the same lower level of tuition fee wherever they apply. Therefore this section looks at the specific response of English applicants applying to English institutions.

141. This section looks at the 2012 tuition fee (assigned by matching courses over recent years to courses offered in 2012) by a number of classifications of background (mostly area-based) including; participation in HE, proportion of children living in low income households, average income, and selected declared parental occupations.

142. The following figures show the trends in average 2012 tuition fee for young people in England by two area-based measures of advantage; POLAR2 (level of HE participation) and IDACI (proportion of children living in low income households). Both measures group young people into five roughly equal sized groups (quintiles), where Q5 are considered most advantaged and Q1 most disadvantaged.

143. There is a degree of differentiation across the groups, with young people living in the most disadvantaged fifth of areas consistently applying to courses with lower average tuition fees (by around £150-£300) than young people living in the most advantaged areas.

144. The average tuition fee trends for each group are similar and reflect the nature of the trend for England as a whole. In recent years the average tuition fee decreased slightly more for young people from the most disadvantaged areas compared with young people living in the most advantaged areas. The average tuition fee of course choices for all backgrounds rise slightly in 2012 with the largest increases, both proportionally and in percentage points, for those from the most advantaged backgrounds. However these differences are relatively small, in the range of £10-£20 compared with an average 2012 tuition fee of around £8,650.

Figure 41 Average 2012 tuition fee of courses applied to by 18 year old English applicants to English institutions for areas grouped by young HE participation rates (POLAR2, Quintile 5 (Q5)= highest participation)



Figure 42 Average 2012 tuition fee of courses applied to by 18 year old English applicants to English institutions for areas grouped by proportion living in lower income households (IDACI, Quintile 5 (Q5)= lowest proportion of low income)



145. Income areas are defined using an area based measure of estimated median household income<sup>2</sup>. Each income area contains approximately one third of households.

146. There is a degree of differentiation between the income areas, with young people living in the lowest income areas consistently applying to courses with lower average tuition fees (by around £150-£200) than young people living in the highest income areas.

147. The average tuition fee trends for each group are similar and reflect the nature of the trend for England as a whole. In recent years the average tuition fee decreased slightly more for young people from the lowest income areas compared with young people living in the highest income areas. The average tuition fee of course choices for all backgrounds rise slightly in 2012 with the largest increases, both proportionally and in percentage points, for those from the highest income areas. However these differences are relatively small, in the range of £5-£15 compared with an average 2012 tuition fee of around £8,650.

# Figure 43 Average 2012 tuition fee of courses applied to by 18 year old English applicants to English institutions for areas grouped by average household income of area



148. For the 19+ applicants the areas are grouped into five roughly equal sized groups based on the proportion of HE qualified adults in each area. As with the 18 year old applicants there is differentiation between the areas, with applicants from high HE qualified areas on average applying to courses with tuition fees £200-£250 more than applicants from low HE qualified areas. The tuition fee trends of the groups are similar and are broadly similar to the trend for 19+ applicants in England

<sup>&</sup>lt;sup>2</sup> This is based on PayCheck data supplied by CACI <u>http://www.caci.co.uk/paycheck.aspx</u>

as a whole, where 2012 shows a continuation of the recent downward trend in average tuition fee of courses applied to. The decrease in average tuition fee in 2012 compared to 2011 is greater in areas of low HE qualification (£40 compared with £15 in high HE qualified areas), but is still small relative to the level of fee.

Figure 44 Average tuition fee for courses applied to by English applicants aged 19 and over to English institutions for areas grouped by the proportion of HE qualified adults (Quintile 5 (Q5)= areas with highest proportion of HE qualified adults)



149. This pattern is also seen in 19+ years applicants' average tuition fee across income areas. There is differentiation between the areas, with applicants from high income areas on average applying to courses with tuition fees £150 more than applicants from low income areas. The tuition fee trends of the groups are similar and are broadly similar to the trend for 19+ applicants in England as a whole. The decrease in average tuition fee in 2012 compared to 2011 is greater in low income areas (£30 compared with £15 in high income areas), but is small relative to the level of fee.



Figure 45 Average 2012 tuition fee of courses applied to by English applicants aged 19 years and over to English institutions for areas grouped by household income

150. As part of the application process 18 year olds are requested to enter their parent's job title in a free-text field. The UCAS system matches the free-text response to the ONS produced SOC2000 occupation codes to assign an occupation group.

151. We made a selection of occupation groups from those that arose frequently and consistently across the time period 2006-2012. The free-text responses for each of these groups were analysed to make sure that the majority (more than 80 per cent) were consistent with the group and in order to gain an improved understanding of the occupations within the groups. We have summarised the names of the groups for this analysis.

152. All occupation groups have at least 1,000 matched applications in each year (apart from the plumbers group where there were only 960 in 2006). However, the relatively small number of applications means that the average tuition fee trends are subject to greater variability than the trends seen for other classifications, such as POLAR2.

153. The average 2012 tuition fees of courses applied to by applicants with parents that are medical practitioners, legal professionals, HE teaching professionals and secondary education professionals are greater than the average tuition fees of courses applied to by applicants whose parents are HGV drivers, sales and retail assistants, plumbers and electricians. The pattern of the trend is broadly similar to that seen previously for 18 year old English applicants to English institutions, but with a little more variability from year to year; probably due to the relatively small group sizes.





# Have applicants chosen subjects at English institutions with different salary expectations?

154. One way that applicant behaviour may have altered in response to the change in tuition fees is in the consideration of future employment when choosing between courses. In particular, reported salary expectations may become more important to their choices.

155. One source of salary expectation information for applicants is data published on the Unistats<sup>3</sup> website. It reports salary information collected as part of the DLHE (Destinations of Leavers of Higher Education – HESA) survey. Students are asked to provide their current salary six months following graduation. Salary data is included only for graduates in full-time employment who attended an English institution.

156. One of the statistics available is the institution and subject level median salary for graduates six months following graduation. The most recent salary information reports summaries from the DLHE survey of students that graduated in the academic year 2009/2010. These are matched to course choices for English applicants to English institutions from 2004 to 2012 so that changes in the profile of courses applied to in terms of relative salary expectations can be examined through time. Salary data is provided for most but not all courses. We use a simple model based on subject and institution to impute what applicants may have reasonably inferred to be the expected salary for each course.

157. Average anticipated salaries range from around £15,000 to £30,000 at subject group level, with most subject groups having anticipated salaries between £15,000 and £22,000 a year. Across all subject groups there is a slight increase (£65) in average anticipated salary of course choices in 2012 compared to 2011 against a previously small annual decrease, but this is very small relative to variation between subjects groups and remains within the range seen in recent cycles.

<sup>&</sup>lt;sup>3</sup> Unistats (http://unistats.direct.gov.uk) is the official website to help applicants make an informed choice when deciding which UK university or college to apply to

Figure 47 Proportional year on year changes in the share of 18 year old English applications to subject groups (in England) by anticipated salary of subject group (excluding combined)



Figure 48 Average anticipated graduate salary of courses applied to by English 18 year olds at English institutions



158. The following figure shows the trends in average anticipated salary based on the course choices made by young people in England from areas defined by the level of HE participation (POLAR2). There is a degree of differentiation across the groups, with young people living in the most disadvantaged fifth of areas consistently applying to courses with lower anticipated salary (by around £1200-£1400) than young people living in the most advantaged areas. The average anticipated salary trends for each group are similar and reflect the nature of the trend for England as a whole, with no substantial changes in 2012. The average anticipated salary of course choices for the more advantaged areas increases very slightly in 2012 (around £75, 0.4 per cent) compared with the most disadvantaged areas where there is no change in 2012.

Figure 49 Average anticipated graduate salary of 18 year old English applicants to English institutions for areas grouped by levels of young HE participation (POLAR2, Quintile 5 (Q5)= highest young participation)

