

Demand for Higher Education to 2029¹

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Introduction

1. This is the fifth report on demand for higher education that HEPI has published since 2003, updated each year in the light of the most recent information. Last year's report extended the review beyond 2020, to 2029. This year's report incorporates the most recent population projections from the Office of National Statistics and the Government Actuary's Department, and it also incorporates some regional analyses. In addition Universities UK have produced a report on "Demographic change and its impact on the higher education sector in England" in response to DIUS' review of higher education. That report looks among other things at demand from EU and international students, which are not considered in this report. It also touches on demand from within the English regions – a question that is developed further in this report.

2. There are two main influences on demand for higher education – changes in the population from which students are drawn, and the ability and willingness of this population to participate in higher education (as well as the extent of that participation²). This report looks at each in turn, both nationally and regionally.

Part I: Demography

3. The increasing demand for higher education in recent years has been influenced largely by increases in the 17 to 30-year-old population – 64 per cent of full-time higher education first degree entrants are under 21 and nearly 90 per cent are under 30. Table 1 outlines how the proportion of entrants who are under 30 has stayed stable over the last 8 years.

¹ Unless otherwise stated, this report is concerned only with undergraduate demand from English-domiciled students.

² This will depend on the length of the course, the proportion of students completing, when those who do not complete leave, numbers repeating years of study and starting new programmes, and so on. In all the scenarios described in this report the net effect of any changes in these parameters is assumed to be negligible.

Table 1: Proportion of full-time initial UG entrants aged 30 and under – 1999-2000 to 2006-7

	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Proportion of entrants aged under 30	88.6%	88.4%	87.9%	88.0%	87.9%	88.2%	88.5%	88.6%

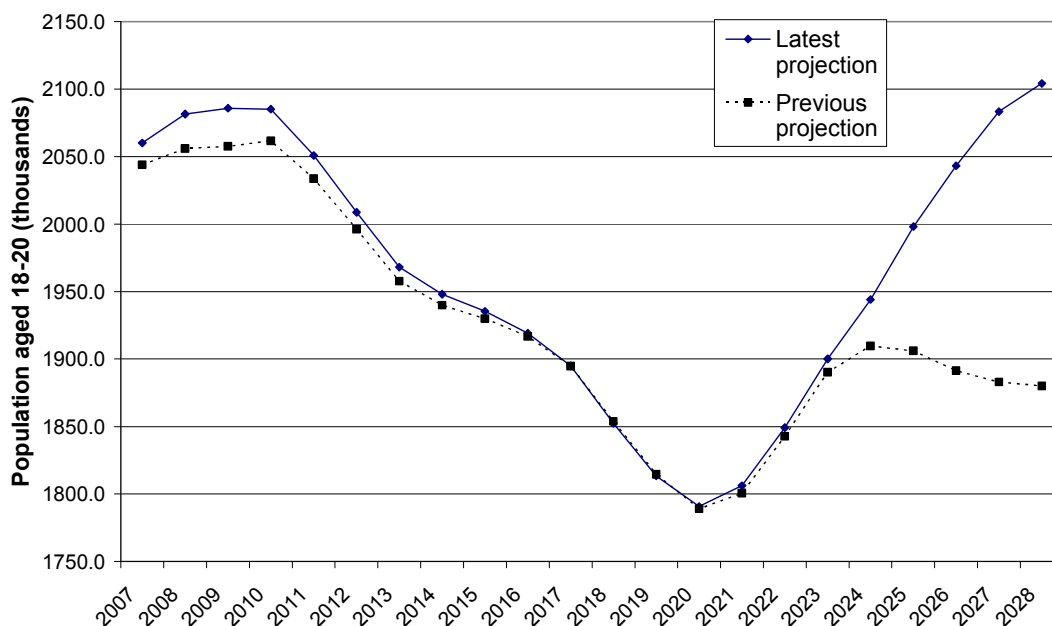
Source: Calculated by DIUS from HESA data
English domiciled entrants to UK HEIs and GB FECs

4. The proportion of students that are full-time has remained very stable over the years – they still represent the great majority of students in higher education. So young full-time students are still the group that dominates higher education entry. Nothing has changed in this respect in the recent past, despite regular predictions over the past 15 years that older and part-time students will increase at the expense of the traditional young full-time entrant.

5. So it remains the young population that we need to consider principally when considering demand for higher education (though other age groups are considered below). Figure 1 below shows the way the 18-20 year old population has changed and how it will change in the next 20 years or so³. Between 2007 and 2010 the 18-20 year-old population will continue to increase – by 4 per cent – and consequently higher education demand is set to continue to grow for at least three more years. After peaking in 2010, the number within this age group will decline significantly for the following decade – by more than 13 per cent between 2010 and 2020 – to the lowest number since 1998.

³ Bearing in mind that the further ahead that is surveyed the more tentative the population estimates become: indeed most of the population covered by the last 5 years or so of the projection had not yet been born when the projection was made.

Figure 1: 18-20 year olds in England from 2007 to 2029



Source: ONS and Government Actuary's Department (2006 based projections, published in August 2007). Populations as of 1 January. Age groupings for previous 31 August prepared by DIUS.

6. As discussed in last year's report, after 2020 the population starts to increase again. However, as shown in Figure 1 above, this year we are seeing very different projections for the population after 2024. In the previous report the population was predicted to flatten out from 2024 at around 1.9 million, well below the peak of 2010. The revised projections provided this year by ONS suggest that the 18-20 year-old population will continue to increase up to 2029 (the latest figures available). At this point the population aged 18-20 will be at its highest since 1990, almost 40 years previously.

7. This change in the population projection has occurred in respect of years where the children have not yet been born and therefore where most assumptions are being made. The differences between the two years' population projections highlight the difficulty of predicting future demand for HE, and the uncertainties faced by HE institutions.

8. This large change arises very largely as a result of new assumptions about migration, as is apparent from Table 2 below, reproduced from Section 4 of the Office for National Statistics report "National Population Projections 2006-based".

Table 2: Comparison of 2004-based and 2006-based projection assumptions

	Base year	UK	England
Fertility – Long-term average number of children per woman	2006	1.84	1.85
	2004	1.74	1.75
Net Migration – Annual net flow from 2014–15 onwards	2006	190,000	171,500
	2004	145,000	130,000

Source: Table 4.1 ONS "National Population Projections 2006-based" (2008)

9. The change from the previous population projection is quite startling. Compared to the previous projection, the most recent figures assume 45,000 more immigrants of all ages migrating to the UK each year after 2015, which equates to over 600,000 by 2030. This change in the assumptions about migration is almost wholly accounted for by changes in the assumptions about migration from other EU member states. That in turn is influenced by experience following recent enlargements of the EU. It remains to be seen if these migrants display characteristics similar to the host population, but for the purpose of these projections it has been assumed that they will – an assumption that can by no means be taken for granted.

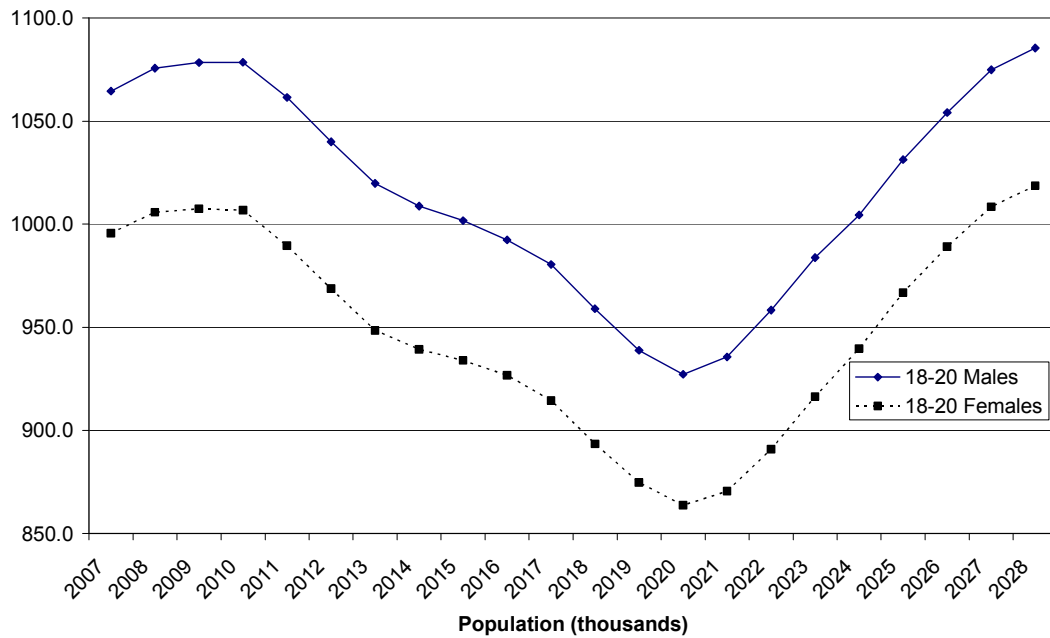
10. The 0.1 increase in the average number of children per family will also have an effect on the future number of 18-20 year olds and could, in fact, equate to around 2,000,000⁴ additional births in the UK by 2031. The ONS report identifies children and young adults (up to 29-years-old) as the age groups with most change, with 60 per cent of the increase occurring in these groups. For the purpose of projecting higher education demand, this means a 10 per cent increase in the young cohort, on which higher education projections are largely based.

11. The numbers underlying Figure 1 show, as a result of the new population projections, that there will be a significant reduction in the population that comprises the main client group for higher education over the next 13 years, followed by an even more dramatic increase over the following 8. Over this period the 18-20 population is predicted to change by 600,000 (a reduction of 300,000 followed by a similar increase, though not at a constant rate): 14 per cent of the current population will be lost and then regained.

12. Figure 2 below shows the 18 to 20-year old population split by gender. This shows that a higher proportion of this population are males, with the proportions remaining constant across the years at 52 per cent to 48 per cent. Each year for the foreseeable future there will be approximately 65,000 more males than females within the dominant Higher Education entrant age group.

⁴ ONS report, Table 4.3

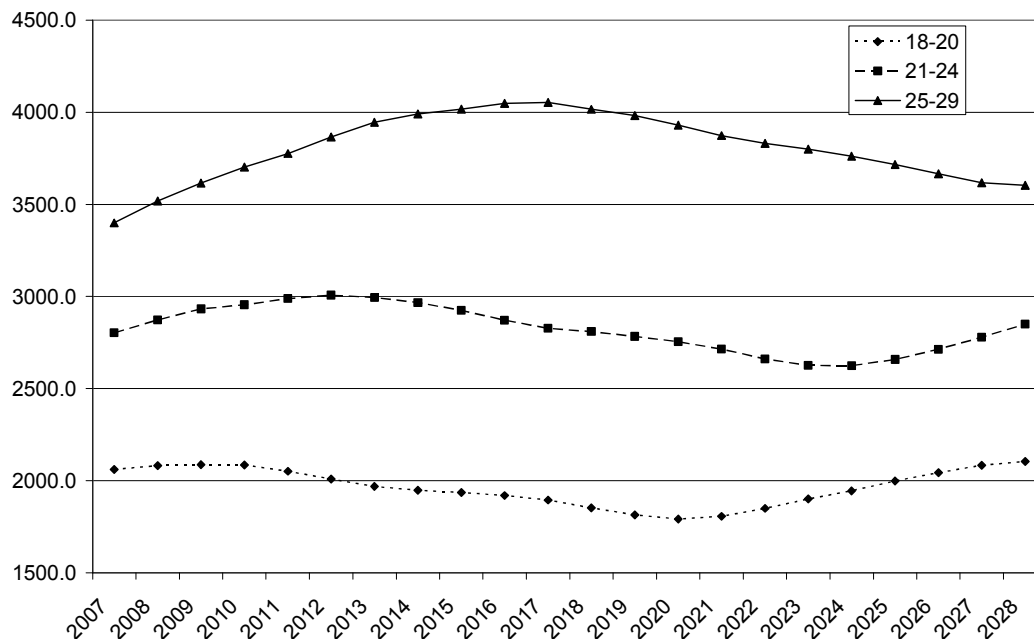
Figure 2: 18-20 year olds in England from 2007-08 to 2029-30 by gender (000s)



Source: ONS population estimates and GAD projections

13. Although the most important, the 18-20-year-old population is not the only age group that is relevant to higher education participation. Figure 3 below shows the changes in three different age cohorts – 18 to 20, 21 to 24 and 25 to 29. All three experience a steady increase in numbers from 2008 until early in the next decade. At this point, the 18 to 20 and 21 to 24 age groups begin to decline and continue to do so until the early 2020s, when they begin to increase again. On the other hand, the 25 to 29-year-old age group will continue to increase steadily, by a further 12 per cent, until 2018 before that too begins to decline.

Figure 3: Changes in different age cohorts 2008 to 2029 (000s)



Source: ONS population estimates and GAD projections

14. Table 3 below sets out the change in full-time student numbers that would occur over the next two decades, if higher education numbers rose and fell in line with the demographic changes discussed above, and assuming all other influences on demand remain unchanged – most notably school achievement and participation rates and the participation rates for each male and female age group. Subsequent sections factor in these other features.

Table 3: Changes in full time English domiciled student numbers at English HEIs expected from changes in the population⁵

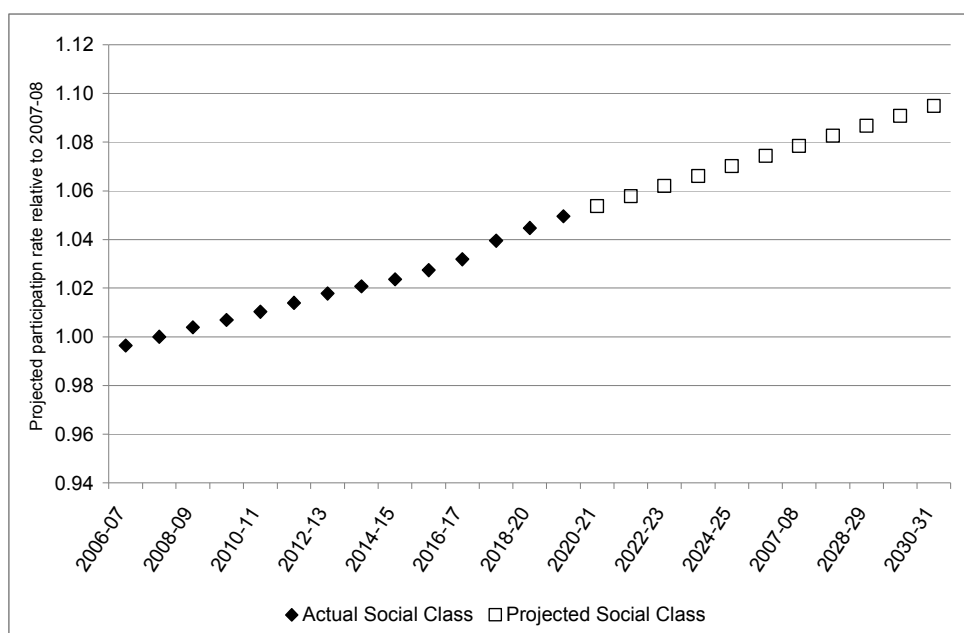
	Estimated student numbers in 2007-08	Change in numbers 2007-08 to 2020-21 arising from population change	Total student numbers arising from population change in 2020-21	Change in numbers 2007-08 to 2028-29 arising from population change	Total student numbers arising from population change in 2028-29
All males	375,043	-25,368	349,675	11,462	386,505
All females	482,405	-33,856	448,549	13,496	495,901
All	857,448	-59,224	798,224	24,958	882,406

⁵ For sources and details of calculations see relevant worksheets in Technical Annex (available separately).

15. Previous reports have pointed out that the social composition of the population is changing – fewer are being born in the lower socio-economic groups⁶ and more in the higher. This, combined with the very different rates of HE participation between the different groups, means that even the core population on which other refinements are based cannot be derived from these raw data. Table 3 above therefore needs to be modified to reflect the different rates of population change between the social groups.

16. Figure 4 below shows that, if nothing else changes – i.e. even if there are no other changes in participation – differential births by different social groups will lead to a 5 per cent increase in the proportion of the under 21 age group participating in higher education by 2020-21, and a 9 per cent increase by 2029-30⁷.

Figure 4: Change in young participation rate arising from social class changes⁸



⁶ The Office of National Statistics has 9 employment based socio-economic classifications (NS-SEC).

⁷ Information is not available on the same basis for 18-year olds after 2020-21 (the ONS changed their social class classifications after 2002), so it has been assumed here for the purpose of illustration that the change in the social class effect continues on the same trend line for the years after 2020-21 as in the previous 10 years. That assumption is borne out by analysis of the birth data from 2002-2006, where the trend on the basis of the new categories was similar to that in the years before 2002 on the old basis.

⁸ For sources, assumptions and details of calculations see relevant worksheets in Technical Annex.

17. Table 4 therefore modifies the data shown in Table 3 to take this into account. It effectively assumes that the participation rate for the two combined social class groupings⁹ remains the same as in the recent past. The figures in Table 4 provide the population basis for the discussion in the remainder of this report.

Table 4: Changes in full time English domiciled student numbers at English HEIs expected from changes in the population and social class composition¹⁰

	Estimated student numbers in 2007-08	Change in numbers 2007-08 to 2020-21 arising from population and social class mix change	Total student numbers arising from population change in 2020-21	Change in numbers 2007-08 to 2028-29 arising from population and social class mix change	Total student numbers arising from population change in 2028-29
All males	375,043	-14,477	360,566	32,058	407,101
All females	482,405	-20,519	461,886	38,904	521,310
All	857,448	-34,996	822,453	70,963	928,411

18. It will be seen that allowing for the effect of differential births and participation by the different social groups leads to an anticipated decrease of nearly 35,000 students in 2020-21 compared to 2007-08, instead of the reduction of over 59,000 that would occur without the social class effect (Table 4), and an increase of over 70,000 by 2029-30 instead of less than 25,000.

19. If population changes were to be the only factor to affect student numbers then there would be nearly 930,000 full time students in Higher Education by 2029-2030, an increase of over 8 per cent over 2007-08. This is the core analysis on which the refinements discussed below are based.

Regional analysis

20. For the first time this report includes analysis of regional trends across England. Although previous analyses by HEPI have not contained regional analyses, the Universities UK "Research project on the future size and shape of the Higher Education sector in the UK", published in April

⁹ The two groupings are Social Classes I, II, and IIIIn together and IIIIn, IV and V together.

¹⁰ The Technical Annex sets out the sources and calculations underlying this table. It needs to be noted that these calculations are not intended to provide detailed projections. Rather they illustrate the importance of social class considerations in projecting demand, and indicate an order of magnitude of this effect. In particular, the social class effect is shown only for the full time 18-20 year old group, which is the group where the impact is thought to be the greatest.

2008 did so briefly. This was repeated in their recent report to the Secretary of State referred to above, and this report develops this further. However, it is acknowledged that the regional analysis here is very limited – it does not for example take account of differential births or differential participation rates by social group in different regions – and can only be regarded as a base level analysis and description, on which it is hoped to build in future years.

21. As is shown in Table 5, since 2004 the 19-year-old population in England has grown by 6 per cent, to over 650,000 in 2007. However, this change has not been uniform, and Table 5 shows that while all regions have seen an increase in this population, the rate of increase in the North East (the smallest region) is less than a quarter of the national average. It is also apparent that in general the northern regions have seen much smaller increases than those further South.

Table 5: Changes in 19-year-old population by region

	19-year-old population on 31 August				Change 2004-2007
	2004	2005	2006	2007	
ENGLAND	614,564	618,397	631,893	652,184	6.1%
North East	33,931	33,638	33,884	34,409	1.4%
North West	91,585	91,753	92,702	95,590	4.4%
Yorkshire and The Humber	63,835	64,559	65,828	67,342	5.5%
East Midlands	52,253	52,763	53,922	56,108	7.4%
West Midlands	69,525	69,656	70,803	72,474	4.2%
East of England	66,195	67,066	69,012	71,561	8.1%
Greater London	80,118	80,984	82,843	85,763	7.0%
South East	97,481	97,526	100,870	104,429	7.1%
South West	59,641	60,452	62,029	64,508	8.2%

Source: DCSF SFR04/2008

22. Projecting the regional results into the future¹¹ shows that this disparity is not expected to diminish¹². Although all regions of England are expected to see a large decrease in the 15 to 19-year old population to 2020 Table 6 shows a larger reduction in the Northern regions than elsewhere. In the 11 years after 2020 the young population will grow in all regions, but the North East and North West are not expected to reach the 2006 figure. In the Southern and Eastern regions all of the reductions to

¹¹ ONS warn that projecting population by region is even more susceptible to error than making national population projections. That is in part because of the changing national migration assumptions, where the already difficult assumptions are compounded by assumptions that have to be made about the distribution of immigrants between regions, but also because there is internal migration to complicate the projections further.

¹² These projections are based on 2006 data and were published in June 2008. For this reason the figures do not exactly match those shown above and are used here to give broad indications for the future.

2020 will be more than offset by an increase over the following 10 years and an eventual rise in the 15 to 19 population.

Table 6: Changes in 15 to 19-year-old population to 2031 by region¹³¹⁴

	15 to 19-year-old population in 2006	Percentage difference to 2020	Percentage difference to 2031
North East	174.0	-19%	-7%
North West	474.3	-17%	-5%
Yorkshire and The Humber	356.2	-13%	5%
East Midlands	295.3	-10%	7%
West Midlands	367.7	-13%	1%
East	355.5	-5%	12%
London	441.3	-8%	9%
South East	535.5	-8%	7%
South West	334.8	-9%	7%

Source: ONS Subnational Population Projections (SNPP) for England

23. The changes shown in Table 6 imply that the disparity in demand for HE across the regions of England is likely to grow further in the future, putting increasing pressure on higher education institutions in the North.

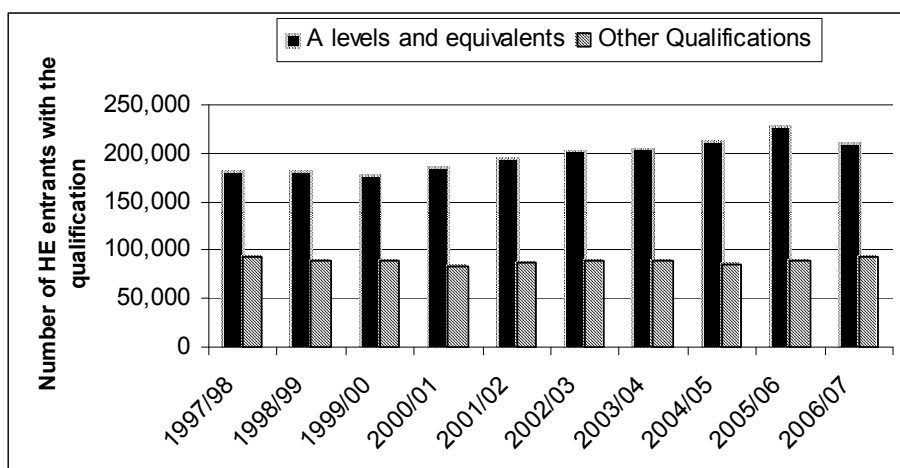
Part II: Level 3 participation

24. Part I of this report has considered the impact of population changes (including social class composition) on higher education demand. Part II looks at the factors that determine eligibility and willingness to participate in higher education, beginning with the most important indicator – the proportion of the population taking A levels. Figure 5 shows how the A level qualification is the most important for entry to higher education, and that if anything that situation has been strengthened in recent years.

13 The population in Table 8 is the 15-19 population, whereas that in Table 7 is the 19 year old population alone. This is a consequence of the way the ONS have published their figures, but the pattern for the two groups is likely to be very similar.

14 The regional data projections do not allow for the social class effect. So although the total young population will decline between now and 2020 in all regions, in most regions this will not translate into a reduction in HE demand, and the increases to 2031 will be greater than shown here. However, the relativities will remain similar to those shown here.

Figure 5: Proportion of HE entrants with different entry qualifications (showing highest qualification on entry)



Source: DIUS, private communication, calculated from HESA Student record (A levels includes any Combinations of GCE 'A'/SCE 'Higher' and GNVQ/GSVQ or NVQ/SVQ at level 3 and any other A Level Equivalent Qualifications)

25. Table 7 outlines the spread of different Level 3 qualifications achieved in England over the past four years. This is dominated by A Levels but young people are increasingly achieving other Level 3 qualifications, in particular VRQs.¹⁵

Table 7: Proportion of 19 year olds in England qualified to Level 3

19 in year:	A Levels	Advanced Apprenticeship	NVQ Level 3	VRQ Level 3	International Baccalaureate	Total Population with a Level 3 by age 19	Proportion achieving a Level 3 by age 19
2004	38.5%	0.5%	0.9%	2.1%	0.0%	258,000	42.0%
2005	38.4%	0.5%	0.9%	5.5%	0.0%	281,000	45.4%
2006	38.0%	0.7%	1.0%	6.8%	0.2%	295,000	46.6%
2007	37.7%	0.8%	1.2%	8.1%	0.3%	313,000	48.0%

Source: DCSF SFR04/2008 Table 4

26. It will be seen that although the proportion of the population with A levels has actually been reducing slightly, that reduction has been more than offset by the number taking VRQ qualifications, and so the total population holding Level 3 qualifications has increased substantially, with a six percentage point rise between 2004 and 2007. The result is that 48 per cent of all 19 year olds held Level 3 qualifications in 2007. Of these, more than three quarters were studying for GCE/VCE A Levels while 21

¹⁵ Vocationally Related Qualifications – mainly BTEC, but also including qualifications awarded by professional or trade bodies. Some care is needed in interpreting this increase, part of which may be due to improved data collection.

per cent were studying for other qualifications. This improvement in the achievement of young people is excellent in itself. However, it will be seen that the increases in other Level 3 qualifications are from a very low base. And students who hold these qualifications progress to HE at less than half the rate of those holding GCE A levels, and at lower rates than those holding VCEs as well¹⁶.

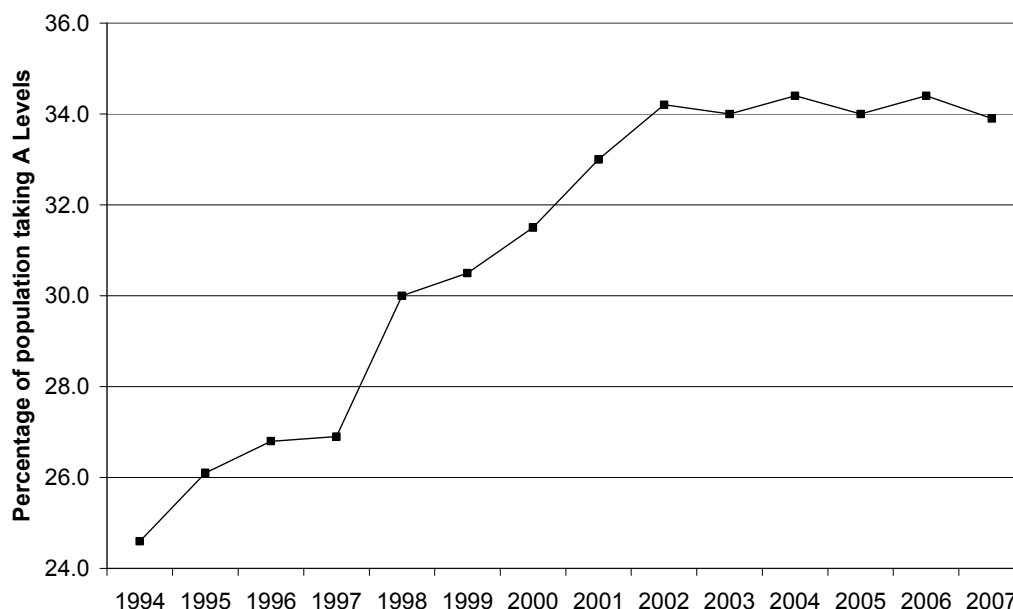
27. Among A level students, it is the proportion of young people taking GCE (as distinct from VCE) A levels that is the major factor in influencing the numbers that go on to higher education. Far more pupils take these examinations, and the Department for Innovation, Universities and Skills has estimated that 84 per cent of those with 5 GCSEs grades A-C who take GCE A levels go on to study in higher education. A far smaller number of A level students take vocational A levels (VCE A levels, previously known as Advanced GNVQ), of whom about 51 percent are estimated to enter higher education¹⁷.

28. So for there to be a substantial increase in higher education participation there would need to be an increase in the proportion of young people taking A levels, and such an increase is not occurring. Figure 6 below shows the pattern of participation in GCE/VCE A level since 1994. The figures are shown as a proportion of 17 year-olds at the beginning of the academic year who achieve two or more A Levels by the end of that academic year. It will be seen that the proportion of 17-year olds achieving 2 A levels increased rapidly until 2002, when the increase levelled out. There is no evidence here that achievement at the key point in the supply chain is changing in a way that suggests that Higher Education participation will increase in the future.

¹⁶ "Pathways to higher education: BTEC courses", HEFCE report 2007/35. Available at: www.hefce.ac.uk/pubs/hefce/2007/07_35/

¹⁷ Both these figures, DfES private communication, calculation derived from Cohort 11 of the Youth Cohort Study.

Figure 6: Proportion of 17-year olds with 2 or more GCE/VCE A levels



Source: DfES Statistical First Release SFR 02/2008

29. Previous HEPI reports have highlighted the gap between male and female entry to higher education, which itself simply reflects the much higher achievement of girls at A level. The underperformance of boys in this respect shows no sign of abating. As Table 8 shows, the proportion of 19-year-old females qualified to at least Level 3¹⁸ over the past four years has consistently been 8-9 percentage points higher than the males.

Table 8: Proportion of 19-year-olds qualified to Level 3 by gender

	Male	Female	All
2004	37.6%	46.6%	42.0%
2005	40.8%	50.1%	45.4%
2006	41.8%	51.7%	46.6%
2007	42.8%	53.4%	48.0%

Source: DCSF SFR04/2008

30. Table 8a shows the same information for A levels and paints a similar picture. This means that although there are over 20,000 more male 19-year-olds in the country, the figure is reversed when looking at potential Higher Education entrants¹⁹. The implications of this for an eventual increase in HE demand are discussed below.

¹⁸ Including A levels, BTECs and equivalent qualifications such as Vocationally Related Qualifications (VRQs) and Apprenticeships

¹⁹ In 2007 there were 23,000 more male 19-year-olds than females in England but almost 25,000 more females qualified to Level 3 than males.

Table 8a: Proportion of 19-year-olds qualified to A Level by gender

	Male	Female	All
2004	34.4%	42.9%	38.5%
2005	34.2%	42.8%	38.4%
2006	33.6%	42.6%	38.0%
2007	33.3%	42.1%	37.6%

Source: DCSF analysis of matched administrative data

31. The Government has put a great deal of effort into widening participation, and these data suggest that this might be most effective if directed at raising boys' achievement at GCSE and persuading them to take Level 3 exams. That view is reinforced by analysis of other data about progression post-GCSE, analysed below.

32. The Sutton Trust report "Wasted talent?" published in June 2008 looked at students who were in the top 20 per cent of academic performers at age 11, 14 or 16 but did not enter Higher Education by age 18²⁰. Of those pupils in the top fifth of performers at age 11 only 49 per cent go into HE by age 18, representing a loss of over 45,000 potential students. When those pupils in the top 20 per cent at age 14 or 16 (but not at age 11) are included, the figure rises to around 60,000.

33. Looking at the question of wasted talent another way, data supplied by the DCSF, and reproduced at Table 9 below, reveal that 52 per cent of pupils with 7 GCSEs, grades A*-C have not achieved a Level 3 qualification by 18, 39 per cent of those with 8 GCSEs have not done so, 21 per cent of those with 9 GCSEs and as many as 14 per cent of pupils – 19,000 – with 10 or more GCSEs grades A*-C fail to progress to Level 3. If they had, then the number of young entrants to higher education might have been 58,000 or more greater than the 322,000 who entered in 2006-07. These are pupils in the top 50 per cent of achievers at GCSE. There is no good reason why the majority of them should not continue their education to a higher level. Indeed, it is one of the least satisfactory aspects of our education system that such a high proportion of young people do not go on to achieve Level 3 qualifications, and it is this that the Government is tackling with its new requirement for young people to continue to receive education and training to 17 and then 18 plus. This is likely in due course to impact significantly on demand for higher education.

²⁰ The analysis was based on pupils at English state schools only. Pupils were split into one of five groups based on their English and Mathematics scores at each age.

Table 9: Non-progression to Level 3 from GCSE, by number of GCSEs held²¹

GCSEs (A* to C) at 16	Number not progressing to Level 3 by 18	Percentage of the relevant group
None	154000	99%
1 to 4	122000	90%
5	21000	70%
6	19000	61%
7	18000	52%
8	17000	39%
9	16000	21%
10+	19000	14%
Total	386000	60%

Source: DCSF, matched administrative data

34. Split by gender, as in Tables 9a and 9b below, it will be seen that as well as achieving lower numbers of GCSEs, boys seem to be more likely to drop out after GCSE than girls²².

²¹ These data are derived from matched administrative data, and it is possible that they overstate the extent of non-progression to some extent. In particular it may be that some of those apparently not progressing have in fact progressed but have failed to be matched; others may have left the country, and others will have died. However, it is unlikely that such considerations will greatly impact on the overall findings.

²² It should be noted that this finding appears inconsistent with recent analysis, also undertaken by DIUS, which concluded that "no clear gender effect can be found once we control for prior attainment using GCSE point scores". (See Boecke, S and Hamed, J (2008) 'Gender gaps in Higher Education Participation' DIUS Research Report 08 14. Available at: www.dius.gov.uk/research/documents/DIUS-RR-08-14.pdf) This may be because boys go on to HE in higher numbers than would be expected from their Level 3 achievement, or it may be that the count of A* to C GCSEs as used in tables 9, 9a and 9b is insufficient as a measure of GCSE achievement to make a true comparison of boys and girls.

Table 9a: Non-progression to Level 3 from GCSE, by number of GCSEs held (Boys)

GCSEs (A* to C) at 16	Number not progressing to Level 3 by 18	Percentage of the relevant group
None	88000	99%
1 to 4	64000	92%
5	11000	74%
6	10000	64%
7	9000	53%
8	9000	39%
9	7000	23%
10+	9000	15%
Total	207000	64%

Source: DCSF, matched administrative data

Table 9b: Non-progression to Level 3 from GCSE, by number of GCSEs held (Girls)

GCSEs (A* to C) at 16	Number not progressing to Level 3 by 18	Percentage of the relevant group
None	57000	98%
1 to 4	58000	89%
5	10000	66%
6	9000	58%
7	8000	50%
8	8000	38%
9	8000	20%
10+	10000	13%
Total	168000	54%

Source: DCSF, matched administrative data

Regional differences in Level 3 achievement

35. The significant differences in the regional population profiles discussed above are repeated in terms of Level 3 achievement, as is illustrated in Table 10 below. There seems to be a marked regional split, with the three Southern regions, plus the Eastern region, showing 50 per cent or more of their young population qualified to Level 3, and the Northern and Midland regions performing considerably less well. Nevertheless, all regions have seen significant increases.

Table 10: Proportion of 19-year-olds qualified to Level 3 by region

	Percentage of 19-year-old population qualified to Level 3 by 31 August				Percentage point change 2004-2007
	2004	2005	2006	2007	
ENGLAND	42%	45%	47%	48%	6.0%
North East	36%	39%	40%	42%	6.0%
North West	39%	42%	43%	45%	6.1%
Yorkshire and the Humber	38%	41%	42%	43%	4.9%
East Midlands	39%	43%	44%	44%	5.6%
West Midlands	39%	43%	44%	46%	6.5%
East of England	46%	48%	49%	50%	4.0%
Greater London	43%	46%	49%	50%	7.4%
South East	49%	53%	54%	55%	6.6%
South West	44%	49%	49%	50%	5.8%

Source: DCSF SFR04/2008

36. Looking at A levels alone, Table 11 shows that the differences are very similar.

Table 11: Proportion of 18-year-olds with two A Levels by region

	Percentage of 18-year-old population to have achieved two A Levels by 31 August				Percentage point change 2003-2006
	2003	2004	2005	2006	
ENGLAND	35%	36%	35%	36%	0.2%
North East	29%	29%	29%	29%	0.0%
North West	32%	32%	32%	32%	0.1%
Yorkshire and the Humber	31%	31%	31%	32%	0.2%
East Midlands	33%	34%	34%	33%	-0.1%
West Midlands	33%	33%	33%	33%	0.2%
East of England	39%	39%	38%	37%	-1.7%
Greater London	35%	36%	37%	38%	3.1%
South East	43%	43%	42%	42%	-0.3%
South West	38%	38%	37%	37%	-0.8%

Source: DCSF analysis of matched administrative data

37. Although the change in the proportions of young people qualifying at Level 3 are similar between regions, because some start from a higher base, and because of differences in the patterns of population changes described above, this means that the absolute numbers of qualified young people are changing at very different rates, as is shown in Table 12 below. All have increased substantially, and at a faster rate than the population, but some areas at a significantly slower rate than others.

Table 12: Changes in 19-year-old Level 3 qualifiers by region

	19-year-olds qualified to Level 3 by 31 August				Change 2004- 2007
	2004	2005	2006	2007	
ENGLAND	258,009	280,609	294,725	312,918	21.3%
North East	12,094	13,162	13,499	14,329	18.5%
North West	35,271	38,550	39,736	42,606	20.8%
Yorkshire and the Humber	24,212	26,329	27,451	28,843	19.1%
East Midlands	20,283	22,567	23,837	24,947	23.0%
West Midlands	27,314	29,848	31,315	33,179	21.5%
East of England	30,200	32,306	33,631	35,514	17.6%
Greater London	34,541	37,099	40,215	43,302	25.4%
South East	47,553	51,393	54,416	57,797	21.5%
South West	26,496	29,336	30,616	32,381	22.2%

Source: DCSF SFR04/2008

38. As the population in the South of England continues to grow faster than that in the North, the difference between the respective numbers of young people achieving Level 3 (and therefore likely to be able to enter Higher Education) has widened. In order to compete with universities in the South, universities in the North will need to recruit more students from outside their region.

39. Table 13 below identifies the proportion of full-time first degree accepted applicants in 2007-08 who came from the region in which the institution was located. This does not show any marked pattern, with Greater London and the North West showing a relatively high proportion, and the East Midlands a rather low proportion.

Table 13: Proportion of accepted applicants from institution's region

Region of institution	Proportion who came from institution's region
North East	48%
North West	63%
Yorkshire and the Humber	40%
East Midlands	34%
West Midlands	54%
East of England	49%
Greater London	63%
South East	47%
South West	42%

Source: UCAS Statistical Services

40. The figures in Table 13 do not appear to identify any particular problems faced by the institutions in the Northern regions, as the proportions of students from their own region are not particularly high. However, looking at this issue in a different way appears to identify a

cause for concern. Table 14 shows the proportion of accepted applicants who stayed in their home region to study at HE level.

Table 14: Proportion of accepted applicants studying at an institution in their home region

Region of institution	Proportion who stay in home region
North East	65%
North West	66%
Yorkshire and the Humber	59%
East Midlands	43%
West Midlands	50%
East of England	28%
Greater London	57%
South East	41%
South West	47%

Source: UCAS Statistical Services

41. Higher education institutions in the North of England are retaining the highest proportion of “home” students. In fact, 89 per cent of the accepted applicants from the North East in 2007 chose to go to institutions in the North of England²³. Likewise 85 per cent of those from the North West and 80 per cent from Yorkshire and the Humber stayed in the North of England to study in HE. This means that institutions in the Northern regions are already retaining a very large proportion of potential students from the immediate area and have little scope to increase numbers from this group. This is especially important considering the fact discussed earlier that it is the Northern regions where the population will decline the most. This underlines the importance for universities in these regions of attracting applicants from further south.

The Higher Education Initial Participation Index

42. Each year, the Government calculates a Higher Education Initial Participation Rate (HEIPR), which measures participation in Higher Education – both full-time and part-time – by the under-30s. It is this index that is the basis of the DfES' Public Service Agreement target, inherited by DIUS, that by 2010 there should be progress towards 50 per cent of the under-30 population participating in higher education²⁴. The

²³ Here “North of England” is defined as North East, North West and Yorkshire and The Humber.

²⁴ Although the target was originally that 50 per cent of the age group should have participated in HE by 2010, the target has now changed, and is to increase participation in HE towards 50 per cent of those aged 18–30 by 2010 – a somewhat imprecise target, but nevertheless the one that was agreed between DfES and the Treasury.

HEIPR was created in 1999-2000, and Table 15 shows how it has stood in the years since then.

Table 15: Changes in the Higher Initial Education Participation Rate

	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
% HEIPR (Male)	37.1	36.8	36.5	36.9	35.3	35.4	37.4	34.8
% HEIPR (Female)	41.4	42.8	44.1	45.6	45.3	45	47.8	44.9
% HEIPR (All)	39.2	39.6	40.2	41.1	40.2	40.1	42.5	39.8

Source: DIUS SFR02/2008

43. Last year's report predicted that the jump in HEIPR between 2004-05 and 2005-06 would be a one-off and indeed, as predicted, the figure for 2006-07 saw a large drop. This figure is at its lowest point since 2000-01, this reduction being almost entirely among full-time students with equal reductions among males and females. For the first time the number of entrants has dropped, from 281,000 down to 269,000. Although this is a significant drop it is still 8,000 higher than 2004-05. It is clear that the previous year's rise was due to full-time young entrants avoiding the new fee arrangements, and therefore the 2005-06 and 2006-07 figures should be viewed together when looking at trends²⁵.

44. This makes looking at recent changes in participation problematic. The average for 2005-06 and 2006-07 is 41.2 per cent, higher than in 2004-05 but almost the same as in 2002-03. There is no clear trend in HEIPR values since 2001-02, which appear to have reached a plateau. However, for reasons discussed earlier in this report and discussed further below, there are reasons – to do with the unequal participation of different groups – for thinking that there could be significant growth in demand in the future.

45. One of the main discrepancies highlighted in this report, and shown clearly in Table 15 above, is the difference in performance between males and females. The difference between the two in the HEIPR has remained broadly constant at 10 per cent for the last few years. As a result there are over 50,000 more females than males in full-time higher education aged 18-20 (and over 100,000 more female students of all ages), despite the fact that (in the 18-20 age group) the population of males is nearly 70,000 greater.

²⁵ And indeed, indications from UCAS are that there were significantly more applicants accepted for entry in September 2008 than 2007.

Part III: Part-time demand

46. Table 16 shows how the changing population will affect part-time numbers in the future. Whilst demographic changes will lead (all else being equal) to an increase in full-time numbers – of 10 per cent between 2007-08 and 2029-30 – part-time numbers will see an increase of 7 per cent.

Table 16: Changes in part time numbers due to population change (FTEs)

	Estimated student FTE in 2007-08	Total student FTEs arising from population change in 2010-11	Total student FTEs arising from population change in 2020-21	Total student FTEs arising from population change in 2028-29
All males	64,077	65,989	68,565	70,632
All females	106,969	109,173	112,156	114,351
All	171,046	175,162	180,720	184,984

Source: Calculated from HEFCE HESES 2007, applying the previous year's age and gender split to the HESES population (for details see Technical Annex)

47. Beyond the likely effects of demographic change, this report does not consider changes in part time numbers in any detail. This is not because part-time students are not important, nor because there is not considerable potential to increase part-time numbers. It is, rather, because this report is a study of student demand and it attempts to make projections based on known facts and trends, and there are as yet no indications that part-time numbers are likely to increase – other than as a result of demography. It is true that there has been a great deal of exhortation – and there have been a number of official policies – aimed at increasing the number of part-time students, especially those in employment. However, these have been matched by other policies like the removal of funding for students studying for equivalent or lower qualifications (ELQ), and the imbalance of student support between full-time and part-time students, that may make part-time study less attractive. In any case, there are no indications so far that policy changes are significantly influencing demand. If such trends become apparent in the future, then they will be reflected in future analyses of demand.

Part IV: HE Demand in the Future

48. The discussion hitherto has considered the effects of population changes, and has referred to some of the factors that might come in to play to modify their effects. This section discusses how some of these moderating factors might affect numbers.

49. The base scenario is one where numbers simply move in line with population changes, modified by the differential birth rates and participation patterns of the different social groups, discussed above. On this basis, future numbers, taken from Tables 4 and 16 above, will be as shown in Table 17 below.

Table 17: Population based projections to 2020-21 and 2029-30²⁶

	Estimated student FTE in 2007-08	Change in FTE 2007-08 to 2020-21	Total FTE 2020-21	Change in FTE 2007-08 to 2028-29	Total FTE 2028-29
Full-time	857,448	-34,996	822,453	70,963	928,411
Part-time	171,046	9,674	180,720	13,937	184,984
Total	1,028,494	-25,321	1,003,173	84,900	1,113,394

Calculated from Tables 6 and 23 above

50. The previous sections have discussed different aspects of demand, that may lead to increased numbers in future and none of which are likely to lead to reductions in demand. It should be emphasised that the factors discussed are all matters that can be quantitatively assessed, and do not allow for non-quantitative factors, such as, for example, changes in the employment market, that might influence the propensity of young (or older) people to go to university.

51. One of the most striking discrepancies in HE participation at present is the marked difference in participation between males and females – a phenomenon that is common in most countries in the world, and which reflects differences in achievement at school.

52. In 2007-08 there are estimated to have been nearly 50,000 fewer full-time male students aged 18-20 than female (and over 100,000 fewer full-time students altogether), whereas in the population at large there were 70,000 more males than females aged 18-20. If the performance of males had matched that of females then there would have been over 130,000 more full-time male students of all ages (506,000, compared to the 375,000 that in fact participated in that year, and compared to 482,000 female students). That is shown in Table 18 below, and in itself is a remarkable finding.

²⁶ Including the social class effect.

Table 18: Projections of full-time student numbers, based on improvement in the performance of males²⁷

	Estimated student numbers in 2007-08	Estimated student numbers in 2007-08 if male participation equal to female	Estimated student numbers in 2020-21 if male participation equal to female	Estimated student numbers in 2028-29 if male participation equal to female
All males	375,043	505,951	489,188	550,874
All females	482,405	482,405	461,886	521,310
All	857,448	988,356	951,074	1,072,184

53. Table 18 also shows that if over the next 20 years males do indeed succeed in improving their performance to match that of females, then that would mean that in 2029-30 instead of the 71,000 additional full-time students that there would be on present patterns of participation, there would be a further 144,000 additional students – an increase over 2007-08 of 215,000 altogether – and full-time student numbers would rise from their present level of 857,000 to 1.072 million.

54. Although there is absolutely no indication at present of any improvement in the performance of males, there is no reason in principle why that should not over time occur – in the same way as just 20 years ago males greatly outperformed females in terms of school achievement and subsequent higher education participation. It would therefore be reasonable to suppose that there will be some improvement in the next two decades.

55. Table 11 outlined the differences in A Level achievement in the different regions. If the lower performing regions were to come in line with the national average, five regions would improve the proportion of students gaining A levels by up to 6 percentage points. This would increase the number of 18-year-olds with 2 A Levels by nearly 11,000²⁸. If 84 per cent of these students went on to Higher Education, the number of HE entrants would increase by 9,000 students per year, or about 30,000 in total.

56. If, more positively, all regions were to improve A level achievement to the point where 40 per cent of 18-year olds secured 2 A Level passes by 2029, qualification rates would increase by between 1.6 per cent (Greater London) and 10.7 per cent (North East) between 2006 and 2029. This would mean over 31,000 additional 18-year olds achieving

²⁷ For sources and details of calculations see relevant worksheets in Technical Annex.

²⁸ Using 2006-07 figures.

2 or more A Levels in 2029 compared with 2006²⁹, implying an increase in HE entrants of about 26,000 per year, or about 86,000 in total.

57. Again, there is nothing to suggest that such an improvement in the performance of the worst performing regions is about to occur, but nor is there any reason to believe that young people in some regions are inherently less able than others. It is entirely plausible to believe that over the next 20 years or so there will be some reduction in the differences in performance between regions.

58. The most compelling reason to believe that there could be some increase in the proportion of young people participating in higher education arises from the large numbers of pupils who do not obtain a level 3 qualification despite having obtained better than average GCSEs. The analysis in paragraph 33 above suggested that if these had stayed on in education and taken A levels, then that alone would have increased the number of students by nearly 20 per cent, or nearly 150,000. Again, while it may be implausible to think that all might do so in future, there is every reason to think that some may, particularly now that the law requires pupils to continue in education and training beyond the age of 16. This reform, in view of the large numbers at present leaving education at 16, could have the largest impact on HE participation since the introduction of GCSEs in 1988³⁰.

59. As in previous years, there seems little to be gained from attempting a precise prediction of the number of students 20 years hence. However, this report has shown the likely range of demand, and more importantly some of the factors that are likely to impact future numbers.

60. Demography provides the basis for any assessment of future demand. If nothing else changes, then we can be reasonably confident that total demand will increase between 2007-08 and 2010-11 by about 25,000 full-time equivalent (FTE) students, that numbers will reduce back to about 25,000 below 2007 levels by 2020-21, and will then increase again between 2020-21 and 2029-30 by about 110,000, to about 85,000 above the level of 2007-08.

61. However, there are strong reasons for thinking that participation will increase, and that the base level suggested by demography alone will be exceeded. Three have been examined here – based on

- Males improving their performance to match that of females

²⁹ Taking into account the projected changes in regional populations over this period.

³⁰ See "Higher education supply and demand to 2010" – HEPI June 2003

- The worst performing regions improving their performance to the average
- Pupils who perform better than the average at GCSE, but who at present drop out of education, staying on in future and taking A levels.

62. The regional variant does not have as great an effect on demand projections as might be expected – 30,000 or so. However, both the other variants – based on improvement in the performance of males, and also improvements in staying on post-16 – would have a substantial impact.

63. Table 19 below offers two projections, the first based on changes attributable to population-related factors alone – this is the base projection that will be realised if there are no changes in participation patterns – and a high variant, based on boys catching up half the difference between the current performance of males relative to females in full-time participation, and also half of those with 7 or more GCSEs who currently fail to achieve a Level 3 qualification doing so in future. On these two bases student numbers might increase by between 85,000 (the base projection) and over 270,000 (the high variant) between 2007-08 and 2029-30, or by between 8 and over 25 per cent.

Table 19: Indicative projection of student numbers³¹

		Estimated student FTE in 2007-08	Total FTE 2020-21	Total FTE 2028-29
Base projection	Full-time	857,448	822,453	928,411
	Part-time	171,046	180,720	184,984
	Total	1,028,494	1,003,173	1,113,394
High variant	Full-time	857,448	943,286	1,119,336
	Part-time	171,046	180,720	184,984
	Total	1,028,494	1,124,007	1,304,319

³¹ For sources and details of calculations see relevant worksheets in Technical Annex.