Higher Education Demand to 2015-16

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1. In June 2003 the HEPI report "Higher Education Supply and Demand to 2010" provided projections of higher education demand, and suggested that from 2002-03 to 2010-11 there could be an increase in demand of between 180,000 and 250,000 students.

2. Using the same methodology, but with updated information, including new population figures, in May 2004 the HEPI report "Higher Education Supply and Demand to 2010 – an Update" suggested increased demand from 2002 to 2010 of between 160,000 and 240,000. The change was very largely due to a downward revision of the population projections, produced by the Office of National Statistics.

3. This report is in three parts. First, taking 2004-05 as the base year instead of 2002-03, it looks forward to 2010-11 and also to 2015-16, and projects changes in student demand from home and EU students in English HEIs. In passing, it also compares these projections with the projections produced previously for 2002-03. Second, it reviews the implications of these projections for Government targets, and in particular it considers whether the target of 50 per cent participation by those aged 30 and under is likely to be achieved. Finally, it reviews the financial implications of these projections.

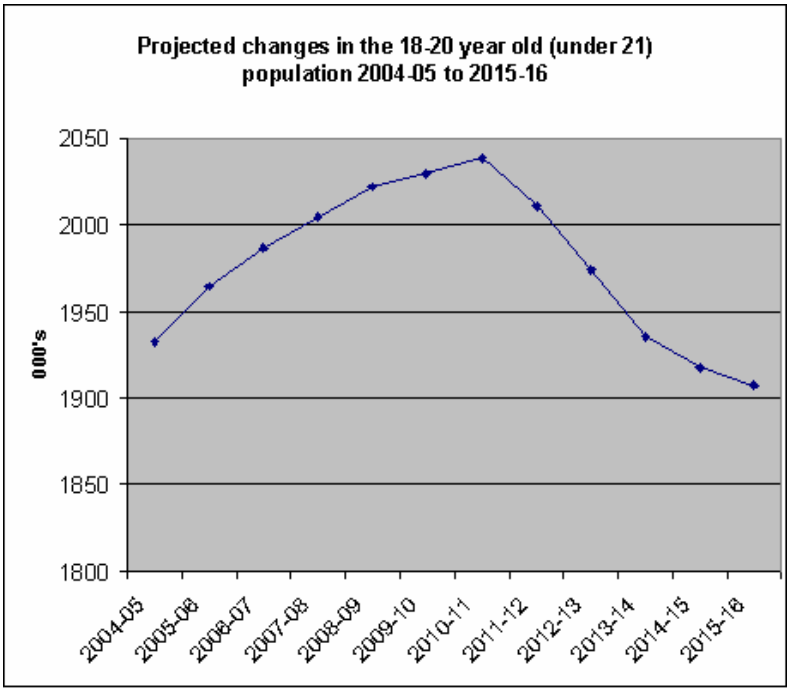
Projections to 2010-11 and 2015-16

4. There are two main influences on changes to the student population - changes in the population at large, and changes in propensity to enter higher education, generally arising from changes in A-level participation.

Population projections

5. 18-21 year olds are the most relevant cohort of the population for the purpose of projecting demand for higher education, representing 70 per cent of entrants. Figure 1 shows that this population will increase to 2010-11 and decrease rapidly in the following five years. The increase from 2004-05 to 2010-11 is 5.5 per cent, but between now and 2015-16 there is a reduction of 1.3 per cent (and in effect numbers will continue to decline until they bottom out in 2022).

Figure 1: Projected changes in the 18-20 year old (under 21) population, 2004-05 to 2015-16



Source: ONS and Government Actuary's Department (2003 based projections, published in September 2004), adjusted by DfES for academic years.

6. Although less significant in terms of participation in higher education, other cohorts of the population also need to be considered. The 21-24 year old population is projected to increase by 9.6 per cent to 2010-11 and by 9.8 per cent to 2015-16. The 25-29 year old population will increase by 9.24 per cent to 2010-11 and by 17.37 per cent to 2015-16. And the over-30s will increase by 3.36 per cent to 2010-11 and by 7.06 per cent by 2015-16. Table 2 summarises these changes.

Table 2: Changes in different age cohorts from 2004-05

Age group	Percentage change to 2010-11	Percentage change to 2015-16
<21	5.47	-1.3
21-24	9.6	9.8
25-29	9.24	17.36
30+	3.36	7.06

Source: ONS and Government Actuary's Department (2003 based projections, published in September 2004), adjusted by DfES for academic years.

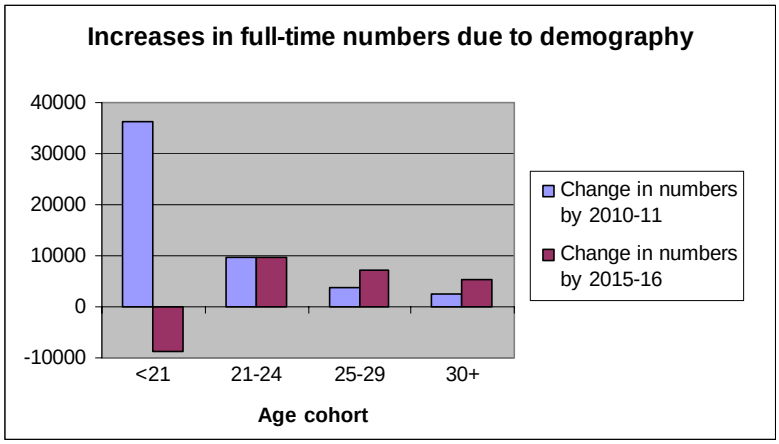
Implications of population changes for student numbers

7. There were approximately 1.4 million undergraduates (headcount)[1] in 2004-05, of whom 883,000 were full-time and 513,000 were part-time. Table 3 shows the different age cohorts of full-time undergraduates and the projected increase in their numbers to 2010-11 and to 2015-16, resulting from demographic increases alone.

Table 3: Increases in full time numbers due to demography

Age cohort	Estimated student numbers in 2004-05[2]	Percentage population change by 2010-11	Resulting change in numbers by 2010-11	Percentage population change by 2015-16	Resulting change in numbers by 2015-16
<21	665000	5.47	36375	-1.3	-8640
21-24	100000	9.6	9595	9.8	9803
25-29	42000	9.24	3883	17.36	7293
30+	76000	3.36	2555	7.06	5365
Total			52409		13823

Figure 3a: Increases in full time numbers due to demography



8. The projected increase in the number of full-time undergraduates between now and 2010-11 is 52,400, but between now and 2015-16 the increase is only 13,800, as a result of the sharp fall in the under-21 population between 2010-11 and 2015-16. An incidental consequence of these changes will be a modest change in the balance between younger and older students.

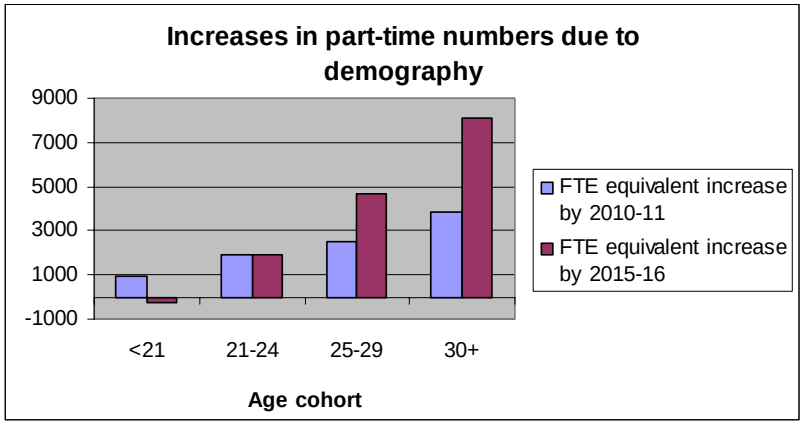
9. Table 4 shows the different age cohorts for part-time undergraduates and the projected increases in their numbers, resulting from demographic increases alone.

[1] HESES and HEIFES 2004 – figures from the Higher Education Funding Council for England (HEFCE)
[2] HESES does not break down student numbers by age group. This table has taken the distribution from the previous year's HESA record and applied it to the 2004-05 aggregate numbers.

Table 4: Increases in part time numbers due to demography

Age group	Estimated numbers in 2004-05	Percentage population growth to 2010-11	Resulting increase in numbers in 2010-11	FTE equivalent increase in 2010-11	Percentage population growth to 2015-16	Resulting increase in numbers in 2015-16	FTE equivalent increase in 2015-16
<21	51000.0	5.47	2790	976	-1.3	-663	-232
21-24	56500	9.6	5424	1898	9.8	5537	1938
25-29	77000	9.24	7115	2490	17.36	13367	4679
30+	328500	3.36	11038	3863	7.06	23192	8117
Total			26366	9228		41433	14502

Figure 4a: Increases in part time numbers due to demography



10. So, based on changes in demography alone and assuming no changes in propensity to attend higher education, full-time and the full-time equivalent of part-time student demand between 2004-05 and 2010-11 will increase by about 62,000 but by 2015-16 will have fallen back, with demand between 2004-05 and 2015-16 increasing by around 28,000.

Implications for student numbers of changes in A-level attainment

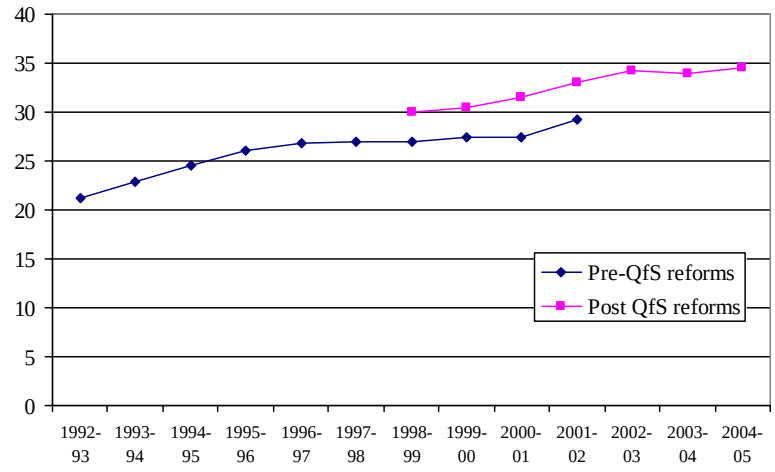
11. Apart from the population of young people, the proportion of these who take A-levels is the major influence on numbers entering higher education (the propensity of those with A-levels to enter higher education is, of course, also important, but over 90 per cent do so, even following the QfS reforms[3], which broadened the nature of A-levels and therefore the spectrum of those taking those exams).

12. In the report "Supply and Demand to 2010", published in June 2003, figure 24 showed the most recent published data available at the time - relating to June 2002 -

[3] Following the Qualifying for Success (QfS) consultation in 1997, a number of reforms were introduced to the 16-19 qualifications structure in September 2000. Under these reforms, students are encouraged to follow a wide range of subjects in their first year of post-16 study, with students expected to study four Advanced Subsidiaries before progressing three of them on to full A-levels in their second year. In addition, students are encouraged to study a combination of both general (GCE) and vocational (VCE) advanced level examinations. The Advanced Subsidiary (AS) qualification covers the first half of the full A level. The Advanced GNVQ (AGNVQ) has been discontinued from 2002-03, and replaced by vocational A-levels.
Source: DfES, *Trends in Education: attainment and outcomes.*

regarding the proportion of 18-year-olds achieving two or more A-level passes in England. Data for June 2004 are now available. Figure 5 shows the proportion of 18-year-olds with two or more A-levels between June 1992 and June 2004. It shows that the QfS reforms produced a step change in the proportion of 18-year-olds with two or more A-levels, largely, but not entirely, resulting from Advanced GNVQ students being included in the data for the first time. Between 1998 and 2001 those with conventional A-levels are shown separately. It will be seen that there was a sharp increase in conventional A-level participation between 2000 and 2001, as well as an increase in overall participation.

Figure 5: The proportion of 18 year olds with two or more A-level qualifications[4]



Source: Pre QfS reforms: provided by DfES, based on data from statistical first release. Post QfS reforms: data based on table 2 of Statistical First Release DfES (SFR01/2004).
Data for 17 year-olds only from table 3 provided by DfES. Percentage of 17 year-old population calculated using population data provided by DfES. For source information see figure 1. It should be noted that population figures are sometimes revised which causes difficulty in providing a reliable time series.

13. These data show that after 1999-2000 A-level participation increased following a flat period in the mid-late 1990s. That increase in A-level participation led to an increase in higher education participation which is reflected in current numbers and in the forward projections of growth arising from demographic changes (because a higher HE participation rate is applied to changing numbers in the population) which are shown above. That is the new baseline. The question now is whether there is likely to be any further increase in A-level participation. "Supply and demand to 2010" asked whether the

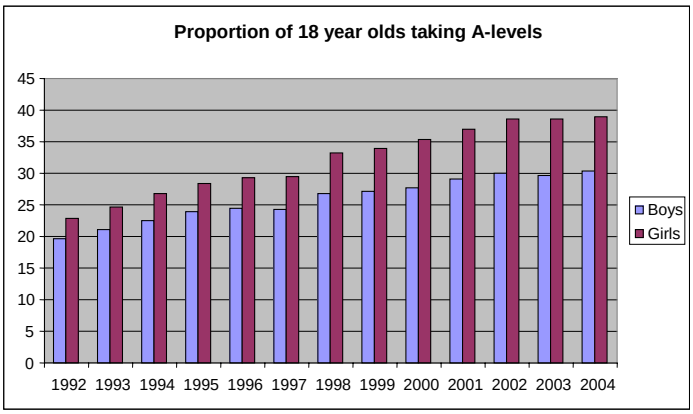
[4] Note: This table is calculated and officially reported for the cohort that are 17 years old on 31 August, the August before they take their A-level examinations, but for the purpose of an analysis of demand for HE, this paper has referred to this statistic as the proportion of 18 year-olds achieving two or more A-levels (by the time they are 18). The post QfS reform (top) line includes AGNVQ Results (the pre-QfS reform (bottom) line does not), which equate to two A-level passes. The post QfS reform line figures include AS examinations, equating two AS passes to one A-level pass – figures have been rounded to the nearest percentage point. Figures from 2001-02 onwards include Year 12 students entered for GCE/VCE Advanced Subsidiaries, VCE A-levels and VCE Double Awards after the introduction of the Qualifying for Success reforms. For 1998-99 through to 2000 - 01 the ANVQ numbers have been added to A-level numbers to continue the series backwards.

recent increase following the QfS reforms was a one off, or the beginning of a trend. If the latter, then that would lead to increased numbers over and above the increases arising from demography. It is possible too that non-A-level students will increasingly enter higher education, as indeed may students without prior qualifications. However, there is no sign of this happening, and given the nature of many of the non-A-level qualifications, it would require changes in these, or in the provision that universities make and the way that they make it, to provide successfully for such students.

14. On the basis of the new data from the past two years, there is no reason to believe that there is a trend of increasing A-level participation. After three years of strong increases following the QfS reforms, A-level participation stalled, reducing slightly in 2003 and rising slightly in 2004, but only to about the same level of 2002. It is possible that growth will resume, but there is no reason to be confident about that, and indeed more reason to believe that it will not. It is quite possible that the introduction of QfS led to a one-off increase in participation, and that that effect has now worn off.

15. These overall trend figures conceal marked gender differences. As table 6 below shows, girls have continued to outperform boys in A-levels in recent years and by an increasing margin. Although there are signs that the declining relative performance of boys may have stabilised in the last two years, there is no sign that it has begun to reverse. This under-performance of boys at school is a serious concern, and has causes and implications that are deep-seated and cultural. If it is successfully addressed – and if boys begin to catch up the performance of girls at school – then that will impact substantially on HE participation.

Table 6: Proportion of 18 year olds taking A-levels



Source: DfES

16. Two projections are therefore made, one based on no further growth in A-level participation and the other assuming a resumption of growth in participation, at one percentage point every three years - a rather more modest level than in the recent past. This rate of growth in A-level participation (the high variant) will lead to about 20,000 additional HE demand in 2010-11 compared to 2004-05, an increase that will be maintained in 2015-16 despite the downturn in the population.

Growth in EU students

17. The HEPI publication "Projecting demand for UK Higher Education from the Accession Countries" estimated that by 2010-11 between 12,000 and 19,000 students from these countries would be attending English universities as undergraduate students – between four and six times the present number. Data available from UCAS suggest that there was a 70 per cent increase in applications from Accession Countries students in 2004-05, and that demand is even stronger for 2005-06.

18. This suggests that the estimate of between 12,000 and 19,000 students by 2010-11 is a reasonable one, and that, taking into account the additional Accession Countries students admitted in 2004-05, a further 8,000-15,000 may be expected by 2010-11. After that date, numbers should stabilise, and no further growth specifically attributable to EU expansion in 2004 is anticipated by 2015. Of course, further EU expansion in 2007 and future years may have further impacts on student demand, but that is not assumed here. There may be other reasons why numbers of EU students may grow, not least because no effective means appear to be available to ensure repayment of fees. So the prospect of free higher education may be attractive to a greater number of students not just from Accession Countries but from the EU more generally. No such assumptions have been made here.

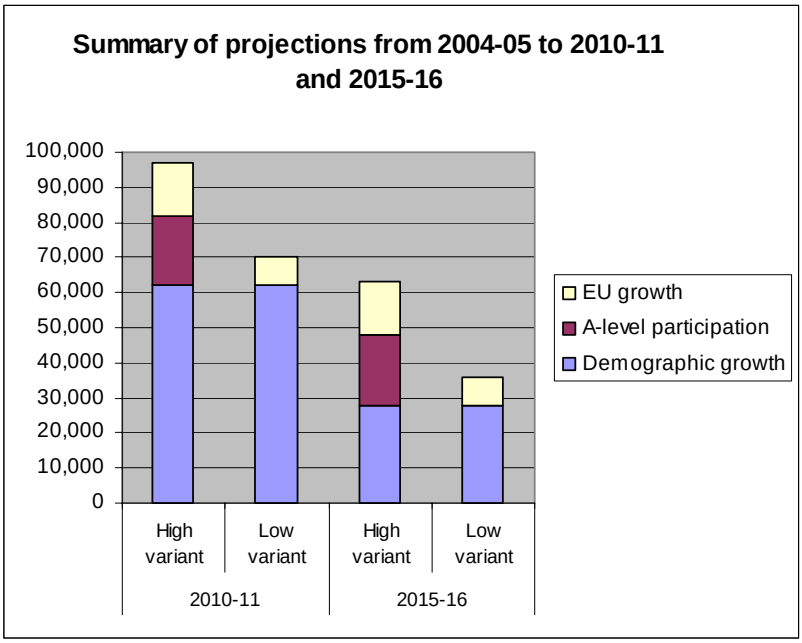
Aggregate growth to 2010-11 and 2015-16

19. Table 7 below summarises the various influences on higher education numbers, and provides a low and a high variant projection. It will be seen that on the high variant numbers of students between 2004-05 and 2010-11 can be expected to increase by 97,000, and on the low variant by 70,000. By 2015-16 numbers might increase by 63,000 or 36,000 on the high and low variants respectively.

Table 7: Summary of projections

	High Variant		Low variant	
	To 2010-11	To 2015-16	To 2010-11	To 2015-16
Demographic growth	62,000	28,000	62,000	28,000
A-level participation	20,000	20,000	-	-
EU growth	15,000	15,000	8,000	8,000
Total	97,000	63,000	70,000	36,000

Figure 7a: Summary of projections



20. These projections are based mainly on the two major factors that are known to impact student demand: demography and young participation. However, there are other factors that may influence demand. For example, the higher fee that will be charged from 2006 will make higher education more expensive for students, and to the extent that the decision to participate in higher education is based on an economic rationale, this may impact demand (on the other hand the fact that nothing will be payable upfront, and that a significant number of students will receive larger grants than at present, may impact positively).

21. Another possibly destabilizing factor is that the Welsh, and more particularly the Scottish, populations are declining. This may cause institutions in those countries to recruit aggressively in England, thus reducing demand for English higher education.

22. The social makeup of the higher education population is seriously unbalanced, largely reflecting imbalances in the achievements of young people at school. The most authoritative recent study on the question[5] concluded that the most advantaged 20 per cent of the population were five or six times more likely to participate in HE than the most disadvantaged 20 per cent, and that the situation had scarcely improved in the past decade or so. There is no sign at present of this changing, but when it does, and when students from poor backgrounds begin to participate in higher education to a greater extent than in the past, then this will influence the higher education participation rate, and therefore overall numbers.

23. Finally, these calculations take no account of the possibility that the propensity of older students to enter higher education might increase. That is possible, and would be consistent with the interest in and rhetoric of lifelong learning. However, there is no reason to have any confidence that this will occur. The proportion of those aged 21 and over in higher education has not increased over the past decade, and the proportion of the total population that over 20s represent has stayed constant. Table 8 below shows from 1994-95 to 2003-04 both the proportion of the student body represented by over 20s and the proportion of the overall population that they represented. One reason for the apparent stagnation of over-20s participating in HE is that as the number of young participants has increased, the pool of people with the aptitude and desire to enter as older students has been reducing. It has to be concluded, in the absence of any strong reason otherwise, that the participation of older students is unlikely to push up overall participation in higher education in the next 10 years. That may be regrettable, but appears to be so.

Table 8: Over-20s in higher education

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04
Over-20s as a % of the whole population	79.6	79.5	79.4	79.3	79.1	79.1	79.1	79.2	79.2	79.2
Of whom >25	*5.79*	*5.56*	*5.27*	*5.01*	*4.82*	*4.73*	*4.77*	*4.88*	*5.00*	*5.07*
Of whom >30	*8.05*	*7.89*	*7.77*	*7.61*	*7.41*	*7.21*	*7.01*	*6.72*	*6.44*	*6.27*
Percentage of 1st year students aged > 20[6]	39.1	35.1	38.4	31.1	30	28.6	28.3	29.4	29.5	33.9

Source: ONS for whole population data, and HESA for student data

[5] "Young Participation in HE" by Mark Corver. HEFCE, January 2005.
[6] This figure includes first year students entering HE for a second time, and so overstates the participation rates of older students.

Comparison with earlier projections

24. “Higher Education Supply and Demand to 2010", produced in June 2003, projected an increase in student numbers by 2010 of between 180,000 and 250,000. This was modified in "Higher Education Supply and Demand to 2010 – an update", produced in April 2004, to an increase of between 160,000 and 240,000, largely because of the new population projections. In 2003-04 and 2004-05 combined, full-time equivalent student numbers increased by about 37,000. If these numbers are added to the high variant projection shown above then that amounts to 134,000 additional full-time equivalent students between 2002–03 and 2010-11, and on the low projection that amounts to 107,000 additional full-time equivalent students. It will be seen that these figures are well below those projected in the previous two reports: the difference arises partly from changes in demography (the projected increase in the 18-20 population has reduced by one percentage point – 20,000 people – in just two years) [7]; but mainly because the number of A-level students has not increased in line with previous assumptions, and indeed has stagnated.

Implications

Implications for participation

25. The 2003 HEPI report “Higher Education Supply and Demand to 2010” suggested that if undergraduate numbers increased by 250,000 between 2002-03 and 2010-11, then that would represent an Initial Entry Rate of those aged 30 and under of close to 50 per cent. The major component in the increase to 250,000 was population growth, which does not impact participation. But most of the rest was a reflection of increased A level participation, which does. That figure was predicated on the proportion of 18-year olds taking A levels rising to 40 per cent. It has stood at 35% for three years now.

26. It now seems clear that there will be no such increase in A level participation by 2010-11, and indeed there is no reason to believe at present that there is likely to be such an increase between now and 2015-16. Since young people under 21 account for 70 per cent of new undergraduate entrants, participation of older students would have to rise nearly three times as fast as the shortfall in young students to compensate for a falling away of participation by young students. As has been shown above, there is no sign of

[7] It seems extraordinary that projections of the number of 18-20 year olds should change so dramatically from year to year – all those concerned after all were born some years ago – but it is unfortunately a fact that ONS projections are subject to regular and substantial modifications. ONS describe the reason for the changes as follows: “Changes in population estimates in recent years are likely to have been somewhat larger than usual. This is because ONS have been incorporating the results of the 2001 Census and additional analysis of Census results. In addition, as well as some more minor issues, changing estimates of migration (both internal within the UK and international) will have a substantial impact on age cohorts. Moreover, estimates of population by academic year age will inevitably change as projections are gradually replaced by estimates.”

this happening, and most policy initiatives recently have been aimed at young people in school, not at persuading older people to enter higher education.

27. So the conclusion has to be that participation in higher education, even on the Government's preferred measure of the Higher Education Initial Participation Rate, which has replaced the Initial Entry Rate but is constructed in essentially the same way, will remain below 50 per cent in the foreseeable future – perhaps not much above the present 43 per cent, where it has been stuck for 3 years. This may be unfortunate, but growth will only be revived if young people, and boys in particular, can be persuaded in greater numbers to stay on at school and take A levels; or if older people can be persuaded to participate in greater numbers than seems likely at present. This means, among other things, that the social makeup of higher education students is unlikely to improve as much or as fast as would otherwise be the case.

Financial implications

28. An increase of 97,000 (high variant) in 6 years represents an average of 16,000 per year, and an increase of 70,000 (low variant) an average of 12,000 per year. These are not out of line with the number of additional places that has been funded by the Government over the past few years. Table 9 below shows the number of funded additional places that have been provided by HEFCE each year in the past 5 years in the annual Additional Student Numbers (ASN) competition.

Table 9: Additional student numbers allocated by HEFCE 2000-01 to 2004-05[8]

	2000-01	2001-02	2002-03	2003-04	2004-05
Full time	8,000	15,300	12,400	13,200	12,600
Part time	17,000	17,800	17,600	8,100	8,900

Source: HEFCE Recurrent Grant Circulars from 2001-2005

29. Because demographic growth is strongest in the initial years, as will be growth in demand from Accession Countries, there should probably be rather more additional places provided at the beginning of the period and fewer at the end. Bearing in mind that the very great majority of this growth flows from demographic growth, any shortfall in the ASNs provided would imply either that the Government was not willing to meet even the present level of demand, or, more likely, that it was planning that part of the growth should be met without additional funding. That would not be consistent with the

[8] This only includes new places. Unfilled places that were rolled forward from earlier years have not been included here, since they were part of the total allocated for the previous year (and therefore already accounted for). In addition to HEFCE-funded places, other additional places have been provided, funded by the NHS and the TTA.

Chancellor of the Exchequer's assurance in the last budget that the unit of public funding per student would be maintained.

30. The cost to the Government of 16,000 students per year will be about £100 million annually, and the cost of 12,000 about £75 million annually. So the additional cost by 2010-11 will be £600 million if the high variant projection is achieved, and £450 million if the low variant is achieved. These calculations assume continuation of the present level of HEFCE grant per student of £3490[9], and they also assume that the cost to the Government of subsidising the maintenance loan (and after 2006 the fee subsidy) amounts to about 40 per cent of the value of the loans and fees[10].

31. One remaining complication is that numbers will reduce after 2010-11, unless there are unexpected increases in participation. That might cause the Government to decide not to increase numbers between now and the end of the decade, in order not to risk unfilled places in the following five years.

32. If this occurs, and if past experience is repeated, universities are likely to respond to an excess of demand over funded supply by taking additional students at marginal (or fees only) prices, if the funding system allows that. In fact under the present funding regime that would only be possible to a limited extent, and it is important for the health of the system that that should not occur. The other response of institutions faced with excess demand is likely to be to concentrate on meeting demand from conventionally qualified applicants, and school leavers in particular. If so the next few years will pose a major challenge to the Government's policies for widening participation.

[9] DfES Grant Letter to HEFCE 13 December 2004
[10] Regulatory Impact Assessment, published at the same time as the Higher Education Bill, and updated in August 2004.