

HIGHER EDUCATION SUPPLY AND DEMAND TO 2010 – AN UPDATE

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1. In June 2003 HEPI published projections of demand for higher education (HE) to 2010 ('HE Supply and Demand to 2010'). The following updated projections take account of more recent information, and break down the projections in more detail for separate cohorts of students. They do not review all of the factors affecting demand – these were fully reviewed in 'HE Supply and Demand to 2010' - but they do include an update of key information sources that input into the projections.

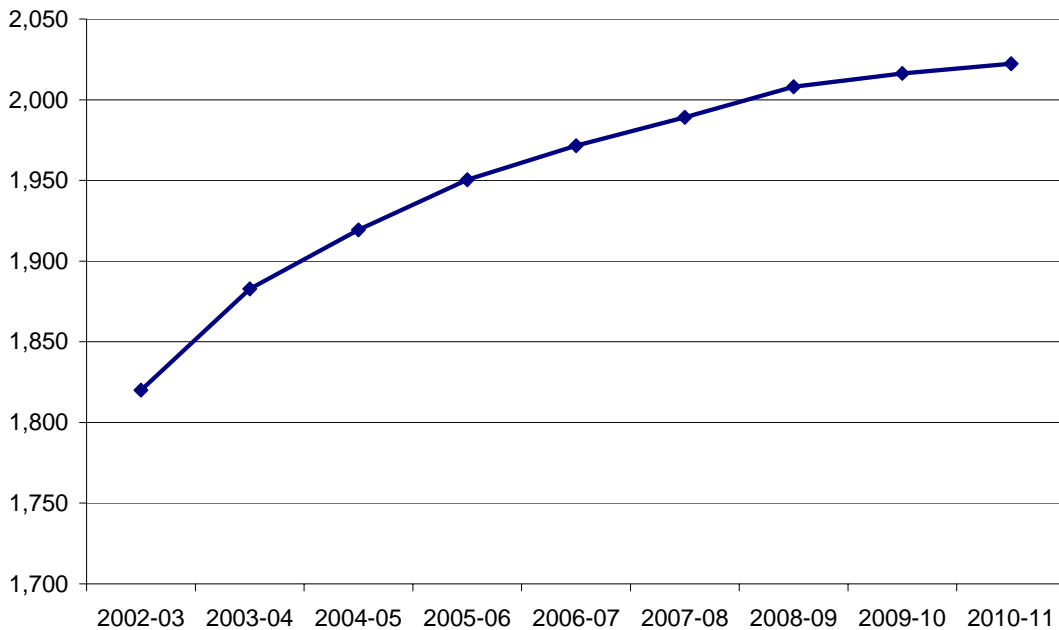
2. The evidence from 'HE supply and demand to 2010' suggests that the overall number of HE participants to 2010 will largely be determined by population increases and the attainment of young people in schools, especially the proportion of 18 year-olds qualifying with two or more A-level passes.

Population projections

3. The population of 18-20 year-olds is the most relevant cohort of the population in terms of projecting demand for HE. Figure 1 shows that the 18-20 year-old population is increasing to 2010. The increase from 2002-03 to 2010-11 is 11 per cent. The increase is more rapid in the earlier years of the projection period and starts to level off after 2008-09. The population projections used here are an updated version of the population projections used in 'HE Supply and Demand to 2010' and make a notable difference to the demand projections. Other cohorts of the population also need to be considered: the 21-24 year-old population is projected to increase by 12 per cent from 2002-03 to 2010-11, the 25-29 population is projected to increase by 6 per cent over the same period, and the population of people over 30 is projected to increase by 4.5 per cent. These population projections point to slightly lower increases than those used in the 2003 publication¹.

¹ It may seem surprising that projections of the number of the 18+ population, who were all born many years ago, can vary from year to year. It is, nevertheless, the case that population projections are updated quarterly, as a result of corrections and improvements to the data.

Figure 1 Projected increase in 18-20 year-old (under 21) population 2002-03 to 2010-11 (in thousands)



Source: ONS. Provided by DfES; population adjusted for academic years. Population at 1 January, by age at previous 31 August. The output is based on ONS population estimates for mid-years up to 2001-third version (1991 to 2000 revised in the light of the 2001 Census), ONS population estimates for mid-2002 (second version), GAD mid-2002 based population projection for mid-2003 and later years.

Headcount projections from demographic increase

4. In order to project the increase in demand for undergraduate places to 2010 it is necessary to look at full-time and part-time students separately and by different age cohorts. There were approximately 1.35 million undergraduates (headcount) in 2002-03 of whom 850,000 were full-time and 500,000 were part-time. Table 2 illustrates the different age cohorts for full-time undergraduate numbers and the projected increase in numbers of full-time undergraduates to 2010 resulting from demographic increase alone.

Table 2 Full-time undergraduates headcount projections from demographic increase

Age group	FT UG 2002-03	Population increase from 2002-03 to 2010-11	Increase in HE students by 2010 due to demography
Under 21	640,000	11%	70,000
21-24	96,000	12%	11,500
25-29	40,000	6%	2,400
30+	73,000	4.5%	3,000
Total	850,000		87,000

Source: HESES/HEIFES and HESA/ISR data for all HEIs and FECs in England. Numbers are HESES/HEIFES Columns 1+2, all home (UK) and EU students² (including fundable and non-fundable). HESA/ISR data have been used to estimate proportions by age. These numbers are accurate for 2002-03, and compare to figure 25 in 'HE Supply and Demand to 2010', but are not consistent with the time series in figures 4 and 5 in the same publication because FEC numbers have been included.

Note: The population source for under 30 year-olds was provided by the DfES and is ONS / GAD figures adjusted for academic years. However, the over 30 population source was raw GAD projections, base year 2002. Totals may vary as a result of rounding.

5. The projected increase in full-time undergraduates (headcount), from 2002-03 to 2010-11 is 87,000. This figure describes the projected total number of additional full-time undergraduate places demanded in the year 2010-11, and does not refer to entrants. 70,000 of these are projected to be young, full-time undergraduates. In terms of the rate of growth, taking the mid-point of 2006-07, the projected increase in demand for places from young, full-time undergraduates is around 45,000 to 2006-07 demonstrating the faster rate of growth of the young population to 2006-07 as illustrated in figure 1.

6. Table 3 illustrates the different age cohorts for part-time undergraduate numbers and the projected increase in numbers of part-time undergraduates to 2010 resulting from demographic increase alone.

² 'HE Supply and Demand to 2010' demonstrated the difficulty of projecting future demand from existing EU countries, and therefore EU numbers have been included within these projections under the assumption that EU students will increase at a similar rate to home students (although this excludes new demand from the Accession Countries that is dealt with in paragraph 25).

Table 3 Part-time undergraduates headcount projections from demographic increase

Age group	PT UG 2002-03	Population increase from 2002-03 to 2010-11	Increase in HE students by 2010 due to demography
Under 21	50,000	11%	5,500
21-24	57,000	12%	6,800
25-29	75,000	6%	4,500
30+	320,000	4.5%	14,500
Total	500,000		31,000

Source: HESES/HEIFES and HESA/ISR data for all HEIs and FECs in England. Numbers are HESES/HEIFES Columns 1+2, all home (UK) and EU students¹ (including fundable and non-fundable). HESA/ISR data have been used to estimate proportions by age. These numbers are accurate for 2002-03, but are not consistent with the time series in figures 4 and 5 in 'HE Supply and Demand to 2010' because FEC numbers have been included.

Note: The population source for under 30 year-olds was provided by the DfES and is ONS / GAD figures adjusted for academic years. However, the over 30 population source was raw GAD projections, base year 2002. Totals may vary as a result of rounding

7. The projected increase in part-time undergraduates (headcount), from 2002-03 to 2010-11 is 31,000.

8. The total projected increase in demand for undergraduate places from 2002-03 to 2010-11 is approximately 120,000³ (87,000 full-time undergraduates and 31,000 part-time undergraduates).

³ This is the figure equivalent to the 150,000 projected figures in 'HE supply and demand to 2010' published in June 2003. The difference is explained by the updated population projections used here. This figure describes the projected total number of additional undergraduate places demanded in the year 2010-11, and does not refer to entrants.

Full-time equivalent (FTE) projections from demographic increase

9. There were approximately 1 million undergraduates (FTE) in 2002-03 of whom 850,000 were full-time undergraduates and 170,000 were part-time undergraduates. Table 2 above illustrated the different age cohorts for full-time undergraduate numbers and the projected increase of 87,000 full-time undergraduates to 2010-11 resulting from demographic increase alone.

10. Table 4 illustrates the recorded FTE value of the different age cohorts for part-time undergraduate numbers shown in Table 3, and also shows in FTE the projected increase in numbers of part-time undergraduates to 2010 resulting from demographic increase alone.

Table 4 Part-time undergraduates FTE projections from demographic increase

Age group	PT UG 2002-03 (FTE)	Population increase from 2002-03 to 2010-11	Increase in HE students by 2010 due to demography
Under 21	18,000	11%	2,000
21-24	22,000	12%	2,600
25-29	26,000	6%	1,500
30+	102,000	4.5%	4,600
Total	170,000		11,000

Source: HESES/HEIFES and HESA/ISR data for all HEIs and FECs in England. Numbers are HESES/HEIFES Columns 1+2, all home (UK) and EU students¹ (including fundable and non-fundable). HESA/ISR data have been used to estimate proportions by age.

Note: The population source for under 30 year-olds was provided by the DfES and is ONS / GAD figures adjusted for academic years. However, the over 30 population source was raw GAD projections, base year 2002. Totals may vary as a result of rounding

11. The projected FTE increase in part-time undergraduates from 2002-03 to 2010-11 is 11,000.

12. **In FTE terms, the total projected increase in demand for undergraduate places from 2002-03 to 2010-11 is approximately 100,000** (87,000 full-time undergraduates and 11,000 part-time undergraduates).

Implications for HE projections of changes in A level attainment

13. The proportion of 18 year-olds with 2 or more A-level qualifications, and their propensity to enter HE, remain the major influences on HE participation rates. While these both remained flat from the mid-1990s to the late-1990s, so did participation rates in HE.

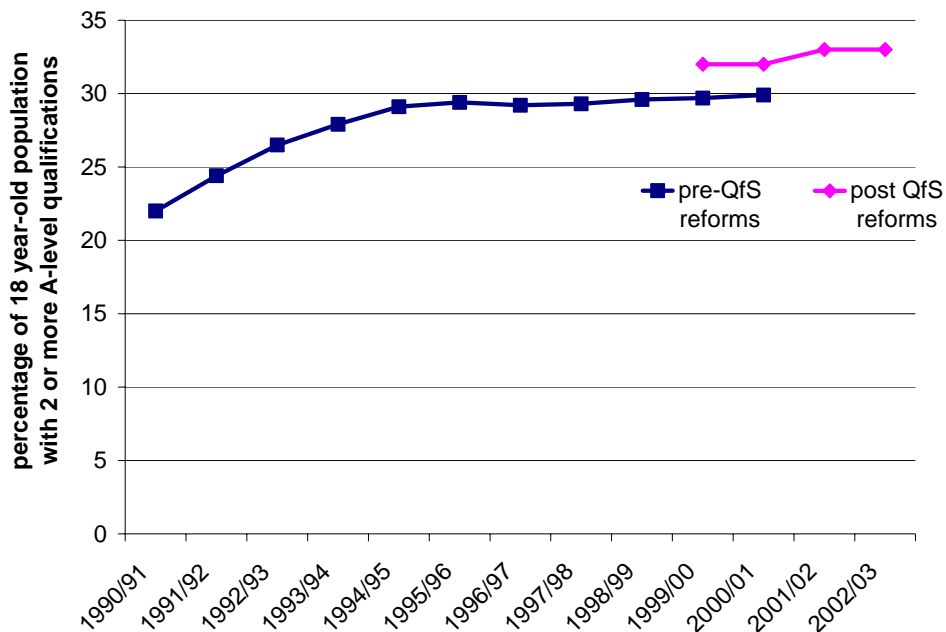
14. In the report 'Supply and Demand to 2010' published in June 2003, Figure 24 showed the most recent published data available at the time regarding the proportion of 18 year-olds achieving two or more A-level passes in England. The data used in this present paper are not just updated information, but are from an improved data source provided by the DfES. The projections can be improved and updated as a result.

15. The impact that the Qualifying for Success (QfS)⁴ and Curriculum 2000 qualification reforms will have on demand for HE remains the key question. Figure 5 compares the two time-series of the proportion of 18 year-olds with 2 or more A-level qualifications – before the QfS reforms and after. Figure 5 shows that the QfS reforms produced a step change in the proportion of 18 year-olds with 2 or more A-levels. This was largely, but not entirely, a result of Advanced GNVQ students being included in the data for the first time – and then following the reforms AGNVQs were replaced by vocational A-level qualifications after 2002-03.

16. An important question for projecting HE demand is whether the increases in the proportion of pupils taking A levels seen hitherto are a step change that will now plateau, or whether the reforms have re-started an upward trend in the proportion of 18 year-olds attaining 2 or more A-levels. Figure 5 suggests that the proportion has gradually increased in recent years.

⁴ 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. Source: DfES, Trends in Education: attainment and outcomes.

Figure 5 The proportion of 18 year-olds with 2 or more A-level qualifications



Note: This statistic 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 line includes AGNVQ results (the pre QfS reform line does not), which equate to two A-level passes. For 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.

Source: Pre QfS reforms: provided by DfES, based on data from statistical first releases. Post QfS reforms: data based on table 2 of Statistical First Release, DfES.

<http://www.dfes.gov.uk/rsgateway/DB/SFR/s000441/index.shtml> Data for 17 year-olds only from table 2 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.

17. As far as propensity to enter HE is concerned the QfS reforms and changes to the A-level qualification itself mean that we cannot assume that new A-level-qualified 18 year-olds will behave in the same way as previous A-level-qualified 18 year-olds. It is still too early to know if new A-level students will have a propensity to enter HE closer to that of

traditional A-level students (around 90 per cent) than that of previous AGNVQ students.

18. Indications are that the participation rate of 18 to 21 year-olds in HE (the Age Participation Index (API)) has increased very recently along with the increase in the proportion of 18 year-olds with two or more A-levels passes. This suggests that the high propensity of A-level students to enter HE has not been adversely affected by the reforms.

19. Analysis in the 'HE supply and demand to 2010' document demonstrated that the increase in the proportion of A-level-qualified 18 year-olds had an observable impact on the number of students that subsequently entered HE. Even if this was a one-off increase in the participation rate, this still has implications for long-term changes in HE demand.

20. If the increase proves to be a one-off change as a result of the QfS reforms then the proportion of 18 year olds taking A-levels figure will remain at around 33 per cent and participation rates (API) in HE will flatten off once again at around 35 per cent. If this is the case, then the one-off increase seen so far will result in demand for an additional 30,000 undergraduate places by 2010.

21. If, on the other hand, the growth in A-levels continues to increase along the same lines as recorded in the past four years (an average increase of 1 percentage point every two years), then the proportion of 18 year-olds with two or more A-level passes will reach 37 per cent by 2010. If attainment levels in schools continue to improve to meet targets, then this rate of gradual continued increase to 2010 is quite possible.

22. It is difficult to know how many additional HE students will be produced by such a level of 18 year-olds with two or more A-level passes, because of the break in the time series which distorts the relationship between this figure and the API. However, if the propensity of A-level pupils to enter HE remains at present levels, an increase in the API can be expected similar to that shown above for the proportion of 18 year olds taking A levels (about 12 per cent by 2010) which would take the API from 35 to 39 per cent. This implies demand for an additional 75,000 undergraduates places by 2010. If the proportion of 18 year-olds with two or more A-level passes increases at a faster rate as a result of additional reforms or general school improvement, then the API could reach 40 or 41 per cent, resulting in demand for around 100,000 additional places by 2010.

Conclusions

23. In terms of demographic increase, there is likely to be an increase in demand for undergraduate HE places of around 120,000. This is an increase in demand from 75,000 young students (70,000 full-time and 5,500 part-time), and an increase in demand from 43,000 mature students (17,000 full-time and 26,000 part-time).

24. Whether participation rates will also increase to generate further demand for undergraduate HE to 2010 is difficult to know for certain. The main uncertainties are whether there will be continuing increases in the number of pupils taking A levels, and whether the QfS reforms will affect the propensity of A-level students to enter HE. It is projected that an increase in the proportion of 18 year-olds with 2 or more A-levels is likely to bring an increase in HE demand of between 30,000 to 100,000. If current trends continue then the figure is projected to be around 75,000 but this could increase if trends pick up further. In total the projections suggest demand for another 150,000 to 220,000 HE places by 2010 in England from home undergraduate students – of which 100,000 to 170,000 is from young A-level students.

25. The March 2004 HEPI publication 'Projecting demand for UK HE from the Accession Countries' projected that, as a result of the accession of ten new countries to the EU in May this year, there could be an increase in demand for UK HE of around 20,000 to 30,000 places by 2010 (12,000 to 19,000 for undergraduate places). Because EU students have to be considered for admission to HEIs on an equal basis to home students, demand from EU students has to be considered when projecting demand – assuming that it remains government policy to enable all those in the UK who are qualified and wish to do so, to enter HE. If EU demand is not taken into account, then that will lead to unsatisfied demand from UK students. This additional demand will take the total projection of additional demand for undergraduate places in 2010 to between 160,000 and 240,000.

26. Based on existing trends and projections of demand, it was concluded in 'HE supply and demand to 2010' that the propensity of graduates to take postgraduate qualifications would remain roughly constant in the future. Accordingly, growth of postgraduates pro rata to the growth of undergraduate numbers implies that total postgraduate numbers are likely to increase in the region of 40,000 to 50,000 by 2010. Including the additional projected demand from the Accession Countries to 2010, that brings total projected additional demand for postgraduate places to between 50,000 and 60,000 by 2010.

27. The best estimate available is that there will be demand for between 160,000 and 240,000⁵ additional undergraduate HE places by the end of the decade. This figure describes the projected total number of additional undergraduate places demanded in the year 2010-11, and does not refer to entrants. Of these, around 120,000 will arise from demographic growth, and the remainder results from increases in participation (and an increase in EU students). Whether increased demand turns out nearer 160,000 or 240,000 in reality will depend on whether the growth in A-level achievement seen in the past four years proves to be a one-off increase or the beginning of a trend. If it is a trend that accelerates, of course, then additional demand for undergraduate places could be even higher than 240,000. Depending on the growth of undergraduate demand, there could also be increased demand for up to 60,000 more postgraduate places by the end of the decade.

⁵ The equivalent projection figure in 'HE supply and demand to 2010' published in June 2003 was 180,000 to 250,000.