

HEFCE 01/62

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Consultation

Supply and demand in higher education

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- Connor H, Pearson R, Court G, Jagger N (1997), *University challenge: student choices in the 21st century - a report to the CVCP*, The Institute for Employment Studies, Report 306.
- Hodgson A, Spours K (2000), 'Expanding higher education in the UK: from system slowdown to system acceleration', *Higher Education Quarterly*, vol 54 no 4, pp 295-322.
- Robinson P (2001), *New Labour, new economy, new targets?* Institute of Public Policy Research (IPPR) unpublished.
- Dynarski S (1999), *Does aid matter? Measuring the effect of student aid on college attendance and completion*, NBER Working Paper Series, Cambridge, MA.

Supply and demand in higher education

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Supply and demand in higher education

To	Heads of HEFCE-funded higher education institutions Heads of HEFCE-funded further education colleges Heads of non-HEFCE funded further education colleges in the FE sector Heads of universities in Northern Ireland
Of interest to those responsible for	Strategic and corporate planning
Reference	01/62
Publication date	October 2001
Enquiries to	Bahram Bekhradnia Director of Policy tel 0117 931 7309 e-mail sdconsultation@hefce.ac.uk Libby Aston Policy Officer tel 0117 931 7397 e-mail sdconsultation@hefce.ac.uk

Executive summary

Purpose

1. This document discusses trends in the supply and demand for higher education (HE) in order to raise fundamental questions about future student numbers and to encourage discussion of future policies.
2. It examines the rapid expansion of higher education places in the late 1980s and early 1990s, and the levelling off of growth in demand which followed. It looks in detail at the underlying causes of these changes, as well as the consequences for institutions and for the shape of the higher education sector. This analysis is used to inform a discussion of the position and role of the HEFCE and the policy options that arise.
3. The issues discussed are only partly for us as a funding council – they are also for the Government and for institutions providing HE programmes in both the HE and further education (FE) sectors. The purpose of this document is to stimulate discussion of these fundamental questions and consult with the HE sector and other interested parties to inform future policy decisions.

Key points

4. The six years from 1988-89 to 1993-94 saw very rapid growth in student numbers. The most significant element was the increase in the full-time participation of 18-21 year-olds, which grew from 15 per cent in 1988-89 to 30 per cent in 1993-94 as measured by the Government's Age Participation Index (API). There was 67 per cent growth of full-time undergraduates in HEIs in Great Britain over these six years.
5. Since then the growth trend has been much reduced, with just 6 per cent growth in the total number of HE students in England¹ from 1996-97 to 2000-01, compared with 54 per cent growth just in HEIs in Great Britain from 1988-89 to 1993-94.
6. Full-time undergraduate students remain by far the largest group in HE, representing around 70 per cent of the full-time equivalent (FTE) population – a percentage that has not changed greatly over the years – and the great majority of these are young (around 75 per cent). The main driver of demand for HE by young people has been the number of school pupils obtaining GCSEs and staying on at 16 plus to study for level 3 qualifications.
7. The GCSE reforms in 1988 fuelled the rapid increase in numbers of pupils staying on at school and college, and subsequently the increased student numbers of the late 1980s and early 1990s. This represented a long overdue catching up by this country with the staying-on rates of other comparable nations. This increase more than compensated for a decline in the young population during that time.
8. International comparisons demonstrate similar patterns of growth in higher education attributable to an increase in participation and achievement at school and in further education.
9. The other significant driver of growth was the rapid change in the occupational structure of employment in the 1980s. The demand for highly skilled labour and level 4 qualifications increased beyond the existing supply. The higher wages attached to jobs requiring level 4 qualifications in the late 1980s contributed significantly to the increased demand for HE in the early 1990s.
10. Since 1994, the proportion of pupils staying on at school and college at 16 plus has not changed significantly, nor has their subsequent educational attainment – on both academic and vocational courses. This largely explains the slowdown in the rate of increase in HE participation. Moreover, since the early 1990s, continuing structural changes in employment have not been sufficiently rapid to overtake the supply of graduates. Therefore this has not driven rapid growth in demand for HE as it did in the late 1980s and early 1990s.
11. Although there will be a steady increase in 18-21 year-olds over the next 10 years, the social composition of this group may change in favour of those who have traditionally participated least in HE. Because of this, it is unlikely that demography alone will lead to significant growth.

¹ Home and EC students, including fundable and non-fundable in HEFCE-funded HEIs and FECs in England (including franchised students, Open University, but excluding University of Buckingham).

12. Nevertheless, a number of conditions exist which may lead to a resumption of growth in the near future. In particular, significant numbers of pupils stay on at 16 but do not attempt level 3 qualifications. If recent curriculum reforms in schools and colleges lead to an increase in level 3 qualifications among this group, this could lead to increased demand for higher education.

13. The very uneven participation in higher education by different social groups also provides a substantial basis for increased demand, if those hitherto least likely to stay on at school and participate in higher education do so to a greater extent in future. If those least likely to participate at present do so eventually at the average rate for young people as a whole, then this alone will generate demand for 100,000 additional HE places.

14. Continuing structural changes in the labour market will lead to an increasing proportion of highly skilled jobs. However, the slowing pace of these changes means that a widespread shortage in high level skills is unlikely to be the cause of rapid growth in HE demand in the near future.

15. It is too soon to know whether changes to student finance arrangements have affected participation rates. It is possible that they may do so in the future.

16. Looking at the experience of individual higher education institutions (HEIs), there have been very different experiences over the past 15 years. Some, in particular the new universities and colleges, grew very rapidly in the earlier part of this period, and have suffered declines over the past few years. Others, mainly pre-1992 universities, have experienced a much slower but steady growth throughout the period, which has not been interrupted by the recent falling off of overall demand.

17. With increasing signs of a modest mismatch between supply and demand, more popular institutions may flourish at the expense of the less popular, and there are signs that this is happening already.

18. It would be a novel departure if we were to seek explicitly to manage growth in individual institutions, and to do so by countering student demand and market forces. In general, we have sought through our funding method and in particular through the annual allocation of Additional Student Numbers (ASNs), to allow students to attend the institutions of their choice which are prepared to accept them. Where we have become involved, it has been to help institutions to manage the effects of market forces, and in particular the consequential reductions in funding.

19. We are, however, fully committed to working with institutions and other partners in order to achieve increased participation in HE. We are already acting to encourage wider participation and expansion. We are committed to taking, and supporting institutions in taking, whatever further steps are needed, particularly to encourage much closer partnerships between HEIs, further education colleges (FECs), schools and others to raise significantly the proportion of young people with the qualification and motivation to enter HE.

20. As part of this commitment, there may be a case for intervention to maintain diversity in the pattern of institutions across the sector. In general, the current mismatch is impacting most on those institutions that are most active in providing for students from disadvantaged backgrounds, part-time students and mature students. And it is these more diverse groups who make up the most significant pool of potential demand. A question for us to address is what level and form of intervention, if any, is appropriate to maintain the current diversity of provision.

21. The control on maximum student numbers (the MaSN) is no longer needed for the purpose for which it was introduced – constraining student numbers to within the Government’s targets – and would not be particularly effective for a wider purpose. The allocation of additional student numbers provides us with a measure of control, but as currently operated it results in additional places going to the most popular institutions. However, it would be possible to reduce the number of additional places allocated so that it only reflected expected net growth in the sector, so reducing the likelihood of redeployment of existing numbers between institutions.

22. It may be that the most productive role for us – and perhaps the right one – is to continue to manage the effects of market mechanisms to ensure that institutions do not suffer unmanageable changes, are supported in making the best contribution they can, and are able to reposition themselves following changes in their fortunes. Many institutions have responded to change by taking management actions to reorientate themselves, including in some cases rationalising their provision to focus on their strengths and so develop a more sustainable core. We could do more to help institutions in this respect, in particular making use of the Restructuring and Collaboration Fund, which may need to be much larger if such activity is to increase.

23. At the same time, we will need to examine whether the additional costs incurred by institutions whose main focus of activity is to widen participation are sufficiently recognised in the funding model. While this will not directly address the question of recruitment difficulties, it will ensure these are not compounded by our funding method, and could help those institutions develop the support they offer to non-traditional students and thereby assist retention.

24. More generally, it is clear that future growth in student numbers will depend upon increases in pupils staying on at school, and attaining level 3 qualifications. Achieving these increases will depend substantially on developments in schools and FECs, but there will also be a key role for HEIs to play in co-operation with them. It will be important for them to identify how they can best play this role in the future, and for us to consider how we can support them in this.

25. Universities and colleges are diverse; their distinctiveness is defined by the broad variety of student groups which they serve. While it is clear that increases in school staying-on rates is the major factor driving growth in student numbers, this should not deflect the endeavours of those with missions to attract mature students. There is much valuable and innovative work being undertaken in improving access for older students, including lifelong and work-based learning, often through part-time and shorter courses. We will continue to

encourage these activities so that all groups can benefit from higher education throughout their lives.

Action required

26. Respondents are asked to send their comments by e-mail to sdconsultation@hefce.ac.uk by **25 January 2002**.

27. In the interests of openness and transparency, we will make all responses publicly available unless respondents specifically ask us to keep them confidential.

28. In particular we welcome comments on the following areas:

- a. The accuracy of the analysis.
- b. The conclusions drawn from the analysis, in particular concerning the likely future patterns of demand.
- c. The possible actions that we might take in collaboration with HEIs, FECs, and other partners to help increase demand.
- d. The possible actions that we might take to support HEIs in managing the short and medium term impacts of the changes in supply and demand. These are discussed in paragraphs 152 onwards of the main report and in Annex C. They include:
 - i. Changes to the funding model.
 - ii. Help with restructuring.
 - iii. Better information and guidance.
 - iv. Promoting better management.

Trends in HE numbers over the 10 year period from 1983-84 to 1993-94²

Main points

- the HE sector saw very rapid growth in the 10 years to 1993-94. Student numbers in HEIs in Great Britain grew by 54 per cent in the last half of this period (from 1988-89 to 1993-94)
- although there was growth throughout the sector, the largest increase was in the number of full-time undergraduates in HEIs in Great Britain, which grew by 67 per cent from 1988-89 to 1993-94. The main driver of the expansion was the increase in the full-time participation of 18-21 year-olds, which rose from 15 per cent of this age group in 1988-89 to 30 per cent in 1993-94 as measured by the Government API
- there was also substantial growth of part-time students (33 per cent in HEIs in Great Britain from 1988-89 to 1993-94), most of whom were mature. However, because this growth was less than that of full-time students, the proportion of part-time students overall declined from 38 per cent to 33 per cent
- the number of mature, home, first year students increased substantially (by 57 per cent from 1988-89 to 1993-94), but the proportion of these students studying part-time declined from 66 per cent to 55 per cent
- there was also a significant growth in the number of postgraduate students, which increased by 76 per cent from 1988-89 to 1993-94. The growth was particularly rapid amongst part-time postgraduates, at 98 per cent.

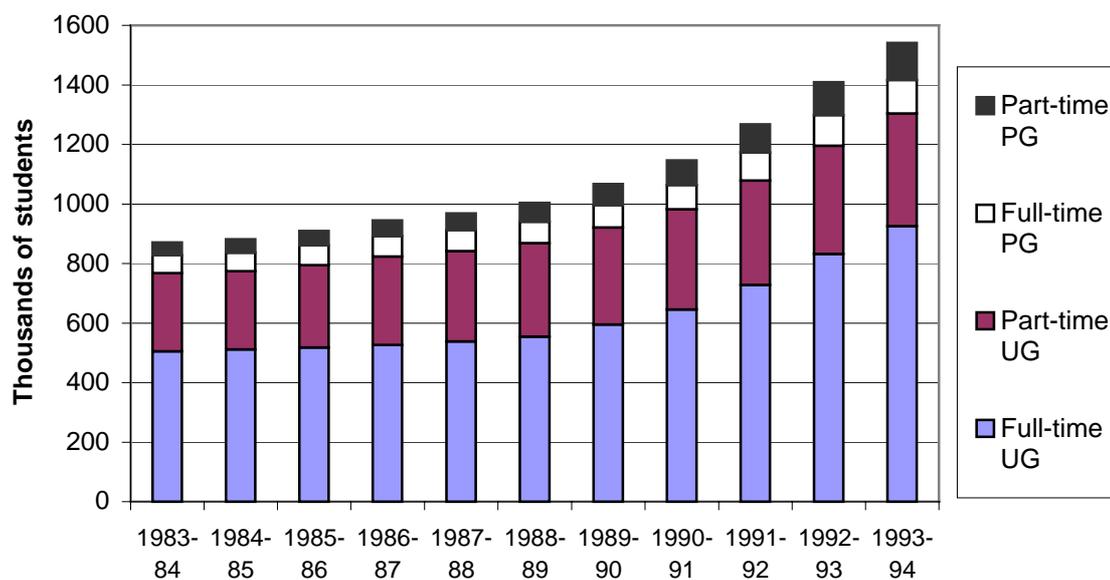
29. The 10 years from 1983-84 to 1993-94 showed expansion at all levels and in all parts of the sector, though the rates of growth varied. Overall, the number of students in British HEIs increased by 77 per cent during these 10 years. Growth was much faster in the second half of the period: 54 per cent growth from 1988-89 to 1993-94 compared with 15 per cent from 1983-84 to 1987-88.

30. The increased growth from 1988-89 to 1993-94 was focused in five main areas:

- a. Full-time study (increased by 66 per cent), particularly at post-1992 universities and colleges (up by 91 per cent).
- b. Numbers of postgraduate students (increased by 76 per cent), particularly those taking part-time study (up by 98 per cent).

² The data regarding growth in HE during this 10-year period are from the IES report to the CVCP (Conner, 1997) which used DfEE unpublished data. These data are not comparable with HESA data, which was available from 1994-95 onwards, which is why these 10 years have to be analysed separately.

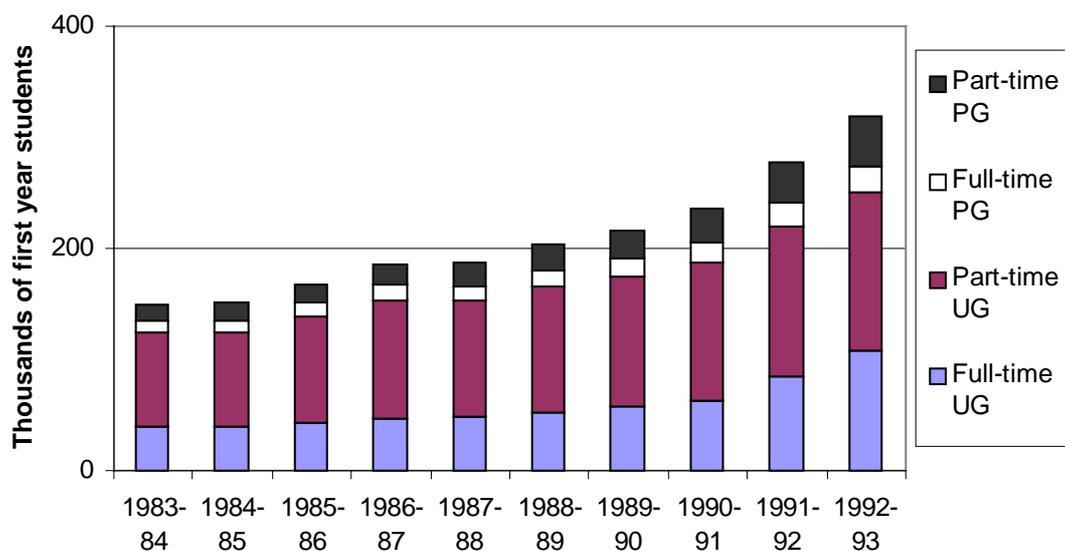
Figure 1 Number of students by level of course and mode of study



Source: DfEE 1995, first published in report to the CVCP by IES (Connor, 1997). Numbers are for all students for all HEIs in Great Britain. Years are academic years.

c. Mature full-time undergraduates (see Figure 2). The majority of those studying part-time have always been mature students (that is, aged 21 years and over at undergraduate entry and 25 years and over at postgraduate entry). After 1990-91, the number of mature full-time students began to grow rapidly, and this changed the balance between full-time and part-time study for mature students. From 1989-90 to 1993-94 the part-time to full-time ratio for home first year mature undergraduate students went from 66:33 to 55:45. During the same period, the proportion of first year postgraduate students that were mature declined. This could have been a reflection of the increasing proportion of first degree graduates going on to postgraduate study immediately after graduation.

Figure 2 Number of mature home, first year students in HEIs in Great Britain



Source: DfEE 1994, first published in report for CVCP by IES (Connor, 1997). Numbers are for all students for all HEIs in Great Britain. Years are academic years.

d. Undergraduate study in subjects allied to medicine, business and financial studies, information science and multi-disciplinary studies; and postgraduate study in art and design, and social sciences.

e. Numbers of women in higher education: the participation rate of women was catching up with men until 1992-93, when the Age Participation Index (API) of women overtook that of men for the first time³ (see Figure 3).

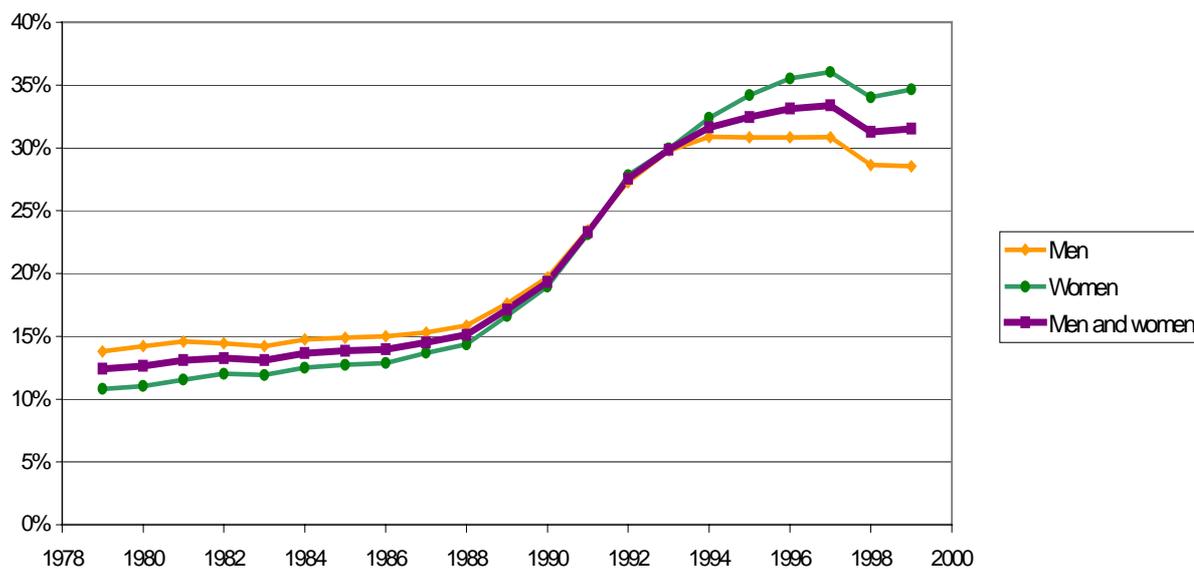
31. In comparison, there was a much slower growth in some areas. This resulted in a decline in the proportions of students taking:

- sub-degree undergraduate courses
- science and engineering courses
- part-time courses. The overall percentage of part-time enrolments fell from 38 to 33 per cent (but this decline was mostly in first degree and other undergraduate study, not at postgraduate level).

All these groups represent a declining share of total enrolments.

³ DfES unpublished information on APIs broken down by gender.

Figure 3 Age Participation Index (API)⁴ by gender (1979-99)



Source of API of Men and Women: DfES Departmental Report.

Source of API by gender: unpublished DfES data on APIs broken down by gender.

32. The proportion of entrants to full-time first degree courses with qualifications other than A-levels rose overall: in 1991, 22 per cent of entrants via UCCA and PCAS had qualifications other than A-levels or Scottish Highers, compared with 28 per cent in 1994 (via UCAS).⁵ From 1985 to 1989, the largest single group among the non A-level qualifications was BTEC qualifications. However, from 1989 to 1994 there was significant growth in Access course qualifications.

33. Despite the growth of mature students and entrants taking alternative routes to HE, the main driver of the expansion of higher education in this period was the increase in the full-time participation of 18-21 year-olds. This rose dramatically from 15 per cent in 1988-89 to 30 per cent in 1993-94 as measured by the Government API.

⁴ The Age Participation Index (API) is defined as the number of home domiciled young (under 21) initial entrants to full-time and sandwich undergraduate courses of higher education, expressed as a proportion of the averaged 18-19 year-old population of Great Britain.

⁵ UCCA, the Universities Central Council for Admissions and PCAS, the Polytechnics and Colleges Admissions Service, were superseded by UCAS, the Universities and Colleges Admissions Service.

Trends in HE numbers from 1996-97 to 2000-01

Main points

- there was just 6 per cent growth in the total number of HE students⁶ in England⁷ from 1996-97 to 2000-01
- the number of full-time undergraduates grew by 2.6 per cent
- the total number of mature students has remained constant since 1996-96. However, the number of mature first year students⁸ declined very slightly from 1996-97 to 1998-99, but has since remained constant
- the number of students on sub-degree courses declined steadily.

34. The two years that follow on from the previous section (1994-95 and 1995-96) are not presented here because the data are confusing and are not comparable with data from 1996-97 onwards.⁹ These two years have been analysed, and demonstrate similar trends in growth to that experienced after 1996-97. This section looks at growth in HE from 1996-97 to 2000-01.

35. There has been a dramatic difference in the growth rate of student numbers during the five years from 1996-97 to 2000-01 in comparison to growth experienced from 1988-89 to 1993-94. The growth rates of all the major areas of expansion during 1988-89 to 1993-94 have since levelled off.

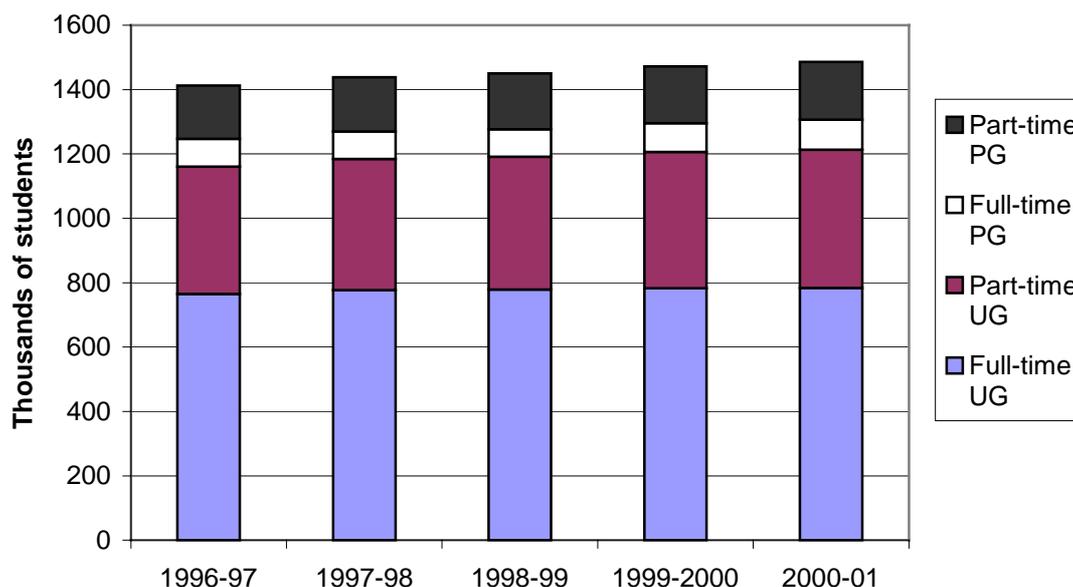
⁶ Home and EC students including fundable and non-fundable.

⁷ HEFCE funded HEIs and FECs in England including franchised students and Open University, but excluding University of Buckingham.

⁸ A more volatile measure.

⁹ The Higher Education Statistics Agency (HESA) started collecting data after 1993-94, but the following two years saw considerable changes to definitions, the mainstreaming of continuing education, and many institutions joining the HE sector. Data quality also improved dramatically in the first two years. All these changes caused numbers to increase without any actual growth taking place.

Figure 4 Number of students by level of course and mode of study



Source: HESES data¹⁰ for all HEIs in England. Numbers are HESES columns 1+2, all home and EC students (including fundable and non-fundable). HESES numbers include FEC mergers (using HEIFES¹¹ 98 numbers backdated where appropriate). Years are academic years.

36. Overall, there has been a steady increase in the number of students in higher education, totalling around 6 per cent from 1996-97 to 2000-01 (HESES), much slower than the 54 per cent growth between 1988-89 and 1993-94.¹² The number of full-time and part-time postgraduates increased by around 7 or 8 per cent during this period, whereas the number of full-time undergraduates (the largest growth area from 1988-89 to 1993-94) grew by only 2.6 per cent.

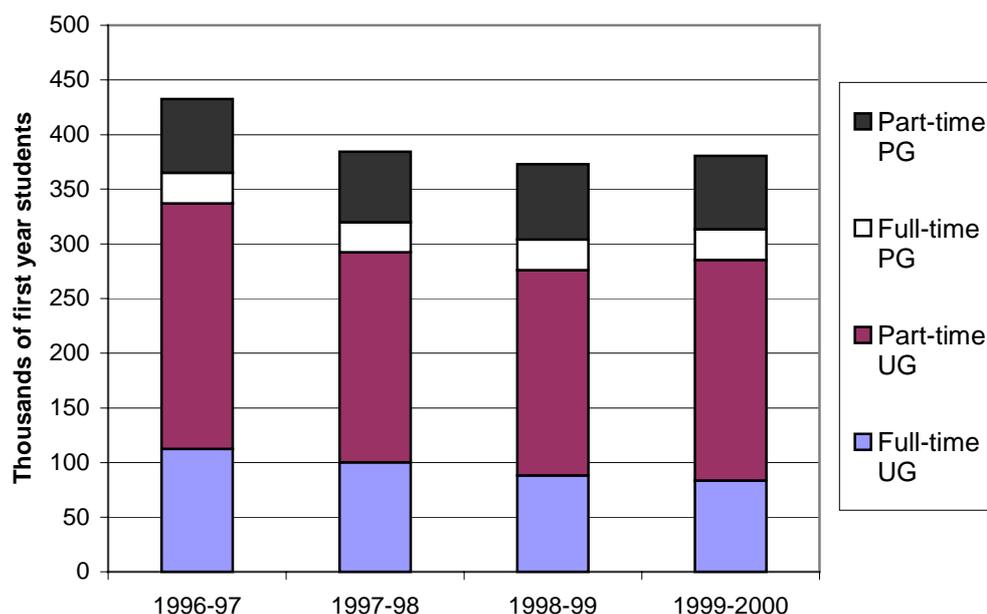
37. The number of mature first year students declined very slightly from 1996-97 to 1998-99 and has since remained broadly constant to 1999-2000 (see Figure 5). Since 1998-99, this represents a slight increase in participation rate because of a declining mature population during this period. The number of mature undergraduate full-time first year students has declined, in marked contrast to the growth that occurred in this group from 1989 to 1994. The small growth in part-time mature students has been mainly in qualifications relating to a wide range of health care professions (HESA, 1999), many of which were not previously recorded in higher education statistics.

¹⁰ Higher Education Students Early Statistics Survey (HESES) started in 1992-93. These data, along with HESA data, are collected to inform our allocation of teaching funds.

¹¹ Higher Education in Further Education Early Statistics Survey (HEIFES).

¹² Please note that growth from 1996-97 to 2000-2001 is referring to home and EC students in HEFCE funded HEIs and FECs in England, whereas growth from 1988-89 to 1993-94 is referring to students in HEIs in Great Britain, so the difference in growth is being understated.

Figure 5 Number of mature home, first year students in HEIs in England



Source: HESES and HESA data for all HEIs in England. Numbers are HESES columns 1+2, all home and EC students (including fundable and non-fundable). HESES numbers include FEC mergers (using HEIFES 98 numbers backdated where appropriate). HESA data have been used to estimate proportions. Mature students are undergraduates who are 21 or over on entry, and postgraduates who are 25 or over on entry. First year students are students that have started within the academic year. Years are academic years.

38. Since 1994, there has been a small but continuous decline in the number of students doing HND and HNC courses, particularly in HEIs (DfEE, 2000a). From 1997-98¹³ to 2000-01, there was a 4 per cent decrease in the number of accepted home applications to HND courses (UCAS). These figures underestimate the decline because a number of colleges were added to the UCAS constituency during these four years. The decline among older entrants was significant. HNDs and HNCs might, to an extent, be being replaced by vocational degrees (Young, 1999), but their value remains uncertain in a rapidly changing employment market. There is no evidence of increased demand for the vocational part-time route. Indeed the proportion of those on vocational degrees has declined relative to academic university degrees (DfEE, 2000a), and those taking sub-degree qualifications are increasingly likely to continue immediately with their studies to convert these into an honours degree (DfEE, 2000a).

39. One of the reasons for the slowdown in growth over the sector as a whole is that the previous growth was in part fuelled by the participation of women in HE catching up with that of men, and then overtaking it in 1992-93. Since then, the gap between the male and female participation rate has continued to increase (see Figure 3). This would suggest that to generate growth, the participation rate for men now needs to catch up with that for women.

¹³ The first year after the incorporation of Art and Design applications into UCAS figures.

40. The proportion of students studying engineering and technology, languages, and physical sciences has continued to decline. Because of the slower growth trends in HE from 1996-97 to 2000-01 this has represented a decline in actual numbers of students in these subjects, which was not the case from 1988-89 to 1993-94. The number of business & administration students has increased slightly, but not at the same rate as they did from 1988-89 to 1993-94. Numbers of students studying computer science and IT have risen significantly, as have the numbers studying subjects allied to medicine, although the latter may not constitute real growth (see paragraph 37).

41. For funding purposes, students from the EC¹⁴ are not treated any differently from home students. In 1999-2000 they represented just under 20 per cent of full-time postgraduate 'home and EC' postgraduate students and over 5 per cent of full-time 'home and EC' undergraduates.¹⁵ The demand from the EC is growing. In the four years between 1996-97 and 1999-2000 the numbers of full-time postgraduates grew at an average of over 6 per cent per annum, whilst the numbers of full-time undergraduates grew at an average of nearly 4 per cent per annum.

¹⁴ 'EC' is shorthand for countries in the EC or the EEA. The statistics include students from the following countries: Austria, Belgium, Denmark, Finland, France, Germany, Gibraltar, Greece, Iceland (EEA), Irish Republic, Italy, Liechtenstein (EEA), Luxembourg, Netherlands, Norway (EEA), Portugal, Spain, Sweden.

¹⁵ These figures are derived from the HESA data using HESES definitions. They refer only to English HEIs, HESES columns 1 and 2, both fundable and non-fundable.

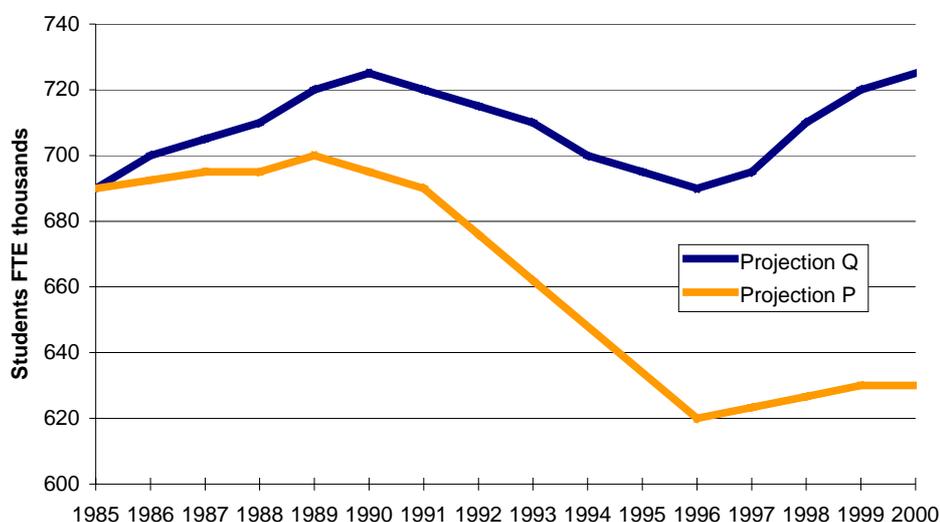
Government targets during the late 1980s and the 1990s

Main points

- Government targets have failed to accurately project demand since the late 1980s. Since 1993-94 the rate of growth in full-time undergraduate student numbers has been declining steadily despite varying government targets during this period
- the separate targets for different modes and levels have proved particularly difficult to achieve
- the difference between the Government's targets and actual numbers is not surprising. For the most part, government action has affected the supply of places. Quite different, and often unpredictable, influences affect student demand.

42. In a speech in January 1989, the then Secretary of State for Education, Kenneth Baker, said: 'We have to look beyond the period immediately ahead of us, when the decline in the number of 18 year-olds... will make it difficult simply to maintain numbers at present levels.' He also said that 'in the latter part of the 1990s, the whole of higher education will be poised to expand.' Figure 6 illustrates the projected decline of student numbers in the early 1990s.

Figure 6 Government projections of HE students 1985-2000



Source: 'Projections of demand for higher education in Great Britain 1986-2000', Department of Education and Science, November 1986.

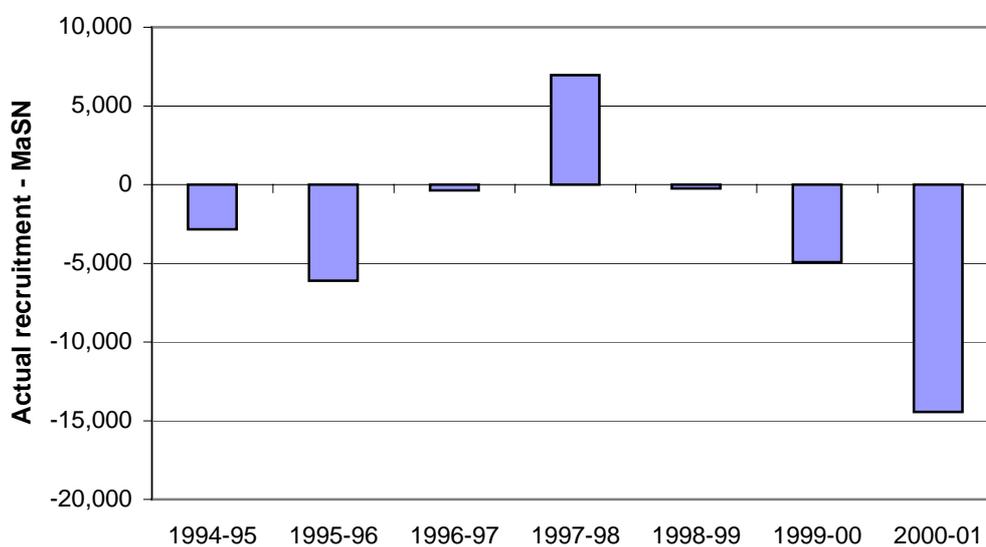
43. In Figure 6 Projection P was based on the assumption that the numbers of young people entering full-time higher education would remain a constant proportion of those gaining the traditional qualifications for entry, and that the entry rates for mature students would also remain constant. For Projection Q, it was assumed that those proportions would increase, in part to reflect the success of the Government's policies for schools and non-advanced further education (DfEE, 1987 Government White Paper). Even in Projection Q,

numbers of HE students were projected to decline from 1988-89 to 1993-94, when in fact the HE sector experienced unprecedented levels of growth during those six years.

44. A significant factor within these projections was the predicted growth of the proportion of young people as a whole gaining two or more A-levels. It was projected that this would reach 20 per cent by 2000, whereas in fact this figure rapidly increased to 29 per cent by 1994 and has remained approximately at that level (see Figure 10).

45. During the early 1990s, growth in student numbers was consistently higher than Government projections. Figure 7 illustrates that in contrast, for all but one of the last six years, the maximum student number (MaSN) targets, which reflect Government's planning targets, have been undershot (by 14,000 in 2000-01 for example). For full details of the MaSN and recruitment against the MaSN see Annex D.

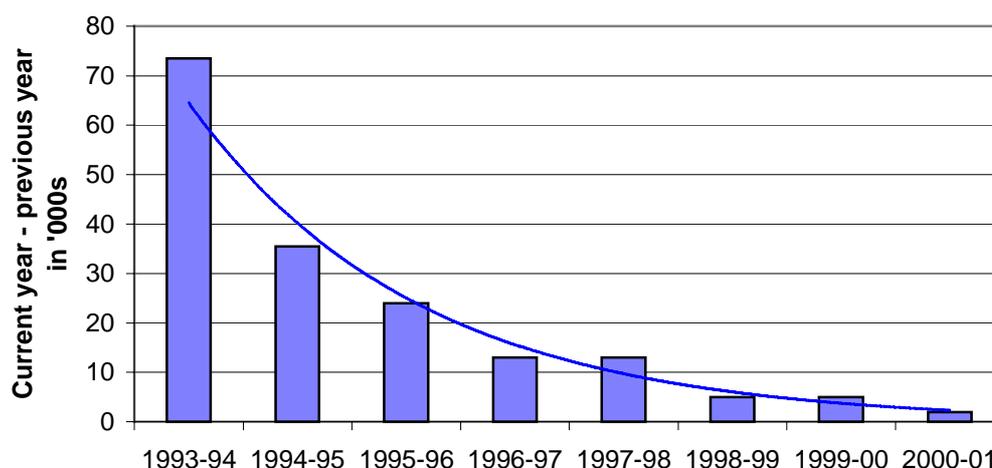
Figure 7 HEI actual recruitment against MaSN target



Source: See Annex D.

46. Figure 8 demonstrates that the growth of full-time undergraduates continued to decline at its own steady rate throughout the 1990s despite varying Government targets (including a period of consolidation in the mid 1990s).

Figure 8 Actual year on year change in full-time undergraduates



Source: HESES columns 1+2, home and EC students (fundable and non-fundable). Years are academic years.

47. In recent years, the Government has sought to plan the number of students at a level of detail which has proved difficult to achieve, with separate targets for full-time, part-time and sub-degree places, and for growth of HE provision in FECs. In 1999-2000 and 2000-01, for example, the Government sought an increase in numbers of part-time students, with the following results, as shown in Table 1.

Table 1 Growth in numbers of part-time students: targets and actual

	Additional part-time places sought by Government for 1999-2000	Growth in student numbers 1999-2000	Difference 1999-2000	Additional part-time places sought by Government for 2000-01	Growth in student numbers 2000-01	Difference 2000-01
Headcount	19,300	16,902	-2,398	27,400	7,317	-20,083
FTE	6,700	4,153	-2,547	9,600	4,467	-5,133

Source: Public Expenditure Survey 98 and 99, and HESES Column 1 & 2, home and EC students (fundable and non-fundable), excluding Initial Teacher Training and In-Service Education Training).

48. Of the additional part-time places sought for 2000-01, 80 per cent were sought at sub-degree level (96 per cent of additional undergraduate part-time places were sought at sub-degree level). Government targets expected much of this growth in sub-degree provision to be in FECs and through the University for Industry (Ufi). Table 2 shows that there was actually a decline in the number of directly funded undergraduates at FECs in 2000-01. Table 3 shows that there was also a decline in the number of directly funded sub-degree students at FECs in 2000-01.

Table 2 Growth in home and EC undergraduates at directly funded FECs

	Growth in 1999-2000	% Growth 1998-99 to 1999-2000	Growth in 2000-01	% Growth 1999-2000 to 2000-01
Full-time	821	2.8%	1,294	4.2%
Part-time	497	1.2%	-2,126	-5.2%

Source: HEIFES 98-00. Numbers are headcounts. Column 1 + 2 used. Includes numbers franchised out by FECs. Institutions becoming indirectly funded before 11/10/01 excluded in all years. Excludes numbers franchised in to directly funded FECs from HEIs.

Table 3 Growth in home and EC sub-degree students at directly funded FECs

	Growth in 1999-2000	% Growth 1998-99 to 1999-2000	Growth in 2000-01	% Growth 1999-2000 to 2000-01
Full-time	870	5.0%	1,904	10.4%
Part-time	-630	-1.7%	-2,125	-5.8%

Source: HEIFES 98-00 (op cit, see Table 2).

49. The difference between the Government's targets and actual numbers is not surprising. For the most part, government action has affected the supply of places. Quite different, and often unpredictable, influences affect student demand.

Drivers of student demand during the 1990s

Main points

Demand during the late 1980s and early 1990s:

- the main driver has been the number of school pupils obtaining GCSEs and staying on at 16 plus. The GCSE reforms in 1988 led to a sharp and rapid increase in schools' staying-on rates, and subsequently to the increased numbers of HE students in the late 1980s and early 1990s
- this itself was influenced by the rapid change to the occupational structure of employment in the 1980s. The demand for highly skilled labour and level 4 qualifications increased beyond the existing supply. The resulting higher wages attached to jobs requiring level 4 qualifications in the 1980s was a significant driver of the increased demand for HE in the early 1990s
- the increase in staying-on rates and educational attainment at 16 plus was so rapid from 1989 to 1994, that student numbers grew despite the decline in the population of 18-20 year-olds during this period
- international comparisons demonstrate similar patterns of growth in other industrialised countries, also attributable to an increase in participation and achievement in schools and FECs.

Demand during the mid to late 1990s:

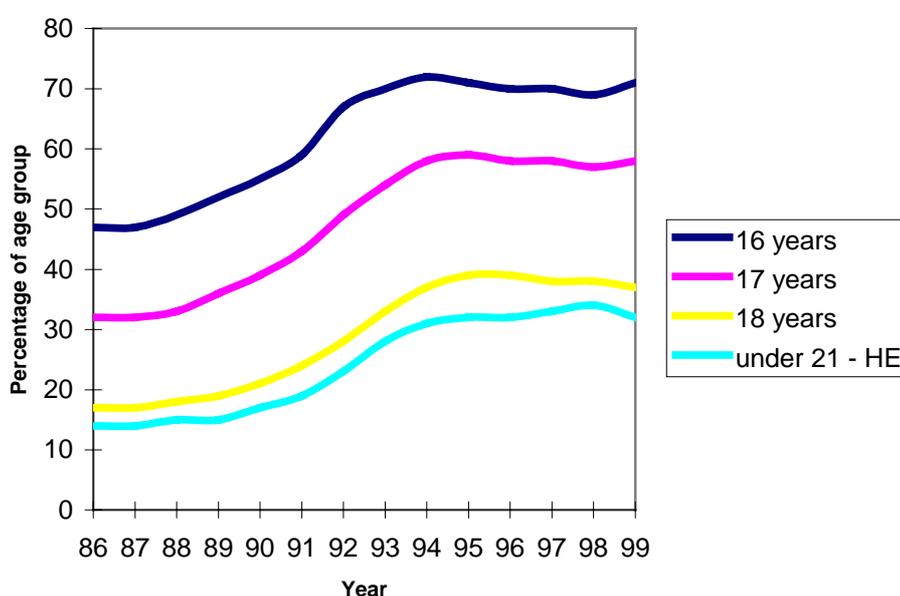
- since 1994, there has been little change in the proportion of pupils staying on at 16 plus, or in their subsequent educational attainment
- the anticipated growth in level 3 vocational qualifications has not materialised
- the increase in wages that occurred in the late 1980s levelled off in the early 1990s, partly because there were more qualified graduates to meet the demand, and partly because of the recession in the early 1990s
- since the early 1990s, continuing structural changes in employment have not been sufficient to overtake the supply of graduates, so this has not driven rapid growth in demand for HE as it did in the late 1980s and early 1990s
- despite recent growth in the relevant population, this combination of factors has led to a levelling-off of numbers of 18-21 year-olds entering higher education.

50. Figure 1 shows that most of the expansion during the 1990s was in terms of full-time undergraduates. This section concentrates on the factors which influenced the growth in young full-time undergraduates.

Post-16 staying-on rates, educational attainment, and demographics 1989-94

51. The rapid increase in demand for full-time undergraduate places can largely be explained by equally rapid increases in school staying-on rates and educational attainment. This increased demand occurred despite a decline in the population of 18-20 year-olds during the same six-year period, from 1988-89 to 1993-94. In general terms, it was due to the rapid increase in the staying-on rate for 16-18 year-olds over the five years from 1987-88 to 1992-93, from 55 per cent to 67 per cent. This represented a period of catching up with other Western countries, many of which had experienced comparable growth in their higher education systems much earlier.

Figure 9 Participation in full-time education by 16-21 year-olds in England

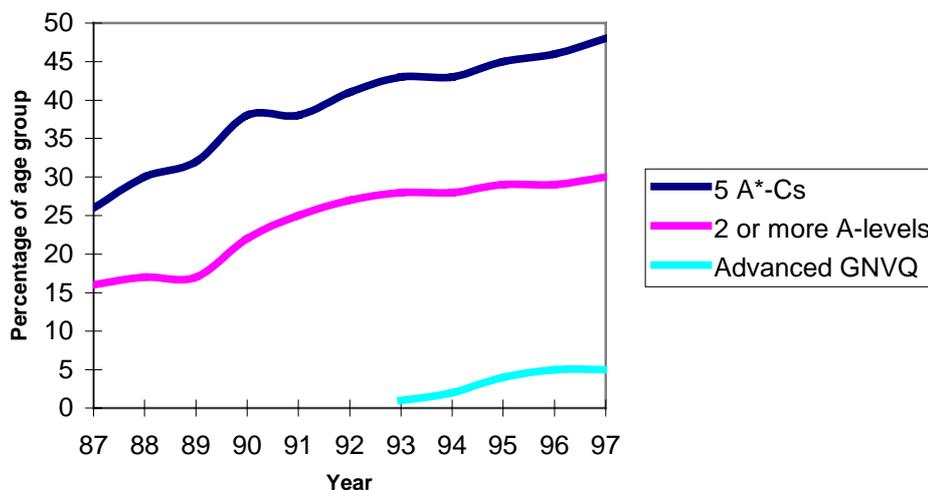


Source: DfEE Statistical Release SFR 13/99.

52. The more specific changes relating to the growth in HE were:

- a. The increase in the proportion of the young population gaining two or more A-levels. The number of students in the UK outside Scotland gaining at least two A-levels, expressed as a proportion of 17 year-olds, increased from around 17 per cent in 1988-89 to around 29 per cent in 1993-94 (see Figure 10).

Figure 10 Proportion of age group gaining qualifications



Source: DfEE First Statistical Release SFR 35/1999 and DfEE Statistical Service.

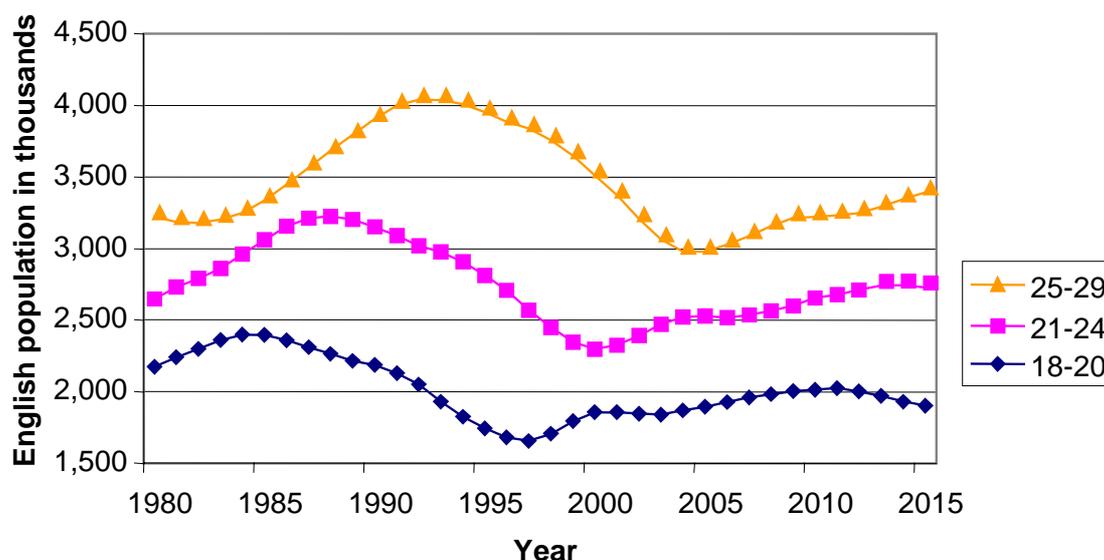
b. The increase in the proportion of those people with at least two A-levels that went into higher education. This rose from around 80 per cent to almost 100 per cent during the same six-year period (Smithers and Robinson, 1994).

53. After 1994, school staying-on rates levelled off (Figure 9), as did the percentage of those achieving two or more A-levels (Figure 10). These factors, together with the changing demographic structure of 16-18 year-olds after 1993-94 (see paragraph 60 and footnote 18), explain the levelling of growth rates after this time.

54. Figure 9 illustrates how higher education participation tracked the staying-on rates at 16 by two years, the staying-on rates at 17 by one year, and tracked almost exactly the changes in staying-on rates at 18. Participation in higher education doubled, from about 15 per cent of the 18-21 year-old age group in 1988-89 to over 30 per cent in 1993-94 (NCIHE, 1997). Just as school staying-on rates have levelled off since 1994, so has participation in higher education, remaining around 30 per cent of the 18-21 year-old age group. Although there has been a slight recent increase in those obtaining five or more GCSEs, so far this has not translated into a significant increase in pupils staying on in full-time education post-16, or in taking 18 plus examinations.

55. The effects of the unprecedented growth in educational attainment and participation rates in HE were dampened by a decline in the population of 18-20 year-olds from 1988-89 to 1993-94. (This is what caused the Government to project a decline in the HE population in the 1987 White Paper.) However, there was a shift in the balance of the population of 16-18 year-olds towards the higher social classes during the same six-year period, which meant that the decline in the number of young people likely to enter HE was less significant.

Figure 11 English population by age



Source: The Government Actuary; projections are based from 1996.

56. The fact that the rapid level of growth in higher education students from 1989 to 1994 occurred during a period when the population of young people was declining is further demonstration of the very strong level of growth that occurred in staying-on rates, educational attainment, and consequent participation rates in higher education during this time.

International comparison of growth

57. Levels of growth in England in the 1980s and 1990s match those of other OECD countries. Growth in HE has occurred at different times and at different rates in each of the countries, but the causes – in particular of the increase to 1994 – were similar. For example:

- a. In Northern Ireland the participation rate grew from 20 per cent in 1980, to 46 per cent in 1998. This is attributed to an improvement in staying-on rates and levels of attainment in secondary level education.
- b. In Germany, growth in HE has taken place despite a decline in the young population (as in England in the early 1990s). Growth is attributed to the number of students obtaining the Abitur, which rose from 18 per cent (1975) to 35 per cent (1991). This is comparable to the increase in students taking A-levels in this country – from 17 per cent in 1988-89 to 29 per cent in 1994-95. Growth is also attributed to the considerable increase in the number of mature entrants to HE, after three to four years vocational training. The average age of graduation in Germany is now over 29 years old.
- c. In France, growth has been attributed to both the increase in the percentage of people taking Baccalaureates, and the proportion of students with Baccalaureates that go into HE (the latter rose from 86 per cent to 93 per cent from 1983 to 1988). These figures are comparable to the increase in the percentage of students with A-levels that go into HE that took place in the late 1980s and early 1990s in England.

- d. In Australia and New Zealand there have been similar levels of growth. In Australia, undergraduate numbers peaked in 1992, and recent growth has come from an increase in postgraduates and those continuing their tertiary education.
- e. In the US, where there continues to be unmet demand, there has been consistent growth since the 1960s. This is still driving expansion in the US, and is mainly attributed to the recognition of labour market advantages of HE qualifications. Unlike in many OECD countries, the US still has a significant pool of well qualified students each year that do not enter tertiary-type A¹⁶ higher education.

58. Making accurate and relevant international comparisons is extremely difficult for a variety of reasons; not least because of the different data collection methods used in different countries.¹⁷ For this reason, these comparisons must be treated with considerable caution, but they nevertheless point in the same direction.

Post-16 staying-on rates, educational attainment, and demographics 1994-2001

59. Since 1994 there has been a period of 'system slowdown' (Hodgson and Spours, 2000). The most marked characteristics of this have been:

- a. The plateauing of the participation rate in full-time education at the ages of 16, 17 and 18 (Figure 9).
- b. Reduced growth in attainment at GCSE and A-level (Figure 10).
- c. Low rates of successful completion have continued to remain a problem in broad vocational qualifications such as GNVQs.
- d. Declining growth rates, along with unforeseen low completion rates, in Modern Apprenticeships.

60. This combination of factors has produced a levelling-off of entry into HE by 18-21 year-olds. A gradual reduction in the growth rate of higher education has continued to date, despite a growth in the population of 16-18 year-olds since 1997.¹⁸

61. The culmination of significant reforms to the post-16 education and training system in the late 1980s was the introduction of the GCSE examination in 1988 (Gray et al, 1993; Payne, 1999). In the period 1987-88 to 1993-94, the staying-on rates in full-time education for those aged 16 rose from 49 per cent to 72 per cent (Statistical First Release, DfEE 1999,

¹⁶ The OECD defines tertiary-type A programmes as those equivalent to the university-level bachelors qualification or higher, and tertiary-type B programmes as those that focus on practical/technical/occupational skills.

¹⁷ One example is that OECD statistics on participation rates include foreign students because it is not possible to exclude them from HE statistics in some countries.

¹⁸ Estimates using the 1991 Census of Population data suggest a shift in the balance towards 18-20 year-olds in lower social classes from 1997 to 2007 (a reversal of trends seen in the early '90s). It is difficult to calculate whether, despite this, there has still been some growth since 1997 in the population of those social classes more likely to enter HE.

13/99). A similar dramatic rise took place in attainment at GCSE and A-level, though at about half the rate of growth in participation (Spours, 1995). This has led some to conclude that the system slowdown that started in 1994 could be the result of the current education system reaching its natural capacity for growth in these areas (Hodgson and Spours, 2000).

62. The Dearing Review (1995) of post-16 education suggested that it was unlikely that A-levels would be taken by more than a third of all 18 year-olds; by 1994 that proportion had been reached. It was widely accepted that growth towards the Government's National Education and Training Target – for 60 per cent of young people by the age of 21 to possess level 3 qualifications¹⁹ – would have to come from qualifications other than A-levels. The implication for higher education was that vocational qualifications were to become an increasingly important entry route to HE.

63. At present, broad vocational qualifications, such as GNVQ Advanced and BTEC awards at national and higher levels, are held by about 12 per cent of those entering higher education courses (UCAS, 1999). This represents a rise of only three percentage points in five years. This is likely to be an overestimate of growth because UCAS greatly expanded the constituency from which data were taken during these five years.

64. Such limited progress is the result of a number of factors. First, under a third of those studying at advanced level are taking broad vocational qualifications, despite the steady growth in participation in Advanced Level GNVQs (Statistical First Release, DfEE 1999, 13/99). This indicates that growth in Advanced GNVQs has largely been at the expense of participation in other traditional full-time vocational qualifications (FEDA, IOE, Nuffield 1997). Second, completion rates for a full Advanced GNVQ have remained low, at 50 per cent in 1994, rising slightly to 58 per cent in 1999 (JCGAB, 1999). Third, the impact on HE progression of the growth in NVQ level 3 awards has been very limited. This is thought to be because it is seen principally as a training award associated with the workplace, rather than as a step toward further study.

65. Thus the projected growth in vocational qualifications as a route into HE has not taken place. And the predicted maximum number of students likely to take A-levels was reached by 1994 (Dearing Review 1995). Together, these facts go a long way to explaining the much lower rates of growth of students in higher education since 1994 compared with growth experienced from 1988-89 to 1993-94.

Labour market changes and economic cycles

The graduate labour market

66. Among the many factors that motivate individual students to enter HE is the demand for graduates from the labour market.

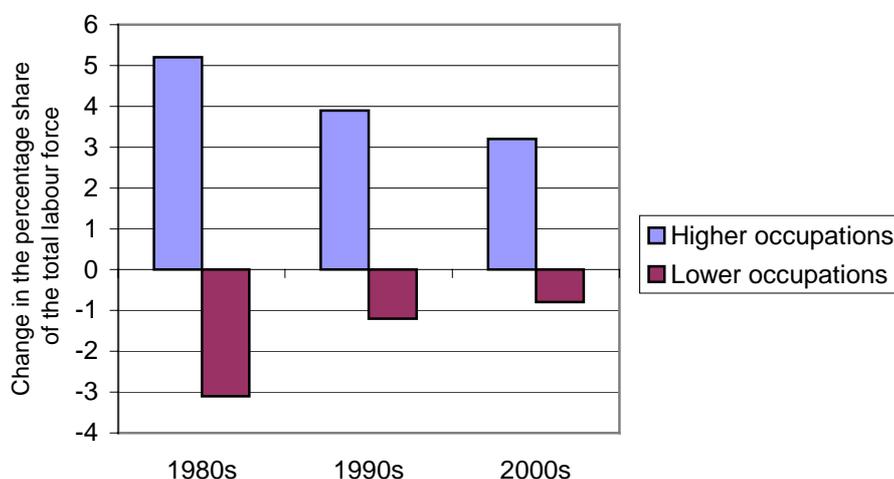
67. Technological changes and growing internationalisation over the last 20 years have brought about significant changes to the structure of employment in all advanced industrial economies. This has increased the demand for highly skilled labour while reducing the

¹⁹ Level 3 qualifications are two A-levels, an Advanced GNVQ or NVQ level 3.

demand for less skilled labour in this country. The most profound changes in the labour market took place in the 1980s; since then the pace of structural change has slowed down markedly (Robinson, 2001).

- a. 'Higher occupations'²⁰ have steadily increased their percentage share of the labour market, but the pace of change in the 1990s is slower than in the 1980s, and projections to 2001 demonstrate a further reduction in the pace of change (National Skills Task Force, 2000).
- b. Equally, the reduction in the share of the labour market of 'lower occupations'²¹ has slowed in the 1990s compared with the 1980s and is projected to slow down further (see Figure 12).

Figure 12 Changes in the occupational structure of employment



Source: Data from the National Skills Task Force report, 2000, using Standard Occupational Classification (SOC) categories. Projections should be treated with caution.

68. This slowdown in the change to the occupational structure of employment has been matched in other ways. For example, the rapid decline in manufacturing industry in the 1980s slowed in the 1990s. The accelerating trend in the 1980s towards more inequality in wages and incomes has slowed considerably. And growth in the proportion of women in the labour force is slowing down and has remained at 45 per cent since 1993 (Robinson, 2001).

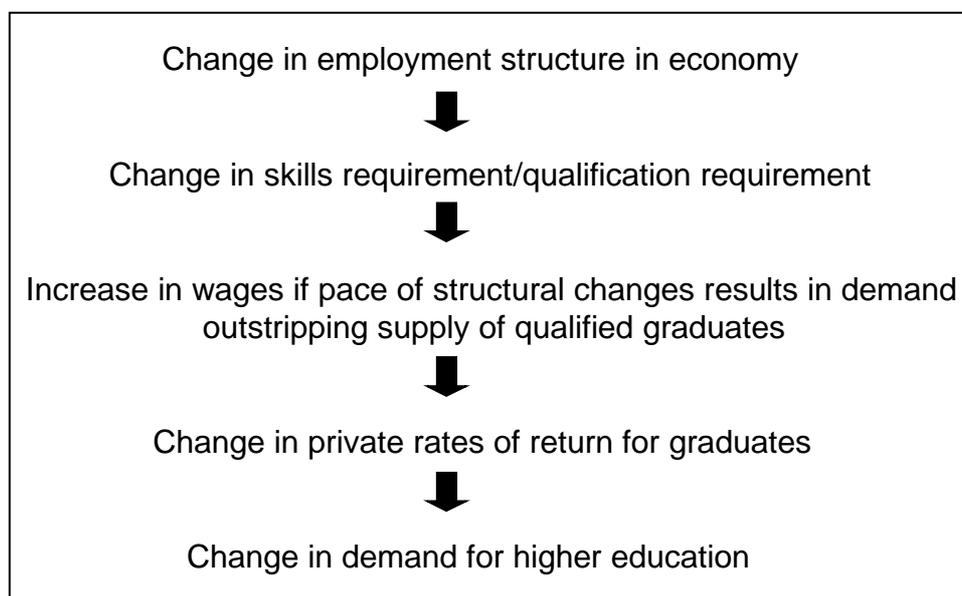
69. Structural changes in the labour market affected demand for HE by increasing the share of 'higher occupations'. However, the key aspect is the pace of these changes in relation to the supply of graduates. Rapid structural changes during a time of relatively constant supply of graduates caused an increase in wages for skilled occupations in the late

²⁰ Managers and senior officials, professionals, and associate professional and technical occupations. These are the occupations most easily described as 'knowledge intensive'. The vast majority require level 4 qualifications.

²¹ Personal services, sales/customer services, plant and machine operatives, elementary occupations.

1980s. This in turn influenced demand for HE and the rapid increase in participation in HE in the late 1980s and early 1990s (see Figure 13).

Figure 13 Effect of changes in employment structure and supply of graduates



70. However, the 1990s saw a slowdown in the pace of changes to the structure of the labour market, whereas the supply of graduates had increased to meet demand. The increase in wages therefore levelled off in the 1990s. Continuing structural changes did not constitute a significant driver for further growth in demand for HE in the mid to late 1990s.

71. The relationship between the labour market and demand for HE is about perceptions and relative advantage. This is why trends in demand for HE have lagged behind changes in the labour market, and why an increasing supply of graduates to the labour market has not reduced demand for HE – because the relative advantage of a level 4 qualification has remained significant.

The labour market for young people

72. Employment opportunities for young people can be considered as direct competition to staying on in full-time education. The relationship between employment and education is of course more complicated than this, especially with more students taking on part-time work while they study. This change in activity can have consequences of its own in relation to the attainment and expectations of students, both of which can affect their propensity to enter HE.

73. From 1987 to 1992 when post-16 staying-on rates increased rapidly, from around 48 per cent to around 70 per cent, the number of 16-19 year-olds directly entering the labour market declined sharply from around 20 per cent to under 10 per cent (Steedman, 1997). Statistics published by the DfEE suggest that it has remained at around 10 per cent since then, with a slight rise in the numbers moving directly from school into full-time jobs very recently (DfEE, 1999c).

74. Changes in the number of 16-19 year-olds going into full-time employment track very closely the changes in the full-time participation in education of 16-19 year-olds. Analysis suggests that full-time job opportunities for young people were reducing²² at the same time that many other drivers were acting to increase the full-time participation in education during the late 1980s and 1990s. The relationship between the labour market and full-time participation in education means that it is difficult to establish the level of influence that one has on the other.

Economic cycles

75. It is also difficult to discern the exact relationship between economic cycles and demand for HE, because any cyclical changes can have both positive and negative effects on demand. The recession in the early 1990s reduced opportunities in the labour market, which encouraged young people to remain in education, and older people to return to the classroom. During a recession, when job opportunities are limited, any relative advantage becomes increasingly more valuable. However, the recession in the early 1990s also played a part in reducing the rate of expansion of graduate positions in the economy, and reducing the wage premiums attached to high level qualifications. In time this contributed to the levelling-off of growth rates in HE in the mid to late 1990s.

²² Partly due to the decreasing percentage share in the labour market of low-skill jobs, and partly due to the effects of the recession in the early 1990s.

Projecting demand

76. Projecting future demand for HE is a considerable undertaking. How this might be approached – by breaking down HE students into various groups based on demand characteristics and assessing the significance of each projection on overall demand – is discussed in more detail in Annex A. It is not possible to duplicate the detailed work of the DfES in this area, but it is possible to discuss projections in terms of the main drivers of demand that have been identified in the previous section.

77. This section analyses the factors that influence demand from young full-time undergraduates. They are by far the largest group, and therefore the most important in terms of overall projections, and are also the most predictable. This is followed by discussion of the more significant influences for other large groups within HE, to determine the broad picture of future demand.

Main points

Young full-time undergraduates:

- full-time young students remain by far the largest group in HE. Projections for this group remain the most important factor in projecting total student numbers
- although there will be a steady increase in 18-21 year-olds over the next 10 years, the social composition of this group may change in favour of those who have traditionally participated least in HE. Because of this, it is unlikely that demography alone will lead to significant growth
- if recent curriculum reforms lead to more pupils staying on at 16 plus, this may lead to increased participation in HE. And if some of those who do not currently undertake level 3 qualifications do so in future, then this too will lead to growth
- HE will be increasingly in demand as a result of the continuing structural changes in the labour market leading to an increasing proportion of high-skill jobs. However, the slowing pace of these changes is such that this alone is unlikely to lead to rapid growth in demand in the near future
- the largest potential for growth comes from young people from poor backgrounds. If their school staying-on rates and examination achievements at level 3 increase to the national average, this alone will require 100,000 further places in HE
- it is too soon to know whether changes to student finance arrangements have affected participation rates. However, there is some evidence that decisions by students from poor

backgrounds to participate in HE are influenced by the amount of support available, and so it is possible that changes in these arrangements may affect demand.

Other groups of students:

- for the number of part-time students to grow, there will need to be growth in the population qualified to level 3, and clear signals from employers about the benefits of part-time study
- the population from which mature first-time students are drawn has reduced. Significant growth in numbers of such students will be difficult to achieve
- demand for sub-degree provision has been declining, perhaps reflecting the lack of reward for such qualifications in the job market. However, the introduction of the foundation degree may stimulate demand, if it carries value in the job market
- demand from EC students has been growing, but this source of growth is not secure, and future demand will depend on the policies of the EC countries as well as conditions in the UK.

Young full-time undergraduates

78. Annex A describes the groups that make up the HE population. In aggregate, young full-time undergraduate students are by far the biggest group: full-time undergraduate students represent around 70 per cent of the HE population, and around 75 per cent of these students are young.²³ This figure has remained constant over the past decade. Therefore the most important factors which influence demand will continue to be:

- a. Demographic trends, especially of those social classes with a high propensity to enter HE.
- b. Staying-on rates and educational attainment of young people.
- c. Participation in level 3 qualifications as alternative routes into HE.
- d. Economic factors – labour markets and economic cycles.
- e. Student finance arrangements.
- f. Effective policy initiatives to stimulate new demand from under-represented groups.

²³ Under 21 on entry.

Prospects for growth among young full-time undergraduates

79. Based on the evidence within this report (see paragraphs 84 and 85), there is unlikely to be significant growth in HE resulting from demography alone. It would take a major change in staying-on rates at 16 plus, such as occurred in the late 1980s, to substantially increase the number of young entrants to HE. Then, it was the introduction of the GCSE accompanied by major structural changes in employment which led to the change. It would take comparable changes to stimulate a substantial increase in staying-on rates at school, which would in turn feed through to an increase in HE demand.

80. However, there are some optimistic signs for possible growth. There has been some growth in pupils succeeding at GCSE, but an increasing number of them do not continue with their studies. If the Curriculum 2000 reforms, or other changes, lead more pupils to continue their studies, then the pool of those seeking HE entrance will increase. Although the number taking vocational qualifications post-16 has remained stubbornly low, conditions are in place for such a change in schools, which in turn would have a major impact on HE demand.

81. Participation in higher education varies considerably according to social and economic circumstances. Figures 15 and 17 show that there are some areas from which virtually no young people enter HE. We have estimated that if the participation rates of the lowest participating groups were to increase to just the national average, then this would require 100,000 additional HE places.²⁴ In principle, there is no reason why such a change should not occur – to bring England in line with other Western countries and indeed with other nations in the UK. In Scotland, for example, participation by all social groups is higher than in England. The timing of such a development is in doubt, but there is no reason why England should over the long term continue to stand apart from others in this respect.

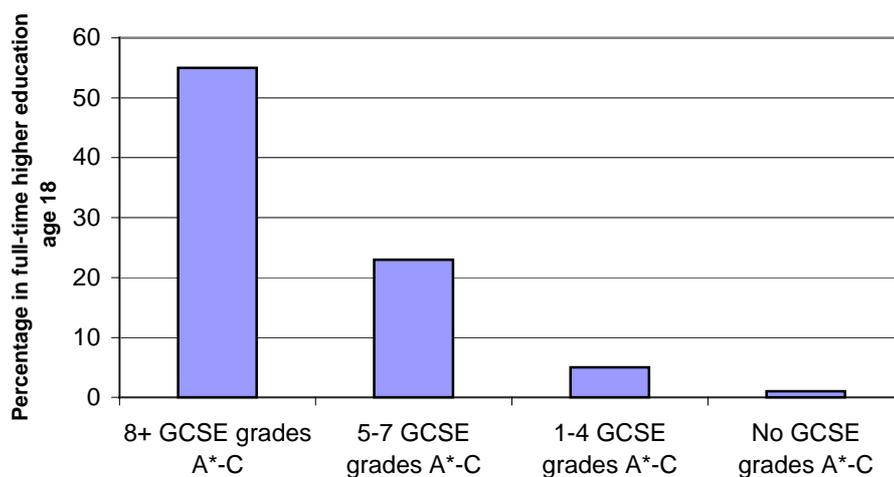
Demographic trends

82. The data shown in Figure 11 illustrate that there will be a gradual increase in the population of 18-20 year-olds over the next 10 years. If all other factors remain unchanged, this would suggest a constant but gradual growth in higher education.

83. The Youth Cohort Survey 2000 demonstrates that the two major factors that correlate to whether a student is in higher education aged 18 are either social class or academic achievement (either/or because social class and academic achievement are so closely linked).

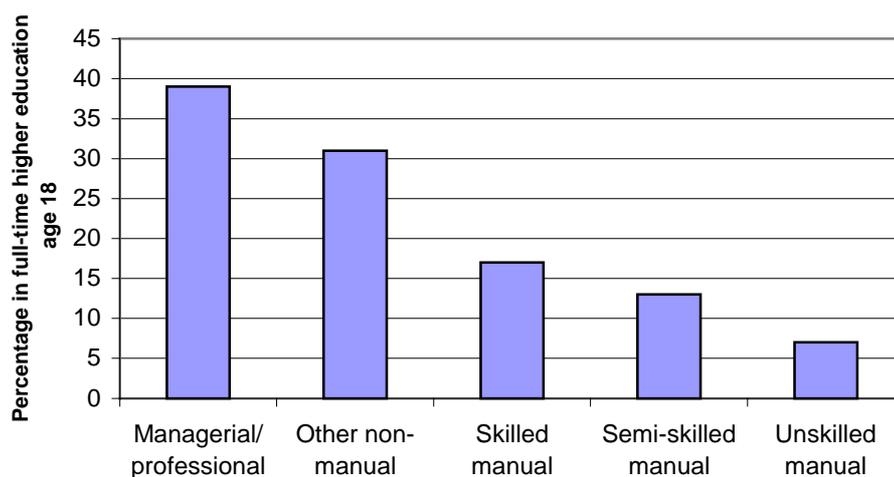
²⁴ Interim report on 'The influence of neighbourhood type on participation in higher education', HEFCE, April 1997. The same report, however, also stated that 'increasing the rate of participation of those currently with the lowest rates requires action which is largely beyond higher education policy: changes in school and social policy are needed to impact on this.'

Figure 14 Participation in higher education by educational attainment at 16



Source: Youth Cohort Survey 2000, SFR 03/2001.

Figure 15 Participation in higher education by social class



Source: Youth Cohort Survey 2000, SFR 03/2001. Social class is assigned through information collected by the Youth Cohort Survey on the occupation (using Standard Occupational Classification categories) of parent or guardian with the highest income in the household.

84. To analyse trends, it would therefore be necessary to disaggregate demographic changes by social class. Projections of population by social class are not available, but there are estimates based on secondary sources, using the 1991 Census of Population data (Connor, 1997).

85. These estimates suggest a changing social class structure over the 10 years from 1997 to 2007, with a shift in the balance towards 18-20 year-olds in lower social classes. This is a reversal of trends seen in the previous 10 years, and suggests that the growth in the 18-20 year-old population will lead to less growth in HE than is suggested by the bare demographic projections.

Staying-on rates and educational attainment of young people

Staying-on rates

86. Higher staying-on rates at school yield a greater level of educational attainment, which increases demand for HE. In the five years from 1987-88 to 1992-93 the staying-on rate for 16-18 year-olds increased rapidly from 55 per cent to 67 per cent. However, young people's participation in education has since levelled off, and if it continues to remain static this will affect the growth in demand for HE.

87. The DfEE has projected that between 1998 and 2001 participation in full-time education at 16 will rise by four percentage points and by five points at 17 plus (DfEE, Government Expenditure Plans 1999, Annex O). However, Hodgson and Spours argue that small rises in 16 and 17 plus participation stemming from particular government initiatives are unlikely to affect the higher education participation rate significantly in the near future, because students entering the system are likely to enrol on level 2 courses rather than level 3. Moreover, the progression rates of learners from post-16 level 2 qualifications to level 3 courses has been found to be as low as 10 per cent (Ainley et al, 1999).

88. Efforts need to be made much earlier in the education system to raise aspirations and stimulate demand for post-16 education – and then through progression routes into HE. If successful, such efforts could have a huge impact on demand for HE in the long term.

Educational attainment

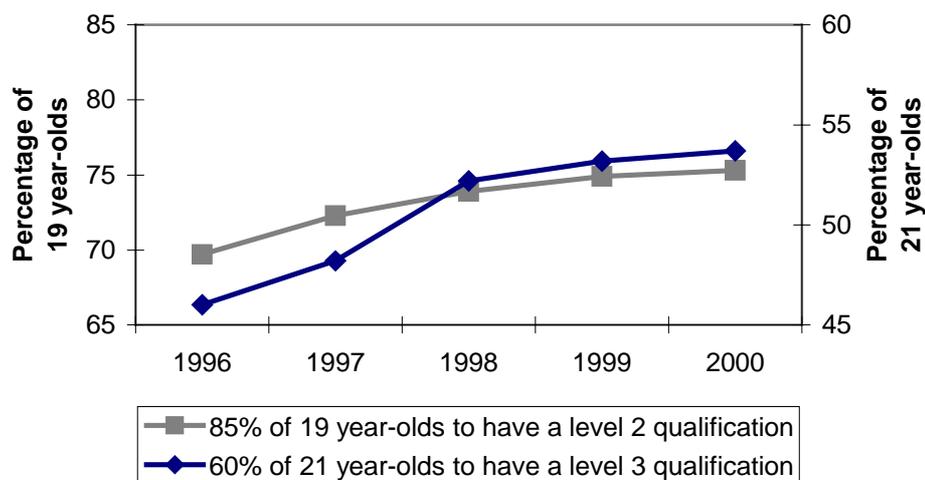
89. Evidence from the Youth Cohort Survey suggests that the most powerful predictor of continuing participation in education is young people's achievements in exams at the end of their period of compulsory schooling (see Figure 14). Nearly 70 per cent of young people who qualified to level 2²⁵ in year 11 had reached level 3²⁶ by 18 (and therefore were qualified to enter HE). Of particular relevance to higher education is the proportion of young people gaining two or more A-levels. This has remained static since 1994 at just over 29 per cent, and there are no indications that it will increase in the near future.

90. Recent modest rises in the proportion of pupils gaining five or more good GCSE grades do not seem to be feeding through to advanced level. This is of concern, as the move from level 2 to level 3 study is a key transition in our education system. Pupils who make that transition are a ready potential source of additional demand for HE, if they could be encouraged to stay on in education.

²⁵ Level 2 qualifications include five GCSEs at grades A*-C, an NVQ level 2, an intermediate GNVQ or any equivalent of these.

²⁶ Level 3 qualifications include two GCE A-levels, an NVQ level 3, an advanced GNVQ or any equivalent of these.

Figure 16 Progress towards post-16 national learning targets for young people in England



Source: DfEE Statistical First Release SFR 06/2001. ONS, Labour Force Survey, autumn quarters.

Participation in level 3 qualifications as alternative routes into HE

91. The target increase in the number achieving advanced level qualifications, outlined in the 1994-95 national targets, was expected to come mainly from vocational qualifications (Dearing, 1995). Evidence suggests, however, that the levelling off of staying-on rates of 16-18 year-olds is affecting broad vocational qualifications in the same way as A-levels. Furthermore, there is evidence that the growth that is taking place (for example in the number of people taking NVQ level 3) is not affecting the participation of these groups at HE level (see paragraphs 63 and 64).

92. In the few years following 1993-94, it was expected that there would be a significant increase in the proportion of students with GNVQs among entrants to degree studies, as a result of the increased take-up of GNVQ courses by both young and mature students. The national targets introduced in 1994-95 aimed to ensure that 60 per cent of young people should have a level 3 qualification by the age of 21. Around half of those studying advanced GNVQs were expected to enter higher education (FEU, 1994). Some of this would be new demand for HE, and some would be existing demand re-routed through vocational qualifications.

93. The number of entrants with broad vocational qualifications has grown by only 3 percentage points over the past five years,²⁷ and now stands at around 12 per cent (UCAS, 1999). Various factors explain this modest progress, outlined in paragraph 64. There is evidence that the number of students entering higher education by alternative routes is unlikely to increase further unless significant changes are made.

²⁷ This is likely to be an overestimate of growth because UCAS expanded the constituency from which data were taken during these five years.

94. If completion rates of broad vocational qualifications could be improved, this would expand the proportion of 19 year-olds eligible for higher education entry by up to two percentage points annually. Studies of retention in further education (Spours, 1997) suggest that the completion rate is higher for full-time vocational courses that are properly recognised by employers.

95. In addition to the existing range of post-16 qualifications, there are new routes to higher education. Modern Apprenticeships (MAs) aim to provide work-based training leading to attainment at level 3, and an alternative route to higher education. However, despite MAs now accounting for over 45 per cent of all participants in work-based training aged 16-19 (largely replacing existing vocational qualifications rather than meeting new demand in this area), so far they have made a negligible impact on higher education numbers (Hodgson and Spours, 2000).

96. Any reforms to the work-based route as a means of progression into HE have to be considered in the context of the deep-seated barriers²⁸ in this area. Even with significant improvements to the current system, a realistic target for progression to higher education might be 10 per cent of those completing Modern Apprenticeships (Hodgson and Spours, 2000). This would constitute about 1 per cent of the 16-21 year-old age group.

Economic factors: labour markets and economic cycles

The graduate labour market

97. Structural changes in the labour market are continuing to increase the proportion of high-skill jobs. Changes have slowed down during the 1990s, and projections from the Labour Force Survey are for minor structural change along the same patterns over the next 10 years. There is no doubt that HE will be increasingly in demand because of these continuing structural changes. However, higher salaries, generated by a significant shortage in high level skills, are not going to generate a rapid growth in demand for HE in the near future as they did in the early 1990s.

98. Shortages in high level skills still exist in specific areas of the labour market, mostly in relation to technical skills in mathematical, scientific and engineering subjects. Unfortunately, the supply and demand of particular skills and qualifications is not something that can be planned for at such a specific level.

99. The influence of the labour market on demand for HE (see Figure 13) does not work in the opposite direction except that the existence of highly qualified manpower may be a factor in influencing inward investment. In general, though, it is not possible to accelerate changes in the structure of the labour market by increasing the supply of graduates beyond the current demand for high level skills. Evidence from this country, as well as the US (Court, 1994) and Australia (Marginson, 1995), demonstrates that if the supply of graduates to the labour market is higher than formal indications of demand, the likely consequences are displacement of

²⁸ This is referring to the assumption that the majority of students who have chosen a work-based level 3 training course will be seeking a specific vocational qualification in order to enter a particular job, and therefore will have limited interest in further study.

graduates into non-graduate jobs. Displacement has slowed in comparison with the early years of expansion in graduate supply, but a sizeable minority of graduates still go initially into non-graduate jobs (Mason, 2001).

100. However, the labour market benefits of HE persist despite considerable expansion in the number of graduates in the population. Indicators such as labour force participation rates, unemployment rates, occupational distribution and earnings of graduates demonstrate that there remains a considerable relative advantage attached to level 4 qualifications. Current graduates do not necessarily do as well as previous cohorts in terms of monetary rewards and high socio-economic status, but they continue to do significantly better than their non-graduate contemporaries.

101. There is extensive evidence that graduates who do jobs previously done by non-graduates in many cases enhance the role and in due course convert it into a 'graduate job'. However, there are natural limits to such upgrading, so there is likely to be a continuing pattern of under-utilisation of a minority of graduates. A pattern of increasing divergence between graduates, in terms of salaries and career prospects, already exists and is projected to continue (Mason, 2001).

Economic cycles

102. The relationship between economic cycles and demand for HE has been made even less clear by the changes to student finance arrangements. Now that the financial costs and the levels of debt for students are greater, it will take more of a push than was required in the early 1990s to persuade 'marginal' students to continue in education, and to bring mature learners back to the classroom. A recession could reduce the opportunities for part-time employment as well, and this could affect the many students that rely on part-time income to supplement loans. Because of its complex and polar effects, it is not possible to project the outcome that a future recession would have on demand for HE.

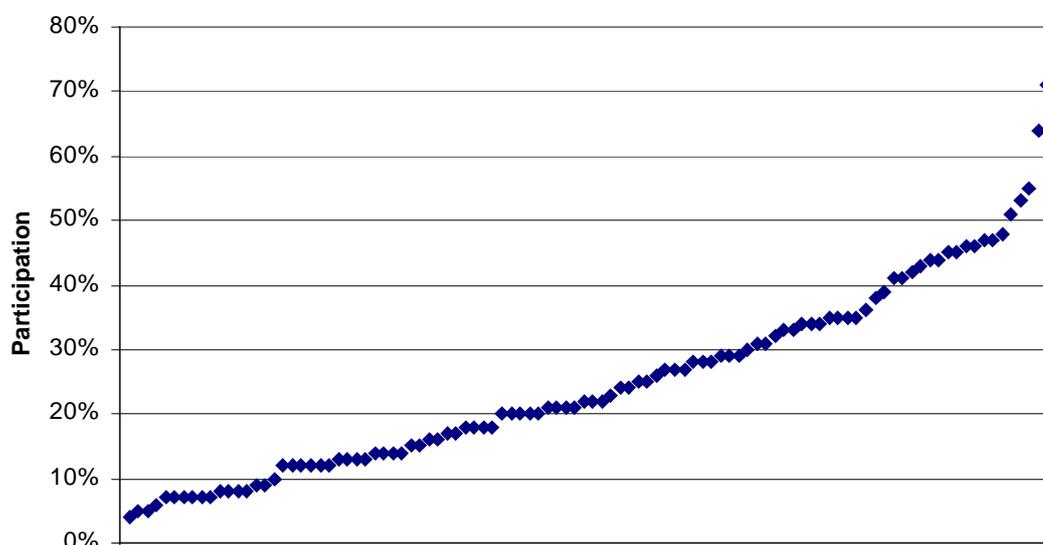
Student finance arrangement

103. The following two paragraphs summarise the relationship between financial aid, debt and participation in HE; a full analysis is at Annex B.

104. We cannot know, in precise quantifiable terms, what effect the changes to student finance arrangements (introduced by the Government in 1997) have had on demand for HE from disadvantaged groups. This is because we have no way of knowing what levels of demand and growth would have been achieved if finance arrangements had not changed. For this same reason, the growth that has taken place in the sector over the past few years, of a few percentage points each year, cannot be considered as evidence that these changes have had no effect on potential demand.

105. Research suggests that it is too soon to know whether changes to student finance arrangements have affected participation rates in many parts of the sector. However, there is some evidence that decisions by students from poor backgrounds to participate in HE are influenced by the amount of support available, and the potential level of debt that will be incurred, and so future changes in these arrangements may have an impact on demand.

Figure 17 Participation rates of neighbourhood types



Source: Figure 17 shows the participation rates for 102 neighbourhood types. These are groups, or clusters, of similar small areas (1991 census enumeration districts). This 'geodemographic' assignment used the 'Super Profiles' classifier. (HEFCE, 1997 gives further details). The graph is based on provisional data from ongoing work at the HEFCE to monitor participation. The population data is more accurate than was available at the time the 1997 HEFCE report was written, and much work has been carried out to ensure the student data are clean and that the postcode identifications are meaningful. Clusters with populations less than 1,000 have not been shown. The students counted are those that: reached 18 between 1 September 1998 and 31 August 1999, entered a full-time first degree or HND programme at a UK HEI by 31 July 2000, were active on 1 December in their year of entry, were domiciled in England, attended a school not indicated as overseas, and did not have HE recorded on entry.

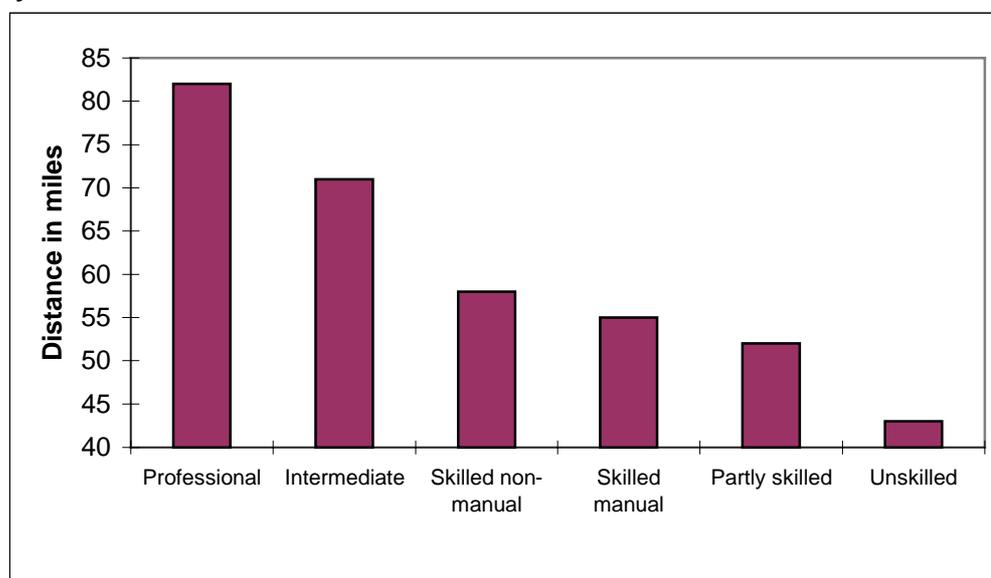
106. Figure 17 ranks 102 neighbourhood, or small area, types by the participation rate of young people in HE. It demonstrates the substantial variation that exists within this country. The participation rate varies from less than 5 per cent to more than 70 per cent for these differing groups of neighbourhoods. We have estimated that if the participation rates of the lowest participating groups were to increase to just the national average, then this would require 100,000 additional HE places (HEFCE, 1997).²⁹

107. The high correlation between social class and participation in full-time higher education of the young, illustrated in Figure 15, along with the information illustrated in Figure 17, demonstrate why there is a continuing focus of much HE policy on disadvantaged groups. Widening participation initiatives are aimed at the groups with a history of low participation in HE, which are very hard to reach.

²⁹ The same report, however, also stated that 'increasing the rate of participation of those currently with the lowest rates requires action which is largely beyond higher education policy: changes in school and social policy are needed to impact on this.'

108. Figure 18 demonstrates that degree students from lower socio-economic groups also tend to travel less far than degree students from higher social classes. This would suggest that the availability of courses locally is extremely important.

Figure 18 Average distance from home to the HEI for students on first degree courses by social class



Source: UCAS Statistical Bulletin on Widening Participation, Edition 2000.³⁰ Social class is assigned through information collected by UCAS on the occupation (using Standard Occupational Classification categories) of parent or guardian with the highest income in the household.

109. The rapid growth that took place in the early 1990s means that we have reached near saturation of demand from qualified entrants from higher social classes. Consequently the success of policies to widen participation – in higher and further education and schools – will be the main determining factor of whether significant growth can be achieved in the future. The big question is whether the potential of this cohort can be realised: whether demand for HE can be stimulated among groups in society with a history of low participation, thus generating the growth needed to meet government participation targets for 2010.

International comparison: growth and the social composition of HE

110. Experience in England can be viewed in the context of a substantial body of international research on the relationship between levels of inequality and expanding enrolments (Clancy, 2000).

- a. In most countries, lower socio-economic groups have increased their absolute chances of going onto HE, but class inequalities in relative terms have remained stable

³⁰ Data will underestimate the differences because the least mobile students tend to apply directly to the institution, rather than through UCAS.

in recent decades. Only two countries have achieved significant equalisation among socio-economic groups – Sweden³¹ and the Netherlands (Shavit, 1993).

b. The picture of under-representation of lower socio-economic groups is consistent across countries, regardless of educational structures and vigorous policy initiatives (Skilbeck, 2000).

111. In most countries, the growth that has taken place has failed to make a significant difference to the social composition of the HE sector. However, many OECD countries have now reached saturation of entrants from the highest socio-economic groups (Clancy, 2000). Future growth, if it can be achieved, will have to come from less well qualified students from groups in society with a history of low participation, and will therefore make the social composition of HE more equal. Policies of growth and increased participation have the potential to further reduce existing and persistent inequalities within higher education.

112. Entry rates for 1999 across OECD countries show an average participation rate of 40 per cent in tertiary type A higher education³² (OECD, 2001). This comparison suggests that the English participation rate in HE is below average.³³ Even within the UK, Scotland, Wales and Northern Ireland all have significantly higher participation rates than England. Given the social and cultural convergence of OECD countries, it seems reasonable to think that participation rates in England could be increased.

Student non-completion

113. A further, sometimes overlooked, aspect of demand for higher education places is the proportion of students who do not complete their courses. In the context of this report, there are two aspects to this. First, even without any increase in participation, any reduction in the current non-completion rate will itself lead to an increase in the number of students. Performance indicators published by the HEFCE demonstrate that the average rate of qualifying is 83 per cent in the UK (HEFCE, 2000). This is high compared with other countries, and a considerable achievement. Although there is wide variation between institutions in the non-completion rate, this is largely related to the students' prior level of educational achievement. There is scope for reducing non-completion rates, and we have instituted a programme to identify good practice which will increase the prospects of students completing their studies. However, both international comparisons and internal analysis within the UK suggest that there will not be significant increases in student numbers arising from reductions in non-completion.

³¹ In Sweden there exists a very broad commitment to equality of socio-economic groups in society, and they have achieved a great deal.

³² This figure should be treated with caution as international statistics are not accurately comparing like with like. In particular, for some countries this statistic includes international students in calculating the participation rate.

³³ However, high retention puts England at the forefront of nations in terms of graduation rate. High participation does not equal high graduation rate, and this is worth remembering when considering participation targets.

114. The second aspect of student non-completion relevant to this report is the relationship between previous educational attainment, social class and non-completion. The HEFCE produced a detailed analysis of these relationships for the Education and Employment Committee (EEC Sixth Report, 2001). As mentioned above, differences in non-completion can be understood in terms of differences in previous educational attainment. However, the strong association between previous educational attainment and social class (see Figure 15) means that non-completion by lower social classes is also high. Every effort must be made to ensure that, as higher education expands, the new students have every opportunity to succeed. However, it will take increased effort and cost to achieve this, and as we widen participation we increase the likelihood of a higher rate of non-completion.

Postgraduate students

115. The educational attainment of graduates, the number coming through the system and their propensity to continue into postgraduate study, make the numbers of young full-time taught postgraduates relatively predictable. It is likely, however, that this demand is less stable and therefore less predictable than that from young full-time undergraduates. External factors, such as the graduate labour market, student fees and the funding available for postgraduate study, are more likely to influence levels of demand and make projections slightly less reliable.

116. It should also be possible to project the number of postgraduate research students as a whole, based on existing numbers and current research funding. However, research funding from industry and other private sources are not as easy to project as public funding, and could have a large influence on numbers.

117. Moreover, it may not be safe to assume that other conditions affecting the demand for postgraduate places will remain stable. In March 2001 the National Postgraduate Committee projected that 'the overall figures have plateaued and could fall unless something is done to attract the next generation of students, who are now graduating with large debts due to the end of the maintenance grant'. The Office of Science and Technology has also found evidence of research places being unfilled this year. Science and technology graduates are in demand from industry, and they know their worth. As the level of debt when graduating increases (currently around £10,000 on average), so does the incentive to enter the labour market as opposed to continuing study.

118. Demand for postgraduate places is affected by relatively small changes in the economic climate, the graduate job market, institutional initiatives, fee levels and funding available for postgraduate study. Projections are significantly less reliable than those for young full-time undergraduates.

Part-time students

119. Information from the Student Income and Expenditure Survey (Callender, 2000) tells us that 88 per cent of part-time students had worked during the previous 12 months of studying, and the vast majority had had the same job throughout the year. Part-time students' main

source of income was their earnings. This clearly demonstrates how dependent part-time demand is on employers, labour markets and economic cycles.

120. There is an important distinction between short and long part-time courses. Postgraduate short courses (less than one year) in particular tend to be vocational. Perceived rates of return and demand from employers are the most significant drivers for demand of this type. Other part-time provision includes study which is both vocational and for wider interests. Demand for these courses would be less affected by demand from employers, but employer support and perceived rates of return to the individual would still play significant roles in determining demand.

121. Local access to HE is an essential factor in increasing demand for part-time courses. Because a high percentage of part-time students are employed, and the majority by the same employers throughout the year, most part-time students cannot travel far to study. By far the most important reasons for which part-time students choose their institution are: first, that it offers the course they want on a part-time basis, and second, that it is near their home (report by the Policy Studies Institute for NCIHE, 1997). There is an important connection between the ability of the sector to widen participation and attract more diverse students, and the institutional health of the type of institutions that focus on this activity.

122. However, evidence suggests that the supply of part-time courses is not enough in itself to stimulate demand. The number of projected places for part-time students was greatly over-estimated in 2000. In 2000-01, undergraduate part-time students filled only 4,166 of the 23,000 additional places sought by the Government that year (PES 1999); and postgraduate part-time students filled only 1,687 of the 4,000 additional places sought.

123. Evidence from surveys of young people on Modern Apprenticeships (Marque Associates, 1999) and of sixth formers (Hodgson & Spours, 2000) shows that many would consider higher education if they could earn money at the same time. This suggests there is at least the potential for increased demand for HE from young people through part-time study.

124. This potential is not being realised at present. Participation in vocational part-time higher education is in decline relative to academic university degrees (DfEE Foundation Degrees Consultation Paper, 2000). The most plausible explanation for this is uncertainty as to the value of vocational qualifications in a rapidly changing employment market. The Government is emphasising the need for employers to take part in the design and delivery of the recently introduced foundation degree (see HEFCE 01/40 and paragraph 130 below). What is certain is the need to secure employers' recognition of the worth of these new degrees.

125. Most part-time students are 'mature' (over 24 on entry), and most are employed and work for the same employer throughout the year. Part-time students rate 'increased employment prospects' as one of the main reasons for entering higher education (report by the Policy Studies Institute for NCIHE, 1997). So any initiatives to expand higher education through increasing the number of part-time students – young or mature – must recognise the key role of employers in stimulating new demand.

126. More part-time higher education places and better access to new forms of provision would not significantly increase the number of HE students unless accompanied by parallel efforts to stimulate demand. Supply mechanisms alone cannot affect the two major factors that currently limit the expansion of HE: an inadequate supply of younger applicants qualified to level 3, and unclear signals from employers about demand for graduates with qualifications other than first degrees.

Mature students

127. The population projections in Figure 11 show that the number of 21-24 year-olds will gradually increase over the next 10 years. In contrast, there will be a rapid decline of 25-29 year-olds during this period. The number of 21-30 year-olds with degree qualifications is likely to continue increasing over the next few years, because of the rapid growth in participation of young people in higher education up until 1993-94. As a result, the population from which mature first-time entrants to HE are drawn is reducing, which partly explains the recent decline in mature student numbers. Taken together with the demographic trends, it also means that it will be very difficult to achieve any increase in mature first-time entrants in the foreseeable future.

128. There may nevertheless be an increase in mature students, drawn from those who have already participated in higher education and who return to further study as part of lifelong learning. However, they are more likely to take part-time and shorter courses, and there is no sign at present that there will be a significant increase in mature students taking first degrees.

Sub-degrees

129. In recent years the Government has repeatedly stated its intention that there should be substantial growth at sub-degree level, and that this growth should take place primarily in FE colleges. However, these are two of the areas that have been most significantly overestimated by Government targets: places have been allocated but the demand has not materialised (see paragraph 48 and Tables 1 and 2).

130. The introduction of the foundation degree may change this. Foundation degrees are intermediate-level two-year qualifications: they are designed to develop the skills needed for a particular sector or occupation, and to offer the possibility of progression to an honours degree. An essential element in foundation degrees is that they should carry the support of employers, who are closely involved in their design and delivery.

131. There is some evidence that rates of return for sub-degrees have been on a par with those for A-levels (LSE, 1997), with a large differential occurring at first degree level. If this is so, it helps to explain the recent falling off in demand for sub-degree qualifications, and it will need to change if sub-degree level qualifications, and the foundation degree in particular, are to succeed in drawing in additional students.

EC students

132. As described in paragraph 41, EC students represent a source of growth. However, this is not secure, and future demand will depend on the policies of other EC countries as well as conditions in the UK. Just two countries, Greece (37 per cent) and the Republic of Ireland (12 per cent), accounted for almost half of the full-time undergraduate EC students in 1999-2000. In 1998-99 the Republic of Ireland removed the requirement to pay fees, and the numbers of full-time undergraduate students studying at English HEIs fell by 10 per cent from the previous year. The decline continued with a further 9 per cent reduction in 1999-2000.

The effect on institutions

133. So far we have looked only at sector-level changes, but these have affected different institutions very differently, and will continue to do so. The remainder of the report considers the effects on institutions, the consequences of trends identified, and the possible responses by the HEFCE and by institutions. It raises the question in particular whether the HEFCE should take a more interventionist approach, in order to:

- manage the distribution of student numbers between institutions
- reduce the problems currently encountered by those institutions which face shortfalls in recruitment, and enable them to maximise their contribution to widening participation
- maintain a diverse range of healthy institutions in the sector
- support new activity by HEIs and FECs, collectively and individually, to increase demand.

Main points

- some institutions, in particular new universities and HE colleges, grew very rapidly between 1989 and 1994, but some have declined over the past few years
- other institutions, mainly pre-1992 universities,³⁴ experienced steady growth throughout the 1990s, which has not been significantly interrupted by the recent falling off of demand
- with signs of a mismatch between supply and demand, one result could be that the more popular institutions will flourish at the expense of the less popular, and this may be happening already
- in general, within the limits of our funding method and the annual ASN exercise, our position has been to allow students to attend the institutions of their choice which are prepared to accept them. Where we have become involved, it has been to help institutions manage the effects of market forces, and in particular the reductions in funding
- we are, however, fully committed to working with institutions and other partners in order to achieve increased participation in HE. We are already acting to encourage wider participation and expansion. We are committed to taking – and supporting institutions in taking – whatever further steps are needed, particularly to encourage much closer partnerships between HEIs, FECs, schools and others to raise significantly the proportion of young people with the qualification and motivation to enter HE
- as part of this commitment, there may be a case for intervention to maintain diversity in the pattern of institutions across the sector. In general, the current mismatch is impacting most on those institutions that are most active in providing for students from

³⁴ Pre-1992 institutions are those that had the status of universities before the 1992 Further and Higher Education Act. Post-1992 institutions are those given the status of universities by the Further and Higher Education Act in 1992 and all HE colleges.

disadvantaged backgrounds, part-time students and mature students. And it is these more diverse groups who make up the most significant pool of potential demand. A question for us to address is what level and form of intervention, if any, is appropriate to maintain the current diversity of provision

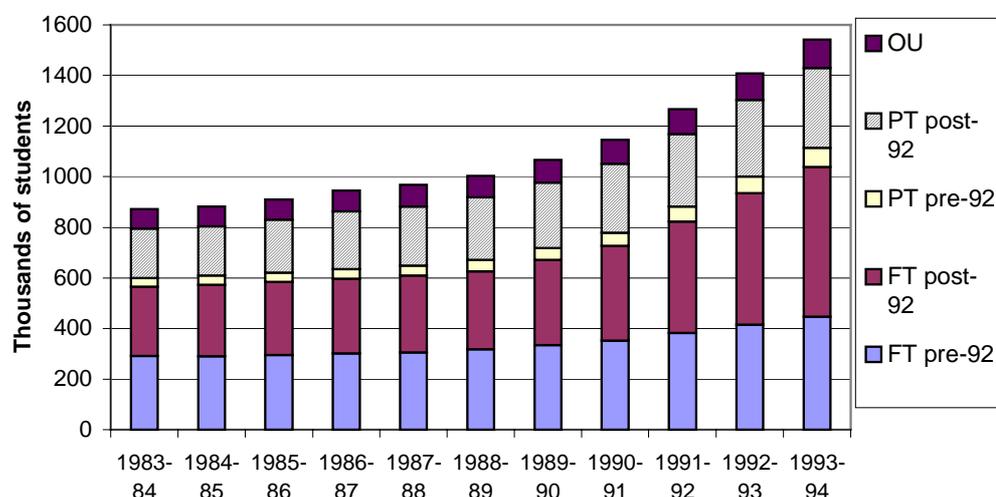
- the control on maximum student numbers (the MaSN) is no longer needed for the purpose for which it was introduced – constraining student numbers to within the Government’s targets – and would not be particularly effective for a wider purpose. While the allocation of additional student numbers provides us with a measure of control, as currently operated, it results in additional places going to the most popular institutions. However, it would be possible to reduce the number of additional places allocated so that it only reflected expected net growth in the sector, so reducing the likelihood of redeployment of existing numbers between institutions
- it may be that the most productive role for us – and perhaps the right one – is to continue to manage the effects of market mechanisms to ensure that institutions do not suffer unmanageable changes, are supported in making the best contribution they can, and are able to reposition themselves following changes in their fortunes. Many institutions have responded to change by taking management actions to reorientate themselves, including in some cases rationalising their provision to focus on their strengths and so develop a more sustainable core. We could do more to help institutions in this respect, in particular making use of the Restructuring and Collaboration Fund, which may need to be much larger if such activity is to increase
- at the same time, we will need to examine whether the additional costs incurred by institutions whose main focus of activity is to widen participation are sufficiently recognised in the funding model. While this will not directly address the question of recruitment difficulties, it will ensure these are not compounded by our funding method, and could help those institutions develop the support they offer to non-traditional students and thereby assist retention
- more generally, it is clear that future growth in student numbers will depend upon increases in pupils staying on at school, and attaining level 3 qualifications. Achieving these increases will depend substantially on developments in schools and FECs, but there will also be a key role for HEIs to play in co-operation with them. It will be important for them to identify how they can best play this role in the future, and for us to consider how we can support them in this
- universities and colleges are diverse; their distinctiveness is defined by the broad variety of student groups which they serve. While it is clear that increases in school staying-on rates is the major factor driving growth in student numbers, this should not deflect the endeavours of those with missions to attract mature students. There is much valuable and innovative work being undertaken in improving access for older students, including lifelong and work-based learning, often through part-time and shorter courses. We will continue to encourage these activities so that all groups can benefit from higher education throughout their lives.

Institutional patterns 1983-84 to 1993-94

134. The expansion that took place between 1988-89 and 1993-94 resulted in growth across all parts of the HE sector, but not to the same extent in all institutions and not at all levels or subjects. The uneven nature of the changes across the sector is a significant characteristic of the growth.

135. The large increase in full-time students took place mostly at post-1992 universities and colleges, while the pre-1992 institutions continued to grow steadily³⁵ (see Figure 19).

Figure 19³⁶ Number of students by mode of study and type of institution 1983-84 to 1993-94



Source: DfEE 1995, first published in report to the CVCP by IES (Connor, 1997). Numbers are for all students for all HEIs in Great Britain. Years are academic years. Pre-1992 institutions are ex-UFC funded institutions. Post-1992 institutions are ex-PCFC + FECs becoming HEIs.

136. Entry to some of the universities in the pre-1992 sector continued to be focused on young A-level students, while others (mainly but not all post-1992 universities and colleges) showed much greater diversity in this respect from 1988-89 to 1993-94.

137. Most pre-1992 universities continued to have very small proportions of part-time undergraduates (generally under 5 per cent), in contrast to the post-1992 universities and

³⁵ Pre-1992 institutions are those that had the status of universities before the 1992 Further and Higher Education Act. Post-1992 institutions are those given the status of universities by the Further and Higher Education Act in 1992 and all HE colleges.

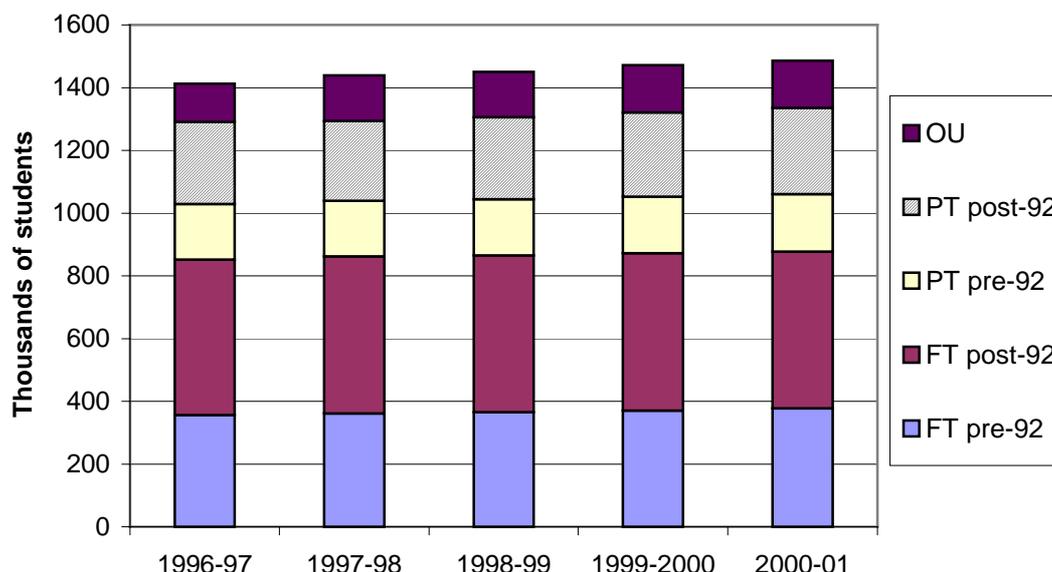
³⁶ Both Universities Statistical Record (USR) and Further Education Statistical Record (FESR) data have been used. This allows a comparison of relative growth trends across each sector, but the numbers in each sector should not be compared in absolute terms because the sources are not comparable for this purpose.

colleges where this group increased to as much as 40 per cent. Between 1988-89 and 1993-94, pre-1992 universities did not experience any significant growth in part-time undergraduates, but the number of part-time postgraduates did increase substantially (which accounted for most of their part-time students).

Institutional patterns 1996-97 to 2000-01

138. The most significant change during this period was that the rapid growth of full-time students at post-1992 institutions came to an end (see Figure 20). There was growth of just 1 or 2 per cent from 1996-97 to 1997-98, and since 1997-98 there has been no growth. In fact there has been a very slight decrease (of less than 1 per cent) in the number of full-time students at post-1992 institutions in 2000-01, though in contrast, there are examples of some post-1992 institutions which have continued to expand.

Figure 20 Number of students by mode of study and type of institution 1996-97 to 2000-01

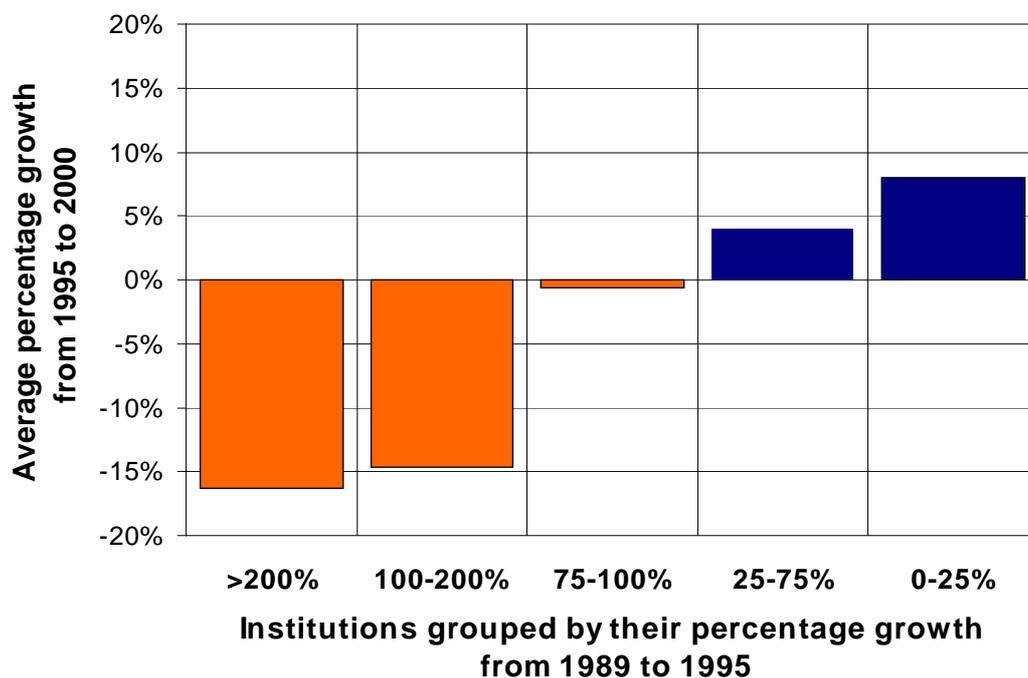


Source: HESES data for all HEIs in England. Numbers are HESES columns 1+2, all home and EC students (including fundable and non-fundable). HESES numbers include FEC mergers (using HEIFES³⁷ 98 numbers backdated where appropriate). Dates refer to the academic year (1997 refers to 1997-98). Pre-1992 institutions are ex-UFC funded institutions plus Cranfield and the Royal College of Art. Post-1992 institutions are ex-PCFC + FECs becoming HEIs.

139. Growth at pre-1992 institutions has remained stable, following the slow and steady pattern of growth that took place during the early 1990s with the number of full-time students increasing by around 6 per cent from 1996-97 to 2000-01. However, pre-1992 institutions are finding that the demand that led to rapid expansion during the early 1990s has levelled off. A few of these HEIs are now experiencing a decline in entrants (see Figure 21 for a more detailed breakdown of growth in HEIs).

³⁷ Higher Education in Further Education Early Statistics Survey (HEIFES).

Figure 21 Institutions grouped by their percentage growth in full-time students³⁸



Source: HESES 2000, HESES 1995, columns 1+2. All home and EC students (including fundable and non-fundable). PCFC monitoring return 1989, and UFC E189 funding return. Data are for England and for HEIs only.

140. Figure 21 clearly illustrates that it was the institutions that grew most rapidly in the early 1990s that then faced reductions as a result of the slowdown in growth in the late 1990s. The institutions that had grown by more than 200 percent from 1989 to 1995 have since had to manage reductions averaging 16 percent from 1995 to 2000. The dramatic nature of this turnaround in demand has had significant consequences for these institutions. Even the institutions that grew steadily during the early 1990s (by less than 25 percent over five years) experienced a slowdown in growth in the late 1990s with an average total growth rate of around 7 percent for this period. However, the impact was considerably more manageable for these slow-growing institutions than for those who grew by more than 75 percent in the early 1990s (approximately one quarter of all institutions).

141. There may be several factors at work here. Some of the institutions concerned have deliberately changed their strategy during this period, from growth to consolidation and re-focusing. This may be an entirely appropriate institutional strategy – first to build volume, and then to build strengths within the institution once the desired size has been achieved. In other cases, the switch reflected external market factors more than chosen strategy.

142. Evidence shows that the relative participation of many of the non-traditional groups in HE still correlates to the type of institution. The few HEIs that concentrate on part-time provision are all post-1992 institutions; only a minority of HEIs have a balanced mix of full-

³⁸ Including full-time sandwich students.

time and part-time provision. The pre-1992 universities' core teaching activity remains primarily the initial education of young school leavers with A-levels. The post-1992 universities and many colleges of HE have significantly more entrants without A-levels, and a student population with more older, more of most ethnic minority groups, and more part-time students than in the pre-1992 universities. This pattern suggests that, given the major continuing efforts that will be required to widen access in order to achieve an increase in participation, we need to think carefully about how those HEIs with the greatest experience and track record in widening participation can be enabled to maximise their contribution.

Consequences for the shape of the HE sector

143. Despite the slowdown, there has continued to be some growth in the sector, enabled partly by the additional funded student numbers (ASNs) allocated annually by the HEFCE. These additional numbers have tended to go to institutions where demand is highest. Where allocated places have not been filled, they have been reallocated, generally to institutions with stronger demand.

144. The consequences of the current mismatch between supply and demand are readily discernible. The increase in overall student demand levelling off, but popular institutions able to grow, have resulted in a shift in the balance of provision towards these more popular institutions. The changes in demand and distribution are driving significant structural change in some institutions. The level of under-recruitment against their targets for those institutions hardest hit, and the consequent loss of income, has required significant and rapid reductions of staff (both academic and support), a radical reappraisal of estates and student residence strategies, and a need to review or restructure current financing arrangements. The HEFCE has sought to support such institutions as they restructure, with a view to enabling them to refocus on areas of student demand which will secure future academic and financial viability. Given the common objective of widening participation, our presumption is that broadly we need to sustain the current distribution of HE provision across the country, albeit that the types of programmes offered and the organisational structures through which they are delivered may change.

145. This change in distribution of students within the HE sector is also having consequences on a subject level. As relative demand reduces for particular subjects, and competition between institutions increases, some institutions are finding it difficult to recruit to particular subjects. Both pre-1992 and post-1992 universities and colleges have announced the closure of some faculties or departments, mostly in science or engineering but also in traditional humanities and languages departments.

Student choice

146. One of the reasons for the differing experiences of institutions is that students can choose where to apply, and – subject to the constraints of the HEFCE funding method, and a limit on full-time undergraduate numbers (see paragraph 152 below) – institutions are free to accept whomever they wish.

147. Neither student choice of institution nor institutional choice of student are unconstrained: a student who cannot attend their first choice institution will probably not

attend one that falls far short of their aspirations, nor will institutions accept students with much lower qualifications. Movement across the margins will nevertheless have knock-on effects throughout the higher education system. Thus a policy of constraining numbers at the most popular institutions might well enable other institutions to maintain their numbers. The question is whether this is desirable, given the need to balance maximising student choice on the one hand against manageable rates of change for institutions and sustaining the most effective use of the institutional asset base on the other.

HEFCE's response

148. In the English higher education system student choice of institution is highly market orientated, and institutions respond to changes in student demand. So far there has been little management of the system from the centre. Any attempts to do so have been at a very high level, for example in the balance of additional student numbers allocated in different modes or at different levels. Our role has largely been to soften some of the effects of market changes.

149. It would be a novel departure if we were to seek more explicitly to manage growth in individual institutions. In general, our position has been that we should, as far as possible, allow students to attend the institutions of their choice which are prepared to accept them. The control contained in the funding method, which requires institutions to maintain their unit of funding within +/- 5 per cent of the average, is intended to ensure that units of funding do not fall below an acceptable level, not to manage growth. The control on maximum student numbers (MaSNs) was introduced at a time of rapid expansion to ensure that public expenditure targets were not overrun, not to manage the growth of individual institutions. Where we have become involved, it has been to help institutions manage the effects of market forces, so as to refocus on areas of relative strength.

150. We are, however, fully committed to working with institutions and other partners in order to achieve increased participation in HE. We are already acting to encourage wider participation and expansion. But we are committed to taking, and supporting institutions in taking, whatever further steps are needed, particularly to encourage much closer partnerships between HEIs, FECs, schools and others to raise significantly the proportion of young people with the qualification and motivation to enter HE.

151. As part of this commitment, there may be a case for intervention to maintain diversity in the pattern of institutions across the sector. In general, the current mismatch is impacting most on those institutions that are most active in providing for students from disadvantaged backgrounds, part-time students and mature students. And it is these more diverse groups who make up the most significant pool of potential demand. A question for us to address is what level and form of intervention, if any, is appropriate to maintain the current diversity of provision.

Action by the HEFCE

Action through the funding model

152. Present funding arrangements already impose constraints on the ability of institutions to respond to student demand. The main constraints are the operation of the funding method for teaching, referred to in paragraph 146 above, which limits the number of FTE students institutions may recruit without securing additional funded student numbers from the HEFCE; and the control on maximum student numbers (MaSNs, for a full definition see Annex D).

153. The MaSN was introduced in 1994 to ensure that the number of full-time undergraduate students was restrained within the Government's plan, so that public expenditure targets were not overrun. Each year we fix for each institution the maximum number of such students it may recruit, and impose a penalty if the institution recruits more than a specified margin above that limit. The margin has varied between 1 per cent and 4 per cent. In 2000-01 it was initially set at 2 per cent, but was increased to 4 per cent in August, to ensure that under-recruitment in parts of the sector could be balanced by other institutions which recruited strongly. In the event, very few institutions used this flexibility to recruit more students.

154. Evidence since 1994 of demographic trends and patterns of pupil attainment suggests that the MaSN has not been required to restrain full-time undergraduate numbers within the Government's target. Over the past few years at least, the total number of HE students has been lower than the Government had planned. In 1994 we reached the limits of rapid growth from traditional entrants, and this would almost certainly have restrained recruitment to within the Government's targets without the control of the MaSN.

155. The MaSN may serve a purpose, though not the one originally intended, if it restrains recruitment at some institutions, thus enabling others to maintain their numbers at a higher level than would otherwise be possible. However, the evidence at Annex D suggests that the MaSN would not be an effective means of exercising such control. Apart from anything else, it only applies to full-time undergraduate students, and the evidence of the last two or three years has been that very few, if any, institutions are prevented by the MaSN from recruiting the number of students they wish.

156. The same issue arises with what is currently our most direct method of exercising control – the allocation of additional student numbers (ASNs). If places allocated are not filled, then there is very little we can do except to re-allocate them to institutions which have the demand to meet the increased supply. It would be untenable, and there would probably be little point, if additional numbers were allocated to institutions that were unlikely to fill them, at the expense of institutions where there was strong demand.

157. One possible change would be to require those bidding for ASNs to demonstrate a national shortfall in the provision for which they are bidding. This would help to ensure that any additional numbers allocated to one institution were not simply filled by that institution siphoning off students who might have attended another HEI.

158. A more general measure would be for us to be more conservative in the number of additional places which we allocate, and to seek to allocate only the number of places for which there is likely to be net additional demand over the sector as a whole. This would reduce the tendency for institutions that have been awarded additional places to effectively draw in students who might otherwise have attended other institutions.

159. At present the number of additional places is largely decided by the Government, based partly on what it can afford and partly on its policy aspirations. These decisions have not previously been strongly influenced by an analysis of student demand. If in future the number of additional places was more closely aligned with net additional demand, this might help protect the position of those that find it difficult to recruit. It would mean we would have to plan the numbers in more detail and more accurately – otherwise we will not achieve whatever target we set.

160. Such planning would mean that students would effectively be forced to take places in institutions they might not otherwise have chosen. Institutions for which demand is strong would be less able to grow, and the system as a whole would be less able to respond to student choice. On the other hand, it risks damaging the quality of HE experience for existing students if the institutions they attend are exposed to significant continuing turbulence. Arguably we should be sustaining a broadly stable distribution of existing student numbers while supporting institutions to develop distinctive missions, including those focused on effective outreach and support for non-traditional students. The balance of advantages and disadvantages is something about which a view will need to be taken.

161. Our funding relationship with institutions is in part contractual. We provide funds and in return institutions have to maintain their unit funding within a margin of +/- 5 per cent of an average. If they fail to recruit sufficient students – or if they have been awarded additional numbers and fail to recruit these – then funding is withdrawn. A further change which could be introduced in the funding method would be to reduce the funding clawback if the contract is not fulfilled.

162. This would cushion some institutions from the effects of under-recruitment, recognising that in practice institutions do incur expenditure even if they have not been able to fill the places. But additional funding for such institutions would be at the expense of others, and they would effectively receive funding for services they had not provided. This would also begin to undermine the principle upon which the current funding method for teaching is based: similar rates of funding for similar activity.

163. We will also need to examine, whilst considering these various options, whether the additional costs incurred by institutions whose main focus of activity is to widen participation are sufficiently recognised in the funding model. While this will not address the question of recruitment difficulties, it will ensure these are not compounded by our funding method.

Action through stimulating demand for HE

164. If the Government's participation targets could be achieved, the additional student numbers would mitigate many of the problems being faced by some institutions – although

the reasons for encouraging growth are of course much wider. We need to play our part to encourage increased demand for HE.

165. This report clearly demonstrates that the sector cannot deliver expansion on its own, and that demand for HE is the key, not supply. But this in no way diminishes the role of the sector: it is responsible for its own image among young people and has a significant part to play with regard to outreach work.

166. The sector needs to engage more actively with schools, FECs and local communities to improve the supply chain into HE by raising aspirations and achievement – at 16, at 18 and among adults, but also at a younger age. This could be done by building on the programme that we fund jointly with the Learning and Skills Council (successor to the Further Education Funding Council), which already supports collaborative networks involving HEIs, FECs and schools. It is clear from the evidence in this report that the key to increased growth of HE numbers lies in the schools, and it will be important for HEIs to define their roles in this respect and for us to support them in doing so.

167. Universities and colleges are diverse; their distinctiveness is defined by the broad variety of student groups which they serve. While it is clear that increases in school staying-on rates is the major factor driving growth in student numbers, this should not deflect the endeavours of those with missions to attract mature students. There is much valuable and innovative work being undertaken in improving access for older students, including lifelong and work-based learning, often through part-time and shorter courses. We will continue to encourage these activities so that all groups can benefit from higher education throughout their lives.

Restructuring

168. Many institutions have responded to changes in student demand by taking management actions to reorientate themselves, including in some cases rationalising their provision, to focus on their strengths and so develop a more sustainable core. Work supported by our Restructuring and Collaboration Fund has demonstrated that there is substantial scope for further restructuring. Many institutions are only now addressing through strategic planning what their future shape should be. At present, demands on the fund are increasing, so more money will be needed if the Restructuring and Collaboration Fund is to play an increasing role in helping institutions adjust to change.

169. Through the fund we could, for example:

- a. Encourage a more collaborative approach when HEIs are considering subject restructuring. There is concern that too many HEIs are trying to move into growth areas such as psychology, sports science and media, so overall supply may exceed demand. This may leave some institutions struggling to recruit even after they have restructured.
- b. Continue to support mergers and strategic alliances where that is what institutions choose to do.

c. Promote collaboration, where it has a clear purpose to reduce costs and enhance the range and quality of provision. That includes sharing facilities, joint teaching of minority subjects, joint curriculum development and providing progression routes.

Possible actions by HEIs

170. This report demonstrates the extent to which future growth in student numbers will depend upon increases in school staying-on rates and in attainment of level 3 qualifications. Achieving these increases will depend substantially on developments in schools and FECs, but there will be a key role for HEIs to play in co-operation with schools and colleges.

171. Institutions faced with recruitment difficulties need to adopt a range of strategies. Many have 'grasped the nettle', often making difficult decisions and taking action to ensure they remain healthy and successful in the new environment. Examples of the main approaches are given in Annex C.