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ABSTRACT

This report provides information on trends in higher education and the graduate labor market in the United Kingdom. Data was obtained from the Higher Education Statistical Agency, the Universities and Colleges Admissions Services, the Association of Graduate Recruiters, the Labour Force Survey, and from recent Institute for Employment Studies (IES) reports. After an introductory chapter, the second chapter presents an overview of the implications of increased numbers of students, increased student diversity, the changing higher education experience, trends towards diversification in the graduate labor market, international trends, and future directions in graduate supply and demand. Chapter 3 presents statistical information and commentary on graduate supply and demand, particularly student numbers and entrants, profile of the student population, and graduate employment patterns and graduate demand. Chapter 4 reports on ethnic minority graduates and their progress in the labor market, information technology skill needs among graduate recruiters, the interface between further and higher education, and the nature of the links between further education colleges and universities. (Contains 26 references.) (PRW)

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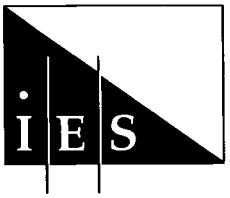

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The Institute for Employment Studies

The Institute for Employment Studies is an independent, international centre of research and consultancy in human resource issues. It has close working contacts with employers in the manufacturing, service and public sectors, government departments, agencies, professional and employee bodies, and foundations. Since it was established over 25 years ago the Institute has been a focus of knowledge and practical experience in employment and training policy, the operation of labour markets and human resource planning and development. IES is a not-for-profit organisation which has a multidisciplinary staff of over 60. IES expertise is available to all organisations through research, consultancy, training and publications.

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Contents

1. Introduction

Since 1984, the IES Graduate Review has provided the latest information on trends in higher education (HE) and the graduate labour market. Data included in the report are normally obtained from some key sources such as the Higher Education Statistical Agency (HESA), the Universities and Colleges Admissions Services (UCAS), the Association of Graduate Recruiters (AGR), and the Labour Force Survey (LFS) (Appendix 1 includes a full list of data sources). This year's report also presents some key findings from recent IES reports. These include:

- research for the Committee of Vice-Chancellors and Principals (CVCP) looking at past and future student trends in HE (Connor *et al.*, 1996a)
- research commissioned by the Department for Education and Employment comparing the career paths of ethnic minority and white graduates (Connor *et al.*, 1996b)
- research on the employment experiences of graduates from the University of Sussex (Connor and Pollard, 1996)
- research into the destination and utilisation of IT post-graduates and industry's IT skill requirements, carried out on behalf of the Engineering and Physical Sciences Research Council (Rick *et al.*, 1996)
- research exploring the interface between further and higher education funded by the CVCP (Rawlinson *et al.*, 1996).

Chapter 2 of this year's Review presents an overview of the implications of:

- changes in the student population
- the changing HE experience
- trends in the graduate labour market
- international trends
- future directions in graduate supply and demand.

Chapter 3 presents detailed statistical information and commentary on graduate supply and demand. In particular, it includes up to date information on:

- student numbers and entrants
- profile of the student population
- graduate employment patterns and graduate demand.

Chapter 4 is a 'special features' section, reporting some of the main findings from the recent IES reports mentioned above. This section covers:

- ethnic minority graduates and their progress in the labour market
- IT skill needs among graduate recruiters
- the interface between further and higher education, and the nature of the links between Further Education colleges and universities.

2. Overview

The current Dearing Inquiry[1] has brought into the spotlight the future of HE in the UK. After a period of fast expansion earlier this decade, and multiple changes both within the HE system (*eg* establishment of new universities, widening access, more emphasis on vocationalism), and in the labour market context in which HE operates, the sector is at a crossroads.

This chapter presents an overview of the key trends in HE and their impact on the graduate labour market. It is divided into five main topics:

- the changing student population
- the changing HE experience
- trends in the graduate labour market
- the international dimension
- future directions in graduate supply and demand.

2.1 More students, but how different are they?

Expansion of the HE student population has been particularly rapid in recent times. There are now over 1.5 million students, over 50 per cent more than in 1988/89. Growth has taken place at all levels and in all parts of the sector, but at a faster rate in some places than others. In particular, full-time students at most of the newer universities, part-time postgraduates and full-time older undergraduates have all shown marked growth. This has brought about a change in the composition of the student population in terms of its personal characteristics and balance between the various subjects, qualifications levels, and modes of study (Connor *et al.*, 1996a).

Overall growth has now slowed considerably, due mainly to government financial constraints. Between 1994/95 and 1995/96 the number of students enrolled at UK HE institutions is estimated to have grown by a further six per cent, but only by three per cent in first degree full-time students (HESA, 1996a).

[1] The National Committee of Inquiry into Higher Education (Chairman: Sir Ron Dearing).

2.1.1 Institutional diversity

Expansion has opened up HE to a much wider spectrum of the population, but not to the same extent in all HE institutions (HEIs). The sector now comprises over 180 HEIs (including over 100 universities) which have become increasingly diverse in their student profiles. There are also almost 100,000 students studying for HE qualifications at Colleges of Further Education, and, as discussed in Chapter 4, there are increasing links being developed between further and higher education institutions (Rawlinson *et al.*, 1996).

Despite the abolition of the old binary divide which had characterised the HE system for so long, some of the previously held perceptions about types of institution still exist among former and prospective students alike, and also among employers when making qualitative judgements about applicants. The extent of variation within individual universities at a subject or department level, where differences in student intakes can be considerable, is often overlooked. It is increasingly difficult to talk about a 'typical graduate' or 'typical graduates from X university'.

2.1.2 Institutional changes

The challenge for most universities over the last few years has been to increase student numbers in various ways, but at the same time safeguard their standards of quality in teaching and research within a constrained funding environment. There has been no overall strategic plan or target as to what the HE student profile should look like. Most universities have been reacting largely to external events on an individual basis, generally under considerable financial pressures to get their numbers right, and some have done so more successfully than others.

Some universities have instigated considerably more changes than others in order to increase student numbers at undergraduate level, through widening their student entry base. They have done this by, for example, increasing access for non-traditional students (*eg* mature entrants, ethnic minority groups, vocationally qualified), increasing flexibility and breadth of provision, and developing more links with local schools and colleges. Others have stayed within their traditional markets for 'A' level students and faced up to the increased competition. Most have focused on developing postgraduate studies, often in professional areas, and also their research base.

2.1.3 Representation of minorities

The joint effects of these institutional initiatives, as well as other factors — *ie* increased supply of places in HE, increased attainment of young people and a reduction in alternative

employment options (*eg* traditional apprenticeship routes for school leavers) — have raised overall participation levels of previously under-represented groups in HE (see Chapter 3). But the representation of minority groups in HE is extremely variable across the HE system, and often still concentrated in particular disciplines and modes of study, and at certain institutions. A few examples are given below as way of illustration:

- Almost 30 per cent of first degree students enter with **qualifications other than 'A' levels** (*eg* professional/ vocational qualifications, via access route). This figure is double for **part-time** first degree courses, and even higher for HE students in FE colleges.
- **Ethnic minorities** represent 11 per cent of home domiciled full-time, first degree students. At a small number of **universities** (mainly newer, city-based universities) the ethnic minority proportion is over 30 per cent, while at others, it can be as low as five per cent.
- **Women** are still considerably under-represented on **engineering and technology** degree courses, averaging only 13 per cent, compared to their representation of just over 50 per cent for all subjects.
- At first degree level, over half of **part-time** students are taking **combined subjects**, compared with 12 per cent of full-time students.
- **Older** (*ie* over 21 on entry) students are much less likely than other undergraduates to be studying full time and be taking first degree courses: over 95 per cent of first year part-time undergraduate students are aged 21 years and over. Their subject representation varies considerably, too, from under 30 per cent for medicine, dentistry, veterinary science, mathematics, languages, and physical and biological sciences, to over 50 per cent in subjects allied to medicine, and combined studies.

Further details on the student profile are given in Chapter 3.

These patterns of participation have developed for a number of reasons, but mainly because of the different attitudes and initiatives of institutions, and different subject groups within them, towards widening access. The changes have implications for employers seeking graduates, and for HE careers advisers who have to gear their activities towards a more diverse group with increasingly varied needs and career expectations. The growing practice of targeting by employers of their graduate recruitment on a selected number of universities or particular courses raises some important questions: how good is the information about institutional student profiles being used for targeting? And how serious is the exclusion of disadvantaged students from this process?

2.2 The changing university experience

To a greater or lesser extent, universities have had to adapt to their changing circumstances. The expanded (mass) HE system now in place is operating in a different way than the more elite, differentiated system that went before. One consequence is that students' experience of HE can be extremely variable and is likely to be different from that of past students.

2.2.1 Students' needs and aspirations

The increased diversity of the student population means that there is a wider range of student needs and aspirations which universities have had to meet. This can be seen in various ways, and a few examples are given below.

Increased choice and flexibility are now offered to students, often through the modularisation of the curriculum. Associated with this, has been the introduction of more flexible accreditation processes: *ie* Credit Accumulation and Transfer (CAT). One outcome is that more students are taking a mix of subjects, in particular there has been a growth of combined subject first degrees (now representing 19 per cent of the total). Modularisation has also helped to facilitate the growth of part-time study (half of part-time degree students are on combined subject courses). On the more negative side, however, universities have been criticised for introducing modularity without also providing adequate support and guidance to help students in making subject choices within a more complex system (Connor *et al.*, 1996a).

More students are coming from vocational backgrounds or access courses where the style of teaching and support provided is different from conventional degree courses. For them, the transition to an HE environment can be difficult, especially for those coming from the FE sector, and can have a detrimental affect on their academic performance.

The introduction of vocational study into the curriculum, (*eg* communications, media studies, sports science), often to meet the demand from 'new' students, means that the scope of HE provision is much broader. These subjects often require more practical elements, involving employers in a substantial way in course delivery and accrediting work-based learning. Many more students now have opportunities to gain work experience as part of their HE study or through campus based student employment services.

Another change is the growth in mature students drawn from local communities. Many of them have different social and educational needs from the traditional young student going away from home to university. This has led some universities to extend provision for part-time study and consider how to

provide more opportunities to study in the evenings and weekends, including adequate support for 'out of normal hours' study, relating to transport, catering and childcare.

2.2.2 Financial constraints

The financial constraints imposed by the government have put considerable pressures on resources and led to further number of changes in teaching methods, more use of new technology and the greater use of employer resources. The fall in the per capita funding to universities over the years has had to be managed by the universities through efficiency savings and the seeking out of funds from other sources. Rising student:staff ratios have meant larger class sizes and less contact between students and staff, as well as more pressures on library space and books, and delays to building and maintenance work. These are widely felt to have had negative consequences on the quality of learning (CVCP, 1995). Of growing significance to many universities is external funding, especially from employers, for research and teaching. This has been a factor in the growing interaction between employers and HE, and the development of a broader role for universities within their local communities. There is a strengthening of linkages with business and industry, but with different models emerging at, and within, institutions.

Student funding, and the rising cost to individuals of participation in HE, is also a factor which can have a serious impact on the student experience. Recently, rising drop-out rates have been linked to student financial hardship, though other factors are also likely to be relevant (*eg* inadequate support from staff, family pressures). Financial hardship can also negatively impinge on academic performance and lead to debt at the end of degree study, both of which can have consequences for subsequent career progress (Connor *et al.* 1996a).

2.2.3 Skills

There is increasing recognition that undergraduate students need to develop skills which are relevant to the world of work. This can be seen in the more vocational curriculum being offered at many institutions, but also in skill development initiatives aimed at all HE students (*eg* Enterprise in HE). Increasingly, careers work is being integrated into the curriculum so that career planning skills can be acquired within the context of degree subject study.

One of the difficulties is the lack of consensus among employers as to which skills and attributes graduates need in order to be successful at work and to develop their careers. While a range of interpersonal skills and business awareness feature on most employers' list of preferred attributes of graduates, some are viewed as more important by some employers than others. This

is hardly surprising, given the wide range of employers recruiting graduates, and the range of jobs and careers now open to new graduates (see below). A recent report from the Association of Graduate Recruiters (AGR) emphasised that the 'complete' graduate needs to be self-reliant and able to manage their own career (AGR, 1995). A key issue within HE is defining the level of work-relevant skills required, and accrediting it within degree study.

2.3 Trends in the graduate labour market

During the 1990s, the labour market has had to absorb the increasing number of graduates being produced by HE. This has led to graduates going into a much wider range of jobs and careers than before, often displacing less qualified people. Demand in the more traditional areas of graduate employment has not kept pace with the growth in graduate supply. New employers, in particular smaller firms, have come into the graduate recruitment market. There have also been demand-induced changes (*eg* work restructuring, quality improvements) which have resulted in increased educational requirements of many jobs.

The graduate labour market of the second half of the 1990s is very different to that of ten years ago, when demand was starting to boom and shortages were a growing concern. Current concerns of employers are more about deficiencies in the quality of graduates than any numerical shortages, and also the extent to which they are making optimum use of the expanded graduate supply. Although graduate demand has picked up during the economic recovery from the low point in 1990/91, and unemployment levels are falling, graduate vacancies are still below the level of the late 1980s, while the number of new graduates has doubled. Macro-level economic projections show a continuing excess of supply over demand in the UK economy for newly qualified graduates (Wilson, 1995).

2.3.1 Greater variety in career paths

The notion of what constitutes a graduate job has broadened considerably and the transition between HE and employment is increasingly complex. A variety of career paths are followed by graduates, as illustrated in a recent IES/University of Sussex research study (Connor and Pollard, 1996). This showed that less than one in four graduates from Sussex University had been in continuous permanent employment over the first three years after gaining their degrees, and the remainder had followed a number of other career profiles. These comprised different combinations of periods of employment, further study and unemployment. The research also highlighted the extent of temporary working early in graduates' careers, often for financial reasons, but sometimes to gain work experience. The

findings also show how it was used as a route into permanent work, especially for graduates with lower class degrees. Another point was the very low proportion of graduates who had entered formal graduate schemes in large companies, confirming the general trend away from these traditional graduate career paths.

This study also provided evidence of the variety of jobs that graduates hold, not just immediately after graduation but also after a few years in the labour market. While the vast majority were in employment, almost one in three of them was employed on a fixed term rather than continuing (permanent) basis. Furthermore, two out of five graduates were in small firms (of under 200 employees in size); 70 per cent were in the services sector and only 15 per cent in industry. Only 60 per cent were in jobs classified as 'professional' or 'managerial', while over 20 per cent were in low skill occupations (*ie* sales, clerical). The extent of 'underemployment' was investigated in various ways: only half felt that their degree had been the main influencing factor in getting their current job, but three-quarters considered it had been helpful; ten per cent were in jobs which had not previously been done by a graduate; and 26 per cent felt very under-employed (*ie* not being used to their full capacity and potential).

2.4 International dimension

The general trend towards HE expansion has been mirrored in the rest of Europe and other major industrialised countries. International comparisons need to be treated with caution, but the available comparative data show that in terms of numbers graduating, the UK compares favourably with many other 'competitive' countries. In the UK, growth in student entry has been accompanied by relatively low (though rising) drop-out rates. This pattern is not replicated in other countries, and so, while the UK has an entry rate to HE which is slightly below the average for OECD countries, its graduation rate shows a different picture, ahead of most of these countries, the exceptions being the US and Japan (Jagger *et al.*, 1996).

2.4.1 International students in UK universities

A second international perspective is the participation of students from overseas in British HE. There has been a dramatic growth in aggregate numbers since the late 1980s, up by 40 per cent between 1988/89 and 1993/94. However, as a proportion of the total student body, it has remained steady at around ten per cent. The aggregate figures disguise variations by course, level and type of institution. One of the fastest growth rates (but from a small base) has been the number of international students on first degree courses at 'new' universities and colleges of HE.

While the growth in international students over the decade can be attributed to many factors, recent increases have been mainly

due to EU programmes designed to promote student mobility. Students from other EU countries now account for 40 per cent of the international student body in UK HE institutions, while the only other group of any significant size is from Asia (30 per cent). Almost half of the 28,000 overseas entrants to full-time degree courses in 1993/94 were from other EU countries (Greenaway and Tuck, 1995).

2.5 Future outlook

Research undertaken for the CVCP by IES earlier this year (Connor *et al.*, 1996a) showed that there is widespread support from employer groups and professions for continued expansion and broadening of the intake to HE, mainly on economic and social benefit grounds. Economic and employment projections show a continuing shift towards higher level skills in the UK economy, and employment in higher level occupations (DfEE, 1996b). However, at an individual organisational level there are considerable variation and uncertainty about future growth in demand for graduates. A recent survey of some of the UK major graduate recruiters confirmed the continuing volatility of the graduate recruitment market (AGR, 1996). While overall graduate vacancies are expected to increase by almost ten per cent between 1995 and 1996, less than a quarter of respondents expected their graduate recruitment to be higher this year than last.

There is evidence from application levels that the last decade's rapid growth in student demand for places in HE has now slowed down, though aggregate figures are only available for full-time courses. At an institutional level, there is a varied pattern with some subjects at some institutions (*eg* some engineering and sciences subjects) experiencing weak demand for undergraduate study. This reflects differences in academic reputation, access policies and the nature of provision at different institutions, as well as students' attitudes and aspirations. There is also evidence that the growth in entry of students with vocational backgrounds has slowed down more quickly than that of traditional 'A' level entrants. As discussed in Chapter 3, declining student mobility, with more entrants remaining in their home region, is also another growing trend for the near future.

A variety of interrelated factors influence entry to HE and thus graduate supply: some relate to wider demographic and social trends, others reflect educational policy changes, including school attainment levels and institutional level initiatives to increase participation. For the rest of the decade, one of the key factors influencing entry to HE for full-time, first degree study will be demography, and linked to that, social class. After a decade of declining numbers of young people in the population (*ie* 18 to 25 years old), numbers are now beginning to rise again. Changes in educational qualifications and routes will also be of

significance, in particular the shift in emphasis towards vocational entry qualifications and away from traditional 'A' level qualifications among young people, as will the likely cost of participating in HE and perceived financial rates of return.

Although there are a number of uncertainties affecting future demand, there is likely to be (on the basis of the current patterns of participation) a continued growth in demand from those wanting full-time first degree entry of around 25 per cent between 1995 and 2003, with much of the growth coming before 2000. This is a much lower rate of growth than in the previous decade.

It is likely that the increasing supply of graduates during the rest of the decade will be greater than the (also) rising employer demand for places, thus leading to a continuing excess of supply over demand for newly qualified graduates. This is unlikely to lead to large scale graduate unemployment because many graduates will displace less qualified people. Some of this will amount to graduate under-utilisation, and lower than anticipated salary and job expectations among the graduates themselves, but the full extent of this is not clear at present. On balance, however, to the individual, the evidence is still weighted in favour of participating in HE. A degree does not guarantee a better job, or even any job, but it does give a distinct advantage in the labour market to most people in terms of opening up career opportunities, better earnings and the lower likelihood of being unemployed, when graduates are compared with non-graduates.

3. Key Data

This chapter provides key statistical information on trends in HE and the graduate labour market. As in previous years' Reviews, we have included the most up to date information obtained from a variety of official sources and other relevant organisations. These include the new institutions associated with the abolition of the binary divide, that is HESA and UCAS.

The issues covered in this chapter have been arranged in three parts:

- In section 3.1, we present data on 1995 admissions by mode and level of study, region of domicile, subject, and entry qualifications (Figures 3.1 to 3.3). These issues were discussed in previous Reviews and highlighted considerable changes, such as the increase in the proportion of people studying part-time and entering HE with non-standard qualifications. The growing trend for home entrants to study in their region of domicile was also noted. These and other issues are explored again this year to establish any continuing trends.
- The profile of the 1995 student population is explored in relation to gender, age, social class and ethnicity in section 3.2 (Figures 3.4 to 3.9). Again the composition of the student population has changed considerably in the past few years, and the latest figures are used to establish whether the trend towards wider participation in HE continues.
- Data on both graduate supply and demand from employers are presented in section 3.3 in order to show the extent of diversity in the graduate labour market (Figures 3.10 to 3.20). On the supply side, information on 1995 graduates' first employment destinations is presented. We then look at how factors such as gender, subject and ethnicity can influence early post-graduation careers. Data on graduates' geographical mobility are also presented to establish what proportion of new graduates find employment in their home region. Given the growing debate on the 'added value' of a degree, and the extent to which it brings benefits to both the individual and the economy as a whole, is also explored. Firstly, the proportions of 1995 graduates who entered different occupations are compared with the proportions of all graduates in the labour market who are in these occupational groups. Secondly, graduates' and non-graduates' economic activity is compared.

On the demand side, we present the more recent data on vacancies, salaries and skill requirements provided by some of the major graduate recruiters in the UK.

Data obtained from different sources are based on different definitions of the student population:

1995 Admissions: the admissions data reported are from the UCAS *Annual Report 1995 Entry* (UCAS, 1996) and cover those who entered HE via the UCAS system in the cycle leading up to the autumn of 1995. These data include only full-time, UK domiciled first degree entrants, and exclude some students who entered directly.

1994/95 Students: the student population data come from *Students in Higher Education Institutions* (HESA, 1996a) and include all students enrolled in HE institutions in the 1994/95 academic year.

First destinations 1995: first destinations data are from *First Destinations of Students Leaving Higher Education Institutions, 1994/95* (HESA, 1996c). These data are based on the responses to the HESA first destination survey of students who completed their HE studies in the 1994/95 academic year. The survey collected information on the students' known employment status on 31 December 1995.

3.1 Student numbers and entrants to first degree courses

Figure 3.1 The overall UK student population, 1994/95

Type of study	First years		All years	
	Full-time	Part-time	Full-time	Part-time
Research for a higher degree	14,782	7,270	44,739	42,222
Taught course for a higher degree	39,973	38,282	45,987	96,178
Other taught postgraduate	36,020	41,031	38,985	67,214
First degree	302,296	52,410	832,799	162,965
Other undergraduate	64,197	85,396	114,120	122,104
Total	457,268	224,389	1,076,630	490,683

Source HESA (1996a) Figures 1a to 1h

- In the 1994/95 academic year, there were over one-and-a-half million students in HE. Over two-thirds were attending full-time courses, while just under one-third were studying on a part-time basis (Figure 3.1).
- In 1995 there were nearly 35,000 more students than the previous year: this represents an overall increase of three per cent. This modest increase is in line with the consolidation policy which has halted the HE expansion of the late 1980s and early 1990s. The lack of growth is particularly evident among undergraduates: while between the 1988/89 and 1993/94 academic years first degree students increased by 66 per cent, in the past year the increase in this group has been less than one per cent.
- In contrast, the six per cent increase in postgraduates between 1993/94 and 1994/95 is double the average for the sector as a whole. This increase is accounted for mainly by the 28 per cent growth in part-time postgraduates, while in the past year, the increase among full-time students at this level has been very small (1.4 per cent). Since the early 1980s, postgraduates have been the fastest growing group. The latest figures confirm this trend, as well as the growing tendency to study part-time at this level.
- Figures from previous years show that, compared with first degrees and postgraduates, the growth in 'other undergraduates' (*eg* HNDs) had been rather modest: between 1988/89 and 1993/94 this group grew by 22 per cent. However, in the past year, there has been a nine per cent increase among 'other undergraduates'. Again the increase has been greater among part-timers (11 per cent), than full-timers (eight per cent).

Figure 3.2: Home first degree, full-time admissions by region of domicile, 1995

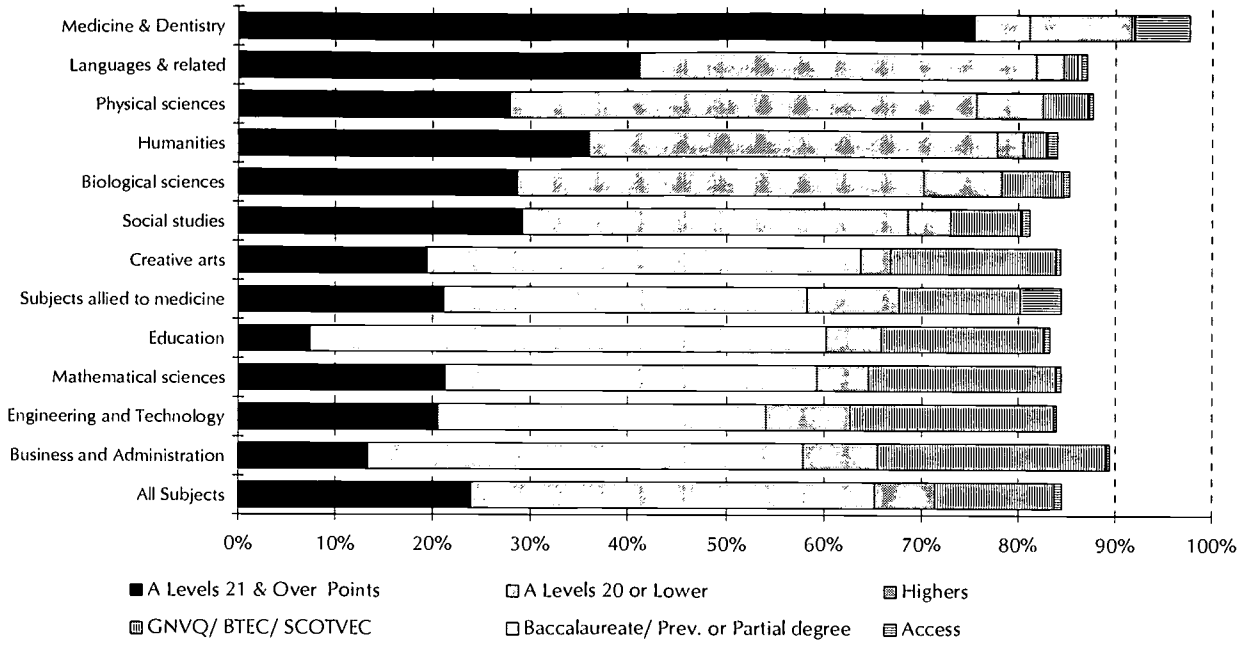
	Total number accepted from region of domicile 1994/95	% accepted from own region 1994/95	% growth between 1994 and 1995 in numbers accepted from each region	% change between 1994 and 1995 in the number accepted from own region
North	10,732	43.7	7.7	2.3
Yorks. & Humber	17,543	44.5	4.6	4.0
East Midlands	15,174	28.8	3.2	0.4
East Anglia	7,875	16.4	4.9	0.5
South East	82,235	58.3	5.2	25.9
South West	20,261	32.4	2.7	2.6
West Midlands	20,380	34.8	3.9	27.8
North West	25,565	44.9	5.0	2.8
Wales	11,253	48.7	0.8	0.7
Scotland	21,168	91.3	14.4	0.1
Northern Ireland	8,461	59.9	5.3	2.1
Miscellaneous[1]	63	na	5.3	na
Total	240,710	50.3	5.3	0.9

Source: UCAS (1994 and 1995) Figures E1.1

- Between 1994 and 1995 the growth rate in full-time admissions to first degree courses varied by region (Figure 3.2). The largest increase was in Scotland where admissions went up by 14.4 per cent, while Wales with 0.8 per cent growth saw the smallest increase in the number of admissions.
- The growing trend for full-time home entrants to study in their region of domicile, noted in previous Reviews, is confirmed by the latest data. While all areas have seen an increase in the proportion of students choosing a university in their home region, the increase has been particularly large in areas such as the West Midlands and the South East.
- As has traditionally been the case, Scottish students were the least mobile: the overwhelming majority study in their home region. The most mobile students were those from East Anglia and East Midlands. In addition, these regions have experienced very small increases in the number of students choosing to study at home.

[1] The miscellaneous category covers those students who are considered as UK domiciled for fee purposes but are actually resident overseas, *eg* children of diplomats or members of the armed forces overseas.

Figure 3.3: Home, full-time admissions by main entry qualification, 1995



Source: UCAS (1995) Figure F2

- In 1995, over 70 per cent of students who entered full-time, first degree courses had traditional qualifications, *ie* 'A' levels or Highers (Figure 3.3). There were considerable variations in the entry routes in the different subject areas. At one extreme, in Medicine and Dentistry the overwhelming majority of entrants had traditional qualifications, with a very small proportion entering via access route (0.4 per cent). At the other end of spectrum, were Subjects allied to Medicine (*eg* nursing, physiotherapy) and Social Studies, where between ten and 11 per cent of students gained entry via access courses.

- At 12 per cent, the proportion of students entering full-time, first degree courses with vocational qualifications (*ie* GNVQ, BTEC, SCOTVEC) has increased by just one per cent since last year. The vocational entry route remains more common, and has grown in importance in Business and Administration (24 per cent of 1995 entrants, compared with 21 per cent in 1994), and Mathematical Sciences (19 per cent in 1995, compared with 18 per cent the previous year). There has also been a slight increase in the proportion of Creative Arts and Education students with vocational qualifications, which increased to 17 per cent in 1995, compared with 13 and 15 per cent respectively the previous year. In Engineering and Technology, the proportion has remained virtually static at 21 per cent. There have been some small decreases in the proportion of students with vocational qualifications entering other subjects.

3.2 Profile of the student population

Figure 3.4: First degree students by domicile, mode and gender, 1994/95

	Full-time			Part-time		
	Female	Male	% Female	Female	Male	% Female
UK Domiciled	387,608	381,889	50.4	80,789	75,620	51.7
Other EU Domiciled	12,874	15,554	45.3	1,718	1,186	59.2
Other Overseas Domiciled	15,002	19,872	43.0	1,562	2,090	42.8
All	415,484	417,315	49.9	84,069	78,896	51.6

Source: HESA (1996a) Figure 1a and 1e

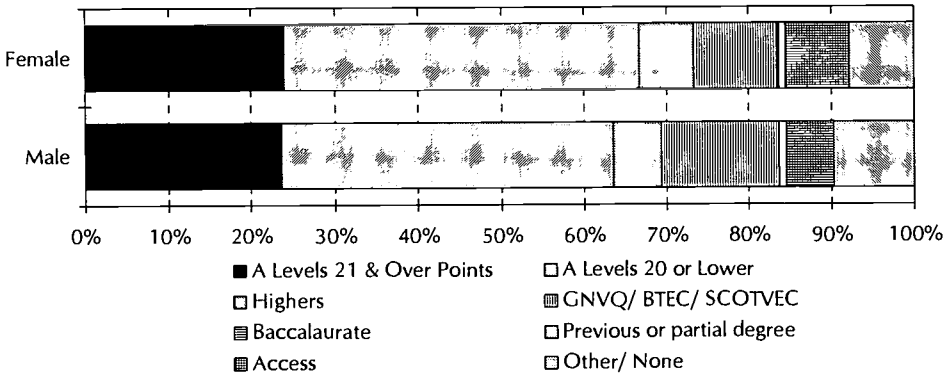
- Overall, women represented almost half of all the full-time first degree students, and they formed the majority of part-time students.

- In the 1994/95 academic year, women for the first time represented the majority among the UK domiciled first degree students, and this was the case for both full-time and part-time courses (Figure 3.4). The proportion of women was lower among non-UK domiciles, with the exception of other EU students on part-time courses.

- Women were slightly more likely to enter full-time, first degree courses via traditional entry routes: 74 per cent of 1995 female entrants had 'A' levels or Highers, compared with 70 per cent of male students.

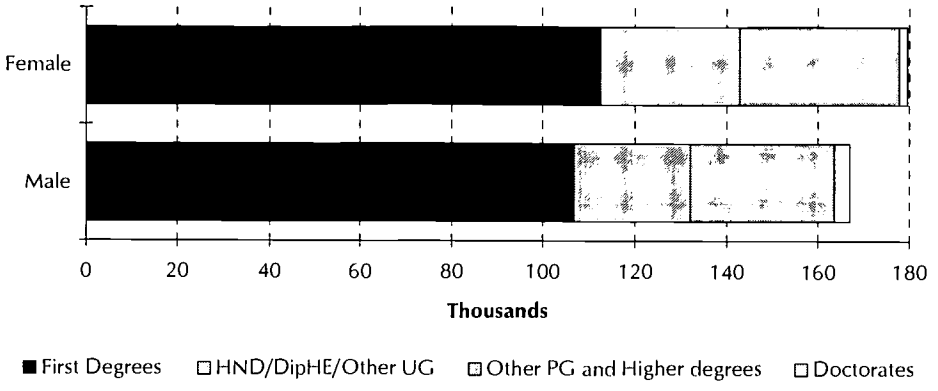
- While vocational qualifications were more common among men, women were slightly more likely to enter via an access courses.

Figure 3.5: Entry qualifications of home, full-time admissions to first degree course by gender, 1995



Source: UCAS Annual Report, 1995 Entry, Figure F2.1

Figure 3.6: UK domiciled HE graduates by level and gender, 1994/95



Source: HESA (1996a) Figure 14a

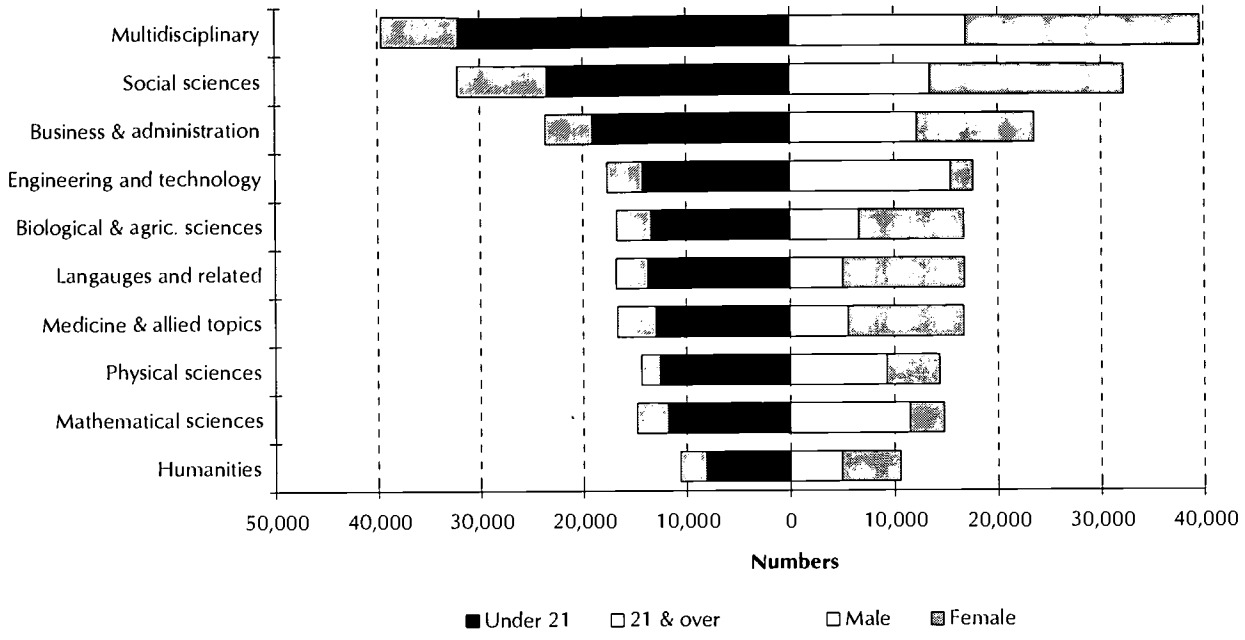
- The increase in women's participation in HE is not yet evenly pread in terms of those graduating at the different levels (Figure 3.6). In the 1994/95 academic year only one-third of PhD graduates were women.

- However, women were better represented at the other post-graduate levels (*eg* Masters, Postgraduate Diplomas and Certificates) where they represented 48 per cent of all graduates.

- At 45 per cent, women were also better represented among those graduating from sub-degree courses (*eg* HNDs, Diplomas in HE).

- A higher proportion of women graduated from PGCE courses, where they represented 66 per cent of all 1994/95 graduates.

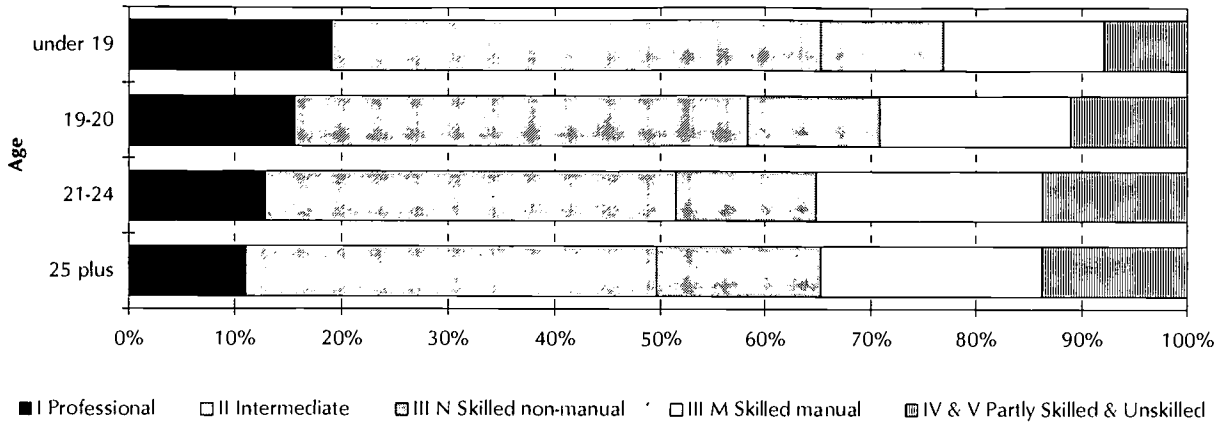
Figure 3.7: Home first degree, full-time admissions by subject, age and gender, 1995



Source: UCAS (1995) UCAS Annual Report 1995 Entry, Figures B2.1 and D4.1

- As with qualification level, there were variations between different subject areas in relation to gender among 1995 full-time first degree entrants (Figure 3.7). Women remained poorly represented in disciplines which have traditionally been male dominated, including Engineering and Technology, where women represented only 13 per cent of admissions, Mathematical Sciences where just over one-fifth of entrants were women, and Physical Sciences where women represented 35 per cent of entrants.
- On the other hand, women predominated in subjects such as Languages (70 per cent), Medicine and Allied Topics (67 per cent), Biological and Agricultural Sciences (61 per cent), Social Studies (58 per cent) and Multi-disciplinary subjects (57 per cent).
- The gender mixture in other subject areas such as Business and Administration, and Humanities, was more balanced. Women represented 47 per cent of those who entered Business and Administration, and 54 per cent of Humanities entrants.
- The proportion of mature students (*ie* over 21 at the time of entry) among 1995 full-time, first degree entrants was 26 per cent. However, the overall figure masks variations between different subjects. In most subject areas the proportion of mature entrants ranged between 19 and 24 per cent. However, at 13 per cent, the proportion of mature students was considerably lower in the Physical Sciences, while it was slightly higher than average in Social Studies (27 per cent).

Figure 3.8: Home, first degree, full-time admissions by social class and age, 1995



Source: UCAS (1994 and 1995) Figure H2.1

- The majority (60 per cent) of full-time, first degree, home admissions in 1995 were from the professional or intermediate social classes[1] (Figure 3.8), while these two classes represent only 36 per cent of the economically active population.[2]
- Despite some increases in recent years in the participation of students from outside the professional and intermediate groups, they are still under-represented in HE. The social background of 1995 entrants is very similar to that of recent years, indicating that the class composition of the HE population is changing rather slowly.
- Class differences were slightly less marked among older age groups. For example, while only 15 per cent of entrants under 19 came from a manual skilled background, this figure rises to 18 per cent among the 19 and 20 years old, 22 per cent among the 21 to 24 age group, and 21 per cent among those over 25. A similar pattern is repeated for other class groups.
- While the majority (53 per cent) of 1995, full-time entrants were under 19, the trend towards an older HE population continues. In 1995, over one-fifth of those who entered full-time first degree courses were mature students (*ie* over 21 at the time of entry).

[1] If the applicant is under 30 years old, the occupation of the parent, step-parent or guardian with the highest income is used to derive their social class. If the applicant is over 30, the classification is based on their own, last occupation. The social class classification is based on occupations, and is derived from the Standard Occupational Classification (SOC) of OPCS.

[2] This figure is based on data from the Labour Force Survey (March 1995 to May 1995).

Figure 3.9: Home admissions to full-time, first degree courses by ethnicity and gender, 1995

	UCAS 1995 Entry			Effective participation rate[1]		
	Total %	Male %	Female %	Total %	Male %	Female %
White	87.7	87.1	88.2	33.8	31.6	36.0
Black Caribbean	1.0	0.7	1.3	41.2	27.8	55.2
Black African	1.5	1.7	1.4	129.0	140.6	117.3
Black other	0.5	0.3	0.6	28.6	19.5	38.7
Total Black	3.0	2.8	3.2	57.3	50.2	64.8
Asian Indian	3.5	3.7	3.3	57.9	58.9	56.9
Asian Pakistani	1.8	2.1	1.5	42.5	45.3	39.4
Asian Bangladeshi	0.5	0.7	0.4	29.4	33.5	24.5
Asian Chinese	0.8	0.9	0.8	79.0	78.5	79.5
Asian other	1.2	1.3	1.1	110.5	112.9	107.8
Total Asian	7.9	8.7	7.1	55.1	56.8	53.2
Total Black & Asian	10.9	11.5	10.3	55.7	55.0	56.4
Other	1.4	1.3	1.5	68.9	61.7	76.2
Total	100.0	100.0	100.0	35.6	33.5	37.8

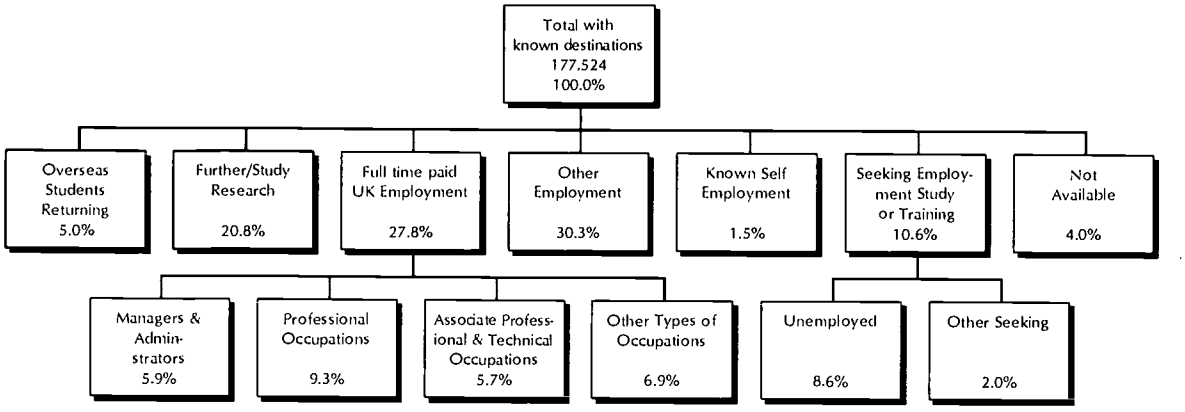
Sources: UCAS (1995) Figure G2.1 and 1991 Census, Ethnic Group and Country of Birth, Figure 6

- In 1995, 11 per cent of home entrants to full-time first degree courses were from ethnic minorities and, at 56 per cent, their effective participation rate was considerably higher than that for whites (34 per cent).
- However, these overall figures mask some variations between different ethnic minority groups, and within these some gender differences. Within the Asian group, effective participation rates varied from 29.4 per cent for Bangladeshis to 79.0 per cent among Chinese. Within the black groups, the participation rate was 129.0 per cent among Africans, but it dropped to 28.6 among 'black others'.
- Female participation rates were lower than those of men among all Asian groups, except the Chinese. While African women were also less likely to enter full-time, first degree courses than African men, participation rates among Caribbean and other black women were considerably higher than for their male counterparts.

[1] The effective participation rate represents the number of 19 year olds as a percentage of the numbers (of all ages) of each ethnic group entering first degree courses. Since people, particularly from some ethnic groups, enter first degree courses at ages other than 19, the effective participation rate can be greater than 100.

3.3 Graduate employment patterns

Figure 3.10: First degree first destinations of UK domiciled and overseas students, 1995



Source: HESA (1996c) Figures 2f and 4f

- In total, the first destinations of 177,524 first degree graduates from UK HE institutions in 1995 are known, or 82.9 per cent of those for whom the data was sought.
- Of these nearly 9,000 (or five per cent) were foreign students returning overseas. The majority (59.6 per cent) of the remaining graduates entered various forms of employment, while 20.8 per cent were engaged in further study or research.
- 27.8 per cent were in full-time paid employment in the UK and 1.5 per cent were self-employed. A further 30.3 per cent were in another form of employment (*eg* part-time, voluntary) or working abroad.
- Four per cent of the first degree graduates with known destinations were not available for employment or further study. 10.6 per cent were seeking work or further study, of whom the unemployed represented eight per cent.
- There has been a change in some of the employment status definitions used by HESA. This means that comparison of these findings with data from previous years is not always possible. In particular, the description of those in different forms of employment (*eg* permanent, temporary, part-time, *etc.*) has changed to such an extent that any meaningful comparison is impossible.
- Graduate unemployment seems to have gone up slightly from 8.3 per cent last year to 8.6 per cent this year. However, last year's figure was provided by the DfEE (DfEE, 1996a) and their definition of unemployment is slightly different from the one used by HESA.
- The proportion of graduates going into further study or research has increased from 19 per cent for the 1994 cohort, to 20.8 per cent for those who graduated in 1995.

Figure 3.11: Home first degree graduates summary, first destinations by subject group, 1995

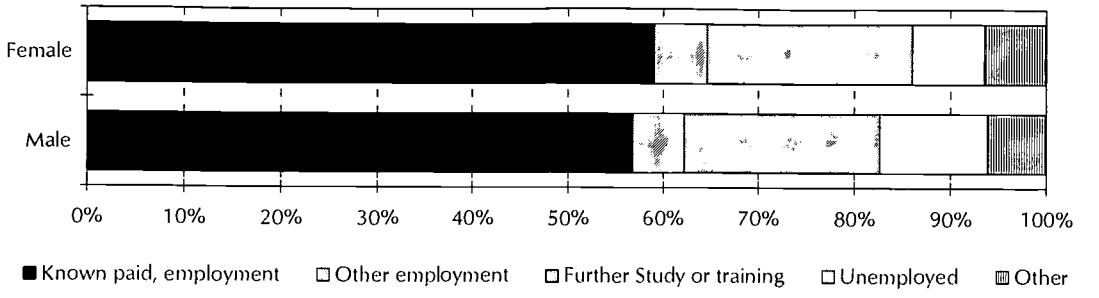
	full-time UK employment	other employment	further study/ research	unemployed	other[1]
Medicine and dentistry	86.8	8.6	4.1	0.2	0.3
Studies allied to medicine	72.8	8.9	11.8	4.0	2.5
Biological sciences	45.6	5.1	31.8	10.2	7.4
Physical sciences	44.5	5.0	33.7	9.8	7.0
Mathematical sciences	51.2	3.6	32.4	8.2	4.7
Computer science	72.7	4.7	8.3	10.4	3.8
Engineering and technology	64.8	4.5	15.1	10.3	5.2
Architecture and related	61.8	9.8	13.4	9.7	5.3
Social, economic and political studies	54.9	6.3	20.5	10.5	7.7
Business and administrative studies	71.5	3.5	8.3	9.7	7.0
Librarianship and information science	63.9	6.0	10.3	11.9	7.9
Languages	50.7	5.3	28.6	8.5	6.9
Humanities	45.4	5.9	30.9	10.1	7.7
Creative arts and design	48.1	10.1	18.4	12.6	10.8
Education	81.1	5.1	3.5	6.8	3.5
Combined	53.0	4.3	24.9	10.7	7.2
All subjects	57.9	5.5	21.0	9.2	6.3

Source: HESA (1996a) Figures 2d, 2e and 2f

- Patterns of employment varied considerably between home first degree graduates from different subject areas. Those undertaking professional training were more likely to be found in full-time paid employment: 86.8 per cent of Medicine and Dentistry graduates, 72.8 per cent of those who studied Subjects allied to Medicine, and 81.1 per cent of Education graduates were in full-time paid employment.
- The reasons for the low employment levels among other groups of graduates varied. A minority of Physical and Biological Sciences, and Humanities graduates were in paid employment, while a high proportion were taking further study. On the other hand, low employment levels among graduates from Creative Arts and Design were coupled with a high unemployment level (12.6 per cent). Unemployment was also higher than average among those graduating from Librarianship and Information Science courses (11.9 per cent). The least likely to be unemployed were graduates from Medicine, Dentistry and Subjects allied to Medicine, and Education courses.

[1] This includes those not available for employment or further study and those who while seeking further employment or further study were not unemployed.

Figure 3.12: UK domiciled first degree graduates summary first destinations, 1995



Source: HESA (1996c) Tables 2d, 2e, and 2f

- Distinct gender differences emerged among home first degree graduates, with women more likely to be employed and in further study or research, and less likely to be unemployed, than men. Gender differences in outcomes partly reflect the different subjects studied by women and men. As noted earlier (Figure 3.11), there were large differences in outcome by subject, and women are better represented in subject areas (*eg* Medicine and Education) leading to higher employment levels.
- When these data are examined in conjunction with those on graduates in part-time or unpaid employment, the pattern appears to be one of women taking any sort of employment rather than becoming unemployed. This hypotheses is supported by evidence from a survey of students about to graduate (*Guardian*, 1995), where male students were expecting a higher starting salary than females. Overall it may be that male graduates have higher expectations and are willing to remain unemployed until they obtain a job which meets their expectations.

Figure 3.13: Home first degree graduates summary first destinations by ethnicity, 1995

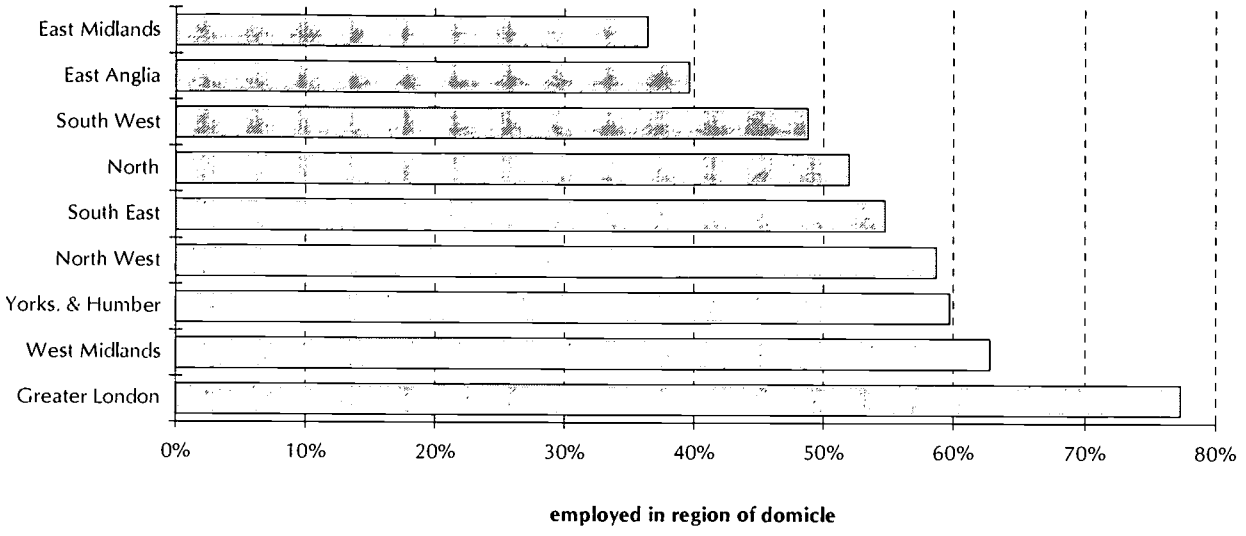
	% in FT UK employment	% unemployed	% in further study/research
White	*32.5*	*9.7*	*18.0*
Black Caribbean	24.3	15.6	20.7
Black African	17.9	18.9	23.5
Black other	23.9	16.2	22.1
Total Black	*21.8*	*17.0*	*22.0*
Asian Indian	25.7	15.3	23.3
Asian Pakistani	18.8	18.8	30.6
Asian Bangladeshi	15.7	17.9	32.8
Asian Chinese	20.8	15.9	22.5
Asian other[1]	20.0	14.1	27.2
Other	*20.7*	*14.8*	*24.2*
Total Known Ethnicity	*31.6*	*10.3*	*18.6*

Source: HESA (1996c) Figure 6

- In the previous section we saw how ethnic minority groups are well represented in HE and have higher than average participation rates. However, in terms of employment opportunities, the data above suggest that a first degree is less 'valuable' to black and Asian graduates than to their white counterparts.
- Graduates from all ethnic minority groups were less likely to be in paid employment than their white peers. Employment levels were particularly low among Bangladeshis (15.7 per cent), Africans (17.9 per cent), and Pakistanis (18.8 per cent). Indians were doing better than all other ethnic minority groups. However, at 25.7 per cent, their employment level was still considerably lower than that for whites (32.5 per cent).
- Compared with whites, unemployment levels were also higher among all ethnic groups, with again Africans, Pakistanis and Bangladeshis being more likely than all other groups to be unemployed.
- Ethnic minority graduates were more likely than whites to be in further study or research. The proportions of Bangladeshis, Pakistanis and Africans included in this category were higher than for all other groups, perhaps partly reflecting the greater difficulties they face in securing employment.
- Ethnic minority graduates' progress in the labour market is discussed in more detail in Chapter 4.

[1] HESA have not published a figure for all Asians.

Figure 3.14: Graduates in full-time, paid, UK permanent employment working in the region they resided in before entering HE, 1995



Source: HESA (1996c) Figure 6

- Traditionally the graduate labour market has been national, as graduates have tended to be very geographically mobile in their early post-graduation years. Given the increasing tendency for students to study in their home region (see Figure 3.2), the extent to which this may be influencing their mobility on graduation is of interest. Figure 3.14 shows the proportion of first degree graduates who were employed in the region where they resided before they entered HE.
- Over three-quarters of graduates who lived in Greater London before entering HE, found employment in their home region after completing their degree.
- The West Midland, Yorkshire and Humberside also retained a high proportion of their 1995 graduates (around 60 per cent).
- The East Midlands and East Anglia were the least likely to provide employment to graduates domiciled there, although this may reflect the large numbers of students leaving these regions to study, rather than a lack of employment opportunities.

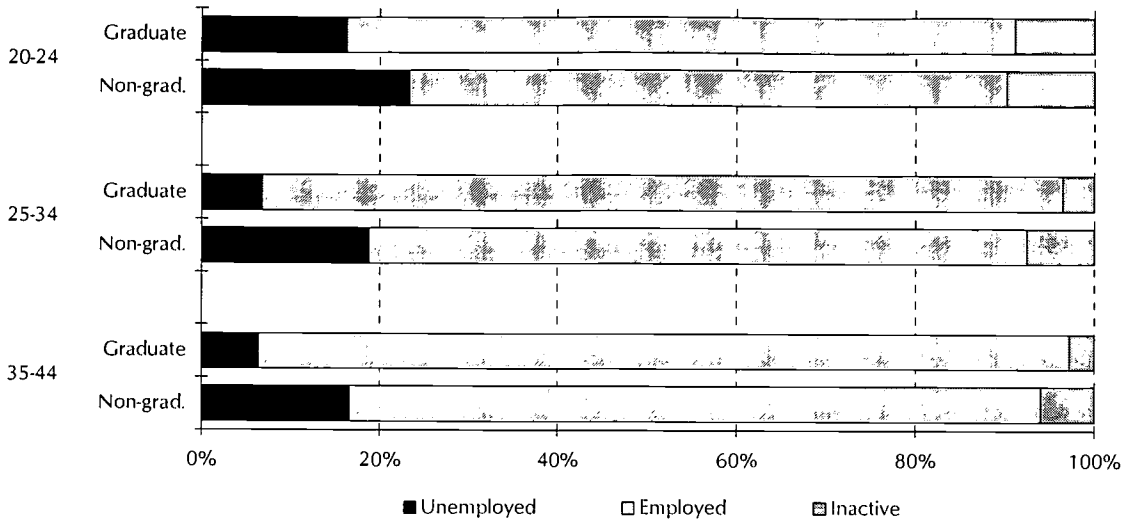
Figure 3.15: Occupation of 1995 first degree graduates and all other graduates in full-time paid employment

Occupational group	1995 graduates %			All graduates %		
	Total	Female	Male	**Total**	Female	Male
Managers & Administrators	**21.1**	21.6	20.6	**25.6**	20.1	28.6
Professional Occupations	**33.3**	29.8	36.8	**42.8**	44.9	41.7
Ass. Prof. & Technical Occupations	**20.6**	20.7	20.6	**17.3**	17.7	17.0
Clerical & Secretarial Occupations	**11.3**	14.7	8.0	**7.7**	11.9	5.4
Sales Occupations	**6.4**	6.9	5.9	**2.6**	3.2	2.3
Other Occupations n.e.s.	**7.2**	6.3	8.1	**4.0**	2.2	4.9
Total	**100.0**	100.0	100.0	**100.0**	100.0	100.0

Sources: HESA (1996c) Figures 4f, 4d and 4e and the Labour Force Survey March to May Quarter 1995

- Overall, over half (54 per cent) of the 1995 first degree graduates in full-time paid employment entered managerial, administrative or professional occupations. This compares with 68 per cent for the graduate population as a whole employed in these occupations.
- While 1995 graduates were only slightly less likely to be in management or administration than the rest of the graduate population, the gap between these two groups widens when looking at professional occupations. 33.3 per cent of 1995 graduates, compared with 42.8 per cent of the graduate population as a whole, were in a professional job. However, this is probably more a reflection of stages in a graduate's career, rather than any de-professionalisation of new graduates. In addition, in recent years there has been an increasing trend for entry to the professions to be via postgraduate qualifications, rather than with a first degree.
- There are some interesting gender differences. For example, while 1995 female and male graduates were almost equally likely to be in management and administration, among the graduate population as a whole, men were considerably more likely to be found in these occupations. The situation is reversed for professional occupations, where men were more likely to be employed soon after graduation, while women graduates were slightly more likely to be in a professional job later on in their careers.
- Compared with the graduate population as a whole, 1995 graduates were more likely to be in clerical, secretarial or sales jobs, the respective figures being ten and 18 per cent. These figures could partly confirm recent concerns about the extent to which new graduates are able to secure jobs commensurate with their qualification and abilities.

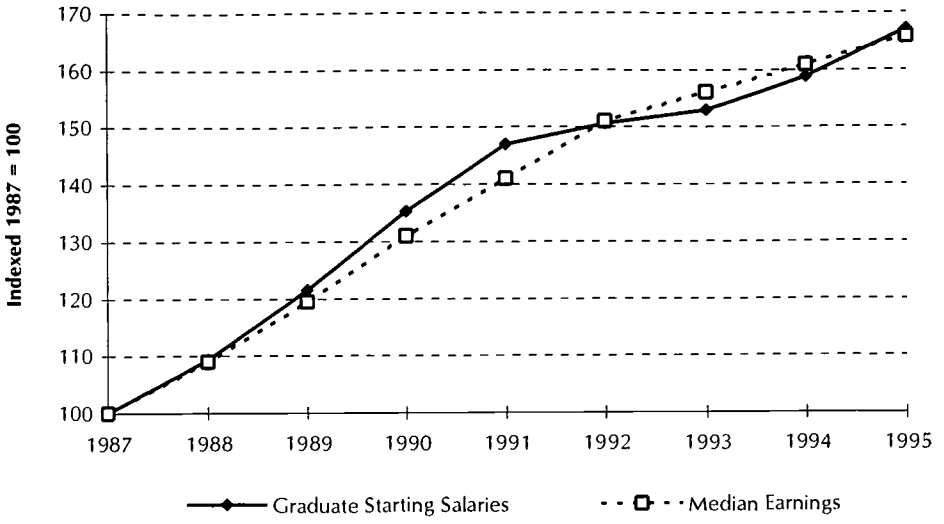
Figure 3.16 Graduate and non-graduate economic activity by age group, 1996



Source: 1996, March to May Quarter, Labour Force Survey

- The extent to which a degree brings economic and financial benefits to both the individual and the economy has been an issue which has attracted considerable attention in recent years. Using data from the Labour Force Survey, Figure 3.16 compares the economic activity of graduates with that of non-graduates in different age groups.
- Despite recent concerns about graduate unemployment and the declining 'value' of a degree, the above data suggest that a degree still gives an advantage in the labour market. At every life cycle stage, graduates are more likely than non-graduates to be in employment. The largest gap is found among the 45 to 59 age group, where 88 per cent of those with a degree were in employment, compared with 71 per cent of non-graduates.
- Graduates in every age group were less likely to be unemployed. While the difference between graduate and non-graduate unemployment levels is small in the youngest age group, the gap widens among older groups.
- Graduates were also less likely to be economically inactive than those with lower qualification levels. In the younger age groups the difference in levels of economic inactivity can partly be explained by differences between graduate and non-graduate women. In the childbearing age, women with high qualification levels tend to take shorter and fewer career breaks than women with lower level qualifications. For example, in the 25 to 34 age group, ten per cent of women with a degree were economically inactive, compared with 31 per cent of female non-graduates.

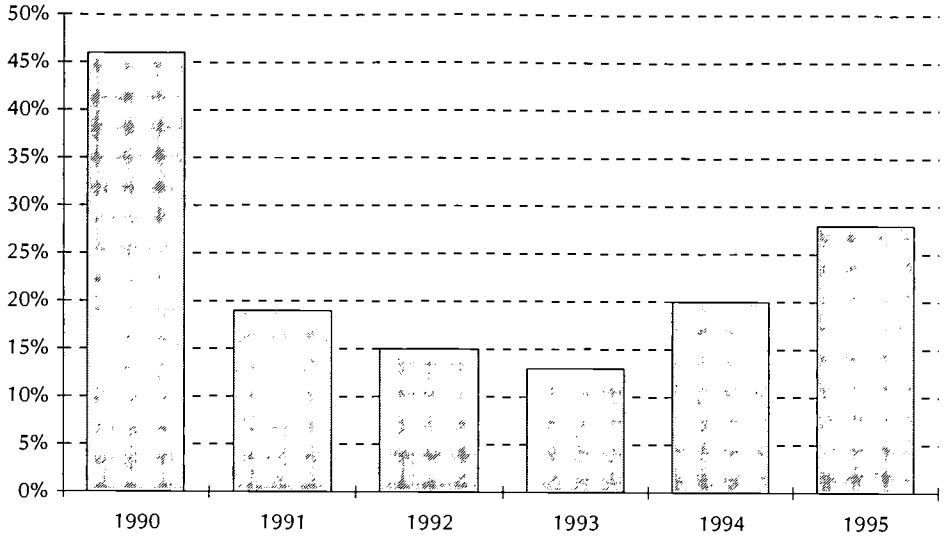
Figure 3.17: Median graduate starting salaries (major recruiters) and median earnings, 1987-1995



Source: AGR, Graduate Vacancies and Salaries, 1996

- The regular IES surveys for the Association of Graduate Recruiters (AGR) monitor trends in graduate salaries, vacancies and skill requirements. The survey includes most of the UK major graduate recruiters, but it excludes the growing number of employers (particularly small and medium enterprises) who recruit graduates on an *ad hoc* basis, and do not have a regular graduate recruitment round. The findings from AGR surveys, therefore, are more representative of the traditional 'core' graduate labour market, and provide little information about trends in the 'periphery'.
- Over the last decade, graduate starting salaries have risen broadly in line with median earnings, with more rapid increases being seen in the late 1980s (a time of shortages) after which they fell back, and a more recent increase in the last year.
- In the past three years, trends in graduate starting salaries have pointed to a slow recovery in the graduate labour market. Between 1993 and 1994, graduate starting salaries increased by four per cent. A year later, they had gone up by six per cent, ahead of the increase in median earnings (Figure 3.17).
- AGR members were paying new graduates a median starting salary of £14,362.
- In 1995, the majority of new graduates (69 per cent) received starting salaries ranging from £13,000 to £15,999. A significant minority (12 per cent) earned over £17,000.

Figure 3.18: Major recruiters reporting a recruitment shortfall, 1990 to 1995



Source: AGR, Graduate Vacancies and Salaries (various years)

- In the past two years, after the decline of the early 1990s, AGR surveys have shown that the proportion of the major recruiters reporting a shortfall in their recruitment has increased (Figure 3.18). In 1995, 28 per cent of employers reported a shortfall in recruitment, compared with 20 per cent the previous year. While the proportion of employers reporting a recruitment shortfall has not reached the level reported in 1990, this is the highest proportion reported since then.
- Recruitment difficulties were linked more to the quality rather than the quantity of supply. Some argued that the graduate labour market is becoming increasingly like a pyramid, getting wider at the bottom, but not at the top, hence the persistence (or even the increase) in the practice of targeting those universities and departments regarded as having a strong academic reputation.

Figure 3.19: Main areas of recruitment difficulties, 1995

Area	% of respondents mentioning difficulties
Computer science and IT	21.0
Finance and accountancy	15.3
Engineering (unspecified)	11.3
Manufacturing/production	9.7
Electronics/electronic engineering	8.1
Other areas	20.3
Base	*124*

** Percentages do not add up to 100 because respondents could select more than one area of difficulty.*

Source: AGR , Graduate Vacancies and Salaries, Summer Update, 1996

- The proportion of AGR organisations reporting difficulties in recruiting graduates from specific disciplines and/or with the required skills has increased steadily in the past three years, from just under one-third in 1994, to 39 per cent in 1995 and to 44 per cent in 1996.
- IT remains an area of difficulty for the greatest proportion of employers, followed by finance and accountancy, and engineering (Figure 3.19).
- The proportions of employers reporting problems in finding graduates with interpersonal skills and commercial awareness were higher than those reporting shortages in technical skills (Figure 3.20). These findings reflect the increased emphasis employers now put on the ability to communicate effectively and work co-operatively, and to apply technical and specialist skills in a business environment. They reflect a graduate labour market where a high level of technical knowledge is no longer sufficient, and must be complemented by a range of 'soft' skills such as those highlighted in Figure 3.20.

Figure 3.20: Reported skill shortages, 1995

Skill area	% Reporting skill shortages*
Interpersonal skills	36.2
Commercial awareness	29.3
Leadership	17.2
Technical skills	15.5
Motivation	10.3
Other skills	19.0
Base	*58*

** Percentages do not add up to 100 because respondents could identify more than one difficulty.*

Source: AGR , Graduate Vacancies and Salaries, Summer Update, 1996

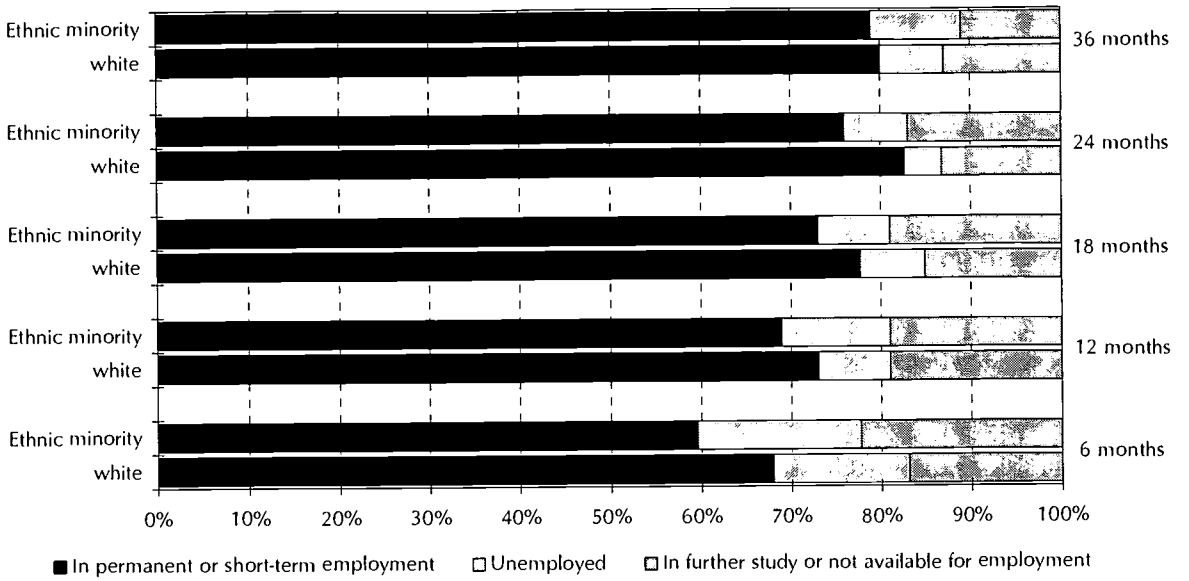
4. Special Features

This year's special features will draw on some of the recent IES research on graduates. The chapter includes three parts:

- The first looks at the extent to which a degree contributes to reducing the labour market disadvantage traditionally experienced by ethnic minorities. It draws on some of the key results from a recent IES study (Connor *et al.*, 1996b) which compared the employment experiences of a matched sample of ethnic minority and white graduates from four universities.
- In the light of renewed concern about IT skill shortages, the second of this year's special features presents some of the findings from IES research on IT skill needs among graduate recruiters (Rick *et al.*, 1996). The study was commissioned by the Engineering and Physical Sciences Research Council (EPSRC) and explored, among other areas, employers' IT skill requirements.
- It has recently emerged that the Dearing Inquiry into HE is considering proposals which could lead to a substantial increase in the number of undergraduates doing part of their degree in local FE colleges. According to these proposals many undergraduates could spend up to two years in local FE colleges, reading for new 'associate degree' qualifications, before transferring to universities or leaving to seek employment. The 'two plus two' system is regarded by some as being more cost effective, as the average cost per FE student is considerably lower than the average cost per HE student. In addition, maintenance costs would also be reduced if graduates were encouraged to study at a local college, at least for the first two years. It is also argued that the 'two plus two' system could increase variety in sub-degree and vocational courses. In view of these proposals, and the considerable impact they could have on the FE sector, and its relation with universities, the last of this year's special features presents the findings of a recent IES study exploring in some depth the interface between FE and HE. The study, for the Committee of Vice-Chancellors and Principals, examined the nature of this interaction, the benefits and concerns (Rawlinson *et al.*, 1996).

4.1 Ethnic minority and white graduates' employment experiences

Figure 4.1: Ethnic minority and white respondents' employment status after graduation at six monthly intervals

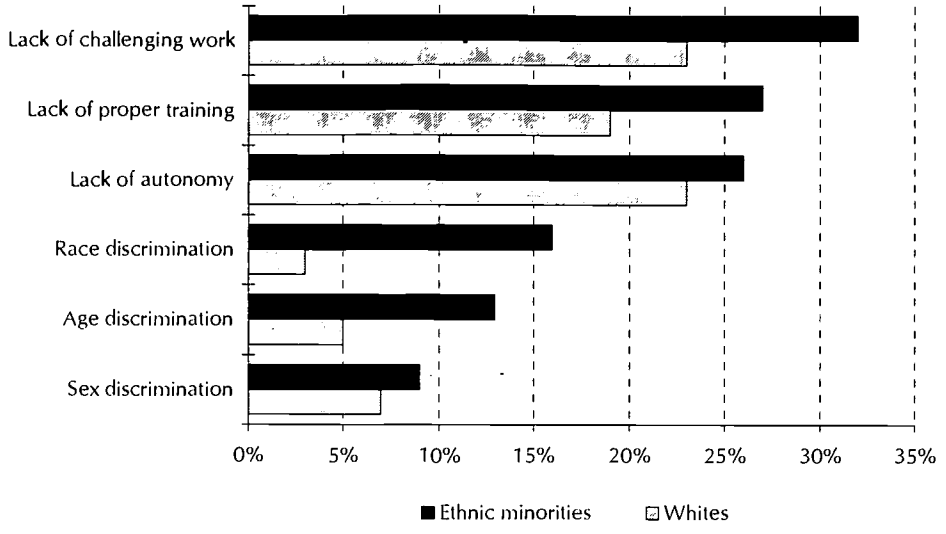


Source: Connor at al., 1996b

- The findings from a recent IES survey of 272 graduates at four universities show that, while a degree can contribute to reducing the labour market disadvantage traditionally faced by ethnic minorities[1], many Asian and black graduates still face difficulties. Some of the study's findings and trends are also supported by the First Destination Statistics presented earlier in Chapter 3. The IES survey gathered information on respondents' employment status at intervals, for two and a half years after graduation (Figure 4.1). Small but consistent differences emerged between ethnic minority and white graduates, with the former consistently less likely to be found in employment, and more likely to be unemployed.
- The extent of the difficulties faced by ethnic minority graduates in the labour market was confirmed by other research findings. For example, they had to apply for a greater number of jobs initially: 40 per cent of ethnic minorities and 27 per cent of whites had made more than fifteen job applications. In the two and half years since graduation, ethnic minority graduates had been unemployed more often: 23 per cent had been unemployed three or more times, compared with only six per cent of whites. In addition, the period of unemployment for ethnic minority respondents was greater than for the rest of the sample.

[1] Ethnic minorities include the following: Black African, Black Caribbean, Black other, Indian, Pakistani, Bangladeshi, Chinese, Other Asian, mixed ethnic origin.

Figure 4.2: Difficulties experienced in current employment by ethnic minorities and whites

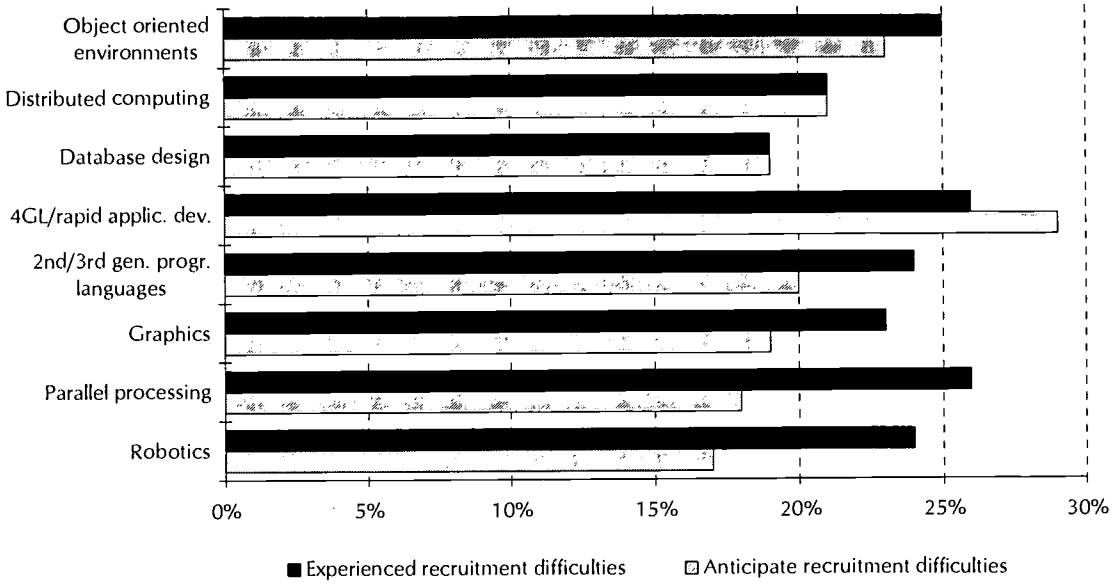


Source: Connor at al., 1996b

- Graduates' employment experiences were explored in greater depth by asking a range of questions on difficulties faced in the current job, opportunities for career development, and career satisfaction (Figure 4.2). Ethnic minority graduates were more likely than their white peers to report difficulties in employment: these ranged from 'lack of challenging work' to discrimination on the grounds of race, age and sex.
- While similar proportions of ethnic minority and white graduates had applied and had been considered for promotion, the former were less likely to have been promoted. Twenty per cent of ethnic minority respondents compared with 27 of whites had progressed in their current job.
- Given the previous results it was perhaps not surprising to find that a lower proportion of ethnic minorities reported satisfaction with their career so far. Over one-quarter of ethnic minority respondents said they were dissatisfied, compared with 19 per cent of whites.

4.2 IT skill needs among graduate recruiters

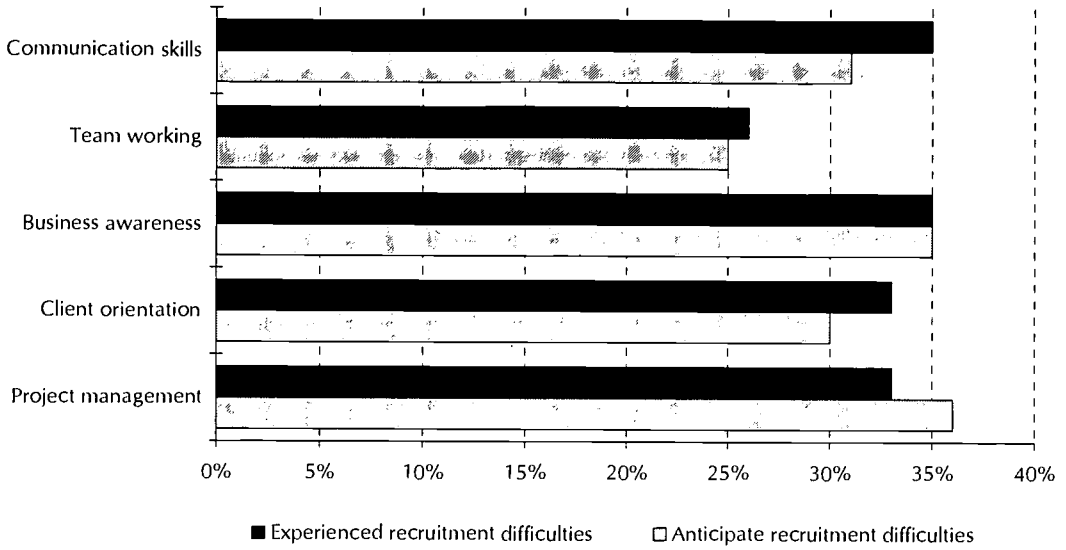
Figure 4.3: Employers who have experienced and anticipate recruitment difficulties in different IT skill areas



Source: Rick et al., 1996

- In recent years there has been renewed concern about the shortfall in IT skills, and in particular a mismatch related to skill levels and the need for IT professionals to have a range of technical as well as 'complementary' skills. While the situation is not as serious as it was in the 1980s, reported difficulties about IT skill requirements should not be underestimated at a time of increased computerisation and reliance on IT, among employers of different sizes and in all sectors.
- Recently IES has conducted a survey of over 300 employers who recruit graduates into IT functions. The findings show that among regular graduate recruiters there has in the past three years been a steady increase in the number of graduates appointed into IT functions. A large proportion of employers (40 per cent) also predicted an increase in the next two years in the number of graduates recruited into IT posts.
- Recruitment difficulties were reported by over one-fifth of employers, with the IT skills required in different functional areas. Predictions for the future show a similar pattern. A substantial minority also expected difficulties in meeting their future IT skill requirements, particularly in the fastest growing areas such as object oriented environments, fourth generation programming languages, and rapid application development (Figure 4.3).

Figure 4.4: Employers who have experienced and anticipate difficulties in finding graduates for IT functions with different complementary skills

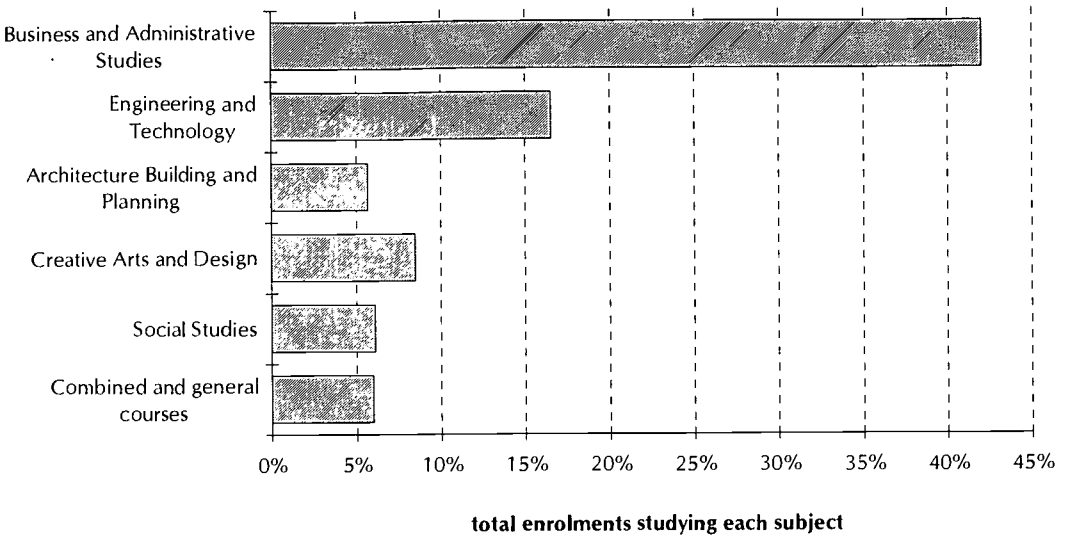


Source: Rick et al., 1996

- Employers appear to have greater difficulties in findings new graduates with 'complementary' skills (*eg* communication, team working, business awareness, *etc.*). Over one-third of respondents reported difficulties in finding new IT graduates with communication and project management skills, and business awareness. Over one-quarter have problems in recruiting graduates into IT functions who can work effectively as part of a team. Similar proportions of employers anticipated that these difficulties will persist in the next two years (Figure 4.4).
- As IT has been permeating all business areas, 'complementary' skills are becoming increasingly important, and there will be an even greater need for computing staff who understand business issues and are able to communicate with non-IT staff and clients. This concern reflects the narrow technical or scientific focus of some HE courses, and the failure to equip graduates with the transferable skills necessary to turn theory into practice in the workplace. While there is evidence that some universities have taken these issues on board, and are becoming more responsive to employers and adapting their curriculum to meet industry needs, more remains to be done in this respect (Rick *et al.*, 1996).

4.3 Links between Further and Higher Education

Figure 4.5: HE enrolments in FE colleges — top six subjects (England) 1994/5



Source: Rawlinson et al., 1996

- Overlap between further and higher education has existed for many years and has developed in different ways. FE colleges provide HE, especially Higher National Certificates (HNC) or Diplomas (HND) in vocational subjects, as well as professional qualifications and 'Access to HE' courses. Links and partnerships between universities and FE colleges are improving access to HE for new student markets. These include: entrants over 21, or without 'A' levels, those who want to study part-time, and the growing number who want to study near home.
- The provision of HE in FE colleges is small but significant: nine per cent of all HE students in England in 1994/95 were enrolled in FE colleges. The similar provision in Wales was six per cent, in Northern Ireland, 15 per cent, but in Scotland (under different arrangements) it was much higher at 28 per cent.
- The most common subjects studied at HE level in FE colleges are business/administration, engineering/technology, and building (Figure 4.5). The majority of HE qualifications provided by FE colleges are HNCs, HNDs and professional qualifications (Figure 4.6).

Figure 4.6: HE students in FE colleges by mode of study 1994/95 (England)

Mode	HNC	HND	Degree	Other	Total
Full time	3,616	19,613	1,364	4,653	29,246
Part time	29,491	4,544	578	47,944	82,557
Total	*33,107*	*24,157*	*1,942*	*52,597*	*111,803*

Source: Rawlinson et al., 1996

FE/HE activity can lead to significant benefits to colleges, universities and students:

- further education students gain access to new routes into HE, and a convenient local base to study HE
- universities gain access to a wider pool of potential HE students, income from colleges, and involvement in new areas of work
- students and staff in FE colleges gain access to university staff and resources
- FE colleges achieve status from association with universities, and this improves their recruitment.

Many FE/HE links are based on close but informal partnerships, others are formal business relationships. The links and partnerships include:

- FE colleges providing 'validated' courses where the colleges' own students enrol on HE courses for which a university oversees the quality. The college pays the university to validate the course content, staff, premises *etc.*
- 'foundation' courses that students take at college before taking a specific degree at the partner university
- 'Access to HE' courses which offer entry to HE without 'A' levels. In 1994/5 there were 14,000 entrants to HE from Access courses (two per cent of the total intake).
- 'franchised' courses in which part or all of a course to university students is delivered on college premises. The college is paid a fee by the university.
- joint teaching and development of HNC, HND or degree, courses (Figure 4.7).

There are, however, a number of concerns relating to the recent growth and development of FE/HE activity. These include:

- Much FE/HE activity aims to ease student progression, but the proliferation of qualifications and types of links make student choice difficult. Students need objective guidance, especially where universities are in competition for student numbers.
- Some 'new' universities provide FE in their own right, and a few are considering mergers with colleges. It is feared that a merged institution might emphasise HE provision and research at the expense of further education.
- The HE experience for students in FE colleges is accepted as being different, but should be of comparable quality to that in

Figure 4.7: Qualification aim and location of franchised students[1] (England) 1994/5

Qualification aim	Part taught at other institution	Wholly taught at other institution	Total students
FE only	117	292	409
Foundation year	22	682	704
HNC/D	901	14,593	15,494
Non-degree/HNC/D	3,804	5,692	9,496
First degree (Year 0 and 1)	1,364	9,241	10,605
First degree (Year 2)	1,201	2,781	3,982
First degree (Year 3 or later)	1,425	1,728	3,153
Postgraduate	2,684	5,033	7,717
All levels	11,518	40,042	51,560

Source: Rawlinson et al., 1996

[1] Includes students franchised to FE colleges and other institutions.

universities. For example, some HE students studying at an FE college want, and get, access to a university campus and staff, while others do not. Students need clarity about what the FE/HE relationship actually offers in terms of progression, resources, staff and facilities.

The study was undertaken before it became known that the Dearing Inquiry was considering proposals for a substantial expansion of undergraduate students doing part of their degree in local FE colleges. The implementation of this proposal would lead to a considerable increase in the overlap and interaction between FE and HE. However, at the time of the study the available evidence suggested that in future:

- The FE/HE overlap and interaction will develop further but not necessarily increase, unless there is an expansion of HE. Colleges are unlikely to take on much more higher level work, but there could be competition between FE and HE for the non-traditional student market. In general, the sectors wish to retain their distinctive characteristics.
- FE/HE links are likely to reduce in number, with closer partnerships becoming more common. Colleges are *'shopping around for the best deals'* from HE partners, and some are choosing 'old' universities because of their status.
- Universities are increasingly adopting a regional as well as a national focus, and initiating networks with their partner colleges to plan HE across their region. Some aim to link staff and students in different centres, making greater use of IT and communications technology (*eg* the Internet).

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The IES Annual Graduate Review 1996–1997

I La Valle, N Jagger, H Connor

Since 1984 the IES Graduate Review has provided the latest information on trends in higher education and the graduate labour market. The Review includes key facts and figures on the main changes influencing the higher education experience, the changing characteristics of the student population, and graduates' employment experiences in a more diverse labour market. This year, in addition to reviewing standard data provided by the Higher Education Statistical Agency, the report will include some of the key findings from recent IES studies on ethnic minority graduates, destinations and utilisation of IT postgraduates, and on the interface and the nature of the links between higher and further education.

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