

# Bulletin

## Institute for Employment Research

## Prospects in the Labour Market for the Highly Qualified

### A Contribution to the Dearing Review

This *Bulletin* presents projections of the labour market for the highly qualified linked to the Institute's 1996/7 Labour Market Assessment.<sup>1</sup> The projections take into account data from the 1991 Census of Population as well as the latest information on the flow of newly qualified entrants into the labour market. Particular emphasis is given to the recent dramatic rise in educational participation rates and what this might mean for the future balance between the supply of and demand for qualified persons.

### The Possible Effects of Increasing Educational Participation Rates

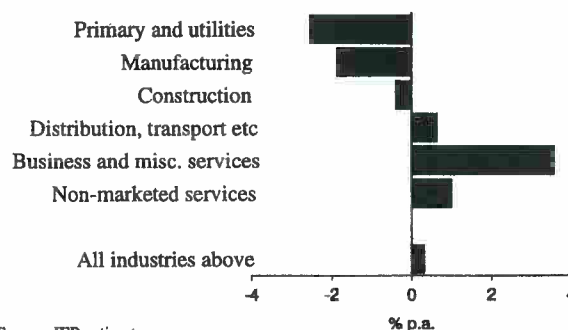
The results highlight the problems that the recent increase in participation in higher education may pose for the labour market. The much greater numbers of, especially young, people going into courses of higher education will inevitably result in increases in the overall stock of people with higher qualifications looking for work. Unless many more jobs emerge for these new graduates in areas that have traditionally not been regarded as graduate work, there is a danger that their expectations of the benefits from undertaking higher education will be dashed.

### Recent Trends in Demand

The demand for qualified persons has risen rapidly over the 1970s and 1980s, primarily driven by shifts in industrial and occupational structure in favour of these groups employing

large proportions of highly qualified people. During the 1990s the number of highly qualified people in employment has risen even faster, as a consequence of graduates and other highly qualified persons increasing their penetration into occupations not traditionally regarded as their province. Rates of penetration are approaching 100 per cent in some professional occupations but there remains considerable scope for further increases in many other occupations.

UK Employment Growth by Broad Industrial Sector  
1981-1996

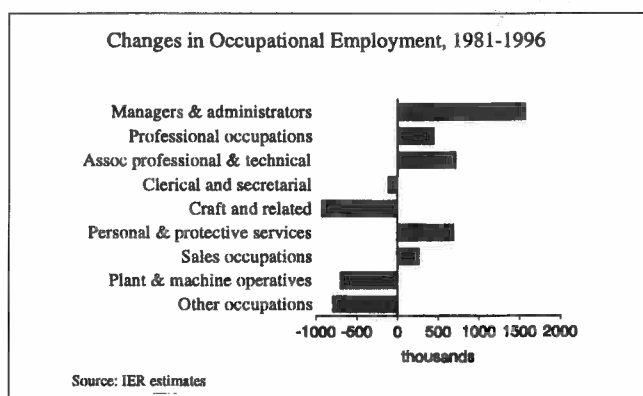


Graduate Penetration Rates (%)

Occupation	1981 1991 1996			2001	
	1981	1991	1996	medium	high
1. Corporate Admin.	12.87	15.84	18.07	19.84	26.31
1.2 Managers and Props.	3.07	4.44	5.36	6.05	9.59
2.1 Science/Eng Prof.	43	42.79	43.66	44.66	50.1
2.2 Health Professionals	95.78	96.76	96.64	96.48	98.21
2.3 Teaching Prof.	59.72	72.8	79.87	82.81	82.20
2.4 Other Professionals	60.53	74.64	78.09	81.95	83.83
3.1 Science Associate Prof.	16.2	28.52	36.78	45.57	45.57
3.2 Health Associate Prof.	2.96	4.37	5.33	5.94	14.35
3.3 Other Associate Prof.	16.7	21.05	23.87	26.40	33.78
4.1 Clerical Occupations	2.21	3.24	3.95	4.38	6.96
4.2 Secretarial Occupations	1.5	2.62	3.27	3.64	5.57

<sup>1</sup> Lindley, R.M. and R.A. Wilson (eds.) (1997). *Review of the Economy and Employment: Labour Market Assessment 1996/97*. University of Warwick, Institute for Employment Research, Coventry. The projections in this Bulletin update and extend earlier analyses in Wilson, R.A. (1995a), *Higher Education in a Learning Society*, Chapter 6 in Coffield, F. (Ed.) 'Prospects in the Labour Market for the Highly Qualified'. School of Education, University of Durham, Durham, and Wilson, R.A. (1995b) in R.M. Lindley and R.A. Wilson (eds.) (1995b) *Review of the Economy and Employment: Future Employment Prospects for the Highly Qualified*. University of Warwick, Institute for Employment Research, Coventry.

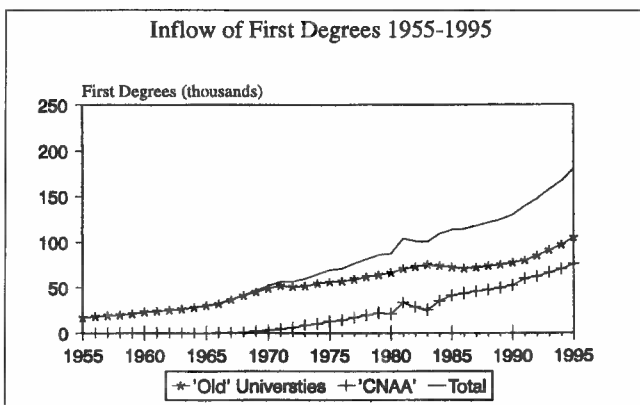
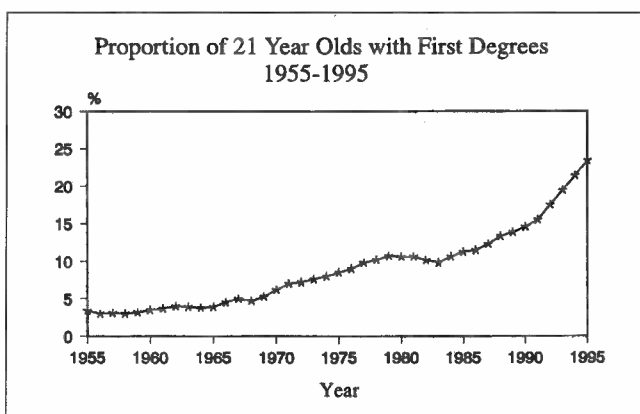




### Acceleration in Supply

Total supply rose equally rapidly in the 1970s and 1980s, driven by increasing proportions of young people staying on in full-time education and obtaining higher level qualifications. This tendency has accelerated in the past few years, with a doubling of the so called 'age participation index'.

Rapid growth in supply:	1981-91	1991-96
Postgraduates	188,000	193,000
First degree graduates	802,000	440,000
All graduates	990,000	633,000
Intermediate qualification	655,000	483,000
All highly qualified	1,645,000	1,117,000
Unqualified	293,000	-1,782,000
Total	1,938,000	-665,000



### Future Prospects: Demand

Prospects for the future demand for the highly qualified depend on how the economy develops and, in particular, the extent to which penetration rates as defined above, continue to rise. The most likely outcome is further substantial growth in demand. Various alternatives have been considered. Assuming a continuation of observed medium term historical trends in penetration rates, just under 900 thousand additional jobs for highly qualified persons are expected by the year 2001 compared with the level in 1996. Demand is expected to rise especially rapidly for those with social science degrees as well as for those qualified in science and vocational subjects. However, if the experience of the early 1990s is repeated, and penetration rates continue to grow at this more rapid pace, (the 'high' demand scenario) demand could rise even faster than this. In these circumstances the number of jobs could increase by as much as 1.2 million. The actual outcome will depend primarily on how successful graduates and other highly qualified people are in penetrating different occupations.

### Supply Set to Increase Sharply

Whatever happens to demand, supply is set to increase very rapidly indeed, primarily due to the rises in educational participation rates which have already taken place. Despite the demographic downturn, the increases rise in educational participation rates which have already occurred (the 'medium term new supply' scenario) are expected to fuel an increase in the economically active stock of over a million between 1996 and the year 2001. Graduate level qualifications account for about two thirds of this growth. If educational participation rates continue to rise as many expect, the impact will be even greater (the 'high new supply' scenario).

### An Uncertain Future

There is considerable uncertainty attached to both demand and supply projections. In order to examine the range of likely possibilities a variety of different demand and supply scenarios have been developed. These include medium term and high demand scenarios and medium term and high supply projections.

### Balance Between Supply and Demand: Alternative Scenarios

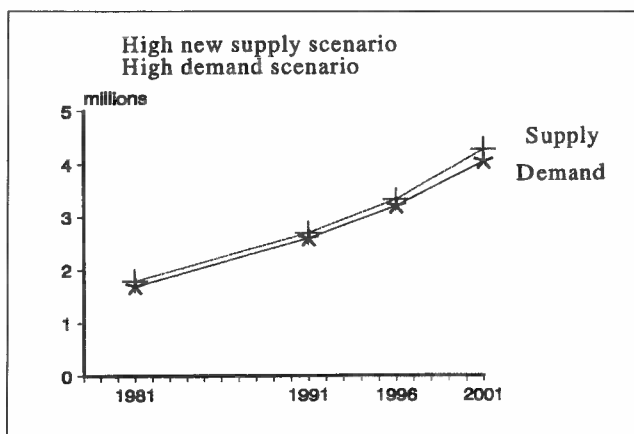
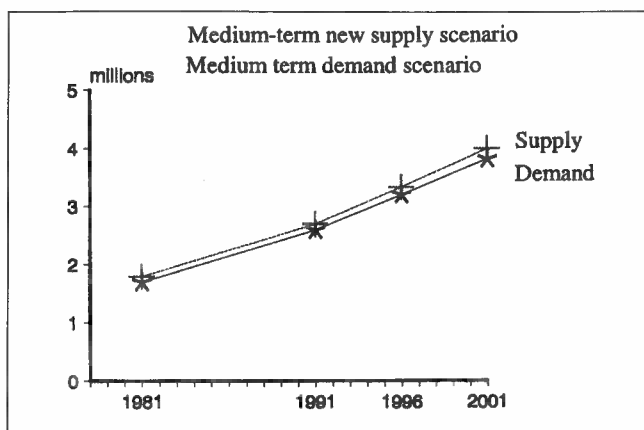
A simplistic comparison of supply and demand based on a continuation of medium term trends in both supply and demand (Scenario A) suggests the possibility of a growing surplus of highly qualified persons, reaching almost 150 thousand by the turn of the century. The widening gap is particularly pronounced for post graduates and those with intermediate level qualifications.

**Changes 1996 - 2001: Scenario A**

	Demand	Supply	Imbalance
Postgraduates	113000	187000	74000
1st degree graduates	494000	468000	-26000
All graduates	607000	655000	48000
Intermediate qualification	282000	379000	97000
All highly qualified	889000	1034000	145000

**Changes 1996 - 2001: Scenario C**

	Demand	Supply	Imbalance
Postgraduates	179000	200000	21000
1st degree graduates	662000	742000	80000
All graduates	841000	942000	101000
Intermediate qualification	331000	347000	16000
All highly qualified	1172000	1290000	118000



Scenario A assumes some reversal of recent trends in educational participation rates. If, as seems more likely and as the DfEE expects, educational participation rates continue to rise and there is no increase in drop out rates, then this situation is exacerbated and a very substantial surplus of highly qualified people could emerge in the labour market (Scenario B).

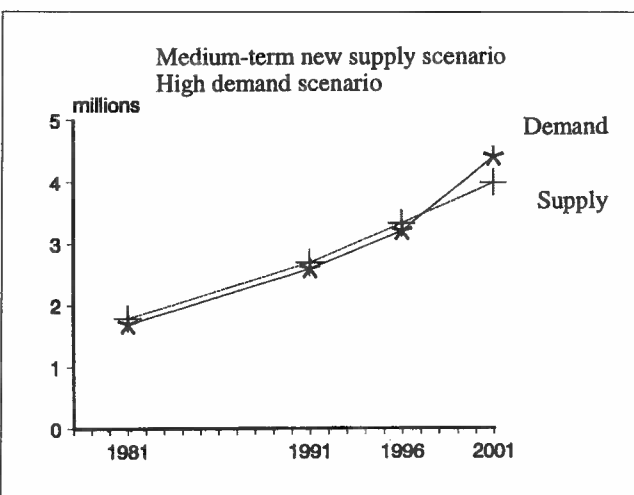
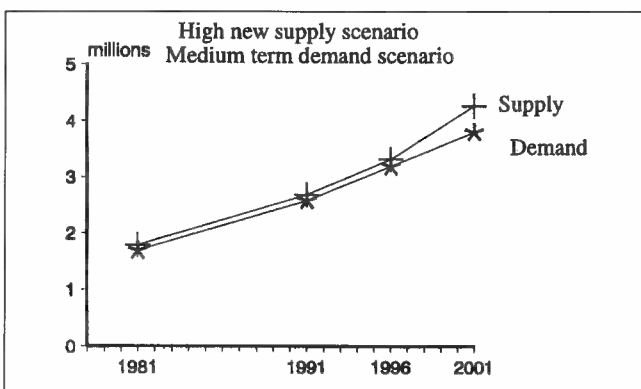
Only in a scenario in which demand trends continue at the much faster rate observed in the early 1990s, while the level of educational participation rates are pegged back at their 1995 levels, is such a surplus avoided and shortages predicted (Scenario D).

**Changes 1996 - 2001: Scenario B**

	Demand	Supply	Imbalance
Postgraduates	113000	200000	87000
1st degree graduates	494000	742000	248000
All graduates	607000	942000	335000
Intermediate qualification	282000	347000	65000
All highly qualified	889000	1290000	401000

**Changes 1996 - 2001: Scenario D**

	Demand	Supply	Imbalance
Postgraduates	179000	187000	8000
1st degree graduates	662000	468000	-194000
All graduates	841000	655000	-186000
Intermediate qualification	331000	379000	48000
All highly qualified	1172000	1034000	-138000



Even if there is a continuation of growth in graduate penetration rates at the higher level experienced during the early 1990s, the growth in educational participation rates in line with DfEE expectations, results in a growing excess of numbers over available jobs (Scenario C).

### Need for New Graduates to Move into Non-Traditional Areas

In practice, of course, the boundaries between post graduate, graduate and other qualifications may be less clear cut than implied by the stark numbers presented here. What does seem clear is that traditional areas of graduate and higher level occupational employment will, on the basis of previous long-term trends, find it difficult to cope with the large influx of newly qualified entrants expected in the 1990s. If surpluses are to be avoided these young people will have to find new areas for employment compared to previous generations.

### Large Increases in Graduate Unemployment are Unlikely

The experience of the early 1990s suggests that this is not a forlorn hope, with most highly qualified persons likely to find some form of employment. It is argued, therefore, that it is unlikely that the outcome will be a dramatic increase in unemployment for graduates or post graduates. First, there is some evidence that the nature of many jobs is changing. Traditional perceptions of what is and what is not a graduate job, for example, may be outdated. Many jobs are becoming increasingly technical and complex, requiring greater knowledge and abilities. So demand may be rising faster than medium-term trends suggest. Second, and possibly more importantly, the UK's needs to increase its employment of highly qualified persons, in order to compete effectively in the world economy, may well be significantly greater than suggested by a simple extrapolation of past patterns of behaviour. If so, actual demand may rise more rapidly than suggested in the projections. Thirdly, and perhaps most importantly, the employment of better qualified people in jobs previously done by those less well qualified may alter the nature of the jobs themselves and in so doing help to improve competitiveness. In a sense supply may create its own demand. As more highly qualified persons percolate into areas previously dominated by persons without higher level qualifications this may change

the nature of the work involved and in so doing generate more and better job opportunities in the future. Finally, persons qualified at this level are likely to find employment even if they are unable to secure their first choice of job, albeit sometimes at the expense of less well qualified people.

### Danger of Dashed Expectations

If the first three developments are not realised, then there is a danger that an increasing number of newly qualified persons may find themselves in jobs which they regard as not matching their expectations, while at the same time less well qualified people could be increasingly squeezed out of such jobs. Both these phenomenon could lead to significant tensions in the labour market over the next few years.

#### Methods Used

The analysis is concerned with all highly qualified people not simply those who have recently qualified. All university graduates and those with equivalent professional qualifications, as well as post graduates and those with qualifications intermediate between 'A' level and a first degree are considered. Both the demand for and supply of qualified persons by discipline/subject and level of qualification held are dealt with.

The projections are based on separate models of demand and supply. The demand model links the employment of qualified people to the Institute's projections of occupational change. An intermediate stage in the process disaggregates the 22 sub-major-groups used in the Institute's Occupational Assessment into 79 two digit level occupational groups. Further details may be found in Wilson (1995b).

The supply side is based on extrapolations of proportions of people obtaining qualifications by level and discipline applied to OPCS based demographic projections. The resulting flow of newly qualified entrants is translated into a measure of overall supply via a simple stock flow model and assumptions about activity rates.

The full results of the Institute's latest assessment, including detailed tabulations and graphics, can be found in the

### *Review of the Economy and Employment: Labour Market Assessment 1996/97*

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The results of the analysis described in this Bulletin will be presented in detail at the conference on

### *Graduates in the Labour Market: The New Diversity of Skills*

This conference will consider the implications of Higher Education expansion for the labour market and will be held at Scarman House, University of Warwick on **Monday 10th March 1997**

For further details please contact: Alison Negus, Conference Secretary, Institute for Employment Research, Tel: 01203 524128 or Fax: 01203 524241