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RECENT CHANGES IN THE OXFORDSHIRE KNOWLEDGE ECONOMY

**Oxfordshire Economic
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INTRODUCTION

Employment changes are analysed for the 1998-2002 period, using ABI data.

Comparisons are made between employment trends in Oxfordshire and other South East counties, as well as with all other English counties.

The focus is on employment trends in the knowledge economy – defined here as knowledge-intensive business services (KIBS) and high-tech manufacturing activities. However, in order to provide a wider context, employment change in other sectors of the Oxfordshire economy is also discussed.

The primary focus here is on recent employment trends, but other indicators are also of interest and will be examined briefly subject to data availability. These indicators include business start-ups and closures, changes in turnover and profitability, earnings levels, patenting activity, etc. Some information on these issues is available in King (2003), which provides data for the Thames Valley, Oxfordshire, Cambridgeshire and Greater London.

OVERALL CONTEXT

The overall context is that this has been a period of relatively static employment levels in Oxfordshire – between 1998 & 2002, the number of employees working in the county actually declined very slightly, from around 298,900 to 298,200 – a fall of 0.2%. This disappointing performance contrasts with the strong employment growth (in excess of 10%) experienced in a number of South East counties over the same period – including Berkshire, East Sussex, West Sussex, Kent and Isle of Wight. In fact, amongst all nine South East counties, Oxfordshire was the only county to record a decline in overall employment levels between 1998 & 2002.

Overall Employment Change, 1998-2002 – South East Counties

Isle of Wight – net growth of 11,400 employees (28.8%)
East Sussex – net growth of 36,000 employees (14.7%)
West Sussex – net growth of 38,000 employees (12.0%)
Berkshire – net growth of 44,900 employees (10.8%)
Kent – net growth of 61,200 employees (10.8%)
Buckinghamshire – net growth of 15,900 employees (4.9%)
Hampshire – net growth of 30,400 employees (4.3%)
Surrey – net growth of 17,700 employees (3.7%)
Oxfordshire – net decline of 700 employees (0.2%)

Employment trends in Oxfordshire by broad sector are summarised below (all figures are rounded to the nearest hundred jobs):

Agriculture, forestry & fishing – net gain of 200 jobs (excludes MAFF agricultural data, 1992 SIC category 01.00)

Mining & quarrying – no net change (less than 50)

Manufacturing – net loss of 2,600 jobs

Electricity, gas & water supply – net loss of 100 jobs

Construction – net loss of 2,300 jobs

Retail & wholesale trade – net gain of 400 jobs

Hotels & catering – net gain of 300 jobs

Transport, storage & communications – net gain of 800 jobs

Financial services – net gain of 800 jobs

Business services – net loss of 4,300 jobs (but a net gain of 900 jobs excluding 1992 SIC category 74.50, labour recruitment/employment agencies, which distorts the figures for this sector) (see below for further breakdown of the business services sector)

Public administration & defence – net loss of 5,400 jobs

Education – net gain of 3,900 jobs

Health & social work – net gain of 7,100 jobs

Other services – net gain of 600 jobs

Further breakdown of business services category:

Real estate activities – net gain of 200 jobs

Renting/hiring equipment – net gain of 200 jobs

Computer related activities – net gain of 200 jobs

Research & development – net loss of 300 jobs

Other business services (excluding 1992 SIC category 74.50, labour recruitment/employment agencies) – net gain of 700 jobs

Labour recruitment/employment agencies – net loss of 5,200 jobs

KNOWLEDGE ECONOMY – CURRENT IMPORTANCE

As defined here, knowledge intensive sectors accounted for the following employment in Oxfordshire in 2002:

Technology-based KIBS – 20,300 jobs (6.8% of all employees)

Professional KIBS – 27,200 jobs (9.1% of all employees)

High-tech manufacturing – 7,600 jobs (2.6% of all employees)

Total knowledge intensive sectors – 55,100 jobs (18.5% of all employees)

How does this compare with other South East and English counties?

Knowledge intensive sectors as % of all employees (2002)

(Ranking of all 46 English counties – Top 10)

1 = Berkshire – 20.5%

2 = Oxfordshire – 18.5%

3 = Surrey – 18.1%

4 = Greater London – 16.6%

5 = Buckinghamshire – 15.4%

6 = West Sussex – 15.2%

7 = Hertfordshire – 14.8%

8 = Cambridgeshire – 13.9%

9 = Hampshire – 13.3%

10 = Warwickshire – 12.5%

Average for all English counties – 11.3%

KNOWLEDGE ECONOMY – RECENT EMPLOYMENT TRENDS

Employment change in knowledge intensive sectors in Oxfordshire, 1998-2002:

Technology-based KIBS – net loss of 100 jobs (0.5% decline)

Professional KIBS – net gain of 3,000 jobs (12.5% increase)

All KIBS – net gain of 2,900 jobs (6.6% increase)

High-tech manufacturing – net gain of 300 jobs (3.8% increase)

All knowledge intensive sectors – net gain of 3,200 jobs (6.2% increase)

Employment growth in knowledge intensive sectors has therefore been relatively modest over this period, contributing a net gain of around 3,200 jobs to the Oxfordshire economy. However, these employment changes need to be considered within the context of a slight overall decline in employment in the Oxfordshire economy as a whole.

This period appears to have been one of consolidation for knowledge intensive sectors in Oxfordshire, rather than one of significant employment growth. The performance of other South East counties is compared with that of Oxfordshire below – all experienced a faster growth in employment in knowledge intensive sectors than Oxfordshire, although Surrey exhibited a similarly sluggish growth rate. Interestingly, both Oxfordshire and Surrey are in the top three English counties in terms of the overall importance of their knowledge intensive sectors (as a percentage of total employment). The other county in the top three is Berkshire, but this county experienced strong employment growth in knowledge intensive sectors between 1998 & 2002 (of 20%). Oxfordshire and Surrey have therefore fallen somewhat further behind Berkshire over this period. Other South East counties experiencing strong employment growth in knowledge intensive activities were East and West Sussex and Kent.

Employment growth in knowledge intensive sectors, 1998-2002 (South East counties)

Berkshire – net increase of 15,300 (19.9%)
Buckinghamshire – net increase of 5,700 (12.2%)
East Sussex – net increase of 6,600 (37.8%)
Hampshire – net increase of 12,800 (15.0%)
Isle of Wight – net increase of 1,200 (30.6%)
Kent – net increase of 12,900 (27.3%)
Oxfordshire – net increase of 3,200 (6.2%)
Surrey – net increase of 6,500 (7.6%)
West Sussex – net increase of 18,000 (50.1%)

Selected other counties:

Greater London – net increase of 54,800 (9.2%)
Hertfordshire – net increase of 3,500 (5.1%)
Cambridgeshire – net increase of 3,800 (8.7%)
Warwickshire – net increase of 3,500 (14.2%)

A different method of looking at the significance of employment growth in knowledge intensive sectors is examined below, again for counties in the South East region.

Employment growth in knowledge intensive sectors (1998-2002), expressed as a percentage of total county employment in 1998 (this shows the % growth in county employment directly generated by knowledge intensive sectors over the period):

Berkshire – 3.8%
Buckinghamshire – 1.7%
East Sussex – 2.7%
Hampshire – 1.8%
Isle of Wight – 3.0%
Kent – 2.2%

Oxfordshire – 1.1%
Surrey – 1.3%
West Sussex – 5.6%

Selected other counties:

Greater London – 1.5%
Hertfordshire – 0.7%
Cambridgeshire – 1.2%
Warwickshire – 1.5%

OTHER INDICATORS

The information below is taken from King (2003). Data for Oxfordshire is compared with that for three other competing areas – the Thames Valley, Cambridgeshire and Greater London. The Thames Valley is defined as the whole of Berkshire, part of Buckinghamshire (Wycombe and Chiltern districts) and a small part of Hampshire (Basingstoke & Deane district). Data is provided for a range of indicators, relating to the knowledge economy and in particular to measures of the innovative capacity of each sub-region (see King (2003), Figure 1, for a full list of relevant knowledge economy indicators – knowledge capital, innovation capacity, outputs and outcomes – those used by Huggins Associates, although these have been subject to criticism – see footnote 9 on page 6).

Number of employees in R&D (as % of all employees) (2002)

Oxfordshire – 14,500 (4.9%)
Cambridgeshire – 5,800 (1.7%)
Berkshire – 6,300 (1.4%)
Thames Valley –
Greater London – 13,800 (0.4%)

Number of companies headquartered in each area included in the DTI R&D Scoreboard, and their spending on R&D (2001-02)

Oxfordshire – 14 companies, spending £196 million on R&D
Cambridgeshire – 20 companies, spending £205 million on R&D
Thames Valley – 48 companies, spending £1,055 million on R&D
Greater London – 103 companies, spending £5,830 million on R&D

R&D spending by companies in DTI R&D Scoreboard (2001-02), expressed in per capita terms (using 2001 resident population)

Oxfordshire – £324 per capita
Cambridgeshire – £371 per capita
Thames Valley – £876 per capita
Greater London – £813 per capita

Average R&D spending per employee by companies in DTI R&D Scoreboard (2001-02)

Oxfordshire – £42,000
Cambridgeshire – £59,000
Thames Valley – £18,000
Greater London – £17,000

R&D intensity (ratio of R&D spending to sales) of companies in DTI R&D Scoreboard (2001-02) – figures exclude pharmaceutical companies

Oxfordshire – 28%
Cambridgeshire – 22%
Thames Valley – 15%
Greater London –

King (2003) notes that it is not possible to be confident about how meaningful these averages are, since they include companies in early stages of growth (with R&D intensity of greater than 100%) which distort the figures.

Number of high-tech patent applications to the European Patent Office (all figures are rounded)

Oxfordshire –
1998 – 40
1999 – 60
2000 – 50
2001 – 75

Cambridgeshire –
1998 – 125
1999 – 140
2000 – 180
2001 – 225

Berkshire –
1998 – 30
1999 – 60
2000 – 80
2001 – 90

Greater London –
1998 – 165
1999 – 160
2000 – 225
2001 – 300

These figures can be expressed relative to the size of each of the sub-regions, as measured by either population or labour force, or perhaps number of companies.

Number of DTI innovation awards made to companies in each sub-region

Queen's Awards for Enterprise, 2000-2003

Oxfordshire – 4
Cambridgeshire – 5
Thames Valley – 11
Greater London – 17

Smart Awards, 1999-2001

Oxfordshire – 18
Cambridgeshire – 48
Thames Valley – 22
Greater London – 34

Smart Awards are grants to small and medium-sized enterprises for the costs associated with research and development of technologically innovative products or processes. The Queen's Awards for Enterprise are granted to companies (or business units of larger companies) demonstrating outstanding innovation over a period of two years, or continuous innovation over a period of five years.

REFERENCES

King, Z. (2003) Research and Development in the Thames Valley. Report prepared for the Thames Valley Enterprise and Innovation Group. Department of Management, University of Reading Business School. September 2003.

