

HERTFORDSHIRE ECONOMIC OUTLOOK 2013



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EXECUTIVE SUMMARY

INTRODUCING HERTFORDSHIRE

The County of Hertfordshire has a population of 1.1 million and an economy worth £26.7 billion in 2011. Hertfordshire is the 19th largest Local Enterprise Partnership area by population size, and the 15th largest by size of its economy. It has high rates of entrepreneurship, some outstanding industries and employers, and is well placed in its infrastructure connections and access to the London economy.

ECONOMIC PERFORMANCE

THE UK ECONOMY HAS ENTERED A MORE POSITIVE PHASE OF RECOVERY, BUT THE LEGACY OF THE RECESSION WILL CONTINUE

The UK's economy now appears to be on more positive ground, with resurgent business and consumer confidence. The latest estimate of Gross Domestic Product (GDP) indicated that output grew by 0.8 per cent during Q3 2013 (the three months to September). However, this renewed confidence is yet to translate into significant improvements in levels of business investment or a sizeable rise in consumer spending. There is no sense of a 'rapid recovery' as forecast rates of growth over the next few years are modest, at between 1 and 2 per cent.

What is more significant is that employment has remained more buoyant than expected since the recession. How this will turn out over the next two or three years is unpredictable. We know that productivity has severely declined in the UK and that private investment has been seriously curtailed. There are signs that firms have retained more employees than they need or have preferred to maintain and invest in labour capacity rather than invest in capital. This means that increased activity and output will not require a rapid increase in the workforce even after business investment has picked up. Uncertain growth in Europe and the USA is likely to reinforce this cautious approach.

Consumer spending and household finances have also been depressed by the recession and its aftermath. Price rises have been high, particularly for basic consumer goods and utilities, while growth in earnings has been much lower. Household budgets have been pressured in the past two years. Low interest rates (and therefore mortgage repayments) have helped to ease the burden on

households. Recovery in consumer spending and household finances is likely to be modest.

A resurgence of business investment is critical to productivity improvements and the long term economic growth rate. In Q2 2013, business investment was reported to have contracted. While businesses surveyed have expressed more positive investment intentions, these have yet to translate into reality. In its November 2013 Inflation Report the Bank of England expects business investment to rise on balance by around, or just above, 2 per cent per quarter in 2014.

HERTFORDSHIRE CONTINUES TO RANK HIGHLY FOR ECONOMIC OUTPUT PER CAPITA, BUT ON CURRENT TRENDS WILL BE RANKED OUTSIDE THE TOP 10 LEPS BY 2021

Hertfordshire has demonstrated resilience to the recession, experiencing a smaller recession and recovering at a better rate than the national average. On the face of it, Hertfordshire's total employment levels have hardly been affected. Although full-time employment shows signs of recent recovery, total employment was maintained during and immediately after the recession due to a rise in part-time employment.

Of more serious concern is Hertfordshire's long term economic trajectory. On current trends, Hertfordshire would slip out of the top ten LEs for economic output per head by 2021, falling from its position of fourth out of 39. Hertfordshire's ten year average rate of economic growth from 2001 to 2011 was the second lowest of the 39 LEs.

Hertfordshire's productivity is higher than the national average, but productivity rates relative to the national average have declined over the past decade, reflecting the County's declining rate of economic growth. Hertfordshire's productivity is above the average for the UK and for England, but is below that of London and Berkshire, Buckinghamshire and Oxfordshire. The County's relative productivity performance has consistently declined since 2004.

ENTERPRISE, INDUSTRY AND INNOVATION

A HIGH RATE OF ENTREPRENEURSHIP

Hertfordshire has a high rate of entrepreneurship, with its 46,485 enterprises equating to 42 enterprises per 1,000 residents. Hertfordshire has high levels of entrepreneurial activity - over the 4 years from 2006 to 2010, business start-up and closure activity (the 'business churn rate') was higher in Hertfordshire than nationally. In 2006, 2007, 2010 and 2011, the net balance of births minus deaths as a share of total enterprises was higher than nationally.

Self-employment is also higher in Hertfordshire, representing 11.1 per cent of working age residents in Hertfordshire. This rate has been maintained over the past ten years. This is above the England average of 9.7 per cent, and higher than several peer LEP areas.

A DIVERSE RANGE OF INDUSTRIAL SPECIALISMS

Hertfordshire has an above-average share of employment in several industries. These include wholesale and retail (20.8 per cent of total employment); information and communications (5.0 per cent); professional, scientific and technical activities (10.4 per cent); and administrative and support service activities (12.9 per cent). Industrial specialisms include specialist manufacturing and R&D, wholesale activities, construction, software and business services.

Hertfordshire performs well on innovation measures and has an expanding scientific and engineering workforce. The County ranks highly on patent applications, with 8.3 patents per 100,000 residents in 2011. It has a higher share of employees in knowledge intensive and high and medium technology manufacturing.

A significant and growing share of Hertfordshire residents are employed as science, research, or engineering professionals and associate professionals. Altogether 42,500 residents worked in these professions in 2011, accounting for 13.5 per cent of the working population and significantly higher than peer LEP areas. There has been a high rate of growth, with the number of residents in these occupations increasing by +28.5 per cent, or +9,400 over the ten years to 2011.

LABOUR MARKET PERFORMANCE

HIGH RATES OF PARTICIPATION IN EMPLOYMENT AND THE ECONOMY

Hertfordshire has very high rates of economic participation and the highest employment rate among the 39 LEPs. Although employment rates fell sharply during the recession, they have recovered quickly. Economic activity rates are also high. In the year to June 2013, Hertfordshire had the third highest rate among the 39 LEP areas of working-age people either in work or looking for work, a figure of 82.4 per cent compared with a national average of 77.5 per cent.

Hertfordshire has experienced weak jobs growth over the past ten years, ranking 30th of the 39 LEPs for its ten-year jobs growth record. Over the past decade the total number of jobs in Hertfordshire grew by 1.9 per cent, far lower than the 5.6 per cent growth across England, 9.4 per cent growth in London and 8.6 per cent growth in Greater Cambridge Greater Peterborough (GCGP).

Jobs growth has varied considerably across Hertfordshire districts. Between 2001 and 2011, jobs grew strongly in Watford (+9,000), Welwyn Hatfield (+9,000), Broxbourne (+8,000) and St Albans (+8,000).

Hertfordshire's impressive qualifications profile reflects the highly-skilled jobs undertaken by its residents. In the year to June 2013, over half (51.7 per cent) of residents were employed as managers, professionals or associate professionals – higher than the England average of 44.4 per cent and the fifth highest of all 39 LEP areas. Hertfordshire has a highly qualified population, with 40.4 per cent of 16-64 year olds qualified to at least Level 4 (degree level).

Hertfordshire's high rates of population growth are forecast to continue. In the ten years to 2012, the number of people living in the County grew by 8.5 per cent to 1.1 million. Between 2011 and 2021 Hertfordshire's population is forecast to increase by 10.2 per cent, higher than England's average growth of 8.6 per cent.

The unemployment rate is low. In the year to June 2013, 5.5 per cent of all 16-64 year olds in Hertfordshire were unemployed, well below the England average of 8.0 per cent and the sixth lowest rate of all 39 LEP areas.

INTRODUCTION

ABOUT THIS REPORT

This report provides an overview of the recent economic performance of Hertfordshire. It examines the national economic context, and how Hertfordshire has recovered from the recent recession.

HERTFORDSHIRE: THE PLACE

The County of Hertfordshire has a population of 1.1 million and its economy was worth £26.7 billion in 2011. It is the 19th largest Local Enterprise Partnership area by population size, and the 15th largest by size of economy.

Hertfordshire has a distinctive local economy. It is adjacent to, strongly influenced by, and in many respects is functionally part of London. It is in the geographical heart of the UK's knowledge economy, which includes London, Cambridge and Oxford.

Hertfordshire borders the northern part of Greater London and includes key routes between London and the major cities of the Midlands and North.

It covers an area of 634 square miles (1,634 square kilometres) and 87 per cent of its population live in 45 settlements of over 3,000 people. There is one city, St Albans, and a variety of market towns, industrial towns, new towns, commuter villages and rural villages. There are ten local authority areas. Broxbourne, Hertsmere, Watford and Three Rivers in the south, and Stevenage towards the north, are the most urban, while East Hertfordshire and North Hertfordshire have large rural areas that are fairly sparsely populated.

Over half of the County's land is Green Belt and there are significant amounts of open space between settlements, so despite being the second most densely populated County in England, Hertfordshire has escaped many of the disadvantages of urban life. This makes the County an attractive and desirable place to live and work.

The majority of Hertfordshire businesses are in urban areas and very few of its 'rural businesses' are engaged in traditional land-based activities. Land based businesses are most significant in East Hertfordshire and North Hertfordshire, but are also evident in parts of Dacorum, St Albans and other districts.

1. HERTFORDSHIRE'S ECONOMIC PERFORMANCE

SUMMARY

THE UK ECONOMY HAS ENTERED A MORE POSITIVE PHASE OF RECOVERY, BUT THE LEGACY OF THE RECESSION WILL CONTINUE

The UK's economic recovery appears to have strengthened moderately over the past six months. Most commentators and analysts agree that the UK is now in a phase of recovery and resurgent business and consumer confidence. However, there is no sense of a 'rapid recovery' as forecast rates of growth over the next few years are modest, at between 1 and 2 per cent. Excess labour capacity in businesses and low levels of business investment make it likely that employment growth will be modest.

The UK's economic recovery appears to have strengthened during Q3 2013. The preliminary estimate of Gross Domestic Product (GDP) indicated that output grew by 0.8 per cent during Q3 2013 (the three months to September).

Consumer spending and household finances have been depressed by the recession and its aftermath. Price rises have been high, particularly for basic consumer goods and utilities, while growth in earnings has been much lower. Low interest rates (and therefore mortgage repayments) have helped to ease the burden on households. While inflation is easing, interest rate rises are likely. Any recovery in consumer spending and household finances is therefore likely to be modest at best.

While consumer spending shows signs of recovery, business spending and investment does not. A resurgence of business investment is critical to productivity improvements and the long term economic growth rate. In Q2 2013, business investment was reported to have contracted. While surveys show businesses are more positive about future investment, this has yet to translate into reality. The Bank of England's November 2013 Inflation Report predicts that business investment will rise overall in 2014 by around, or a little above, 2 per cent per quarter.

Credit conditions have improved for larger corporations but not for small businesses. Improvements in credit conditions have been greatest for large corporations, which tend to have better access to non-bank finance than smaller companies.

HERTFORDSHIRE CONTINUES TO HAVE ONE OF THE HIGHEST LEVELS OF ECONOMIC OUTPUT PER CAPITA, BUT ON CURRENT TRENDS WILL BE OUTSIDE THE TOP 10 LEPs BY 2021

The output of Hertfordshire's economy was valued at £26.7 billion in 2011. It has the 15th largest economy out of the 39 LEPs. Hertfordshire's long term rate of annual economic growth between 1998 and 2011 was 4.0 per cent (unadjusted for inflation). The County had the 18th highest rate of annual GVA (Gross Value Added) growth over this period among the 39 LEPs. However, if we examine average annual growth over the decade 2001-2011, Hertfordshire's average annual growth rate drops to 3.0 per cent, and it ranks 38th out of 39 LEPs, with only the Black Country LEP area having a worse annual average rate.

Hertfordshire has the fourth highest GVA per head of the 39 LEP areas, at £23,800. On current trends, though, the County will be outside the top ten LEPs by 2021. If we apply Hertfordshire's growth rate for the decade 2001 to 2011 to the next ten years to 2021, it is estimated that Hertfordshire will have a GVA per head of £26,600 by 2021. This will rank it 11th, with other LEPs overtaking and pushing the County out of the top ten.

Recent employment growth matches the national average, at 0.7 per cent growth over the three years from 2009 to 2012.

The recession was slightly less severe in Hertfordshire than across the UK. The East of England Forecasting Model (EEFM) estimates that the UK economy contracted by -0.9 per cent in 2008 and -4.4 per cent in 2009, while Hertfordshire's economy contracted by -0.8 per cent in 2008 and -3.8 per cent in 2009.

Total employment has been maintained during and since the recession because part-time jobs replaced full-time ones. Between 2008 and 2012, full-time employment decreased by 14,500 over this period, while part-time employment grew by 15,000 (according to analysis from the Business Register Employment Survey). Other analysis from the Annual Population Survey suggests that full-time employment has since recovered strongly.

Hertfordshire has a higher level of productivity than the average, but its productivity levels relative to the UK average have decreased over the past ten years. Hertfordshire's productivity is above the average for the UK and England, but is below that for London and Berkshire, Buckinghamshire and Oxfordshire. Hertfordshire's relative productivity performance has consistently declined since 2004.

ECONOMIC PERFORMANCE

NATIONAL ECONOMIC PERFORMANCE

RECENT UK ECONOMIC PERFORMANCE¹

The UK's economic recovery now appears to have strengthened moderately over the past six months. The latest estimate of Gross Domestic Product (GDP) indicated that output grew by 0.8 per cent during Q3 2013, as indicated in **Figure 1.1** below.

Several dynamic changes have cushioned the UK against worsening economic performance. The contraction in construction output during the downturn was mitigated by a large increase in public sector and infrastructure related construction activity (such as the Olympics venues and Crossrail). This effect has been reduced over the past two years, but construction output has instead been supported by a rise in private sector housing construction.

Household income remains under pressure. Following relatively strong growth in Real Household Disposable Income (RHDI) during the first year of the downturn (Q2 2008 to Q2 2009), RHDI has been broadly flat since Q3 2009, despite cumulative real GDP growth of 4.2 per cent over this period. The relationship between RHDI and GDP growth during a period of economic recovery appears broadly similar to previous experience.

The proportion of household income spent on 'essential' goods has risen from 19.9 per cent in 2003 to 27.3 per cent in 2013. The proportion accounted for by gas and electricity increased from 1.8 per cent in 2003 to 3.1 per cent in 2013, despite very little overall change in the volume of household energy consumption.

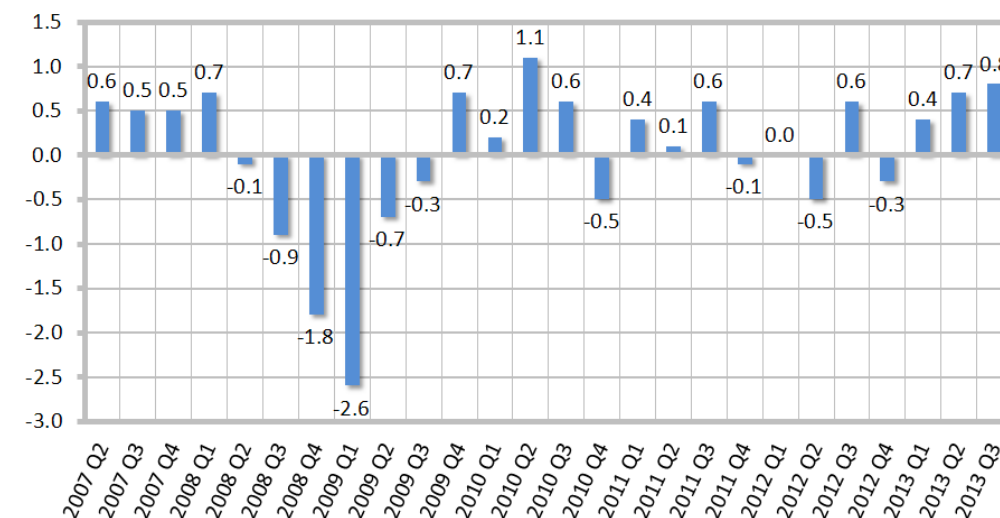
One of the most surprising features of the UK economy during and since the recession has been the strength of employment. Unemployment has not peaked to levels consistent with previous recessions and employment has been sustained at higher than expected levels, reaching a historic peak in Q3 2013 with 29.95 million people in work in the UK. Comparing July-September 2013 with a year earlier, there were 378,000 more people in employment, 48,000 fewer unemployed people and 149,000 fewer people not in the labour force (economically inactive).

¹ Sourced from: Office for National Statistics, Statistical bulletin: Labour Market Statistics, November 2013; Office for National Statistics, Statistical bulletin: Gross Domestic Product Preliminary Estimate, Q3 2013; Office for National Statistics, Economic Review, November 2013.

While consumer spending shows signs of recovery, business spending and investment does not. A resurgence of business investment is critical to productivity improvements and the long term economic growth rate. In Q2 2013, business investment was reported to have contracted. While businesses surveyed are more positive about their future investment plans, this sentiment has yet to translate into delivery. The Bank of England's November 2013 Inflation Report expects business investment to rise on balance by around, or just over, 2 per cent per quarter in 2014.

Credit conditions have improved for larger corporations but not for small businesses. Improvements in credit conditions have been greatest for large corporations, which tend to have better access to non-bank finance than smaller companies. Small and medium-sized enterprises (SMEs), however, frequently lack access to capital markets and are therefore more dependent on banks for external finance. Median interest rates on new credit facilities to SMEs have fallen modestly overall since mid-2012. Surveys of small businesses reinforce the view that the cost of credit for SMEs is falling: for example, businesses responding to the Federation of Small Businesses (FSB) survey reported that, on average, their cost of credit fell between mid-2012 and 2013 Q2 and continued to edge lower in Q3. Those surveys also suggest that the availability of credit has been improving over the past year or so, albeit from a low base. These rates do not, however, capture the full cost of credit for SMEs, as they do not include the impact of fees or cashback deals. Furthermore, as lenders become more willing to extend credit to a wider pool of borrowers, falls in interest rates for some SMEs may be offset by banks charging higher interest rates to riskier ones.

FIGURE 1.1: UK QUARTERLY ECONOMIC GROWTH 2007-2013



Source: Office for National Statistics

A significant feature has also been the slow and faltering recovery since recession. Recovery has been gradual, even with very low inflation rates (at or below 0.5 per cent since 2008). Various factors may explain this. First is the timing of public expenditure cuts: the jury is out about whether or not the cuts served to dampen demand in the economy during the early phases of recovery. Secondly, the global nature of the recession, and in particular the slow and faltering growth in Europe and the USA, may have slowed recovery. The third factor is dampened business and consumer confidence, which has lowered demand and changed patterns of expenditure. Fourth is a general reluctance of businesses to invest; and fifth is the availability and terms of credit and finance for businesses, households and consumers.

BACKGROUND TO THE RECESSION

The UK entered recession in Q2 of 2008, which lasted for 18 months until Q4 2009. Since then growth has been sluggish, with several quarters of negative growth. Unemployment rose from a rate of 5.4 per cent in 2008, to 7.1 per cent in Q1 2009, and then peaked at 8.4 per cent in Q4 2011. Between Q3 2012 and Q2 2013, the unemployment rate remained at 7.8 per cent, and then fell slightly to 7.6 per cent at the latest estimate for Q3 2013.

OUTLOOK FOR THE NATIONAL ECONOMY

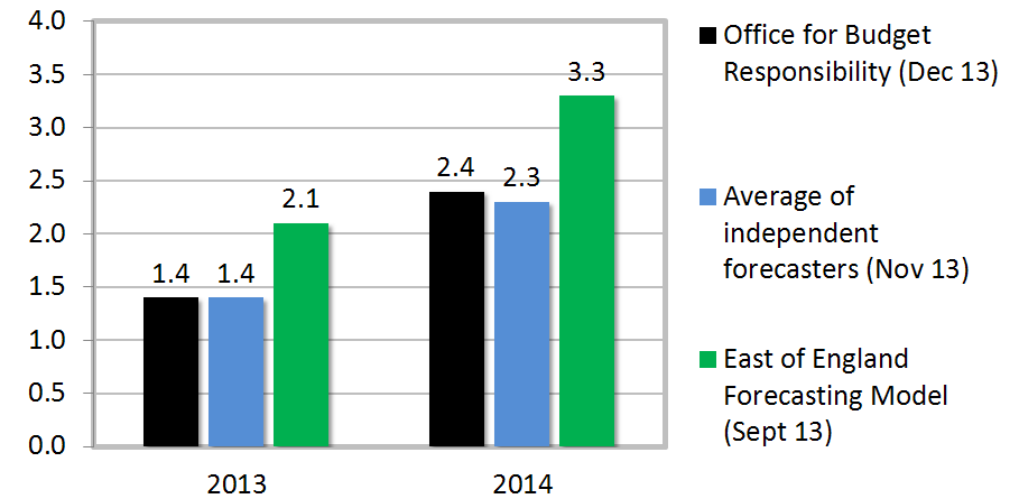
There is a general view that the UK economy is at last returning to modest levels of growth. As indicated earlier, the latest estimates suggest that the UK economy expanded by 0.8 per cent in Q3 2013 and business surveys point to similar rates of growth in Q4. Improvements in the pace of growth during 2013 were supported by an increase in domestic demand. That reflects both an improvement in credit conditions — for example, rates on new loans to households have fallen significantly over the past year — and a reduction in uncertainty. The easing of these headwinds has supported consumer spending and helped to revive the housing market, as reflected by housing activity and prices increasing and housing investment rising robustly in the first half of 2013. Although capital expenditure is yet to increase, companies' investment intentions have also improved on the back of reduced uncertainty and improved access to credit, as well as stronger prospects of demand. Large companies may benefit most from this expected revival of investment as, despite some improvement, small businesses still find it difficult to access finance.

Demand has also increased worldwide since the start of 2013, and by more than most economists expected. This mainly reflected growth in the euro area, which was slightly stronger than predicted. The outlook for some emerging economies has worsened over the past three months.

The average of independent forecasters² suggests that the rate of UK growth will be 1.4 per cent in 2013 and 2.2 per cent in 2014 (since the most recent OBR forecast was in March 2013, it is not reported here). As outlined in **Figure 1.2** below, Oxford Economics' September Forecast (used for the East of England Forecasting Model) is rather more optimistic, suggesting that the UK will experience growth of 2.1 per cent in 2013, rising to 3.3 per cent in 2014 and remaining at 3.3 per cent in 2015.

A cautionary note on growth. Although many commentators are forecasting that the quarterly growth rates seen during 2013 will be sustained in 2014, there remain uncertainties. While consumer confidence, credit conditions and the housing market have improved, productivity and real earnings growth have remained weak. Ultimately, productivity-driven growth in real earnings is necessary to sustain the recovery. As a result, quarterly GDP growth is expected to slow into 2014, and then to strengthen gradually as productivity picks up. One significant restraint on both productivity and economic growth is the historically low rates of net lending to businesses and levels of business investment.

FIGURE 1.2: MEDIUM-TERM ECONOMIC FORECASTS FOR THE UK



Source: Office for Budget Responsibility; HM Treasury, Forecasts for the UK economy: a comparison of independent forecasts, October 2013; East of England Forecasting Model

² HM Treasury, Forecasts for the UK economy: a comparison of independent forecasts, October 2013

OVERALL ECONOMIC PERFORMANCE IN HERTFORDSHIRE

The output of Hertfordshire’s economy was valued at £26.7 billion in 2011. It has the 15th largest economy of the 39 LEPs. Hertfordshire’s long term rate of annual economic growth between 1998 and 2011 (unadjusted for inflation) was 4.0 per cent, 18th among the 39 LEPs. However, if we examine average annual growth over decade 2001-2011, Hertfordshire’s average annual growth rate drops to 3.0 per cent, which ranks the County 38th, with only the Black Country LEP area having a worse annual average rate.

Hertfordshire has the fourth highest GVA per head among 39 LEP areas. At £23,800, as indicated in Figure 1.4, Hertfordshire has retained its high position in terms of GVA (economic output) per head, and ranks fourth among all LEP areas, behind London (£34,800), Thames Valley Berkshire (£32,800) and Enterprise M3 (£26,700).

There is a risk that Hertfordshire’s ‘top five’ ranking may not continue in the long term. As presented in Figure 1.8 on the next page, Hertfordshire’s long term economic growth rate lags slightly behind its peer LEP areas and the national average. Further sections in this report will analyse the factors and dynamics driving long-term growth in Hertfordshire. If we apply Hertfordshire’s ten year (2001-2011) growth rate in GVA per head of 2.2 per cent and extrapolate that forward by ten years to 2021, it is estimated that Hertfordshire will have a GVA per head of £26,600 in 2021 – 11th out of 39 LEPs as other areas with higher growth rates overtake it.

Recent employment growth in Hertfordshire has been slightly higher than the national average, rising by 0.8 per cent between 2011 and 2012. Hertfordshire’s employment totalled 522,100 in 2012. After declining by 0.6 per cent in 2009 and 0.6 per cent again in 2010, employment grew by +0.5 per cent in 2011 and +0.8 per cent in 2012. Overall, employment has barely grown since 2008 – by +0.1 per cent, as Figure 1.5 illustrates. This is slightly better than the average for England (-0.5 per cent) and Thames Valley Berkshire (-1.2 per cent), but below Buckinghamshire Thames Valley (+0.7 per cent) and Cheshire and Warrington (+0.6 per cent).

FIGURE 1.3: AVERAGE ANNUAL CHANGE IN GVA (ECONOMIC OUTPUT) 1998-2011 – HERTFORDSHIRE AND SELECTED LEP AREAS

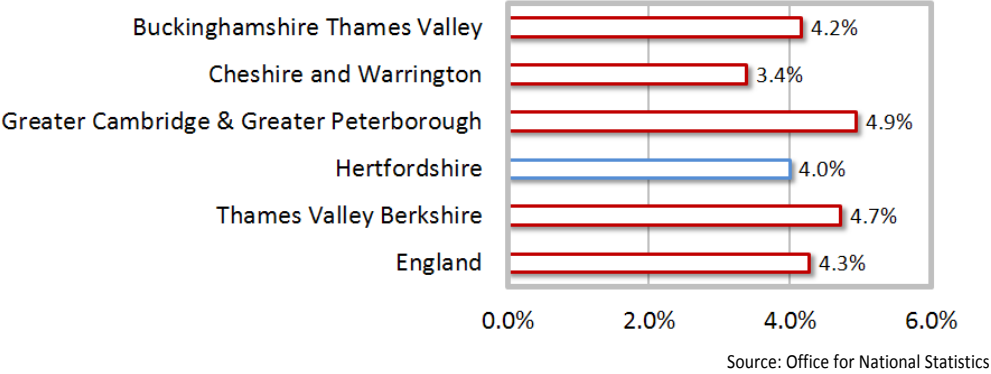


FIGURE 1.4: ECONOMIC OUTPUT PER HEAD IN 2011 – HERTFORDSHIRE AND SELECTED LEP AREAS

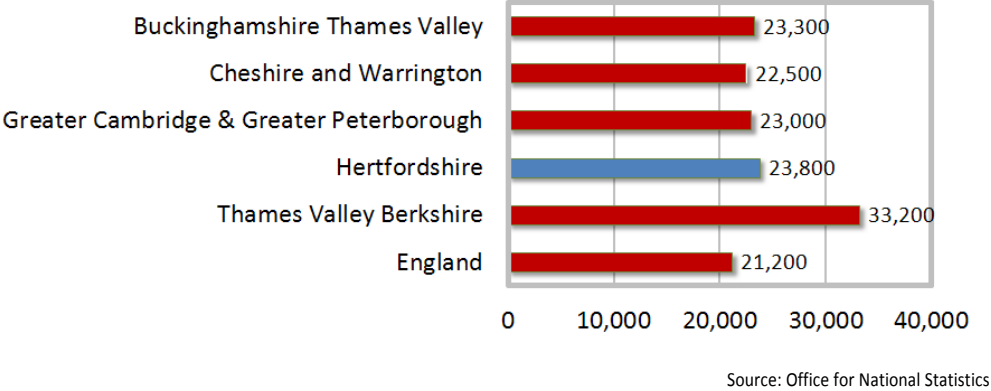


FIGURE 1.5: ANNUAL GROWTH RATES IN EMPLOYMENT 2009-2012 – HERTFORDSHIRE AND SELECTED LEP AREAS

LEP Area	2009	2010	2011	2012	2008-2012
Buckinghamshire Thames Valley	-1.4%	2.4%	-1.1%	0.7%	0.7%
Cheshire and Warrington	0.5%	-0.8%	0.7%	0.3%	0.6%
GCGP	-0.7%	0.8%	-1.0%	0.7%	-0.2%
Hertfordshire	-0.6%	-0.6%	0.5%	0.8%	0.1%
Thames Valley Berkshire	-2.3%	1.8%	-1.0%	0.2%	-1.2%
England	-1.2%	0.1%	-0.1%	0.7%	-0.5%

Source: Business Register and Employment Survey, Office for National Statistics.

Productivity is higher in Hertfordshire than the average for the UK and England, but is below that for London and Berkshire, Buckinghamshire and Oxfordshire, as can be seen from **Figures 1.6 and 1.7** below.

Hertfordshire's relative productivity levels have consistently declined since 2004, when its GVA per hour worked was 19 per cent above the UK average, exceeding other areas such as Cambridgeshire and Berkshire, Buckinghamshire, and Oxford. While Cambridgeshire's GVA per hour worked has also declined relative to the UK average, this decline has not been as steep as Hertfordshire's; and Berkshire, Buckinghamshire and Oxford's productivity has remained more or less constant at around 15-16 per cent above the UK average.

FIGURE 1.6: NOMINAL (SMOOTHED) GVA PER HOUR WORKED INDICES, 2004 - 2011

	2004	2005	2006	2007	2008	2009	2010	2011
UK	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
England	101.9	101.9	101.9	101.9	101.8	101.7	101.5	101.4
Cheshire	104.0	104.1	104.0	103.5	102.4	101.5	101.2	101.3
Cambridgeshire	105.1	104.4	103.6	103.4	102.4	101.4	100.6	100.7
Hertfordshire	119.2	118.6	116.3	112.9	109.1	106.8	105.5	105.2
London	128.0	128.6	129.6	130.7	131.5	131.7	131.4	130.9
Berks, Bucks and Oxfor	116.5	116.3	115.6	115.0	114.7	115.2	116.0	116.7

Source: Office for National Statistics subregional productivity July 2013 revision

FIGURE 1.7: NOMINAL (SMOOTHED) GVA PER HOUR WORKED, 2004 - 2011

	2004	2005	2006	2007	2008	2009	2010	2011
UK	22.3	22.9	24.0	25.2	25.9	26.1	27.1	27.3
England	22.7	23.4	24.5	25.7	26.4	26.5	27.5	27.7
Cheshire	23.1	23.9	25.0	26.1	26.6	26.5	27.4	27.7
Cambridgeshire	23.4	23.9	24.9	26.1	26.6	26.4	27.2	27.5
Hertfordshire	26.5	27.2	27.9	28.5	28.3	27.8	28.6	28.7
London	28.5	29.5	31.1	33.0	34.1	34.3	35.6	35.8
Berks, Bucks and Oxfor	25.9	26.6	27.8	29.0	29.7	30.0	31.4	31.9

Source: Office for National Statistics subregional productivity July 2013 revision

FIGURE 1.8: ACTUAL AND PROJECTED GVA PER HEAD 2011 AND 2021

LEP Area	2011	2011 rank	2001-2011 annual growth rate %	2021 projected	2021 projected rank
Black Country	15,300	36	1.9%	18,500	39
Buckinghamshire Thames Valley	23,300	8	3.1%	31,700	8
Cheshire and Warrington	22,500	10	4.3%	34,300	3
Coast to Capital	23,600	7	2.9%	31,500	9
Cornwall and the Isles of Scilly	14,000	38	4.1%	20,900	33
Coventry and Warwickshire	19,800	16	2.6%	25,600	18
Cumbria	17,900	21	4.3%	27,300	13
D2N2	17,600	22	2.8%	23,200	25
Dorset	17,900	20	3.4%	25,100	19
Enterprise M3	24,000	4	3.5%	33,900	5
GCGP	23,000	9	3.5%	32,400	7
Gloucestershire	20,200	15	2.5%	26,000	16
Greater Birmingham and Solihull	17,400	23	2.4%	22,100	27
Greater Manchester	17,900	19	2.6%	23,200	23
Heart of the South West	17,000	25	3.6%	24,100	20
Hertfordshire	23,800	5	2.2%	29,600	11
Humber	15,900	32	2.7%	20,800	34
Lancashire	16,000	29	2.9%	21,300	30
Leeds City Region	18,400	18	2.6%	23,800	21
Leicester and Leicestershire	19,100	17	3.1%	25,800	17
Lincolnshire	15,600	33	2.8%	20,600	35
Liverpool City Region	15,300	35	2.1%	18,900	37
London	34,500	1	3.8%	49,900	1
New Anglia	17,300	24	3.2%	23,700	22
North Eastern	15,900	30	3.4%	22,300	26
Northamptonshire	20,500	14	2.8%	27,100	14
Oxfordshire	23,700	6	3.4%	33,200	6
Sheffield City Region	15,400	34	3.1%	21,000	32
Solent	20,900	12	3.7%	30,100	10
South East	16,800	26	3.3%	23,200	24
South East Midlands	21,100	11	3.2%	28,800	12
Stoke and Staffordshire	15,000	37	2.8%	19,700	36
Swindon and Wiltshire	20,700	13	2.6%	26,700	15
Tees Valley	16,300	27	3.0%	21,900	28
Thames Valley Berkshire	33,200	2	3.3%	45,800	2
The Marches	15,900	31	3.0%	21,400	29
West of England	24,300	3	3.5%	34,300	4
Worcestershire	16,200	28	2.7%	21,000	31
York and North Yorkshire	13,900	39	2.9%	18,600	38
England	21,200		3.2%	29,100	

Source: Office for National Statistics; projections based on 10 year annual growth rate for 2001-2011

HERTFORDSHIRE’S RECESSION

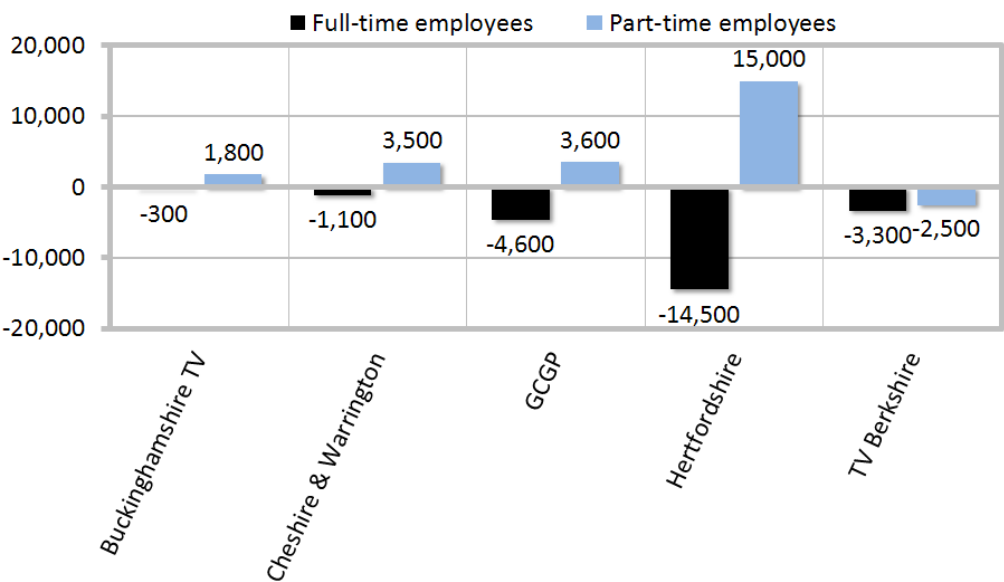
The East of England Forecasting Model (EEFM) estimates that the recession was slightly less severe in the Hertfordshire area than across the UK. The EEFM estimates that the UK economy contracted by -0.9 per cent in 2008 and -4.4 per cent in 2009; and that Hertfordshire’s economy contracted by -0.8 per cent in 2008 and -3.8 per cent in 2009.

Hertfordshire is forecast to recover its output to 2007 levels by 2013, in line with the UK as a whole. The EEFM estimates that Hertfordshire’s economic output was £26.3 billion in 2007 (this is slightly different to the ONS estimates detailed in previous pages because the EEFM estimates build in measures for inflation, whereas ONS estimates do not), and then declined to £25.1 billion in 2009 after the onset of recession. Economic output started to recover and is expected to increase to £26.5 billion in 2013. By contrast, the overall impact of the recession in terms of loss of economic output was less severe than Essex and the GCGP area, although the GCGP area experienced a faster recovery, with estimates showing it regained 2007 output levels in 2011.

In 2012 a total of 522,100 people were employed in Hertfordshire, up from 521,600 in 2008 – a 0.1 per cent increase. Hertfordshire recorded the ninth best rate of employment growth among the 39 LEP areas between 2008 and 2012. Hertfordshire’s employment base has been more resilient than the national average (which has declined by -0.5 per cent) and Thames Valley Berkshire LEP area (down -1.2 per cent), although all other peer LEP areas experienced a greater rise in total employment.

The number of total employees has held up because part-time employees replaced full-time ones during the recession and period of recovery. As illustrated in Figure 1.9 opposite, between 2008 and 2012, part-time employees rose by 9.1 per cent, and full-time employees decreased by -4.1 per cent in Hertfordshire. This reflects national trends, but at a higher rate. Full-time employees in Hertfordshire decreased by 14,500 over this period, while part-time employment grew by 15,000. Other analysis from the Annual Population Survey (which counts employment and includes a broader definition³) presented on page 21 suggests a more positive picture for full-time employment and concludes that full-time employment has recovered significantly since recession.

FIGURE 1.9: EMPLOYMENT CHANGE BY FULL AND PART TIME EMPLOYEES 2008 TO 2012



³ The Annual Population Survey (APS) is a survey of adults; whereas the Business Register and Employment Survey (BRES) is a survey of employers. APS counts employment in the individual’s main job (and does not count employment in other jobs), whereas BRES counts employees with a single employer and may count employees who work in a second or third job with a different employer. Due to the different survey techniques, estimates of employment differ. In addition, the APS is broader in that it includes all self-employed individuals, those on government-supported training and employment programmes, and those doing unpaid family work – whereas BRES does not.

2. ENTERPRISE, INDUSTRY AND INNOVATION

SUMMARY

HERTFORDSHIRE HAS A HIGH RATE OF ENTREPRENEURSHIP

Hertfordshire has a high rate of entrepreneurship, with its 46,485 enterprises equating to 42 businesses per 1,000 residents. This is broadly comparable with Thames Valley Berkshire (41), but is above GCGP (38) and Cheshire and Warrington (37).

Hertfordshire has high levels of entrepreneurial activity. Over the 4 years from 2006 to 2010, business start-up and closure activity (the 'business churn rate') was higher in Hertfordshire than nationally. In 2006, 2007, 2010 and 2011, the net balance of births minus deaths as a share of total enterprises was higher than nationally.

Self-employment is higher in Hertfordshire, representing 11.1 per cent of all economically active residents, and this level has been maintained over the past decade. This is higher than the England average of 9.7 per cent, and above several of Hertfordshire's peer LEP areas.

The size profile of businesses differs slightly from the English average. Hertfordshire has a slightly higher share of micro-businesses (between 0 and 9 employees) than the England average and a slightly lower share of small businesses (between 10 and 49 employees).

HERTFORDSHIRE SIGNIFICANTLY EXPANDED ITS BUSINESS POPULATION UP TO 2009, BUT THE RECESSION AND SLOW RECOVERY HAS AFFECTED SURVIVAL RATES

Hertfordshire's business stock grew significantly before the recession, rising by nearly 4 per cent annually between 2004 and 2009, with a slight contraction between 2009 and 2011.

There has been a clear deterioration in business survival during and since the recession. A total of 95.6 per cent of businesses started in Hertfordshire in 2006 survived their first year, but by 2010 this had fallen to 85.3 per cent. Significantly, the recession and slow recovery has hurt the survival rates of established young businesses, and not just early start-ups.

Hertfordshire's business survival rates are above the national average but below its peer LEP areas. Although Hertfordshire's three-year enterprise survival rate of 58.9 per cent is above the England rate of 57.9 per cent, it is below the survival rates in other peer LEP areas

such as Thames Valley Berkshire (62.0 per cent). Business survival rates in Hertfordshire for one year and two years are similarly lower than peer LEP areas.

INDUSTRIES

In several industries Hertfordshire has a greater share of employment than the national average. These include wholesale and retail (20.8 per cent of total employment); information and communications (5.0 per cent); professional, scientific and technical activities (10.4 per cent); and administrative and support services (12.9 per cent).

While the picture of total employment change has appeared static, there has been significant change within sectors. For example, financial and insurance activities have lost almost 20 per cent of their workforce, or 2,900 employees.

Hertfordshire has various industrial specialisms, including specialist manufacturing and R&D, wholesale activities, construction, software and business services.

HERTFORDSHIRE PERFORMS WELL ON INNOVATION MEASURES AND HAS AN EXPANDING SCIENTIFIC AND ENGINEERING WORKFORCE

Hertfordshire ranks highly on patent applications, although it is some way behind its peer LEP areas. With 8.3 patents per 100,000 residents in 2011 on the basis of the residence of the registered inventor, Hertfordshire ranked 11th among all 39 LEPs and above the England average of 6.3. However, several LEP areas exceed Hertfordshire's performance by some margin, including GCGP (34.4 patents per 100,000 residents); Thames Valley Berkshire (15.4); and Cheshire and Warrington (12.4).

Hertfordshire has a high share of employees in knowledge intensive or high and medium technology manufacturing. With 23.4 per cent of employment in knowledge intensive or high and medium technology industries, Hertfordshire rates slightly above the England average of 22.5 per cent, but lower than Buckinghamshire Thames Valley (24.5 per cent), Cheshire and Warrington (24.2 per cent), GCGP (24.2 per cent), and Thames Valley Berkshire (31.3 per cent).

A significant and growing share of Hertfordshire residents (13.5 per cent in 2011) are employed as science, research, engineering professionals and associate professionals. This represents 42,500 residents in Hertfordshire, significantly higher than peer LEP areas. There has been a high growth rate in these occupations, with the workforce rising by +28.5 per cent, or +9,400 over the ten years to 2011.

BUSINESS POPULATION

BUSINESS POPULATION AND SELF EMPLOYMENT

There were **46,485 enterprises in Hertfordshire in 2011** according to official estimates (Office for National Statistics Business Counts). This equates to 42 enterprises per 1,000 residents. The number per capita is well above the England average, as indicated in **Figure 2.1** opposite. Hertfordshire's rate of enterprises per capita is broadly comparable with Thames Valley Berkshire (41), and is above GCGP (38) and Cheshire and Warrington (37). Buckinghamshire Thames Valley has a significantly higher rate, with 51 enterprises per 1,000 residents.

Self-employment in Hertfordshire is higher than the national average. Self-employment is defined here as those who wholly or part-own a business. This is much wider than the 'tax-status' definition of self-employment. The self-employment rate in Hertfordshire was 11.1 per cent, higher than across England (9.7 per cent), and above all its peer LEP areas, as indicated in **Figure 2.2**. The proportion of those in work who are self-employed has not varied significantly over the past ten years. Hertfordshire's rate of self-employment has consistently been above the England average since 2004.

The County's business size profile differs slightly from the national picture. As indicated in **Figure 2.3**, Hertfordshire has a slightly higher share of micro-businesses (between 0 and 9 employees) than the England average and a slightly lower share of small businesses (between 10 and 49 employees).

FIGURE 2.1: NUMBER OF ENTERPRISES PER 1000 RESIDENTS IN 2011

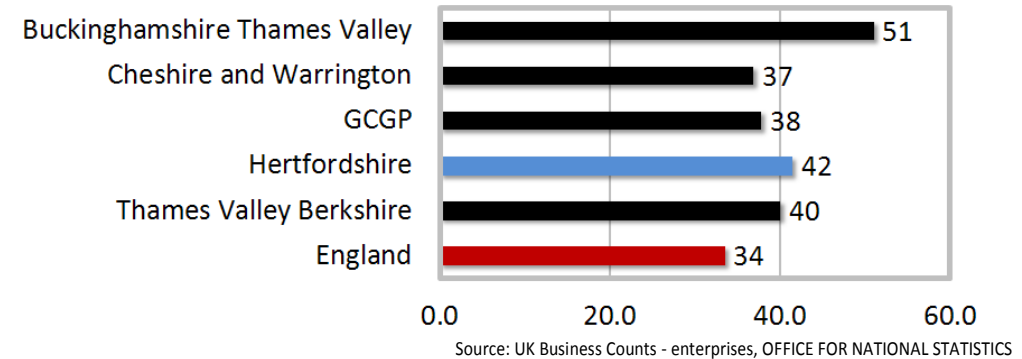


FIGURE 2.2: SELF EMPLOYMENT AS A SHARE OF THE WORKING AGE POPULATION IN HERTFORDSHIRE AND OTHER LEP AREAS IN JULY 2012 - JUNE 2013

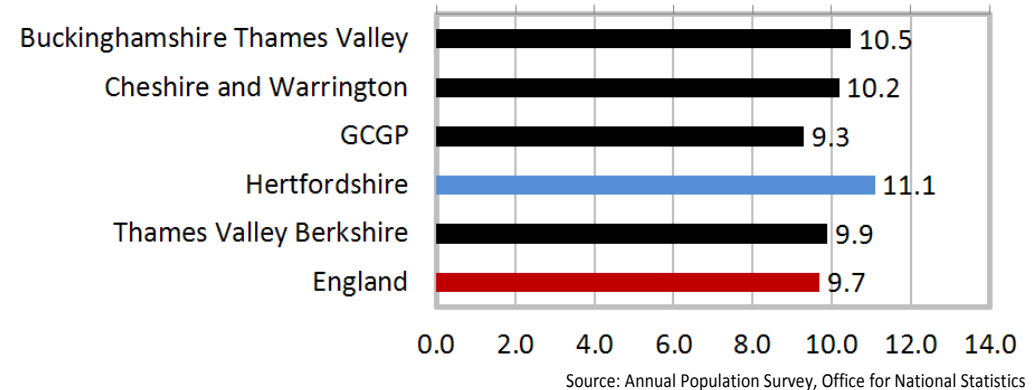


FIGURE 2.3: COMPOSITION OF BUSINESS POPULATION BY EMPLOYMENT SIZE BAND, 2011

LEP Area	Percentage share of business population in each size band			
	Micro (0 to 9)	Small (10 to 49)	Medium-sized (50 to 249)	Large (250+)
Buckinghamshire Thames Valley	91.3	7.0	1.4	0.3
Cheshire and Warrington	89.7	8.4	1.5	0.4
GCGP	88.9	9.1	1.6	0.4
Hertfordshire	90.5	7.6	1.5	0.4
Thames Valley Berkshire	89.0	8.5	1.8	0.6
England	88.9	9.1	1.6	0.4

Source: Business Counts, OFFICE FOR NATIONAL STATISTICS

GROWTH IN THE BUSINESS STOCK

Hertfordshire's business stock grew between 2004 and 2009 as indicated in **Figure 2.4** below, with a slight contraction between 2009 and 2011. Hertfordshire's business stock growth rate was above the England average in 2007, 2008 and 2009, with contraction of -0.7 per cent in 2010 compared with a slight increase (of 0.3 per cent) nationally at the same time.

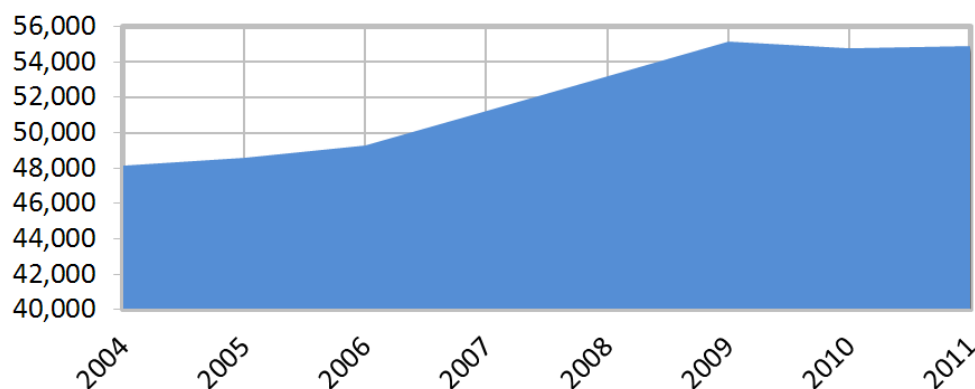
Hertfordshire has high levels of entrepreneurship. Over the 4 years from 2006 to 2010, business start-up and closure activity (the 'business churn rate') was higher in Hertfordshire than nationally – as demonstrated in **Figure 2.5**. In 2006, 2007, 2010 and 2011, the net balance of births minus deaths as a share of total enterprises was higher than nationally.

THE IMPACT OF RECESSION ON BUSINESS SURVIVAL

The recession had a clear immediate impact in terms of the deaths of firms exceeding births, where in 2009 there were 5,745 births and 7,375 deaths – resulting in a net decrease of 1,630 enterprises.

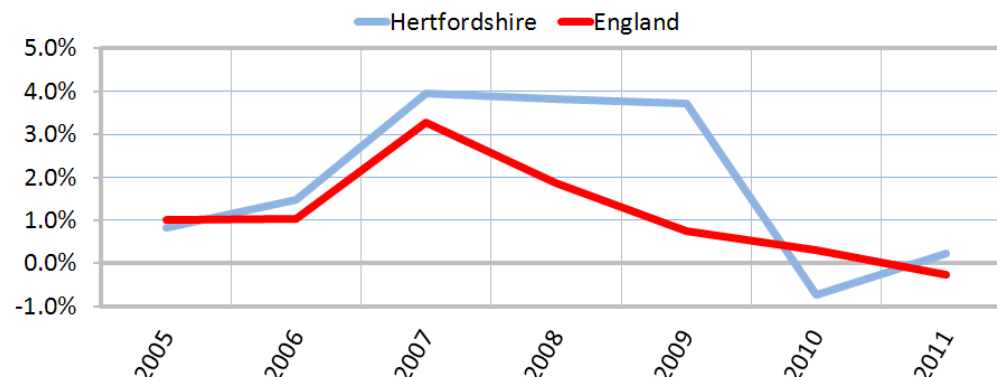
There has been a clear deterioration in business survival rates during and since the recession. Businesses born in Hertfordshire in 2006 had a 95.6 per cent chance of surviving, as indicated in **Figure 2.7**. By 2010 this had fallen to 85.3 per cent. Significantly, the recession and slow recovery hit the survival rates of established young businesses, and not just early start-ups. Businesses established in Hertfordshire in 2006 had a three-year survival rate of 65.3 per cent in 2009, but those established in 2008 had a three-year survival rate of 58.9 per cent. It is clear that the market and business environment has been tougher since 2008, and this is reflected in business survival rates, mirroring national trends. However, as the next section demonstrates, the survival rates of some of the more recent business start-ups are slightly lower than in other nearby LEP areas.

FIGURE 2.4: TOTAL STOCK OF ACTIVE ENTERPRISES IN HERTFORDSHIRE 2004-2011



Source: Business Demography 2011, Office for National Statistics.

FIGURE 2.5: ANNUAL GROWTH IN THE STOCK OF ACTIVE ENTERPRISES IN HERTFORDSHIRE AND ENGLAND 2005 TO 2011



Source: Business Demography 2011, OFFICE FOR NATIONAL STATISTICS.

FIGURE 2.6: CHURN AND NET RATES OF BUSINESS CREATION IN HERTFORDSHIRE AND ENGLAND 2004-2011

	2004	2005	2006	2007	2008	2009	2010	2011
Churn rate – total births plus deaths as a share of the total population of enterprises								
England	24.6%	23.3%	21.2%	22.4%	21.4%	22.4%	20.9%	21.3%
Hertfordshire	23.4%	22.3%	21.1%	22.6%	24.5%	23.8%	21.1%	21.3%
Net additional businesses - births minus deaths								
England	32,455	39,200	42,320	47,400	39,650	-38,115	-12,400	30,095
Hertfordshire	700	665	1,210	1,460	340	-1,630	90	925
Net additional businesses - births minus deaths as a proportion of total stock								
England	1.7%	2.1%	2.2%	2.4%	2.0%	-1.9%	-0.6%	1.5%
Hertfordshire	1.5%	1.4%	2.5%	2.9%	0.6%	-3.0%	0.2%	1.7%

Source: Business Demography 2011, Office for National Statistics. Note: The churn rate is the total of business births plus deaths as a share of total business population. It is a measure of entrepreneurial activity and turnover in the business stock.

FIGURE 2.7: SURVIVAL RATES OF BUSINESSES IN ENGLAND AND HERTFORDSHIRE

	England % of businesses surviving					Hertfordshire % of businesses surviving				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Year of birth	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
1 Year	96.5	95.4	92.1	90.9	86.8	95.6	96.2	92.2	92.5	85.3
2 Year	80.7	81.3	73.9	73.9	..	79.5	82.2	74.4	76.1	..
3 Year	66.2	62.9	57.9	..	..	65.3	64.3	58.9	..	..
4 Year	53.0	51.9	..	..	..	53.1	53.9	..	..	..
5 Year	44.8	..	..	..	..	44.9	..	..	..	..

Source: Business Demography 2011, Office for National Statistics

COMPARING ENTERPRISE SURVIVAL RATES WITH OTHER LEP AREAS

Hertfordshire's business survival rates are above the national average but below its peer LEP areas as illustrated in **Figure 2.8** opposite. Although Hertfordshire's three-year survival rate of 58.9 per cent is above the England average of 57.9 per cent, it is below the rates in LEP areas such as Thames Valley Berkshire (62.0 per cent). One and two- year survival rates in Hertfordshire are similarly lower than peer LEP areas.

INDUSTRY TRENDS

BROAD INDUSTRY TRENDS

In several industries Hertfordshire has a greater share of employment than the national average. These include wholesale and retail (20.8 per cent of total employment); information and communications (5.0 per cent); professional, scientific and technical activities (10.4 per cent); and administrative and support services (12.9 per cent). As **Figure 2.9** details, there is a smaller share of employment in sectors such as manufacturing; finance and insurance; and public administration.

While the picture of total employment change has appeared static, there has been significant change within sectors. Financial and insurance activities, for example, have seen a reduction of almost 20 per cent, or 2,900 employees. Other service sectors have witnessed a similar percentage change, with the loss of 1,900 employees. All public services categories apart from human health and social work have seen job losses. Conversely, the workforce is growing in sectors such as wholesale and retail (+4,000 employees, or 3.8 per cent growth); real estate activities (+1,200 employees, or 16.2 per cent growth); and professional, scientific and technical activities (+7,100 employees, or 15.0 per cent growth). It is worth also noting that Admin/Secretarial occupations experienced the highest total job losses (-5,800), and this is also consistent with Jobcentre Plus vacancies data, where Admin/Secretarial is the only occupation to experience a fall in vacancies in the five years to November 2012.

FIGURE 2.8: ENTERPRISE SURVIVAL RATES AMONG LEP AREAS

LEP area	Enterprises born in 2008 that survived for 1 year (per cent)	Enterprises born in 2008 that survived for 2 years (per cent)	Enterprises born in 2008 that survived for 3 years (per cent)
Buckinghamshire TV	92.8	77.6	63.1
Cheshire and Warrington	94.0	76.7	60.9
GCGP	93.4	76.1	61.4
Hertfordshire	92.2	74.4	58.9
Thames Valley Berkshire	92.5	76.9	62.0
England	92.1	73.9	57.9

Source: Office for National Statistics Business Demography 2011

FIGURE 2.9: EMPLOYMENT BY BROAD INDUSTRY IN HERTFORDSHIRE AND ENGLAND, 2012

SECTOR (SECTION)	HERTFORDSHIRE				ENGLAND	
	2012 total	Change 2008-12	Change 2008-12		Share	change 2008-12
	Total	Share	Total	%	Share	change 2008-12
Manufacturing	35,600	6.8	-2,200	-5.9	8.5	-8.8
Utilities & air conditioning	1,000	0.2	500	81.6	0.4	38.6
Water supply; sewerage, waste	3,100	0.6	200	5.4	0.6	12.1
Construction	32,100	6.2	-1,700	-4.9	4.4	-10.5
Wholesale & retail trade; repair	108,500	20.8	4,000	3.8	16.1	-2.9
Transportation & storage	17,700	3.4	-700	-3.7	4.6	-2.6
Accommodation & food services	30,900	5.9	1,000	3.5	6.8	0.3
Information & communication	26,400	5.0	1,600	6.3	4.1	2.5
Financial & insurance activities	11,900	2.3	-2,900	-19.7	3.9	-6.2
Real estate activities	8,800	1.7	1,200	16.2	1.6	10.7
Professional, scientific & technical	54,100	10.4	7,100	15.0	7.7	9.0
Administrative & support services	67,200	12.9	-5,800	-8.0	8.5	-1.9
Public administration & defence; compulsory social security	14,800	2.8	-1,600	-9.5	4.8	-7.4
Education	42,900	8.2	-2,200	-4.8	9.6	2.5
Human health & social work	47,300	9.1	4,200	9.8	13.0	10.8
Arts, entertainment & recreation	11,600	2.2	200	2.2	2.4	-1.0
Other service activities	7,900	1.5	-1,900	-19.2	2.0	-9.7
Total (all sectors)	522,100	100.0	549	0.1	100.0	-0.5

Source: Business Register and Employment Survey, Office for National Statistics.

INDUSTRY SPECIALISMS

Hertfordshire has several industrial specialisms, where employment is much more prevalent than the national average (see **Figure 2.10** opposite). These range across all sectors, from specialist manufacture and R&D to wholesale activities, construction, software and business services.

These specialisms include sectors such as pharmaceutical manufacturing. With 3,600 employees, this industry is nearly five times more important in Hertfordshire than nationally. Other specialisms include scientific research and development (5,400 employees and 2.4 times more important than nationally); employment activities (35,000 employees and 2.1 times more important); civil engineering (6,300 employees and 1.8 times more important); construction of buildings (10,700 employees and 1.6 times more important); wholesale trade (35,100 employees and 1.6 times more important); services to buildings and landscape activities (19,500 and 1.6 times more important); and head office and management consultancy activities (18,140 employees and 1.6 times more important).

Computer programming and legal and accounting services are also major employers and have a more significant presence than nationally.

FIGURE 2.10: INDUSTRIES WITH HIGH CONCENTRATIONS OF EMPLOYMENT COMPARED WITH THE NATIONAL AVERAGE (2 DIGIT STANDARD INDUSTRIAL CLASSIFICATIONS)

SECTOR / INDUSTRY	No. employees	Location Quotient
21 : Manufacture of basic pharmaceutical products and pharmaceutical preparations	3,600	4.7
72 : Scientific research and development	5,400	2.4
78 : Employment activities	35,100	2.1
42 : Civil engineering	6,300	1.8
33 : Repair and installation of machinery and equipment	3,200	1.7
61 : Telecommunications	6,400	1.7
41 : Construction of buildings	10,700	1.6
46 : Wholesale trade, except of motor vehicles and motorcycles	35,100	1.6
81 : Services to buildings and landscape activities	19,500	1.6
70 : Activities of head offices; management consultancy activities	18,100	1.6
36 : Water collection, treatment and supply	800	1.5
18 : Printing and reproduction of recorded media	3,300	1.5
62 : Computer programming, consultancy and related activities	15,200	1.4
69 : Legal and accounting activities	14,900	1.4
26 : Manufacture of computer, electronic and optical products	3,000	1.3
74 : Other professional, scientific and technical activities	4,000	1.3
47 : Retail trade, except of motor vehicles and motorcycles	63,400	1.2
43 : Specialised construction activities	15,200	1.2
65 : Insurance, reinsurance and pension funding, except compulsory social security	2,200	1.2

Source: Business Register and Employment Survey, Office for National Statistics

INNOVATION, TECHNOLOGY AND THE KNOWLEDGE ECONOMY

INNOVATION

Hertfordshire ranks highly on patent applications. With 8.3 patents per 100,000 residents in 2011 on the basis of the residence of the registered inventor, Hertfordshire ranked 11th among all 39 LEPs and above the England average of 6.3 – as detailed in **Figure 2.11** opposite. On this measure, Hertfordshire is some way behind peer LEP areas – including GCGP (34.4 patents per 100,000 residents); Thames Valley Berkshire (15.4); and Cheshire and Warrington (12.4). Hertfordshire performs slightly better than Buckinghamshire (5.9).

Figure 2.10 opposite presents information on PCT patent registrations from the OECD database for each LEP area. The Patent Cooperation Treaty (PCT) is an international patent law treaty, concluded in 1970. It provides a unified procedure for filing patent applications to protect inventions in each of its contracting states. A patent application filed under the PCT is called an international application, or PCT application. PCT patent registration captures more patents than those registered under the European Patent Office (EPO). In this section, several aspects of innovation area examined using a range of indicators.

Patents measure only one aspect of innovation – a new invention or concept with commercial application. Patents do not reflect the rate at which innovations are adopted. This is important because adoption of innovations makes a sizeable impact on productivity and profitability. There is a differing propensity to patent across sectors: patents are more relevant to activities involving products and processes rather than service-based activities.

FIGURE 2.11: NUMBER OF PCT PATENT REGISTRATIONS PER 100,000 RESIDENTS, 2011

Rank	LEP Area	Patents - residence of inventor		Patents - residence of applicant	
		Total	Per 100,000 residents	Total	Per 100,000 residents
1	GCGP	277	34.4	188	23.3
2	Oxford City Region	177	27.1	152	23.2
3	Thames Valley Berkshire	133	15.4	53	6.1
4	Swindon & Wiltshire	106	15.4	74	10.8
5	Coventry & Warwickshire	128	14.8	98	11.4
6	West of England	136	12.7	54	5.0
7	Cheshire & Warrington	112	12.4	50	5.6
8	Enterprise M3	149	10.8	127	9.3
9	Solent	183	9.6	107	5.6
10	Coast to Capital	196	8.9	160	7.2
11	Hertfordshire	93	8.3	63	5.6
12	Liverpool City Region	99	6.6	49	3.2
13	Worcestershire	36	6.4	22	3.9
14	Buckinghamshire	33	5.9	32	7.9
15	Gloucestershire	447	5.5	694	5.3
16	London	114	5.4	58	8.5
17	D2N2	73	5.4	38	2.7
18	York & North Yorkshire	79	5.3	61	2.7
19	South East Midlands	37	5.0	15	3.9
20	Dorset	35	5.0	33	1.9
21	Northamptonshire	50	5.0	42	4.8
22	Leicester & Leicestershire	33	4.9	6	4.1
23	Lincolnshire	175	4.6	119	0.9
24	South East	113	4.4	90	3.0
25	Greater Birmingham & Solihull	27	4.2	11	3.3
26	Tees Valley	77	4.1	48	1.7
27	North Eastern	120	4.0	89	2.5
28	Leeds City Region	48	4.0	49	2.9
29	Sheffield City Region	18	3.6	11	3.6
30	Cumbria	92	3.5	103	2.2
31	Greater Manchester	31	3.4	17	3.8
32	Humber	48	3.3	32	1.8
33	Lancashire	49	3.3	29	2.2
34	Heart of the South West	48	3.1	32	1.9
35	New Anglia	46	3.0	27	2.0
36	Stoke & Staffordshire	13	2.5	10	1.5
37	Cornwall & the Isles of Scilly	15	2.4	6	1.8
38	The Marches	11	2.3	9	0.8
39	Black Country	277	1.0	188	0.7
	England	3341	6.3	3169	6.0

Source: OECD patent database; Office for National Statistics mid-year population estimates. The Patent Cooperation Treaty (PCT) is an international patent law treaty, concluded in 1970. It provides a unified procedure for filing patent applications to protect inventions in each of its contracting states. A patent application filed under the PCT is called an international application, or PCT application.

KNOWLEDGE INTENSIVE AND HIGH TECHNOLOGY MANUFACTURING INDUSTRIES

Other measures have been used and developed to try and capture a sense of how technologically sophisticated, knowledge-based or productive a local economy may be. There are methods of analysing the skills and qualifications typically employed in industries, and classifying certain industries as ‘knowledge intensive’. Similarly, employment can be classified according to the sophistication of technology used in manufacturing, allowing industries to be classified as ‘high and medium technology manufacturing’. In this section, the most common definitions are used. For knowledge intensive industries, The Work Foundation’s classification of the knowledge economy is applied. For high and medium technology industries, the Department for Business, Innovation and Skills classification is applied.

In total, 23.4 per cent of Hertfordshire’s employment is in knowledge intensive or in high and medium technology industries. This is higher than the England average of 22.5 per cent. As detailed in **Figure 2.12**, 20.2 per cent of all employment in Hertfordshire is in knowledge intensive industries. Whilst this is above the average for England and GCGP, it is lower than Buckinghamshire Thames Valley and Thames Valley Berkshire. High or medium technology manufacturing accounts for 3.4 per cent of Hertfordshire’s employment (which is greater than indicated in Figure 2.12, which shows high and medium technology employment that has not already been counted in the Knowledge economy definition), in line with the average for England.

Hertfordshire’s employment in knowledge intensive or high and medium technology industries is lower than its peer LEP areas of Buckinghamshire Thames Valley (24.5 per cent), Cheshire and Warrington (24.2 per cent), GCGP (24.2 per cent), and Thames Valley Berkshire (31.3 per cent) as **Figure 2.13** shows.

FIGURE 2.12: HERTFORDSHIRE AND OTHER SELECTED LEP AREAS – ANALYSIS OF KNOWLEDGE ECONOMY AND HIGH AND MEDIUM TECHNOLOGY EMPLOYMENT, 2012

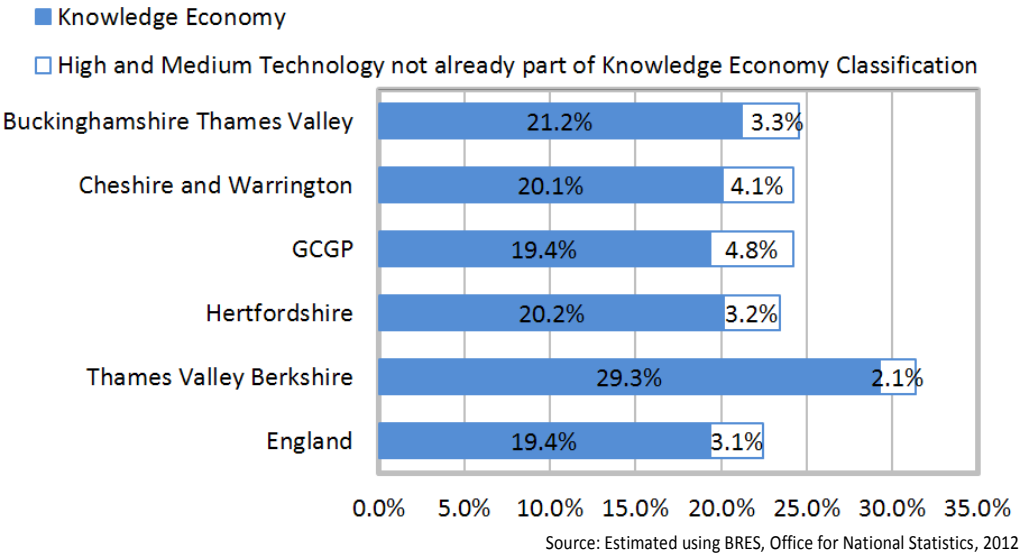


FIGURE 2.13: TOTAL EMPLOYEES AND SHARE OF TOTAL EMPLOYMENT IN KNOWLEDGE INTENSIVE AND HIGH AND MEDIUM TECHNOLOGY INDUSTRIES

LEP Area	Knowledge economy		High and medium technology manufacturing		Knowledge economy and high and medium technology combined	
	No.	Per cent	No.	Per cent	No.	Per cent
Buckinghamshire Thames Valley	44,080	21.2	7,842	3.8	51,026	24.6
Cheshire and Warrington	86,610	20.1	17,842	4.1	104,271	24.2
GCGP	115,682	19.4	30,448	5.1	144,510	24.2
Hertfordshire	105,349	20.2	17,566	3.4	122,243	23.4
Thames Valley Berkshire	134,838	29.3	10,074	2.2	144,311	31.3
England	4,499,851	19.4	740,095	3.2	5,215,576	22.5

Source: BRES, Office for National Statistics, 2012. Note: Some High and medium technology manufacturing activities are also in the Knowledge Economy classification – the totals in the last column takes this into account

RESIDENTS WORKING IN SCIENCE, RESEARCH AND ENGINEERING ROLES IN HERTFORDSHIRE

Analysis of employment by industry does not always tell us much about the types of jobs people do in work, or the skills they deploy. For example, a pharmaceutical R&D facility will employ scientists, but will also employ engineers, IT support staff, accountants and security staff.

It is possible to analyse the types of jobs undertaken by residents in order to understand the specialist skills that exist in Hertfordshire. An analysis of the 2011 Census (which tends to give more accurate and detailed results compared with the Annual Population Survey) reveals that a significant proportion of Hertfordshire residents are employed as science, research, or engineering professionals and associate professionals.

Many Hertfordshire residents are employed in scientific and research professions. As indicated in Figure 2.14, 13.5 per cent of all employed residents work as science, research, engineering professionals and associate professionals. This is significantly higher than in other peer localities and represents a total of 42,500 residents. There has been strong growth in the number of residents working in these professional categories between 2001 and 2011, rising by +28.5 per cent, or +9,400 people, over this decade.

Other LEP areas have also experienced significant growth in the scientific professions (Figure 2.15). Cambridgeshire has experienced a high rate of growth – up +59.6 per cent, or +11,400. London has seen an increase of +40.5 per cent, or +71,991 people.

FIGURE 2.14: HERTFORDSHIRE AND OTHER SELECTED COUNTIES – SHARE OF EMPLOYMENT IN SCIENTIFIC OCCUPATIONS, 2011

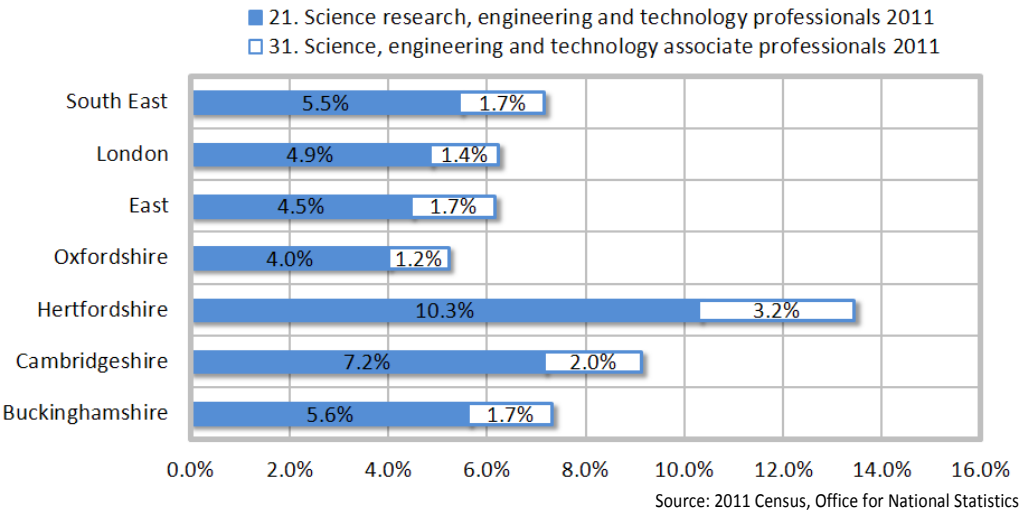
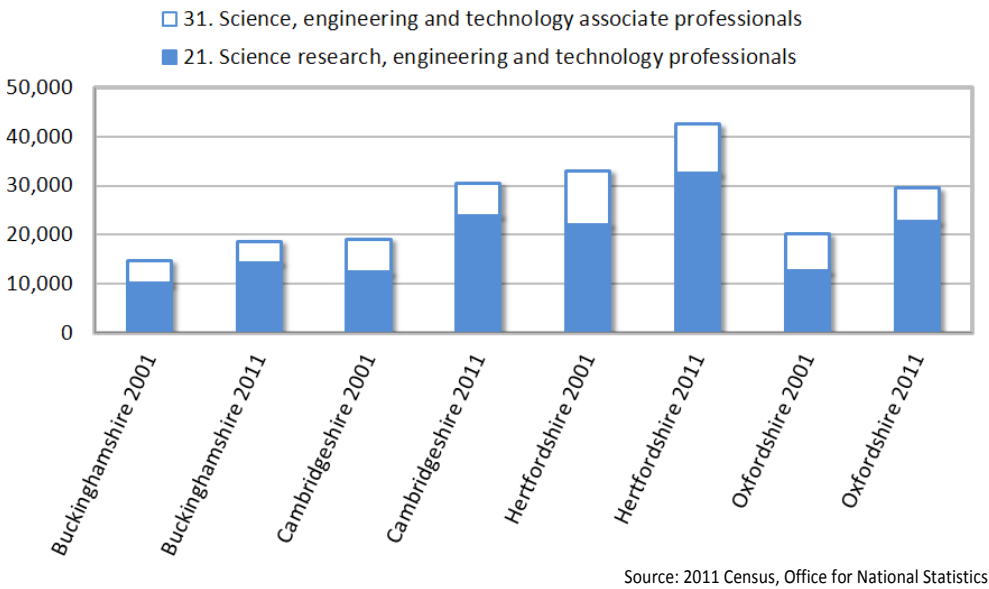


FIGURE 2.15: HERTFORDSHIRE AND OTHER SELECTED COUNTIES – OCCUPATIONAL PROFILE OF RESIDENTS IN 2001 AND 2011



3. HERTFORDSHIRE'S LABOUR MARKET PERFORMANCE

SUMMARY

HERTFORDSHIRE HAS VERY HIGH RATES OF PARTICIPATION IN THE ECONOMY, WITH THE HIGHEST EMPLOYMENT RATE AMONG THE 39 LEPS

Hertfordshire has the highest rate of participation in employment among all LEP areas. In the year to June 2013, the County's employment rate was 77.9 per cent – above the England average of 71.3 per cent and every other LEP area. Although employment rates fell sharply during the recession, they have recovered quickly.

Like employment rates, economic activity rates are high. In the year to June 2013, 82.4 per cent of working-age people in Hertfordshire were either in work or looking for work, above the national average of 77.5 per cent and the third highest rate of the 39 LEP areas.

JOBS GROWTH HAS BEEN WEAK OVER THE PAST TEN YEARS

Between 2001 and 2011, the number of jobs in Hertfordshire grew by 11,000, or 1.9 per cent. This compares with 5.6 per cent growth across England, 9.4 per cent growth in London and 8.6 per cent growth in GCGP. Hertfordshire ranked 30th out of the 39 LEP areas in England for its ten-year jobs growth.

Jobs growth has varied considerably across Hertfordshire districts. Between 2001 and 2011, jobs grew strongly in Watford (+9,000), Welwyn Hatfield (+9,000), Broxbourne (+8,000) and St Albans (+8,000).

The share of people working full-time is high. In the year to June 2013, over three-quarters (77.3 per cent) of people worked full-time, the second highest rate of full-time working among the 39 LEP areas, exceeded only by London.

Full-time employment (using a wider definition that discussed in Section 1) fell during and after the recession but has since recovered strongly and is now higher than pre-recession levels. In contrast, full-time employment across England continues to fall.

HIGHLY SKILLED AND QUALIFIED WORKFORCE

Hertfordshire's impressive qualifications profile reflects the highly-skilled nature of jobs undertaken by its residents. In the year to June 2013, over half (51.7 per cent) of residents were employed as managers, professionals or associate professionals – higher than the England average of 44.4 per cent and the fifth highest of all LEP areas.

Hertfordshire has a highly qualified population. In 2012, 40.4 per cent of 16-64 year olds were qualified to at least Level 4 (degree level). This was higher than the England average of 34.2 per cent and the sixth highest of all LEP areas.

HIGH RATES OF POPULATION GROWTH ARE FORECAST TO CONTINUE

Population growth has been strong in Hertfordshire. In the ten years to 2012, the number of people living in the County grew by 8.5 per cent to 1.1 million. This was higher than the rate for England, which experienced population growth of 7.7 per cent, and the ninth highest among LEP areas.

Hertfordshire's population is expected to continue to grow strongly over the next decade. Between 2011 and 2021, the number of residents is forecast to increase by 10.2 per cent – higher than England average growth of 8.6 per cent.

UNEMPLOYMENT IS LOW

The unemployment rate is low in Hertfordshire. In the year to June 2013, 5.5 per cent of all 16-64 year olds were unemployed, below the England average of 8.0 per cent and the sixth lowest rate of all 39 LEP areas.

Although Hertfordshire's unemployment rate rose from 3.7 per cent to 6.7 per cent during the recession, Hertfordshire has experienced a strong recovery over the past year with a much steeper drop in unemployment than across England.

Long-term unemployment has increased. In October 2013, 0.9 per cent of 16-64 year olds had been claiming unemployment benefit for over six months. This was up from 0.4 per cent in October 2007, but below the national average (1.4 per cent).

There are 57,600 Hertfordshire residents who would like to work, but are not employed. If we add the total number of unemployed to the total number of residents who are economically inactive and who 'want to work' but are not technically classified as unemployed, we get an estimate of the 'involuntary workless' – a wider definition of worklessness – which equates to 8.0 per cent of working age residents.

EMPLOYMENT

JOBS GROWTH OVER THE PAST DECADE

Hertfordshire has experienced weak jobs⁴ growth over the past 10 years. Between 2001 and 2011, the number of jobs in Hertfordshire grew by 11,000, or 1.9 per cent as detailed in **Figure 3.1**. This compares with 5.6 per cent growth across England, 9.4 per cent growth in London and 8.6 per cent growth in GCGP. The County ranks 30th of England's 39 LEP areas. Weak growth over the decade was due to a fall in jobs between 2001 and 2006, with job growth picking up strongly over the following five years.

Jobs growth has varied considerably across Hertfordshire districts. Between 2001 and 2011, jobs grew strongly in Watford (+9,000), Welwyn Hatfield (+9,000), Broxbourne (+8,000) and St Albans (+8,000) – as illustrated in **Figure 3.2** opposite. During the same period, jobs fell in four districts: East Hertfordshire, Dacorum, North Hertfordshire and Hertsmeire, which suffered the greatest fall (-14,000).

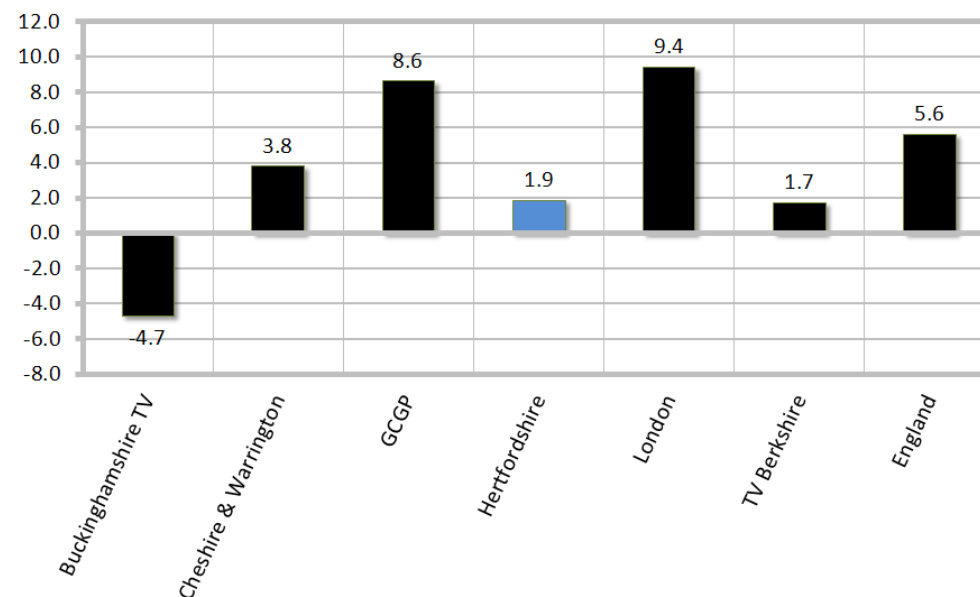
PARTICIPATION IN EMPLOYMENT

Hertfordshire has the highest rate of participation in employment among LEP areas. In the year to June 2013, its employment rate was 77.9 per cent – above the England average of 71.3 per cent and all other LEP areas. Male employment is particularly strong, with 83.7 per cent of men aged 16-64 years in work in Hertfordshire in the year to June 2013. This is above the England average of 76.5 per cent and the highest male employment rate of all LEP areas. While the employment rate for women is below that for men, at 72.1 per cent in the year to June 2013, it is still comparatively high. The female employment rate in Hertfordshire ranks second among LEPs, just below Dorset, and well above the England average of 66.2 per cent.

Employment rates in Hertfordshire fell sharply following the recession. In the year to June 2011, Hertfordshire's employment rate fell to 74.1 per cent – 3.3 percentage points lower than three years previously, as illustrated in **Figure 3.3** on the next page. This was a greater fall than the England average (2.4 percentage points). Male and female employment were similarly affected during the recession, falling by 3,900 and 4,000 respectively between 2008 and 2011. Male employment is recovering more strongly than across England.

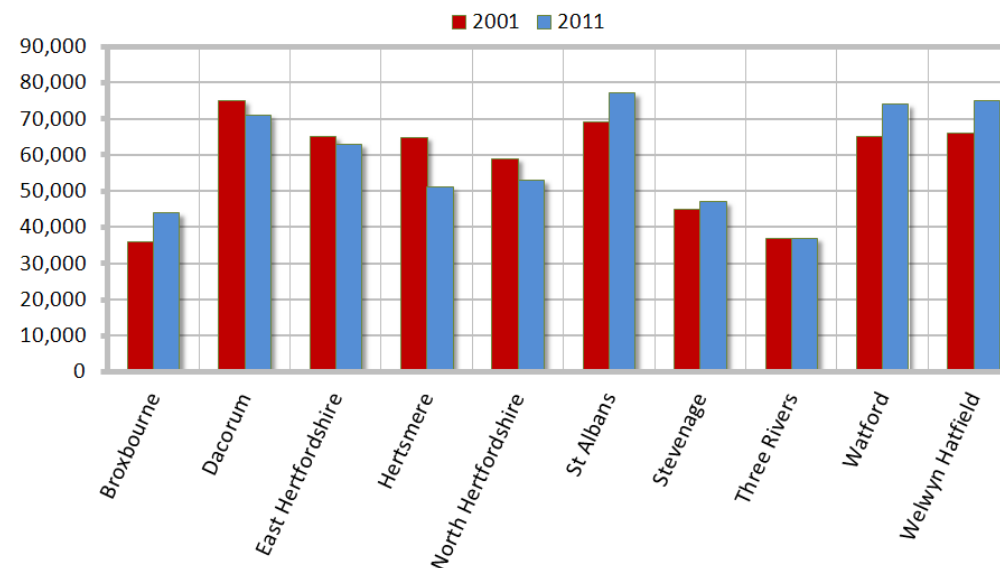
⁴ The definition of 'jobs' used here differs from that used for 'employment and employees' used earlier in the report. 'Jobs' refer to an estimate of the number of people in employment based on a survey of the adult population, whereas 'employment and employees' counts the number of jobs reported by employers. The two definitions often offer different results, as it is difficult to reconcile where individuals hold more than one job with employer surveys (as the employer may not know or report an employee's second job with another employer).

FIGURE 3.1: JOBS GROWTH OVER THE PAST DECADE



Source: Office for National Statistics

FIGURE 3.2: TOTAL JOBS IN EACH HERTFORDSHIRE DISTRICT IN 2001 AND 2011



Source: Office for National Statistics

Young people’s employment has fallen. The fall in the employment rate for 16-19 year olds is a long-term trend, reflecting higher rates of participation in education and training and national trends. The fall in the employment rate among 20-24 year olds occurred following the recession, as indicated in **Figure 3.4**. While there was a rise in the employment rate for 20-24 year olds in the year to June 2012, this fell again in the year to June 2013 to 5.0 percentage points below pre-recession levels. The employment rate for 25-34 year olds also remains lower than its pre-recession peak and fell more sharply than the England average following recession, but has risen over the past year. Employment rates for 35-49 year olds and 50-64 year olds were higher than all peer LEP areas.

The employment rate is rising among older age groups. The employment rate in Hertfordshire is highest among 35-49 year olds, at 86.2 per cent in the year to June 2013. This has been on an upward trend for the past four years and is at its highest rate since the earliest year of data (year to June 2005). The employment rate for 50-64 year olds rose strongly over the year to June 2013, coinciding with the rise in the state pension age for women. The rise in the employment rate for 50-64 year olds – a 7.4 percentage point increase in the year to June 2013 – was much stronger than the national average (1.6 percentage points) and peer LEP areas. The employment rate for those aged 65 and over has also been on a slight upward trend over the past three years, mirroring the national picture.

PATTERNS OF EMPLOYMENT

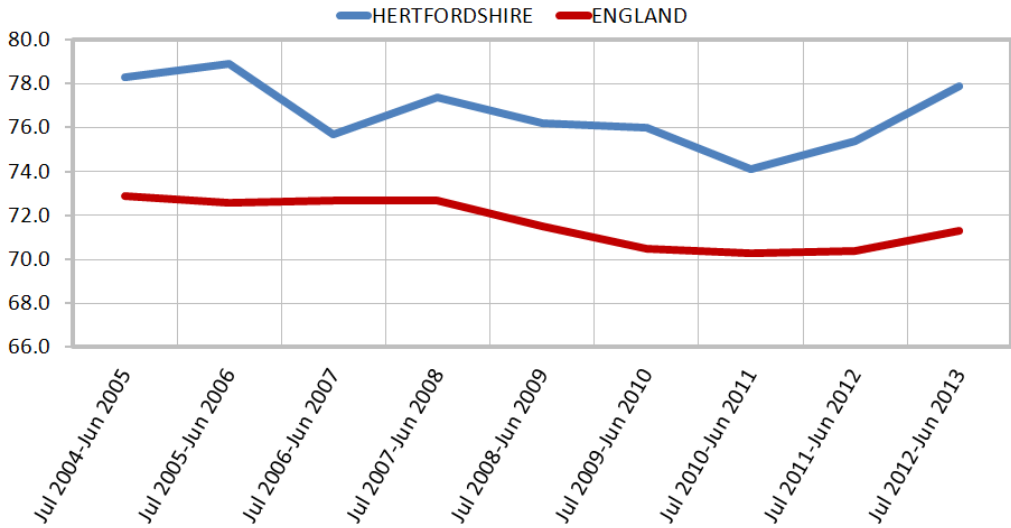
The share of people working full-time is high⁵. In the year to June 2013, over three-quarters (77.3 per cent) of Hertfordshire residents worked full-time. This is the second highest figure of all LEP areas, only surpassed by London.

Full-time employment fell during and after the recession but has since recovered strongly. In contrast, full-time employment across England continues to fall.

Full-time employment is high among men and accounted for 92.2 per cent of all male employment in Hertfordshire in the year to June 2013. This fell during the recession and remains slightly below pre-recession levels. Full-time female employment is growing strongly. In the year to June 2013, the percentage of women working full-time rose to 61.1 per cent – the highest level since the earliest year of data.

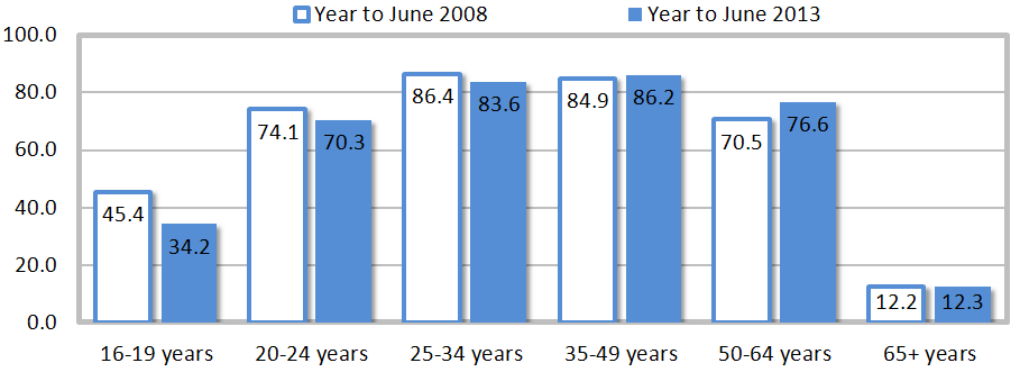
⁵ The Annual Population Survey (APS) is a survey of adults; whereas the Business Register and Employment Survey (BRES) is a survey of employers. APS counts employment in the individual’s main job (and does not count employment in other jobs), whereas BRES counts employees with a single employer and may count employees who work in a second or third job with a different employer. Due to the different survey techniques, estimates of employment differ. In addition, the APS is broader in that it includes all self-employed individuals, those on government-supported training and employment programmes, and those doing unpaid family work – whereas BRES does not.

FIGURE 3.3: EMPLOYMENT RATES IN HERTFORDSHIRE AND ENGLAND 2005-2013



Source: Annual Population Survey, Office for National Statistics

FIGURE 3.4: EMPLOYMENT RATES BY AGE GROUP IN HERTFORDSHIRE PRE- AND POST- RECESSION



Source: Annual Population Survey, Office for National Statistics

ANALYSIS OF JOB TYPE (OCCUPATION)

HIGHLY SKILLED OCCUPATIONAL PROFILE

Hertfordshire's impressive qualifications profile reflects the highly-skilled nature of jobs undertaken by its residents. In the year to June 2013, Hertfordshire had a higher percentage of people employed in the three highest paid or highest skilled occupations⁶ (managers/directors/senior officials, professionals, and associate professional/technical) than the England average. Conversely, there was a lower percentage of people employed in the poorest paid or lowest skilled occupations (caring/leisure/personal service, elementary and sales/customer service).

In the year to June 2013, over half (51.7 per cent) of residents were employed as managers, professionals or associate professionals. This was higher than the England average of 44.4 per cent and the fifth highest of all LEP areas, with only two of Hertfordshire's peer LEP areas having higher rates (London and Buckinghamshire Thames Valley).

Hertfordshire's occupational profile has become more highly-skilled over the past five years, as revealed in **Figure 3.5**, with an increase in the number of people employed in the three highest skilled occupations (+29,300) and a fall in the number of people employed in the three lowest skilled occupations (-3,300).

Within the three highest paid occupations, the biggest change has been a strong increase in the number of people employed in associate professional jobs (+19,400, or 2.6 percentage points in the five years to June 2013). Within this occupational group, the biggest increase has been among business and public service associate professionals (+10,900).

FIGURE 3.5: SHARE OF EMPLOYMENT BY OCCUPATION, JULY 2012 TO JUNE 2013

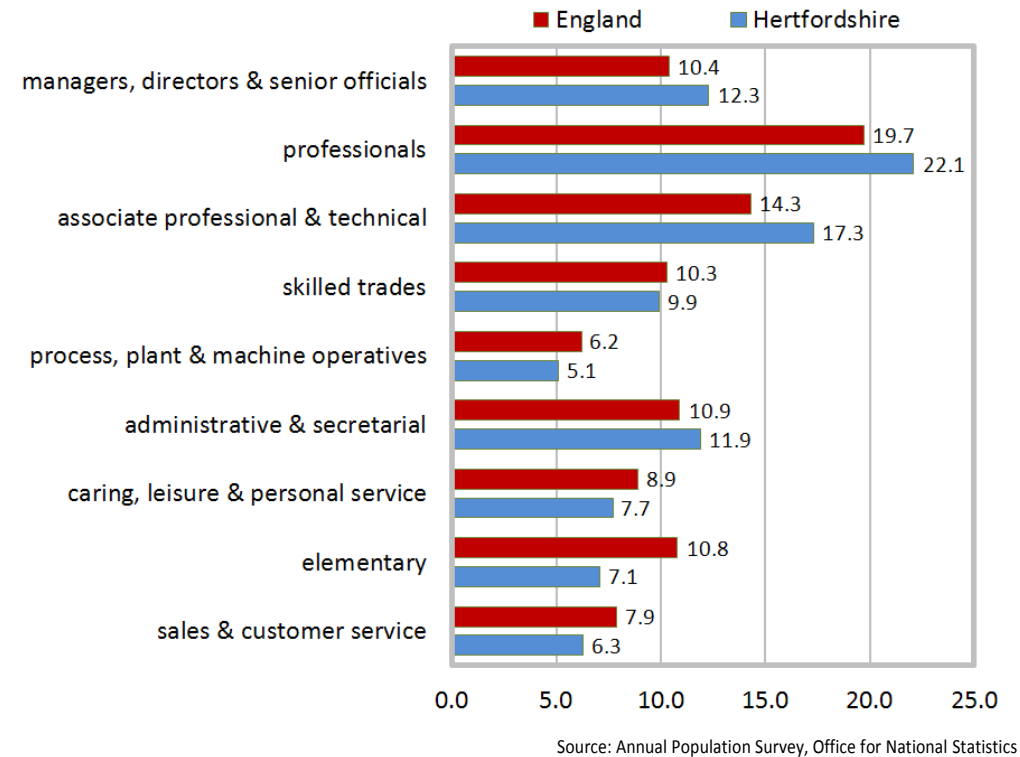


FIGURE 3.6: EMPLOYMENT CHANGE BY OCCUPATION 2005 TO 2013

LEP Area	Hertfordshire	England
managers, directors & senior officials	+0.5	+0.3
professionals	-0.5	+1.9
associate professional & technical	+2.6	+0.6
skilled trades	-1.3	-1.0
process, plant & machine operatives	+0.5	-0.8
administrative & secretarial	-0.4	-1.2
caring, leisure & personal service	0.0	+0.7
elementary	-1.0	-0.3
sales & customer service	-0.6	-0.4

Source: Annual Population Survey July 2004 to June 2005 and July 2012 to June 2013, Office for National Statistics

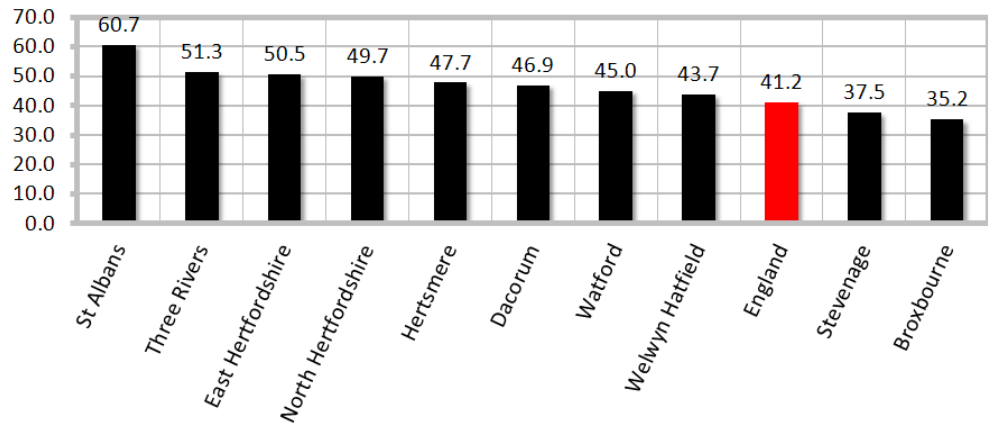
⁶ According to national average pay by occupation from the Annual Survey of Hours and Earnings 2012

LOCAL OCCUPATIONAL ANALYSIS

At district level, St Albans has by far the highest skilled workforce. As revealed in Figure 3.7 below, at the time of the 2011 Census, more than 60 per cent of people were employed as managers, professionals or associate professionals – well above the England average of 41.2 per cent. Less than one-fifth of employed people in St Albans (18.7 per cent) were employed in the three lowest paid occupations (care/leisure/personal service, sales/customer service and elementary).

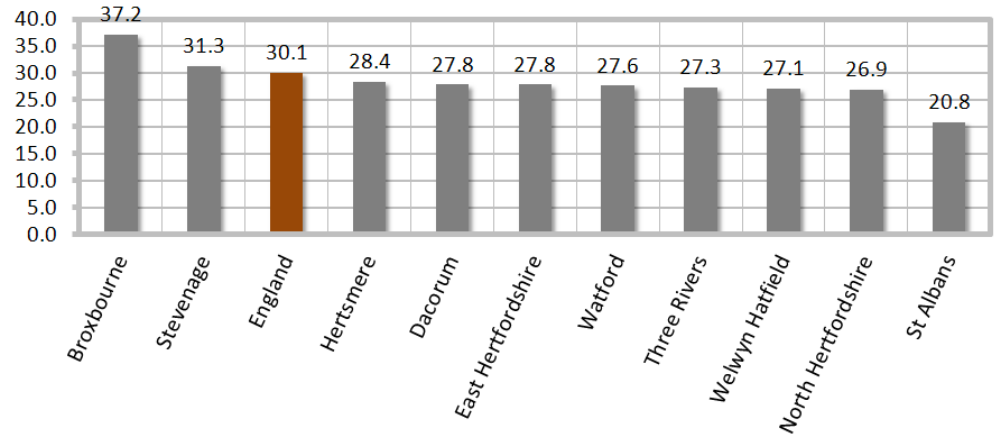
Stevenage, Broxbourne and Welwyn Hatfield all have lower-skilled occupational profiles than the national average as illustrated by Figure 3.9. In July 2012 to June 2013, Stevenage and Broxbourne had below-average shares of residents working in the highest-skilled occupations (Figure 3.7), with Welwyn Hatfield just above average. Stevenage and Welwyn Hatfield had above-average shares of residents working in the lowest-skilled occupations, with Broxbourne just below average.

FIGURE 3.7: SHARE OF EMPLOYMENT IN THE THREE HIGHEST PAID OCCUPATIONS – MANAGERS, PROFESSIONALS, AND ASSOCIATE PROFESSIONALS, JULY 2012 TO JUNE 2013



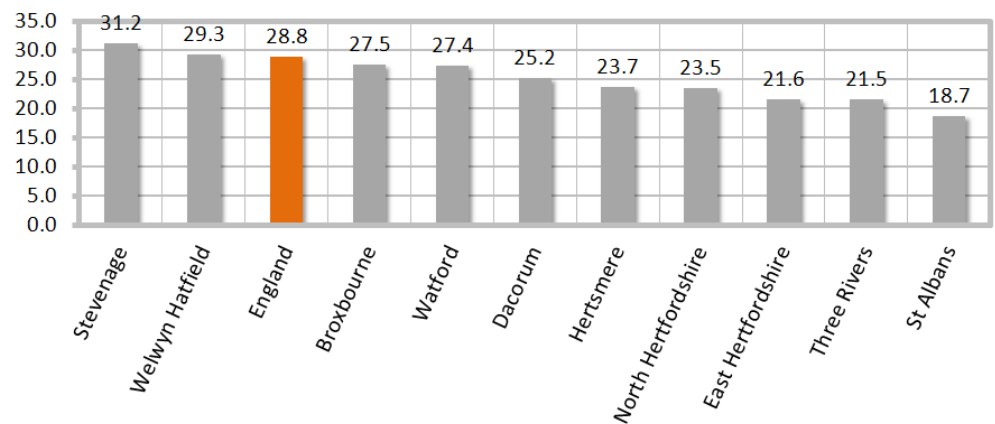
Source: Annual Population Survey, Office for National Statistics

FIGURE 3.8: SHARE OF EMPLOYMENT IN THE THREE MIDDLE-PAID OCCUPATIONS – SKILLED TRADES, PROCESS/PLANT/MACHINE OPERATIVES, ADMIN/SECRETARIAL, JULY 2012 TO JUNE 2013



Source: Annual Population Survey, Office for National Statistics

FIGURE 3.9: SHARE OF EMPLOYMENT IN THE THREE LOWEST PAID OCCUPATIONS – SKILLED TRADES, PROCESS/PLANT/MACHINE OPERATIVES, ADMIN/SECRETARIAL, JULY 2012 TO JUNE 2013



Source: Annual Population Survey, Office for National Statistics

POPULATION TRENDS

A GROWING POPULATION

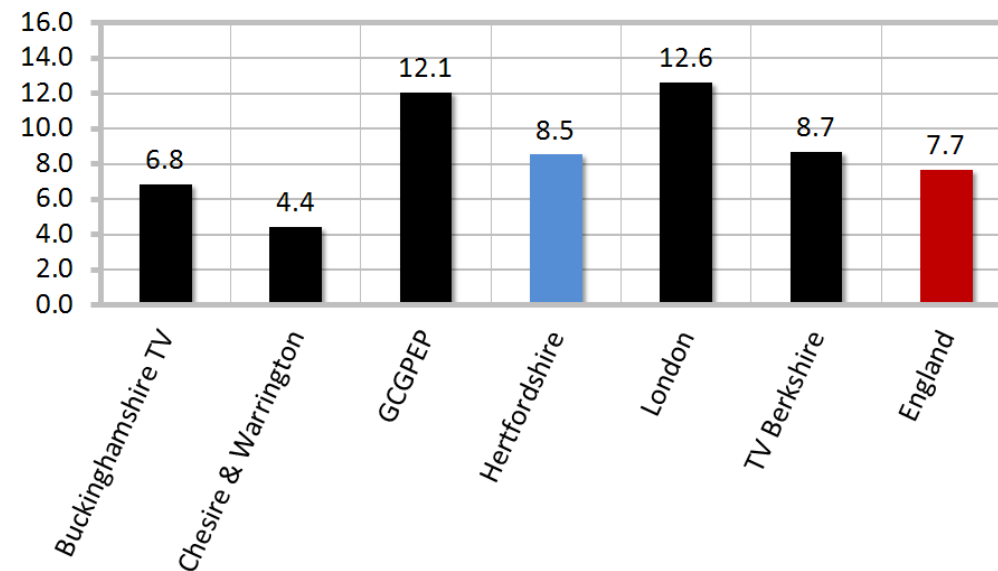
Hertfordshire has experienced strong rates of population growth. In the ten years to 2012, the number of people living in the County grew by 8.5 per cent to 1.1 million – a higher rate than for England, which experienced population growth of 7.7 per cent, and the ninth highest growth rate of the 39 LEP areas (see **Figure 3.10**). Population growth varied widely at district level. Hertfordshire's population was boosted by strong growth in Welwyn Hatfield (+13,900, or 14.2 per cent) and Watford (+11,500, or 14.3 per cent). **Figure 3.11** shows that half of Hertfordshire's districts experienced below-average population growth over the decade, including Stevenage, Dacorum, Three Rivers, Hertsmeire and East Hertfordshire. Over half (59.2 per cent) of the County's population growth has been among those of working age. The percentage of growth accounted for by the working-age population was slightly lower than across England (62.3 per cent). Young people (aged 0-15 years) accounted for 13.8 per cent of total population growth while those of retirement age accounted for 27.0 per cent.

Hertfordshire's population is ageing slightly, although it has a younger age profile than the national average. In 2012, 16.1 per cent of the population was aged 65 years or over, up from 15.2 per cent in 2002. At the same time the proportion of population who are young and of working age fell slightly. Hertfordshire continued to have a younger age profile than across England. In 2012, the percentage of population aged 0-15 years was the sixth highest of all 39 LEP areas, while the percentage aged 16-64 was 14th highest of all LEP areas and the percentage aged 65 and over was the sixth lowest. Population ageing has caused the ratio of the working-age population to those of retirement age to fall from 4.2 in 2002 to 4.0 in 2012. Nonetheless, this remained above the England average (3.8 people of working age to each person of retirement age) and the sixth highest of the 39 LEP areas.

Population ageing has been a feature of demographic change in Broxbourne and East Hertfordshire. In these two districts, the ratios of working-age people to those of retirement age fell considerably (from 4.3 to 3.7 in Broxbourne and from 4.7 to 3.9 in East Hertfordshire). In contrast, less than 10 per cent of total population growth came from those aged 65 and over in Watford and Welwyn Hatfield.

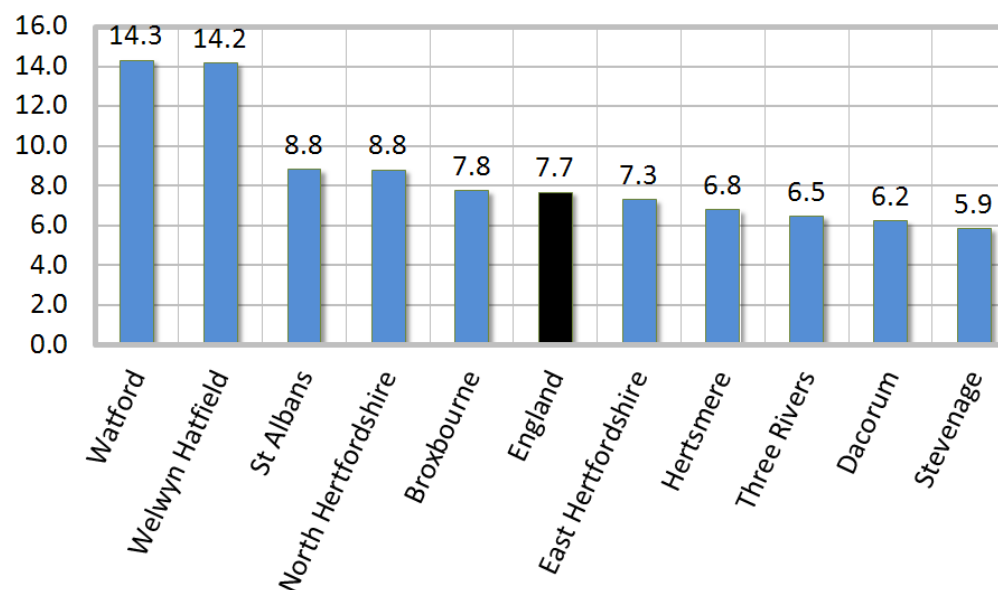
During the same period, the working-age population accounted for over 80 per cent of population growth in Stevenage and Welwyn Hatfield. The ratios of working-age population to those of retirement age were highest in these two districts in 2012 (4.5 and 5.3). Growth in the number of young people was a key factor in St Albans and accounted for almost a third of its population growth between 2002 and 2012.

FIGURE 3.10: RATE OF POPULATION GROWTH IN PEER AREAS 2002-2012



Source: Mid-year Population Estimates, Office for National Statistics

FIGURE 3.11: RATE OF POPULATION GROWTH BY DISTRICT 2002-2012



Source: Mid-year Population Estimates, Office for National Statistics

CONTINUED HIGH RATES OF POPULATION GROWTH ARE FORECAST

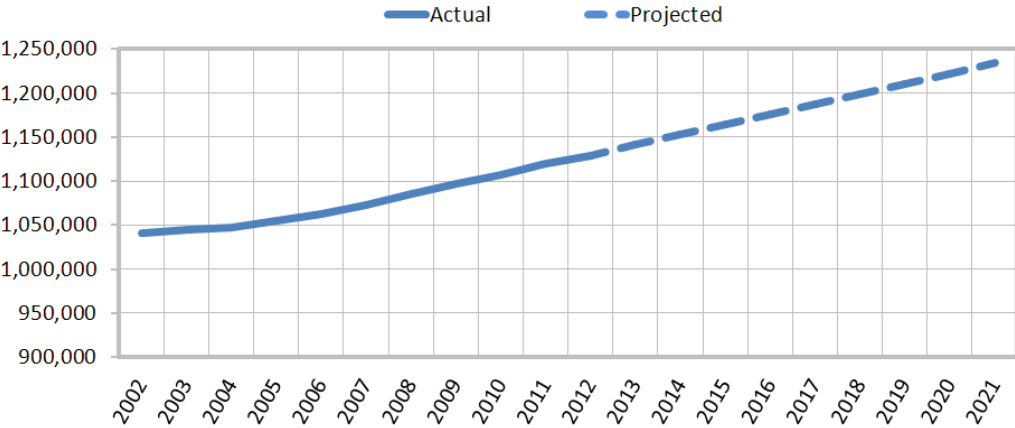
Hertfordshire’s population is expected to continue to grow strongly over the next decade as indicated in **Figure 3.12** opposite. Between 2011 and 2021, Hertfordshire’s population is forecast to increase by 10.2 per cent, higher than the average growth of 8.6 per cent in England. Population growth is expected to be spread evenly across the three age groups with 0-15 year olds, 16-64 year olds and those aged 65 and over each forecast to account for around a third of total growth.

Further population ageing is expected with the population aged 65 years and over forecast to reach 17.4 per cent of total population by 2021. However, this would still be lower than across England (18.7 per cent).

The ratio of working age people to those of retirement age is expected to fall further, to 3.5 by 2021. This is still expected to be higher than the England average (3.3).

At district level, the population of Welwyn Hatfield is expected to grow particularly strongly (20.5 per cent), due to high growth in the working-age population. Three districts are expected to experience below-average growth: Stevenage, Watford and Dacorum. Low forecast growth in Stevenage and Watford is due to an anticipated fall in the number of working-age people, while growth in the working-age population of Dacorum is expected to be low.

FIGURE 3.12: ACTUAL AND PROJECTED POPULATION GROWTH 2002-2021



Source: Mid-year Population Estimates and Subnational Population Projections, Office for National Statistics.

ECONOMIC PARTICIPATION

HIGH RATES OF ECONOMIC PARTICIPATION IN HERTFORDSHIRE

Economic activity rates, like employment rates, are high in Hertfordshire. In the year to June 2013, 82.4 per cent of working-age people in Hertfordshire were either in work or looking for work, above the national average of 77.5 per cent and the third highest rate of the 39 LEP areas. Only Oxfordshire and Northamptonshire had higher rates. Economic activity is higher among men (88.1 per cent) than women (76.8 per cent), but rates for both were above the national average in the year to June 2013. As **Figure 3.13** reveals, economic activity rates had been on a downward trend between the year to June 2006 and the year to June 2011 but have risen strongly over the past two years and by more than across England.

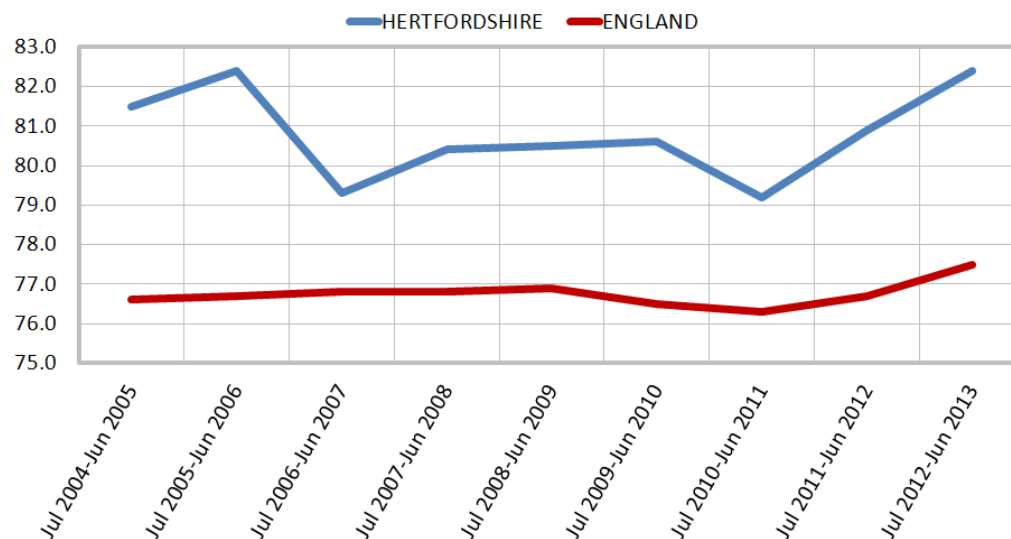
During the recession, the economic activity rate fell for both men and women by more than the national average. Men were more affected than women, as is apparent from **Figure 3.14**. Between the year to June 2008 and the year to June 2011, the male economic activity rate fell by 1.8 percentage points (England suffered an average fall of 0.6pp) while the female economic activity rate fell by 0.5 percentage points, against an England average fall of just 0.2pp. More men (7,700) became economically inactive than women (4,100).

Male and female economic activity has picked up over the past two years, with a stronger rise among women, possibly due to the increase in the state pension age for women, leading more women to remain in work or seek work.

Economic activity in Hertfordshire is above the national average for all age groups apart from 16-19 year olds. This is likely to be due to more young people remaining in education and training.

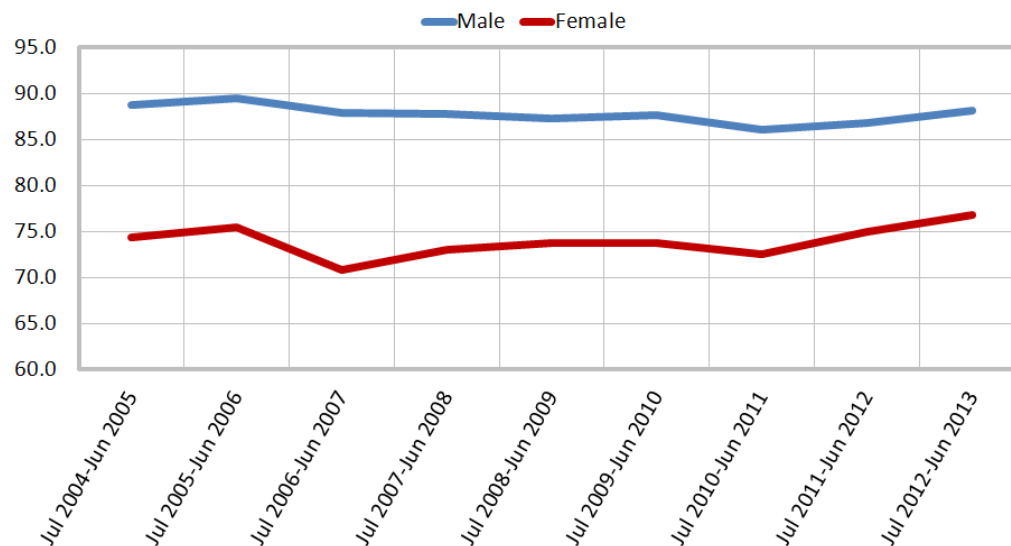
While over 80 per cent of people are economically active, just over one in six working-age people in Hertfordshire (17.6 per cent) are neither in work nor looking for work. The most common reason for economic inactivity is 'looking after the family or home' (31.0 per cent of the economically inactive). Other reasons include being retired, sick or studying. Being economically inactive is more of a lifestyle choice in Hertfordshire than across England: a greater percentage of people are inactive because they are looking after the family or home (31.0 per cent compared with the England average of 26.3 per cent) or being a student (28.6 per cent compared with the England average of 25.7 per cent). At the same time, a much lower percentage of people are inactive due to long-term sickness: 13.0 per cent, against an England average of 20.9 per cent.

FIGURE 3.13: ECONOMIC ACTIVITY RATES 2005 TO 2013



Source: Annual Population Survey, Office for National Statistics

FIGURE 3.14: ECONOMIC ACTIVITY RATES BY GENDER IN HERTFORDSHIRE 2005 TO 2013



Source: Annual Population Survey, Office for National Statistics

UNEMPLOYMENT

UNEMPLOYMENT IS LOW IN HERTFORDSHIRE

The unemployment rate is low. In the year to June 2013, 5.5 per cent of all 16-64 year olds were unemployed. This is below the England average of 8.0 per cent and the sixth lowest rate of all 39 LEP areas.

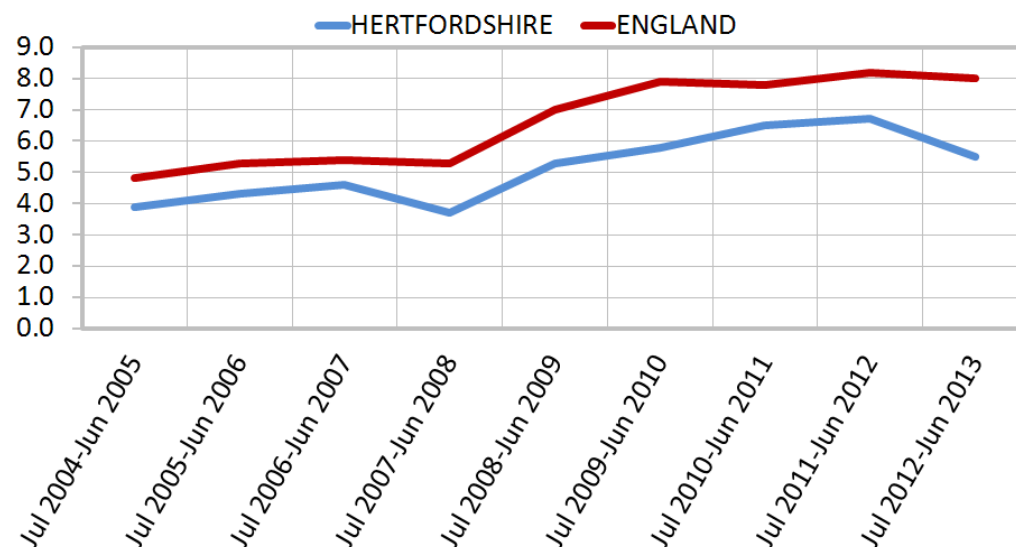
The male unemployment rate is particularly low. In the year to June 2013, 4.9 per cent of males aged 16-64 years were unemployed; well below the England average of 8.3 per cent and the second lowest among LEP areas.

Women are more likely to be unemployed than men. Across England, male unemployment is higher than female unemployment. The reverse is true in Hertfordshire, as well as in three of its peer LEP areas (Buckinghamshire Thames Valley, GCGP and London). In the year to June 2013, the female unemployment rate in Hertfordshire was 6.1 per cent – 1.2 percentage points above the male rate but below the England average of 7.6 per cent, and ranking 13th of all LEP areas.

Unemployment rose sharply in Hertfordshire as a result of the economic downturn and at a similar rate to the national average. **Figure 3.15** opposite shows that between the year to June 2008 and the year to June 2012, Hertfordshire's unemployment rate rose from 3.7 per cent to 6.7 per cent. However, Hertfordshire has experienced a strong recovery over the past year with a much steeper drop in unemployment than across England. Hertfordshire's unemployment rate in the year to June 2013 was 1.8 percentage points above pre-recession levels, compared with 2.7 percentage points across England.

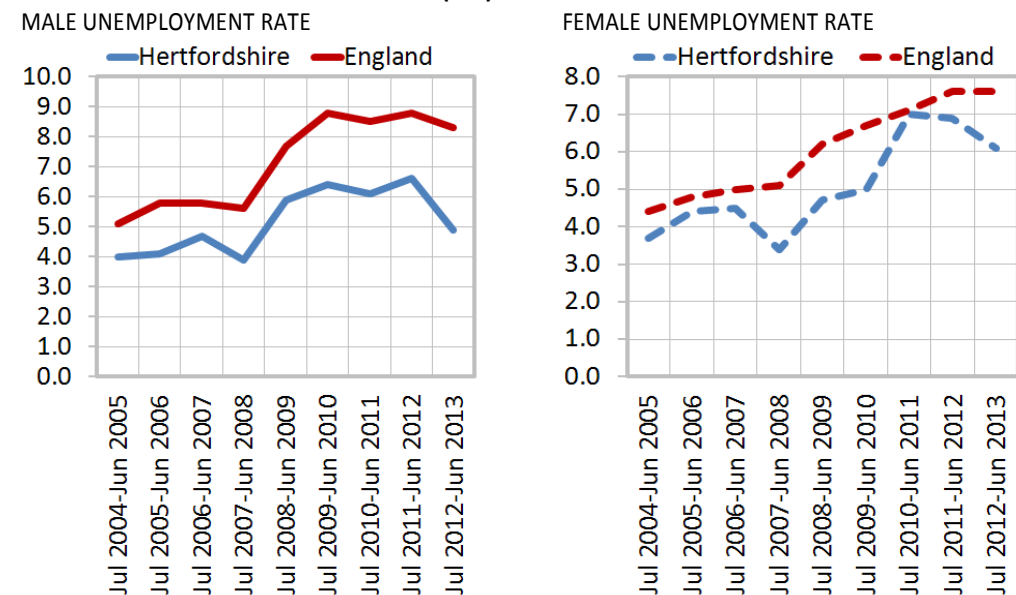
Before the recession, Hertfordshire had a similar unemployment rate to three of its peer LEP areas: Cheshire and Warrington, GCGP and Thames Valley Berkshire. Only Thames Valley Berkshire has fared better than Hertfordshire throughout the economic downturn. GCGP experienced a steeper rise in unemployment, while Cheshire and Warrington has yet to see any lowering of unemployment rates.

FIGURE 3.15: OFFICIAL UNEMPLOYMENT RATE (ILO) IN HERTFORDSHIRE AND ENGLAND



Source: Annual Population Survey, Office for National Statistics

FIGURE 3.16: UNEMPLOYMENT RATES (ILO) BY GENDER



Source: Annual Population Survey, Office for National Statistics

CLAIMANT COUNT

Claimant count rates are low with only one district – Stevenage – having a higher rate (3.2 per cent) than the England average in October 2013. Prior to October 2010, Stevenage had a lower-than-average claimant count rate but this has now increased. Like other labour market indicators, Hertfordshire fares better than the national average with a claimant count rate of 2.0 per cent in October 2013. This is below the England rate of 3.0 per cent and the tenth lowest of England's LEP areas.

The percentage of people claiming unemployment-related benefits in Hertfordshire rose during the recession by 1.6 percentage points to 2.8 per cent between October 2007 and October 2009. This was lower than the England average rise of 1.9 percentage points and in line with peer LEP areas.

Hertfordshire's claimant count rate fell over the past two years as its economy recovered and its current rate is closer to pre-recession levels (+0.8 percentage points) than the England average (+1.0 percentage point), as charted in **Figure 3.17**.

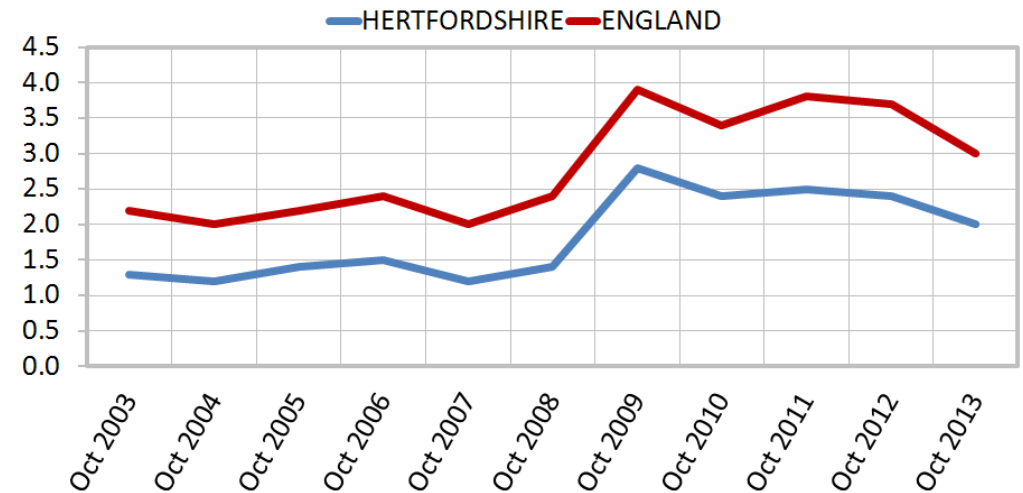
The claimant count rate is highest among young people as indicated in **Figure 3.18**. This is also the case nationally and across peer LEP areas. It is unclear whether this is because unemployment is highest among young people or because they are more likely to claim unemployment benefit.

Similar trends have occurred across age groups. There was a sharp rise in the claimant count rate between October 2007 and October 2009, and a notable fall between October 2012 and October 2013. Claimant rates remain above pre-recession levels across all age groups.

The number of claimants has risen significantly for those in sales and customer service occupations. In October 2013, the claimant count for sales and customer service workers was 170.7 per cent higher than in October 2007 and represented over 30 per cent of all claimants in Hertfordshire, up from less than 20 per cent in October 2007. This rise in sales and customer service claimants was concentrated among those in the retail sector. Similar trends also occurred nationally. Claimant counts were above pre-recession levels for all occupations in October 2013 but least so for manual workers: skilled trades occupations and process, plant and machine operatives.

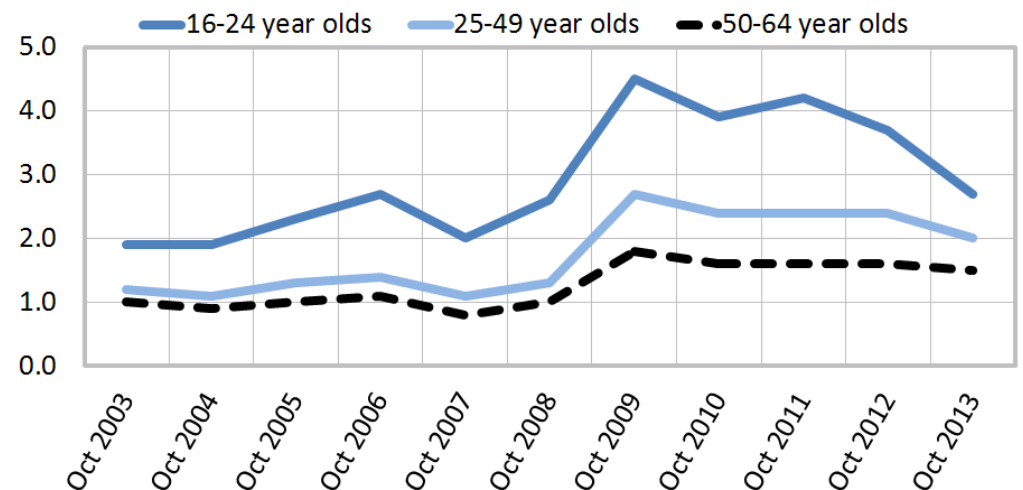
Long-term unemployment has increased. In October 2013, 0.9 per cent of 16-64 year olds had been claiming unemployment benefit for over six months. This was up from 0.4 per cent in October 2007, but below the national average of 1.4 per cent. As a proportion of claimants, 44 per cent had been claiming unemployment-related benefits for over six months – up from 30.0 per cent in October 2007 but below the England average of 47.6 per cent.

FIGURE 3.17: CLAIMANT UNEMPLOYMENT RATES 2003 TO 2013



Source: Claimant Count, Office for National Statistics

FIGURE 3.18: CLAIMANT COUNT RATES BY AGE 2003 TO 2013



Source: Claimant Count, Office for National Statistics

DISTRICT UNEMPLOYMENT RATES

Claimant count rates remain above pre-recession levels in all districts – particularly Stevenage and Broxbourne. In both areas, an increase in the number of retail sector claimants has driven a rise in total claimant counts. These were up by 1.3 percentage points in Stevenage and 1.2 percentage points in Broxbourne between October 2007 and October 2013, contrasting with a national average increase of 1.0 percentage points.

JOB VACANCIES

There has been a strong increase in the number of job vacancies notified to Jobcentre Plus⁷. In the year to November 2012, employers notified almost 87,000 vacancies to Jobcentre Plus in Hertfordshire. This was a 34.3 per cent increase on five years earlier, and much higher than the England average increase of 19.3 per cent. The number of vacancies fell between the year to November 2008 and November 2009 in the depths of the economic downturn, but has since recovered strongly, particularly in the year to November 2012.

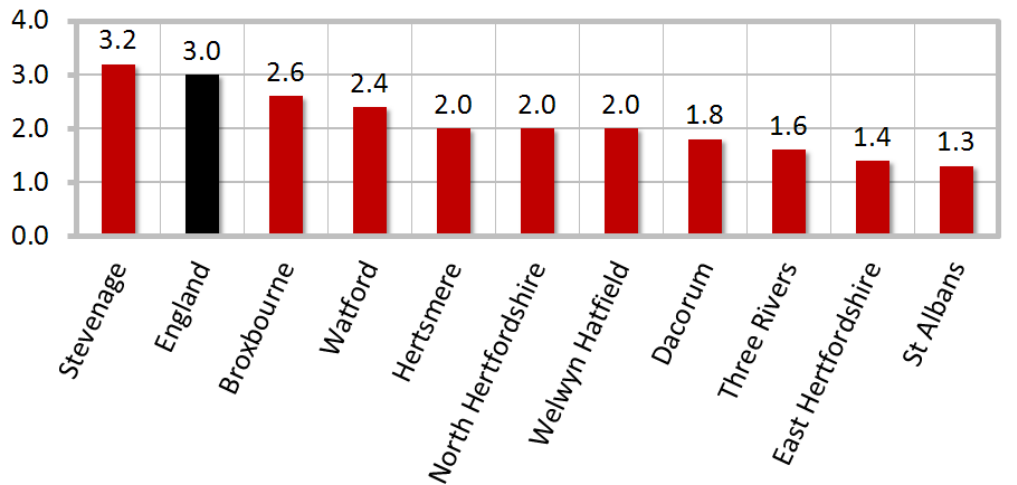
During the downturn, the number of job vacancies fell most sharply for elementary occupations, process, plant and machine operatives and skilled trades occupations. Lower skilled workers and manual workers were hit hardest in terms of the numbers of new jobs created. Construction labourers were particularly affected. Between the year to November 2008 and year to November 2009, vacancies fell for all occupations apart from associate professional and technical occupations and personal service occupations. This was largely due to an expansion of the health service during this period, with additional vacancies for nurses and care assistants or home carers.

Looking at the five-year period between the year to November 2007 and the year to November 2012, the most notable change in vacancy numbers has been a **substantial increase in vacancies for personal service occupations**. This has been driven by vacancies for care assistants and home carers. The only occupational group to experience a fall in vacancies throughout the five year period is administrative and secretarial.

Vacancies fell in all districts in Hertfordshire during the downturn but most have recovered strongly. Between the year to November 2007 and the year to November 2012, all districts experienced a bigger increase in vacancies than the England average, apart from Hertsmere. This corresponds with the fall in total jobs in this district (reported in the ‘employment’ section above).

⁷ These tend to focus on middle- and lower- paid occupational categories.

FIGURE 3.19: CLAIMANT UNEMPLOYMENT RATES IN HERTFORDSHIRE DISTRICTS, OCTOBER 2013



Source: Claimant Count, Office for National Statistics

FIGURE 3.20: DISTRICT CLAIMANT UNEMPLOYMENT TOTALS AND RATES

Area	October 2007		October 2009		October 2013	
	Rate	Total	Rate	Total	Rate	Total
Broxbourne	1.4	820	3.4	1,990	2.6	1,560
Dacorum	1.3	1,180	3.0	2,750	1.8	1,710
East Hertfordshire	0.8	650	2.2	1,910	1.4	1,280
Hertsmere	1.2	760	2.8	1,760	2.0	1,260
St Albans	0.8	720	2.0	1,790	1.3	1,150
Stevenage	1.9	990	3.9	2,120	3.2	1,760
Three Rivers	1.0	520	2.3	1,280	1.6	880
Watford	1.4	800	3.0	1,760	2.4	1,490
Welwyn Hatfield	1.3	890	2.8	1,980	2.0	1,440
Hertfordshire	1.2	8,200	2.8	19,620	2.0	14,180
England	2.0	671,690	3.9	1,322,080	3.0	1,031,210

Source: Claimant Count, Office for National Statistics, Residence-based rates

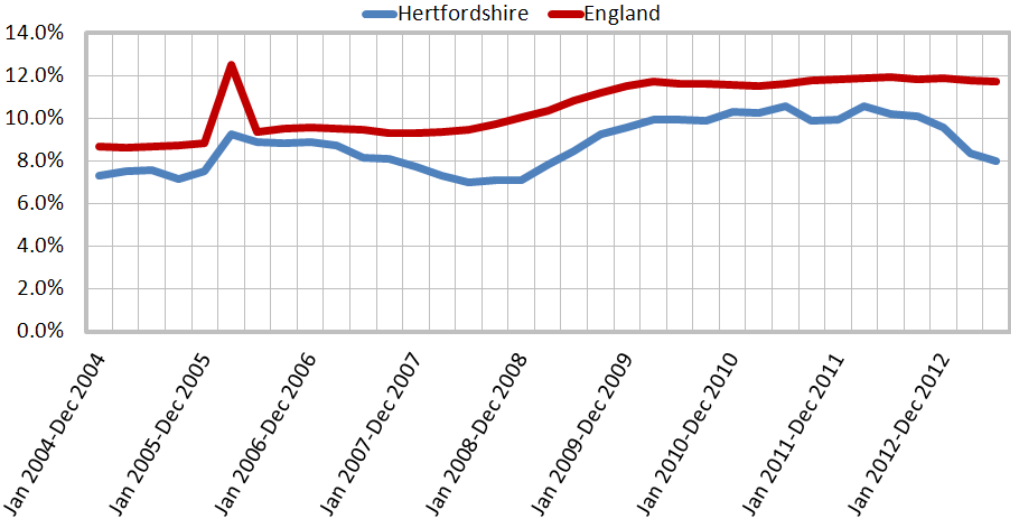
ALMOST 60,000 HERTFORDSHIRE RESIDENTS WOULD LIKE TO WORK, BUT ARE NOT EMPLOYED

If we add the total number of unemployed to the total number of residents who are economically inactive and who ‘want to work’ (but are not technically classified as unemployed) we get an estimate of the ‘involuntary workless’ – a wider definition of worklessness. As discussed earlier in this section, one fifth of the economically inactive (20.0 per cent, or 25,300 residents) want a job. This includes those who want a job but have not been seeking work in the last four weeks and those who want a job and are seeking work but are not available to start. This could include those who are temporarily sick, discouraged workers and those planning to return to work in the near future. Another 32,300 residents are classified as officially unemployed. This makes a total of 57,600 involuntary workless residents.

The overall rate of ‘involuntary worklessness’ is 8.0 per cent. Referring to Figure 3.21, Involuntary worklessness rose sharply in Hertfordshire during the recession up to the end of 2012. From January 2008 to December 2008 this represented 7.1 per cent of the working age population in Hertfordshire (compared with 10.0 per cent for England). The figure peaked at 10.6 per cent in Hertfordshire for July 2011 to June 2012, compared with 11.6 per cent for England. From July 2012 to June 2013, the total in Hertfordshire amounted to 57,600 people as demonstrated in Figure 3.22. This evidence tells us that wider worklessness is at least as significant an issue in Hertfordshire as it is nationally.

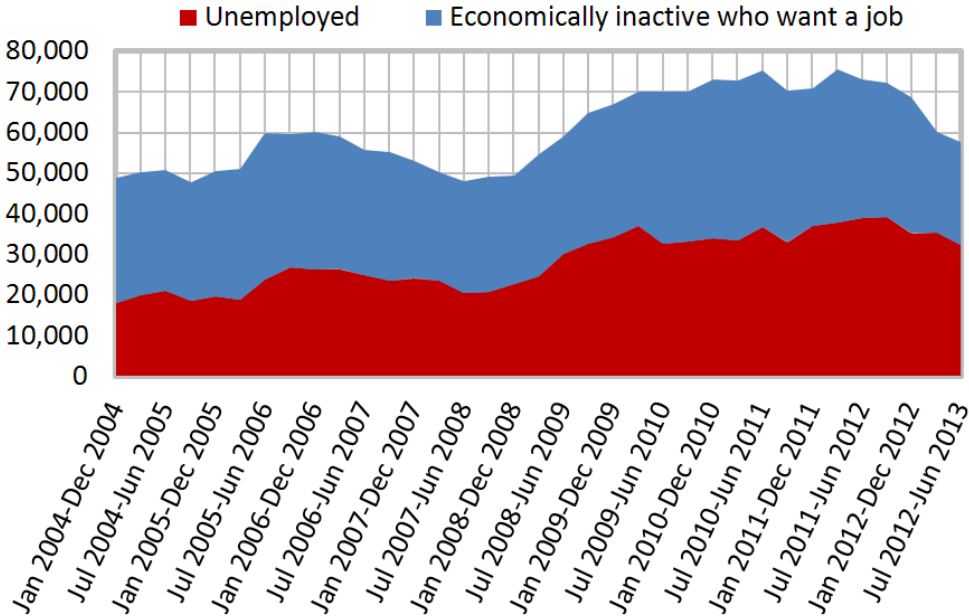
Unemployment and worklessness tend to continue to rise for five to ten years after recession. It is quite typical for unemployment and worklessness to continue at high rates for up to ten years after a recession has ended. Given the severity of the most recent recession (the most severe since the Second World War), it is likely that the UK and its localities will experience the impacts for many years to come. Generally, long periods of recession or economic downturn reduce the incentives for inactive people to seek work actively or to be classified as unemployed. For example, those with family caring responsibilities may want to work, but defer active job seeking until the jobs market picks up and perhaps offers work at terms and conditions that make paying for childcare or other caring services viable.

FIGURE 3.21: ‘INVOLUNTARY WORKLESSNESS’ RATE (EITHER UNEMPLOYED OR ECONOMICALLY INACTIVE AND WANT TO WORK) FOR WORKING AGE ADULTS 2004-2013



Source: Annual Population Survey, Office for National Statistics.

FIGURE 3.22: TOTAL NUMBERS OF ‘INVOLUNTARY WORKLESS’ ADULTS 2004-2013 (EITHER UNEMPLOYED OR ECONOMICALLY INACTIVE AND WANT TO WORK)



Source: Annual Population Survey, Office for National Statistics.

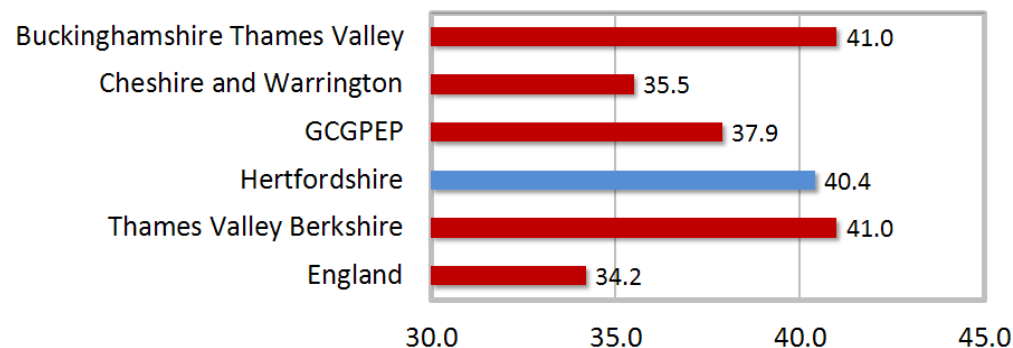
QUALIFICATIONS

Hertfordshire has a highly qualified population. In 2012, 40.4 per cent of 16-64 year olds were qualified to at least Level 4 (degree level). As illustrated in **Figure 3.23**, this was higher than the England average (34.2 per cent) and the sixth highest of all 39 LEP areas – just below its peer areas of Thames Valley Berkshire and Buckinghamshire Thames Valley but well below London, which ranked top at 47.6 per cent.

A small minority of Hertfordshire's working age residents had no qualifications. This totalled 45,000 people, or 6.3 per cent – lower than the national average of 9.5 per cent, the fifth lowest of all LEP areas, and lower than all of its peer areas apart from Buckinghamshire Thames Valley.

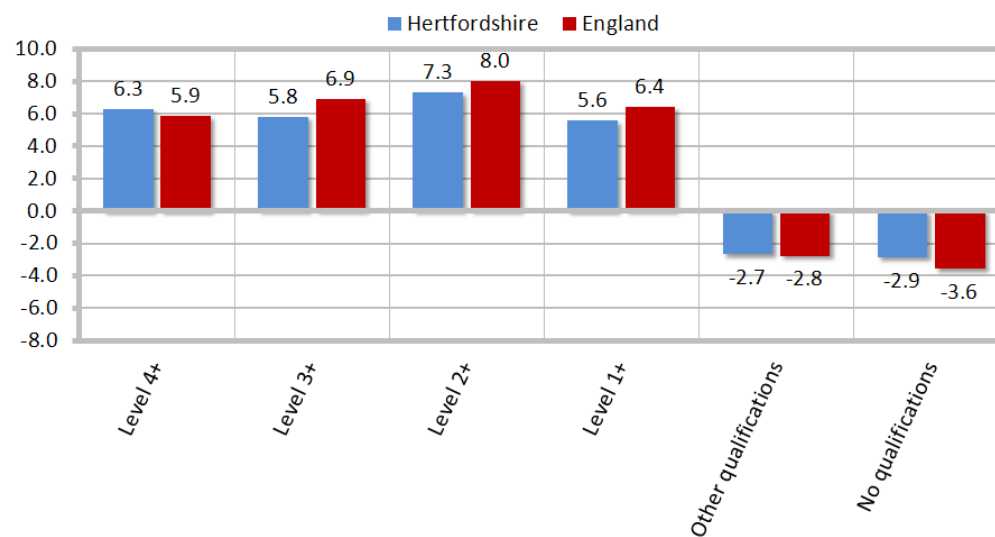
Hertfordshire's qualifications profile has improved over the past five years as revealed in **Figure 3.24**. Hertfordshire increased its gap with the national average in terms of people qualified to Level 4 and above between 2007 and 2012 (a 6.3 percentage point increase compared with a national average increase of 5.9 percentage points). Across all other qualifications levels, improvements have been slightly below the national average.

FIGURE 3.23: SHARE OF WORKING AGE POPULATION WITH DEGREE-LEVEL QUALIFICATIONS (OR EQUIVALENT) AND ABOVE, 2012



Source: Annual Population Survey January 2012–December 2012, ONS.

FIGURE 3.24: CHANGE IN HIGHEST QUALIFICATIONS HELD BY WORKING AGE POPULATION 2007 AND 2012



Source: Annual Population Survey January 2007–December 2007 and January 2012–December 2012, ONS.

QUALIFICATIONS ATTAINMENT AMONG YOUNG PEOPLE

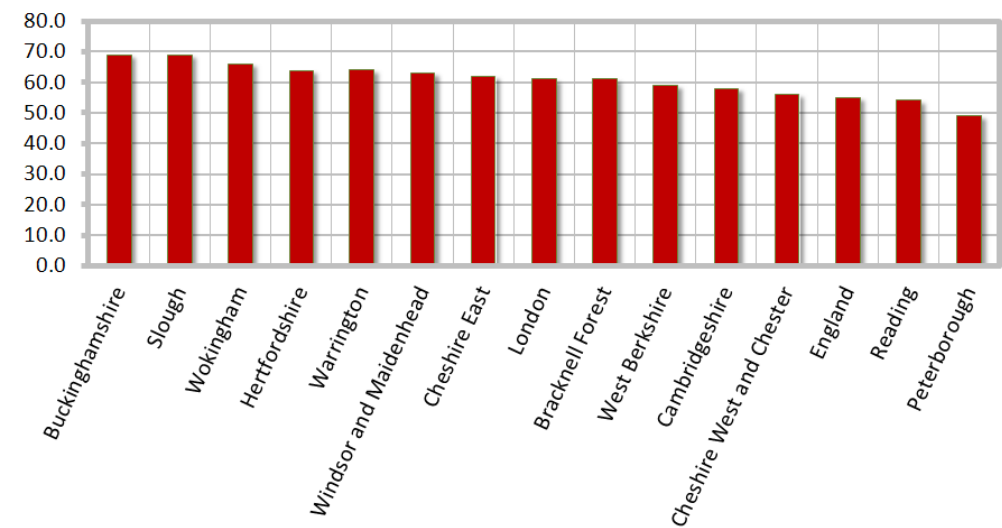
Hertfordshire’s young people are also high achievers. In 2012, almost two-thirds (64 per cent) of 19 year olds in Hertfordshire held a Level 3 qualification (A level and equivalent), as shown in **Figure 3.25** opposite. This was much higher than across England (55 per cent) and the fourth highest of all local authority areas within its peer LEAs. Only Buckinghamshire, Slough and Wokingham (within Thames Valley Berkshire) had higher rates. Hertfordshire ranked 15th highest of all 151 upper tier local authority areas across England for which data were available. The percentage of 19 year olds in Hertfordshire qualified to Level 3 increased by ten percentage points between 2007 and 2012, in line with national performance.

GCSE achievement is also high. In 2011/12, 84.9 per cent of pupils gained at least five A*-C GCSEs, above the England average of 83.2 per cent and the fourth highest of local authority areas within Hertfordshire’s peer LEAs (**Figure 3.26**).

Despite this good performance, the rate of improvement in GCSE attainment in Hertfordshire has been below average – a 17.9 percentage point increase in the five years to 2011/12, compared with the England average of 23.1 percentage points. The gap between Hertfordshire and the England average has thus narrowed considerably. In 2012/13, Hertfordshire was ranked 60th of 151 local authorities in England for GCSE attainment, down from 16th in 2006/07.

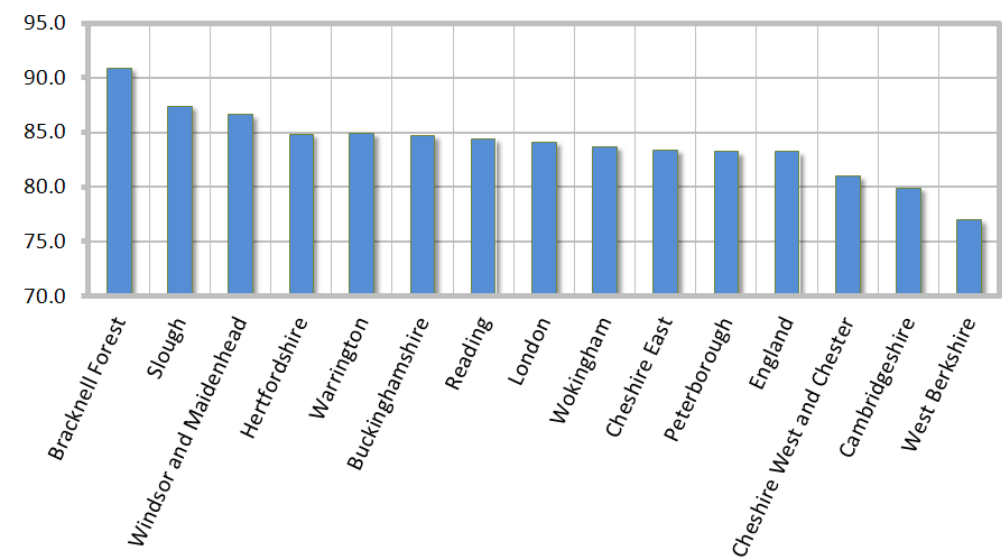
Attainment is lower among more disadvantaged young people. In 2012, 37 per cent of 19 year olds who met the criteria for free school meals had attained a Level 3 qualification – much lower than the total population of 19 year olds. However, this was higher than the England average of 34 per cent, above most other local authority areas within its peer LEAs, and within the top quarter of all local authority areas in England. Improvement was also slightly better than average over the past five years, with a 12 percentage point increase between 2007 and 2012, compared with 11 percentage points across England.

FIGURE 3.25: SHARE OF 19 YEAR OLDS QUALIFIED TO LEVEL 3 IN 2011/12



Source: Department for Education.

FIGURE 3.26: SHARE OF PUPILS ATTAINING 5 GCSE GRADES A-C IN 2011/12

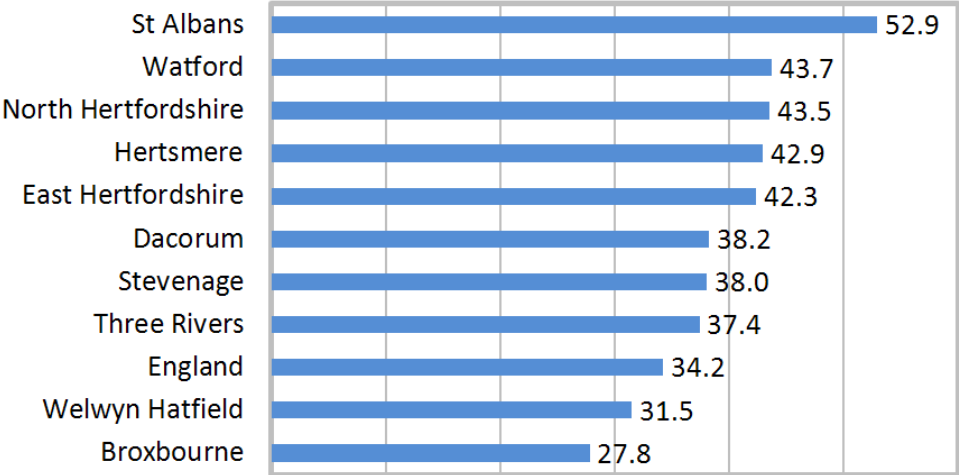


Source: Department for Education.

DISTRICT QUALIFICATIONS PROFILE

At district level, St Albans has the most highly qualified population, with more than half of 16-64 year olds holding a Level 4 qualification or above (52.9 per cent – see **Figure 3.27**) and more than five sixths holding at least a Level 2 qualification (85.9 per cent) in 2012. Two districts were more poorly-qualified than average: Broxbourne and Welwyn Hatfield. Both had lower-than-average percentages of 16-64 year olds qualified to at least Level 2 and at least Level 4.

FIGURE 3.27: POPULATION QUALIFIED TO LEVEL 4+ IN EACH DISTRICT



Source: Annual Population Survey January 2012 –December 2012, ONS.

APPENDIX A

A1 MEASURING INNOVATION USING PATENTS

On one of the most common measures, patent registrations, Hertfordshire registered 12.6 patents with the European Patent Office per 100,000 residents in 2007. On this measure of performance, Hertfordshire is unremarkable. It compares with 43.1 for Greater Cambridge Greater Peterborough, 33.4 for Oxfordshire, and 24.6 for Thames Valley Berkshire.

PATENTS ARE A USEFUL, IF LIMITED MEASURE OF INNOVATION, FOR THE FOLLOWING REASONS

- **Patents are more significant for certain types of industry and business activity than others:** it is easier, and far more useful to register a patent for products and processes than for services and business models. While patents are helpful indicators in some industries, such as chemicals or pharmaceuticals, they do not offer a broad enough assessment of pioneering business processes or unconventional strategies in less product-focused industries, such as retail.
There is a different propensity to patent across sectors. In a survey of 604 large industrial firms in Europe, Arundel and Kabla (1998) found that the average percentage of product innovations that were patented varied from 8% in textiles to 79% in pharmaceuticals, with the average for the entire sample being 36%. With process innovations, the range was 8% in textiles up to 47% in precision instruments. The study also found that larger firms tended to patent more of their innovations and that some firms used secrecy agreements rather than patents.
- **Patents tend to represent new products and services with commercial application;** they do not represent the adoption of innovation, which is arguably more important.
- **Patents are now often used as part of a corporate defensive strategy rather than as an investment for market growth.** At many high-tech companies, where innovation cycles move very quickly, patenting has become more of a defensive strategy than a way of cataloguing creative output.
- **Patents are a static indicator.** They tell us nothing about how well the innovation process is working.
- **Finally, there are other means of protecting intellectual property.** These include trademarks and registered designs. Some businesses also make intellectual property freely available (for example, by providing software as shareware) and make revenues by providing platforms and services around this core software, as well as allowing user-led development and innovation (such as Google's Android operating system).

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