

# RSS Evidence Base: future employment prospects for the East Midlands

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Craig Bickerton on behalf of *emda* and the East Midlands Regional Assembly



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## **RSS Evidence Base: future employment prospects for the East Midlands**

# ***RSS Evidence Base: Future Prospects for the East Midlands***

## ***Introduction***

This paper sets out an analysis of the economic forecasts that have been used to underpin the reviews of the Regional Economic Strategy (RES) and the Regional Spatial Strategy (RSS). The focus of this paper is on employment prospects in the proposed RSS sub-areas. The data in this paper is presented for a slightly different time period than in the Interim RES Evidence Base- this is a function of the differing requirements of the RES and RSS. However the data in both sets of evidence is taken from the same source and is therefore consistent.

Before setting out the analysis of employment prospects a brief description of the East Midlands economy is provided by way of context.

## ***The East Midlands Economy***

This section is based on the 'Economy and Productivity' chapter of the RES Evidence Base. A full version of the analysis can be downloaded from [www.emintelligence.com](http://www.emintelligence.com).

### ***Productivity***

Despite making progress during the last decade, there is still a productivity gap between the UK and its major competitors in the developed world:

- Workers in Germany and the USA produce 13% and 16% respectively more output per hour than their UK counterparts;
- The most productive of the major developed economies is France, where output per hour is 26% higher than in the UK.

There are significant differences within the UK:

- In 2003 output per hour worked in the East Midlands was 96.9% of the UK average, up from 94.8% in 1999;
- On this measure the East Midlands is ranked fourth among the English regions behind London, the South East and the East of England.

### ***Drivers of Productivity***

The Government has identified five drivers of productivity: investment, innovation, skills, enterprise and competition.

#### ***Investment***

Investment is important because increasing the quantity and quality of capital available means a worker is able to produce more output. The data shows that levels of investment by companies in the East Midlands are lower than average and that there is a distinct sectoral split: levels of investment by manufacturing companies are above

average but are relatively low in the service sector. This is a source of concern given the forecasts for growth are fastest in the service sector during the next decade.

### *Innovation*

Innovation can be described as the successful exploitation of new ideas- either new products or new processes, which may be new to the economy or new to an individual firm. It is essential if an economy is to remain competitive and standards of living are to increase. The available data paints something of a mixed picture for the East Midlands. Levels of research and development (R&D) are relatively high but appear to be concentrated in a small number of large global R&D intensive companies with a long tail of companies who undertake very little or no R&D. Government and higher education funded R&D is relatively low in the East Midlands. Outcomes from innovation activity also appear to be relatively low as the proportion of turnover attributed to new or improved products is below average in the region.

### *Enterprise*

Enterprise is important because it increases competition and provides an incentive for new products and processes. Enterprise can take place within existing businesses as well as start-ups. Levels of total entrepreneurial activity in the region have increased and are now above the UK average while the VAT business registration rate, though increasing, remains below the UK average. The East Midlands has improved its position in recent years.

### *Skills*

The UK lags its international competitors on measures of workforce skills: it is estimated that workforce skills contribute to 12% of the productivity gap with France and 20% of the gap with Germany. The East Midlands can be described as being in a 'low pay low skill equilibrium', with a lower than average proportion of the workforce with higher level qualifications and an above average proportion with no qualifications. In the East Midlands, 12.2% of the economically active working age population have no qualifications, compared to 10.8% in the UK, and 25% of the region's workforce is qualified to Level 4 (equivalent to a first degree) compared to 28.6% in the UK. The older age groups in the workforce are also significantly more likely to have no qualifications than in the UK.

### *Competition*

Competition is important because it encourages companies to become efficient and to innovate. The more efficient regulatory systems are and the stronger the competition regime, the more efficiently the economy works. Exporters will be more exposed to competitive pressures and the data suggest that in the East Midlands exports account for a greater share of economic output than any other English region apart from the North East.

In terms of these drivers of productivity, the East Midlands has areas of strength and weakness. Because of the complex linkages between the individual drivers, regional policy aimed at any one will impact on all.

## ***Industrial Structure of the East Midlands***

The industrial structure of the East Midlands is likely to be a key determinant of what has been termed adaptive capacity- the ability of the region to respond to external forces and to generate new paths of development from within and avoid getting locked into a path of relative economic decline.

The data show that the manufacturing sector in the East Midlands accounts for 23.2% of economic output, which is well in excess of the UK average of 15.9%. Key manufacturing sub-sectors in the region include Food, Drink & Tobacco and Transport Equipment. The service sector is correspondingly relatively smaller than average in the region. The Business Services sub-sector does, however, account for a tenth of economic output in the region.

There are a number of sectors in the region that have above UK average levels of productivity. These are: Agriculture, Forestry & Fishing, Minerals, Metals, Transport Equipment, Food, Drink & Tobacco, Construction, Wholesaling, Hotels & Catering and Public Administration & Defence. A crude estimate is that if productivity in the other sectors of the East Midlands economy were at the UK averages, there would be an additional £4bn of output in the East Midlands.

## ***Prospects for the East Midlands Economy<sup>1</sup>***

This section of the paper sets out our forecast for the performance of the East Midlands economy during the next decade, based upon *emda's* econometric model of the region, the Scenario Impact Model, developed by Experian.

At the outset it should be noted that these are forecasts and are not by any means a statement of fact about the future performance of the East Midlands economy. Less emphasis should be placed on the exact figures and more on the direction of travel and the general magnitude of change. They are just one of many possible futures and this should be borne in mind throughout.

The baseline forecast can be thought of as a combination of historical trends and expected changes in macroeconomic conditions in the UK which are filtered down into the regional model. These forecasts do not take into account any RES intervention. However they do contain some assumptions about the Milton Keynes South Midlands (MKSM) growth area. Experian have assumed that half of the planned development up until 2016 (the limit of the forecast period in this model) will take place. It must be remembered that this is an independent forecast and, as such, makes cautious assumptions based on the potential risks associated with a development of this scale.

The final version of the RES evidence base, to be published in April 2006, will also contain a RES 'policy on' scenario. This will be an attempt to model the outcome of successfully implementing the policies set out in the RES and will include the full implementation of the MKSM growth strategy. Again, this scenario will be created with

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<sup>1</sup> All forecasts presented in this paper are in terms of full-time equivalents (FTEs), which is calculated as the sum of full-time employment and self-employment and 0.4\* the number of part-time employed

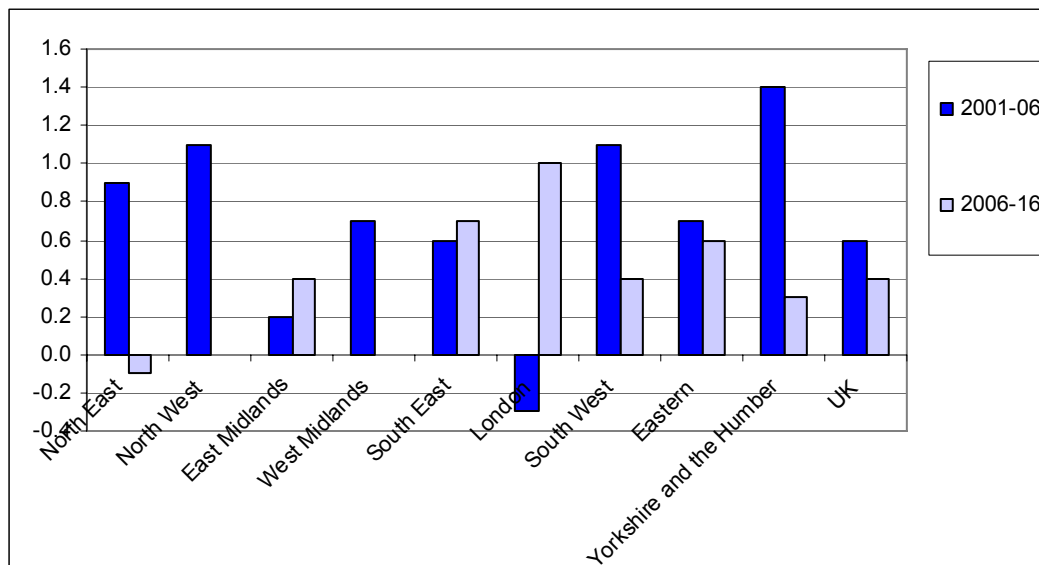
the Experian suite of models so that we have a number of scenarios which are internally consistent.

### UK Regional Forecast

A summary of the UK forecast is shown in Chart 1: The key points to note are:

- Between 2001 and 2006 it is estimated that FTE employment in the UK will grow by an average of 0.6%pa. The most rapid growth is expected to take place in Yorkshire and the Humber (with growth of 1.4%pa) and the slowest growth in London, where we expect employment to have fallen. This fall in London is due to the impact of the recent global slowdown and London's exposure to sectors most affected such as Financial Services and Tourism;
- It is estimated that FTE employment in the East Midlands will have increased by an average of 0.2 %pa during this period. It should be noted that employment rates are very high in the East Midlands, which means that there is a supply constraint on employment growth. It is anticipated that future employment growth will be driven, in part, by population increases.

**Chart 1: UK regional employment forecast (%pa)**



Source: Experian Regional Planning Service, Spring 2005

The chart also shows that, with the exception of London, the South East and the East Midlands, employment growth is expected to be lower between 2006 and 2016 than it was in the period 2001-06:

- In the UK the FTE employment growth rate is expected to fall to 0.4%pa between 2006 and 2016;
- In the East Midlands employment growth is expected to increase to 0.4% for the period 2006 to 2016, in line with UK growth;

- Fastest employment growth in the next decade or so is expected in London, the South East and, to a lesser extent, the East of England.

A FTE employment growth rate of 0.4%pa between 2006 and 2016 is an increase of around 69,000 FTEs in the East Midlands. However, as there are currently a number of risks to economic performance, mainly on the downside, the RES evidence base sets out two macroeconomic scenarios that would impact on the East Midlands economy.

A downside scenario has been modelled on the basis of a spike in the oil price of \$90 per barrel in the latter half of 2006, with residual effects into 2007. The scenario models the impact through weaker world growth and the monetary policy transmission mechanism- as the oil price rise feeds into inflation the Bank of England's Monetary Policy Committee increases interest rates but, as is the historical experience, overshoots and this exacerbates the slowdown. In this scenario, the level of FTE employment in the East Midlands in 2016 would be 10,000 below the baseline figure. This scenario would have a much greater impact on the East Midlands than elsewhere in the UK due to the structure of the East Midlands economy and its relatively large production sector.

Risks to economic growth on the upside are much lower but evidence shows that the US economy is continuing to grow at a rapid rate despite the risks associated with its large budget and current account deficits. In our upside scenario we have modelled a stronger than expected US growth rate for years 2006/07. As the USA is a key export market of the UK, any increase in US demand translates into additional demand for UK produced goods and services and, therefore, provides a boost to growth in this country. In this scenario, the level of FTE employment in the East Midlands in 2016 would be 1,000 above the baseline figure.

### ***East Midlands RSS Sub-area Forecast***

In this section we set out the employment forecast for the proposed RSS sub-areas and, within these, the Housing Market Areas (HMA)<sup>2</sup>. There are five sub-areas: Eastern, Northern, Peak, Three Cities and Southern. We set out the key points for each area. All figures quoted in this section are taken from the baseline forecast.

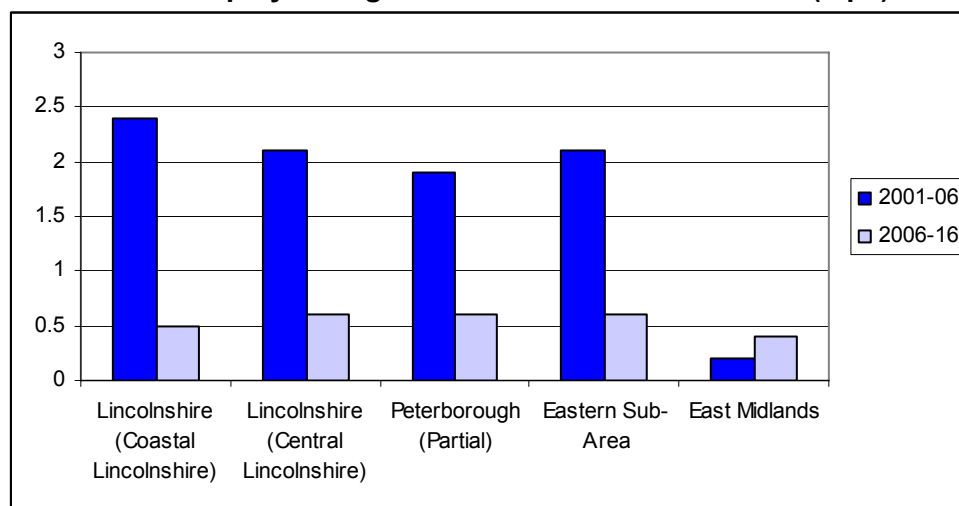
#### ***Eastern Sub-Area***

The Eastern Sub-Area has been the fastest growing part of the region in employment terms in recent years and is expected to continue growing at an above average rate in the next decade or so. Chart 2 summarises the forecast:

- During the period 2001-06 FTE employment is forecast to increase by around 26,000 or by an average of 2.1%pa, which is well in excess of regional growth. FTE employment growth of around 2%pa is expected in each of the three HMAs in the Eastern Sub-Area. Anecdotal evidence suggests that the development of the University of Lincoln has had a significant impact on the Lincolnshire economy.

<sup>2</sup> A full description of the composition of these areas can be found in 'Review of the East Midlands Regional Plan to 2026- Options for Change', East Midlands Regional Assembly, October 2005.

**Chart 2: FTE employment growth in the Eastern Sub-Area (%pa)**



Source: emda/Experian Scenario Impact Model July 2005

The forecast is for FTE employment growth of 0.6%pa in the Eastern Sub-Area for the period 2006-16, which is above the average of 0.4%pa for the East Midlands and is the second fastest growth among the RSS Sub-Areas. This growth would mean an additional 16,000 FTEs in the sub-area by 2016. Development of the A1 corridor would appear to be driving this growth. By HMA the forecast is:

- FTE employment growth of 0.5%pa in the Lincolnshire (Coastal Lincolnshire) HMA area, an increase of just over 3,500 FTEs between 2006 and 2016;
- In both the Lincolnshire (Central Lincolnshire) and Peterborough (Partial) HMAs, FTE employment growth of 0.6%pa is forecast for 2006-16. This represents increases in FTE employment of 6,300 and 6,000 respectively;
- FTE employment growth in each of the HMAs is forecast to be above the average for the East Midlands.

A broad industrial breakdown, consistent with the QUELS study, is also available for the Eastern Sub-Area. A description of the broad categories can be found in Annex 1 at the end of this paper. Chart 3 summarises this forecast.

**Chart 3: Broad industrial breakdown of Eastern Sub-Area forecast**

	% Eastern Sub-Area 2006	Change Eastern Sub-Area 2006-16	% change Eastern Sub-Area 2006-16	% East Midlands 2006	% change East Midlands 2006-16
Industrial	27.5	-1,900	-2.6	26.3	-11.5
of which:					
Manufacturing	19.7	-800	-1.5	18.8	-14.1
Wholesaling	7.8	-1,000	-4.8	7.5	-5.1
Office	16.4	6,300	14.4	20.3	15.9
Primary Industries	5.7	-3,800	-25.3	2.6	-27.5
Other sectors	50.4	15,400	11.5	50.9	9.2
Total	100.0	16,100	6.1	100.0	4.1

Source: emda/Experian Scenario Impact Model, July 2005

Note: totals may not sum due to rounding



The key points to note are:

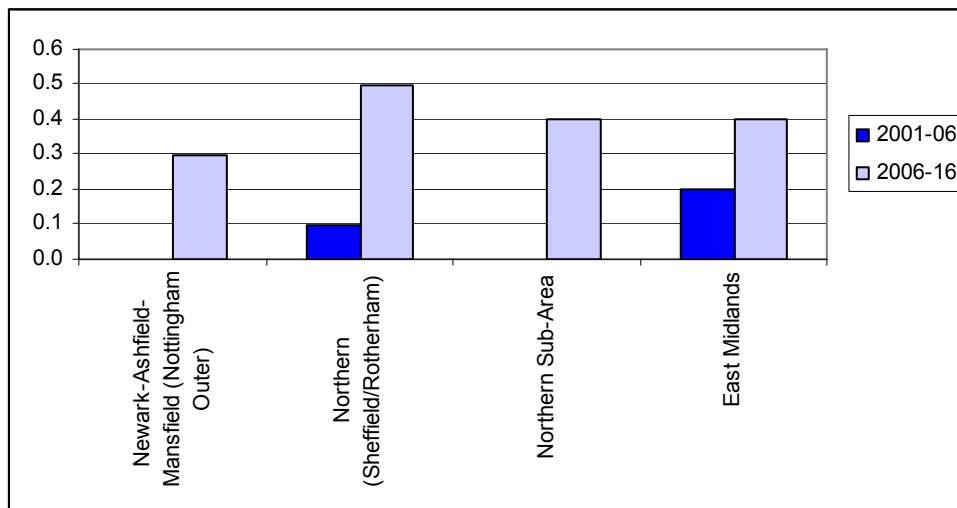
- The key difference in structure between the Eastern Sub-Area and the East Midlands is that relatively higher proportions are employed in Manufacturing and Primary Industries in the Eastern Sub-Area and relatively fewer in Office based sectors.
- As with the East Midlands, FTE employment growth in the Eastern Sub-Area is expected to be driven by increases in the Office based and Other sectors, with declines forecast in Industrial and Primary Industries;
- However, the decline in Manufacturing employment in the Eastern Sub-Area, at -1.5% between 2006 and 2016, is lower than that forecast for the region.

#### Northern Sub-Area

The Northern Sub-Area is expected to have been one of the slower growing parts of the region in employment terms, but is expected to improve in the next decade. Chart 4 summarises the forecast:

- During the period 2001-06 FTE employment is forecast to increase by fewer than 1,000 FTEs, which is a negligible rate of growth. The only HMA forecast to experience any growth was the Northern (Sheffield/Rotherham) HMA, which we expect to grow by just 0.1%pa.

**Chart 4: FTE employment growth in the Northern Sub-Area (%pa)**



Source: emda/Experian Scenario Impact Model July 2005

The forecast is for FTE employment growth of 0.4%pa in the Northern Sub-Area for the period 2006-16, which is in line with the average for the East Midlands. This growth would mean just over 9,000 additional FTEs in the sub-area by 2016. By HMA the forecast is:

- FTE employment growth of a below average 0.3%pa in the Newark-Ashfield-Mansfield (Nottingham Outer) HMA area, an increase of around 2,800 FTEs between 2006 and 2016;
- FTE employment growth is expected to be above the regional average, at 0.5%pa, in the Northern (Sheffield/ Rotherham) HMA. This is an increase of around 6,300 FTEs during the forecast period.

A broad industrial breakdown, consistent with the QUELS study, is also available for the Northern Sub-Area. Chart 5 summarises this forecast.

**Chart 5: Broad industrial breakdown of Northern Sub-Area forecast**

	% Northern Sub-Area 2006	Change Northern Sub-Area 2006-16	% change Northern Sub-Area 2006-16	% East Midlands 2006	% change East Midlands 2006-16
Industrial	27.1	-6,100	-9.9	26.3	-11.5
of which:					
Manufacturing	20.2	-5,600	-12.2	18.8	-14.1
Wholesaling	7.0	-600	-3.8	7.5	-5.1
Office	14.7	4,900	14.6	20.3	15.9
Primary Industries	2.7	-2,300	-37.7	2.6	-27.5
Other sectors	55.5	12,600	10.0	50.9	9.2
Total	100.0	9,100	4.0	100.0	4.1

Source: emda/Experian Scenario Impact Model, July 2005

Note: totals may not sum due to rounding

The key points to note are:

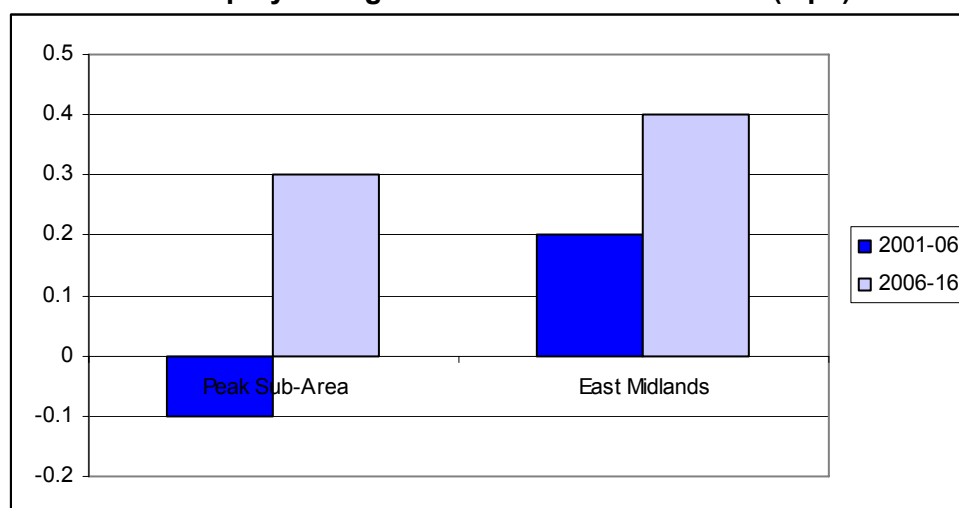
- The key difference in structure between the Northern Sub-Area and the East Midlands is that relatively higher proportions are employed in Other Sectors in the Northern Sub-Area and relatively fewer in Office based sectors;
- As with the East Midlands, FTE employment growth in the Northern Sub-Area is expected to be driven by increases in the Office and Other sectors, with declines forecast in Industrial and Primary Industries;
- However, the decline in Manufacturing employment in the Northern Sub-Area is lower than that forecast for the region but a much sharper decline is forecast for Primary Industries (-37.7% in the Northern Sub-Area compared to -27.5% for the East Midlands).

#### *Peak Sub-Area*

The Peak Sub-Area is the smallest of the RSS sub-areas and is expected to experience a small decline in FTE employment between 2001 and 2006, before growth resumes between 2006 and 2016. Chart 6 summarises the forecast for this sub-area:

- During the period 2001-06 FTE employment is forecast to decline by an average of -0.1%pa, which is a loss of around 400 FTEs.

**Chart 6: FTE employment growth in the Peak Sub-Area (%pa)**



Source: emda/Experian Scenario Impact Model July 2005

The forecast is for FTE employment growth of 0.3%pa in the Peak Sub-Area for the period 2006-16, which is just below the average of 0.4%pa for the East Midlands and is the second slowest growth among the RSS Sub-Areas. This growth would mean an additional 2,100 FTEs in the sub-area by 2016.

A broad industrial breakdown, consistent with the QUELS study, is also available for the Peak Sub-Area. Chart 7 summarises this forecast.

**Chart 7: Broad industrial breakdown of the Peak Sub-Area forecast**

	% Peak Sub-Area 2006	Change Peak Sub-Area 2006-16	% change Peak Sub-Area 2006-16	% East Midlands 2006	% change East Midlands 2006-16
Industrial	26.7	-1,100	-6.7	26.3	-11.5
of which:		0			
Manufacturing	20.1	-1,000	-8.1	18.8	-14.1
Wholesaling	6.5	-100	-2.5	7.5	-5.1
Office	15.4	1,200	12.8	20.3	15.9
Primary Industries	4.6	-900	-32.1	2.6	-27.5
Other sectors	53.5	2,700	8.3	50.9	9.2
Total	100.0	2,000	3.3	100.0	4.1

Source: emda/Experian Scenario Impact Model, July 2005

Note: totals may not sum due to rounding

The key points to note are:

- The key difference in structure between the Peak Sub-Area and the East Midlands is that a relatively higher proportion are employed in Other Sectors in the Peak Sub-Area and relatively fewer in Office based sectors.
- As with the East Midlands, FTE employment growth in the Peak Sub-Area is expected to be driven by increases in the Office and Other sectors, with declines forecast in Industrial and Primary Industries;

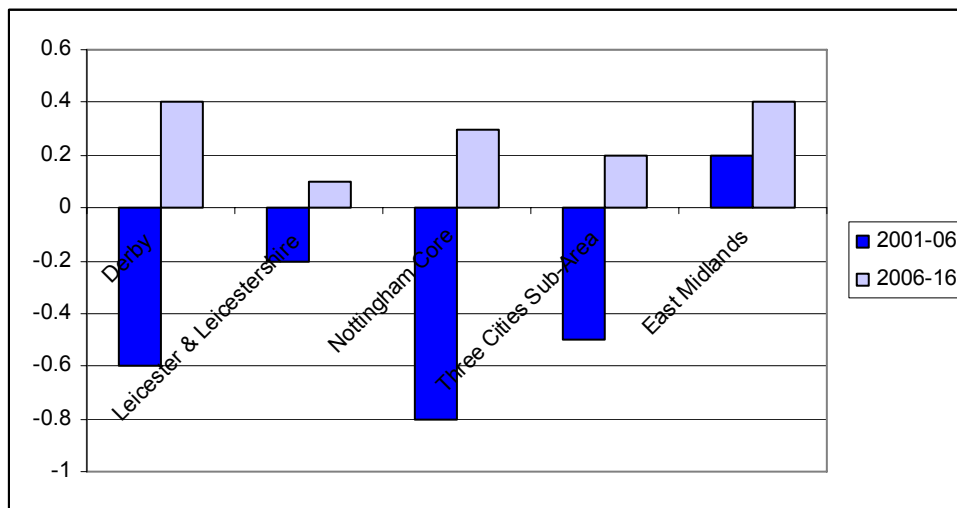
- However, the decline in manufacturing employment in the Peak Sub-Area, at -6.7% between 2006 and 2016, is lower than that forecast for the region. In the Primary Industries, however, a larger fall is forecast (-32.1% compared to -27.5% for the region).

### Three Cities Sub-Area

In economic and demographic terms the Three Cities Sub-Area is the largest of the RSS sub-areas. It has been the slowest growing part of the region in employment terms, but is expected to improve in the next decade. Chart 8 summarises the forecast:

- During the period 2001-06 FTE employment is forecast to fall by just over 21,000 FTEs, a fall of -0.5%pa. A fall in employment is expected in each of the three HMAs in the sub-area, with the Nottingham Core HMA expected to lose the most employment. Although part-time employment has increased, this has been more than offset by a fall in full-time employment in these areas.

**Chart 8: FTE employment growth in the Three Cities Sub-Area (%pa)**



Source: emda/Experian Scenario Impact Model July 2005

The forecast is for a return to FTE employment growth in the Three Cities Sub-Area in the period 2006-16. However a average growth of 0.2%pa is only half the rate forecast for the East Midlands. This growth would mean just over 19,000 additional FTEs in the sub-area by 2016, which does not compensate for the decline expected for 2001-06. By HMA the forecast is:

- FTE employment growth is forecast to be fastest, at 0.4 %pa, in the Derby HMA. This is the only HMA in the Three Cities Sub-Area expected to grow in line with the regional average. The forecast is for an increase of 7,000 FTEs between 2006 and 2016;
- The Leicester & Leicester Shire HMA is expected to be the slowest growing of the Three Cities HMAs, with average growth of just 0.1%pa forecast for 2006-16. This is an increase of around 3,800 FTEs;

- The Nottingham Core HMA is forecast to grow by an average of 0.3%pa during the forecast period, an increase of 8,400 FTEs. Both the Nottingham Core and Leicester & Leicestershire HMAs are forecast to have lower employment in 2016 than in 2001.

A broad industrial breakdown, consistent with the QUELS study, is also available for the Three Cities Sub-Area. Chart 9 summarises this forecast.

**Chart 9: Broad industrial breakdown of the Three Cities Sub-Area forecast**

	% Three Cities Sub-Area 2006	Change Three Cities Sub-Area 2006-16	% change Three Cities Sub-Area 2006-16	% East Midlands 2006	% change East Midlands 2006-16
Industrial	25.3	-32,800	-15.8	26.3	-11.5
of which:					
Manufacturing	18.0	-28,800	-19.5	18.8	-14.1
Wholesaling	7.3	-4,000	-6.7	7.5	-5.1
Office	22.7	27,500	14.7	20.3	15.9
Primary Industries	1.9	-4,000	-25.2	2.6	-27.5
Other sectors	50.0	28,500	6.9	50.9	9.2
Total	100.0	19,300	2.4	100.0	4.1

Source: emda/Experian Scenario Impact Model, July 2005

Note: totals may not sum due to rounding

The key points to note are:

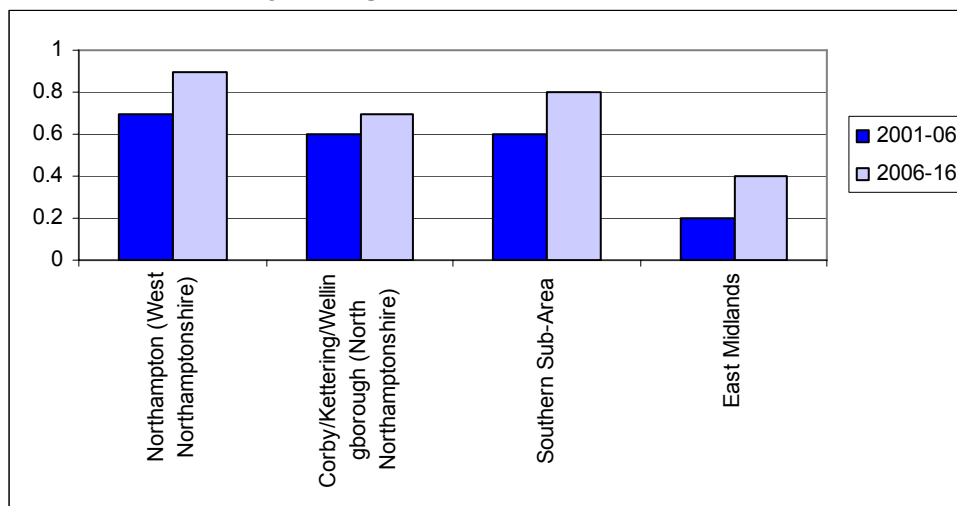
- The key difference in structure between the Three Cities Sub-Area and the East Midlands is that a relatively higher proportion is employed in Office based sectors and slightly fewer in Industrial and Primary Industries. This reflects the administrative and business centre roles played by the three cities;
- As with the other Sub-Areas, employment growth in the Three Cities is due to forecast increases in Other Sectors and Office based employment;
- The decline in Manufacturing employment in the Three Cities Sub-Area is more severe than that forecast for the region, largely because of severe contractions in traditional sectors that are based in the cities, such as Textiles & Clothing in Leicester.

#### *Southern Sub-Area*

At this stage, it is once again useful to point out that the baseline forecast that is reported here makes the assumption that only 50% of the planned MKSM development is realized in the period up to 2016. This is an independent forecast produced on the basis of cautious assumptions about the risks associated with such a large scale project. As part of the final RES Evidence Base, to be published in April 2006, we will be commissioning a 'policy on' scenario which will assume full implementation of the MKSM strategy. The Southern Sub-Area has traditionally been the fastest growing part of the region, benefiting from its proximity to London and the South East. Chart 9 summarises the forecast:

- During the period 2001-06 our forecast is that FTE employment growth will be 0.6%pa in the Southern Sub-Area, well in excess of the regional growth rate. This is a forecast increase of around 8,900 FTEs in this period. Significant growth is expected for both of the HMAs in this sub-area.

**Chart 9: FTE employment growth in the Southern Sub-Area (%pa)**



Source: emda/Experian Scenario Impact Model July 2005

The forecast is for the Southern Sub-Area to be the fastest growing part of the region in the period 2006-16. The forecast average FTE employment growth of 0.8%pa is twice that forecast for the East Midlands. This growth would mean around 23,000 additional FTEs in the sub-area by 2016. By HMA the forecast is:

- The Northampton (West Northamptonshire) HMA is forecast to experience FTE employment growth of 0.9%pa between 2006 and 2016, which makes it the most rapidly growing of the HMAs in the region. This is an increase of around 15,400 FTEs;
- The forecast FTE employment growth rate in the Corby/Kettering/Wellingborough (North Northamptonshire) HMA is slightly lower, at 0.7%pa. Nevertheless this is an increase of around 7,700 FTEs.

A broad industrial breakdown, consistent with the QUELS study, is also available for the Southern Sub-Area. Chart 10 summarises this forecast.

**Chart 10: Broad industrial breakdown of the Southern Sub-Area forecast**

	% Southern Sub-Area 2006	Change Southern Sub-Area 2006-16	% change Southern Sub-Area 2006-16	% East Midlands 2006	% change East Midlands 2006-16
Industrial	27.0	-8,000	-10.5	26.3	-11.5
of which:					
Manufacturing	18.5	-7,400	-14.2	18.8	-14.1
Wholesaling	8.5	-600	-2.5	7.5	-5.1
Office	22.2	13,500	21.6	20.3	15.9
Primary Industries	1.1	-1,000	-31.3	2.6	-27.5
Other sectors	49.6	18,400	13.2	50.9	9.2
Total	100.0	22,900	8.1	100.0	4.1

Source: emda/Experian Scenario Impact Model, July 2005

Note: totals may not sum due to rounding

The key points to note are:

- The structure of employment in the Southern Sub-Area is very close to the average for the region but with slightly more in employment in Office based sectors;
- Despite the Southern Sub-Area being the fastest growing part of the region, manufacturing employment is forecast to fall by just over 10% during the forecast period;
- Employment growth in Office based sectors (21.6% compared to 15.9% for the East Midlands) and Other Sectors (13.2% compared to 9.2% for the East Midlands) is forecast to be higher than in any other part of the region.

## ***Annex 1: Industrial breakdown of employment***

The chart describes the composition of the broad industrial classifications used in this paper.

<b>Manufacturing:</b>	<b>Wholesaling:</b>	<b>Office:</b>	<b>Primary industries:</b>	<b>Other sectors:</b>
Fuel Refining	Wholesaling:	Banking & Insurance	Agriculture, Forestry & Fishing	Construction
Chemicals		Business Services	Oil & Gas Extraction	Retailing
Minerals		Other Financial & Business Services	Other Mining	Hotels & Catering
Metals		Public Admin & Defence	Gas, Electricity & Water	Transport
Machinery & Equipment				Communications
Electrical & Optical Equipment				Education
Transport Equipment				Health
Food, Drink & Tobacco				Other Services
Textiles & Clothing				
Wood & Wood Products				
Paper, Printing & Publishing				
Rubber & Plastics				
Other Manufacturing NEC				