

# The Contribution of Migration Flows to Demographic Change in the East Midlands

**A research report prepared for *emda***

Experian

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# The contribution of migration flows to demographic change in the East Midlands

East Midlands Development Agency  
(*emda*)

March 2007

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# Introduction

Over the past decade, the East Midlands has experienced considerable population and demographic change, a phenomenon highlighted in *emda*'s latest Regional Economic Strategy for the East Midlands, "A flourishing region", published in July 2006.

Demographic change is a key concern for policy makers, particularly the ageing of the population and the impact this has on dependency ratios. Given the importance of migration as a driver of population trends, greater evidence is required on the role that migration plays in demographic change and the implications this has in terms of economic prosperity, social inclusion and service provision.

In November 2006, *emda* commissioned Experian to undertake research to build a detailed and up to date picture of the scale and nature of migration flows into, out of, and within the East Midlands. The research aimed to assess the impact of migration on demographic change in the region to help identify implications for regional policy makers.

This research entailed establishing a comprehensive base of evidence, a review of the drivers of demographic change and migration and an assessment of the role of migration in demographic change going forward. This report presents the key research findings.

**Section 1** summarises demographic change in the East Midlands over time.

**Section 2** considers the drivers of demographic change and migration

**Section 3** analyses the components of this change, particularly the role of migration.

**Section 4** assesses the characteristics of migrants.

**Section 5** summarises our modelling of the impact of migration on demographic change in the region.

**Section 6** assesses the role migration is likely, or could potentially, play in influencing demographic change in the region in the future.

**Section 7** draws together conclusions from the research and discusses the implications of these for regional policy makers.

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# Executive Summary

## 1.1 DEMOGRAPHIC CHANGE IN THE EAST MIDLANDS

Over the past twenty years population growth has been stronger in the East Midlands than the average across England. The most significant population growth, particularly over the past five years, has been in the rural parts of the region – notably Rutland, Lincolnshire and Northamptonshire. On the other hand, the population of urban areas, particularly Nottingham and Leicester, has remained largely stable over the past 20 years.

Over the past 20 years, the East Midlands has been subject to an ageing population and more severely so than England as a whole. The ageing of the region's population has been concentrated in rural parts, particularly Rutland, Lincolnshire and Leicestershire. Conversely, the population of pensionable age in the region's urban centres has been declining.

## 1.2 DRIVERS OF DEMOGRAPHIC CHANGE AND MIGRATION

Economic differences across regions and countries create strong incentives for migrants in the poorer area, attracted by greater employment opportunities and higher wage prospects. Globalisation has played a major role in this process by its ability to influence which areas will prosper and which will decline. Long distance migration can also be driven by personal development and social factors.

For local level migration, it is likely that economic factors play a limited role. Local migration tends to be driven by the quality of the local environment and issues such as crime, congestion and noise. The quality of local schools is a particularly important driver of internal migration. This is reflected in house price differentials, which are much higher in areas with top schools, such as Rutland.

## 1.3 COMPONENTS OF CHANGE – THE ROLE OF MIGRATION

Migration has been the main driver of population change evident in the East Midlands over the past decade, contributing to around 81 per cent of population change. However, there are stark differences between the components of population change in rural parts of the region compared to the main urban centres.

Rural parts of the region have experienced significant net in-migration, predominantly from elsewhere in the UK, which has acted to offset the natural decline in the population. The largest urban areas however, i.e. the cities of Nottingham, Leicester and Derby, have experienced significant net out migration which has been off-set by natural population growth.

A significant trend is that migration to rural and semi-rural areas of the region is generally greater than migration from these areas to the cities. This counter-urban phenomenon is most evident in Nottingham and Nottinghamshire. Non-city local areas within the East Midlands are gaining both from counter-urban flows from the City Local Authorities in the region and from net inflows from elsewhere in the UK.

## 1.4 CHARACTERISTICS OF MIGRANTS

A large proportion of those moving into the East Midlands from overseas are amongst the younger cohorts of the working age population. The age profile of international migrants

resident in the East Midlands appears to be slightly younger than those in the whole of England. A8 migrants<sup>1</sup> tend to be younger than migrants from other nations.

Individuals moving from the cities to rural and semi-rural areas tend to be white and work in managerial and professional occupations. City-flight migration patterns are therefore likely to act to concentrate ethnic minority groups and those employed in low skilled occupations in cities.

## **1.5 THE CONTRIBUTION OF MIGRATION FLOWS TO DEMOGRAPHIC CHANGE**

Migration has acted to ease both total and pensionable age dependency ratios.<sup>2</sup>

International migration has expanded the working age population available to businesses in the region, whilst the outflow of older people overseas has also mitigated the ageing of the region's population. The most significant impact of international migration has been seen in Leicester and Nottingham, where it has boosted the working age population.

Whilst internal migration has acted to push up aged dependency ratios it has done so only marginally, as the region as a whole has been subject to substantial inflows of working age people as well as those of pensionable age. Nottingham and Leicester have witnessed a significant decline in the pensionable age population as a consequence of internal migration, while rural areas (particularly Rutland and Lincolnshire) have experienced an increase in both the working age and pensionable age population as a result.

## **1.6 DEMOGRAPHIC CHANGE GOING FORWARD**

Trend-based population projections suggest that over the next 20 years the population of the East Midlands will continue to grow rapidly. This will be particularly true in Lincolnshire and Northamptonshire, whilst the populations of Nottingham, Leicester and Derby are forecast to remain fairly static. The population will continue to age.

Migration will continue to be the main driver of population growth, particularly internal migration. Without migration the population would remain fairly static.

Scenario 1 shows that if international migration was to fall to pre-2000 levels then the region's population would grow slightly less rapidly, whilst the largest impact would be in the three cities sub-region, with Nottingham's total population declining year on year.

Scenario 2 highlights discrepancies between trend-based population projections and Regional Spatial Strategy (RSS) dwelling-led population projections. Dwelling-led projections are notably higher for Leicester, Derby and Northamptonshire, but lower for Rutland and several other rural areas.

Scenario 3 analyses the possible effect of the East Midlands becoming more 'competitive'. It is likely that the region would attract large numbers of young working families, helping to cushion dependency ratios. Moreover, a more competitive environment in urban centres would help stem the 'city flight' migration patterns seen over the past decade.

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<sup>1</sup> A8 migrants refer to those who have come from the Central and Eastern Europe nations that joined the EU in May 2004- the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

<sup>2</sup> Dependency ratios provide an indication of the proportion of the population comprised by those considered to be dependents- children and those of pensionable age. Aged dependency ratio= pensionable age/working age x 100. Total dependency ratio= (children + pensionable age)/working age x 100.

# 1 Demographic change in the East Midlands

## KEY MESSAGES

- Population growth has been stronger in the East Midlands than the average across England – the East Midlands has more in common with the Greater South East than the West Midlands and regions of the Northern Way in this respect.
- The rural parts of the region such as Rutland, Lincolnshire and Northamptonshire have seen the most significant population growth, particularly over the past five years.
- Conversely, the population of urban areas, particularly the region's two largest cities- Leicester and Nottingham, has remained largely stable over the past two decades.
- Over the past 20 years, the East Midlands has been subject to an ageing population and more severely so than England as a whole.
- The ageing of the region's population has been concentrated in rural parts, particularly Rutland, Lincolnshire and Leicestershire. Conversely, the population of pensionable age in the region's urban centres has been declining.
- Despite this, the negligible growth in the child population has helped to off-set the effect on the total dependency ratio in the East Midlands, which is lower in 2005 than it was twenty years previously.
- However, while this trend is particularly pronounced in the region's three cities, rural parts of the East Midlands have experienced a significant increase in both the pensionable age and total dependency ratios.
- While the ethnic minority population in the East Midlands is currently relatively small, minority ethnic groups comprise an increasing share of the region's population.
- An increasing number of East Midlands residents are employed within higher level occupations, while expansion of employment in elementary roles has been more moderate.

## 1.1 HEADLINE POPULATION TRENDS

Over the past twenty years the total population of the East Midlands has grown significantly. Between 1985 and 2005, the region's population expanded by 0.5 per cent on average per annum, in excess of the trend across England (0.35 per cent).

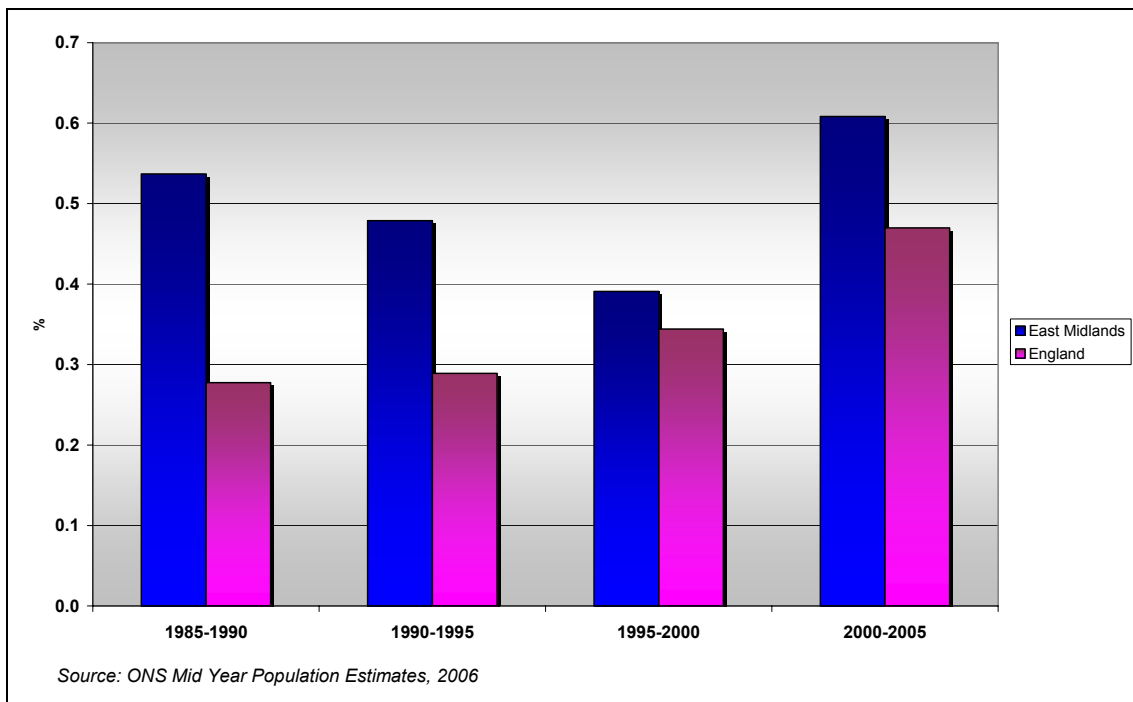
Population growth has been particularly strong over the past five years, with average annual growth in excess of 0.6 per cent.<sup>3</sup>

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<sup>3</sup> ONS Crown Copyright, Mid Year Population Estimates, 1985 to 2005, from NOMIS, 14<sup>th</sup> November 2006. Mid Year Population Estimates are based on results of the previous Census, updated to reflect subsequent births, deaths, ageing and migration.

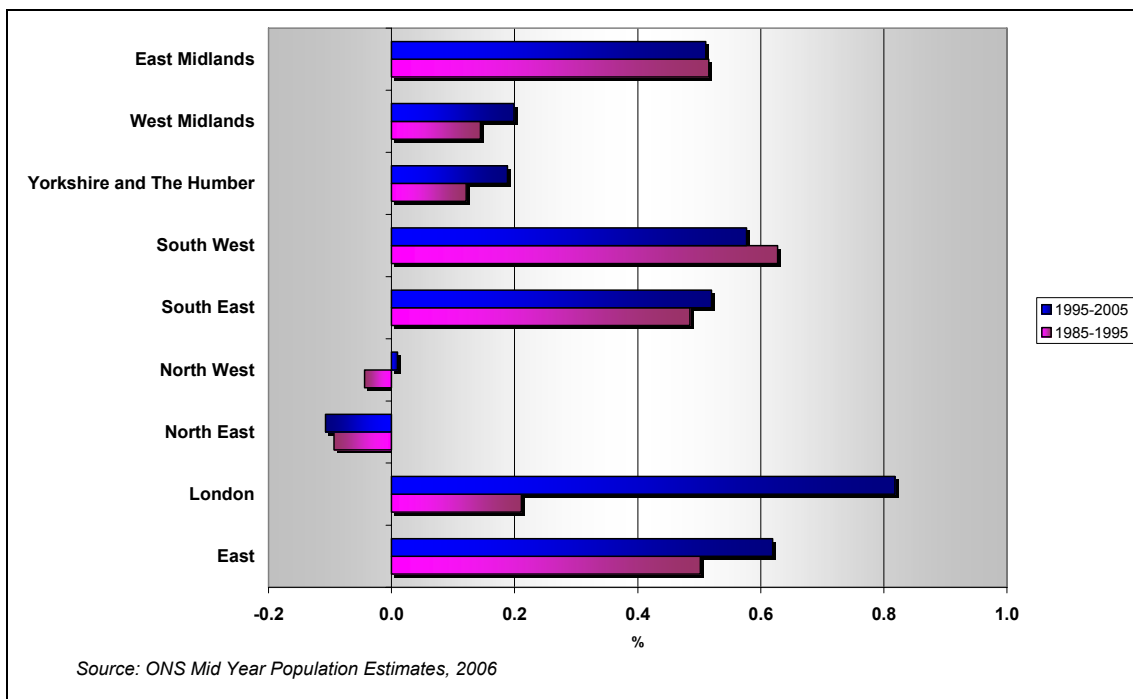


**Figure 1.1: Average annual growth of the total population, 1985 to 2005**



Indeed, expansion of the East Midlands population over the past two decades has been amongst the fastest of any English region, significantly in excess of that seen in the West Midlands and northern regions, whilst only the East of England and South West have expanded more rapidly. London, however, has witnessed by far the fastest growth since the end of the recession in the 1990s. It is clear that in terms of population growth, the East Midlands has more in common with the Greater South East than the West Midlands and regions of the Northern Way.

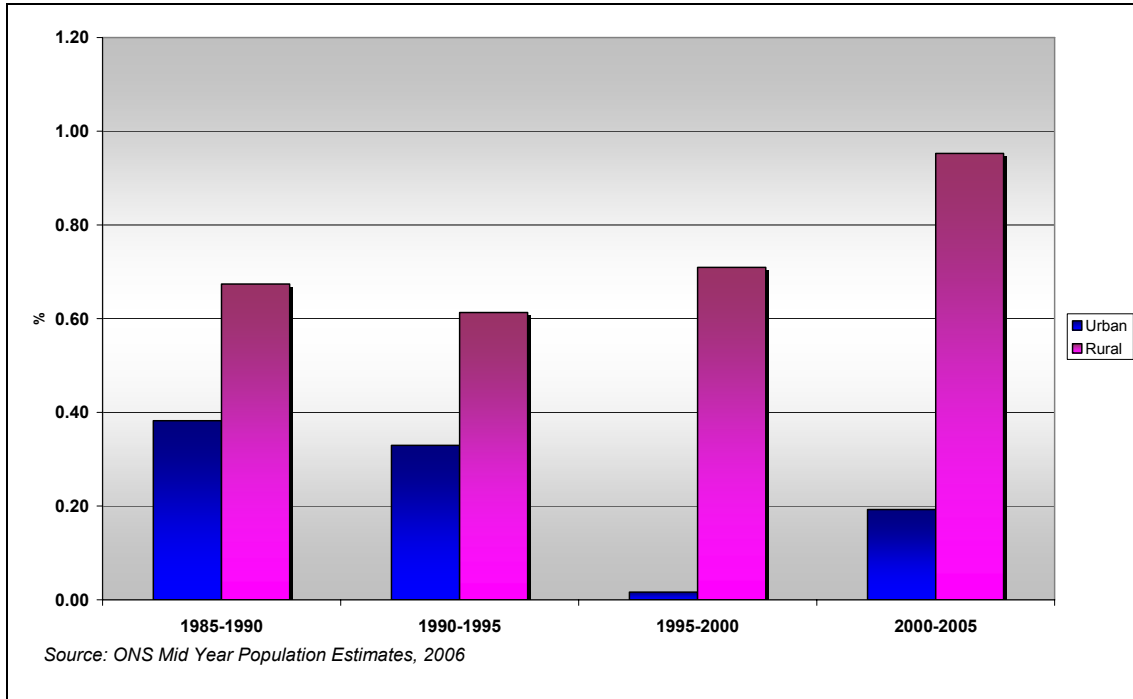
**Figure 1.2: Average annual population growth of the English regions, 1985 to 2005**



Expansion of the population over the past 20 years has been apparent across most of the sub-regions of the East Midlands but it is the rural parts of the region that have seen the most significant population growth, particularly over the past five years (Figure 1.3).

The population of the rural East Midlands expanded by over 1.0 per cent on average per annum between 2000 and 2005, compared to average annual population growth of under 0.2 per cent in the region's urban centres.<sup>4</sup>

**Figure 1.3: Average annual population growth in urban and rural areas, 1985 to 2005<sup>5</sup>**



Indeed, the number of residents of the East Midlands' largest cities – Leicester and Nottingham – has remained largely stable over the past 20 years (Figure 1.4). While the population of Leicester expanded at an average annual rate of 0.3 per cent between 1985 and 1995, the population has declined slightly over the past decade. In Nottingham, the population declined slightly between 1985 and 1995, but increased slightly over the past 10 years. Conversely, Derby has seen largely consistent population expansion over the past two decades.

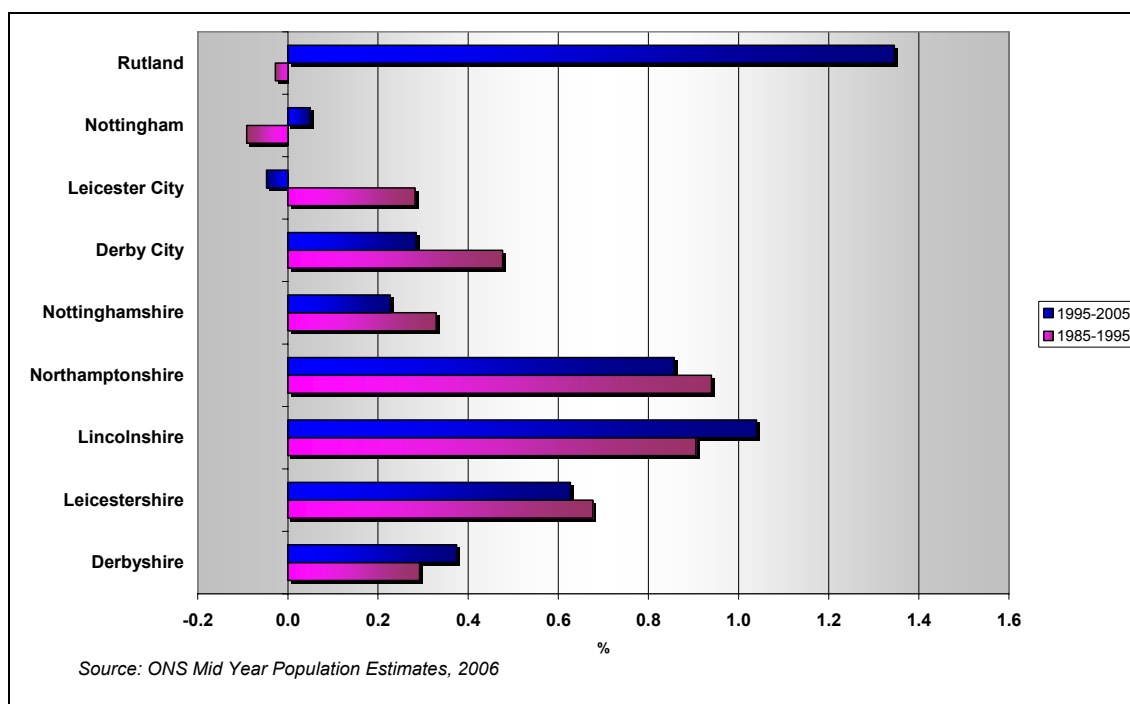
The trend is markedly different in the rural parts of the region. Rutland in particular has seen substantial expansion of the population over the past decade equivalent to 1.3 per cent per annum. Population growth has also been consistently strong in Lincolnshire and Northamptonshire.<sup>6</sup>

<sup>4</sup> Please refer to Annex A for the district definition of urban and rural parts.

<sup>5</sup> ONS Crown Copyright, Mid Year Population Estimates, 1985-2005, from NOMIS, 14<sup>th</sup> November 2006.

<sup>6</sup> ONS Crown Copyright, Mid Year Population Estimates, 1985-2005, from NOMIS, 14<sup>th</sup> November, 2006.

**Figure 1.4: Average annual population growth within the East Midlands, 1985 to 2005**



## 1.2 DEMOGRAPHIC CHANGE IN THE EAST MIDLANDS

### 1.2.1 Gender and age

#### 1.2.1.1 Gender

In 2005, the gender profile of the East Midlands' population was slightly skewed towards females, who comprised 51 per cent of the population. That said, females tend to dominate older age groups and over the age of 30 women outnumber men in every five-year age group, while the opposite is true below the age of 30.

However, growth rates over the last 20 years show that the male over-70 population has been increasing at a much faster pace than the female over-70 population. This trend has been particularly pronounced over the past decade, when male population over the age of 70 increased by 1.6 per cent per annum, compared to expansion of female population of this age group of just 0.6 per cent.<sup>7</sup>

#### 1.2.1.2 Age

Over the past 20 years, the East Midlands has been subject to an ageing population and more severely so than England as a whole.

The number of East Midlands' residents of pensionable age increased at an average annual rate of 1.0 per cent during the last two decades, double the rate of growth seen across England (0.5 per cent). Indeed, the region has witnessed stronger growth of the population in every five year age band over the age of 60 and particularly amongst those over the age of 75.<sup>8</sup>

<sup>7</sup> ONS Crown Copyright, Mid Year Population Estimates, 1985-2005, from NOMIS, 14<sup>th</sup> November 2006.

<sup>8</sup> Figure B1 in Appendix B provides a detailed breakdown of population growth (by quinary age band) in the East Midlands and across England.

That said, the working age population has also expanded at a slightly faster rate in the East Midlands than nationally over the past 20 years (0.5 and 0.4 per cent respectively), although the differential has been less marked and has been driven by growth in the 40 to 59 age group, rather than amongst younger age cohorts.

In the East Midlands and more widely across England, the child population has remained largely static between 1985 and 2005 and over the past five years has declined slightly at a rate of 0.3 per cent each year regionally and nationally.

With expansion of the pensionable age population significantly in excess of the growth in the working age and child population, the population has aged – a persistent trend over the past two decades and particularly severe in the East Midlands. As a consequence, while in 1985 17.9 per cent of the region’s population were of pensionable age, the figure reached 19.1 per cent in 2005 – in excess of the national average (18.6 per cent).<sup>9</sup>

**Figure 1.5: Average annual growth of broad age groups over the past two decades (%)**

	1985-1990	1990-1995	1995-2000	2000-2005
<b>East Midlands</b>				
Children	-0.1	0.8	-0.0	-0.6
Working Age	0.5	0.3	0.5	0.8
Pensionable Age	1.3	0.7	0.6	1.2
<b>England</b>				
Children	-0.1	0.9	-0.0	-0.6
Working Age	0.3	0.1	0.5	0.7
Pensionable Age	0.6	0.2	0.3	0.7

*Source: ONS Mid Year Population Estimates, 2006*

However, despite significant growth in the pensionable age population, the negligible growth in the child population has helped to off-set the effect on the total dependency ratio in the East Midlands (Figure 1.6).

While the aged dependency ratio<sup>10</sup> increased from 27.9 in 1985 to 30.3 in 2005, the child dependency ratio<sup>11</sup> declined by 3.1 points to 28.1. As a consequence, the total dependency ratio<sup>12</sup> has actually declined slightly over the last 20 years, from 60.0 to 58.4. It is worth noting however that at a regional level dependency ratios act as a useful statistical and demographic measure, rather than affecting the tax burden of residents in the region. As income tax is collected at a national level, residents in a region with a higher dependency ratio do not face higher taxes as a result.

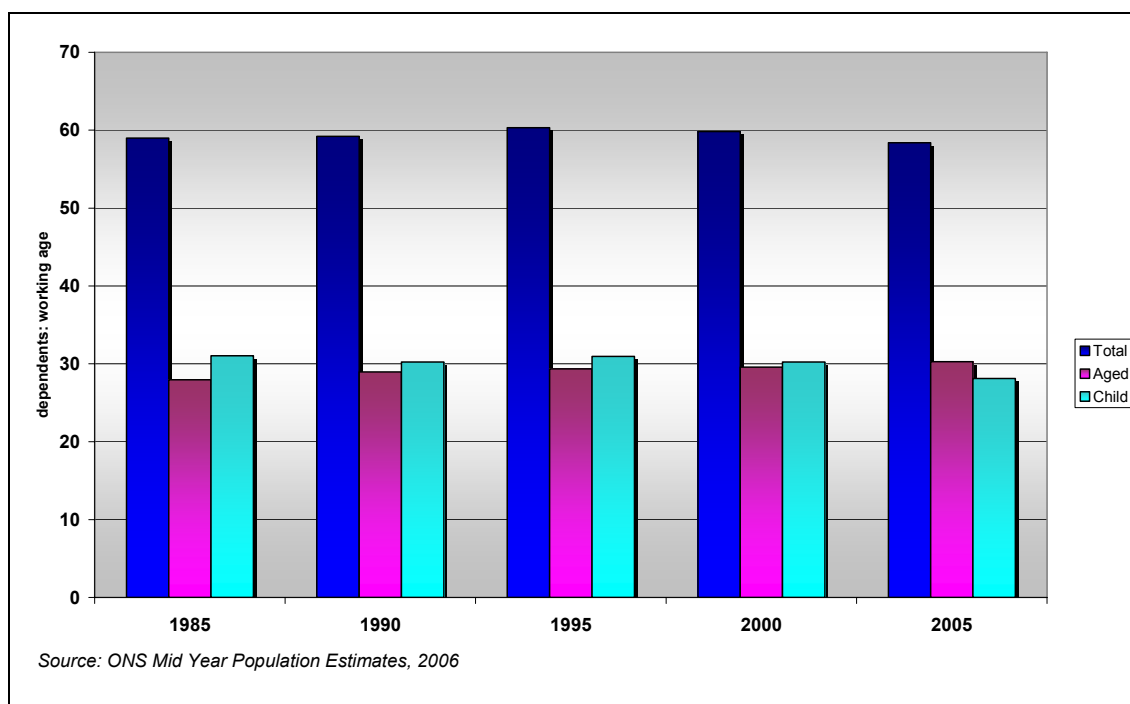
<sup>9</sup> ONS Crown Copyright, Mid Year Population Estimates, 1985-2005, from NOMIS, 14<sup>th</sup> November 2006.

<sup>10</sup> Aged dependency ratio= pensionable age/working age x 100.

<sup>11</sup> Child dependency ratio= children/working age x 100.

<sup>12</sup> Total dependency ratio= (children + pensionable age)/working age x 100.

**Figure 1.6: Dependency ratios in the East Midlands, 1985 to 2005**



Evidence from the ONS Mid Year Population Estimates suggests that the pattern of population growth by age cohort has varied significantly at the sub-regional level. While rural areas of the East Midlands have seen the most significant expansion of the population, it is these parts that have been subject to an ageing of the population. Indeed, while rural areas have witnessed growth in the child and working age population between 1985 and 2005 (0.2 and 0.7 per cent on average per annum respectively), expansion of the pensionable age population has been far more rapid (1.4 per cent each year).<sup>13</sup>

This trend is nowhere more pronounced than in Rutland, where the number of residents of pensionable age has increased by 2.0 per cent per annum over the past 20 years, while expansion of the child and working age population has been more muted (0.4 per cent and 0.3 per cent respectively). Lincolnshire and Leicestershire have also seen substantial expansion of the population of pensionable age over the period of 1.8 per cent and 1.6 per cent per annum respectively.

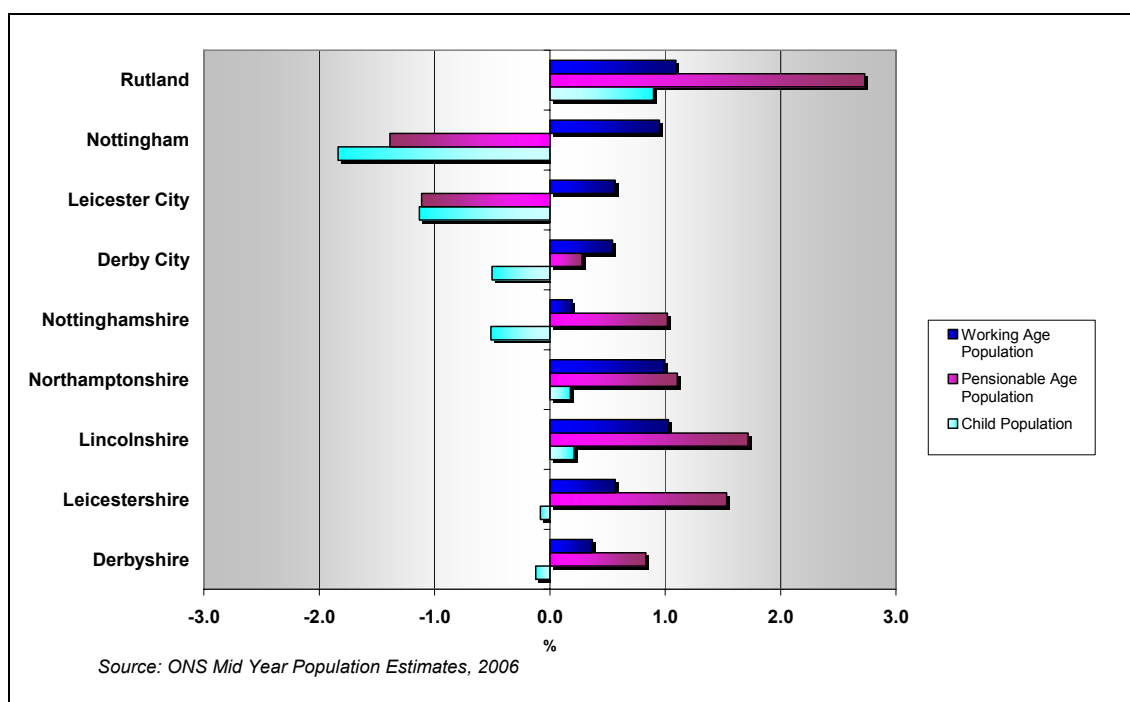
Conversely, the pattern is markedly different in the East Midlands' urban areas, which have seen a significant decline in the child population over the past two decades (0.3 per cent per annum) and only muted expansion of the working age and pensionable population (both 0.4 per cent).

Indeed, Nottingham and Leicester have both been subject to a substantial decline in the pensionable age population equal to 1.4 per cent and 1.1 per cent respectively each year between 1995 and 2005. This has been accompanied by a substantial decline in the child population (1.8 per cent and 1.1 per cent respectively).

It is amongst the 15 to 24 age cohort that these urban centres have seen the greatest expansion of the population (in excess of 2.5 per cent each year since 1995) reflecting the growth in student numbers at the region's universities and in-flows of younger residents attracted to city life.

<sup>13</sup> Figure B2 in Appendix B provides information on the pattern of demographic change at a sub-regional level.

**Figure 1.7: Expansion of the population within the East Midlands, 1995 to 2005**



Interestingly, both in urban and rural parts of the East Midlands, the total dependency ratio in 2005 is actually lower than 20 years previously.<sup>14</sup>

This trend has been particularly pronounced in urban areas, where the child dependency ratio has fallen from 34.1 in 1985 to 27.8 in 2005. Moreover, there has also been a slight decline in the aged dependency ratio – a trend that has emerged over the past 10 years. A decline in the total dependency ratio is apparent in each of the region’s three cities, but particularly (over 10 percentage points) in Nottingham and Leicester, which have seen a decline in both the child and aged dependency ratio.

In rural areas, however, the decline in total dependency ratios has been slight. While the child dependency ratio has also declined in rural parts of the region, the aged dependency ratio has increased from 27.8 in 1985 to 32.7 in 2005. Indeed, the significant increase in the pensionable age population has in fact increased the total dependency ratio in some parts of the rural East Midlands.

Indeed, with stronger expansion amongst older cohorts of the population, Rutland has witnessed an increase in the aged dependency ratio from 23.6 in 1985 to 33.8 in 2005. Similarly, Nottinghamshire has also seen a significant increase in the aged dependency ratio, although Lincolnshire remains the county with the highest aged dependency ratio.

<sup>14</sup> ONS Crown Copyright, Mid Year Population Estimates, 1985-2005, from NOMIS, 14<sup>th</sup> November 2006.

**Figure 1.8: Aged dependency ratios in the East Midlands sub-regions**

Sub-region	1985	1995	2005
Derby	29.1	30.0	29.3
Leicester	28.1	26.1	22.1
Nottingham	28.1	27.9	21.7
Rutland	23.6	28.4	33.8
Derbyshire	30.1	31.1	32.7
Leicestershire	25.1	27.5	30.2
Lincolnshire	31.8	35.2	37.7
Northamptonshire	26.6	26.4	26.9
Nottinghamshire	26.5	29.4	31.7
Urban	27.4	28.1	27.3
Rural	28.4	30.4	32.7

Source: ONS Mid Year Population Estimates, 2006

### 1.2.2 Ethnic profile of the population

The ethnic profile of the East Midlands is broadly in line with the majority of other regions in England (Figure 1.9). The East Midlands has a slightly larger proportion of white residents than England as a whole, although the national figure is skewed by London's influence.

Indeed, only London and the West Midlands have a higher percentage of non-white residents than the East Midlands. As is the case across the country, the largest proportion of non-white residents in the East Midlands are those classed as 'Asian or Asian British'.<sup>15</sup>

**Figure 1.9: Population by ethnic group, Spring 2006**

	White	Mixed	Asian or Asian British	Black or Black British	Chinese	Other
East Midlands	92%	1%	4%	1%	*	1%
England	89%	1%	5%	3%	*	2%
West Midlands	87%	1%	8%	3%	*	1%
Yorkshire and Humberside	92%	1%	5%	1%	*	1%
South West	97%	1%	1%	1%	*	1%
South East	94%	1%	3%	1%	*	1%
North West	93%	1%	4%	1%	*	1%
North East	97%	*	2%	0%	*	1%
London	66%	3%	13%	12%	1%	6%
East	93%	1%	3%	2%	*	1%

Source: ONS Annual Population Survey, 2006

(\* less than 0.5%)

The proportion of the East Midlands population that are of black and minority ethnic groups has, however, been increasing (Figure 1.10). Indeed, in 2005 BME groups comprised 7.3 per cent of the region's population compared to 5.5 per cent five years previously. The expansion of the BME population has been concentrated among Asian or "other" groups.<sup>16</sup>

<sup>15</sup> ONS Crown Copyright, Annual Population Survey, Spring 2006. The Annual Population Survey is a household survey covering population, economic activity and qualifications, disaggregated by age, gender, occupation and ethnicity.

<sup>16</sup> ONS Crown Copyright, Annual Population Survey, 2001 to 2005.

**Figure 1.10: Ethnic profile of the East Midlands population, 2001 to 2005**

	2001	2002	2003	2004	2005
<b>White</b>	<b>94.4%</b>	<b>94.1%</b>	<b>94.1%</b>	<b>93.5%</b>	<b>92.6%</b>
<b>BME</b>	<b>5.5%</b>	<b>5.9%</b>	<b>5.9%</b>	<b>6.4%</b>	<b>7.3%</b>
Mixed	0.5%	0.7%	0.6%	0.9%	1.0%
Asian or Asian British	3.6%	3.7%	3.7%	3.8%	4.2%
Black or Black British	1.0%	1.2%	0.9%	1.0%	0.9%
Chinese	0.3%	0.2%	0.2%	0.2%	0.3%
Other	0.1%	0.3%	0.4%	0.6%	0.9%

*Source: Annual Population Survey, 2006.*

Evidence from the Mid Year Population Estimates (MYPEs, Figure 1.11) and the Annual Population Survey (APS, Figure 1.12) suggest that at a sub-regional level it is the three cities of Nottingham, Leicester and Derby that have the largest non-white populations. This is particularly true in Leicester, where 36 per cent of the population in 2004 were non-white according to the MYPEs and 39 per cent according to the APS. Both sources suggest that non-white groups are dominated by those of Asian origin, especially so in Leicester.

Outside of the three largest cities in the region, the white population accounts for a much larger proportion of the population, typically well over 90 per cent. ‘Asian or Asian British’ remains the most common non-white ethnic group.<sup>17</sup>

**Figure 1.11: Sub-regional populations by ethnic group, 2004**

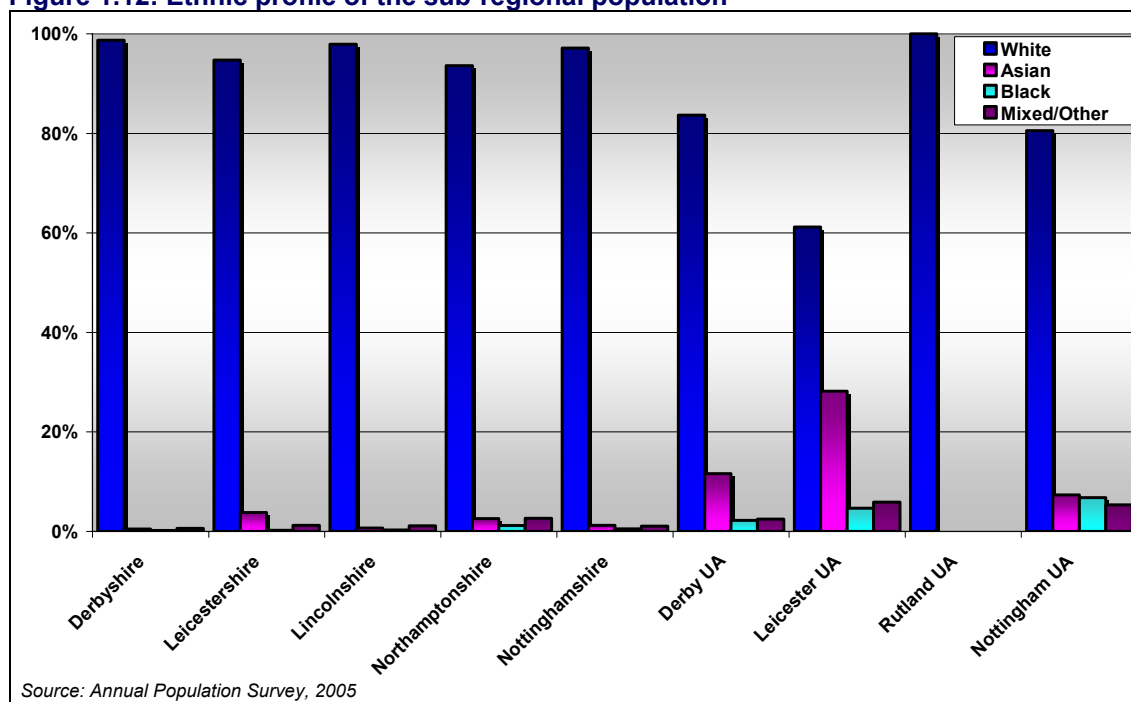
	White	Mixed	Asian or Asian British	Black or Black British	Chinese	Other
Derby	87%	2%	9%	2%	1%	*
Leicester	63%	2%	29%	4%	1%	*
Nottingham	83%	3%	7%	4%	1%	1%
Rutland	98%	1%	1%	1%	*	*
Derbyshire	98%	1%	1%	1%	*	*
Leicestershire	93%	1%	4%	1%	*	*
Lincolnshire	98%	1%	1%	1%	*	*
Northamptonshire	94%	1%	3%	2%	*	*
Nottinghamshire	96%	1%	1%	1%	*	*

*Source: ONS Mid Year Population Estimates (experimental), 2006.*

<sup>17</sup> Data comes from both ONS Crown Copyright, Mid Year Population Estimates (experimental), 2004 and ONS Crown Copyright, Annual Population Survey, 2004.



**Figure 1.12: Ethnic profile of the sub-regional population**



### 1.2.3 Occupations of employment

According to the Annual Population Survey, the number of those employed in higher level occupations in the region has been increasing over the past decade, with both the numbers of managers and senior officials and those working in professional occupations increasing steadily since 1995.

The largest increase of workers in these categories has been amongst corporate managers, whose numbers have increased by 4 per cent on average each year since 1995, and science and technology professionals and health professionals, both of which have increased by just over 3 per cent per annum.

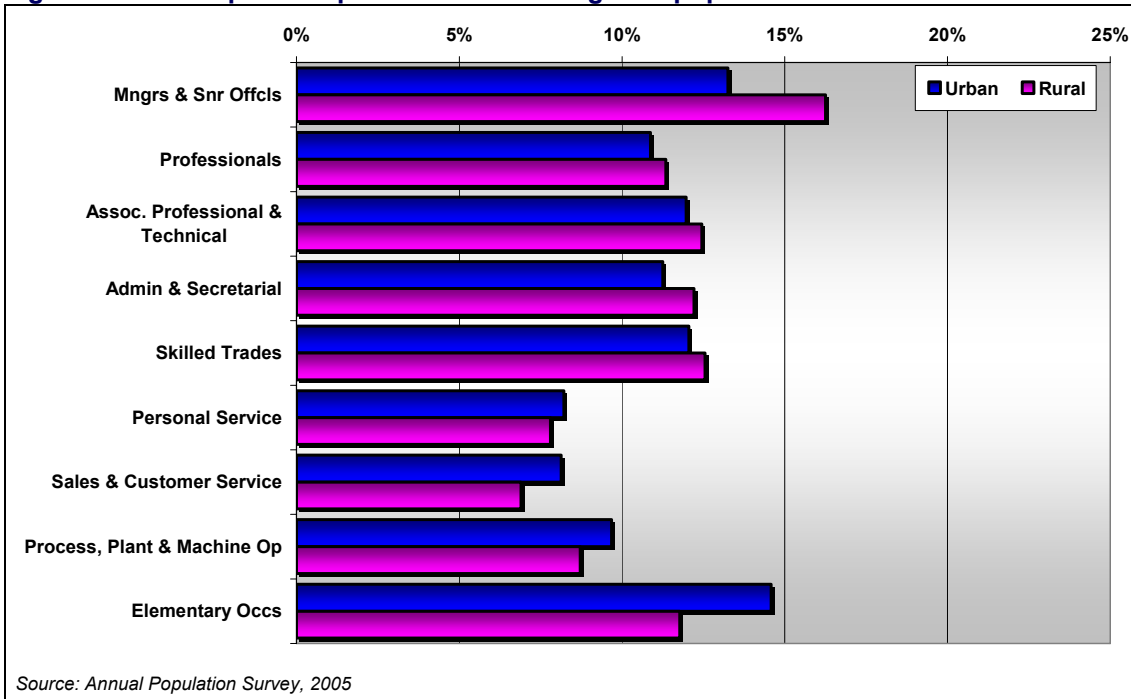
At the lower end of the occupational ladder, there has only been a slight increase in employment in elementary occupations since 1995, although this has picked up since 2000. This has been largely driven by expansion of the numbers employed within elementary trades, plant and storage related occupations and to a lesser degree elementary administration and service occupations.

Looking sub-regionally, rural areas tend to have a higher proportion of the population employed within managerial and skilled trades occupations and a smaller proportion within elementary roles. This is a likely reflection of the sectoral make-up of rural areas, with an over-representation of sectors such as agriculture, where self-employment is more prevalent. It is also likely to reflect the impact of higher occupation commuters living in desirable rural areas but working in urban areas.

This is particularly true of areas such as Rutland and Leicestershire, while the three cities have notably higher proportions of the population employed within administrative, sales and customer service and elementary roles, highlighting the importance of the service sector in these areas.<sup>18</sup>

<sup>18</sup> ONS Crown Copyright, Annual Population Survey, 2005, from NOMIS, 11<sup>th</sup> December 2006.

**Figure 1.12: Occupational profile of the sub-regional population**



## 2 Drivers of demographic change and migration

### KEY MESSAGES

- Globalisation has a major impact on international migration through its ability to constantly relocate employment opportunities from one country to another. This has repercussions for the overall economic success of different countries.
- Economic differences between countries create strong incentives for migrants in poorer countries, attracted by greater employment opportunities and higher wage prospects.
- In addition to financial incentives, many migrants move abroad for personal development reasons. This includes learning new skills and acquiring valuable work experience.
- International migration can be severely hindered or encouraged depending on political structure and institutions. Recent British policy has taken a liberal approach to international migrants.
- Not all international migration is voluntary. Britain is a popular destination for asylum seekers, although since 2002 the number of applications has been falling rapidly.
- Social factors affect both international and internal migration. Many migratory decisions are driven by the desire to be closer to friends and family. People from similar ethnic groups also tend to live in close proximity.
- For very local migration, it is likely that economic factors play a limited role. Local migration tends to be driven by the quality of the local environment and issues such as crime, congestion and noise.
- The quality of local schools is a particularly important driver of internal migration. This is reflected in house price differentials, which are much higher in areas with top schools, for example Rutland.
- Economic issues are a driver of internal migration over longer distances. Areas with good employment opportunities, notably London, attract large numbers of migrants from other parts of the country.

### 2.1 INTRODUCTION

Demographic change is affected by three factors:

1. births
2. deaths
3. patterns of internal and international migration.

Births and deaths are collectively described as ‘natural change’. However, as this report illustrates, migration is the most significant component of population change, particularly in the East Midlands. In order to assess the role migration might play in driving demographic change in the region over the next 10 or 20 years it is important to have an understanding of the key factors that are driving these trends.

### 2.2 INTERNATIONAL MIGRATION

International migrants are often defined as people who live in another country for a period of at least one year. However, the choice of one year as a cut off is fairly arbitrary, and will exclude seasonal or other migrant workers who may move for only a few months. For the purposes of

this section, the term international migration is taken to mean people who live in another country for a period of at least one year and people who live in another country for a period of less than one year but whose motivation is primarily economic.

A key distinction that needs to be drawn within the overall flow of international in-migrants is between those who move voluntarily and those who are forced to do so. In practice this distinction is sometimes difficult to draw, as the reasons given for forced migration are varied and there is often no way of verifying them. Forced migration can also be termed humanitarian migration as the basic human rights of the migrant are often being violated by other people, usually in a wider context of political or racial unrest.<sup>19</sup>

This section of the report will concentrate on voluntary migration, defined as being driven by needs other than escaping persecution. Humanitarian-driven migration is considered briefly at the close of this section.

There has been considerable growth in international migration to the UK over recent decades. In 1971 an estimated 200,000 people migrated to the UK from overseas. By 2004, this annual inflow was estimated at nearly 600,000 people. This is a significant increase, which naturally prompts the question – what has driven this growth?

Before considering what has driven the recent growth in migration it is useful to consider some of the broad reasons why East Midlands' recent international in-migrants ended up in the region. Of the 70,000 inward migrants who came to the East Midlands in the period 1999-2003, the single largest reason for coming was formal study (23,800). This was followed by joining family or friends (15,400) and work related (14,500).<sup>20</sup> Therefore it is clear that the reasons for migration are various.

Clearly economic reasons are a key driver but equally there are social reasons, such as the desire to join family or friends, and personal development reasons (e.g. students) accounted for the highest proportion of inflows. Behind all these reasons are facilitating drivers, such as transport infrastructure, international trade and quality of life factors but more fundamentally the enabling administrative and political systems that allow or bar such movement.

The following paragraphs consider each of the following categories of driver in turn:

- Globalisation
- Economic
- Personal development
- Social
- Political
- Humanitarian

### *Globalisation*

Globalisation is the fundamental backdrop for all international migration. It is the product of historic, economic, political, technological and social evolution and manifests itself in a number of ways, such as labour migration, international trade, tourism, cultural change and multinational companies. International migration is a product of globalisation and a dimension of it. The result of globalisation is that there is much greater interdependence between many, but not all, parts of the world and a great deal of human activity involves movement between countries; of people, information, capital, products, raw materials and legal rights.<sup>21</sup>

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<sup>19</sup> Martin, F. (2000) *Forced Migration and the Evolving Humanitarian Regime*, UNHCR

<sup>20</sup> ONS Crown Copyright, International Migration Series, 2005.

<sup>21</sup> Cohen, R. and Kennedy, P. (2000) *Global Sociology*, Palgrave MacMillan.

The specific economic drivers for migration are part and parcel of globalisation's evolution. Motivated by the desire for rights over resources, colonial and commercial pioneers sought raw materials across the world. A bi-product of these activities was the slave trade. The results of the slave trade are still evident, for example in the Black Caribbean populations across the greater south of England today. In recent years the development of international crime networks has continued these more sinister migration flows, particularly to Western Europe and North America.<sup>22</sup>

Illegal migration to one side, the modern effects of globalisation on international migration flows have largely been via the free movement of capital and the means of production. As companies seek to maximise profits based on a reduction of factor costs, processing plants and operations are moved from country to country as companies seek to find the cheapest labour that is capable of providing the required quality of service. The movement of capital is typically followed in turn by the movement of capitalists – migrants who are trying to maximise their own profits. Private recruitment companies have developed with the single aim of attracting international migrants to fill specific vacancies. It is largely these processes that have led to the phenomenon of the 'brain drain' – a mass of skilled workers leaving developing countries for higher wages elsewhere. Such has been the extent of this phenomenon that the National Health Service now has a policy of not recruiting from 154 countries in the developing world and a government funded project has advised that British universities do not employ academics from Africa.<sup>23</sup>

In addition to directly influencing quality of life differentials around the globe, via the movement of capital and the creation of wealth, globalisation has drawn attention to existing wealth differentials. The global revolution in communications and the impact of Western 'cultural imperialism' across the globe has increasingly generated the perception that a better life can be achieved in the West. It has also been suggested that the very ideology of globalisation, the entrepreneurial spirit transcending national boundaries, has influenced the ideology of citizens around the world. Prior to the 1960s international migration was typically well organised and involved large-scale involvement of governments, whereas today international migration usually involves a purely private decision and a similar undertaking of entrepreneurial risk.<sup>24</sup>

### *Economic*

At an individual level, the economic drivers for migration are differences in standard of living between origin and destination countries and differences in the availability of employment opportunities. Differences in standard of living are evident in GDP per head statistics. In 2005, the UK had an estimated GDP per head index of 117.6 (EU-25=100) compared with 49.7 in Poland and 52.1 in Lithuania.<sup>25</sup> In practical terms this means that an economically-motivated migrant can earn a far higher wage in the UK than in Poland or Lithuania. In the light of this information, it is easy to understand why at least 500,000 migrant workers have come to the UK from the A8 countries since accession to the EU in spring 2004.<sup>26</sup>

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<sup>22</sup> Collinson, S. (1999) *Globalisation and the Dynamics of International Migration: Implications for the Refugee Regime*, New Issues in Refugee Research (available via UNHCR).

<sup>23</sup> Skeldon, R. (2005) *Globalisation, Migration and Poverty Alleviation: Brain Drains in Context*. Sussex University.

<sup>24</sup> Papantoniou, K., Peschke, D. and Moritz, T (2004) *Globalisation and Migration: Some Reflections on the Connection Between Two Inter-Related Global Phenomenon*. Council of Europe.

<sup>25</sup> Eurostat, 2007.

<sup>26</sup> Home Office, DWP, HM Revenue & Customs and DCLG, Accession Monitoring Report May 2004 – September 2006, 2006.

As well as work being low paid in some origin countries, it is also in low supply. Comparing unemployment rates we see that Poland had an unemployment rate of 17.7 per cent in 2005 and Slovakia had unemployment of 16.3 per cent. This is compared to 4.8 per cent in the UK.<sup>27</sup> In the East Midlands the unemployment rate was 4.4 per cent in 2005.<sup>28</sup>

The economic drivers of migration highlight that people movement is motivated by sources of difference – if economic, social and political conditions were identical between countries, the fuel for migration flows would be very much less, and observed migration would be lower. Research also suggests that migrants play a key role in increasing the opportunities for improved standards of living for their family and friends back home, partly by sending money home (remittances).<sup>29</sup> In theory, this should contribute to reducing standard of living disparities in the long-term.

### *Personal Development*

From the ONS data above it is clear that the demand for higher current income does not explain all migration. Much migration is motivated by personal development ambitions. Within this, migration for study reasons (to acquire qualifications and boost future life chances) is key in the UK. UK universities have a track record in attracting students from overseas. The high number of overseas students already studying at UK institutions serves to attract more, creating a self-perpetuating pattern. In 2005/06 there were 47,455 undergraduate and 72,685 postgraduate foreign students obtaining Higher Education (HE) qualifications, accounting for 19 per cent of all students awarded HE qualifications.<sup>30</sup> Non-UK enrolments on HE courses have increased by 36 per cent since 2001/02.<sup>31</sup>

In addition to a demand for qualifications, migrants come to the UK to acquire skills, both for work and life and to gain experience. Such intangible acquisitions are motivated by a sense of investing in the future and enabled by opportunities in the East Midlands. This is the case for seasonal work occupied by students on vacation, voluntary opportunities and employment. This investment motivation also accounts for people who migrate to build up capital, which they may use to fund a business either in the UK or elsewhere. Given real wage differences between countries, it may be possible for migrants to accumulate this capital much quicker by earning in the UK rather than earning in their home country.

### *Social*

The drivers considered so far have been largely material in motivation, covering the demand for better standard of living now or investing in prospects for a better standard of living in the future. From the ONS figures we know that social needs also account for a large proportion of international migration into the East Midlands. Data from the International Passenger Survey is not very specific, only indicating that 21 per cent of inward migrants to the East Midlands between 1999 and 2003 were primarily motivated by the need or desire to join close friends or family. It is not clear the extent to which this need tends to be stronger for the migrant or the person(s) already resident in the UK.

The tendency for people to move to areas occupied by familiar communities has also been observed in the patterns of migrant worker inflows to the UK since EU enlargement in 2004. In

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<sup>27</sup> Eurostat, 2007.

<sup>28</sup> ONS Crown Copyright, Annual Population Survey 2006 (data is for Aug-Oct 2005).

<sup>29</sup> *Beyond Remittances: The Role of Diaspora in Poverty Reduction in their Countries of Origin*, A Scoping Study by the Migration Policy Institute for the Department of International Development July 2004.

<sup>30</sup> Higher Education Statistics Agency (2007) *Higher Education Student Enrolments and Qualifications Obtained at Higher Education Institutions in the United Kingdom for the Academic year 2005/06*.

<sup>31</sup> *Ibid.*

the period following the Second World War there was a large influx of economic migrants from Poland. There has been a tendency for the distribution of the new influx of Poles since 2004 to reflect the existing patterns of settlement by Poles in the UK since the 1950s. At an individual level, it seems defensible to assume that new migrant workers from Poland are broadly seeking out areas where kin, friends and acquaintances reside, motivated by a need to settle and draw support from these people.

Social reasons for migration are significant. As populations of particular ethnic groups and nationalities settle in an increasing variety of global locations, the chance that another person from that particular group or nationality will also move there increases.

### *Political*

It is not enough for differences to exist between origin and destination countries for migration to occur. Political and administrative structures need to enable migration; otherwise all cross-border movement would be illegal. Over the post-war period British governments have tended to favour a 'managed migration' policy, with inward migrants being viewed as a useful replacement for retired workers and a much needed boost for the workforce.<sup>32</sup> Despite popular beliefs however, it was not until the 1980s that inward international migration flows outweighed outward flows and post-2004 immigration levels have been significantly higher than those in the immediate post-war years. In 2004 migration to the UK was more than double that of the immigration peaks in the early 1960s.<sup>33</sup>

A number of distinct managed migration programmes have had a significant impact on the volumes and patterns of migration to the UK:

- **Sector Based Scheme** – this employer backed scheme has ensured that industries with priority labour shortages are recognised by the Home Office and overseas workers are attracted accordingly. The scheme began in 2003 and covered the hospitality and food-processing industries. The hospitality industry however was removed from the scheme in 2005. In 2007 the scheme will apply only to Bulgarian and Romanian workers and the quota for the year has been set at 3,500.
- **Seasonal Agricultural Workers Scheme** – the purpose of this programme is to attract non-European Economic Area students on vacation to meet peak labour demand in the agriculture industry. The scheme has been in operation since the late 1940s and is currently targeted at Romanian and Bulgarian nationals. The quota for 2007 is 16,250 with 40 per cent set aside for Romanian and Bulgarian workers. It is expected that the full SAWS quota for 2008 will be drawn from nationals of Romania and Bulgaria as the government seeks to phase out all low-skilled migrant worker schemes except for nationals from Romania and Bulgaria.
- **Highly Skilled Migrant Programme** – this programme is designed to allow international migrants with high level skills to enter the UK easily and does not require them to have a work offer. The Highly Skilled Migrant Programme is currently the only points-based system for international migrants. It is based on qualifications, previous earnings and age (with those under 27 being most favoured). The programme has been in operation since 2002, although the required criteria were revised in 2006, with the addition of an English language minimum standard.

From this list it can be seen that, to a greater or lesser extent, UK migration policy in recent years has worked with the grain of economic requirements to attract the kind of migrants that the economy requires. Conversely, other large European economies have put up barriers to

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<sup>32</sup> Green, A., Jones, P. and Owen, D. (2006) *Migrant Workers in the East Midlands Labour Market*.

Report commissioned by *emda*.

<sup>33</sup> *Ibid.*

migrants, particularly after the initial A8 accession in 2004. Indeed, this final point brings the argument full-circle to the economic differentials point discussed above. The UK economy was performing well in 2004 and thus welcomed migrant labour into a tight labour market. At the same time, other European nations such as Germany were still suffering from high unemployment rates and therefore felt that opening the doors to international migrants would exacerbate problems and potentially lead to social unrest.

### *Humanitarian*

Under voluntary migration the last category of drivers is quality of life differences, perceived or otherwise. This also affects forced migration. Research suggests that the UK is often seen by both voluntary and forced migrants as a relatively welcoming country to people from other countries. For example, consultations carried out for Experian's *Attracting Talent* research programme suggested that some forced migrants, such as Somalis, were seeking asylum in the Netherlands and then migrating further to settle as refugees in the UK.<sup>34</sup>

Like voluntary migration, forced migration is motivated by a difference between source and host country – in other words push and pull factors. If the UK was thought to be as dangerous and unpleasant as the country of origin, people wouldn't seek asylum here. However, the source of the push factor tends to be threatening to an individual's basic welfare and survival for forced migrants.

Humanitarian migration has increased considerably over the past 30 years, in line with international conflicts and disasters (man-made or otherwise). In 1980 there were 2,300 asylum applications in the UK, over half of which were Iranians. Applications rose dramatically in the 1990s, peaking at 84,000 in 2002, with Iraqis particularly evident. By 2004 they had fallen back to 40,000.

In the period between 1990 and 2004, Africa and Asia have been the main source of asylum seekers, with Somalia, Ethiopia, Uganda, Zimbabwe, Nigeria, Afghanistan, China, Sri Lanka and Pakistan contributing large numbers.<sup>35</sup> Turkish and Romanian refugees were also significant in the 1990s, with the wars in Yugoslavia causing surges in applications also. Civil conflict is clearly the main reason for these trends, with underlying poverty and political inequality often contributing to forced migration.<sup>36</sup>

### *Conclusion*

In summary, cross-border migration potentially involves great upheaval and risks for the migrant. It must therefore be motivated by some significant difference between conditions or opportunities in the origin country and anticipated benefits in the destination country. Often, these differences are economic – the opportunities available to meet basic needs such as food and shelter. However, frequently migration is driven by other basic human needs, namely security (asylum applicants), social and personal development.<sup>37</sup> For those migrating abroad from the UK, it is likely that the desire for a warmer climate plays a key role – particularly for those retiring (who have been found in this report to be a major component of international out-flows). This is often facilitated by capital gains from the UK house price boom.

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<sup>34</sup> "Attracting Talent", Experian 2006.

<sup>35</sup> Migration Policy Institute Data Hub, 2007.

<sup>36</sup> Boswell, C. (2002) *Addressing the Causes of Migratory and Refugee Movements, the Role of the European Union*, UNHCR.

<sup>37</sup> Maslow's hierarchy of human needs; physiological, safety, belonging, esteem, self-actualisation (in *Motivation and Personality*, Maslow A, 1954).



## 2.3 INTERNAL MIGRATION

As will be highlighted in this report, internal migration accounts for the vast majority of all migration in the East Midlands region. Distinguishing between the causes and effects of internal migration, however, can be complicated, as migration is not only affected by the physical environment, but also helps shape the physical environment itself.

This section provides an overview of the key drivers of internal migration patterns seen in the East Midlands. A more detailed discussion of the drivers of City Flight migration patterns in the East Midlands is provided through a complementary research study commissioned by *emda*.<sup>38</sup>

In broad terms, there are two types of internal migration. Firstly, there are moves characterised as broadly local, driven by a broad range of factors including housing and environment. These moves tend to be used to define sub-regional housing market areas and travel to work areas. Secondly, there are long-distance moves, driven by life changes including new employment or indeed retirement elsewhere in the country.

### *Housing*

Housing is a key driver of internal migration, over both short and long distances. For those individuals making relatively local moves, typically within the same city, it is likely that housing and the local environment are the main drivers of migration decisions. Other possible drivers, such as career advancement, are unlikely to influence an individual's housing decision over such a small area. For longer distance moves, career advancement and earnings potential play a more central role, although again there is evidence that housing is a key driver. Work commissioned by the Department for Communities and Local Government (DCLG) and undertaken by Experian shows that most of the fluctuations in migration out of London to other regions can be explained by changes in relative house price to earnings ratios.<sup>39</sup>

The types of housing factors that are important relate to affordability, value for money, dwelling size, garden size and other attributes relating directly to the quality of housing on offer and its location (see subsequent section). In the case of the East Midlands, it has been argued that a lack of affordable urban housing has helped drive migration into rural areas:

“an increased supply of middle priced housing could help reduce the movement out of the cities of households seeking to move to the second aspirational ‘rung on the housing ladder’.”<sup>40</sup>

Value for money plays a key role in this process, as properties in areas such as the city centre can command the same price as much larger properties in some, but not all, suburban or rural locations. In the case of homeowners, moves from urban to rural areas are made possible due to a supply of individuals migrating to urban areas from elsewhere, thus sustaining the high prices of urban properties. If migration to urban areas was to decline then it would be more difficult for homeowners to have the available funds to finance moves away from such urban areas. Migration decisions and flows are therefore driven partly by other individuals making very different migration decisions.

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<sup>38</sup> ‘City Flight migration patterns in the East Midlands’, East Midlands Development Agency. Forthcoming, March 2007.

<sup>39</sup> ‘Housing Starts and Completion Model’, DCLG, forthcoming, 2007.

<sup>40</sup> “The East Midlands Regional Housing Strategy, 2004-2010” The East Midlands Regional Housing Board.

## Local Environment

In addition to specific housing factors, the local environment is also a key driver of migration decisions, particularly for short distance moves. The levels of congestion, noise, crime, leisure facilities and green space are all important in attracting and retaining individuals in an area. Research in the Future Foundation's nVision database suggests that key reasons for moving are sense of security, privacy and access to green spaces.<sup>41</sup> Other recent evidence regarding mixed income developments highlights the need for public open spaces, a clean appearance and space for community activities if they are to attract and retain young families.<sup>42</sup>

In many ways, it is reasonable to assume that the quality of the local environment is more important than housing. Power and Mumford (1999) showed that even good quality, modern homes were being abandoned in inner city areas of high poverty and crime. Low demand in such areas lead to further loss of confidence in the area, anti-social behaviour and increased fear of crime.<sup>43</sup> For many areas, therefore, low demand can be self-perpetuating.

The quality of local schools is of particular importance in driving migration. This is reflected in house price differentials, with prices significantly higher in areas within the catchments of desirable schools. Research from the London School of Economics has showed that by moving an average house from the access of the worst to the best possible primary school could increase its price by nearly 34 per cent, whilst for a secondary school this differential is almost 19 per cent.<sup>44</sup> In the East Midlands, house prices in Rutland, which is in the top 30 areas for good schools in the UK, are around 36 per cent higher than average for the region.<sup>45</sup>

## Career Opportunities

Highly mobile individuals, particularly graduates and younger professionals, often move to areas that offer the greatest wages and career development opportunities, with London being especially popular. This suggests of course that areas or regions that are more economically successful will attract greater numbers of migrants, creating a self-perpetuating cycle. Successful regions offer a greater number and wider spectrum of jobs, encouraging ambitious individuals to relocate to the region, particularly those in their 20s.

## Social Factors

Finally, at both a local and national level, social factors play a major role in migration decisions. This often involves individuals choosing to live closer to family and friends, as well as members of the same ethnic group or nationality living in concentrated areas. Moreover, although in the case of urban-rural migration the role of housing is often emphasised as playing the major role in attracting people to the countryside, the perceptions of individuals as to what the countryside offers is often just as important. Indeed, many people moving to rural areas from cities often do so in search of the 'rural lifestyle' of the countryside, perceived to offer an attractive environment, a slower pace of life and a 'community feel'.<sup>46</sup>

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<sup>41</sup> Future Foundation nVision database (research undertaken for Bryant Homes).

<sup>42</sup> Fenton, Lupton and Silverman (2006) *A Good Place for Children? Attracting and Retaining Families in Inner Urban Mixed Income Communities*. Joseph Rowntree Foundation.

<sup>43</sup> Power and Mumford (1999) *The Slow Death of Great Cities? Urban abandonment or urban renaissance*. The Joseph Rowntree Foundation.

<sup>44</sup> Cheshire and Shephard (2004) *Capitalising the Value of Free Schools: the impact of supply characteristics and uncertainty*. The Economic Journal.

<sup>45</sup> Data on house prices from The Land Registry and cover the period July-September 2006.

<sup>46</sup> Bateman, Best and Holman (2000) *Migration, Causes, Consequences and Controls* in 'On the Move: the Housing Consequences of Migration'. Joseph Rowntree Foundation.

## 3 Components of change – the role of migration

### KEY MESSAGES

- Migration has been the main driver of population change evident in the East Midlands over the past decade, contributing to around 81 per cent of population change.
- There are stark differences between the components of population change in rural parts compared to the region's urban centres.
- While the region's three cities have experienced significant net out-migration this has been off-set by natural population growth.
- Rural parts of the region have experienced significant net in-migration, predominantly from elsewhere in the UK, which has acted to offset the natural decline in the population.
- Despite accounting for a relatively small share of inflows into England, international migration to the East Midlands has been increasing over the last decade, particularly in 2004 following the expansion of the EU in May of that year.
- The region's two largest cities - Nottingham and Leicester - attract the highest numbers of international migrants.
- Between 1998 and 2003, the region was subject to net inflows of those from 'other foreign' and 'new commonwealth' countries. Conversely, over this period there was a net outflow of East Midlands residents migrating to the EU and 'old commonwealth' countries such as Australia, New Zealand and the US.
- In-migrants from elsewhere in the UK are most commonly from Yorkshire and the Humber, the East of England and the South East. The most common destination for those migrating out of the region to elsewhere in the UK was Yorkshire and the Humber, followed by the West Midlands, London and the South East.
- A significant trend is that migration to rural and semi-rural areas of the region is generally greater than migration from these areas to the cities. This counter-urban phenomenon is most evident in Nottingham and Nottinghamshire.
- Non-city local areas within the East Midlands are gaining both from counter-urban flows from the City Local Authorities in the region and from net inflows from elsewhere in the UK.

### 3.1 COMPONENTS OF CHANGE

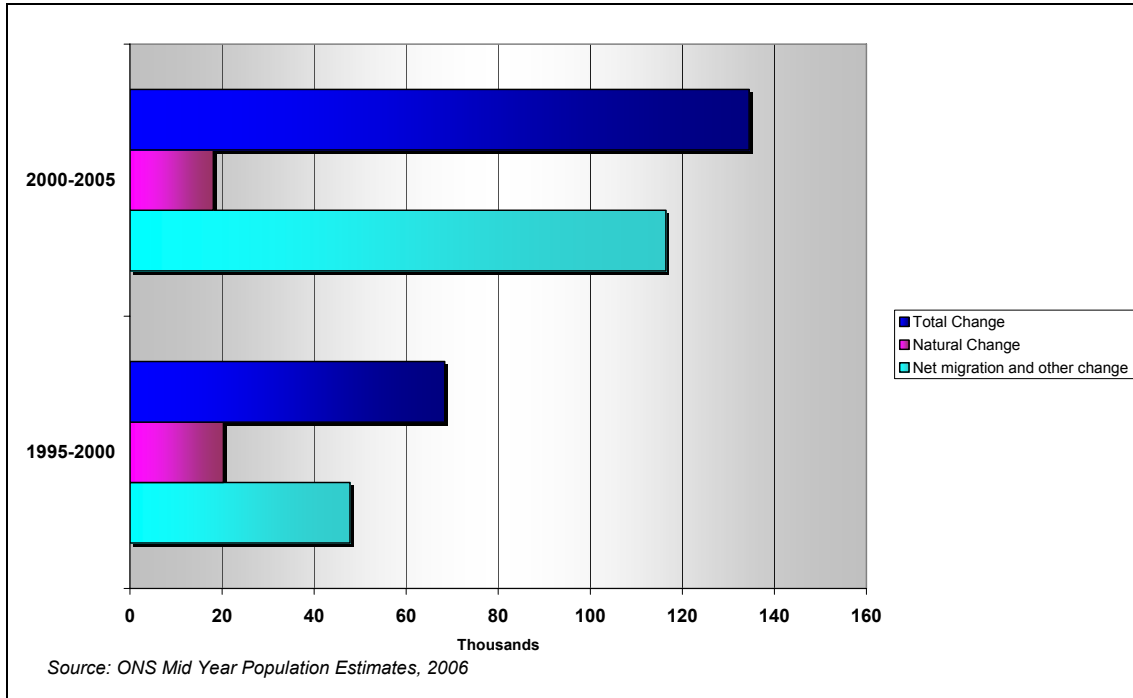
Over the past 10 years the population of the East Midlands region has grown significantly and migration has been a major driver of this change.

Figures derived from the ONS Mid Year Population Estimates suggest that migration has been responsible for around 81 per cent of population change in the region since 1995 (Figure 3.1). This trend has been particularly pronounced over the past 5 years, where net migration was responsible for an increase in the population of over 115,000 compared to just 18,000 for natural change.

Net migration trends can incorporate very localised movements across local authority or regional boundaries as well as inflows from and outflows to overseas. In the East Midlands, like elsewhere in the UK, internal migration has been by far the biggest component of migration flows.

Indeed, while international migration contributed to an increase in the population of a little over 2,000 on average each year between 1997 and 2005, net inflows to the region from elsewhere in the UK amounted to over 16,000 per annum. Indeed, between 1997 and 2005, net internal migration accounted for 88 per cent of total net migration in the East Midlands.<sup>47</sup>

**Figure 3.1: Components of population change in the region, 1995 to 2005**



Evidence from the ONS Mid Year Population Estimates suggests that the components of population change vary significantly within the East Midlands, with the region's rural parts displaying a very different picture to its urban centres (Figure 3.2).

The region's three cities have witnessed substantial total net out-migration, which has to some extent been offset by natural increases in the population. This trend has been most marked in Leicester, where total net migration has resulted in the loss of 18,200 people since 1995 but this has in part been offset by a natural increase in the population of 13,000. Similarly in Nottingham while there has been a total net outflow of 7,500 people over the last decade this has been largely countered by a natural increase in the population of 6,800.

The total net out-migration from the region's cities has been driven by significant net internal out migration (i.e. to elsewhere in the UK rather than overseas). Meanwhile, Nottingham and Leicester have in fact witnessed significant net inflows of migrants from overseas of 1,100 and 1,600 on average each year between 1997 and 2005.

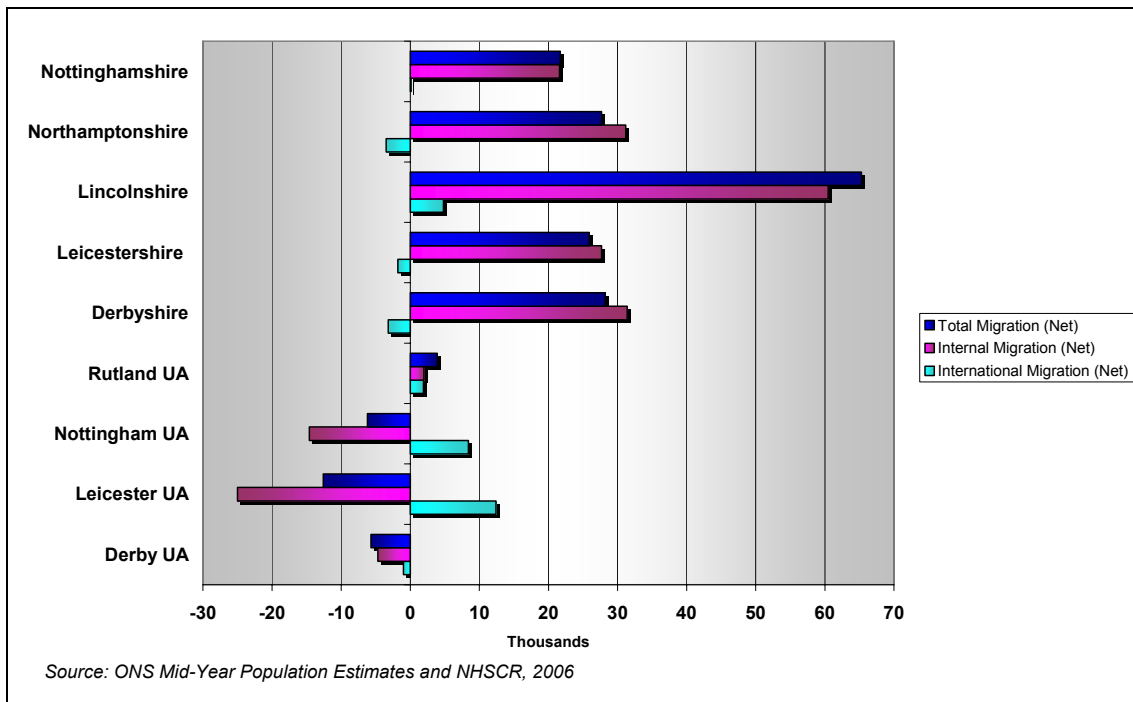
Conversely, in some counties, such as Derbyshire, Lincolnshire and Nottinghamshire, net inward migration flows have been large enough to completely offset the effects of negative natural change (i.e. more deaths than births). In Lincolnshire, for example, the population would have declined by around 10,600 since 1995 as a consequence of natural change alone, but net inward migration has been such that the overall population has actually increased by 65,000.

Unlike the region's urban centres, international immigration to rural areas of the East Midlands has been on a much smaller scale. Rather, the rural parts of the region have been subject to substantial net inflows from elsewhere in the UK. That said, international migration is often

<sup>47</sup> ONS Crown Copyright, Mid Year Population Estimates, 1995 to 2005.

more noticeable in rural areas because in most cases, particularly Lincolnshire and Rutland, migrants represent a greater proportion of the local population than in urban areas.

**Figure 3.2: Components of population change within the East Midlands, 1995 to 2005**

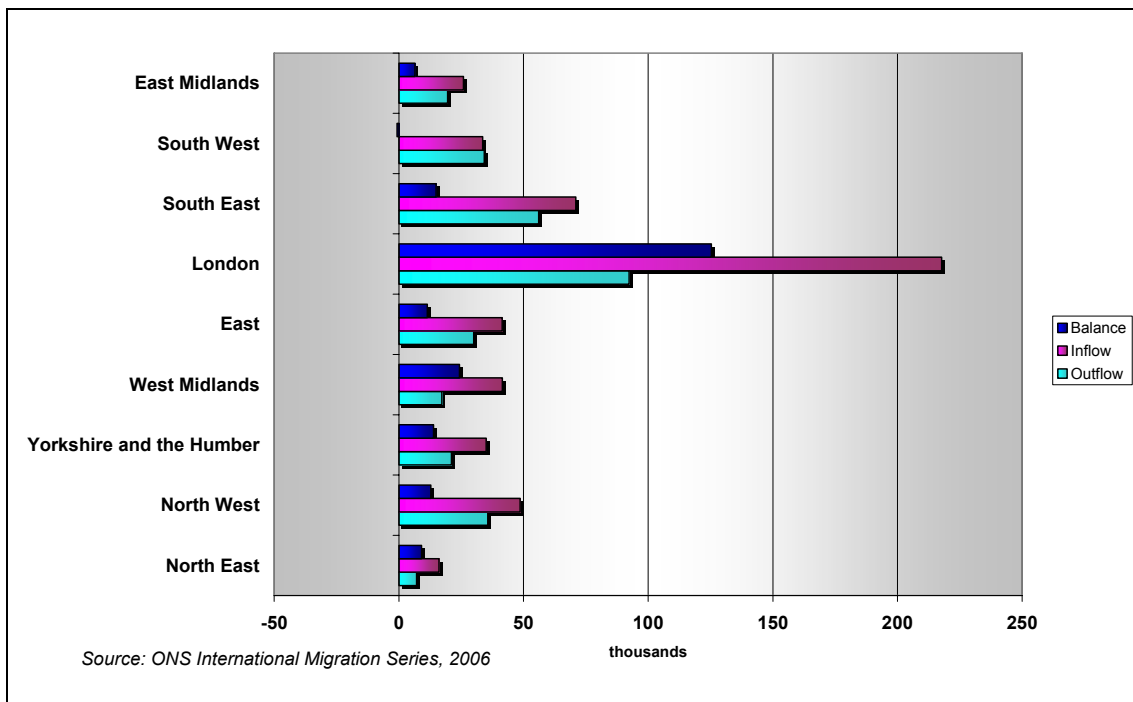


### 3.2 PATTERNS OF INTERNATIONAL MIGRATION FLOWS

The East Midlands generally accounts for a small proportion of international migration flows into and out of the UK. In 2004, the East Midlands accounted for just 4.9 per cent of international inflows into England.<sup>48</sup>

<sup>48</sup> ONS Crown Copyright, International Migration Series, 2004. International migration estimates are based on the International Passenger Survey, which consists of voluntary interviews with travellers at airports, sea routes and the Channel Tunnel. Migrants are defined as those planning to stay in the UK (or leave the UK) for at least a year.

**Figure 3.3: International migration flows in England, 2004**

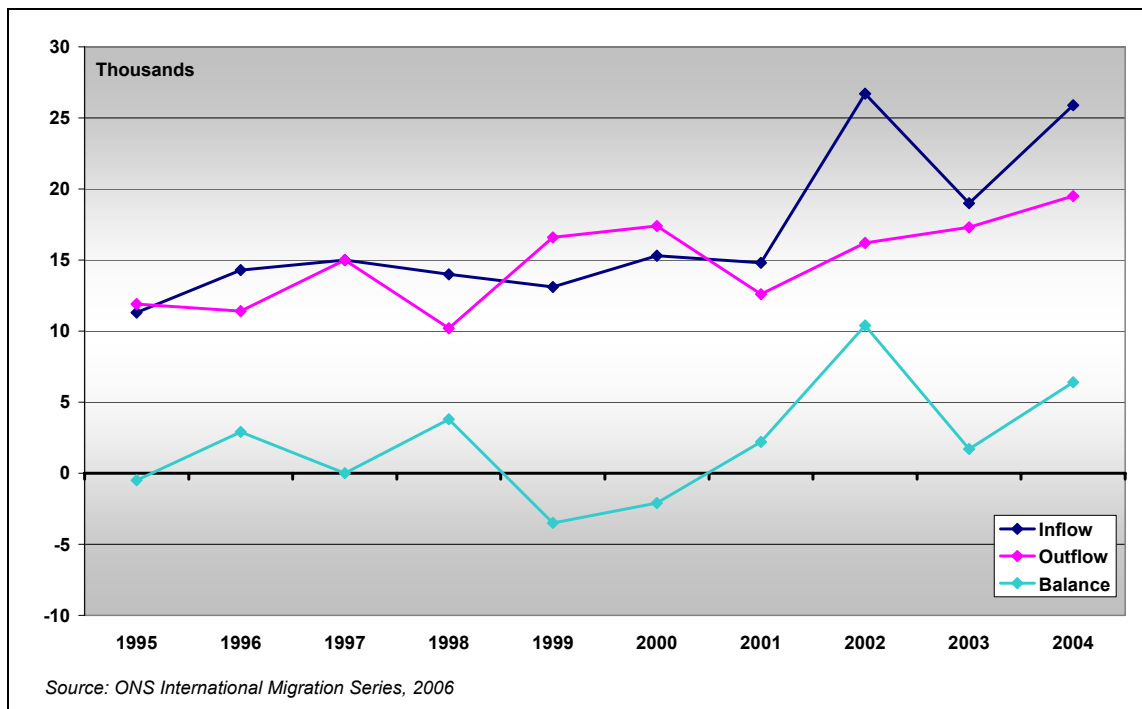


Despite accounting for a relatively small share of inflows into England, international migration to the East Midlands has been increasing over the last decade, particularly in 2004 following the expansion of the EU in May of that year.

In 1995, outflows from the East Midlands to overseas amounted to 11,900, exceeding inflows (11,300) and suggesting a net outflow of residents. In 2004, both inflows and outflows were significantly higher than 10 years previously (25,900 and 19,500 respectively) but the former more so and there was a net inflow of 6,400 people.<sup>49</sup>

<sup>49</sup> ONS Crown Copyright, International Migration Series, 1995-2004.

Figure 3.4: International migration flows in the East Midlands, 1995 to 2004

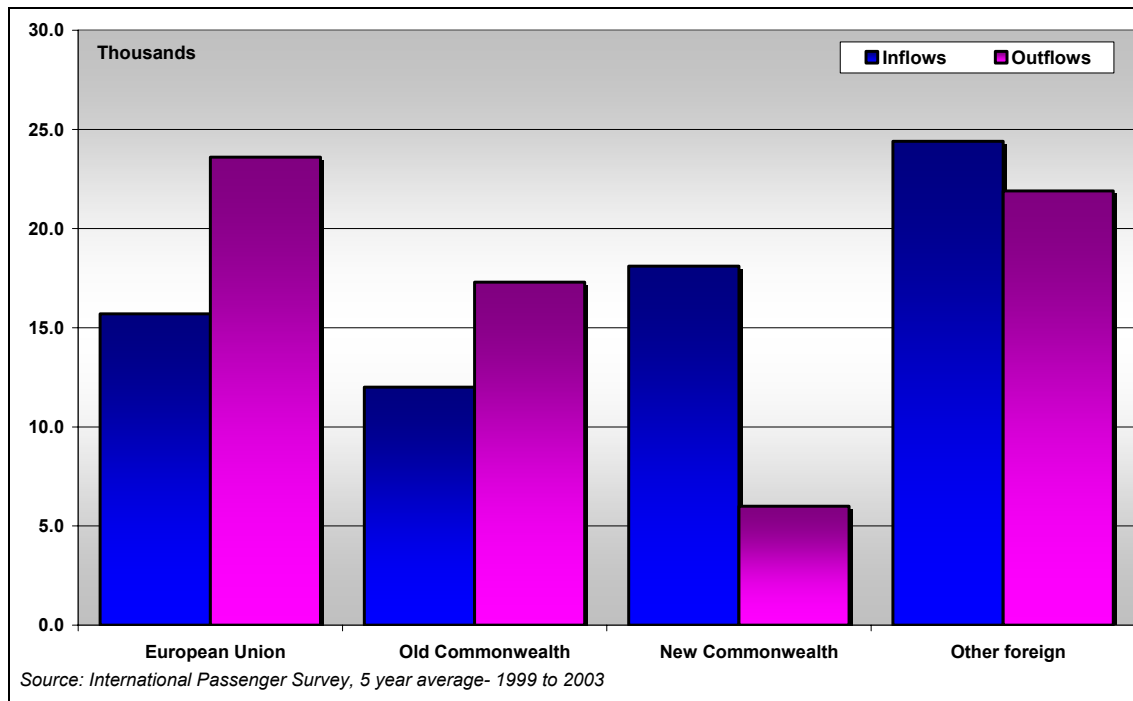


The ONS International Migration Series also provides some information on the origin of those moving to the East Midlands from overseas and the destination of those emigrating from the region (Figure 3.5).

Between 1999 and 2003, inflows to the East Midlands were most commonly from ‘other foreign’ and ‘new commonwealth’ countries, although since the expansion of the EU in 2004 the picture is likely to have changed markedly. Conversely, those emigrating from the East Midlands most commonly migrated to the EU, ‘other foreign’ and ‘old commonwealth’ countries such as Australia, the US and New Zealand.

Indeed, over this period there was a net inflow of migrants from ‘other foreign’ and ‘new commonwealth’ nations to the region and a net outflow of East Midlands residents to the EU and ‘old commonwealth’ countries.

**Figure 3.5: Origin and destination in international inflows and outflows to the East Midlands, 1999 to 2003<sup>50</sup>**



The 2001 census also enables analysis of international in-migration at a local level, by capturing information on people who were resident in the East Midlands in April 2001 but lived outside the UK one year previously.

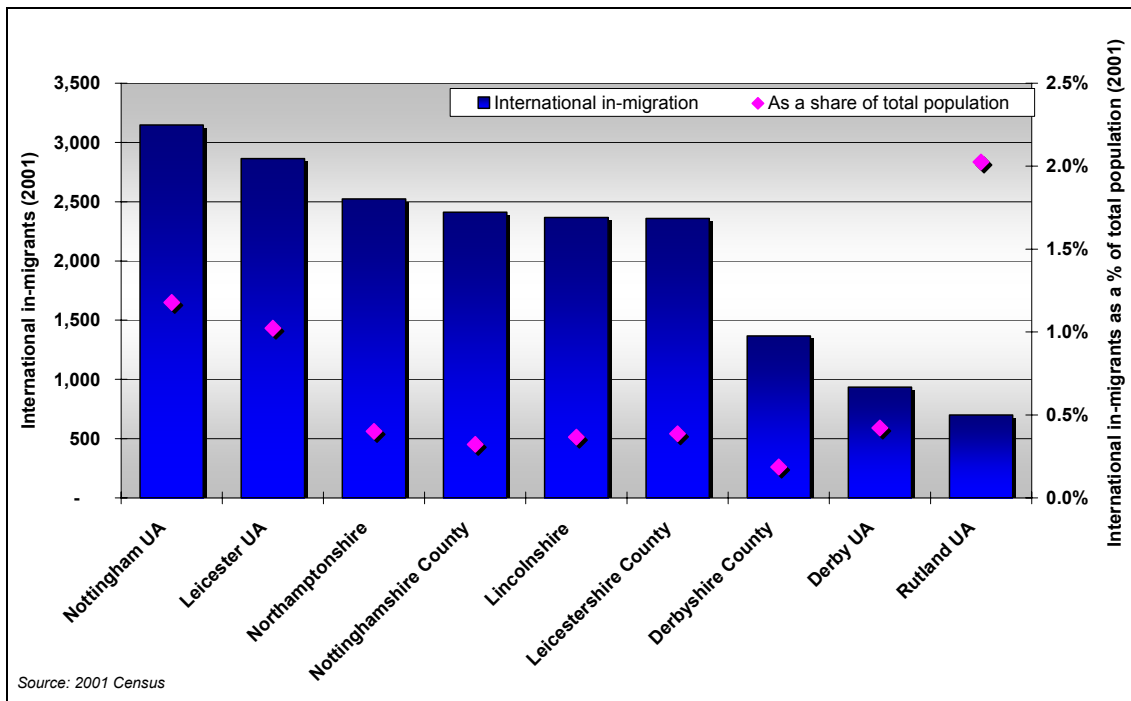
According to the 2001 census, there were 18,670 such international in-migrants in the East Midlands in 2001. One third of these in-migrants were resident in Nottingham and Leicester, despite the two cities only accounting for 13 per cent of total population in the East Midlands. Derbyshire and Derby City experienced far less such international migration than their regional population shares would suggest, with only 12 per cent of in-migrants compared with 23 per cent of total population.

Figure 3.6 shows the pattern of international migration in 2001 in absolute terms and relative to total population. Relative to total population, Rutland was most affected by international in-migration in 2001.

<sup>50</sup> The data presented is for a five year average between 1999 and 2003. Figures for all years show the EU as it has been constituted since 1 January 1995. These do not include the 10 new member states admitted to the EU in May 2004. Old commonwealth countries refer to South Africa, Canada, Australia and New Zealand. New Commonwealth countries include former colonies in Africa, Caribbean and Asia (inc. Pakistan). Hong Kong is included within the 'other Foreign'.



**Figure 3.6: International migration to areas of the East Midlands in 2000-2001 (numbers and as a share of total resident population)**



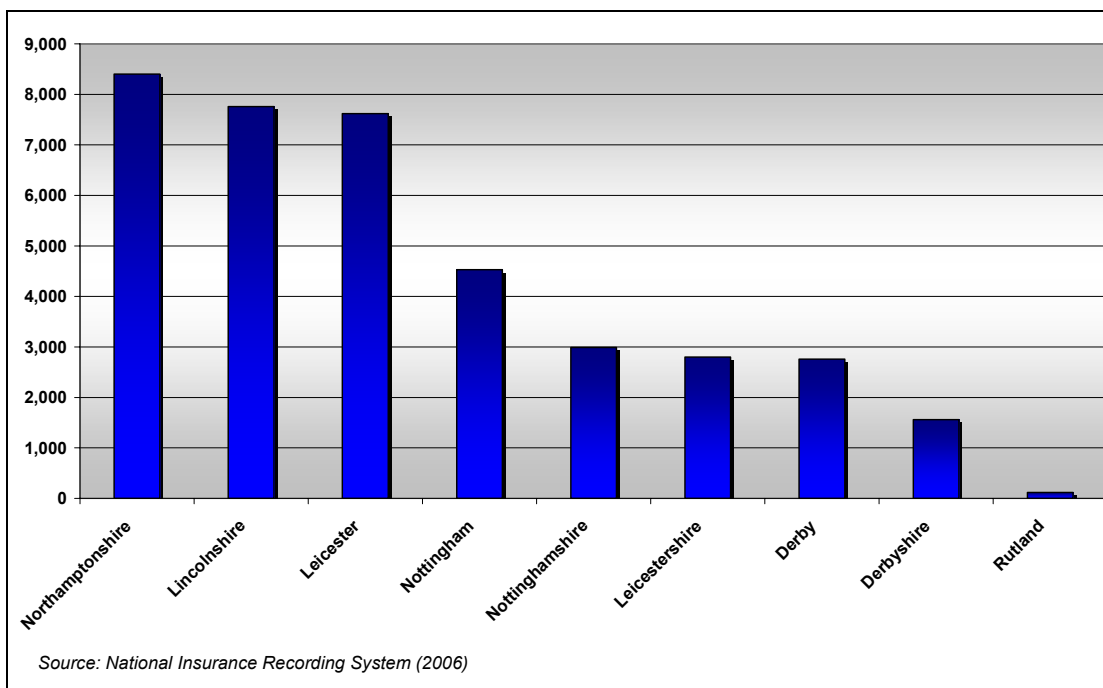
Information on the number of foreign nationals registering for a National Insurance Number (NINo), provides a useful indication of international migration patterns since the 2001 Census. Evidence from the National Insurance Register concerning non- UK nationals registering for a National Insurance Number (NINo) suggests that Northamptonshire had the largest influx of international migrants in 2005/ 2006 (Figure 3.7). This was driven by large numbers of foreign nationals registering for NI numbers in Northampton (4,570) and to a lesser extent Corby (1,190).

The districts of Boston and South Holland in Lincolnshire also received large numbers of National Insurance registered foreign nationals (2,300 and 1,910 respectively). That said the region's three cities, particularly Leicester, received substantial inflows of international migrants.

Following the national trend, the largest number of new registrants living in the region came from Poland, which accounted for 36 per cent of the total. Overall, A8 countries accounted for 57 per cent of the total new registrants in the region in 2005/06.<sup>51</sup>

<sup>51</sup> Department for Work and Pensions (DWP), National Insurance Number registrations (NINo), 2005/06. Data covers all foreign nationals allocated a National Insurance number.

**Figure 3.7: Non-UK nationals registering for National Insurance Numbers (NINo)**



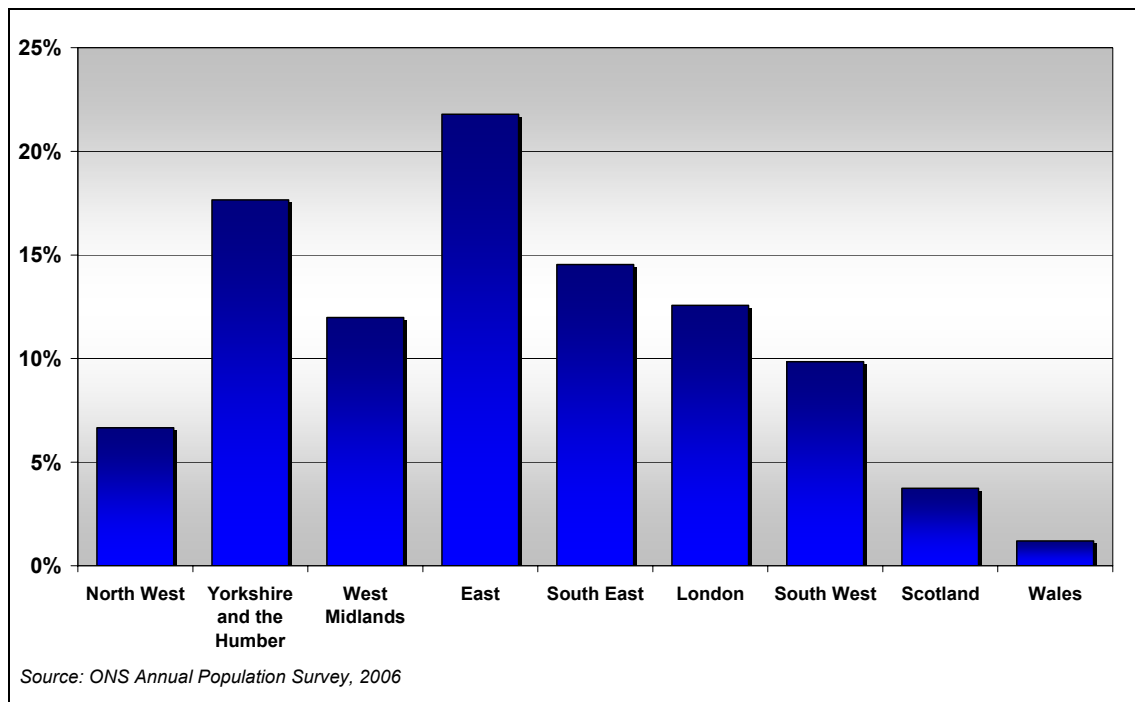
### 3.3 PATTERNS OF INTERNAL MIGRATION FLOWS

Figures from the Annual Population Survey (APS) suggest that in Spring 2006, there were 44,500 residents of the East Midlands who lived elsewhere in the UK 12 months previously.

This represents around 1 per cent of the population of the East Midlands. The most common origins of internal migrants are the East of England and Yorkshire and the Humber, accounting for 22 per cent and 18 per cent respectively of the overall total (Figure 3.8).

The APS also suggests the most common destination of those that lived in the region 12 months ago was Yorkshire and the Humber, followed by the West Midlands, London and the South East.

**Figure 3.8: Origin of internal migrants in the East Midlands, spring 2006**

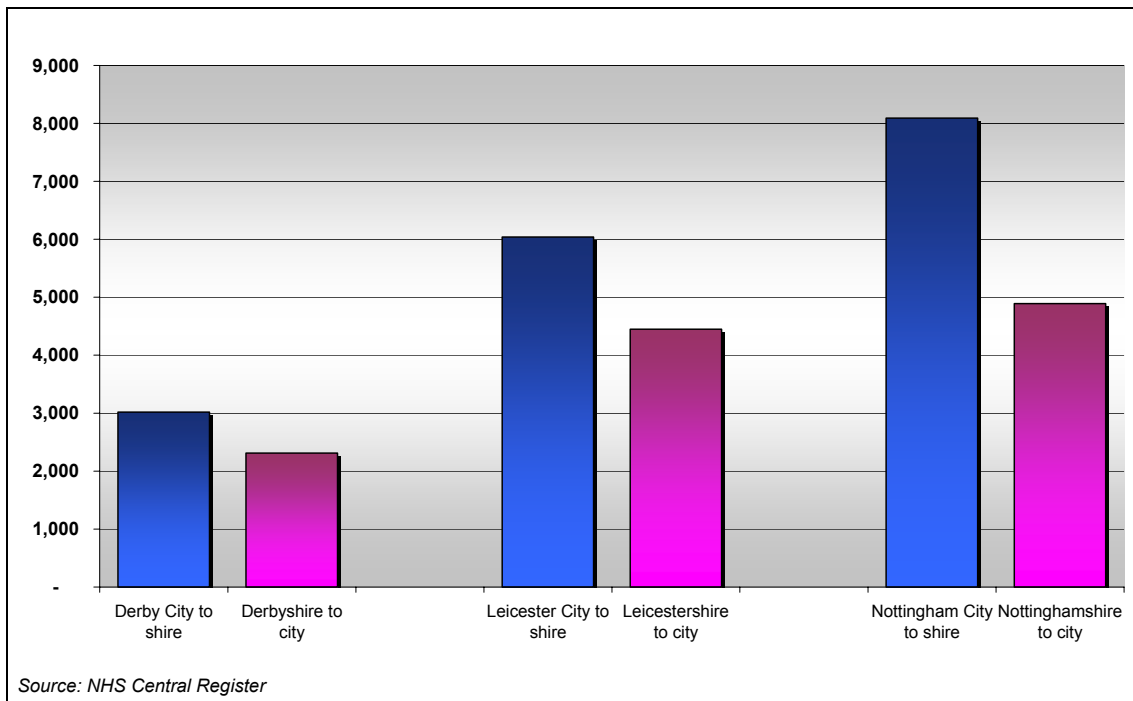


National Health Service Central Register (NHSCR) data, which is based on patients re-registering with NHS doctors when they move house, also shows high proportions of internal migrants moving into the East Midlands from the East of England and Yorkshire and the Humber, although overall the South East is the most common origin of migrants into the East Midlands according to this data.

There are some defined patterns of internal migration behaviour within the East Midlands. A significant trend is that migration to rural and semi-rural areas of the region is generally greater than migration from these areas to the cities. Figure 3.9 shows this pattern for relevant shire and city administrative areas in the East Midlands. As is evident from this chart, all City Local Authorities are losing more people to their respective shire Counties than they are gaining in reverse.<sup>52</sup>

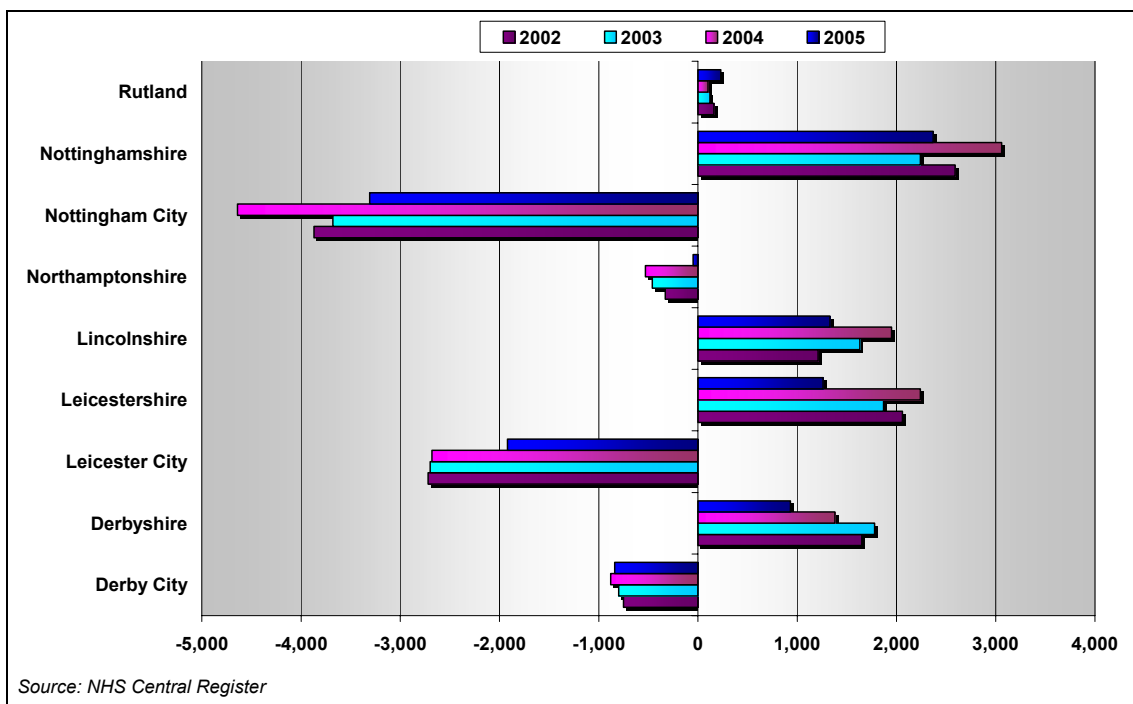
<sup>52</sup> National Health Service Central Register (NHSCR), 2004/05. NHSCR is a central record of all patients in England and Wales, and is used for internal migration estimates when a patient registers with a new doctor.

**Figure 3.9: Migration patterns between urban centres and their surrounding counties (shires) 2004/5**



Analysis of the data for previous years shows that this pattern is not a one-off blip in the data. Between 2002 and 2005, there has been a pronounced pattern of net in-migration to Counties and equally pronounced net out-migration from the cities. This is illustrated in Figure 3.10.<sup>53</sup>

**Figure 3.10: Internal migration patterns**



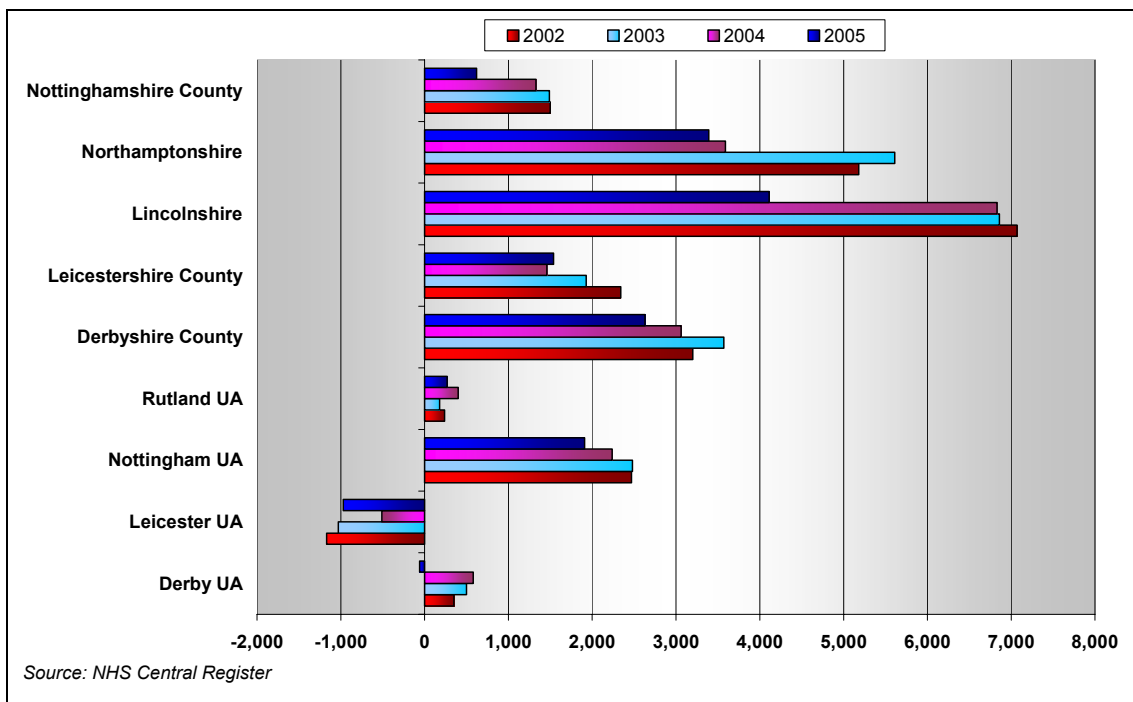
This counter-urban phenomenon is most evident in Nottingham and Nottinghamshire. In 2005, for example, net out-migration from the city was 3,310 whereas net in-migration to the shire

<sup>53</sup> National Health Service Central Register (NHSCR), 2002-2005.

was 2,370. Lincolnshire and Leicestershire also experienced sizeable net in-migration, 1,330 and 1,260 respectively in 2005. The net flow into Lincolnshire (1,330) is the second largest, after Nottinghamshire (2,370). This was partly driven by a large net inflow from Nottinghamshire (470) as well as from the cities and Northamptonshire.<sup>54</sup>

However, internal migration within areas of the East Midlands is only part of the story of how migration influences local demographics. It is also important to look at the net impacts of how local areas in the region gain and lose population in relation to the rest of the UK. As Figure 3.11 shows, all areas of the East Midlands experienced net in-migration from the rest of the UK between 2002 and 2005, with the exception of Leicester Unitary Authority area. The areas which experienced the largest population gains as a result of these trends were the shire areas, namely Lincolnshire, Northamptonshire and Derbyshire.

**Figure 3.11: Net migration between each Local Authority area and the rest of the UK (excluding East Midlands), 2002 to 2005**



This analysis shows that the non-city local areas within the East Midlands are gaining both from counter-urban flows from the City Local Authorities in the region and from net inflows from elsewhere in the UK.

<sup>54</sup> National Health Service Central Register (NHSCR), 2002-2005.

## 4 Characteristics of migrants

### KEY MESSAGES

- A large proportion of those moving into the East Midlands from overseas are amongst the younger cohorts of the working age population.
- The age profile of international migrants resident in the East Midlands appears to be slightly younger than those in the whole of England. A8 migrants tend to be younger than migrants from other nations.
- Unsurprisingly, international migrants are significantly more ethnically diverse than the East Midlands' population as a whole. The ethnic profile of international migrants resident in the East Midlands has, however, changed slightly since A8 accession.
- The most common occupations of international migrants are elementary administration and service roles, elementary trades and machine operatives.
- The East Midlands saw substantial inflows from elsewhere in the UK of those of both working age and pensionable age between 2004 and 2005.
- Internal migration patterns are heavily influenced by student flows, with the region losing large numbers of those aged between 20 and 24 to elsewhere in the UK but gaining large numbers of those aged between 15 and 19.
- Those who migrated into the East Midlands from elsewhere in the UK were more likely to be in routine and semi-routine occupations compared to those moving out of the region, and were less likely to be in managerial and professional occupations.
- White people are more likely to migrate from urban to rural areas in the region than black and minority-ethnic groups. Managers and professionals tend to dominate movement from the cities to more rural areas.
- City-flight migration patterns are therefore likely to act to concentrate ethnic minority groups and those employed in low skilled occupations in cities, while rural areas gain inflows of those employed within highly skilled roles.

### 4.1 CHARACTERISTICS OF INTERNATIONAL MIGRANTS

#### 4.1.1 Gender and age

The ONS International Migration Series provides data on the characteristics of international inflows to and outflows from the East Midlands over the period 1999 to 2003.

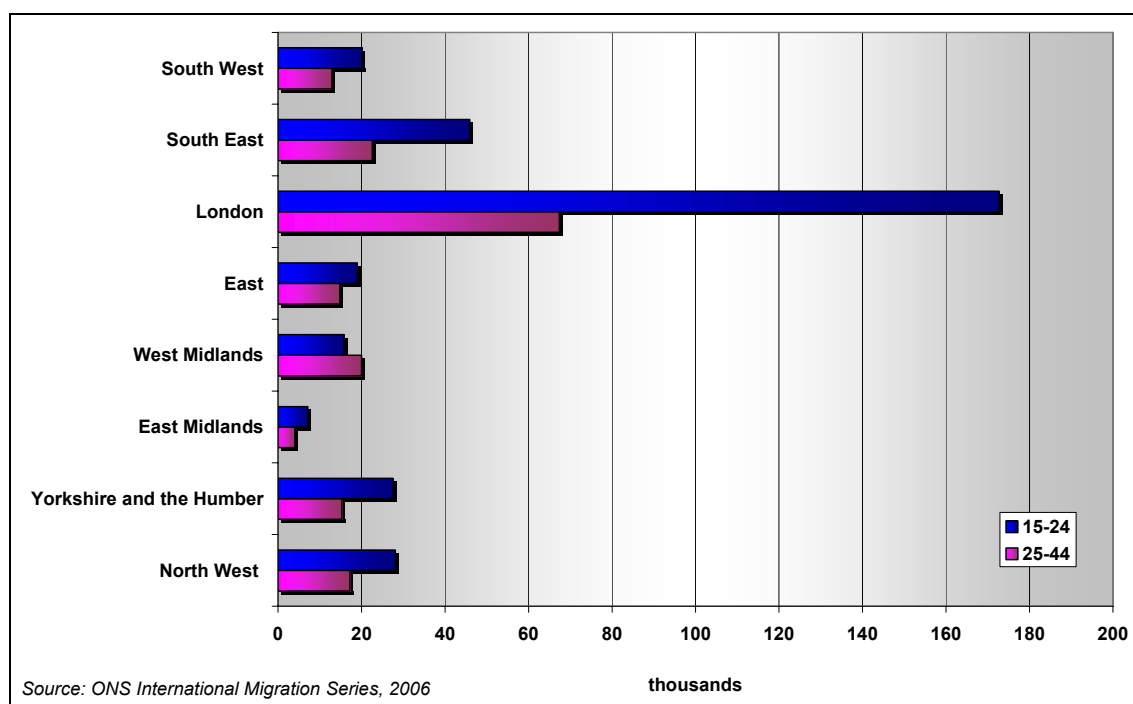
A large proportion of those moving into the East Midlands from overseas are amongst the younger cohorts of the working age population. Nearly 50 per cent of international migrants are in the 25 to 44 age cohort and a further 36 per cent are aged between 15 and 24 (Figure 4.1).

International outflows are evident to a lesser extent among this demographic. Around 43 per cent of those moving overseas from the East Midlands are aged between 25 and 44, and 26 per cent between 15 and 24. Indeed a greater proportion of those moving out of the region are over the age of 45.

As a consequence, the East Midlands experienced a net inflow of around 4,000 25 to 44 year olds and over 7,000 15 to 24 year olds from overseas between 1999 and 2003. With the exception of London, all English regions have been losing numbers of those aged 45 and over and gaining numbers of all other age groups.<sup>55</sup>

<sup>55</sup> ONS Crown Copyright, International Migration Series, 1999-2003.

**Figure 4.1: Net international migration flows in England, 1999 to 2003**

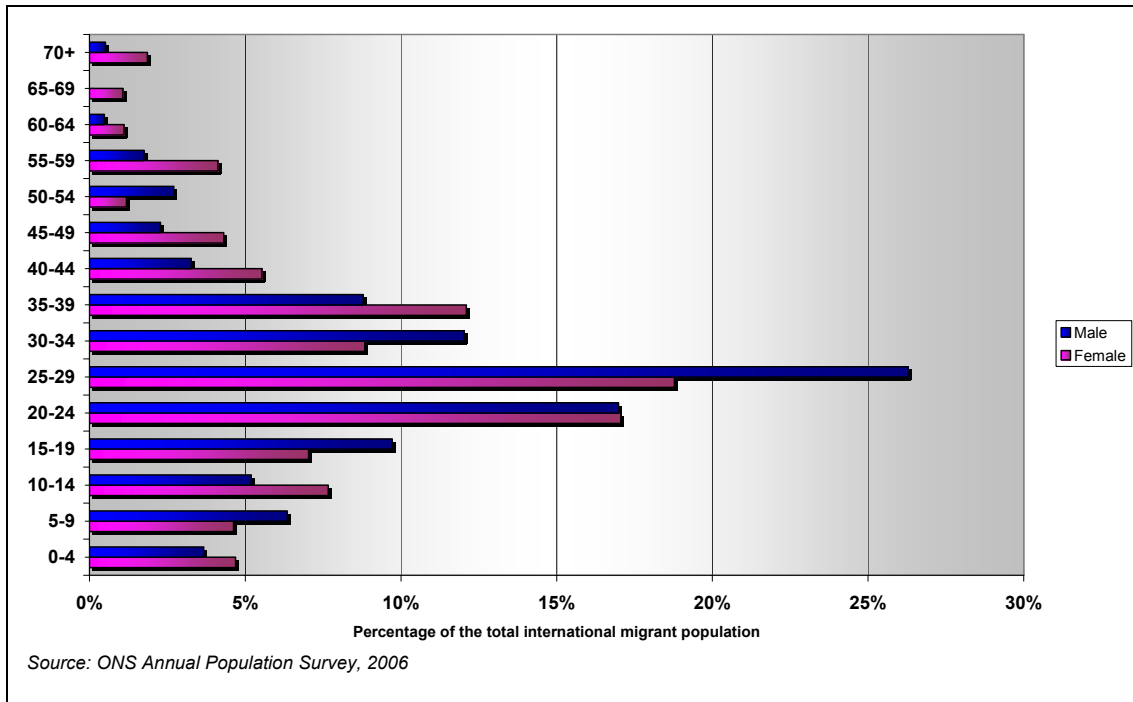


These estimates do not, however, include the significant influx of migrants from the Central and Eastern European countries, since their accession to the EU in 2004. However, analysis of more up to date national data suggests that over the past year a slightly greater proportion of international inflows have been amongst the 25 to 44 age group, although the proportion of international in-migrants belonging to the 15 to 24 age cohort has declined.<sup>56</sup>

The Annual Population Survey offers a more detailed breakdown of international migrants in the East Midlands. Of those migrants who arrived in the UK after 1991, the largest proportion are aged between 25 and 29 (22 per cent) and 20 to 24 (17 per cent). Very few migrants are of pensionable age, and this is particularly true for males. Just 0.5 per cent of male and 4 per cent of female migrants are of pensionable age. Figures for Spring 2006 show that the region received a larger inflow of female migrants than male. Fifty two per cent of inward migrants were female.

<sup>56</sup> ONS Crown Copyright, International Migration Series, 2005.

**Figure 4.2: Age profile of inward international migrants in the East Midlands (arrived in the UK after 1991), Spring 2006**



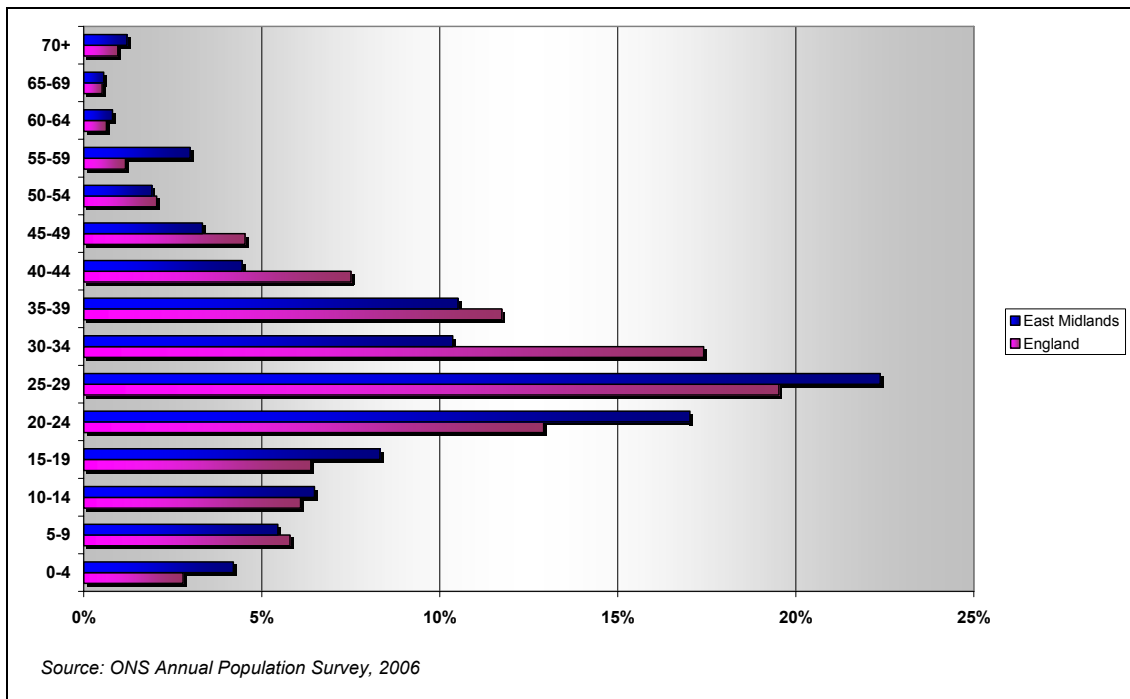
The age profile of international migrants resident in the East Midlands appears to be slightly younger than those in the whole of England (Figure 4.3).<sup>57</sup>

- The East Midlands has larger proportions of international migrants aged between 20 and 29 – 17 per cent of migrants in the East Midlands are aged between 20 and 24, compared to 13 per cent in England. Twenty two per cent of migrants in the East Midlands are aged between 25 and 29, compared to 20 per cent in England.
- The East Midlands has a lower proportion of international migrants aged between 30 and 34 – 10 per cent of migrants in the East Midlands are in this age group, compared to 17 per cent in England.
- The East Midlands has a higher proportion of international migrants under-15 – 18 per cent fall into this category, compared to 15 per cent in England.

<sup>57</sup> ONS Crown Copyright, Annual Population Survey, Spring 2006.



**Figure 4.3: Age profile of inward international migrants in the East Midlands and England (arrived in the UK after 1991), Spring 2006**

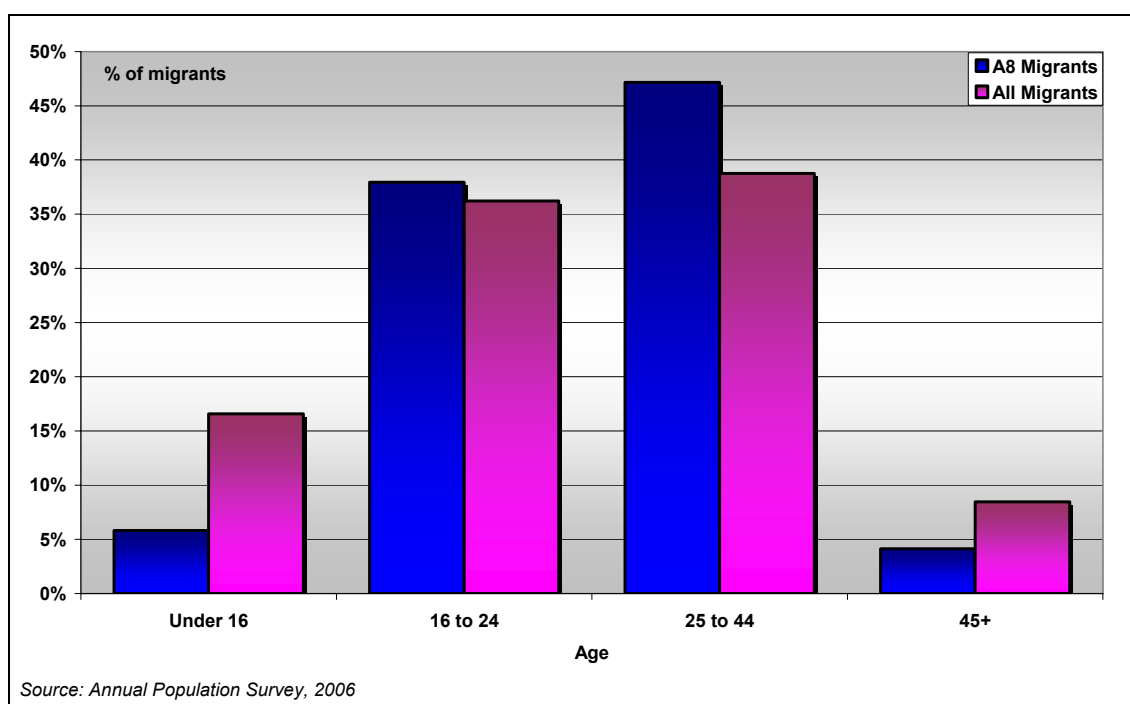


Evidence from the Annual Population Survey suggests a similar pattern is evident in the East Midlands for those international in-migrants who arrived in the UK after 2001. Again, the most common age band is between 25 and 29, which accounts for 26 per cent of all inward international migrants. Second most common is the 20 to 24 age cohort, which accounts for 23 per cent of international migrants. Again, very few international migrants are of pensionable age or are children. Female migrants are more likely to be of pensionable age than men, with 0.8 per cent of males being of pensionable age and 4.4 per cent of females.

Following the expansion of the EU in May 2004 there has been much public debate concerning the extent and nature of inward migration from the A8 countries. Of those East Midlands residents that have moved to the UK since 2001, a greater proportion of A8 migrants are amongst the younger cohorts of the working age population (those aged between 16 and 24 and 25 to 44). Forty seven per cent of A8 migrants are aged between 24 and 44, compared to 39 per cent of all migrants. A smaller proportion of A8 migrants are under the age of 16 or over the age of 45.<sup>58</sup>

<sup>58</sup> ONS Crown Copyright, Annual Population Survey, Spring 2006.

**Figure 4.4: Current age profile of inward international migrants living in the East Midlands (arrived in the UK from 2004), Spring 2006<sup>59</sup>**



#### 4.1.2 Ethnicity

International migrants are significantly more ethnically diverse than the East Midlands population as a whole. Nearly 50 per cent of East Midlands residents that have moved to the UK since 1991 are of white origin compared to 92 per cent of the population. Indeed, a significant proportion of migrants are Asian or Mixed ethnicity (16 per cent in both cases) and one in ten are of black origin.

The ethnic profile of international migrants resident in the East Midlands has, however, changed slightly since A8 accession, with a higher proportion of white origin and a significantly lower proportion of migrants of Black or Asian origin (Figure 4.5).<sup>60</sup>

**Figure 4.5: Ethnic profile of East Midlands residents that have moved to the UK from overseas since 1991**

	2004	2006
White	35%	49%
Mixed	3%	3%
Asian or Asian British	28%	16%
Black or Black British	19%	10%
Chinese	5%	6%
Other	10%	16%

Source: Annual Population Survey, Spring 2004 and 2006

<sup>59</sup> Caution should be exercised when interpreting these figures due to a small sample of A8 migrants. The weighted base of A8 migrants stands at 27,300. Guidance from the Labour Force Survey suggests that a weighted base of 10,000 refers to a sample of approximately 30 people.

<sup>60</sup> ONS Crown Copyright, Annual Population Survey, Spring 2004 and Spring 2006.

### 4.1.3 Occupations of employment

The ONS International Migration Series provides evidence on the occupation of migrants on entry to/ exit from the UK for the period 1999 to 2003. The East Midlands has had a large net inflow of students (5,200) from overseas, but despite attracting large international inflows of professional and managerial workers, the region has witnessed a net outflow of such workers to overseas. For England as a whole however, there has been a net gain of professional and managerial workers.

**Figure 4.6: International migration flows by occupation in the East Midlands, 1999 to 2003**

	East Midlands			England		
	Inflow	Outflow	Net	Inflow	Outflow	Net
All Occupations	70,100	68,800	1,300	1,745,400	1,249,800	495,500
Professional and managerial	23,100	24,700	-1,700	662,000	504,800	157,200
Manual and clerical	16,200	14,600	1,600	367,100	338,300	28,700
Students	19,600	14,400	5,200	442,100	200,500	241,700
Others (including children)	11,200	15,000	-3,700	274,100	206,200	67,900

*Source: ONS International Migration Series, 2006*

The Annual Population Survey (APS) allows a more detailed breakdown of the types of occupations international in-migrants to the region are employed within once they have secured employment in the UK labour market.

Interestingly, while evidence from the ONS International Migration Series suggests a large proportion of migrants were previously employed as managers or professionals, evidence from the APS suggests that when migrants secure employment in the UK, they are typically employed within elementary occupations. This highlights the significant issue of the underutilisation of the skills of migrant workers, who often find employment within low-skills roles due to transitional issues such as language barriers, for example.

Indeed, as Figure 4.7 illustrates, those international migrants living in the East Midlands who arrived in the UK after 1991 are most commonly employed within elementary administration and service roles, an occupation that accounts for 16 per cent of international migrant workers. Elementary trades and machine operatives are also common occupations.<sup>61</sup>

**Figure 4.7: Top 10 occupations of international migrants in the East Midlands**

SOC Code	Name	%
92	Elementary administration and service occupations	16%
91	Elementary trades, plant and storage related occupations	15%
81	Process, plant and machine operatives	14%
23	Teaching and research professionals	7%
61	Caring professional service occupations	6%
82	Transport and mobile machine drivers and operatives	6%
41	Administrative occupations	5%
11	Corporate Managers	4%
22	Health professionals	4%
54	Textiles, printing and other skilled trades	4%

*Source: Annual Population Survey, Spring 2006.*

<sup>61</sup> ONS Crown Copyright, Annual Population Survey, Spring 2006.

## 4.2 CHARACTERISTICS OF INTERNAL MIGRANTS

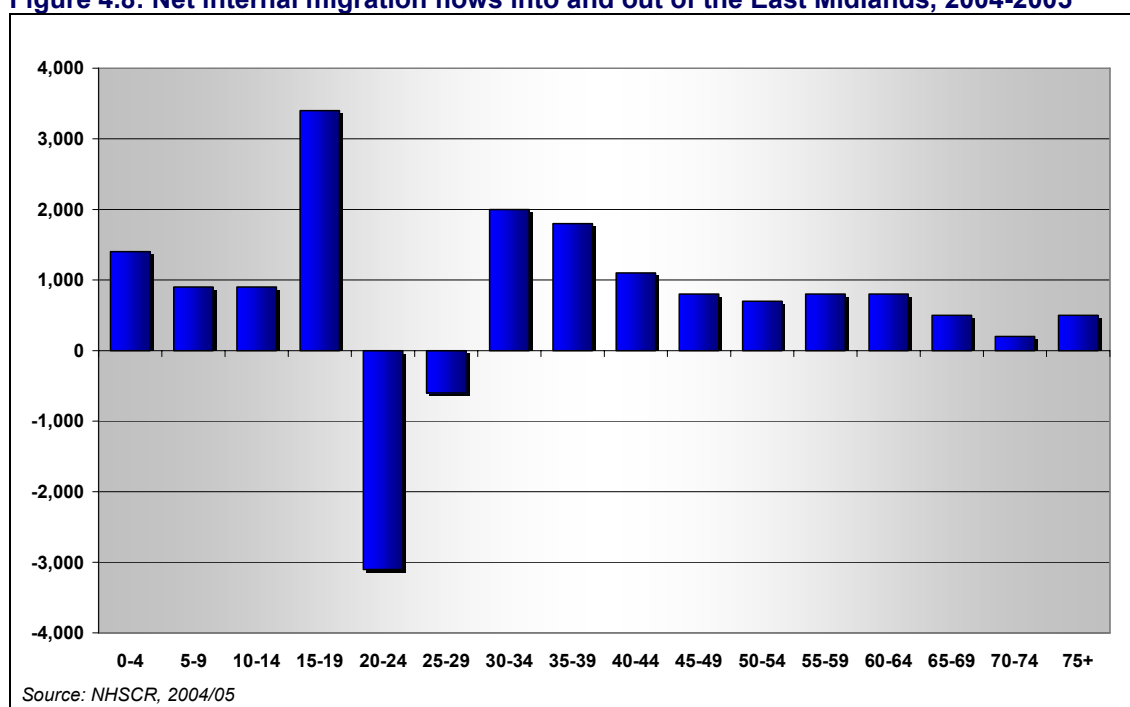
### 4.2.1 Gender and age

Evidence from the National Health Service Central Register (NHSCR) suggests that the region receives larger numbers of female internal migrants than males. At the same time, outflows to the rest of the UK are higher amongst females than males, leaving the net inflow (inflows minus outflows) higher amongst males. In 2004/05, the region saw a net inflow of 6,400 males and 5,700 females from elsewhere in the UK.

Considering the age profile of internal migrants, the East Midlands saw substantial inflows from elsewhere in the UK of those of both working age and pensionable age between 2004 and 2005.<sup>62</sup> A total of 79 per cent of inward migrants were of working age, compared to just 15 per cent children and 6 per cent pensionable age. Moreover, while the majority of those leaving the region were also of working age, there was a net inflow of 7,200 working age people to the East Midlands. The region was also subject to a net inflow of those of pensionable age and of children to the order of approximately 5,000 people in total.

Breaking these groups into five-year age bands (Figure 4.8), it is apparent that the region has been losing large numbers of those aged between 20 and 24 to elsewhere in the UK but gaining large numbers of those aged between 15 and 19 from elsewhere in the UK. This partially reflects student flows to and from the region. In 2004/05 the region lost 3,100 people aged 20-24 but gained 3,400 people aged 15-19. This trend has been common since 2000-2001. Over the last five years there has been a net inflow of 19,400 15-19 year olds and a net internal outflow of 14,400 20-24 year olds.<sup>63</sup>

**Figure 4.8: Net internal migration flows into and out of the East Midlands, 2004-2005**



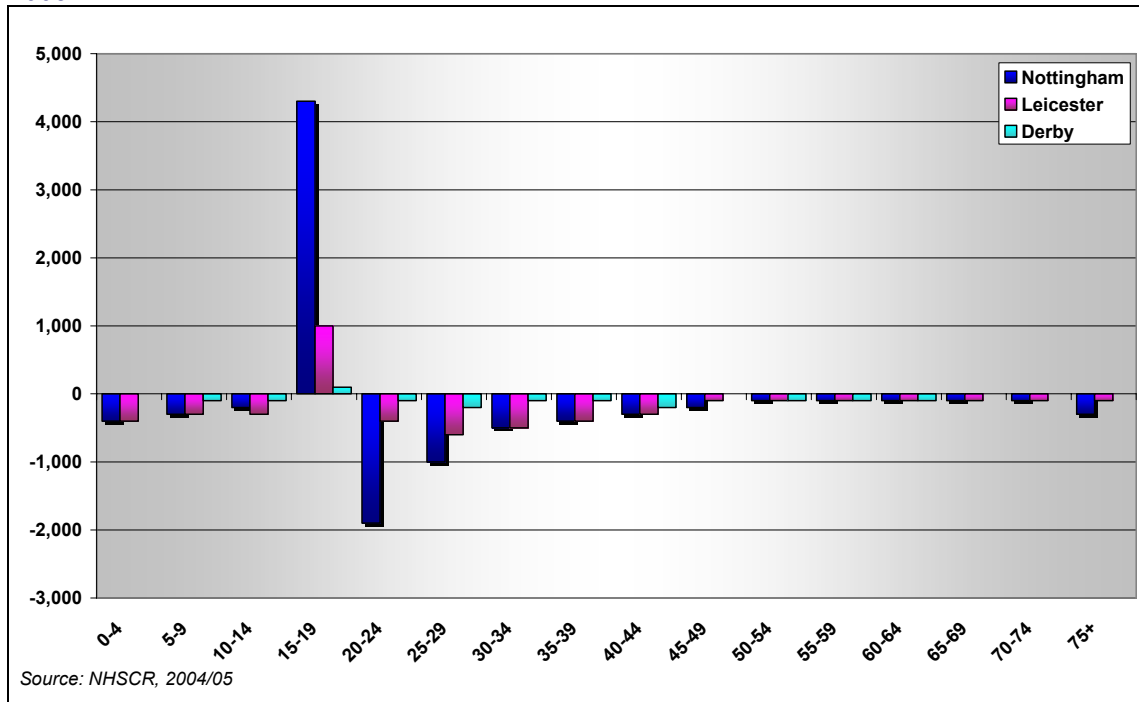
The pattern at the sub-regional level is to some extent influenced by student flows, with the region's three cities subject to substantial net inflows of those aged between 15 and 19 from

<sup>62</sup> National Health Service Central Register (NHSCR), 2004/05.

<sup>63</sup> National Health Service Central Register (NHSCR), 2004/05.

elsewhere in the UK, and net outflows of those aged between 20 and 24 to elsewhere in the UK (Figure 4.9).<sup>64</sup>

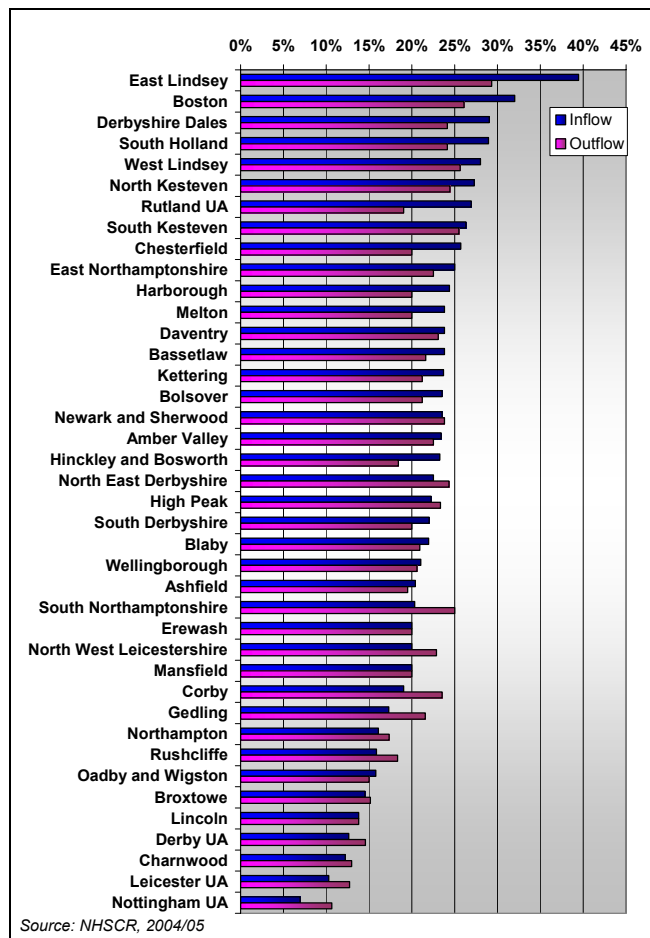
**Figure 4.9: Net internal migration flows into and out of the region's three cities, 2004-2005**



As can be seen in Figure 4.10, it is clear that inflows and outflows into rural areas tend to be dominated more by flows of the older age groups. It can be seen that this is particularly true for East Lindsey, where 40 per cent of in-migrants were aged over 45. In the three cities of Nottingham, Leicester and Derby over 45s account for less than 15 per cent of inflows in each case.

<sup>64</sup> National Health Service Central Register (NHSCR), 2004/05.

**Figure 4.10: Inflows and outflows of those aged 45 and over, by district. 2004/05**



#### 4.2.2 Ethnicity

Evidence from the Annual Population Survey suggests that those moving into the East Midlands from elsewhere in the UK are slightly more ethnically diverse than those moving from the region to elsewhere in the UK.

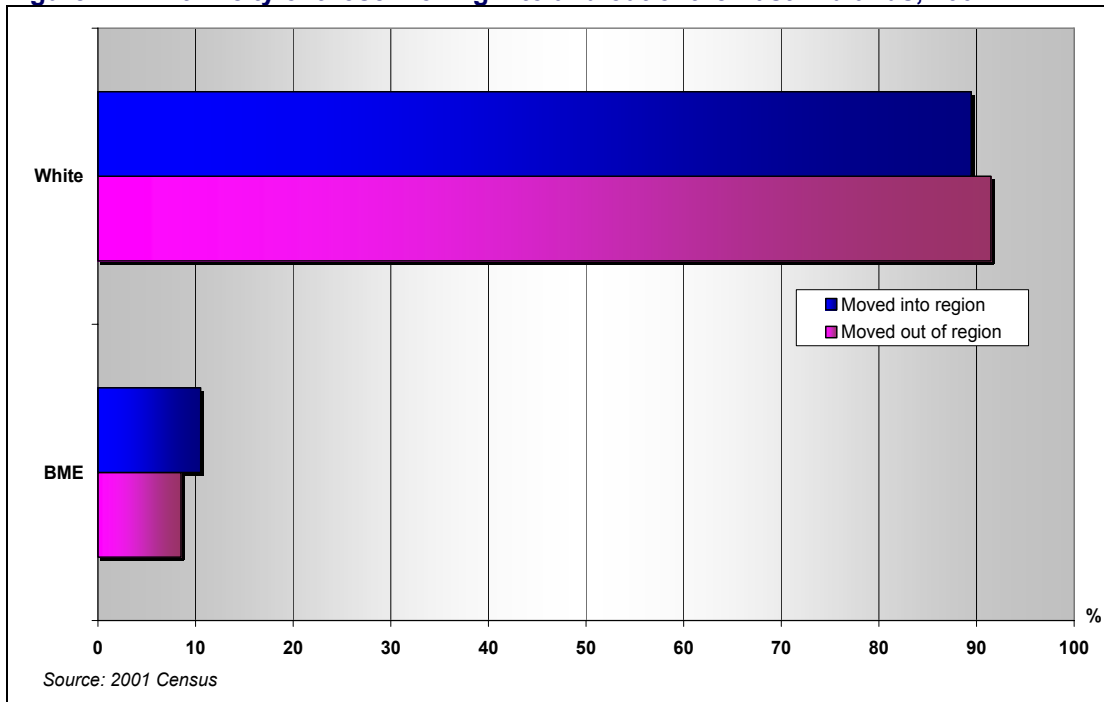
Indeed, while the vast majority of migrants both into and out of the East Midlands to/from elsewhere in the UK are white, a slightly higher proportion of in-migrants are from Black and Minority Ethnic (BME) groups, than out-migrants (10 per cent and 5 per cent respectively).<sup>65</sup>

This finding is consistent with results from the 2001 Census. Comparing individuals' place of residence 12 months previously with their current, i.e. 2001, residence, the Census showed that 89.5 per cent of people moving into the region from elsewhere in the UK were white, compared to 91.5 per cent of those moving out (Figure 4.11). The other largest ethnic group moving in and out was Indian, which accounted for 3.3 per cent of those moving into the region and 3.2 per cent of those moving out.<sup>66</sup>

<sup>65</sup> ONS Crown Copyright, Annual Population Survey, Spring 2006.

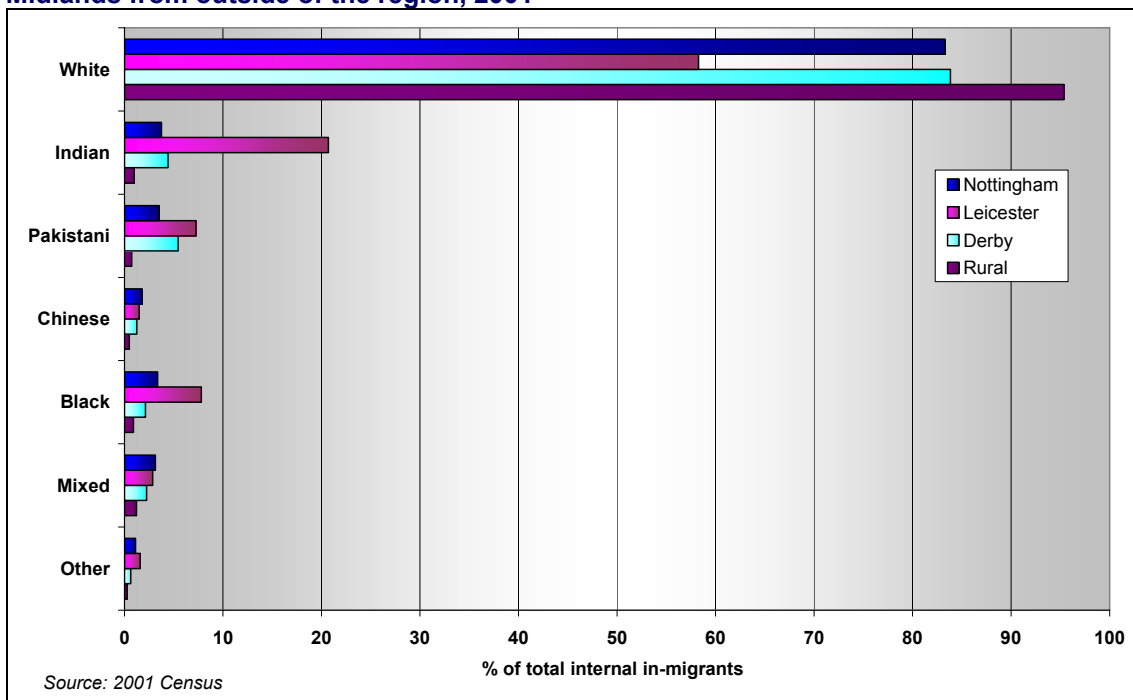
<sup>66</sup> ONS Crown Copyright, 2001 Census. The national Census is conducted every ten years, and the 2001 Census is the first to represent the entire population and to ask questions concerning ethnicity.

**Figure 4.11: Ethnicity of those moving into and out of the East Midlands, 2001**



The most popular destination for non-white individuals moving into the region was Leicester, where they accounted for 41.7 per cent of the total number of internal in-migrants to the city. Nottingham and Derby were also popular locations for non-white individuals moving into the region. In contrast, almost all of those moving into rural areas from outside of the region were white – 95.4 per cent (Figure 4.12).

**Figure 4.12: Ethnic profile of those moving into the cities and rural areas of the East Midlands from outside of the region, 2001**

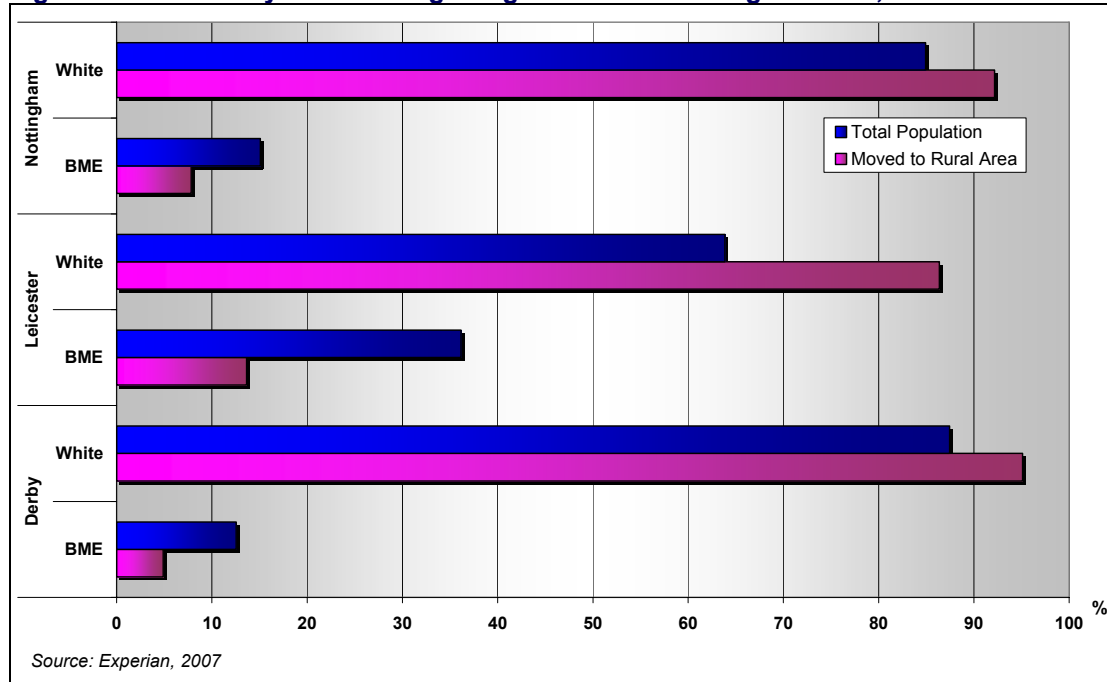


It also appears that white people are more likely to migrate from urban to rural areas in the region than black and minority-ethnic groups. In each of the three cities of Nottingham,

Leicester and Derby, white people are ‘over-represented’ amongst those moving to rural areas compared to their representation in the population as a whole (Figure 4.13).

This is particularly noticeable in Leicester. The Census shows that 63.9 per cent of those living in Leicester were white in 2001, although 86.4 per cent of those who had relocated from Leicester to a rural area in the region were white. Although the difference is less marked, similar results are found for Nottingham and Derby.

**Figure 4.13: Ethnicity of those migrating from the three largest cities, 2001**



### 4.2.3 Occupations of employment

The most common occupation of internal in-migrants to the East Midlands from elsewhere in the UK is ‘corporate manager’, which accounts for 16 per cent of all internal in-migrants to the region (Figure 4.14).<sup>67</sup>

Sales roles are also a common occupation for inward migrants, accounting for 14 per cent of all those who have moved to the East Midlands from elsewhere in the UK.

**Figure 4.14: Top 10 occupations of internal migrants to the East Midlands, Spring 2006**

SOC Code	Name	%
11	Corporate Managers	16.0%
71	Sales occupations	14.3%
21	Science and technology professionals	11.6%
92	Elementary administration and service occupations	9.4%
52	Skilled metal and electrical trades	9.2%
41	Administrative occupations	7.1%
62	Leisure and other personal service occupations	4.8%
53	Skilled construction and building trades	4.5%
32	Health and social welfare associate professionals	4.3%
24	Business and public service professionals	4.2%

Source: Annual Population Survey, Spring 2006.

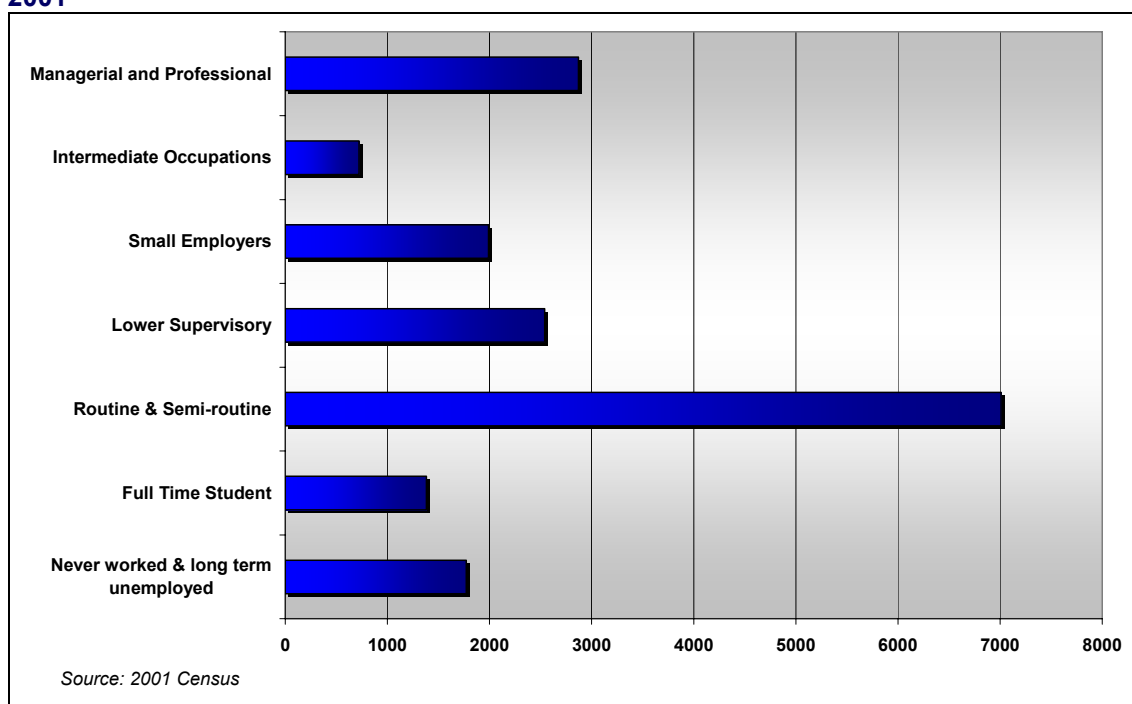
<sup>67</sup> ONS Crown Copyright, Annual Population Survey, Spring 2006.



The 2001 Census provides valuable information allowing us to ascertain the broad occupational profile of those moving into the region compared with that of those migrating from the region to elsewhere in the UK. Data is collected on an individual's area of residence 12 months previously, and this can be compared with the individual's current (2001) residence.

The East Midlands gained large numbers of those working in routine and semi-routine occupations as well as gaining smaller numbers of those working as managers and professionals (Figure 4.15). Seven thousand more routine and semi-routine workers moved into the region than moved out, whilst just under 2,000 more managers and professionals moved into the region than moved out.

**Figure 4.15: Occupational profile of those moving in and out of the region (net flows) 2001**

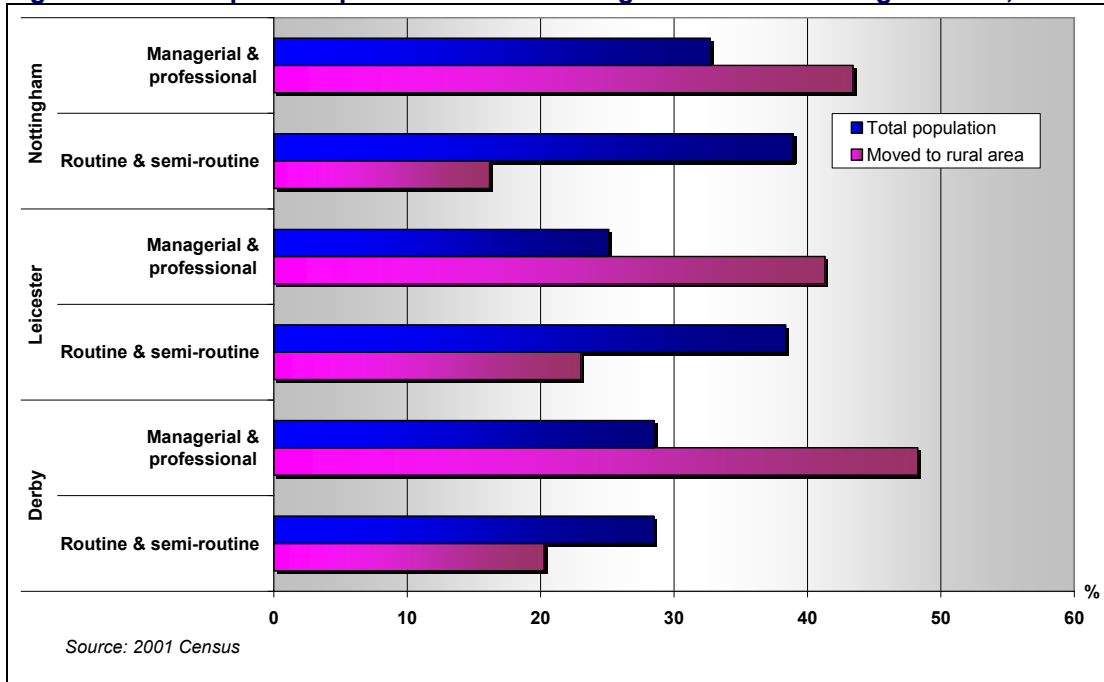


Census 2001 data can also be used to analyse the characteristics of those individuals migrating from the three cities of Nottingham, Leicester and Derby to rural areas in the region. Those migrating from these cities are more likely to be managers and professionals than the average population for each city, and less likely to be in routine or semi-routine occupations (Figure 4.16), although it is important to note that higher occupation groups have a higher propensity to move than the population as a whole.

In Derby for example, 28.5 per cent of the population work as managers and professionals, whilst 48.3 per cent of those moving from the city to rural areas were managers and professionals. Similarly, 28.5 per cent of the population work in routine or semi-routine occupations, compared to 20.3 per cent of those moving to rural areas.

This suggests that those leaving the three cities tend to work in top-end managerial and professional occupations, and those working in routine occupations are less likely to migrate from the cities.

**Figure 4.16: Occupational profile of those moving out of the three largest cities, 2001**



## 5 The contribution of migration flows to demographic change

### KEY MESSAGES

- In the absence of all migration the East Midlands population would be slightly older than the profile currently.
- Collectively, internal and international migration has therefore acted to ease both total and pensionable age dependency ratios.
- Migration (internal and international) has had the most significant impact on Nottingham, Rutland and Lincolnshire. In the case of Lincolnshire, migration has augmented both the working age and pensionable age population.
- International migration on its own is not a great influence on population change. However, in its absence the population profile of the East Midlands would be significantly older than the current profile.
- Indeed, international migration has expanded the working age population available to businesses in the region. The outflow of older people overseas has also mitigated the ageing of the region's population.
- The most significant impact of international migration has been seen in Leicester and Nottingham, where it has boosted the working age population.
- Migration to the East Midlands from elsewhere in the UK has driven more rapid expansion of both the working age and pensionable age population.
- However, while internal migration has acted to push up aged dependency ratios it has done so only marginally, as the region as a whole has been subject to substantial inflows of working age people as well as those of pensionable age.
- Nottingham and Leicester have witnessed a significant decline in the pensionable age population as a consequence of internal migration, while rural areas (particularly Rutland and Lincolnshire) have experienced an increase in both the working age and pensionable population as a result.

### 5.1 INTRODUCTION

Having discussed demographic change, the components of population change and the characteristics of migrants, this chapter brings together this information to consider the direct impact of migration on demographic change in the East Midlands.

The contribution of migration flows has been assessed within the context of a cohort-survival modelling framework.<sup>68</sup> As a consequence we have been able to establish 'counterfactuals' questioning how the demography of the East Midlands would look in the absence of internal and/or international migration flows, which provide a rich picture of the contribution of migration flows to demographic change in the East Midlands.

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<sup>68</sup> This framework applies birth rates, death rates and migration to a baseline population in order to reach a population estimate for a future time period.

## 5.2 THE CONTRIBUTION OF MIGRATION TO DEMOGRAPHIC CHANGE – GENDER AND AGE

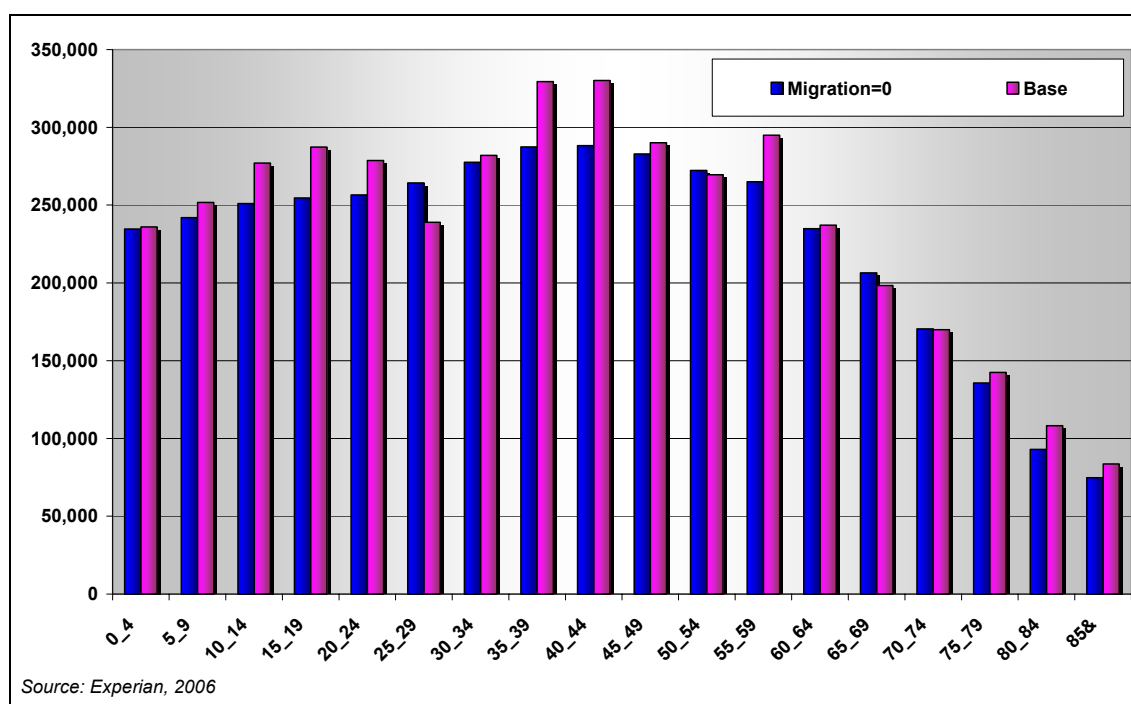
In the absence of both international and internal migration since 1993 the population of the East Midlands would have been around 5 per cent lower than the actual level in 2005, unsurprising given the importance of migration as a component of population change.

Collectively, internal and international migration has also impacted the age profile of the population and in the absence of both internal and international migration the East Midlands' population would be slightly older than the profile currently.

Indeed, while collectively internal and international migration has caused the pensionable age population to expand at a more rapid rate over the past decade than in its absence (0.9 per cent as opposed to 0.7 per cent in the absence of all migration), this has been outweighed by a more substantial expansion of the working age population. Indeed, in the absence of internal and international migration, the working age population would have expanded by just 0.1 per cent per annum over the past decade as opposed to the actual figure of 0.6 per cent.

Migration has had the biggest effect on the 35 to 39 and 40 to 44 age group, with the population within these age cohorts around 13 per cent greater as a consequence of migration. Migration has also had a significant positive effect on the population of people aged between 15 and 19 and 55 to 59 in the East Midlands. Interestingly, in the absence of migration the 25 to 29 age cohort would actually be greater, suggesting net outflows of this group (figure 5.1).

**Figure 5.1: East Midlands population by five-year age cohort**



By driving a substantial expansion of the working age population, collectively internal and international migration has therefore acted to ease both total and aged dependency ratios. Indeed, in the absence of all migration flows the total dependency ratio in the East Midlands would have been 59.5 in 2005 as opposed to 58.4 as it stands currently. Similarly, given that migration has had a positive impact on the working age population in the region, the pensionable age dependency ratio is 0.9 points lower as a result of migration trends.

The impact of migration on demographic change has, however, varied across the East Midlands' sub-regions, although clearly migration has had some impact on each of the region's counties and unitary authorities.

Migration has had the most significant impact on Nottingham, Rutland and Lincolnshire (Figure 5.2). In Nottingham for example, in the absence of migration the working age population would have expanded at just 0.5 per cent per annum as opposed to 2.1 per cent. In Lincolnshire, Rutland and Derbyshire, in the absence of migration the working age population would have actually declined. Indeed, the working age populations of these areas are around 6 or 7 per cent higher as a consequence of migration.

Migration has also significantly impacted the pensionable age population in the East Midlands sub-regions. In Nottingham and Leicester, the pensionable age population is lower as a consequence of migration (by 7 per cent and 5 per cent respectively). Conversely, the pensionable age population in Rutland and Lincolnshire has expanded at a much faster rate as a result of migration patterns and therefore these areas have a substantially larger pensionable age population as a consequence.

**Figure 5.2: Expansion of the sub-regional population by broad age group, (Average Annual Growth, 2002 to 2005)**

	No migration			Base		
	Children	Working age	Pensionable age	Children	Working age	Pensionable age
East Midlands	-0.6	0.0	1.1	-0.6	0.8	1.1
Derby	-0.4	0.4	0.6	0.2	0.5	0.2
Leicester	0.5	0.7	0.0	-0.8	1.2	-0.8
Nottingham	-0.1	0.5	-0.1	-1.8	2.1	-1.5
Rutland	-0.6	-0.2	2.2	1.2	1.2	3.2
Derbyshire	-1.5	-0.1	1.1	-0.7	0.4	0.9
Leicestershire	-1.3	0.0	1.8	-0.4	0.6	1.6
Lincolnshire	-1.8	-0.2	0.9	-0.5	1.1	2.0
Northamptonshire	-1.1	0.3	1.2	-0.1	0.8	1.5
Nottinghamshire	-1.4	0.0	1.2	-0.9	0.5	1.2

Source: Experian, 2006

### 5.3 THE CONTRIBUTION OF INTERNATIONAL MIGRATION FLOWS TO DEMOGRAPHIC CHANGE – GENDER AND AGE

In the absence of international migration since 1993 the population of the East Midlands would have been about 1 per cent lower than the actual level in 2005. This illustrates that international migration on its own is not a great influence on population change.

However, international migration has had an impact on the age profile of the region and in its absence the population profile of the East Midlands would be significantly older than the current profile (Figure 5.3).

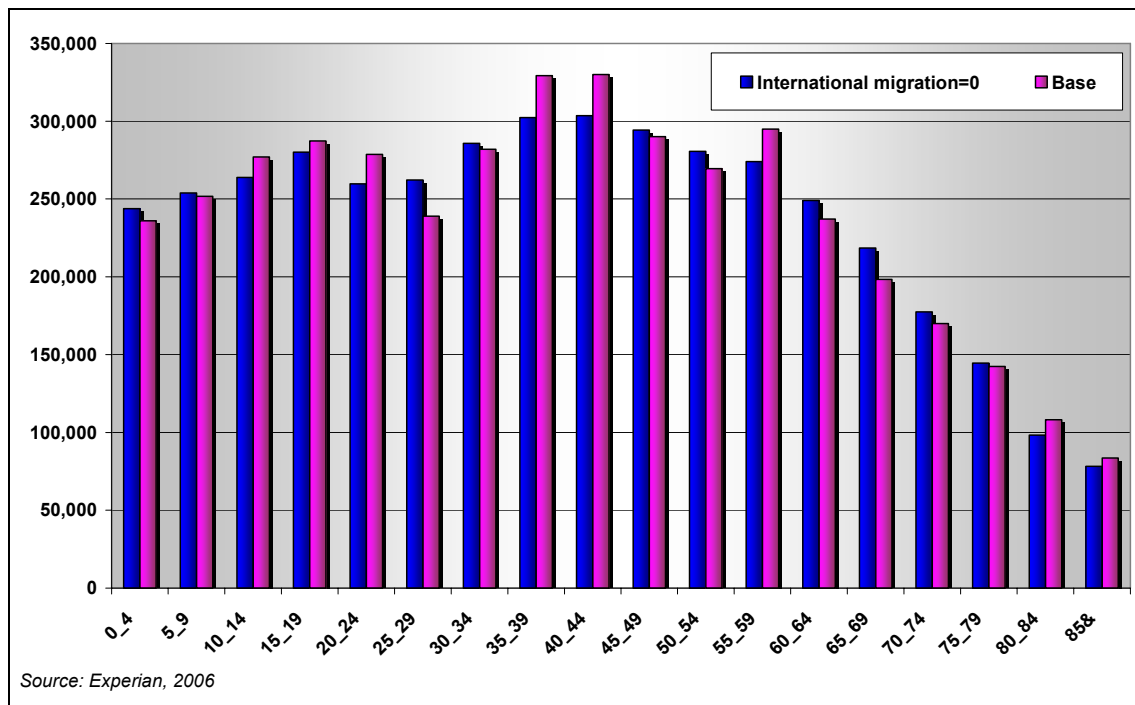
Indeed, in the absence of international migration, the pensionable age population would have expanded at an average annual rate of 1.2 per cent each year from 1995 as opposed to 0.9 per cent. As a consequence, those of pensionable age would make-up 19.7 per cent of the region's population – greater than the 19.1 per cent they comprise currently.

Interestingly, the working age population would have grown at 0.4 per cent each year in the absence of international migration, slower than the actual rate of 0.6 per cent. This illustrates

how international migration has expanded the working age population available to businesses in the region.

International migration has had the biggest effect on the 35 to 39, and 40 to 44 age group, with the population in both these age groups 8 per cent greater than in its absence. However, outflows to overseas have caused a decline in the 60 to 69 age cohort as well as the 25 to 29 age cohort.

**Figure 5.3: East Midlands population by five-year age cohort**



International migration has, therefore, acted to ease both total and aged dependency ratios. In the absence of migration the total dependency ratio in the region would have been 60.2 in 2005 as opposed to 58.4 as it stands currently. Similarly, given migration has had a positive impact on the working age population in the East Midlands, the pensionable age dependency ratio is 1.4 points lower as a result of international migration trends.

Although international migration has had an impact on the East Midlands as a whole, there have been varying degrees of relative impact in each of the region's counties and unitary authorities.

The most significant impact of international migration has been seen in Leicester and Nottingham. In Leicester, the working age population would have declined by 0.4 per cent per annum in the absence of international migration as opposed to an expansion of 1.2 per cent. In Nottingham, in the absence of international migration, the working age population would have expanded by only 0.5 per cent per annum. This is slower growth than the actual 2.1 per cent.

The impact of international migration on the pensionable age population has also been significant in the East Midlands sub-regions. In all sub-regions except for Nottingham and Leicester, the pensionable age population would be greater without international migration (ranging from 4 to 6 per cent greater).

**Figure 5.4: Expansion of the sub-regional population by broad age group (Average Annual Growth, 2002 to 2005)**

	No international migration			Base		
	Children	Working age	Pensionable age	Children	Working age	Pensionable age
East Midlands	-0.3	0.4	1.8	-0.6	0.8	1.1
Derby	-0.7	0.2	0.4	0.2	0.5	0.2
Leicester	-1.2	-0.4	-1.1	-0.8	1.2	-0.8
Nottingham	-2.1	0.5	-1.7	-1.8	2.1	-1.5
Rutland	0.4	0.9	4.6	1.2	1.2	3.2
Derbyshire	-0.6	0.3	1.7	-0.7	0.4	0.9
Leicestershire	-0.2	0.5	2.6	-0.4	0.6	1.6
Lincolnshire	-0.3	0.9	2.6	-0.5	1.1	2.0
Northamptonshire	0.2	0.7	2.3	-0.1	0.8	1.5
Nottinghamshire	-0.6	0.5	1.7	-0.9	0.5	1.2

*Source: Experian, 2006*

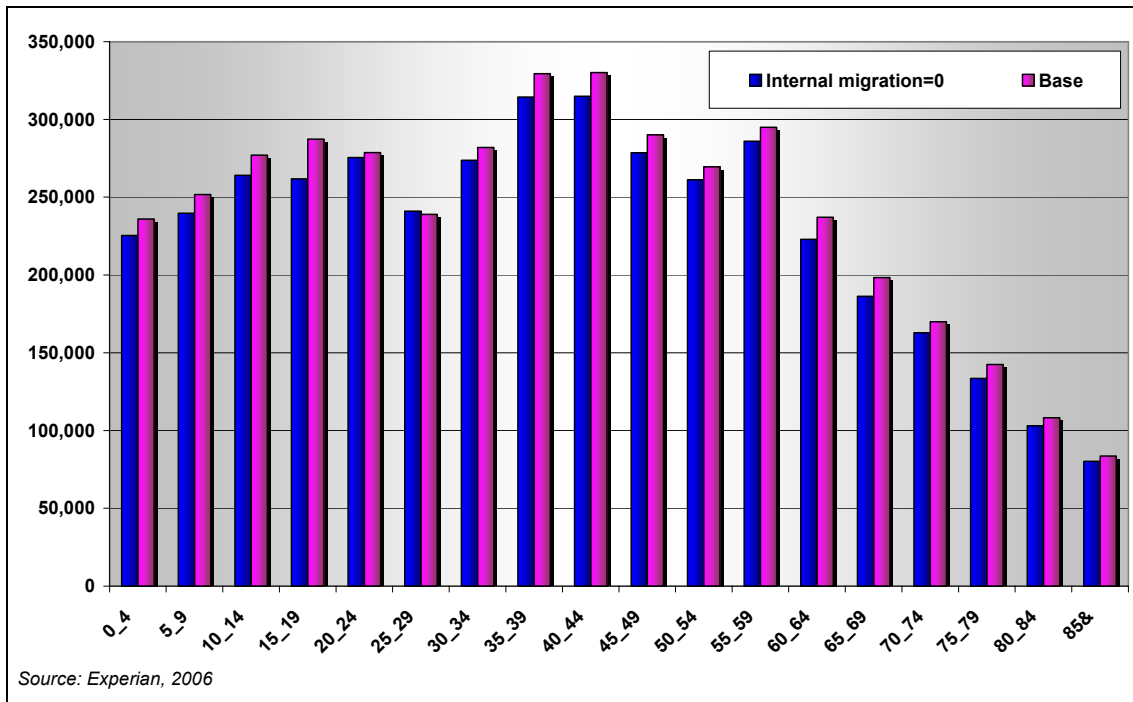
#### **5.4 THE CONTRIBUTION OF INTERNAL MIGRATION FLOWS TO DEMOGRAPHIC CHANGE- GENDER AND AGE**

Inflows from elsewhere in the UK since 1995 have increased the East Midlands population by 4 per cent.

They have also impacted the age profile of the region, driving more rapid expansion of both the working age and pensionable age populations. In the absence of internal migration flows, the working age population would have grown at an average annual rate of 0.3 per cent over the last decade as opposed to 0.6 per cent. Similarly, the pensionable age population would have increased at an average annual rate of 0.4 per cent as opposed to the actual rate of growth of 0.9 per cent.

However, it is important to note that internal migration has impacted every age cohort and the most notable impact has been on the 15 to 19 population. Indeed the population of this age cohort is 15 per cent greater now than what it would have been if internal migration flows had been nil since 1995. Internal migration has also caused significant increases in the population of the East Midlands aged between 5 and 14; 35 and 44; 60 and 69; and 75 and 84 (Figure 5.5).

**Figure 5.5: East Midlands population by five-year age cohort**



Interestingly, while internal migration has acted to push up aged dependency ratios it has done so only marginally, as the region as a whole has been subject to substantial inflows of working age people as well as those of pensionable age. In the absence of internal migration the aged dependency ratio would stand at 29.7 as opposed to its current level of 30.3.

Given the patterns of internal migration within the East Midlands, it is unsurprising that internal migration has had a varying impact on the sub-regions of the East Midlands. In Leicester for example, internal migration patterns have meant that the working age population has expanded at a much slower pace. Conversely, the working age populations in Rutland and Lincolnshire have increased more rapidly as a result. Moreover, Nottingham and Leicester have witnessed a significant decline in the pensionable age population as a consequence of internal migration. Conversely, Rutland and Lincolnshire have gained large numbers of older people as a consequence of internal migration patterns and the pensionable age population is 8 per cent and 6 per cent higher as a consequence.



**Figure 5.6: Expansion of the sub-regional population by broad age group (Average Annual Growth, 2002 to 2005)**

	No internal migration			Base		
	Children	Working age	Pensionable age	Children	Working age	Pensionable age
East Midlands	-1.0	0.5	0.7	-0.6	0.8	1.1
Derby	-0.4	0.7	0.7	0.2	0.5	0.2
Leicester	0.7	2.2	0.2	-0.8	1.2	-0.8
Nottingham	0.2	2.2	0.2	-1.8	2.1	-1.5
Rutland	-0.6	0.3	0.6	1.2	1.2	3.2
Derbyshire	-1.5	0.1	0.7	-0.7	0.4	0.9
Leicestershire	-1.3	0.1	1.3	-0.4	0.6	1.6
Lincolnshire	-1.8	0.2	0.5	-0.5	1.1	2.0
Northamptonshire	-1.1	0.3	1.2	-0.1	0.8	1.5
Nottinghamshire	-1.8	0.0	1.0	-0.9	0.5	1.2

Source: Experian, 2006

## 5.5 THE CONTRIBUTION OF MIGRATION FLOWS TO DEMOGRAPHIC CHANGE – ETHNICITY AND OCCUPATION

Data concerning the ethnic and occupational profile of international and internal inflows and outflows, particularly over time, is limited. As a consequence it is not possible to undertake the detailed analysis (similar to that undertaken in Section 4.2 to 4.4) of the contribution of migration flows to the ethnic and occupational profile of the population.

That said, earlier sections of this report have discussed the characteristics of internal and international migrants, at a snapshot point in time, facilitating some qualitative analysis of the impact of migration patterns.

### *International migration*

Looking at international migration, unsurprisingly a significant proportion of those moving to the region from overseas are from minority ethnic groups and will therefore be acting to increase the diversity of the East Midlands population. That said, A8 migrants are more commonly of white ethnic groups, although like BME groups will exhibit similar integration difficulties.

Moreover, it is not known whether these migrants will settle in the UK and it is ultimately the ethnic profile of net international migration that will dictate the direct impact of international migration flows on the ethnic profile of the population.

Turning to the contribution of international migration flows to changes in the occupational profile of the population, it is arguably the occupational profile of the economy that drives the types of roles migrant workers are filling, rather than the other way around. Moreover, the occupational profile of migrant workers is also driven to some extent by UK immigration policy, particularly sector-based schemes and work permit restrictions.

Indeed, this (and other studies<sup>69</sup>) have highlighted that migrant workers are finding employment in both low skill roles (e.g. elementary occupations in food processing and other manufacturing and hospitality) as well as technical occupations (often in the construction industry) and higher skilled roles in health and teaching.

<sup>69</sup> See particularly “Migrant Workers in the East Midlands Labour Market”, Institute of Employment Research, on behalf of East Midlands Development Agency, November 2006.

### *Internal migration*

For internal migration it is intra-regional migration flows at the local level that are of greatest interest. Census and APS data suggest that a greater proportion of those moving into the region from elsewhere in the UK are from minority ethnic groups compared to those moving out.

In occupational terms, evidence from the Census suggests that the region is gaining more people from elsewhere in the UK employed within routine and semi-routine occupations than it is losing to other regions, as well as gaining more managers and professionals. However, the net gain of those employed in routine and semi-routine occupations far outweighs the net gain of those in managerial and professional occupations (by around 5,000 people on Census data).

Considering intra-regional migration movements, it is clear that the patterns of city flight witnessed over the last decade are dominated by white people moving away from the cities towards rural areas.

Moreover, evidence from the Census suggests that it is those working within higher level occupations, such as managers and professionals, that are more likely to move from the region's three cities to its rural areas. Meanwhile, those employed within routine and semi-routine occupations are less likely to make this move.

Collectively, this suggests that city-flight migration patterns are likely to act to concentrate ethnic minority groups and those employed in low skilled occupations in the cities, whilst the rural areas gain numbers of those working in managerial and professional occupations.

## 6 The contribution of migration flows to demographic change going forward

### KEY MESSAGES

- Trend-based population projections suggest that over the next 20 years the population of the East Midlands will continue to grow rapidly.
- This will be particularly true in Lincolnshire and Northamptonshire, whilst the populations of Nottingham, Leicester and Derby are forecast to remain fairly static.
- Trend-based projections show that the population will continue to age. The pensionable age population will continue to grow much more rapidly than the working age population, leading to higher aged dependency ratios. The largest increase will be in Lincolnshire and Rutland.
- Migration will continue to be the main driver of population growth, particularly internal migration. Without migration the population would remain fairly static.
- Internal migration is expected to continue to push up aged dependency ratios, whilst international migration should have the opposite effect.
- Scenario 1 shows the likely effects of international in-migration falling back to pre-2000 levels. The region's population would grow slightly less rapidly, whilst the largest impact would be in the three cities sub-region, with Nottingham's total population declining year on year.
- It is also likely that the largest effect of such changes would be on the working age population. The working age population would remain almost completely static over the 20-year period, whilst the pensionable age population would continue to grow at trend-based rates.
- Scenario 2 shows that there are some discrepancies between trend-based population projections and RSS dwelling-led population projections. Dwelling-led projections are notably higher for Leicester, Derby and Northamptonshire, but lower for Rutland and several other rural areas. The largest discrepancies are in Northampton and Corby (where RSS projections are higher), both of which are part of the Milton Keynes and South Midlands Growth Area.
- Scenario 3 analyses the possible effect of the East Midlands becoming more 'competitive'. It is likely that the population will grow more rapidly, driven by higher net internal migration and higher flows of international in-migration. It is also likely that the region would attract larger numbers of young working families, helping to cushion aged dependency ratios.
- Sub-regionally, the cities of Nottingham, Leicester and Derby are expected under this scenario to reduce the process of 'city flight'. This will help their populations grow more rapidly, although outside the cities the population will grow below trend as net internal migration is lower.

### 6.1 INTRODUCTION

This chapter considers the role that migration flows are likely to play in shaping demographics in the East Midlands in the future. It begins by considering trend-based population projections (based on ONS Sub-National Population Projections) and the role that migration will play if past trends continue into the future.

Following on from this, Sections 6.3 to 6.5 present three scenarios considering how changes to

the economic climate in the East Midlands and elsewhere may influence migration patterns, based on our analysis of the key drivers of demographic change.

## 6.2 TREND BASED POPULATION PROJECTIONS

### 6.2.1 Headline demographic trends

Projections for expansion of the population over the next two decades suggest that if past trends continue the East Midlands population will expand by 0.6 per cent on average per annum over the next decade (Figure 6.1).<sup>70</sup>

Expansion of the population is expected to be most rapid in Lincolnshire, with the population expected to increase at an average annual rate of 1.0 per cent over the next two decades. Northamptonshire is also anticipated to witness substantial population growth, given the county is part of the Milton Keynes and South Midlands (MKSM) growth area.

Conversely, the population of the region's three cities is expected to remain largely static, with population growth per annum of around 0.2 per cent each in Leicester and Derby and 0.1 per cent in Nottingham.

**Figure 6.1: Average annual population growth**

	2006-2015	2016-2025
<b>East Midlands</b>	<b>0.6</b>	<b>0.5</b>
Nottingham	0.1	0.2
Leicester	0.2	0.2
Derby	0.2	0.3
Rutland	0.8	0.6
Nottinghamshire	0.5	0.5
Leicestershire	0.6	0.5
Derbyshire	0.4	0.4
Northamptonshire	0.8	0.7
Lincolnshire	1.0	0.8

*Source: Experian 2007, based on ONS Sub National Population Projections*

The ageing of the population is, however, forecast to continue. Indeed, while the working age population in the East Midlands is expected to increase by 0.1 per cent per annum over the next two decades, the pensionable age population is expected to expand at an average annual rate of 2.1 per cent over the period (Figure 6.2).

While the region's counties (excluding their respective cities) are expected to witness the greatest expansion of the population between 2006 and 2025, this will be driven by strong expansion of the pensionable age population.

<sup>70</sup> Trend-based projections are based on the average internal migration rates of the previous 5 years continuing into the future and assumptions about the future path of birth and death rates.

**Figure 6.2: Average annual population growth by broad age cohort, 2006 to 2025**

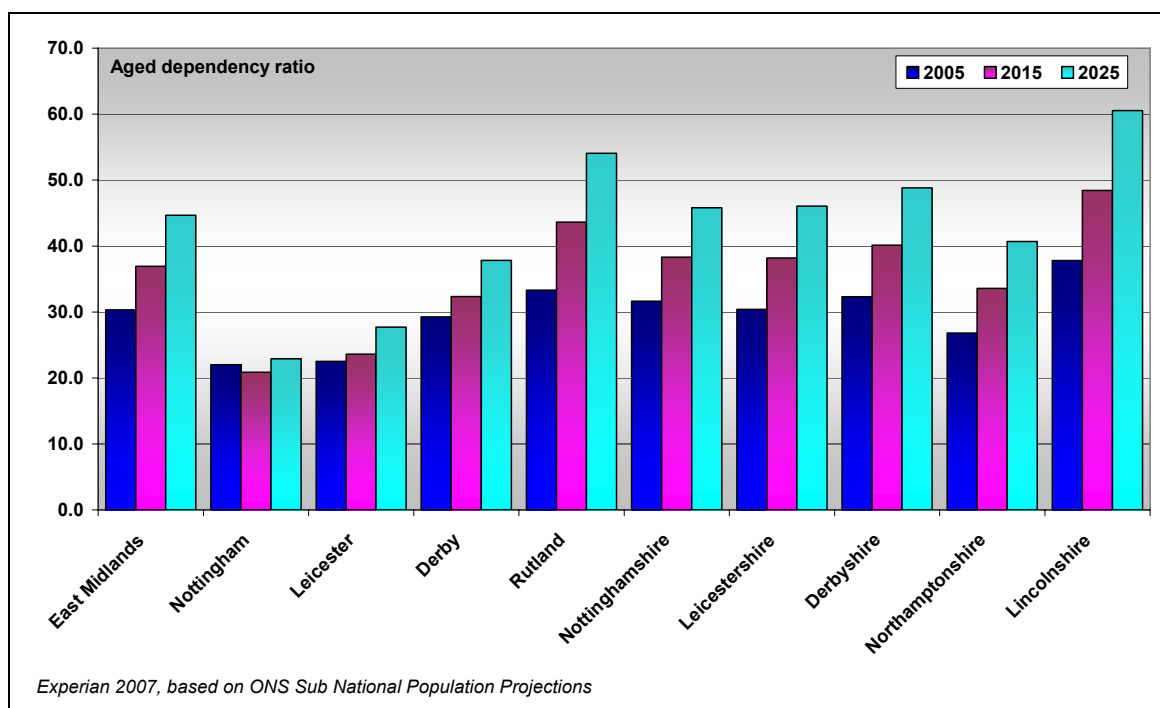
	Total population	Working age population	Pensionable age population
<b>East Midlands</b>	<b>0.5</b>	<b>0.1</b>	<b>2.1</b>
Nottingham	0.1	0.1	0.5
Leicester	0.2	0.0	1.2
Derby	0.2	0.0	1.4
Rutland	0.6	0.0	2.5
Nottinghamshire	0.5	0.0	1.9
Leicestershire	0.6	0.1	2.2
Derbyshire	0.4	-0.1	2.1
Northamptonshire	0.7	0.3	2.5
Lincolnshire	0.9	0.2	2.7

*Source: Experian 2007, based on ONS Sub National Population Projections*

As a consequence of these trends, the aged dependency ratio in the East Midlands is expected to increase from 30.3 in 2005 to 36.9 in 2015 and 44.7 by 2025 (Figure 6.3).

Rural parts of the region, particularly Rutland and Lincolnshire, are expected to witness the greatest increase in aged dependency ratios. Indeed, the aged dependency ratio in Lincolnshire is expected to rise from 37.5 in 2005 to 60.5 by 2025, with the county remaining the East Midlands' sub-region with the highest aged dependency ratio by quite a margin.

**Figure 6.3: Trend based projections of aged dependency ratios**

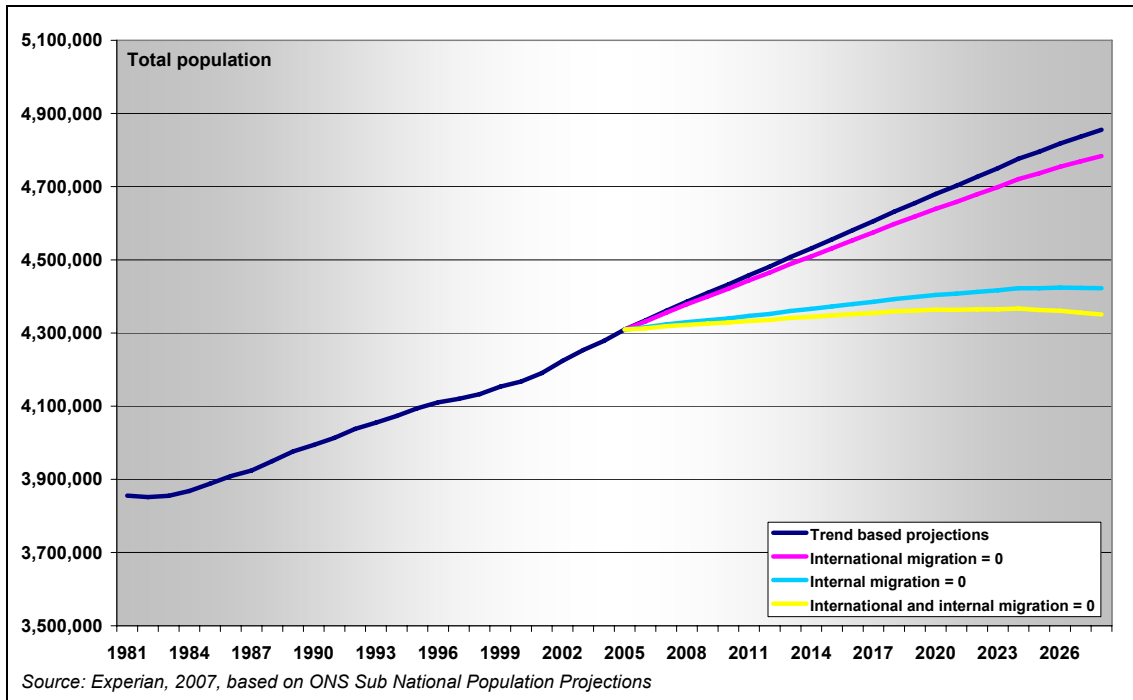


### 6.2.2 The role of migration in demographic change

Looking forward, migration is expected to remain the primary driver of demographic change in the East Midlands. Indeed, in the absence of both international and internal migration the East Midlands population would remain largely static over the next decade, expanding at just 0.06 per cent on average per annum as opposed to 0.53 per cent.

As illustrated by Figure 6.4, internal migration is expected to remain by far the largest component of population change in the East Midlands. Indeed, the effect of international migration on the region’s population as a whole is marginal – in the absence of international migration the population would expand at an average annual rate of 0.47 per cent between 2006 and 2025 (trend-based = 0.53 per cent each year). Conversely, in the absence of internal migration the East Midlands’ population would expand at the much lower average annual rate of just 0.12 per cent per annum.

**Figure 6.4: Population projections for the East Midlands – the role of migration**

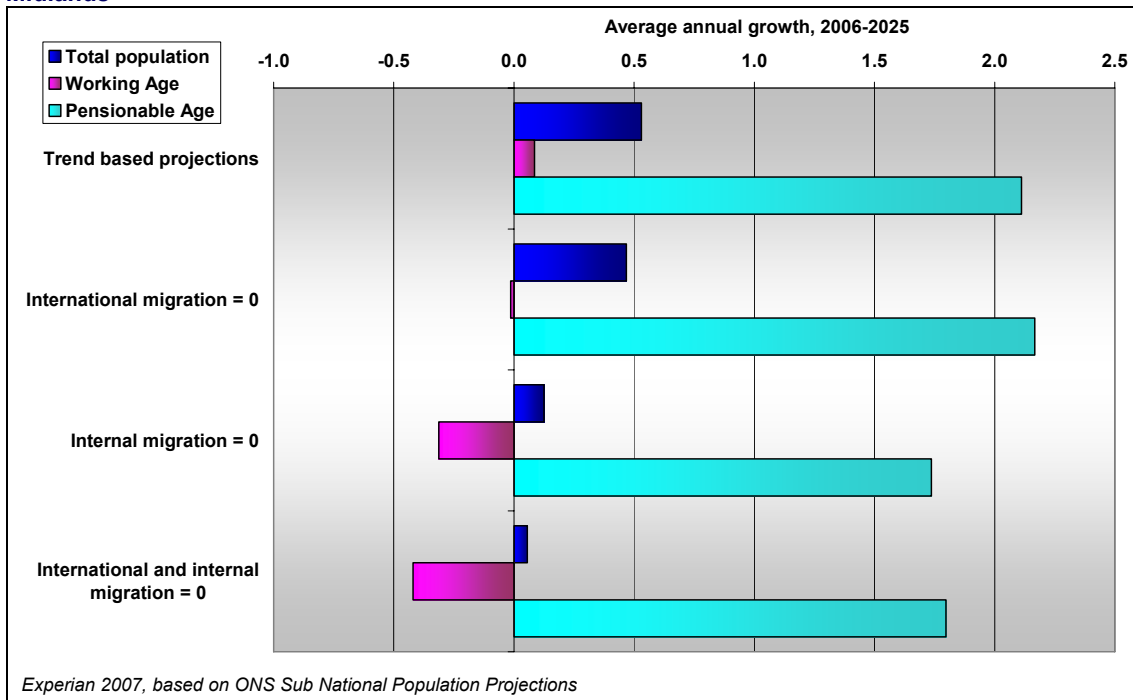


However, as highlighted throughout this report international and internal migration have differing effects on the age profile of the population. It is therefore important to ‘unpick’ the effects of migration trends on the future expansion of specific age cohorts of the East Midlands population.

In the absence of international migration, the working age population would be expected to decline only slightly year-on-year over the next two decades. However, it is internal migration that is expected to have the greatest impact on the working age population. Indeed, in the absence of migration flows to and from the rest of the UK, the East Midlands working age population would decline by 0.3 per cent on average per annum between 2006 and 2025, as opposed to current projected growth of 0.1 per cent.

That said, internal migration is also driving expansion of the pensionable age population. Indeed, in the absence of internal migration, the region’s pensionable age population would expand at an average annual rate of 1.7 per cent over the next two decades, as opposed to 2.1 per cent. In contrast, international migration patterns act to mitigate these trends slightly (Figure 6.5)

**Figure 6.5: The contribution of migration to demographic change by broad age group, East Midlands**



However, the contribution of migration to future population growth varies substantially at a sub-regional level.

International migration is expected to drive significant expansion of the working age population in urban areas and in the case of Nottingham and Leicester, the working age population would be forecast to decline significantly in its absence (Figure 6.6). Conversely in rural areas, international migration is expected to mitigate the expansion of the pensionable age population, as outflows of older people overseas continue (Figure 6.7).

Internal migration, meanwhile, is expected to continue to drive expansion of the working age and pensionable age population in rural areas. In urban areas, however, the working age and pensionable age population would expand far more strongly in the absence of internal migration flows. This is particularly true for Nottingham and Leicester.

Figure 6.6: Av. annual growth- working age population

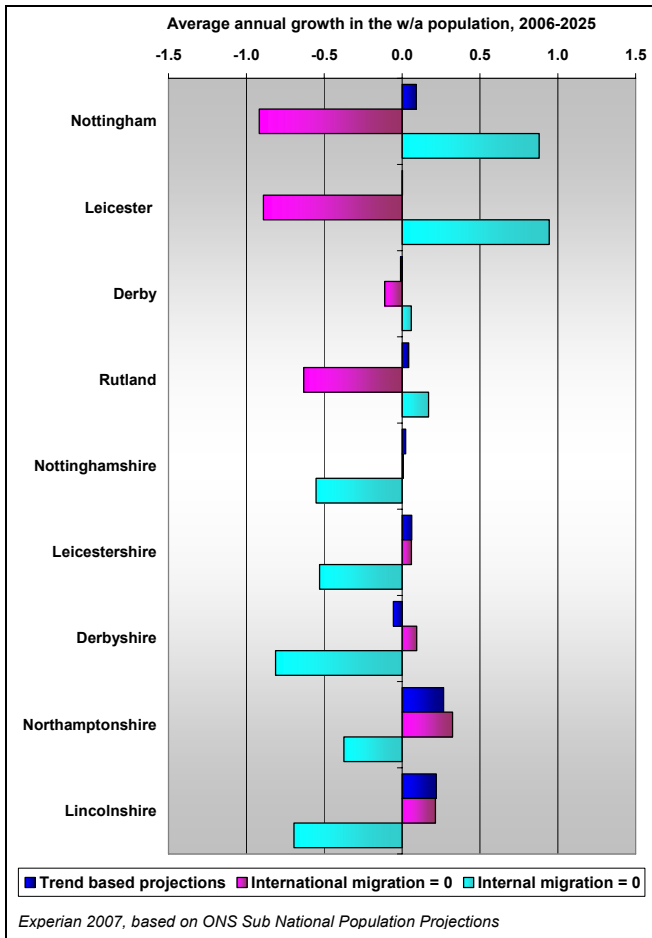
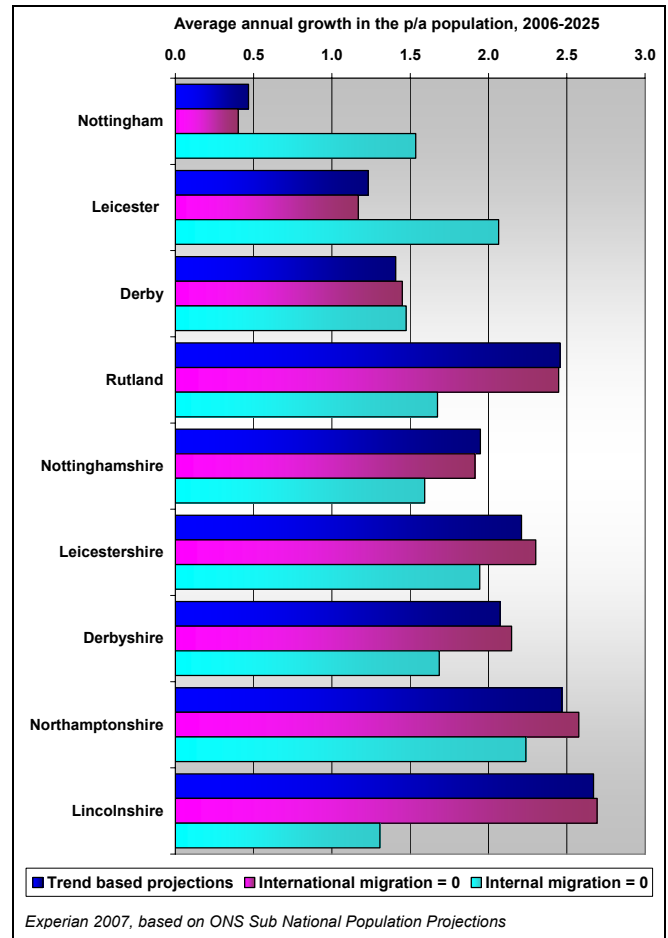


Figure 6.7: Av. annual growth- pensionable age population



Migration (internal and international collectively) is expected to continue to mitigate the aging of the East Midlands population slightly- in the absence of both internal and international migration the East Midlands aged dependency ratio would stand at 46.4 in 2025, as opposed to the 44.7 predicted if past trends continue into the future (Figure 6.8).

At the aggregate level, migration flows between the East Midlands and the rest of the UK are expected to drive a slight increase in the aged dependency ratio. This will, however, be offset by international migration flows, as the region continues to witness inflows of working age people from overseas and outflows of older people to sunnier climates.

That said, this trend is not ubiquitous across all of the East Midlands sub-regions. Indeed, while dependency ratios are expected to be significantly lower in the three cities as a consequence of migration, more rural parts such as Rutland and Lincolnshire will have significantly higher aged dependency ratios as a consequence of migration patterns.



**Figure 6.8: Aged dependency ratios, 2025**

	Trend based	No International migration	No Internal migration	No migration
<b>East Midlands</b>	44.7	46.0	44.9	46.4
Nottingham	22.9	27.7	24.1	28.3
Leicester	27.7	32.7	26.9	30.8
Derby	37.8	38.9	37.7	38.7
Rutland	54.0	61.7	45.3	51.5
Nottinghamshire	45.8	46.5	48.7	49.6
Leicestershire	46.1	46.9	49.1	50.0
Derbyshire	48.8	48.0	52.5	51.5
Northamptonshire	40.7	41.1	44.2	44.6
Lincolnshire	60.5	60.8	55.9	56.2

*Source: Experian 2007, based on ONS Sub National Population Projections*

### 6.3 SCENARIO 1: EXOGENOUS CHANGES IN EUROPE

#### Description of scenario

This scenario will examine the possible impact on migration flows into the East Midlands if changes were to occur in Europe that the region itself has little or no control over.

Specifically, it will examine the effects of a more liberal attitude towards A10 migrants in other western European countries, for example France and Germany, as well as the possible effects of convergence in the quality of life between Eastern Europe and the UK.

#### Contextual overview

Enlargement of the European Union in 2004 has had a significant impact on the UK labour market. In the case of the East Midlands, international migrants from the accession countries have generally been of young working age, typically aged between 16 and 44. The UK Government has taken a liberal attitude towards A8 migrants, being one of just a handful of countries to allow essentially free entry to the labour market.<sup>71</sup> Other countries, significantly France and Germany, have not allowed such free access to the labour market, putting in place ‘transitional restrictions’ which allow migrants to work in selected industries.<sup>72</sup>

Transitional restrictions can only be put in place for a maximum of seven years, after which time each country must open its labour market to citizens from the accession countries. This means that for those imposing restrictions, these must be lifted by 2011 for workers from the A8 countries, and 2014 for workers from Romania and Bulgaria (who joined the EU in January 2007). It is likely that Germany will prove a particularly popular destination for A10 migrants, as has been the case historically. Official German forecasts suggest that Germany could account for two thirds of all migratory flows from the accession countries.<sup>73</sup>

Continental Europe’s relative geographical proximity, as well as the large numbers of nationals from accession countries already living in these countries, means that A8/ A10 nationals currently working in the UK may instead choose to work closer to home on the continent. The benefits of continental Europe also mean that those migrants moving westward for economic or personal development reasons will have a greater selection of countries offering free access to

<sup>71</sup> The others being Ireland, Sweden, Italy, Finland, Greece, Portugal and Spain.

<sup>72</sup> J Traser (2006) *Who’s Still Afraid of European Enlargement?* European Citizen Action Service.

<sup>73</sup> *Ibid.*

the labour market, stemming the flow of new arrivals to the UK. This section will analyse the effects that these changes might have on migration flows to the East Midlands.

Moreover, as the accession countries themselves begin to play economic ‘catch-up’ with Western Europe (particularly given the commitment of extensive EU funds for development) the income and quality of life differential that exists may diminish, lessening one of the major drivers of international migration flows to the UK.

### Assumptions

In both cases therefore, it is likely that the current flow of A8/ A10 migrants to the UK will diminish. In quantifying the effects of such changes on the population of the East Midlands, the following assumptions have been made:

- The inflows of people aged between 25 and 44 will fall back to levels seen between 1991 and 2000. Projections of international in-migration to the East Midlands of those aged between 25 and 44 have therefore been scaled back by 37 per cent
- As international out-migration is a function of international in-migration, there will be a corresponding decline in international out-migration. Specifically, in each LAD, outflows will decline by 67 per cent of the decline in inflows
- Internal migration remains unchanged.<sup>74</sup>

### Results

Figure 6.9 illustrates population projections for the East Midlands over the period 2006 to 2025, comparing trend-based forecasts against this ‘low international migration’ scenario.

Unsurprisingly, with lower international migration into the region the population of the East Midlands increases at a slower pace than under current trend-based forecasts.

Indeed, should international migration inflows revert back to levels seen prior to A8 accession, the population in the East Midlands will expand at an average annual rate of 0.48 per cent per annum between 2006 and 2015, as opposed to the 0.56 per cent expected if more recent trends persist.

**Figure 6.9: Average annual population growth – trend based vs scenario 1 (low international migration)**

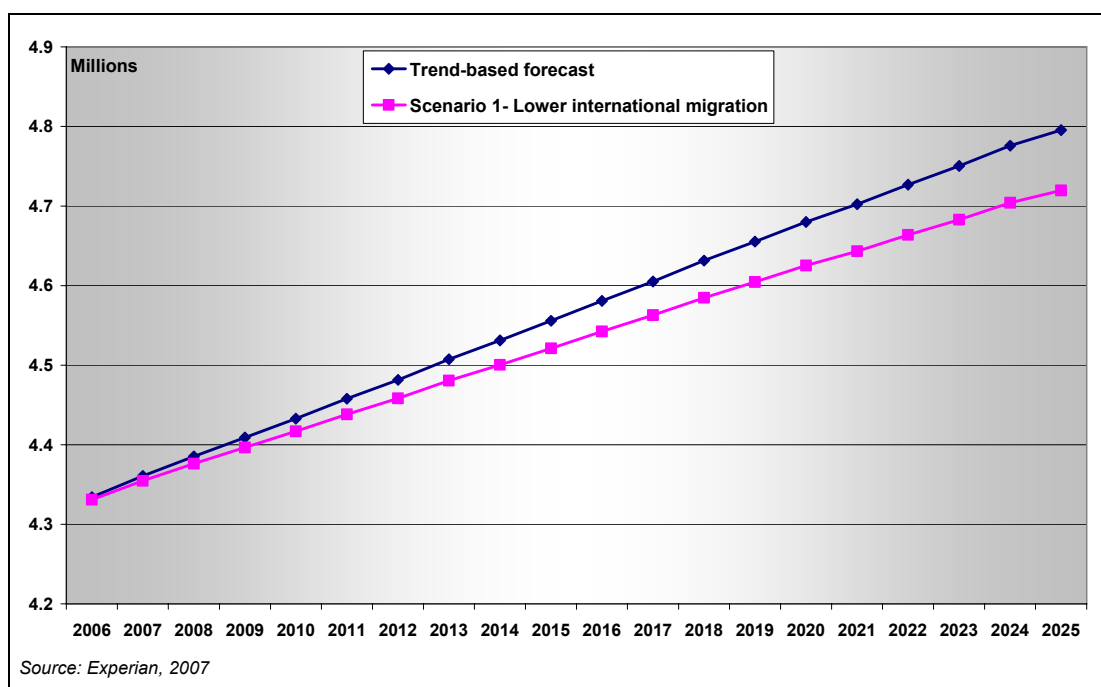
	Trend-based			Scenario 1 (low international migration)		
	Male	Female	Total	Male	Female	Total
2006-2015	0.59	0.52	0.56	0.54	0.42	0.48
2015-2025	0.52	0.52	0.52	0.46	0.41	0.43

*Source: Experian, 2007*

Given that international migration has not been the main driver of population growth in the region, this differential is not large and under this scenario the population of the region is 1.6 per cent lower in 2025 than it would be under current trend-based forecasts (Figure 6.10).

<sup>74</sup> It is important to note, however, that should international migration flows to the UK fall back to pre-A8 accession levels this could potentially impact the flow of migrants to the East Midlands from elsewhere in the UK, given significant numbers of migrants often arrive in London and then disperse more widely throughout the UK. For the purposes of this exercise, we focus on the impact of this change on international migration flows.

**Figure 6.10: Population projections for the East Midlands- trend based vs Scenario 1 (low international migration)**



At a sub-regional level, the greatest impact of lower international in-migration would be felt in the region's two largest cities, which in the past have attracted the greatest in-migration from overseas (Figure 6.11). Indeed, should international migration to the region drop back to longer term trends, the population in Nottingham would be forecast to decline slightly each year over the next two decades.

Population growth would also slow in the region's counties, although to a lesser degree. Rutland would also witness substantially slower expansion of its population in the event of low international migration, illustrating that while international inflows to the local authority area are small compared to that of the cities, they comprise a significant part of the population.

**Figure 6.11: Population projections for the East Midlands sub-regions- trend based vs Scenario 1 (low international migration)**

	Trend-based		Scenario 1 (Low International Migration)	
	2006-2015	2015-2025	2006-2015	2015-2025
Nottingham	0.12	0.16	-0.07	-0.06
Leicester	0.19	0.24	0.00	0.03
Derby	0.22	0.26	0.15	0.18
Rutland	0.77	0.62	0.64	0.47
Derbyshire	0.43	0.42	0.40	0.39
Leicestershire	0.58	0.54	0.51	0.47
Lincolnshire	0.97	0.80	0.91	0.74
Northamptonshire	0.77	0.68	0.70	0.60
Nottinghamshire	0.47	0.46	0.40	0.39

Source: Experian, 2007

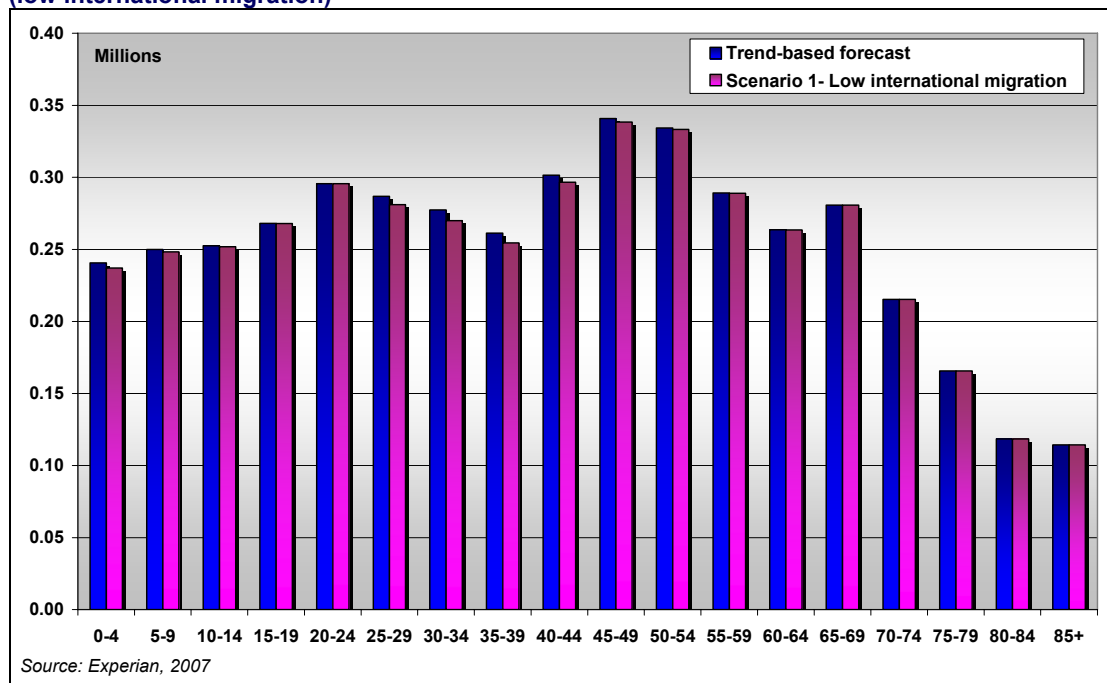
Analysing the impact of this scenario on demographic change, it is clear that the working age population is likely to grow more slowly under this scenario, whilst the pensionable age population is likely to grow at very similar rates.

This difference in growth rates of broad age groups manifests itself in higher dependency ratios under this scenario than under the trend-based forecast. Indeed, the aged dependency ratio is 45.5 under this scenario, compared to 44.7 under trend-based forecasts.

Looking beyond headline population figures, it can be seen that the working age population is clearly growing more slowly at a sub-regional level under this scenario than the trend-based projections. This is causing a notable decline in the working age populations of the three largest cities, whilst the pensionable age populations are expected to grow under both forecasts. The pensionable age population is growing at similar rates under both this scenario and the trend-based projections, which reflects the findings in this report that A8 migrants tend to be of young working age.

Given the characteristics of international migrants (and the assumptions of this scenario), the fall back in international inflows to the East Midlands is most noticeable amongst those aged between 25 and 44, particularly the 35 to 39 age cohort (Figure 6.12).

**Figure 6.12: Population projections for the East Midlands by age band – trend-based vs Scenario 1 (low international migration)**



Indeed, without the substantial inflow of international migrants to the East Midlands, the region’s working age population is expected to grow at a slower rate between 2006 and 2015 and decline slightly between 2015 and 2025. Conversely, given that few international in-migrants to the region are of pensionable age, expansion of these age cohorts will continue at trend based rates (Figure 6.13).

**Figure 6.13: Population projections for the East Midlands by broad age group- trend based vs Scenario 1 (low international migration)**

	Trend-based		Scenario 1	
	2006-2015	2015-2025	2006-2015	2015-2025
Working Age	0.19	0.02	0.09	-0.09
Pensionable Age	2.32	1.95	2.32	1.93

Source: Experian, 2007

## Summary

As highlighted in earlier sections of this report, in-migration to the region from overseas has played a key role in mitigating the ageing of the East Midlands population. However, the recent upsurge in international migration to the region (and UK) is likely to fall from its historically high levels in the coming years. As other Western European countries open their labour markets to migrants from more recent additions to the European Union and income and quality of life differentials diminish, one might expect international in-migration to the UK to plateau and even return to longer term trends.

This scenario has assessed the potential impact of this on the demographics of the East Midlands. In the absence of the substantial net international in-migration seen in recent years, the East Midlands population would expand at a slightly lower rate than if past trends persist, although not substantially so given international migration is a relatively small component of population change. The largest effects would clearly be felt in the three cities of Nottingham, Leicester and Derby where population growth would be notably lower.

The most interesting trend however is the impact of changes in international migration on the age profile of the region's population. Indeed over the longer term, if international migration trends were to fall back, the working age population in the East Midlands would decline. As the pensionable age population continues to grow at a similar rate, aged dependency ratios in the region would therefore increase.

## 6.4 SCENARIO 2: HOUSING MARKET CONSTRAINTS

### Description of scenario

This scenario focuses on the housing projections used to underpin the latest East Midlands Regional Spatial Strategy (RSS8)<sup>75</sup>, and analyses whether these are consistent with the migration patterns and projections discussed throughout this report. Population projections used in the RSS are known as 'dwelling-led' projections, and this scenario compares these dwelling-led projections with ONS trend-based projections.

This scenario, therefore, compares the population projections produced by ONS with the population figures implied by the RSS when planning additional housing for the East Midlands. It also considers the consequences of the RSS projections for internal migration, i.e. what levels of internal migration are consistent with the dwelling-led population projections used in the RSS.

### Contextual overview

The latest draft East Midlands Regional Spatial Strategy (RSS8) provides a spatial planning strategy for the region up to 2026.<sup>76</sup> Produced by the East Midlands Regional Assembly (EMRA), the Strategy covers four major topics: housing, economy and regeneration, natural and cultural resources and the regional transport strategy. This scenario focuses specifically on the housing projections underpinning the RSS.

One aim of the RSS is to “ensure that sufficient additional housing is provided to meet requirements, taking into account anticipated growth based on past trends and future prospects in the Region, and Government policies for Growth Areas and New Growth Points.”<sup>77</sup> Housing

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<sup>75</sup> East Midlands Regional Assembly, Draft East Midlands Regional Plan, 2006.

<sup>76</sup> *Ibid.*

<sup>77</sup> *Ibid* p.23.

strategies, therefore, must react to population trends, and yet housing simultaneously acts as a driver of population trends by its influence on migration.

This scenario examines the extent to which dwelling-led population projections included in the RSS are consistent with ONS population projections for the region. Dwelling-led population projections are calculated by reversing the process of basing household and dwelling projections on population forecasts. Under dwelling-led population projections, the number of dwellings are used as a basis for population estimates.

## **Assumptions**

This scenario is based on the following assumptions:

- 75 per cent of the required migration adjustment is taken up by internal in-migration and the rest by changes to internal out-migration
- International migration is unchanged
- Birth and death rates remain as predicted by ONS

These assumptions are designed to produce plausible migration flows that are consistent with the RSS population numbers. The RSS does not contain detailed migration numbers, and it is for this reason that this scenario is interesting to policy makers.

## **Results**

At a regional level, the RSS dwelling-led population forecasts would be broadly in line with ONS projections and from 2006 to 2022 dwelling-led projections fall short of the ONS projections by an average of 9,700 per year.

Of more interest to policy makers is to identify the specific areas within the region where discrepancies between trend-based and dwelling-led projections are most prominent.

Figure 6.14 illustrates the average annual growth rates of the Counties and Unitary Authorities under both the trend-based and dwelling-led projections. It can be seen that the populations of the three-cities, particularly Leicester and Nottingham (between 2016 and 2025), are expected to expand more rapidly under the dwelling-based projections than past trends would suggest. For the period 2006-15 however, it is interesting that dwelling-led projections for Nottingham are actually lower than trend-based forecasts.

For the East Midlands counties (excluding their urban centres) it is noticeable that dwelling-led projections are considerably higher for Northamptonshire over both periods, but lower for all other counties except in Lincolnshire between 2016 and 2025. It is also clear that the dwelling-led projections are much lower for the Unitary Authority of Rutland, particularly for the period 2006-2015.

**Figure 6.14: Discrepancy between RSS and ONS trend based population estimates. Average annual growth rates.**

	Trend-based		Scenario 2 (dwelling-led projections)	
	2006-2015	2016-2025	2006-2015	2016-2025
Nottingham	0.13	0.16	0.09	0.53
Leicester	0.18	0.24	0.40	0.46
Derby	0.20	0.26	0.21	0.33
Rutland	0.83	0.56	-0.06	0.38
Derbyshire	0.43	0.42	0.33	0.39
Leicestershire	0.59	0.54	0.36	0.42
Lincolnshire	0.99	0.79	0.72	0.82
Northamptonshire	0.77	0.67	1.24	1.14
Nottinghamshire	0.47	0.47	0.34	0.43

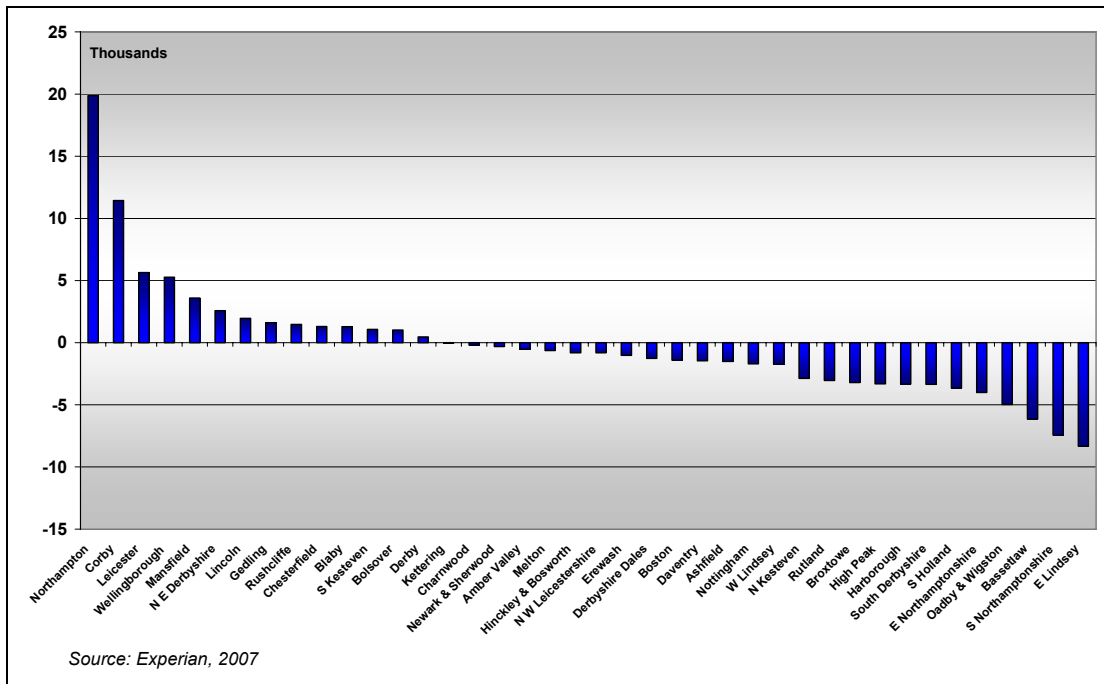
*Source: Experian, 2007*

Figure 6.15 provides further detail, considering the specific districts where the differential between population projections is most notable and potentially pointing to where housing provision may be inadequate to meet demand (if the trend-based population estimates hold true).

The largest discrepancy for the period is in Northampton, where dwelling-led estimates are higher than ONS estimates by an average of around 20,000 a year. This reflects Northampton's inclusion in the Milton Keynes and South Midlands (MKSM) growth area which, if successful, should help to increase the numbers of people migrating to the city. The next largest discrepancy is for Corby (also part of MKSM), whilst RSS projections for Leicester are also well above those of the ONS.

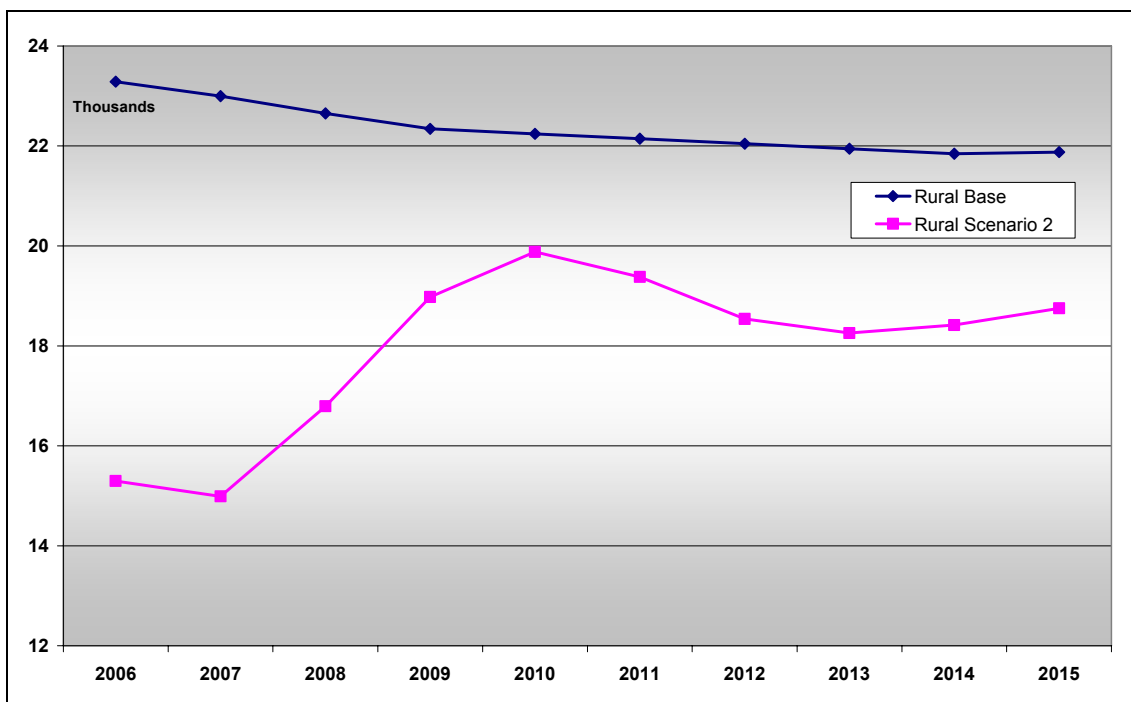
Figure 6.15 also highlights how dwelling-led projections for many rural areas are well below ONS trend-based projections. This is particularly the case for East Lindsey, where dwelling-led projections are around 8,300 below ONS projections on average each year until 2015.

**Figure 6.15: Discrepancy between RSS and ONS trend based population projections for the East Midlands districts, 2006-2015 average**



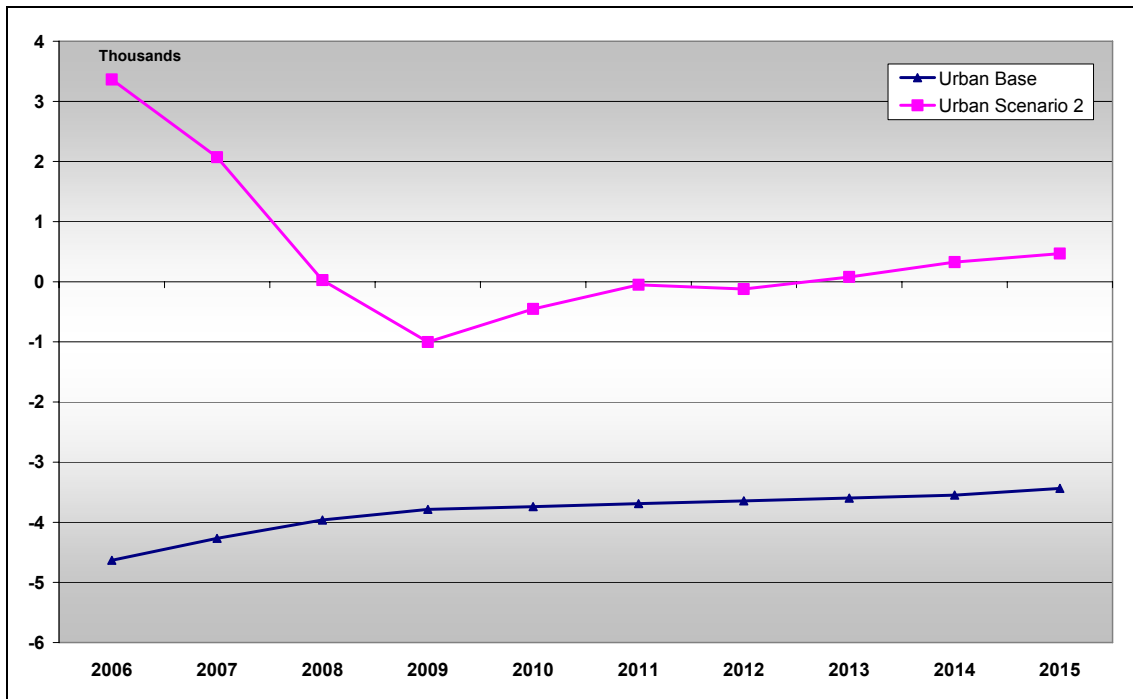
Figures 6.16 and 6.17 highlight the discrepancies between RSS and ONS trend-based projections at the urban and rural levels. Analysing the discrepancies in net internal migration trends at an urban and rural level up to the year 2015, it is clear that the RSS projections imply greater net migration in urban areas, but less migration into rural areas (Figure 6.17 and Figure 6.18). Whilst trend-based projections suggest negative net migration into urban areas, it is noticeable that the RSS projections imply positive, albeit small, net migration for the periods 2006-2008 and 2013-2015.

**Figure 6.16: Discrepancy between RSS and ONS trend based net in-migration projections for rural districts in the East Midlands**





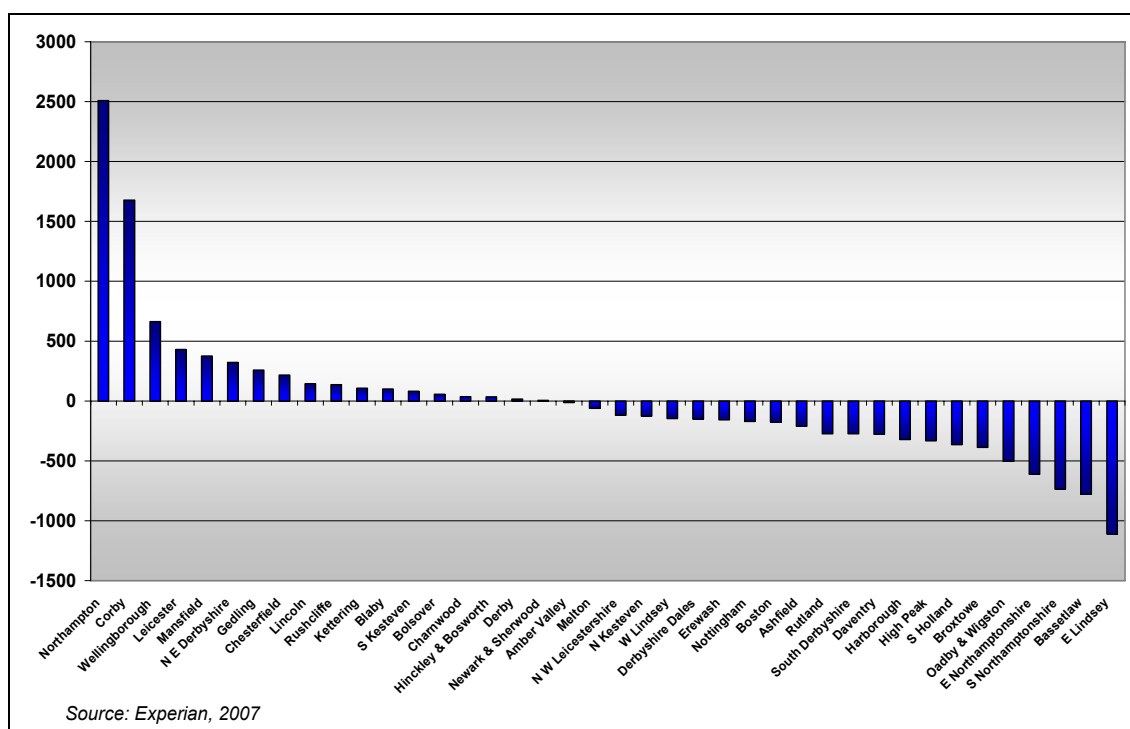
**Figure 6.17: Discrepancy between RSS and ONS trend based net in-migration projections for urban districts in the East Midlands**



This is reinforced by analysis of the discrepancy between trend-based and dwelling led net internal migration figures at LAD level, illustrated in Figure 6.18. Indeed, if RSS population projections hold true, Northampton and Corby would accordingly witness substantially higher net internal migration than past trends would suggest.

Moreover, areas such as East Lindsey, Bassetlaw and South and East Northamptonshire would need to witness a significant turnaround in internal migration patterns, with net internal migration to these areas significantly lower under RSS population projections than trend-based projections.

**Figure 6.18: Discrepancy between RSS and ONS trend based net in-migration projections for the East Midlands districts, 2006-2015 average**



## Summary

This scenario has assessed the degree of alignment between the RSS dwelling-led population projections and ONS trend based projections, highlighting where discrepancies between the two are most prominent. Whilst the two forecasts follow a similar pattern at the regional level, there are some marked differences sub-regionally.

Notably, the population of Northampton is expected to grow much more rapidly under the dwelling-led projections, as is the wider county of Northamptonshire. The three cities are also expected to grow more quickly under dwelling-led estimates, perhaps reflecting some anticipation of measures to stem city flight. The pattern is notably different for rural areas, with many districts, particularly Rutland, East Lindsey and Bassetlaw expected to grow much more slowly under dwelling-led projections.

As the primary driver of population change, there is significant disparity between internal migration flows anticipated under dwelling-based and trend-based projections. Most notably, much greater net internal migration to Northampton, Corby and Leicester would be consistent with dwelling-led projections. Moreover, a significant reversal of past migration patterns to East Lindsey and Bassetlaw, with substantially lower net internal migration to these areas, would be required for RSS based projections to hold true.

## 6.5 SCENARIO 3: IMPROVED REGIONAL COMPETITIVENESS

### Description of scenario

The aim of this scenario is to examine the possible effects on migration if the East Midlands region was to become more ‘competitive’. The inspiration for this scenario is a policy paper commissioned by *emda* in 2005 as part of the RES Review, entitled *Thinking about Regional Competitiveness: Critical Issues*, which was undertaken by Professor Ron Martin. Martin’s

paper provides a review of different concepts and measurements of regional competitiveness, in addition to how policy can be aimed at making any given region more competitive.

This scenario will therefore address two questions.

- If the East Midlands becomes more competitive on an international scale, will there be greater migration (both from elsewhere in the UK and overseas) into the East Midlands, and what effect will this have on demographic change?
- If greater competitiveness leads to the reversal of ‘city flight’, what will be the effects on demographic change within the region?

## Contextual overview

In addressing the drivers of regional economic growth, Martin highlights the role of ‘regional fundamentals’, an idea first developed by Krugman in his study of the Scottish economy. As Martin argues, regional fundamentals are those *“non-tradable assets or endowments that are immobile between regions...[which] condition a region’s underlying economic and social environment, and thus influence the nature of its economic development.”*<sup>78</sup>

Examples of such fundamentals are a well-educated population, a strong culture of entrepreneurship, quality of infrastructure and fixed factors such as the natural climate. These fundamentals can help promote ‘virtuous circles’ of economic growth, whereby strong fundamentals encourage economic growth, which in turn lead to stronger fundamentals.

In addition to such fundamentals, Martin emphasises the specific role that innovation plays in enabling a region to be adaptable to new change and opportunities and hence “maintain or enhance its competitiveness”. Innovation, he writes, *“tends to be associated with high rates of entrepreneurship and new firm formation, and hence with the emergence of new types of economic activity and employment. In most advanced economies, regional economic growth tends to be closely correlated with regional rates of innovation.”*<sup>79</sup>

As highlighted in this report, a strong economic environment, i.e. a competitive regional economy, can encourage migration flows into an area. Competitive areas offer strong employment opportunities, higher wages, and typically a more attractive local environment. These factors are highlighted as key drivers of both internal and international migration.

It is also likely that a more competitive environment will affect intra-regional migration flows, as change will not affect all parts of the region equally. It is likely, for example, that improvements in infrastructure and services in urban areas may help to attract people back to the cities, helping to off-set the so-called ‘city flight’ from Nottingham and Leicester.

## Assumptions

- Migration adjusts so that the age and sex profile of the East Midlands is similar to that of the South East by 2028. This is done by adjusting the age profile of internal and international migrants. This simulates the attraction and retention of a greater share of working age people to the East Midlands. The South East has been used as an example of a more economically successful region, whilst the East Midlands already has similar levels of internal in-migration (relative to population) as the South East but we have focussed on working age in-migration as it is usually a more significant sign of economic success.

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<sup>78</sup> R Martin (2005) *Thinking about Regional Competitiveness: Critical Issues*, p. 22.

<sup>79</sup> *Ibid* p.27.

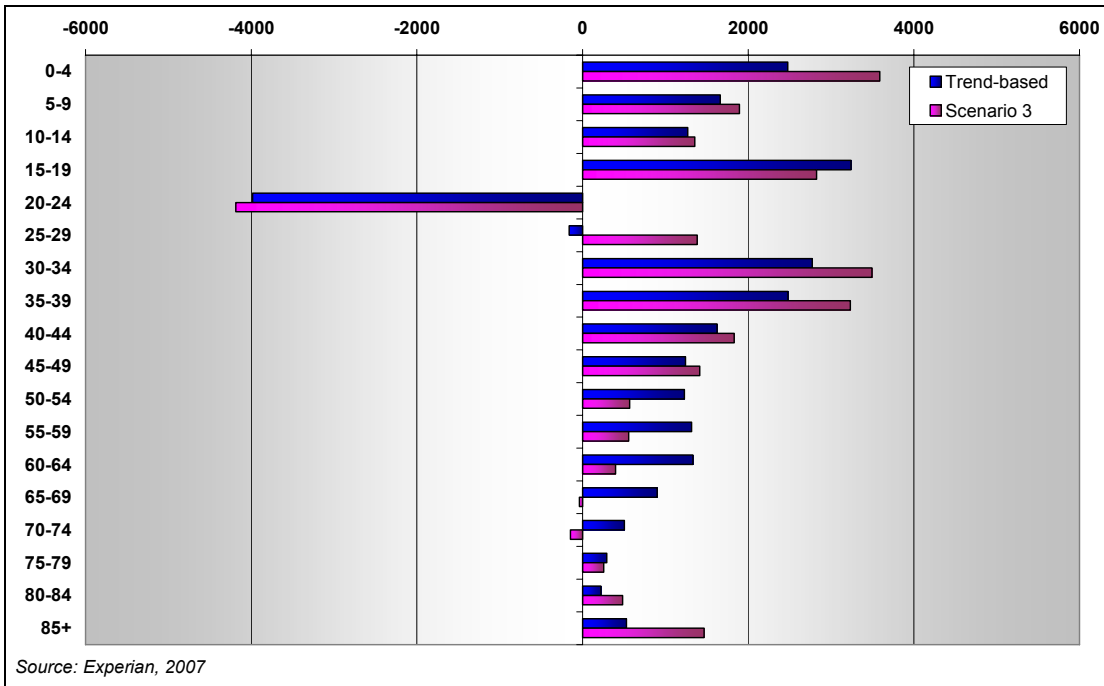
- City flight migration out of Nottingham and Leicester declines, so that internal out-migration is 50 per cent of current trends, for all groups except 15-24 year olds (where existing patterns are not atypical). The reduction in out-migration from Nottingham and Leicester corresponds to a reduction in internal in-migration for other local and unitary authorities and out of the region in line with the shares in the 2001 Census.

## **Results**

Figure 6.19 provides a detailed breakdown of net internal migration flows into the region over the period 2006 to 2025. Under these assumptions, the East Midlands would witness a significant increase in the net internal migration of those aged between 25 and 49, as greater numbers of working age people are attracted to the region and fewer students leave on graduation.

Greater inflows of working age people are also likely to be accompanied by greater inflows of children (those aged between 0 and 14), as young families are increasingly attracted to improved employment opportunities and quality of life offer.

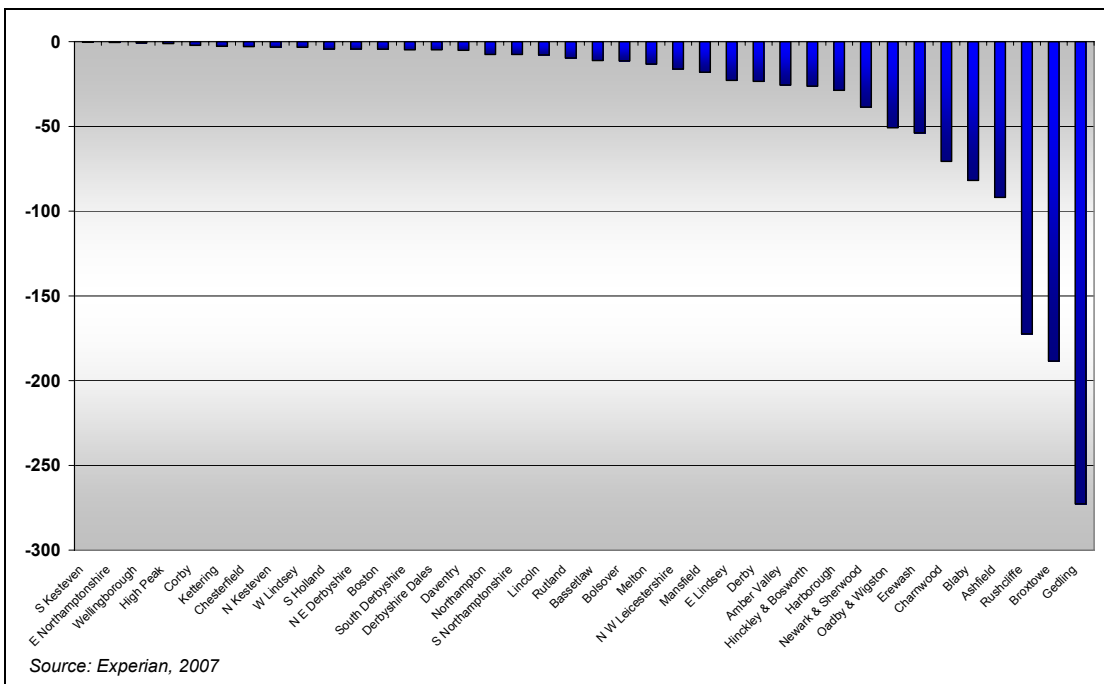
**Figure 6.19- Average annual net internal migration to the East Midlands, 2006 to 2025**



At a sub-regional level, the projected decline in city flight patterns from Nottingham and Leicester will be accompanied by a decline in net internal migration to other districts outside of the region's two largest cities (Figure 6.20). Indeed under this scenario, Gedling, Broxtowe and Rushcliffe are the three areas that are likely to see the largest decline in net internal migration.

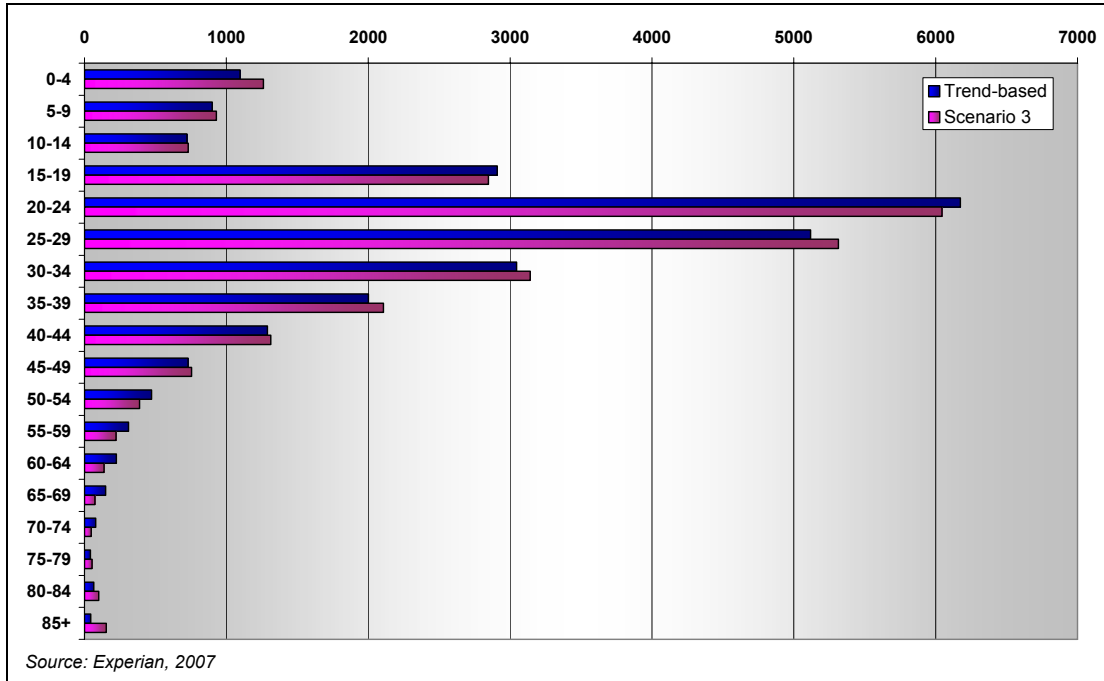
Net internal migration into the cities of Leicester and Nottingham is forecast to be well above trend under this scenario, due to the large decline in city flight. Indeed, migration projections under this scenario suggest that Nottingham would gain around 2,100 extra people via net internal migration each year.

**Figure 6.20 - Discrepancy between trend and scenario based projections of net internal migration to non-city districts in the East Midlands**



International migration projections suggest a similar pattern of working age people being attracted to the region. Figure 6.21 shows average annual international in-flows to the region over the period 2006 to 2025. Again, it can be seen that a more competitive region is likely to attract large numbers of those aged between 25 and 49, as well as accompanying minors aged between 0 and 14.

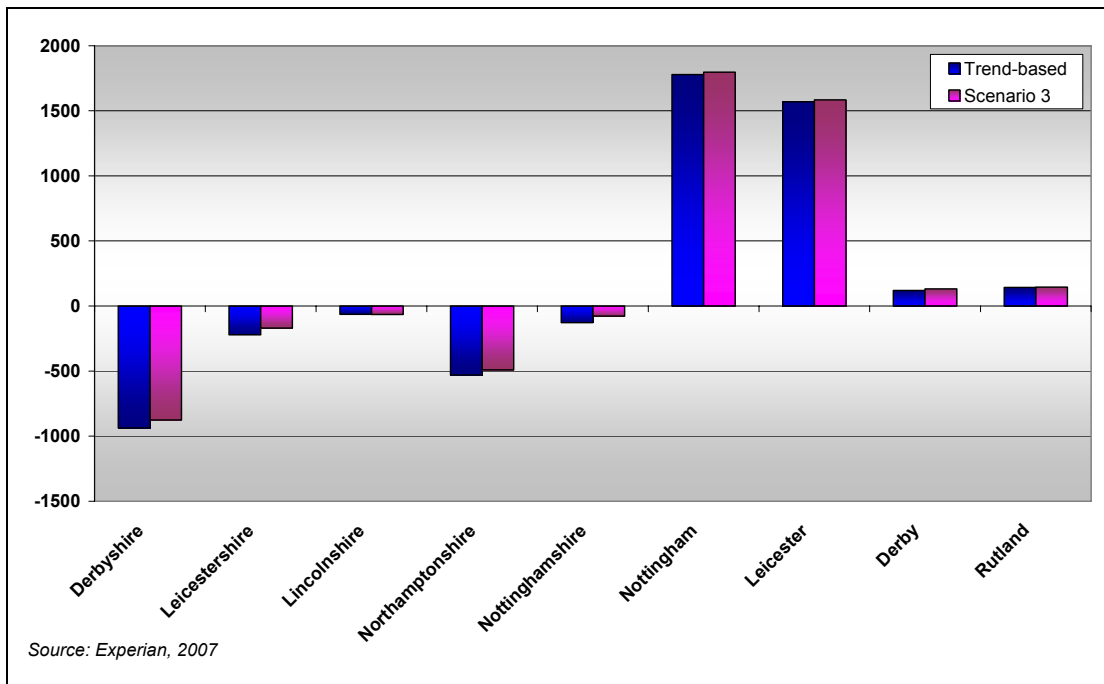
**Figure 6.21 - Average annual international in-migration to the East Midlands, 2006 to 2025**



While net international migration is already strongly positive in Nottingham and Leicester, a more competitive economy should draw in more people to these cities. For the period 2006 to 2025 Nottingham would gain just below 500 people each year, whilst Leicester would gain around 350.

Figure 6.22 also suggests that a more competitive region would lead to a reduction in the loss of people in other parts of the region due to international migration. The largest effect is in Derbyshire, where scenario forecasts suggest that net international out-migration would be lower by around 60 people each year.

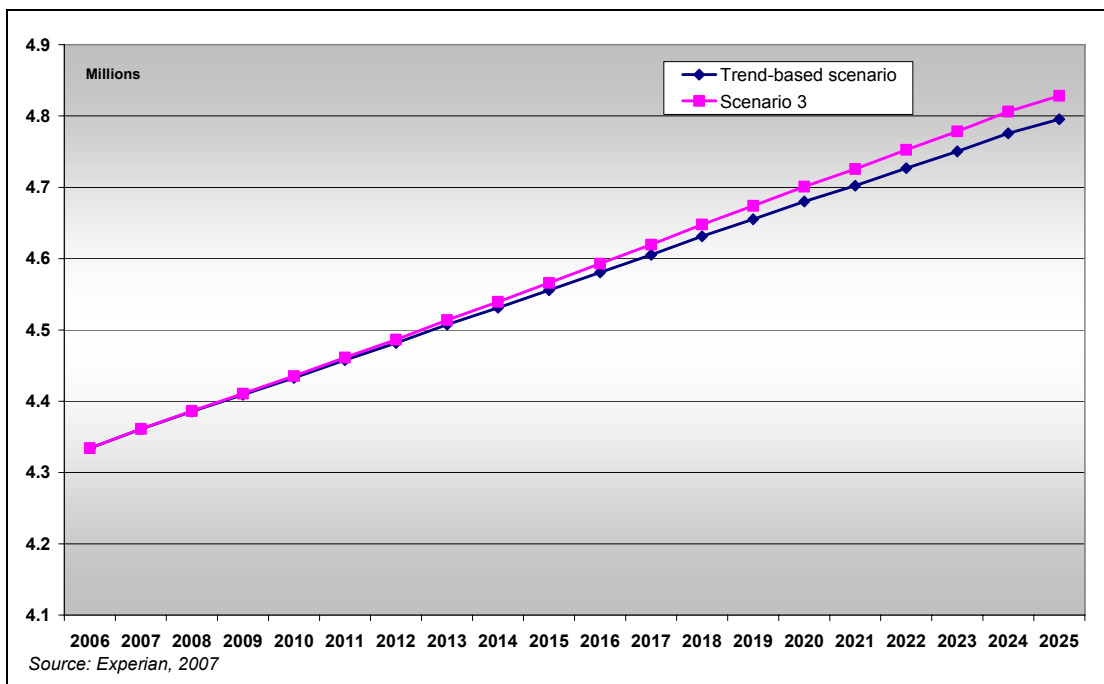
**Figure 6.22- Average annual net international migration to the East Midlands sub-regions, 2006 to 2025**



The ability of a more competitive region to attract higher numbers of working age migrants is also reflected in overall population trends.

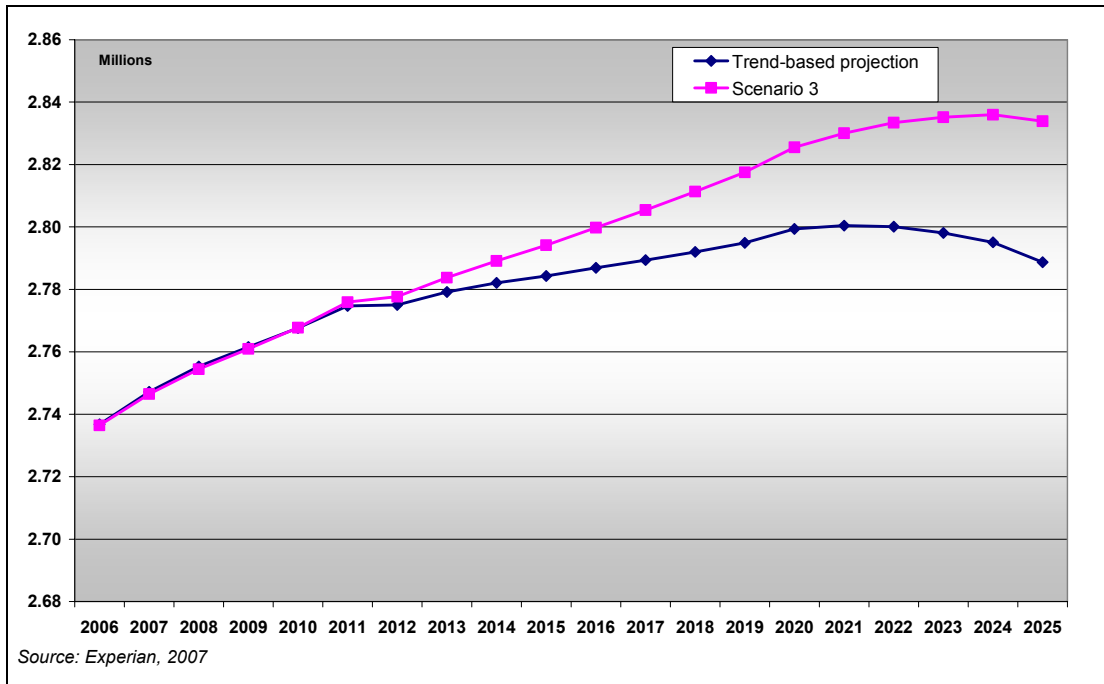
Headline trends suggest that if the region was to become more competitive then the population would increase at a faster rate (Figure 6.23). Under this scenario the population in 2015 is forecast to be around 10,000 higher than trend-based forecasts, whilst by 2025 it is 33,000 higher.

**Figure 6.23- Trend based vs Scenario based population projections, East Midlands**



By 2025 the working age population is forecast to be around 45,150 higher under this scenario than under trend-based forecasts (figure 6.24).

**Figure 6.24- Trend based vs Scenario based working age population projections, East Midlands**



Looking sub-regionally, the cities of Nottingham and Leicester are likely to grow significantly above trend, whilst the surrounding counties are likely to grow less quickly. The largest differential is in Nottingham, where average annual growth is around 1 per cent under the scenario forecasts but just above 0.1 per cent on trend-based forecasts (Figure 6.25).

**Figure 6.25- Trend based vs Scenario based population projections (2006-2025), East Midlands sub-regions**

	Trend-based	Scenario 3 (more competitive region)
Nottingham	0.14	1.03
Leicester	0.22	0.43
Derby	0.24	0.24
Rutland	0.66	0.62
Derbyshire	0.42	0.41
Leicestershire	0.56	0.51
Lincolnshire	0.88	0.85
Northamptonshire	0.72	0.72
Nottinghamshire	0.47	0.36

Source: Experian, 2007

These migration patterns will culminate in a more rapid expansion of the working age population in the East Midlands, compared to trend-based projections. Indeed, over the period 2006-2025 the working age population is expected to grow at an average annual rate of 0.1 per cent on the basis that past trends persist into the future. Under this scenario, the working age population in the East Midlands would expand at a slightly faster rate, by 0.2 per cent on average per annum between 2006 and 2025.



This more rapid expansion of the working age population will act to slow the increase in dependency ratios expected across the region over the two decades. In 2015 the aged dependency ratio is forecast to be 36.9 on current trends, compared to 36.5 under the scenario forecast. By 2025, trend-based projections suggest the aged dependency ratio in the East Midlands will stand at 44.7, but under this scenario the aged dependency ratio will be significantly lower at 42.4.

Moreover, the decline in city flight suggests that the cities of Nottingham and Leicester are more able to retain their working age populations, whilst inflows into the surrounding counties are reduced. This is reflected in aged dependency ratios, which are much lower in Nottingham and slightly lower in Leicester under the scenario-based forecasts. By 2025 trend-based forecasts suggest that the aged dependency ratio in Nottingham will be 22.9, whilst under scenario forecasts it will be just 19.3. In Leicester the aged dependency ratio will be 27.7 in 2025, compared to 26.1 on scenario forecasts.

## **Summary**

Successful interventions to promote economic competitiveness in the East Midlands would culminate in greater net-migration from overseas and from elsewhere in the UK, particularly amongst working age cohorts. This would boost population growth amongst these groups slightly, helping to mitigate the increase in aged dependency ratios expected across the East Midlands over the next two decades. It is likely therefore that greater working age in-migration is not only a consequence of a more competitive region but facilitating greater working age in-migration is also a pre-condition for a more competitive region.

At a sub-regional level, it is likely that a more competitive environment in urban centres would help stem the 'city flight' migration patterns seen over the past decade, particularly helping the region's two largest cities retain large numbers of the working age population, while rural areas would begin to see a tail off in both net in-migration and population growth.

# 7 Summary of Findings

## 7.1 HOW IS THE DEMOGRAPHY OF THE EAST MIDLANDS CHANGING?

- Population growth is stronger in the East Midlands than average across England. This is particularly true in rural areas such as Rutland, Lincolnshire and Northamptonshire. The region's largest two cities – Nottingham and Leicester – have remained fairly stable over the past twenty years.
- The East Midlands population is ageing, and again this is mainly true of rural areas.

## 7.2 WHAT IS THE ROLE OF MIGRATION IN DRIVING POPULATION CHANGE IN THE EAST MIDLANDS?

- Migration, particularly internal, is the main driver of population change in the East Midlands.
- Nottingham and Leicester lose population due to internal migration but international inflows help to partially offset this. Derby on the other hand has negative, albeit small, net international migration flows.
- Rural parts of the region attract large numbers of internal migrants, predominantly from other parts of the UK. Rural areas have also been gaining population due to counter-urban flows from the three cities. This has helped to offset the natural decline in population in these areas.

## 7.3 WHAT ARE THE CHARACTERISTICS OF MIGRANTS TO THE EAST MIDLANDS?

- The vast majority of international migrants to the East Midlands are of working age, and largely of the younger working age cohorts – typically aged between 20 and 40.
- Internal migrants to the region have a more dispersed age profile, with large numbers of both the working age and pensionable age populations. Internal migration however is strongly influenced by student flows – the East Midlands is losing large numbers of those aged between 20 and 24 but gaining large numbers of those aged between 15 and 19.
- International migrants to the region tend to work in elementary administration and service roles.
- The region is gaining a net inflow of elementary workers from elsewhere in the UK. It is also benefiting from a net inflow of managerial and professional workers from elsewhere in the UK.

## 7.4 WHAT IS THE ROLE OF MIGRATION IN THE EAST MIDLANDS' CHANGING DEMOGRAPHY?

- Migration means that the population of the East Midlands is younger and dependency ratios are lower.
- Internal migration has pushed up dependency ratios but has done so only marginally. The working age and pensionable age populations have both grown due to internal migration although the latter has to a greater extent.
- International migration on the other hand has decreased dependency ratios. Older people have left the region whilst those moving into the region are typically of young working age.
- Within the region, counter-urban flows are concentrating ethnic minority groups and those employed in low skilled occupations in the cities. This is due to the fact that those moving from the cities tend to be white and employed in managerial and professional occupations.

## **7.5 HOW WILL MIGRATION AFFECT DEMOGRAPHIC CHANGE IN THE FUTURE?**

- If current trends are to continue then the East Midlands' population will continue to age and dependency ratios will increase significantly to unsustainable levels. Migration is therefore very important for a healthy demography and economy in the East Midlands.
- International migration flows will be very important for the region's largest cities. Without such flows the cities are likely to suffer from large declines in their working age populations but above trend growth in the pensionable age population.
- Changes in Europe, such as the removal of barriers to A10 employment in Germany and France, could exacerbate these problems. The region's working age population is likely to remain almost static in such a case, whilst the pensionable age population would continue to grow at previous rates.
- The RSS may well change the profile of the East Midlands population, helping to reverse the current, market-led trend of city-flight and pushing the populations to cities and Growth Areas.
- Successful interventions to make the East Midlands more competitive would attract greater numbers of migrants, notably young working families, helping to lower dependency ratios. It is also likely that this would help to reduce city-flight patterns.

Overall, migration plays a positive role in the demography of the East Midlands. It has helped to boost the working age population and lower dependency ratios. This report suggests that migration needs to be maintained or even increased for the future competitiveness of the region.

Within the region, the major issue for policy makers is the counter-urban, or city-flight, patterns from the cities of Nottingham, Leicester and Derby. This is particularly true due to the migration of those in highly skilled occupations, and the apparent effect that city-flight is having on concentrating minority ethnic groups in the cities.

# Appendix A - Sub-regional Definitions

## **Urban Areas**

Blaby  
Broxtowe  
Erewash  
Gedling  
Leicester  
Nottingham  
Oadby and Wigston  
Ashfield  
Chesterfield  
Corby  
Derby  
Lincoln  
Mansfield  
Northampton

## **Rural Areas**

Amber Valley  
Bolsover  
Boston  
Charnwood  
Hinckley and Bosworth  
Kettering  
South Derbyshire  
Wellingborough  
Bassetlaw  
East Northamptonshire  
High Peak  
Newark and Sherwood  
North East Derbyshire  
North West Leicestershire  
Rushcliffe  
South Kesteven  
Daventry  
Derbyshire Dales  
East Lindsey  
Harborough  
Melton  
North Kesteven  
Rutland  
South Holland  
South Northamptonshire  
West Lindsey

## Appendix B - Additional tables

Figure B1: Population growth by 5 yr age cohort

Age	East Midlands			England		
	1985-2005	1985-1995	1995-2005	1985-2005	1985-1995	1995-2005
Total	0.52	0.51	0.51	0.28	0.41	0.35
Under the age of 1	0.45	-0.58	0.07	0.39	-0.37	0.15
1-4	0.80	-1.30	-0.24	0.77	-1.10	-0.16
5-9	1.24	-0.50	0.32	1.35	-0.51	0.39
10-14	-0.98	0.75	-0.14	-0.87	0.57	-0.19
15-19	-2.36	1.70	-0.41	-2.71	1.56	-0.68
20-24	-0.89	-0.24	-0.45	-1.43	-0.32	-0.75
25-29	1.31	-2.44	-0.54	1.26	-1.78	-0.21
30-34	1.71	-0.89	0.32	1.81	-0.63	0.51
35-39	-0.28	1.59	0.56	-0.14	1.55	0.61
40-44	1.27	1.73	1.64	1.10	1.82	1.57
45-49	2.93	-0.16	1.39	2.45	-0.08	1.19
50-54	1.37	1.30	1.19	0.76	1.15	0.85
55-59	-0.05	3.12	1.55	-0.27	2.49	1.12
60-64	-1.22	1.63	0.23	-1.52	0.93	-0.28
65-69	1.34	0.31	0.89	0.74	0.13	0.47
70-74	1.01	-0.69	0.28	0.23	-0.88	-0.18
75-79	0.32	1.94	0.89	-0.34	1.48	0.34
80-84	2.24	1.89	2.08	1.77	1.15	1.48
85+	4.45	2.27	3.34	3.91	1.73	2.79

Source: ONS Mid Year Population Estimates, 2006

**Figure B2: Pattern of demographic change at a sub-regional level (average annual growth)**

<b>Sub-region</b>	<b>Category</b>	<b>1985-1990</b>	<b>1990-1995</b>	<b>1995-2000</b>	<b>2000-2005</b>
Derbyshire	Children	-0.48	0.57	0.32	-0.51
Derbyshire	Working age	0.50	0.06	0.28	0.48
Derbyshire	Pensionable age	0.98	0.38	0.45	1.20
Leicestershire	Children	-0.25	0.61	0.09	-0.26
Leicestershire	Working age	0.70	0.57	0.48	0.65
Leicestershire	Pensionable age	1.82	1.45	1.26	1.75
Lincolnshire	Children	0.02	1.04	0.65	-0.12
Lincolnshire	Working age	0.74	0.69	0.85	1.20
Lincolnshire	Pensionable age	2.14	1.58	1.36	2.10
Northamptonshire	Children	0.59	0.80	0.41	-0.07
Northamptonshire	Working age	1.36	0.62	1.08	0.87
Northamptonshire	Pensionable age	1.30	0.55	0.61	1.54
Nottinghamshire	Children	-0.58	0.42	-0.24	-0.79
Nottinghamshire	Working age	0.33	-0.02	-0.13	0.46
Nottinghamshire	Pensionable age	1.58	0.88	0.76	1.23
Derby City	Children	-0.30	1.08	-0.33	-0.81
Derby City	Working age	0.43	0.39	0.52	0.45
Derby City	Pensionable age	1.14	0.40	0.04	0.39
Leicester City	Children	0.17	1.22	-1.19	-1.28
Leicester City	Working age	-0.12	0.57	0.20	0.83
Leicester City	Pensionable age	-0.10	-0.66	-1.23	-1.07
Nottingham	Children	-0.10	1.72	-1.57	-2.49
Nottingham	Working age	-0.27	-0.14	0.24	1.53
Nottingham	Pensionable age	0.07	-0.58	-1.35	-1.48
Rutland	Children	0.83	-1.39	0.29	1.65
Rutland	Working age	-0.62	-0.47	0.80	1.28
Rutland	Pensionable age	0.63	2.41	1.92	3.35
Urban	Children	-0.04	0.97	-0.62	-1.36
Urban	Working age	0.38	0.16	0.20	0.61
Urban	Pensionable age	0.94	0.25	-0.04	0.31
Rural	Children	-0.23	0.64	0.50	0.10
Rural	Working age	0.68	0.47	0.66	0.91
Rural	Pensionable age	1.61	1.11	1.05	1.85

*Source: ONS Mid Year Population Estimates, 2006*