

The East Midlands in 2006 – Evidence Base for the East Midlands Regional Economic Strategy 2006-2020: Transport, Infrastructure and Development

A report prepared by *emda*

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Five

**Transport,
infrastructure
and development**

Transport, infrastructure and development¹

1. Introduction

This section of *The East Midlands in 2006* looks at transport, infrastructure and development issues in the East Midlands, covering land use, the built environment and transport and communications. All of these elements are inter-related because the efficient operation of the regional economy depends on effective transport links – for the movement of both freight and people – within and outside the region. Furthermore, the provision of necessary infrastructure and an attractive built environment are key elements influencing where people choose to live and businesses to locate. They will help to provide the conditions for sustainable economic growth, promoting regional competitiveness and enhancing quality of life. The challenge is to reconcile these objectives with environmental protection and enhancement.

The quality, efficiency, and coverage of transport networks and infrastructure are central to the regional economy, because the location choices of many firms are largely determined by access to and costs of transporting inputs and outputs, and by the proximity of an appropriate labour supply. Similarly, the location choices of households are largely determined by access to work and a range of other services or facilities, and by the costs or ease of travel. Government policies and planning legislation further influence the patterns and locations of development and movement. The continued decline of the manufacturing sector and the forecast growth of largely office based employment will also have implications not only for the labour market, but also for the allocation and use of employment land and the nature of new property development and conversion of existing properties.²

2. Construction activity

A proxy for the value of transport and infrastructure activity in a region is the value of construction contractors' output, since it is mainly the construction sector that supplies roads, buildings and houses. Chart 1 illustrates the total value of output by construction contractors in the region between 1994 and 2004. The data for this period indicates that:

- In 2004, the total value of all construction undertaken in the East Midlands was £7,030 million, of which £4,259 million was new work and £2,772 million was repair and maintenance;
- Total contractors' output in the East Midlands has more than doubled since 1994, when it was valued at £3,301 million. However, despite the upward trend illustrated in Chart 1, the region's share of the total for England has remained fairly stable. In 1994, the East Midlands accounted for 8.4% of the total value of contractors' output in England. This had fallen slightly to 8% in 2004;
- Of the new work undertaken in 2004, £1,519 million was accounted for by private housing – 22% of the total value of contractors' output. This represents an increase of £311 million from 2003. Infrastructure accounted for £408 million, reduced slightly from £429 million in 2003. Public buildings – such as hospitals and schools – accounted for £769 million, a significant increase from £658 million in 2003. Construction output related to private industrial and commercial buildings has also increased: £463 million was spent on industrial buildings in 2004 compared to £378 million in 2003; and £944 million was spent on commercial buildings in 2004 compared to £858 million in 2003.³

¹ A first draft of this section was prepared by the Nottinghamshire Research Observatory and published in the *RES Interim Evidence Base: The East Midlands in 2005*.

² See Sections 2 and 3 of *The East Midlands in 2006* for a fuller discussion of these trends.

³ Department of Trade and Industry (DTI), *Construction Statistics Annual 2005*, October 2005.

CHART 1

Construction contractors' output in the East Midlands (£ million), 1994-2004



Source: DTI, Table 2.9: Contractors' Output by Region, in 'Construction Statistics Annual, 2005', October, 2005

3. Transport and communications

Map 1 shows the strategic transport sites and networks within the East Midlands, including:

- Nottingham East Midlands Airport (NEMA), the cities of North West Leicestershire, in close proximity to Derby, Nottingham and Leicester;
- The M1 motorway, which runs through the region from north to south;
- The A1 road, to the east of the M1;
- The A14 running from east to west;
- The West Coast, Midland and East Coast Mainlines – the principal rail routes across the region.

Good intra and inter-regional transport connectivity is considered a prerequisite for economic competitiveness

and sustainable economic growth. As a region which borders five others, connections to markets and opportunities elsewhere are vital to the East Midlands' role and potential in the wider national and international context. Therefore, improving transport accessibility and connectivity and the reliability of key networks is one of the main regional priorities for promoting continued sustainable growth and improved regional productivity. Transport contributes to the region in a number of ways, including:

- Movement of goods and people, both within the region, and to markets and key economic drivers elsewhere;
- Enhancing the attractiveness of the region as a place to invest, both by indigenous and inward investors;
- Improving quality of life and overall attractiveness of the region as a place to live, work and visit – crucial to retaining and attracting an active, productive population.

MAP 1

Major transport infrastructure in the East Midlands



- Motorway
- Primary Road
- Railway
- Airport
- Seaport



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Source: Ordnance Survey

3.1 Regional traffic levels and trends

Data from the National Travel Survey reveals that the East Midlands has been experiencing higher than average road traffic growth and relies more on private travel (the car) than other regions. It also shows that compared to England as a whole, East Midlands residents tend to travel further by private transport than public transport. Many of the trends may in part be explained by the geographic configuration of the region and the dispersal of housing and employment centres. In particular, travel behaviour and patterns can be seen as a function of the region's polycentric urban network and the proportion of the population living in rural areas (see Section 1 of *The East Midlands in 2006* on Demography). Issues relating to land-use are an important element in transport demand, and are dealt with in this, and the following section. The following key points can be drawn from the evidence:

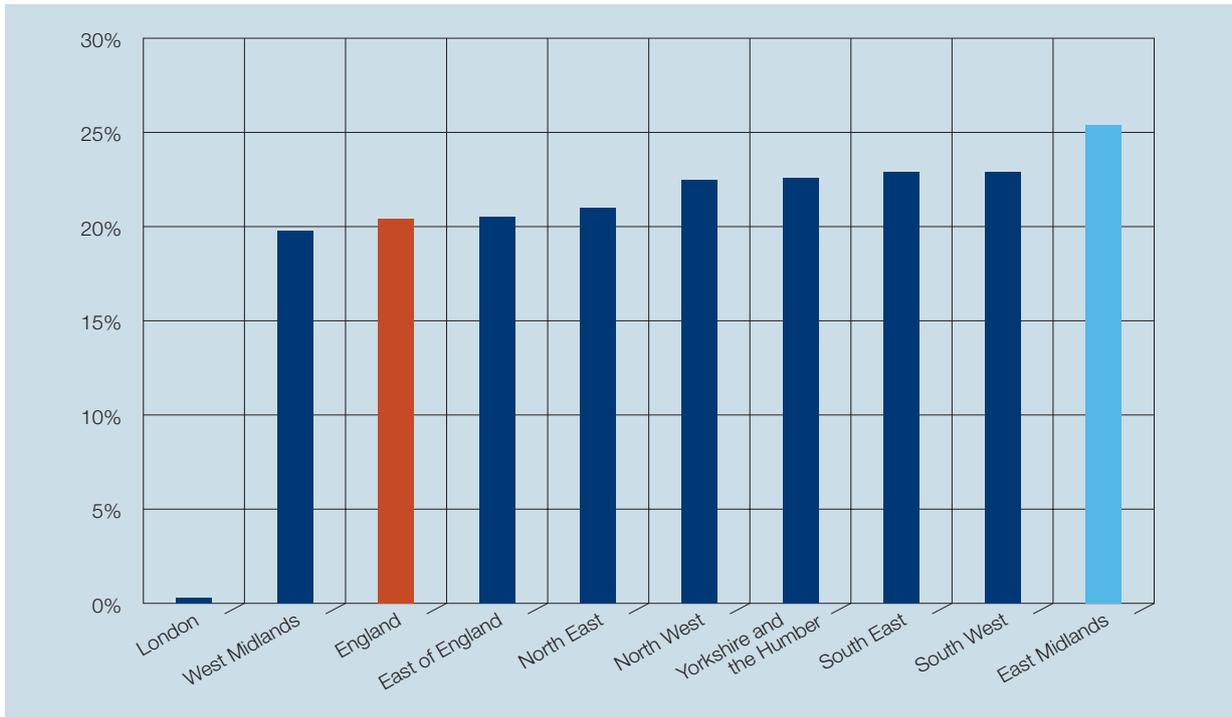
- According to combined data from the 2003 and 2004 National Travel Survey, 66% of trips in the East Midlands were undertaken by car either as a driver or passenger and 6% were undertaken using public transport – mainly by bus. This compares to the average for England of 63% using the car and 9% using public transport (Table 1);
- The main mode of transport for travel to work is the car, used by 78% of East Midlands residents compared to 71% in England. Along with the West Midlands this is the highest of all English regions (Table 2);
- Between 1994 and 2004 the East Midlands experienced the largest percentage increase in traffic on major roads, at 25.4% compared to 20.4% in England (See Chart 2);
- Car drivers and car passengers resident in the East Midlands travelled further than the English average, at 4,070 miles for drivers and 2,258 miles for passengers per year in 2003/2004, compared to 3,487 miles and 2,007 miles respectively in England as a whole. Conversely, East Midlands residents travelled an average of 193 miles by local bus and 383 miles by other public transport per year, compared to 245 miles and 629 miles respectively in England as a whole. However, people in the East Midlands travelled the second furthest on foot of all regions (206 miles per person), behind London.⁴

The East Midlands has been experiencing higher than average road traffic growth and is more reliant on private transport

⁴Department for Transport, *Transport Statistics Bulletin – Regional Transport Statistics 2005*, November 2005.

CHART 2

Traffic increase on major roads (% change in vehicle kilometres), 1994-2004



Note: 'Major roads' in this case refers to Motorways and A roads.
 Source: National Road Traffic Survey, 1994 and 2004, Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

TABLE 1

Trips by main mode of travel, by region of residence (trips per person per year), 2003/2004

Region	Walk	Car Driver	Car Passenger	Other Private	Local Bus	Other Public	All Modes
North East	277	360	213	21	83	29	983
North West	251	411	232	23	60	27	1,004
Yorkshire & the Humber	245	379	220	23	60	21	950
East Midlands	265	444	237	32	43	15	1,037
West Midlands	240	434	241	18	65	20	1,019
East of England	210	438	253	37	31	27	997
London	233	237	153	22	118	95	858
South East	249	460	242	32	31	30	1,044
South West	268	455	255	32	33	13	1,056
England	208	401	227	27	58	33	992

Source: combined data from the 2003 and 2004 National Travel Survey, published in, Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

The Department for Transport's (DfT) publication *'Managing our Roads'*⁵ indicated that there has been a 17% increase in the average distance that people travel to work and a 5% increase in leisure travel (as measured by passenger kilometres) over the ten years from 1993 to 2003, and a 40% rise in goods vehicle traffic over the last 20 years. As well as economic growth, it cited personal choices and historic land-use policies as major reasons for these changes. For instance, people are now less likely to move if they change jobs. The DfT suggests that traffic levels might grow by about a quarter between 2000 and 2010.

Work and business related journeys account for less than 20% of all trips taken in the East Midlands

TABLE 2

Usual method of travel to work by region of residence (%), autumn 2004

Region	Car	M/cycle	Bicycle	Bus/ coach	Rail	Walk	Other modes	Number in Employment ('000s)
North East	72	*	2	10	3	11	1	986
North West	76	1	2	8	2	10	1	2,888
Yorkshire & the Humber	72	1	3	10	2	11	1	2,141
East Midlands	78	1	3	6	1	10	*	1,840
West Midlands	78	1	2	8	2	10	1	2,255
East of England	75	1	3	3	8	9	1	2,469
London	42	1	4	16	28	9	1	3,020
South East	76	1	3	4	6	10	1	3,638
South West	76	1	3	4	1	13	*	2,160
England	71	1	3	8	7	10	1	21,397

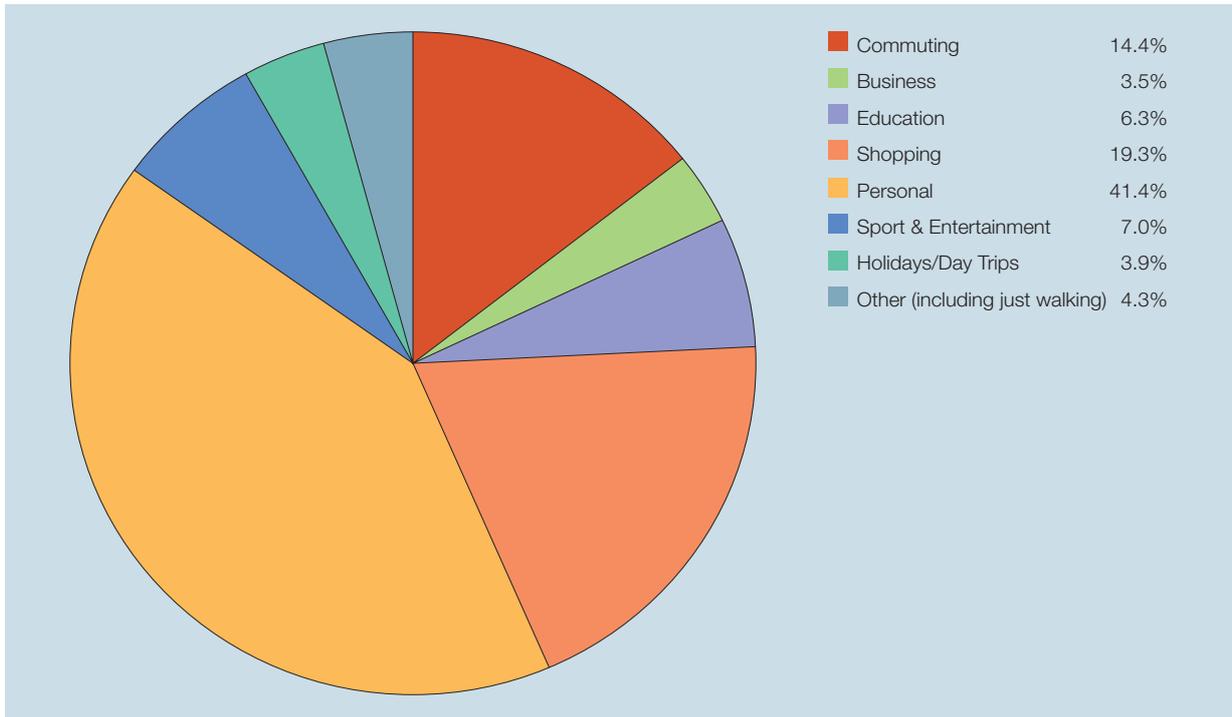
* Data suppressed due to small cell size
 Source: ONS Crown Copyright, 'Labour Force Survey', autumn 2004, published in, Department for Transport/ONS, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

As Chart 3 shows, work and business related journeys account for less than 20% of all trips undertaken in the East Midlands. The largest proportion of trips was for non-business purposes such as shopping, leisure journeys, and taking children to school. This is interesting in the context of the common assumption that it is commuting that creates the most travel movements. However, an important point not reflected in these figures is that many business or commuting trips are focused on the morning or evening peak times, and so can play a more significant role in creating congestion and many of the costs or disbenefits associated with travel. This is discussed in section 3.3.

⁵Department for Transport, *Managing our Roads*, July 2003.

CHART 3

Trips by purpose in the East Midlands (%), 2003/2004



Source: combined data from the 2003 and 2004 National Travel Survey, published in, Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

3.2 Public expenditure and public transport

A significant amount of public expenditure is allocated for the road network. In 2003-2004, £464.7 million was spent on roads in the East Midlands and nearly £5.5 billion on roads in England. Table 3 shows that:

- The proportion of expenditure on local roads is larger in the East Midlands (44.7%) than in England (43.8%);
- The percentage spent on motorways and trunk roads in the East Midlands (30.6%) is substantially higher than the proportion for England (23.4%);
- The proportion of expenditure on other categories is lower in the East Midlands than in England, at 21.7% compared to 29.1%.

In 2003-2004
£464.7 million was
spent on roads in
the East Midlands

TABLE 3**Expenditure on roads, East Midlands and England, 2003/2004**

		East Midlands		England	
		£ million	%	£ million	%
Motorways and trunk roads ¹	New construction/improvement and structural maintenance	96.0	20.7%	856.3	15.8%
	Current maintenance including routine and winter maintenance ²	46.0	9.9%	410.5	7.6%
Local Roads ⁴	DBFO shadow tolls ³	13.7	2.9%	210.3	3.9%
	New improvement for highways, lighting, road safety and structural maintenance ⁵	207.9	44.7%	2,378.8	43.8%
Other	Revenue expenditure on bridge structural maintenance and strengthening	2.2	0.5%	60.6	1.1%
	Routine and winter maintenance	59.7	12.8%	931.2	17.1%
	Revenue expenditure on road safety	14.3	3.1%	288.7	5.3%
	Revenue expenditure on public lighting	24.8	5.3%	298.4	5.5%
All road expenditure		464.7	100%	5,434.8	100%

1. Figures are on a resource accounting basis

2. Previously this table showed figures for 'routine and winter maintenance and public lighting'. Highways Agency is no longer able to separately identify this expenditure. Figures are now shown under a new heading and cannot be compared with those in earlier versions.

3. Payments to contractors under DBFO (Design, Build, Finance and Operate) schemes. These are private-finance road schemes.

4. Local authority expenditure excludes car parks.

5. Includes expenditure on patching.

Source: Highways Agency Financial Accounts and Local Authority returns to the Department of Transport, published in, Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

The cost of motoring fell by an average of 0.8% per year between 1997 and 2003. In contrast, over the same period the cost of public transport rose: bus fares rose by an average 1.34% per year and rail fares by an average 1.61% per year.⁶ The rise in petrol prices in 2005 following on from the increase in crude oil prices to over \$60 a barrel may have a marginal impact on the use of the car. Given the high fixed cost of car ownership, vehicle taxes, insurance, maintenance, servicing and depreciation, the rise in petrol prices is not a significant enough cost to change many people's behaviour, particularly if the alternative forms of transport are costly, less convenient and offer less flexible journey possibilities.

The cost of motoring fell between 1997 and 2003. In contrast, the cost of public transport rose over this period

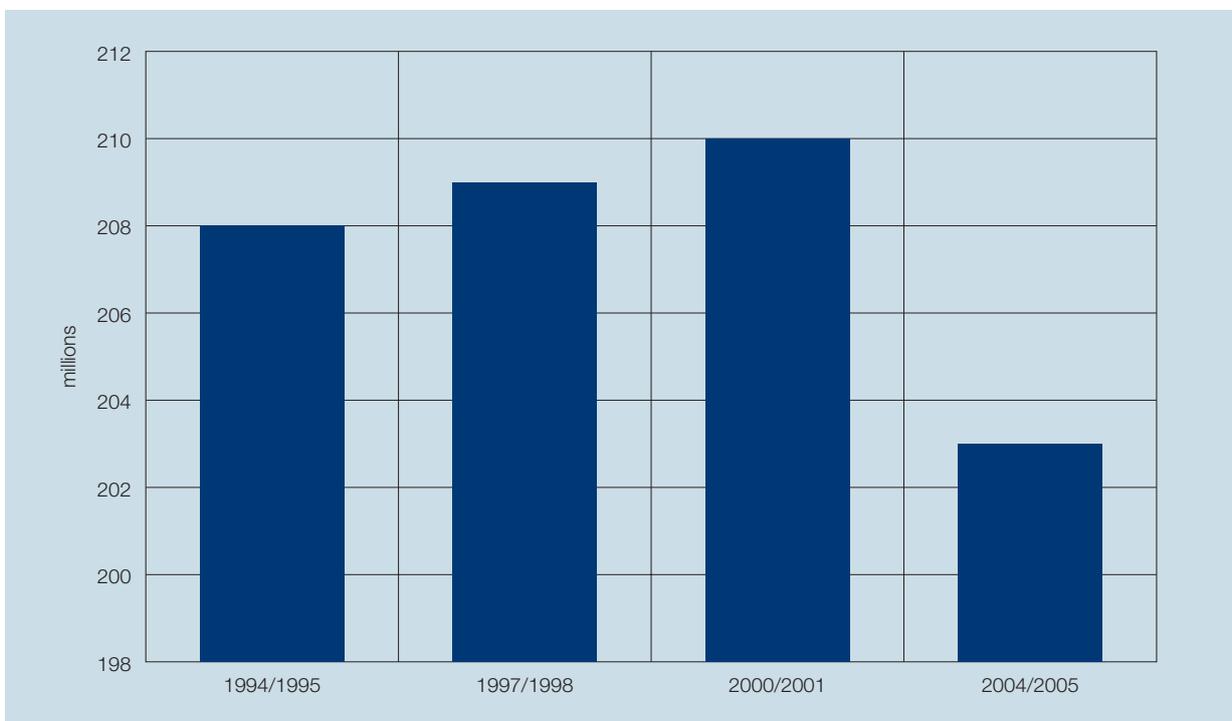
⁶Department for Transport, 'Briefing on the price of petrol and diesel', 2004.

Chart 4 shows the total number of bus and light rail journeys undertaken in the East Midlands since 1994:

- Over the decade between 1994/95 and 2004/05 the number of bus and light rail journeys in the East Midlands fell from 208 million to 203 million journeys, a decline of 2.4%, although there was a small increase between 1994/5 and 2000. This suggests that car use has been increasing in importance in the East Midlands;
- The only light rail system operating in the East Midlands is the Nottingham tram (NET), which currently consists of one line and is proving successful in terms of patronage figures. In year 1 8.4 million trips were made against a target of between 7.5 and 8 million. In year 2 (which ended in March 2006) 9.7 million trips have been made.⁷ Local and regional partners are exploring funding options for the proposed two additional lines;
- There has been an increase in the use of buses and light rail in England as a whole (from 3,827 million journeys in 1994/95 to 4,190 million journeys in 2004/05) although much of this increase relates to the use of public transport in London.

CHART 4

Bus and light rail journeys, East Midlands (millions), 1994/95 to 2004/05



Source: Department for Transport surveys of bus and tram operators, published in, Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

⁷Nottingham Express Transit (NET), *More About NET – Two years on and NET grows at a phenomenal rate*, March 2006, <http://www.thetram.net/about/year2.asp>

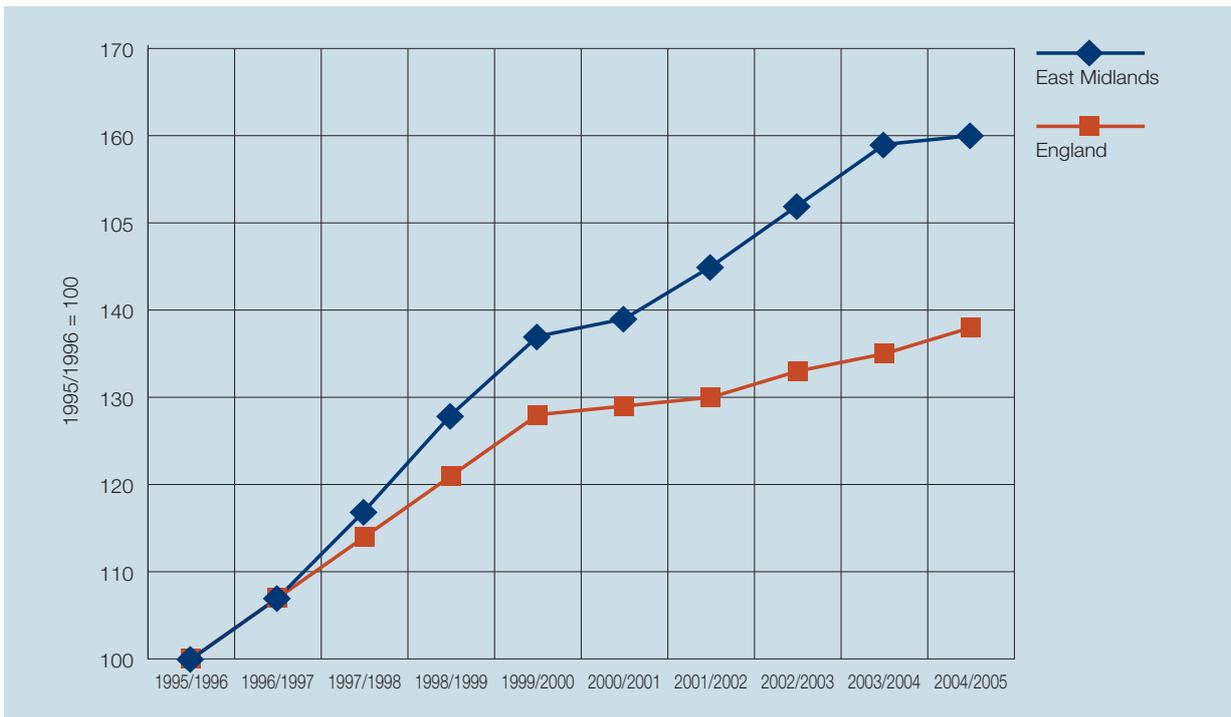
The other major form of public transport is rail. The East Midlands has experienced one of the largest increases in rail patronage. Chart 5 shows rail patronage as an index based on the 1995/1996 level. In the East Midlands, rail patronage in 2004/2005 increased by 60% from the 1995/1996 level, compared to 38% in England as a whole. Only Yorkshire and the Humber had a larger increase, at 63%. In addition:

- Data from the Office of Rail Regulation from 2004/05⁸ shows that 47% of all train journeys originating in the East Midlands are to a destination within the region and 22% are to London, with the rest spread across other regions;
- The proportion of internal rail travel within the East Midlands is relatively low compared to other regions such as Yorkshire and the Humber (74%), North West (82%) and West Midlands (69%). The lower rate in the East Midlands can be explained in part by the lack of a single major conurbation in the region that accommodates local rail connections.

The East Midlands has experienced one of the largest increases in rail patronage amongst the English regions

CHART 5

Growth in rail patronage 1995/96 – 2003/04, East Midlands and England (1995/96=100)



Source: Office of Rail Regulation, published in Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

⁸Office of Rail Regulation, *National Rail Trends, Yearbook 2004-2005*, June 2005.

3.3 Impacts and disbenefits of transport

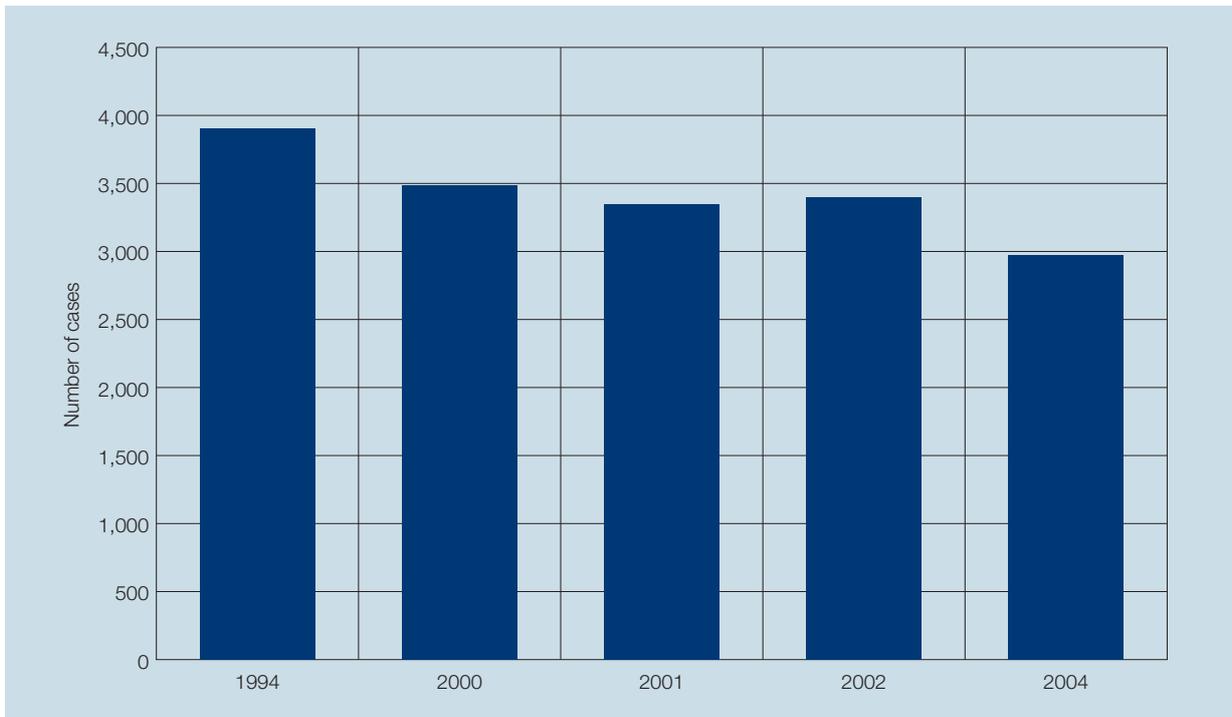
While there are clearly essential and positive gains from the enabling role transport plays in allowing the mobility of goods to markets and people to their workplace, such movements can come at a cost. In addition to the direct financial costs of network provision, the individual cost either of public transport fares or of running a car, there are external costs of movement on others. These include congestion and death or injury as a result of road traffic accidents. In addition, there are the wider costs of air pollution, water pollution, contribution to climate change, and impact on the character of the landscape. Some of these costs are borne by the road user, but others are borne by society at large. Public policy makers are keen to strike a balance between these negative externalities and the benefits associated with transportation.

3.3.1 Accidents

One cost of road transport is the cost of accidents. While there is an economic cost associated with accidents, such as the cost of health care and the loss of output, the most important cost is the loss of life and the suffering experienced as a result of an accident. Between 1994 and 2004 the number of people killed or seriously injured on the roads in the East Midlands declined from 3,905 to 2,970 – a reduction of over 23% (Chart 6). This is lower than the 29.8% decline in the numbers killed or seriously injured in England as a whole, although the East Midlands has experienced a significantly greater increase in traffic in this period compared to the English average.

CHART 6

Number of people killed or seriously injured on East Midlands roads, 1994-2004



Source: Department for Transport, published in Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

3.3.2 Congestion

Congestion is the major economic cost of road travel in terms of delays to business related journeys, lost business, or loss of efficiency. The cost of congestion is difficult to measure given the lack of a precise definition and a way of measuring it. However the CBI has estimated that road congestion costs the UK up to £20 billion per year.⁹ The Department for Transport has questioned the £20 billion estimate, but has not itself made an official estimate of the costs of congestion. A European comparative study put the costs of congestion on British roads at almost £15 billion per year at 1998 prices; this amounts to 1.5% of GDP.¹⁰ Despite difficulties over definition and measurement, the cost of congestion would appear to be substantial.

Most congestion occurs in urban areas and on strategic long-distance routes in the vicinity of urban areas. It is worst during the morning and afternoon peaks. Although congestion is often connected with travel to and from work, other causes include travel to and from school, as well as holiday traffic on certain routes at certain times, and the effects of accidents. Table 4 shows the average traffic speed on trunk roads at peak and off-peak periods in the English regions, which is one way of measuring the impact of congestion. The key points to note are:

- The difference in average speed on trunk roads at peak and off peak periods is small, suggesting that in practice, for most of the time and in most of the country congestion is not a serious problem;
- In the East Midlands, the average traffic speed is higher than the average for England during the morning and evening peak, although lower in the off-peak period. This suggests that congestion is less of a problem in the East Midlands;
- Nevertheless, many urban areas in the East Midlands are already seeing the peak hours spreading as drivers travel later or earlier to try to beat the traffic, with main routes and urban centres already at or close to capacity at peak hours;
- As might be expected, congestion is worst in London according to these data, with average traffic speeds of just 27.6mph and 28.4mph respectively in the morning and afternoon peaks. Speeds increase by up to 5mph in the off-peak period. By contrast, average traffic speeds are highest in the South West, at more than 59mph, and vary very little between peak and off-peak periods.

TABLE 4

Average trunk road traffic speed by time period, 2003 (mph)

Region	AM peak ¹	Off-peak ²	PM peak ³
North East	52.7	57.0	51.6
North West	46.3	52.2	52.1
Yorkshire & the Humber	51.1	54.5	53.2
East Midlands	51.5	53.8	52.0
West Midlands	47.6	52.2	46.2
East of England	54.9	57.8	52.8
London	27.6	32.9	28.4
South East	50.9	59.7	52.4
South West	59.4	59.9	59.2
England	49.5	54.6	50.6

¹ Between 07:00 and 10:00.

² Between 10:00 and 16:00.

³ Between 16:00 and 19:00.

Source: Trunk Road Speeds Survey, published in Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

⁹Confederation of British Industry, *Is transport holding the UK back?*, 2003.

¹⁰Kari Lautso et al, consortium research project funded by the European Commission, *PROPOLIS: Planning and research of policies for land-use and transport for increasing urban sustainability*, February 2004.

In terms of journey patterns, many cities are predicting high levels of growth in orbital journeys, especially associated with new developments on the fringes of cities. These typically have fewer public transport alternatives than radial routes into city centres.

Policies to tackle congestion include measures both to improve supply and to influence demand. Current planning guidance for development and transport (such as that contained in Planning Policy Guidance (PPG 13) Transport¹¹) encourages local authorities to shape the pattern of development and influence the location, scale and mix of land uses to help reduce the need to travel, and the length of journeys. Shorter journeys are more likely to be possible on foot or by bicycle, or by public transport, helping reduce congestion and the other wider costs of reliance on the car. Behavioural change or modal shift is an important strand of Government and regional policy relating to land-use and transport. ICT and innovative or more flexible approaches to communication and working practices can also have an important part to play in helping reduce the demand and need to travel.

Supply-side improvements, many of which have been used in the East Midlands, include:

- widening roads and improving junctions;
- better management of the road network and provision of new or improved bus lanes;
- better public transport services and use of new light rail schemes;
- measures to promote cycling and walking.

Measures being used to influence demand are better travel planning by schools and employers, more information for the traveller, parking policies and promoting public transport use. However, many of these measures may have only a limited impact on travel demand. Research on so-called 'soft factor' interventions (such as workplace and school travel plans, car clubs, tele-working and home shopping) shows that soft factors have the potential to reduce car use relatively cheaply, but that successful implementation depends on a supportive general policy context. Although soft factors have the potential to generate large reductions in traffic around specific sites, supporting demand management measures are needed to lock in these benefits.¹²

One additional policy instrument that can influence the demand for road space and which is becoming more feasible, through technological developments, is congestion charging. In contrast to fuel taxes and vehicle licensing, it can target congestion when and where it is happening, rather than overall traffic levels. In other words it provides an incentive to alter road use and thereby reduces the level of congestion, particularly at peak times. The experience of the London Congestion Charge is that a 15% fall in traffic has led to an average 30% reduction in congestion.¹³

Currently no urban area in the East Midlands imposes congestion charges, preferring other policy instruments to help manage demand such as on street parking charges, park and ride schemes, and traffic restrictions. Such policy instruments should not be seen in isolation but as a package of measures that provide both a carrot and stick approach to the problem of congestion. The DfT's Congestion Transport Innovation Fund (TIF) is providing the opportunity to explore the use of road or congestion charging measures,¹⁴ and several Local Authorities, including some in the Three Cities and Northamptonshire, are developing bids for pilot projects.

Tackling congestion in the East Midlands requires measures both to improve supply and to influence demand

¹¹ ODPM, *Planning Policy Guidance (PPG 13) Transport*, 2001.

¹² ESRC Transport Studies Unit, Transport for Quality of Life, Centre for Transport Policy (The Robert Gordon University), and Eco-Logica, on behalf of the Department for Transport, *Smarter Choices – Changing the Way We Travel – Final Report of the Research Project: The Influence of Soft Factor Interventions on Travel Demand*, July 2004.

¹³ BBC online, *Congestion charging 'a success'*, 17 February 2004.

¹⁴ Department for Transport, *Transport Innovation Fund: Guidance January 2006*.

3.3.3 Rural accessibility

Although the problem of congestion is particularly pertinent for the urban areas of the East Midlands, possibly of more concern for residents in rural areas is accessibility to services. Table 5 uses the Countryside Agency definition of rural areas based on sparseness of population to show the percentage of residents within specified distances of certain key services. The table shows that:

- Those living in hamlets and isolated dwellings classified as 'sparse' experience the greatest accessibility difficulties. For instance, just 34.5% of residences in these areas are within 4km of a library, only 36.7% within 4km of a supermarket and just 37.5% within 4km of a secondary school;

- Accessibility for people in settlements classified as 'village – sparse' is highly variable, depending on the service concerned. For instance, only 20.2% of residences are within 4km of a supermarket and 25.3% within 8km of a job centre, but 83% of residences are located less than 4km from a petrol station, and approximately 59% are within 3km of a primary school and within 2km of a Post Office;
- As would be expected, access to services is much greater for residents of town and fringe areas: generally at least 70% of residences are located within specified distances of the services included in Table 5.

TABLE 5
Residential delivery points within specified distance of service in the East Midlands (%)

	Bank or Building Society (4km)	Cashpoint (4km)	GP Surgery (4km)	Primary School (3km)	Supermarket (4km)	Job Centre (8km)	Library (4km)	Petrol Station (4km)	Post Office (2km)	Secondary School (4km)
Hamlet and isolated dwellings – Less sparse	60.9	87.7	78.2	73.9	71.5	61.3	69.7	86.7	70.4	62.0
Hamlet and isolated dwellings – Sparse	36.1	55.2	57.4	44.3	36.7	23.7	34.5	65.2	41.2	37.5
Village – Less sparse	40.5	81.2	65.8	76.9	52.0	53.6	47.1	78.9	70.5	44.8
Village – Sparse	16.5	55.9	38.7	59.4	20.2	25.3	55.5	83.0	59.2	30.3
Town and fringe – Less sparse	72.4	98.6	91.6	98.9	88.9	63.1	88.1	95.7	98.4	77.0
Town and fringe – Sparse	92.2	100.0	92.0	98.8	99.4	27.8	63.3	86.7	99.4	79.5
Urban > 10k – Less sparse	99.6	100.0	99.9	100.0	99.9	98.1	99.8	100.0	99.8	99.6
Urban > 10k – Sparse	100.0	100.0	94.3	99.2	95.6	99.9	100.0	100.0	99.8	97.7

Source: The South East Regional Research Laboratory (SERRL), 'Rural Services Series', 2005.

Those living in hamlets and isolated dwellings experience the greatest accessibility difficulties

3.4 Freight transport by road and rail

In addition to the movement of people, the other key transport movements for the regional economy are of freight – both materials and parts for processing or production (inputs) and finished products or components to market (outputs). The East Midlands (and Midlands generally) is an attractive location for distribution activity, and there is an above average number of key national and regional distribution centres in the region. This has both transport and land-use implications, and can create additional congestion on the region's roads.

Table 6 illustrates the tonnage of freight lifted by road¹⁵ in the East Midlands and England between 1994 and 2004:

- The volume of freight lifted by road in the East Midlands increased by 4.2% between 1994 and 2004, from 165 million tonnes to 172 million tonnes, while in England growth was significantly greater – an increase of 10.2% over the same period, from 1,346 million tonnes to 1,483 million tonnes;
- In 2004, 87 million tonnes of freight (more than 50% of freight originating from the region), were transported within the East Midlands. Of freight lifted from the East Midlands to other regions, the West Midlands, Yorkshire and the Humber, and the East of England were the main destinations. This demonstrates the importance of good transport connections to neighbouring regions, and it is notable that two of the regions referred to above contain some of the most important sea ports in the UK which provide trade links to markets in Europe and beyond.

Rail freight traffic in Great Britain grew by 1% in 2003/04 to 18.9 billion tonne-kilometres, representing 88.9 million tonnes of freight lifted (by weight) – around 6% of the freight moved by road.¹⁶ There were 416,000 freight train journeys in 2003/04, 11% more than in the previous year. Most traffic by volume is in bulk commodities, mainly coal, coke, iron and steel, building materials and petroleum. The Government is keen to encourage more freight to be moved by rail, to relieve pressure on the road network and to bring environmental benefits. In the East Midlands this is demonstrated by the development of rail freight terminals such as that at Daventry. However, the statistics show that road is still the main mode for freight movements.

Between 1994 and 2004 the volume of freight lifted by road in the East Midlands grew at a slower rate than in England as a whole

TABLE 6

Freight transport by road – goods lifted by origin (million tonnes), 1994-2004

Origin	1994	2000	2001	2002	2003	2004
East Midlands	165	163	163	169	158	172
England	1,346	1,347	1,345	1,390	1,404	1,483

Source: Continuing Survey of Road Goods Transport, published in Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

¹⁵Note: Freight 'lifted' is the weight of goods carried on the network, excluding the weight of trailers, locomotives and wagons. It does not take into account distance travelled, and is expressed in tonnes. This is distinct from freight 'moved', which is a measure of the weight of freight lifted and the distance travelled, expressed in net tonne kilometres (NTKMs).

¹⁶Office of Rail Regulation, *National Rail Trends, Yearbook 2004-2005*, June 2005.

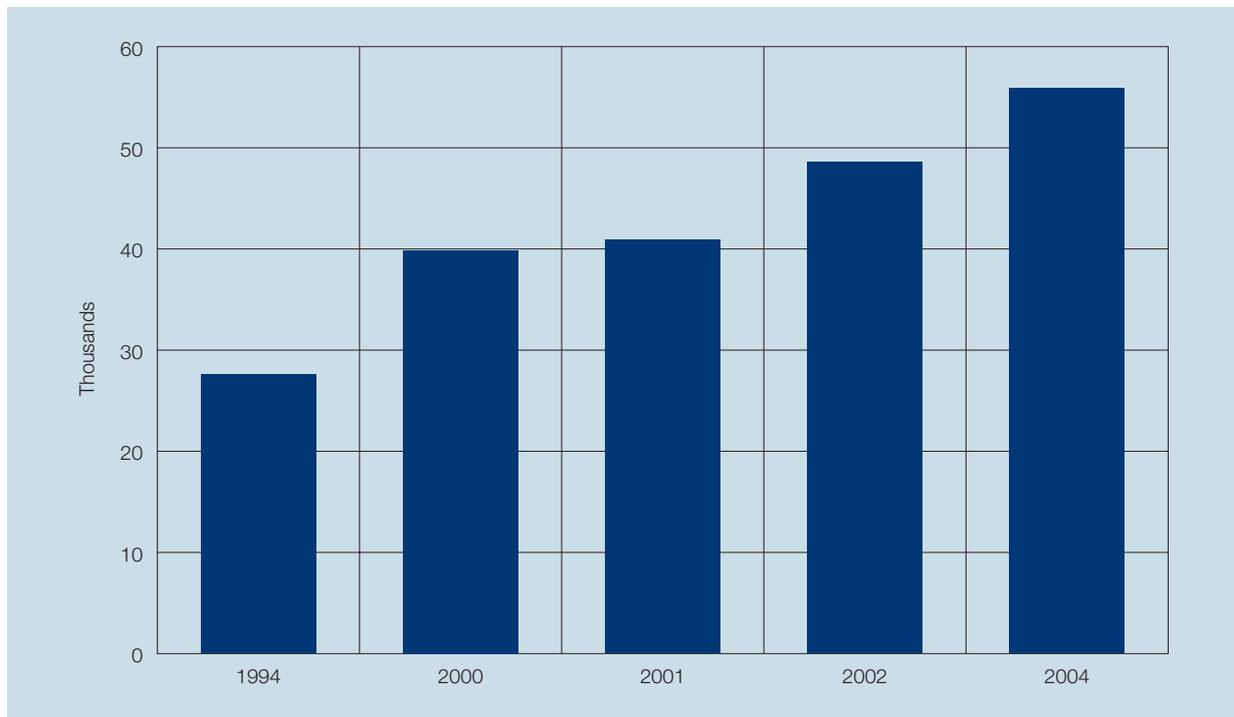
3.5 Air transport

Besides land based transport, the other major transport mode for transferring people and freight in the East Midlands is air transport. The total number of air transport movements in England increased by 51.9% between 1994 and 2004 while in the East Midlands (at Nottingham East Midlands Airport) it increased by 102.5% (See Chart 7). There was an even more dramatic increase in passenger numbers in the East Midlands, as Table 7 shows:

- Passenger traffic at Nottingham East Midlands Airport (NEMA) between 1994 and 2004 increased by 175%, from 1.6 million to 4.4 million. This was one of the largest percentage increases of any region. Only the East of England and South West experienced a greater percentage increase in passenger numbers;
- The number of air passengers at airports in England as a whole increased by 74% between 1994 and 2004, from 105.6 million to 183.7 million. The East Midlands accounted for only 2.4% of total air passenger traffic in England in 2004.

CHART 7

Air transport movements (aircraft landings or take-offs) at Nottingham East Midlands Airport (thousands), 1994-2004



Source: Civil Aviation Authority, published in Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005
 Note: Figures include some double counting because domestic traffic is counted at airport of arrival and departure.

TABLE 7**Terminal passengers (arrivals or departures – millions), 1994-2004**

Region	1994	2000	2001	2002	2004
North East	2.8	3.9	4.1	4.1	5.5
North West	14.8	20.4	21.4	21.5	24.6
Yorkshire & the Humber	1.1	2.1	2.0	2.0	2.9
East Midlands	1.6	2.2	2.4	3.2	4.4
West Midlands	4.8	7.5	7.7	7.9	9.3
East of England	5.3	18.4	20.6	23.0	28.9
London	51.8	65.9	62.1	64.6	68.8
South East	21.5	32.8	32.0	30.3	33.0
South West	1.9	3.1	3.7	4.5	6.4
England	105.6	156.3	155.9	161.9	183.7

Note: Figures include some double counting because domestic traffic is counted at airport of arrival and departure.

Source: Civil Aviation Authority, published in Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

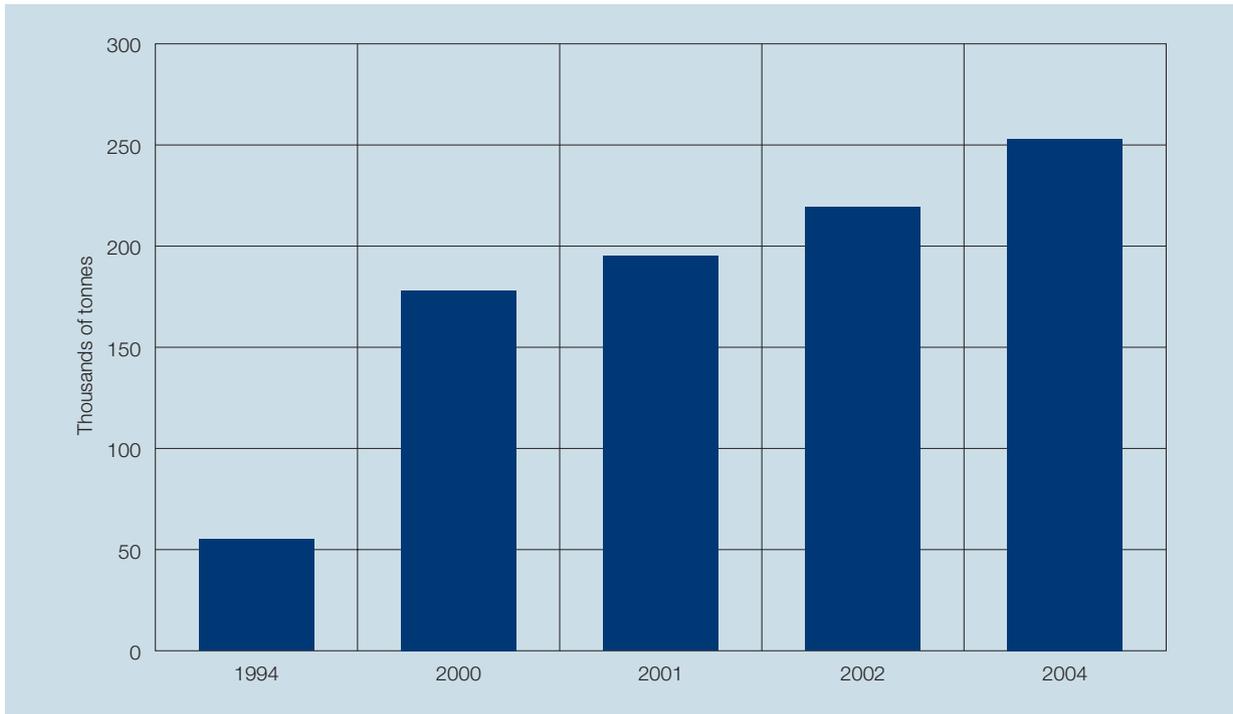
The tonnage of freight (excluding mail and passengers' luggage) lifted at airports in England increased by 48.9% between 1994 and 2004. Over the same period, there has been a particularly large increase in freight handled at NEMA, as Chart 8 shows. It now handles three and a half times the amount in 1994 (from 55.1 thousand tonnes lifted in 1994 to 253.1 thousand tonnes lifted in 2004), with its share of total air freight in England increasing from 3.6% to 11.2%. This represents a major increase in freight transport and emphasises the significant role which NEMA plays in both the region and the country as a whole. Outside of London, NEMA handles the most air cargo in the UK, and has a particularly important role in express freight activity.

Recent work commissioned by emda and NEMA has helped provide an up to date picture of both the value and type of freight activity taking place at the Airport and the role it plays in the regional and national economy. This study anticipates further growth in the Express Freight

Sector.¹⁷ This sector specialises in the guaranteed, fast delivery of generally low-bulk, high-value goods around the world. The sector uses a wide range of transport modes to provide these services, but for next-day international delivery in Europe air travel is essential. Four of the main global express mail carriers, including UPS and DHL, are based at NEMA. These studies reveal that there are both direct and catalytic benefits from this sector. Direct economic benefits include employment in the express freight sector which accounted for over 4,700 jobs in the region in 2005. However, the sector supports over 10,200 jobs taking into account supply chain and other linkages, and is forecast to reach 16,000 by 2014. In terms of regional economic performance and competitiveness, these studies show that many of the economic or industrial sectors which make most use of express freight services are high-growth and high-value, including pharmaceutical and biomedicine, electronic components, telecoms, and business and financial services.

Sectors making most use of express freight services tend to be high-growth and high-value

¹⁷Oxford Economic Forecasting (OEF), *Economic impact of express carriers for UK plc*, and *The importance of the express delivery industry for the East Midlands economy*, January 2006.

CHART 8**Freight lifted at Nottingham East Midlands Airport (thousands of tonnes), 1994-2004**

Note: Figures include some double counting because domestic traffic is counted at airport of arrival and departure. This excludes mail and passengers' luggage. Source: Civil Aviation Authority, published in Department for Transport, 'Transport Statistics Bulletin – Regional Transport Statistics 2005', November 2005

3.6 Communications

Although physically moving between home and work, and moving goods between different industrial and commercial sites are necessary features of economic activity, developments in communication systems are beginning to alleviate this need. The development of the internet and broadband has radically altered the way that information can be transferred, and has implications for how and where work is undertaken and how businesses relate to one another. According to OVUM, over 95% of

residential delivery points (RDPs) in England in 2004 could receive broadband connections through Digital Subscriber Lines (DSL).¹⁸ In the East Midlands approximately 93% of residential delivery points could receive a similar service, although, as Table 8 indicates, the proportion able to access these services varied considerably, with rural residents having less access than urban residents. For instance, just 15.3% of residential delivery points within the classification 'Village – Sparse' could receive broadband through DSL, compared to 99.7% within the 'Urban > 10k – Less sparse' classification.

¹⁸OVUM, on behalf of the Department of Trade and Industry (DTI), *UK Broadband Status Report, June 2005 – covering the period end September 2004 to end March 2005*, June 2005.

TABLE 8**Availability of broadband in East Midlands (% of residential delivery points), 2004**

Classification	RDPs (i)	DSL availability (ii)	Cable availability
Hamlet and isolated dwellings – Less sparse	40,723	75.1	8.4
Hamlet and isolated dwellings – Sparse	3,342	16.5	0.0
Village – Less sparse	190,590	69.7	4.4
Village – Sparse	8,930	15.3	0.0
Town and fringe – Less sparse	281,569	88.1	25.7
Town and fringe – Sparse	3,882	12.9	0.0
Urban > 10k – Less sparse	1,294,812	99.7	71.2
Urban > 10k – Sparse	13,895	74.7	0.0
Total	1,837,743	93.3	54.8

Notes:

(i) RDPs = Residential Delivery Points

(ii) DSL = Digital Subscriber Line

Source: Ovum, 2004

4. Land and property

Adequate land and property provision is a necessary condition for economic competitiveness. Well functioning and responsive markets for land will facilitate economic progress. Changes in final demand patterns and sources of goods and services mean that there will be a changing pattern of land and property use in regions such as the East Midlands. The most obvious manifestation of this is the decline in demand for large scale manufacturing units in the East Midlands and the increasing number of units to support the growth of business services, leisure and entertainment. These changes, among others, impose different demands for both labour and capital including land use and property.

The changing sectoral balance of the economy is reflected in the changing nature of demand for land and property

4.1 Floorspace

Table 9 shows the floorspace occupied by factories, retail and offices in the East Midlands and England in 2000 and 2004:

- The number of factory hereditaments for both the East Midlands and England was fairly constant over the period 2000 to 2004. However, the amount of floorspace occupied declined, suggesting that there is a movement away from larger to smaller premises as measured by floorspace;
- Over the same period there was an increase in the floorspace occupied by retail units but a decline in the number of retail outlets, suggesting in this case a movement from smaller to larger retail formats and premises;
- The number of offices has increased, as has the amount of floorspace they occupy in both the East Midlands and England. The changes that have taken place in the East Midlands therefore reflect national trends;
- In 2004, the rateable value per square metre for factories in the East Midlands was 4% below that for England, while for retail units the rateable value per square metre was approximately 14% below that for England. The rateable value of offices in the East Midlands was just over one half of that for England.

TABLE 9

Floorspace occupation, East Midlands and England, 2000 and 2004

		Factories		Retail premises		Offices	
		East Midlands	England	East Midlands	England	East Midlands	England
Number of hereditaments	2000	26,914	248,280	40,110	537,748	18,220	290,078
	2004	26,996	249,089	39,324	527,839	20,003	313,024
Floorspace (m²)	2000	25,616	215,564	7,559	100,353	4,859	90,264
	2004	24,860	208,510	7,979	104,716	5,321	97,181
Rateable value (£)	2000	584,053	5,335,458	631,997	9,730,703	272,130	9,572,175
	2004	588,938	5,263,079	671,389	10,260,797	307,007	10,436,483
Rateable value per m² (£/m²)	2000	23	25	84	97	56	106
	2004	24	25	84	98	58	107

Source: ODPM, Commercial and Industrial Floorspace and Rateable Value Statistics 2004, 2005

Floorspace occupied by factories has declined while that occupied by retail units has increased

4.2 Rentals

The demand for different types of floorspace across the East Midlands is partly reflected in the differences in rentals earned by different types of property. In this section information is presented from the Property Market Reports produced by the Valuation Office Agency for ODPM on industry, retail and office properties in the major urban areas of the East Midlands.¹⁹

Industry information is provided for five types of industrial building, listed below. The first four types are assumed to be on industrial estates:

- Type 1: Small starter units 25-75 sq metres
- Type 2: Nursery Units 150-200 sq metres
- Type 3: Industrial/warehouse units circa 500 sq metres
- Type 4: Industrial/warehouse units circa 1000 sq metres
- Type 5: Converted ex mill units

Table 10 shows the rental per square metre for July 2005 for the major urban areas in the East Midlands, with the rentals per square metre for spring 2001 in brackets. Most of the rentals have shown a small increase, whilst some have remained static (such as Types 3 and 4 in Nottingham and Derby), although Northampton's figures for types 2, 3 and 4 show a decline in rentals. The limited change in rental levels is partly explained by the length of rental periods and the time between rental reviews.

Between 2001 and 2005 rental values for industry were relatively static in the East Midlands

TABLE 10

Rental value for industry in the East Midlands (£ per Sq m per annum), July 2005 and Spring 2001 (in brackets)

	Type 1	Type 2	Type 3	Type 4	Type 5
Lincoln	50 (43)	45 (38)	40 (28)	37 (27)	
Ashfield/Mansfield	50 (50)	44 (43)	40 (38)	38 (36)	
Nottingham	68 (63)	60 (53)	50 (50)	48 (48)	20 (20)
Derby	65 (64)	58 (61)	48 (48)	40 (40)	
Leicester	60 (60)	55 (50)	47 (38)	50 (31)	
Northampton	85 (78)	65 (70)	55 (58)	50 (55)	

Source: ODPM, Property Market Report, 2005.

¹⁹ ODPM, Property Market Report, 2005.

4.2.1 Retail

Table 11 shows rental values per square metre per annum for three types of retail premises in East Midlands towns and cities. Retail values are significantly higher than for industry. The key points to note from the table are:

- Rental values for retail outlets with prime positions in principal shopping centres are at least twice as high as the values for outlets in good secondary off peak positions in all the areas listed, and about 10 times as high as the values for edge of town warehouse units;
- Rental values are highest in Nottingham in all three location classes, and have grown significantly since 2001 in each case;
- Between 2001 and 2005 rental levels for outlets in prime positions have remained the same in Leicester and Northampton, but have grown in all other areas;
- There have been relatively modest increases in rental values for edge of town warehouse units in all towns and cities.

Rental values for retail outlets in prime positions in principal shopping centres are at least twice the level of those in good secondary positions

TABLE 11

Rental value for retail in the East Midlands (£ per Sq m per annum), July 2005 and Spring 2001 (in brackets)

	Prime position in principal shopping centre.	Good secondary off peak position in principal shopping centre.	Modern, purpose built, non-food, warehouse unit, circa 2,500sq.m-5,000sq.m Edge of town location with car parking.
Lincoln	1400 (1150)	500 (500)	150 (120)
Mansfield	1100 (900)	320 (250)	115 (90)
Nottingham	2500 (2000)	1000 (575)	250 (100)
Derby	1600 (1550)	775 (660)	150 (125)
Leicester	2000 (2000)	900 (575)	150 (140)
Northampton	1400 (1400)	750 (850)	240 (180)

Source: ODPM, Property Market Report, 2005

4.2.2 Offices

Table 12 provides information on rental per square metre per annum for offices. There has been significant growth in rentals in this sector of the property market since 2001. The gap between Nottingham and other urban centres has narrowed in recent years. Rental values for town centre office blocks in Lincoln, Leicester and Northampton have increased particularly significantly.

TABLE 12

Rental value for offices in the East Midlands (£ per Sq m per annum), January 2005 and Spring 2001 (in brackets)

	Town centre location, self-contained over 100 sq metres in office block erected in last 10 years.	As type 1 but suite in range 150-400 sq metres.	Converted former house usually just off town centre, 50-150 sq metres.
Lincoln	100 (55)	115 (65)	85 (65)
Mansfield	90 (80)	75 (60)	
Nottingham	140 (135)	150 (150)	100 (95)
Derby	83 (75)	95 (80)	105 (75)
Leicester	140 (70)	100 (80)	100 (75)
Northampton	135 (88)	135 (118)	135 (128)

Source: ODPM, Property Market Report, 2005

Rental values for town centre office blocks in Lincoln, Leicester and Northampton have increased significantly since 2001

4.3 Land use

The two most recent region-wide analytical reports of the supply and demand for employment land and floorspace in the East Midlands were the Quality of Employment Land Supply Study (QUELS) July 2002²⁰ and the Regional Employment Land Priorities Study (RELPS) June 2003.²¹ Both analysed and assessed the quantity and quality of employment land supply in the East Midlands region. This section draws on the material in these reports to provide an analysis of the current and future supply of employment land and floorspace. It should be noted that as part of the review of the East Midlands Regional Spatial Strategy (RSS), the East Midlands Regional Assembly is developing employment land provision figures which will provide guidance to local authorities. Preliminary findings would seem to validate the main findings of QUELS.

QUELS and RELPS indicated that there would be a decline in demand for industrial floorspace (by 65,000 sq m per year), and a significant increase in demand for office floorspace (of 75,000 sq m per year) over the next 10-15 years, with implications for land use. The sub-regional pattern of forecast change in industrial and office floorspace is much more varied.

Forecasts were produced in the QUELS Report for a 10-15 year period from 2002 which suggest that for the region as a whole, land in employment use will increase by just 2.8 hectares per year net. There are only three sub-areas in which net land take-up is forecast to be positive: Eastern and Southern, with annual increases of some 5 hectares per year, and Three Cities (Derby), with 0.6 hectares per year. Everywhere else, land in employment use falls fractionally. While land in employment use stays almost constant, employment is forecast to grow, with a shift of jobs from industrial uses to offices. Floorspace per worker in offices is around half that in industrial uses. In addition, more than half of total net employment growth is accounted for by non-business space sectors such as Retail, Education and Health, which do not operate on what is defined as employment land in the QUELS. The result is growth in employment with little or no growth in floorspace and land occupied.

According to the Regional Spatial Strategy Monitoring Report 2005,²² in 2003/2004 the region overall had committed over 3,000 hectares of land for employment purposes. Table 13 details the greenfield and brownfield commitments in different parts of the region:

- Just over two thirds of the employment commitments in 2003/2004 were on greenfield land. Northamptonshire has had the largest amount of greenfield land committed (744 ha), with Nottinghamshire having the second largest commitment at 404 ha;
- The East Midlands has over 1,000 ha of employment land commitments on brownfield sites (previously developed land). Both Leicester and Nottinghamshire have seen large increases in brownfield land commitments since 2002/2003, both having more than doubled. The total area of brownfield land commitments declined substantially in Lincolnshire, Northamptonshire and Leicestershire between 2002/2003 and 2003/2004, while there was a slight decrease in Nottingham and Rutland;
- Overall greenfield employment land development in the East Midlands decreased from 2,383 ha in 2002/2003 to 2,249 ha in 2003/2004, with brownfield commitments falling from 1,158 ha to 1,117 ha.

Declining demand for industrial floorspace and increasing demand for office floorspace are forecast

²⁰ Roger Tym and Partners on behalf of the East Midlands Regional Local Government Association (emrlga), emda, and Government Office for the East Midlands, *East Midlands Quality of Employment Land Supply (QUELS) Study Final Draft*, June 2002.

²¹ Innes England, on behalf of emda, *Regional Employment Land Priorities Study (RELPS)*, 2003.

²² DTZ Pinda Consulting, on behalf of the East Midlands Regional Assembly, *East Midlands Regional Spatial Strategy: Annual Monitoring Report 2003/2004*, February 2005.

TABLE 13**Total greenfield and total brownfield commitments (hectares), 2002-2003 and 2003-2004**

	Greenfield		Brownfield	
	2003/04	2002/03	2003/04	2002/03
Derby	118.38	92.12	160.60	134.26
Derbyshire	207.83	264.5	295.23	287.08
Leicester	34.52	21.22	57.75	26.66
Leicestershire	338.54	304.96	104.17	158.75
Lincolnshire	329.22	735.88	41.79	131.78
Northamptonshire	743.59	520.14	102.06	230.58
Nottingham	55.22	56.27	47.20	53.46
Nottinghamshire	404.23	363.75	307.94	131.55
Peak District	0	0	0.70	0
Rutland	18.35	24.60	0	3.99

Source: DTZ Peda Consulting, on behalf of the East Midlands Regional Assembly, 'East Midlands Regional Spatial Strategy: Annual Monitoring Report 2003/2004', February 2005.

Note: the 2004/2005 Annual Monitoring Report was published in draft form in February 2006. However, this does not currently provide complete regional coverage for Brownfield and Greenfield land commitments (2004/2005 data for Leicester and Nottingham Cities are currently unavailable). Therefore the 2003/2004 AMS data is used in this section as the most current source.

Table 14 shows the value of industrial land in the major urban centres of the East Midlands and comparisons with the East Midlands overall and England & Wales. The table shows that:

- There is a range of land values in each urban area, which will depend on the particular location and characteristics of sites;
- The typical land values in Leicester, Nottingham and Northampton are significantly higher than for the other urban areas;
- Although typical values have increased in all towns except for Nottingham and Northampton between 2001 and 2005, values in most East Midlands towns have increased less significantly than the average for England and Wales. In 2001, typical land values for Nottingham, Leicester and Northampton were all higher than the national average. In 2005, only Leicester exceeded the typical land values for England and Wales.

TABLE 14**Industrial land values per hectare: East Midlands, 2005 (£)**

	Minimum	Maximum	Typical	Typical in 2001
Lincoln	275,000	325,000	300,000	250,000
Mansfield	250,000	325,000	275,000	260,000
Nottingham	475,000	625,000	525,000	525,000
Derby	375,000	525,000	425,000	200,000
Leicester	370,000	660,000	650,000	555,000
Northampton	450,000	650,000	500,000	550,000
East Midlands	250,000	660,000	446,000	414,000
England and Wales	80,000	3250,000	632,000	508,000

Source: ODPM, Property Market Report, 2005

4.4 Overcoming market or planning system failures

In many cases the provision of property and the use of land can be determined through market forces. However, there are areas where the market is either unwilling or unable to deliver the outputs required. Supply constraints usually arise where land allocated in statutory plans is inadequate to match the needs of the market (e.g. too little or in the wrong place) and / or physical or other constraints are such that the market is unable or unwilling to bring forward the supply. Occasionally, circumstances arise where allocations are adequate and financial viability is not problematic but supply is not forthcoming because the market is not able to assemble sites. The reasons for this include complex ownership issues and the need for comprehensive treatment involving, for instance, on and off site interventions, some of which may require direct public sector involvement, such as reclaiming contaminated land.

4.5 Types of business accommodation

Small firms looking for office or manufacturing accommodation often require “easy in easy out” occupancy terms to overcome the sunk costs involved either in purchasing property or taking on a long lease. The private development market provides this in the form of serviced accommodation but often at high cost. Therefore, the provision of incubator accommodation and small workshop premises may require public intervention. Such provision has been part of both regional and sub-regional economic development strategies in the East Midlands.

Firms requiring follow on accommodation typically use second-hand poorer quality stock, the availability of which varies across the region. In the main, private developers are unwilling to provide new stock for this market segment because of its economic profile, and often tenants cannot afford the level of rents required to justify development cost. Once again public sector intervention may well be required to facilitate the provision of follow on accommodation to ensure a range of options, and to address gaps in market provision.

Once fully operational, most firms’ property requirements can be met by the market either within second hand or newly built accommodation. Constraints usually relate to the supply and the availability of appropriate sites of employment land. As indicated in QUELS²³, mainstream office employment land needs fall roughly into two categories: sites in city centres and sites in ‘out of town’

locations with access to the primary road network. City centre sites appeal to companies whose activities employ a largely sedentary work force and whose capacity to attract and retain staff is enhanced by good public transport links and proximity to facilities. For others, the appeal is more to do with being close to agglomerations of like-minded and linked businesses.

At the other end of the spectrum are companies which, for reasons of operational efficiency, need to be located close to the primary road network. Ease of mobility, for instance, is important in order to facilitate journeys to clients or by clients. In some cases, an out of town preference has less to do with mobility and more with quality of environment, especially where equivalent city centre supply is compromised by poor surrounding environment, challenging site configuration and, for some, restrictive car parking. In the East Midlands there are several examples of large scale occupiers having opted for out of town locations, notwithstanding limited need for operational mobility and relatively poor public transport provision.

One of the issues raised by the QUELS is that it is not so much the amount of employment land that is important, but rather its quality, in particular its location. There are areas in the East Midlands where it is unlikely that, given present structural changes, land will be in demand. Consideration should therefore be given to deallocation or reallocation to alternative uses in accordance with Government guidance. At the same time, those sites which are allocated for employment use need to be scrutinised to see if there are any measures which may make them more attractive to the market. Recent research has explored some of these issues in relation to key sectors.²⁴

Accommodation for new and early-stage businesses is often provided by the public sector

²³ Roger Tym and Partners on behalf of the East Midlands Regional Local Government Association (emrlga), emda, and the Government Office for the East Midlands, *East Midlands Quality of Employment Land Supply (QUELS) Study Final Draft*, June 2002.

²⁴ Roger Tym and Partners, on behalf of emda, *East Midlands Employment Land Priorities Study*, February 2006.

4.5.1 Transport equipment

- The industry led Aerospace Alliance reports that aerospace companies have long been constrained by sub-optimal provision of employment land in much of the East Midlands, and that in order to maximise the competitiveness of this globally successful high technology sector an improved supply of suitable employment premises will be required.
- In the East Midlands Rolls Royce is the main focus of aerospace activity. The company is based in Derby but has a supply chain which extends across the Midlands. Rolls Royce is planning to double its output of aero engines by 2020, with potential benefits to the East Midlands economy, including the supply chain companies. The company is investing in its Derby sites, but there may also be scope to encourage more supply chain companies to locate in closer proximity, possibly at a supply chain business park. However, existing aerospace operations tend not to be geographically mobile, even over relatively short distances, for reasons related to employee skills and the costs of certification of manufacturing processes for safety reasons.
- The motorsports sector requirements are for increasingly high quality space, but there is no evidence that the market is failing to supply that space. The Silverstone Innovation Centre acts as a focus for the development of small companies in this sector.

4.5.2 Food and drink

- The East Midlands has one of the strongest regional industry bodies in the UK, the Food and Drink Forum. In relation to business space, an important recent initiative was the Southglade Food Park in Nottingham, with ten production units built to comply with the latest food hygiene regulations in a range of sizes from incubators through hatcheries to nurseries.

The supply of suitable employment sites for key sectors such as Transport, Food and Drink and Healthcare is improving

- Because production units have to conform to high and rising standards of hygiene and cleanliness, the low cost basic quality accommodation that houses many start-ups and small firms in other industries is not suitable for food and drink. The lack of suitable accommodation at the lower end of the market may therefore act as a barrier to entry, constraining innovation and diversification towards higher value markets.
- Current and proposed intervention to provide space for these priority sectors includes further specialist accommodation for early stage food and drink producers.

4.5.3 Healthcare

- The principal cluster development activity in the healthcare sector has been the development of BioCity in Nottingham, the UK's largest bioscience incubator and innovation centre. Phase 1 of the Centre is 90% occupied and Phase 2 will open up further laboratories and manufacturing space. Additional space can be provided to meet demand as required.
- Incubation and innovation centres play an important role in bioscience because even the smallest firms in this sector typically require extensive laboratory facilities, which early stage companies do not have the capital to buy and the rental market does not readily provide. The scale and location of the centres is often dependent upon links to universities and major research establishments.

4.6 Inward investment and major investment sites

In the last five to ten years, the East Midlands has attracted just one single-user project over 25 hectares, the Toyota plant at Burnaston, Derbyshire. Other very large investments have been attracted, particularly office users such as Capital One in Nottingham, but these have all fallen under the 25-hectare Major Investment Site (MIS) threshold. However, inward investment has diversified away from the traditional large manufacturing plant, towards a mixture of uses, many of which require office, high-tech or distribution space.

5. Housing

5.1 Introduction

Decent homes and places to live are key elements within the overall aims of the Sustainable Communities Plan (SCP).²⁵ The SCP set out a national strategic framework for housing and a programme of action to tackle high house prices in parts of the country and housing abandonment in others, focusing on the need for decent homes, good quality local environments and protecting the countryside.

From an economic development perspective, access to high quality housing and the creation of balanced housing markets are crucial to enhancing regional competitiveness, promoting social inclusion and supporting sustainable communities. The Treasury commissioned Barker Review of Housing Supply²⁶ reviewed the issues underlying the lack of supply and responsiveness of the UK housing market and the interaction of the house building industry with the planning system and government sustainability targets.

The report showed that house price inflation has made home ownership increasingly unaffordable for many groups in the population, particularly first-time buyers, with knock-on impacts on rent levels in the private sector and on demand for social housing. The report recommended significant increases in private and social housebuilding in order to reduce the trend in house prices and cope with the flow of new households. Failure to address these issues will result in increasing social problems and hamper economic performance.

The average price of a house in the East Midlands almost doubled between 2000 and 2005

In the Government's 2004 Spending Review the key overall strategic priorities for housing were:

- the delivery of better balanced housing markets through increasing the supply of housing in general and in particular social and other affordable housing in high demand areas, and tackling problems of abandonment in areas of low demand;
- bringing existing social housing and owner occupied and privately let housing occupied by vulnerable households up to the decent home standard;
- tackling disadvantage, with a particular emphasis on reducing homelessness.

In the following section key facts about the region's housing are highlighted, together with a review of the current issues affecting housing demand and supply.

5.2 House prices

As with the rest of the country there has been a substantial increase in the price of houses over the last five years. Chart 9 shows Land Registry data on average house prices for the East Midlands and England between the final quarter of 2000 and the final quarter of 2005:

- In the East Midlands, the average price of a house has almost doubled, from £79,085 in October-December 2000 to £155,286 in October-December 2005;
- Although house prices in the region remain below the average for England and Wales, which was £191,326 in October-December 2005, the rate of increase has been higher. House prices in the East Midlands increased by 96.4% between 2000 and 2005, compared to a 59.3% increase in England and Wales.

Rural house prices in the region rose by 154% between the first quarter of 1996 and the third quarter of 2003. This compares to a rise of 133% in urban house prices over the same period in the region. East Midlands house price rises have been slightly less than the national rise of 159% for rural areas and 147% for urban areas.²⁷

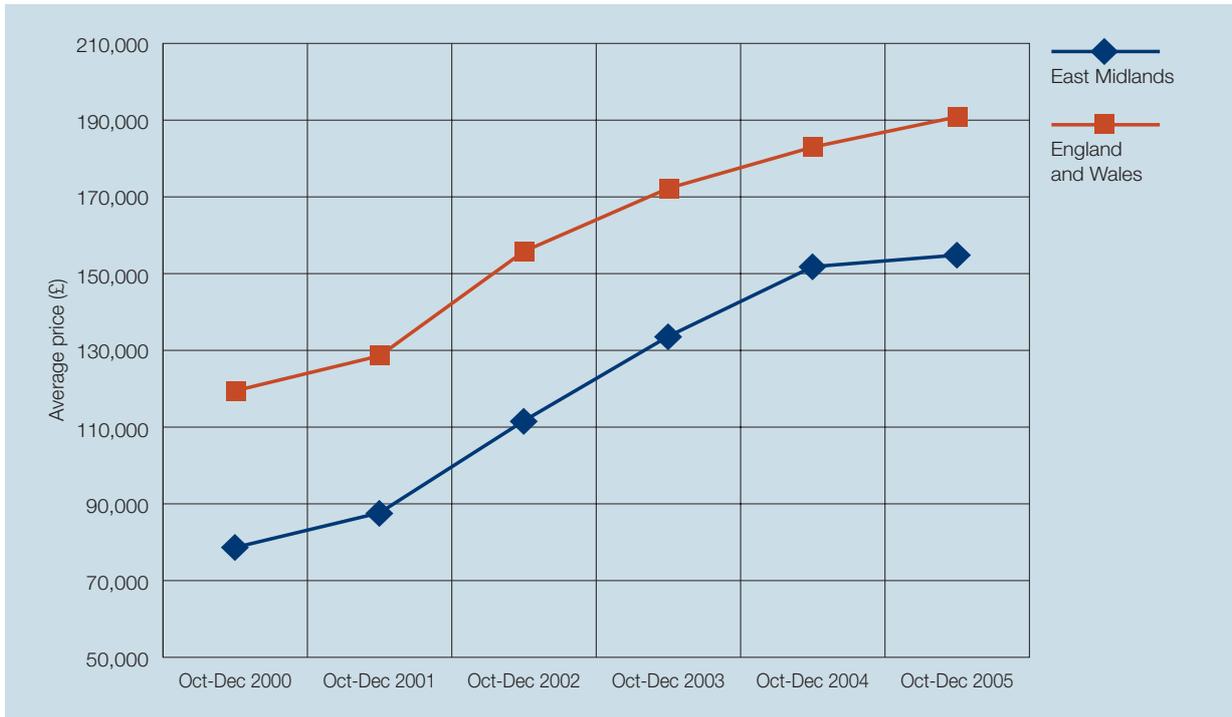
²⁵ ODP, *Sustainable Communities Plan: Building for the Future*, 2003.

²⁶ Barker Review of Housing Supply, HM Treasury, *Review of Housing Supply. Delivering Stability: Securing our Future Housing Needs, Final Report – Recommendations*, March 2004.

²⁷ The Countryside Agency, *The State of the Countryside in the East Midlands*, 2004.

CHART 9

Trends in average residential house prices (£), 2000-2005



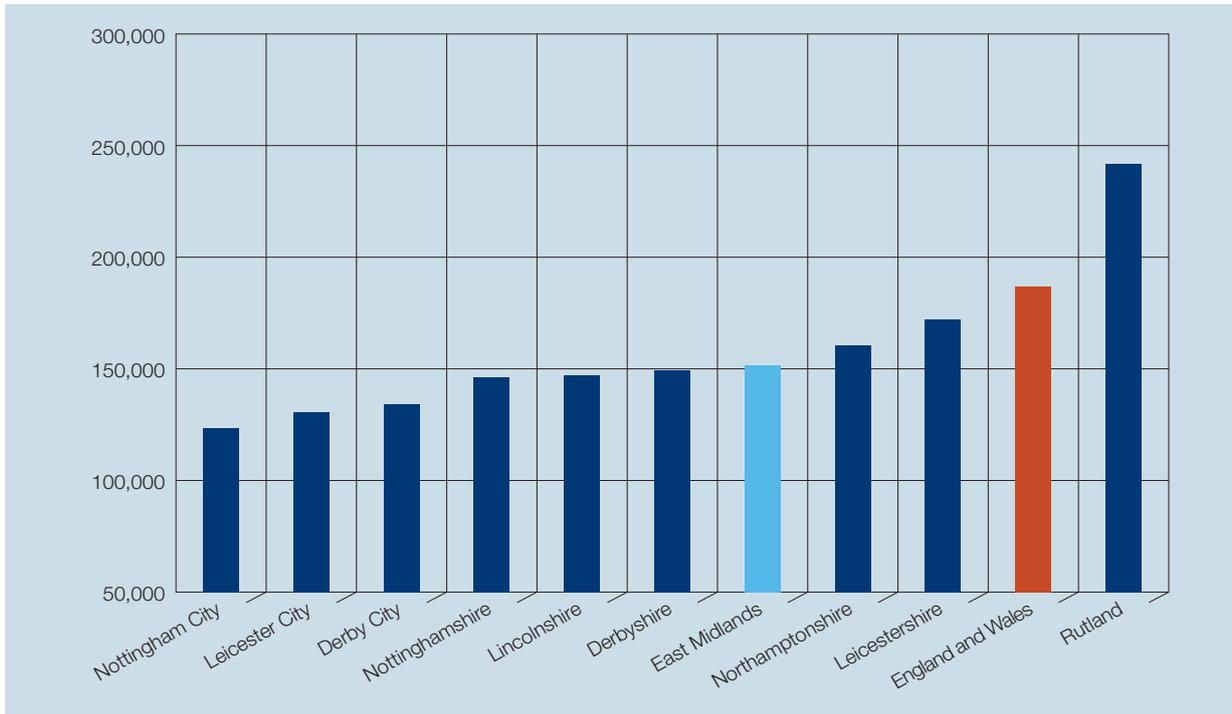
Source: Land Registry, 'Residential Property Price Report', October-December 2000 to October-December 2005, from Land Registry online database, 19th April 2006

Note: This data is not weighted to reflect seasonal factors.

Chart 10 shows how house prices vary sub-regionally:

- House prices in Rutland are by far the highest in the East Midlands, at £247,669 in October-December 2005. Rutland has also experienced the largest rise since 2001, increasing by £100,000;
- The lowest average house prices in the region are in Nottingham City, at £126,361. Nottingham has also seen one of the smallest rises in house prices since 2001.

Average house prices are highest in Rutland and lowest in Nottingham City

CHART 10**Sub-regional residential house prices (£), 2005**

Source: Land Registry, 'Residential Property Price Report', October-December 2005, from Land Registry online database, 19th April 2006

In all areas except Rutland, the rate of increase in house prices has been lower between 2004 and 2005 than in earlier years. This reflects the recent levelling off in English house prices in response to increasing concerns over consumer debt and increases in the cost of borrowing following rises in interest rates.

5.3 Affordability

Given the increase in house prices, a current issue of concern is the inability of certain groups in the community to access the housing market. Map 2 shows the ratio of average house prices to average income in the housing market areas of the East Midlands in 2004 (see section 5.10.6 for definitions and explanation of housing market areas):²⁸

- The average house price to income ratio in the East Midlands in 2004 was 7.2, compared to 7.9 in England as a whole – suggesting that on average houses remain somewhat more affordable in the region than nationally;
- Areas with lower ratios are concentrated in north Nottinghamshire and north Derbyshire, and around Derby, Nottingham, Northampton, Corby, Kettering and Wellingborough. Chesterfield, in the former coalfields area, had the lowest ratio in 2004, at 6.2;
- High ratios are found in the south of Northamptonshire, the Peak District, and between Nottingham and Leicester Cities. The highest ratio in 2004 was in Rutland, where house prices were 10.2 times higher than the mean annual income. The Derbyshire Dales also had a high ratio, at 8.5;
- This pattern has changed since 2002. Higher rates of increase in the ratio of prices to incomes are prominent in coastal areas of Lincolnshire, representing some 'catching up'.

²⁸ The ratio is calculated by dividing estimates of average house prices by the mean annual income in each district: e.g. a ratio of 8 indicates that average house prices in a given district are 8 times the mean annual earnings of that district.

MAP 2

Average house price as a ratio of average income by housing market area, 2004



- 6 to 7
 - 7 to 8
 - 8 to 9
 - 9 to 10
 - 10 to 11
- Average House Price as a Ratio of Average Income by Housing Market Area, 2004**



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Source: Office of the Deputy Prime Minister from Land Registry and ASHE, 2004

5.4 Tenure, house size, energy efficiency and vacant dwellings

The number of residences in the East Midlands increased from 1,634,000 in 1991 to 1,843,000 in 2004.²⁹ Over this period there has been a change in the proportion of residences in different tenures. In 1991, 70% of residences in the East Midlands were owner occupied, 9% were privately rented, 2% were rented from registered social landlords and 19% were rented from Local Authorities. In 2004 owner occupied housing increased to 75%, 8% of housing stock was privately rented, and the proportion of housing stock available for social renting declined to 17%, with an increase to 5% in stock rented from registered social landlords and a decrease to 12% in council housing to rent from local authorities. Thus there has been a continuation of the movement towards owner occupation, although this may be approaching its limit given the rising cost of home ownership relative to incomes, and other personal and social reasons for non owner occupation (such as frequent changes of job location). Similar changes have occurred in England as a whole, although the proportion of owner occupied residences in England was below that of the East Midlands in 2004, at 71%.

In the East Midlands, the social rented sector is more concentrated in council housing than is the case nationally, reflecting a lower level of local authority stock transfers to registered social landlords. However, the tenure balance between owner occupation and social housing differs across the region. To some extent this reflects the take-up of the Right to Buy.³⁰

The region has a higher proportion of newer and larger dwellings than the national average.³¹ Despite being newer overall, the region's housing stock does not score particularly well on energy efficiency ratings.³²

- In April 2005, there were 58,419 vacant dwellings, of which 24,173 had been empty for more than 6 months.³³

There has been a continuation of the movement towards owner occupation

5.5 Homelessness

Between 2001 and April 2005, homeless households in priority need across the region increased by 18% and the number of priority need households living in temporary accommodation increased by 27%.³⁴ During 2005, increased funding to local authorities to address the causes of homelessness, including working more closely with private landlords and voluntary agencies, has led to reductions in homeless acceptances and in the use of temporary accommodation in the region.³⁵

- The number of households on local authority waiting lists rose by 34% between 2001 and April 2005.³⁶

5.6 Rural issues

Reflecting the rural nature of many parts of the East Midlands, 43% of total dwellings in the region are located in rural areas. The proportion of rural housing stock in local authority ownership has fallen from 13.4% in 1997 to 7.6% in 2003 and there has also been a slight fall in rural housing stock owned by other public sector organisations. This change has to some extent been compensated for by the rise in the proportion of rural housing owned by registered social landlords from 1.8% to 5.3%. In common with other regions in England, the private ownership of housing is higher in rural than in urban areas, with an increase in the proportion of owner occupied housing in rural areas from 84% in 1997 to 86.5% in 2003.³⁷

Together with the loss of social housing through Right to Buy, the existence of large numbers of second/holiday homes places further pressure on rural housing markets. Rural authorities in the East Midlands with medium to large amounts of second homes are High Peak with 361 second homes and Derbyshire Dales which has 940, representing 3% of its total housing stock.³⁸

²⁹ ODPM, Housing Statistics – Live Tables, *Table 109 Dwelling Stock: by tenure and region, from 1991, April 2005.*

³⁰ East Midlands Regional Housing Board, *East Midlands Regional Housing Strategy 2004-2010*, 2004.

³¹ *Ibid* 29.

³² *Ibid* 29.

³³ ODPM, P1E Homelessness Statistics, 2005.

³⁴ ODPM, *Housing Strategy Statistical Appendices*, 2005.

³⁵ ODPM, P1E Homelessness Statistics, 2005.

³⁶ ODPM, *Housing Strategy Statistical Appendices*, 2005.

³⁷ The Countryside Agency, *The State of the Countryside Report in the East Midlands*, 2004.

³⁸ Commission for Rural Communities, *Evaluation of the Use of Reduced Council Tax Discount from Second Homes by Rural Authorities, 2004/05*, 2005.

5.7 Regional housing strategy and Single Capital Pot funding

The funding process for the construction of new affordable housing and improvements to existing public and private sector housing begins with Regional Housing Boards who prepare regional housing strategies to identify the priorities for housing in their region and make recommendations to government on the use of the Region's Single Capital Pot. The East Midlands Regional Housing Strategy (2004-2010) established a set of policies grouped within three overall strategic aims of balance, inclusion and co-ordination. In 2006-08, a total of £268.1 million will be allocated for the construction of new affordable homes, the improvement of public and private sector housing and to support regional and sub-regional projects and strengthen the evidence base for the Regional Housing Strategy.³⁹

5.8 Building new affordable housing

Over the period 1998-2003, 11,799 new affordable houses have been provided in the East Midlands.⁴⁰ The main priority areas for new housing in the region have been the growth areas to the south, the funding of housing projects that contribute to the wider regeneration of city centres, investment in the former coalfield areas, and in rural areas affected by affordability issues such as the Peak District. Funds have been allocated sub regionally according to sub regional priorities to meet a wide range of diverse housing needs, including housing with support for vulnerable groups.⁴¹

In 2006-08, the number of affordable homes delivered will increase to 5,300, consisting of a mix of affordable housing to rent with approximately 25% for low cost home ownership.⁴² Additional houses will be completed without grant-aid (e.g. through Section 106 planning gain) but further work is required to ensure robust data is available for these houses.

New affordable housing provided by housing associations is funded through a mix of grant from the Housing Corporation and borrowing through private finance. The leveraging in of private finance will contribute over £331 million to the total of £489 million which will be invested in new affordable homes in the East Midlands.⁴³ From 2006, private developers are also able to bid for funds from the Housing Corporation to build new affordable housing, and there are opportunities for lenders to support a new shared equity option for low cost home ownership schemes.

5.9 Improving housing to the decent homes standard

All social landlords, both local authorities and housing associations, are expected to have plans in place to ensure that their housing achieves the decent homes standard by 2010.⁴⁴ Decent homes are important for the health and well-being of those living in them and are a key element of any thriving, sustainable community. To be defined as 'decent', a home must:

- Meet the current statutory minimum standard;
- Be in reasonable repair;
- Have reasonably modern facilities and services;
- Provide a reasonable degree of thermal comfort.

In 2006-08, the Regional Housing Board has allocated £44 million to local authorities to bring council housing up to the decent standard.⁴⁵ The stock of five local authorities has already been brought up to standard. Local authorities are also working to reduce the proportion of vulnerable households living in non-decent accommodation within the private sector, both owner occupied and private rented. A national target has been set for a minimum of 70% of vulnerable households in the private sector to be living in decent homes by 2010. Vulnerable households are defined as those in receipt of a range of means-tested income or disability related benefits. The Regional Housing Board has allocated £42 million to local authorities to achieve this target.⁴⁶

According to the English House Condition Survey, the most common reason why the homes of private sector vulnerable households are non-decent is because they fail the thermal comfort criterion, with 72% of such homes failing for this reason (and 52% for this reason alone). This is also the case for other private sector households, with a similar proportion of their non-decent homes failing on the thermal comfort criterion. As might be expected, vulnerable households living in non-decent homes in the private sector tend to live in deprived areas, but not markedly so. Some 35% of private sector vulnerable households in non-decent homes live in the least deprived half of local areas. This reflects the wider geographical spread and economic diversity of the private sector and its households in comparison with the social sector.⁴⁷

³⁹ East Midlands Regional Housing Board, *Investment in the East Midlands 2006-08, Regional Housing Board Recommendations*, 2005.

⁴⁰ East Midlands Regional Housing Board, *East Midlands Digest of Evidence for the Regional Housing Strategy, 2004-2010*, 2004.

⁴¹ East Midlands Regional Housing Board, *Investment in the East Midlands 2006-08, Regional Housing Board Recommendations*, 2005.

⁴² Housing Corporation, *Announcement of National Investment Programme*, March 2006.

⁴³ East Midlands Regional Housing Board, *Regional Housing Board Reports*, January 2006.

⁴⁴ ODPM, *The Decent Homes Standard*, 2002, note on ODPM website: <http://www.odpm.gov.uk/index.asp?id=1153927>

⁴⁵ Ove Arup and Partners Ltd., on behalf of Government Office for the East Midlands, *East Midlands Regional Funding Allocation Advice – Consultation Paper*, November 2005.

⁴⁶ Ibid 44.

⁴⁷ ODPM, *English House Condition Survey – Key Findings for 2003 – Decent Homes and Decent Places*, 2005.

Knowledge of conditions within the private sector and the costs associated with achieving the decent homes standard is less well established when compared with stock condition in social housing. In the East Midlands, the Regional Housing Board is supporting a regional mapping project: "Housing Intelligence for the East Midlands" based at Derby City Council uses data from the Building Research Establishment (BRE) to provide local authorities with baseline data on non-decent homes and vulnerable households from the English House Condition Survey 2003 and the Census 2001.⁴⁸ This approach, supported by data from stock condition surveys and other statistical data, will track house conditions and improvements in the private sector, and enable better targeting by local authorities of particular vulnerable households such as the elderly or disabled.

BRE data for the region shows that for privately owned housing:

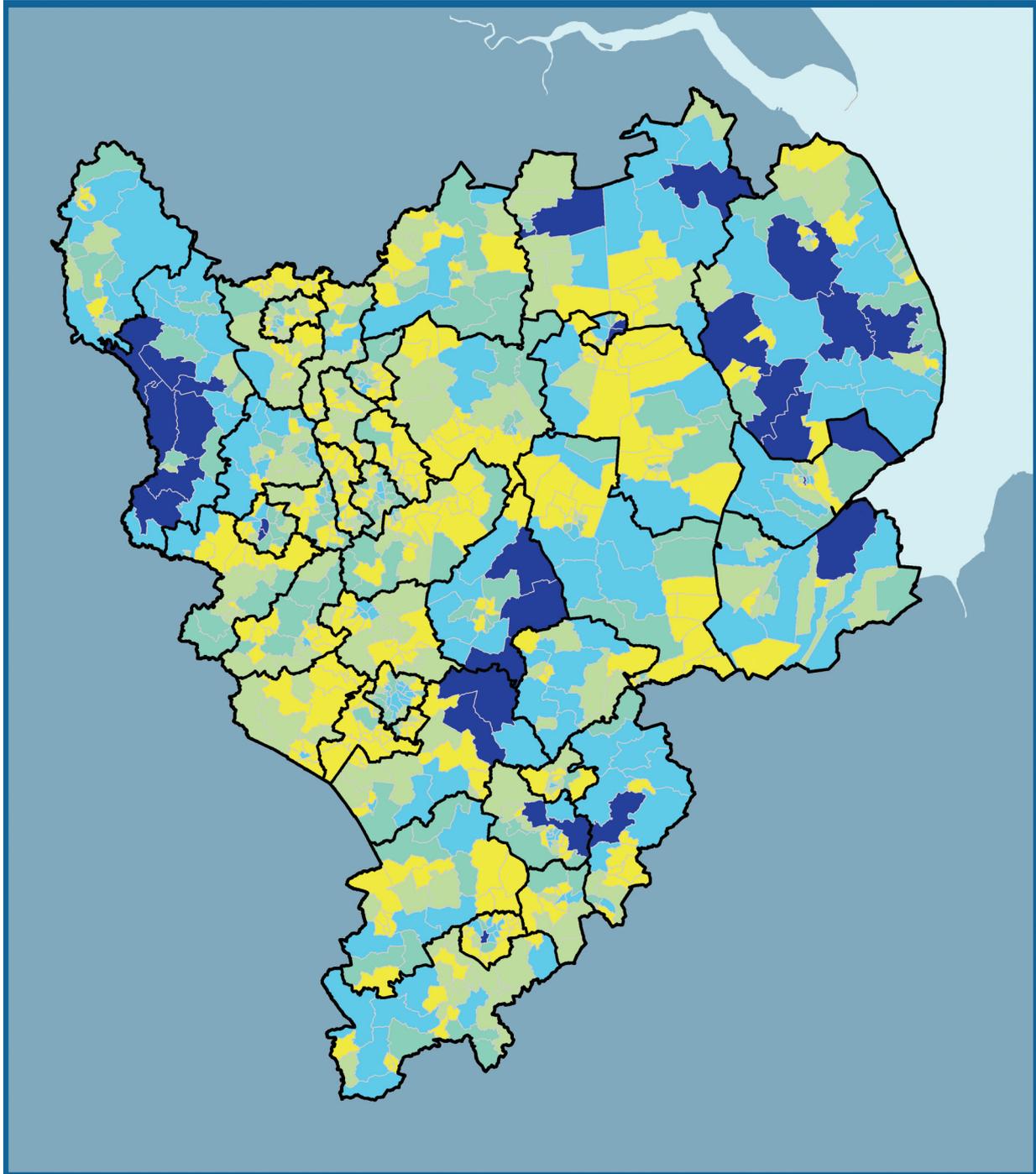
- The total number of homes was 1,482,377, whilst the number defined as 'non-decent' was 470,068, 31.7% of the total;
 - Of the total number of vulnerable households in the region, 64.6%, or 203,187, were living in decent accommodation, whilst 35.4%, or 111,330, were living in non-decent accommodation;
- Map 3 indicates the proportion of private sector homes classified as non-decent in each ward of the East Midlands, while Map 4 shows the percentage of vulnerable households living in decent housing stock, by ward in 2003. From the maps we can see that:
- The highest proportions of non-decent housing (between 40% and 60% of all private sector stock) are found towards the edges of the region, in the Derbyshire peak and eastern Lincolnshire;
 - Lower proportions of non-decent housing are located, broadly, in the centre and west of the region, in Nottinghamshire and west Leicestershire, north Northamptonshire and west Lincolnshire;
 - When considering the percentage of vulnerable households living in decent homes (Map 4) the patterns are similar: smaller proportions of vulnerable households living in decent homes (less than 60%) are found in East and West Lindsey, South Kesteven, East Leicestershire and the Derbyshire Dales, while in much of Nottinghamshire, Leicestershire, Northamptonshire and west Lincolnshire the proportions are higher;
 - Within the region's towns and cities there are small concentrations of non-decent homes and pockets where the proportion of vulnerable households living in decent homes is low. Overall numbers of vulnerable households in non-decent housing are likely to be higher in towns and cities as urban areas are more densely populated.

More than a third of private sector houses in the East Midlands are defined as 'non-decent'

⁴⁸ Derby City Council, *Housing Intelligence 4 the East Midlands (HI4EM)*, 2005.

MAP 3

Percentage of private sector housing stock classified as non-decent in the East Midlands, by ward, 2003



BRE Projection % non-decent

- 5.0 - 30
- 30.1 - 35
- 35.1 - 40
- 40.1 - 50
- 50.1 - 61

Source: Derby City Council Housing Intelligence for the East Midlands, 2005

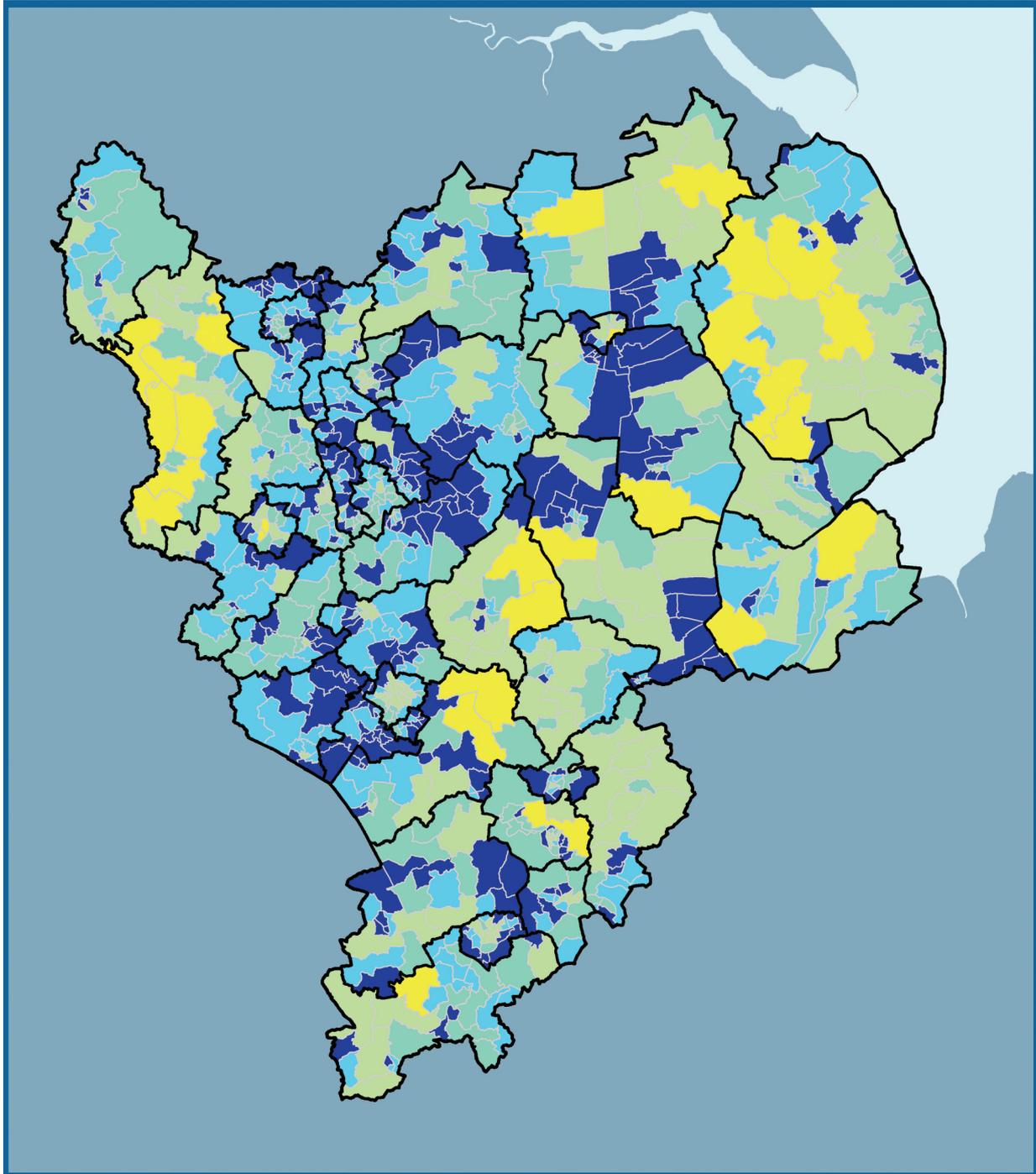


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MAP 4

Percentage of vulnerable households living in decent homes in the East Midlands, by ward, 2003



BRE Projection
% of Vulnerable households in decent homes

- 0 - 50
- 50.1 - 60
- 60.1 - 65
- 65.1 - 70
- 70.1 - 100



Source: Derby City Council Housing Intelligence for the East Midlands, 2005



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5.10 Housing demand

While the demand for housing overall is determined by demographics, income and wealth, the demand for a particular house at a particular site is determined by location factors such as access to work and other services, size of property and site, type of property (four bed detached, bungalow, etc) and quality of the neighbourhood. The locations in greatest demand are usually those with proximity to good schools, which is often reflected in the price differential for similar properties in different neighbourhoods.

5.10.1 Household growth

Table 15 shows the number of households in the East Midlands and England in 2003, with projections for 2021 and 2026. These projections are trend based and indicate what would happen if past demographic changes continue. They are not an assessment of housing need and are one part of the evidence that Regional Planning Bodies and local authorities use in the assessment of future housing requirements. The key points to note are:

- The number of households in the East Midlands is projected to increase from 1.8 million in 2003 to 2.2 million in 2026 – an additional 448,000 households. The average annual increase is expected to be 19,500;
- The number of households in England is projected to increase from 20.9 million in 2003 to 25.7 million by 2026, an annual growth of 209,000;⁴⁹

- The projected percentage increase in households in the East Midlands between 2003 and 2026 (25%) is higher than in England (23%);
- These new projections show higher household growth than the previous 2002-based interim and 1996-based projections, with 60% taking place in the East, London, South East and the South West. The northern and midland regions are now projected to have a higher share of the total increase in households, up to 40% from 32% in the 1996 and 2002 based projections.

One person households account for 70% of the annual growth, with most of these in the older age groups. Such changes in household composition have an impact on the demand for different types of property and lead to changes in the preferred locations. Recent years have seen the growth of apartment blocks in the city centres of the East Midlands largely designed for this changing demography.

TABLE 15

Total households, 2003, and projections, 2021 and 2026, East Midlands and England

	England	East Midlands
2003	20,904,000	1,782,000
2021	24,781,000	2,146,000
2026	25,713,000	2,230,000
Average annual increase	209,000	19,500

Source: ODPM, 'Statistical Release: New Projections of households for England and the Regions to 2026', March, 2006.

⁴⁹ ODPM, *Statistical Release: New Projections of households for England and the Regions to 2026*, March, 2006.

5.10.2 Affordable housing need and supply

The current Regional Spatial Strategy has set a monitoring indicator of around 3,950 affordable houses per year. Research undertaken by the Centre for Urban and Regional Studies (CURS) to inform the East Midlands Regional Housing Strategy (2004-2010) indicated that there is now a significant cohort of households who are unable to buy but would previously have been able to, and points to the need for a response to assist those households. These households contain a far wider variety of people than the narrow range of occupational groups commonly identified as key workers.⁵⁰

Using a different model from that utilised for the Regional Spatial Strategy and adjusted 1996 household projections, the CURS report indicated that the overall need now is for 31,706 affordable homes over the period 2003-08, or 6,341 homes per year.⁵¹ Excluding any additional affordable housing through planning gain, only 5,300 affordable houses will be built with Housing Corporation funds in 2006-08 compared to the 12,682 affordable homes which the CURS research indicates are needed in this two year period. The current consultation and research process for the Regional Spatial Strategy will result in new figures on regional affordable housing need.

In response to the need to provide affordable housing, local authorities in the East Midlands are currently expected to work to an indicative affordable housing target set by the Regional Spatial Strategy of 25% of all new dwellings. Affordable housing is defined as that which is wholly or partly funded by social landlords, local authorities or developer contributions. Table 16 shows the number of affordable houses completed in 2003/04 and the percentage of total new housing stock that this represents. Table 16 demonstrates that:

- Only 9.9% of all new houses built in the East Midlands in 2003/04 were defined as affordable, while the proportion was as low as 3.8% in Derbyshire;
- The only local authority to meet the 25% target was Rutland;
- The region experienced a relatively high number of completions, with totals being particularly high in Northamptonshire, Leicestershire and Derbyshire;
- The largest number of affordable houses were built in Leicestershire and Northamptonshire.

TABLE 16

Affordable houses completed in the East Midlands, 2003/2004

Local Authority	Completed	Total additions to dwelling stock	Percentage 2003/04
Derby	73	637	11.5
Derbyshire	88	2,326	3.8
Leicester	207	1,524	13.6
Leicestershire	339	2,374	14.3
Lincolnshire	130	1,903	6.8
Northamptonshire	285	3,010	9.5
Nottingham	135	1,358	9.9
Nottinghamshire	94	2,069	9.4
Peak District	11	122	9.0
Rutland	72	174	41.4
East Midlands Total	1,534	15,497	9.9

Source: DTZ Pieda Consulting, on behalf of the East Midlands Regional Assembly, 'East Midlands Regional Spatial Strategy: Annual Monitoring Report 2003/2004', February 2005.

⁵⁰ Centre for Urban and Regional Studies (CURS), University of Birmingham, *Additional work on background information on the East Midlands housing market*, February 2004.

⁵¹ East Midlands Regional Housing Board, *East Midlands Digest of Evidence for the Regional Housing Strategy, 2004-2010*, 2004.

5.10.3 Low demand housing

As well as areas of high demand and affordability problems, the East Midlands has localised areas at risk of low and changing demand.⁵² Research has identified 149 postcode areas at risk from low and changing demand. Each of the identified areas was given a risk rating which was based on data provided by local authorities and supported with qualitative insight from stakeholders.

A Housing Market Renewal Working Group was established by the Regional Housing Board to develop proposals for a housing market renewal programme. The group developed a policy framework to guide intervention in areas experiencing low demand or at risk of falling into that category. Further research commissioned by emda in partnership with the Board evaluated the utility of the framework, and recommended pilot projects in areas demonstrating a need for intervention supported by the capacity to deliver housing market renewal.⁵³ An allocation of £18.5 million has been made by the Regional Housing Board for the development of three pilot housing market renewal projects in Bolsover, Derby and Mansfield in 2006-08.⁵⁴

5.10.4 Housing supply

The supply and affordability of housing are key elements of the region's attractiveness (to both employees and investors) and its economic competitiveness. Despite continued increases in demand for home ownership and new housing over the past few decades, with growing numbers of people living longer, the level of house building nationally has been significantly lower than in previous decades. Over the last 30 years the number of households has increased by 30% while the level of housebuilding fell by 50%.⁵⁵

5.10.5 Response to the Barker Review of housing

In its recent response to Barker, the government set out a range of measures to deliver increased housing supply and improved infrastructure, design and environmental standards. There is a commitment to increase the rate of house building from 150,000 per year to 200,000 by 2016. There is also a commitment to increase the amount of affordable housing for ownership and rent. There will be a new partnership with the private sector to promote shared equity schemes to support low cost home ownership. Increasing the amount of new build social housing will be a priority for the 2007 Comprehensive Spending Review and there will be a piloting of new ways for local authorities to increase social housing in their areas.

5.10.6 Housing market areas and assessments

As part of the government's response to the Barker Review's recommendations on planning reform, there will be a new approach to setting housing numbers using sub-regional housing market areas – the areas within which people search for a home – as the basis for planning new housing, rather than local administrative boundaries. As part of this approach, there will be a greater need to take account of affordability and housing market information alongside wider social, economic and environmental factors when deciding how many houses to build.⁵⁶

Research in 2005 for the Regional Spatial Strategy commissioned by the East Midlands Regional Assembly as the Regional Planning Body and the Regional Housing Board identified the region's housing market areas.⁵⁷ (See Table 17). These sub-regional housing markets are based on areas in which the majority of all household moves are contained. The study identified 8 housing market areas that are wholly contained within the region and 2 housing market areas where the core of the housing market lies outside the region but covers a significant area within the region. Even within these sub-markets there are likely to be more localised markets reflecting the location advantages of different sites and the type of house being purchased.

The study found that the five regions which surround the East Midlands exert a considerable influence on the spatial pattern of the region's housing markets. The functional labour markets of Peterborough, Greater Manchester, Sheffield, Rotherham and Grimsby extend into the East Midlands and highlight the need for effective cross-regional working and co-operation to tackle housing market issues and imbalances.

Over the last 30 years the number of households has increased by 30% while the level of housebuilding fell by 50%

⁵²B. Line, *Further Analysis of Identified Factors of Low and Changing Demand*, 2004.

⁵³Weedon Grant and QA Research, *Low Demand in Housing. Housing Market Renewal in the East Midlands – Developing a Regional Approach*, 2005.

⁵⁴East Midlands Regional Housing Board, *Investment in the East Midlands 2006-08, Regional Housing Board Recommendations*, 2005.

⁵⁵ODPM, *The Government's Response to Kate Barker's Review of Housing Supply*, December 2005.

⁵⁶ODPM, *Planning Policy Statement 3: Housing (PPS3)*, December 2005.

⁵⁷DTZ Pieda Consulting, *Identifying the Sub-Regional Housing Markets of the East Midlands*, 2005.

TABLE 17

Proposed sub-areas and housing markets in the East Midlands

Sub-area	Sub-regional housing market area	Name of districts within sub-region
Southern Sub-area	West Northants	South Northamptonshire
		Daventry
		Northampton
	North Northants	Corby
		Kettering
		Wellingborough
Eastern Sub-area	Coastal Lincolnshire	East Northamptonshire*
		East Lindsey*
	Central Lincolnshire	Boston
		Lincoln
		West Lindsey*
	Peterborough (Partial)	North Kesteven
		South Holland
		South Kesteven*
		Rutland
Northern Sub-area	Nottingham Outer	Newark and Sherwood*
		Ashfield*
		Mansfield
	Northern	North East Derbyshire*
		Chesterfield*
		Bolsover*
Peak Sub-area	Peak, Dales & Park	Bassetlaw*
		High Peak*
		Derbyshire Dales*
		Peak District National Park*
Three Cities Sub-area	Derby	Derby City
		South Derbyshire*
		Amber Valley
	Leicester & Leicestershire	Leicester
		Harborough*
		Blaby
		Oadby and Wigston
		Charnwood
		Hinckley and Bosworth
		Melton*
	North West Leicestershire	
	Nottingham Core	Nottingham
		Rushcliffe
		Gedling
		Erewash*
Broxtowe		

* Denotes district that is likely to be under the influence of more than one HMA.
 Source: Based on areas in 'Identifying the Sub-Regional housing markets in the East Midlands' and 'Options for change – Review of the East Midlands Regional Plan to 2026'.
 Please note: this table splits the Lincolnshire HMAs into 'Coastal' and 'Central'. These are shown as a single HMA in Maps 2 and 5 in this section, as the split was proposed at a later date.

Further research has been undertaken to provide profile information on each of the housing market areas. These profile studies provide information on the demographic and economic drivers of housing market areas, housing supply and demand, house prices and affordability, and housing need.⁵⁸ They provide an overview which can be built upon for the full housing market assessments which are now being commissioned.

The Regional Housing Board is now supporting research by sub-regional housing market area partnerships who will build on this information to provide more detailed assessments. The outputs from these assessments will contribute to the achievement of a better balance between housing supply and demand, the determination of levels of both market and affordable housing required and methods to address sub-regional affordability and low demand issues. The assessments will map the relative affordability of different locations in housing market areas, providing an up to date picture of which locations and types of properties are most difficult to buy or rent.

5.10.7 Housing supply figures

Housing supply comes from two main sources: new build and the sale of existing properties. Housing stock in 2001 stood at 1,795,000 in the East Midlands according to the Census of Population 2001. Numbers of new houses are shown in Table 18 for the different tenure types. The table shows that:

- On average around 14,500 houses are completed each year in the East Midlands, while the average for England is around 150,000 per year;
- The majority of new homes in both the East Midlands and England are owner occupied;
- The proportion of new homes which are rented from registered social landlords is slightly higher in England (9-12%) than in the East Midlands (4-6%), but both figures are much lower than the proportion of owner occupied housing;
- In both the East Midlands and England the proportion of new homes rented from local authorities has declined since 1990, and now represents less than 1% of all new homes.

TABLE 18

Change in housing stock 1990/91 – 2004/2005

	Owner Occupied		Registered social landlords		Local authorities		All dwellings	
	East Midlands	England	East Midlands	England	East Midlands	England	East Midlands	England
1990/91	12,951	132,499	978	14,575	801	12,958	14,730	160,032
2000/01	12,726	116,412	941	16,520	8	179	13,675	133,111
2001/02	13,419	115,533	685	14,171	-	63	14,104	129,767
2002/03	14,156	124,278	689	13,242	21	199	14,866	137,719
2003/04	13,760	129,544	591	13,641	24	182	14,375	143,367
2004/05	14,704	137,823	789	16,676	-	100	15,493	154,599

Source: ODPM, Housing Statistics – Live Tables, 'Table 109: Dwelling Stock by tenure and region, from 1991', April 2005

⁵⁸ Profile Information for Housing Market Areas in the East Midlands, Centre for Comparative Housing Research, De Montfort University was commissioned by the East Midlands Regional Assembly and the East Midlands Regional Housing Board. The report and its key data sets can be accessed via the Intelligence East Midlands website: www.emintelligence.com

MAP 5

Total new housing completions by housing market area, 2003/2004



- 10 to 150
- 150 to 290
- 290 to 430
- 430 to 570
- 570 to 710
- 710 to 850

Total New Housing Completions by Housing Market Area, 2003/04



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Source: Office of the Deputy Prime Minister, 2003/04

5.11 Completions

Map 5 shows the number of new houses built in the different housing market areas of the East Midlands in 2003/04. As the map shows:

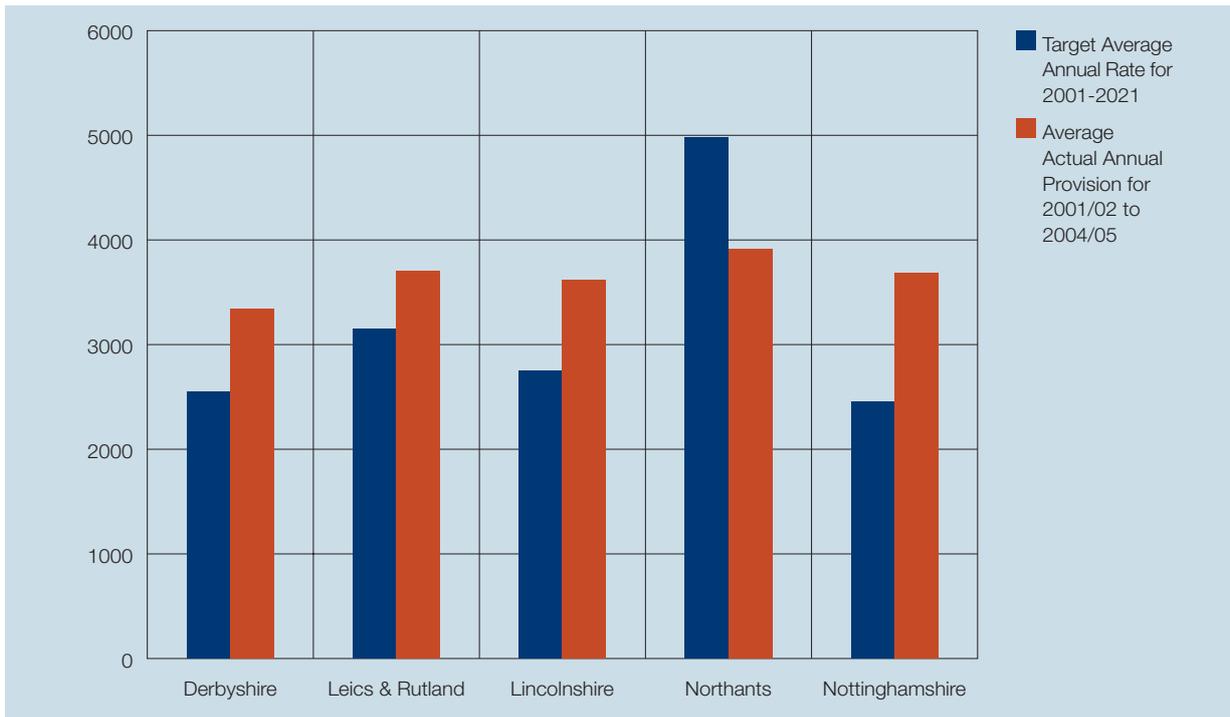
- The areas with the smallest number of housing completions (less than 150) are mostly in the west of the region, in the High Peak and Derbyshire Dales, north Leicestershire, west Nottinghamshire, and also in Rutland. This is likely to be a reflection of the lower rates of population growth in these areas;
- As would be expected, the largest number of new homes (over 700) were built in the region's large urban centres – Nottingham and Leicester. There were also significant numbers of completions (between 570 and 710) in the area around Newark, Ashfield and Mansfield, and in the western half of Peterborough's housing market area.

Dwelling provision since 2001 has been close to the regional annual requirement. Northamptonshire is the only area where provision lags behind the requirement, owing to the 'step change' in levels of housebuilding required by the Milton Keynes South Midlands sub-regional strategy (See Chart 11).

During 2003-2004 the largest number of new homes were built in the region's large urban centres

CHART 11

Housing provision targets and actual rates, 2001-2021



Source: Local Authorities, Regional Spatial Strategy, Annual Monitoring Report, 2004-05.

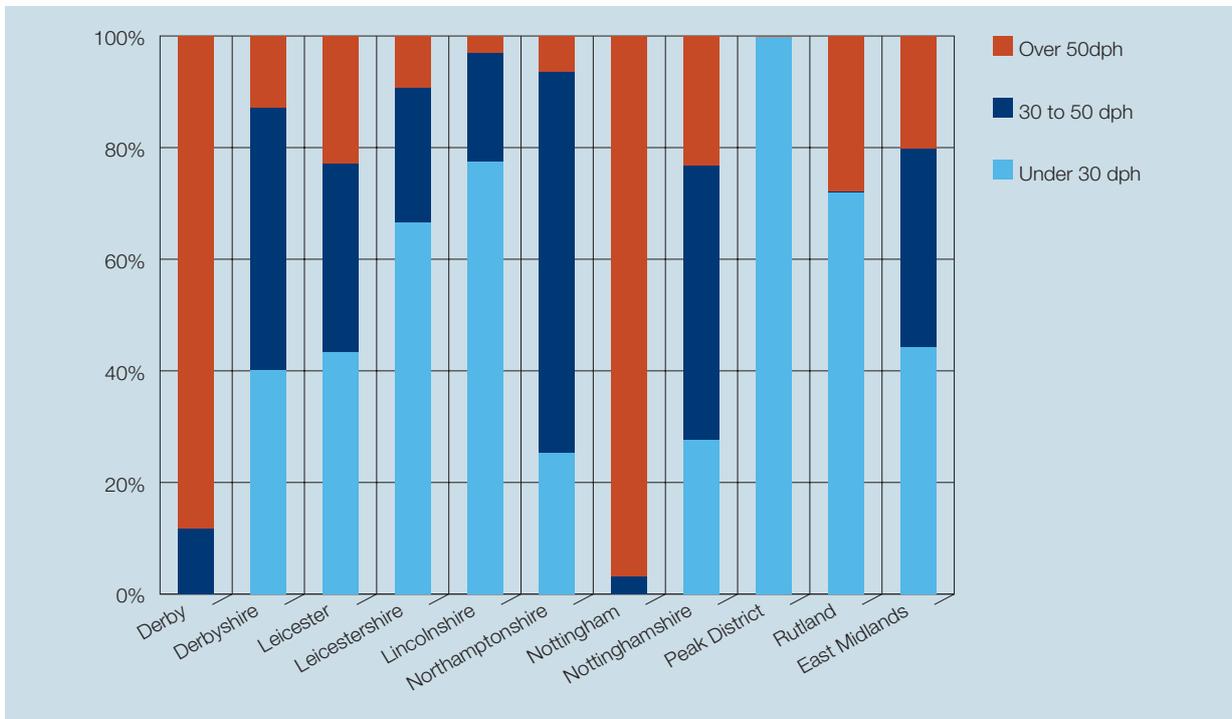
5.12 Density of new housing developments

Chart 12 shows the density of new housing development in the financial year 2004/05 by county and unitary authority. The key points to note are:

- In the East Midlands as a whole, the largest proportion of new houses (44%) were built at densities of less than 30 dwellings per hectare, while the smallest proportion (around 20%) were built at over 50 dwellings per hectare;
- In the cities of Derby and Nottingham, by contrast, a very high proportion of new homes were built at high density – over 50 dwellings per hectare. Over 96% of new houses in Nottingham and 88% in Derby were built at this density, as would be expected given their high concentrations of population;
- The areas with the lowest dwelling density were the largely rural counties of Lincolnshire, Leicestershire and Rutland, as well as the Peak District. Between 70% and 100% of all new dwellings in these areas were built at densities of less than 30 dwellings per hectare.

CHART 12

Density of new housing (%), 2004/2005



Source: Local Authorities, Regional Spatial Strategy Annual Monitoring Report, 2004-05.

According to provisional ODPM planning statistics for 2004 the density of new dwellings in the East Midlands is slightly below the density for England. Nevertheless, the 2004 density is significantly higher than levels for previous years, which have been slowly rising from around 22 to 27 dwellings per hectare, a similar trend to that for England.

5.13 Brownfield development

Dwellings built on previously developed land or conversions as a percentage of total additions to stock have increased in almost all local authority areas in the East Midlands. The regional target is for 60% of houses to be built on such land by 2021. As might be expected, urban areas such as Leicester and Nottingham are already well above this proportion.

5.14 Student accommodation

A growing feature of the housing markets in the major urban areas of the East Midlands which have universities is the extent of redevelopment of sites that are targeted at the accommodation of students. This is a relatively new phenomenon whereby the private sector as opposed to the universities is providing large purpose-built student residences. Examples in Nottingham are developments with approximately 700 bed spaces. This change in the way in which student accommodation is provided will impact on other forms of provision such as that offered by smaller private landlords, particularly those in the inner city areas.

The proportion of new dwellings built on brownfield sites has increased in almost all East Midlands local authorities

Summary

1. Introduction

This chapter of the Evidence Base covers transport and communications, land use and housing, highlighting how the efficient operation of the regional economy depends on the provision of good quality infrastructure – including transport links, employment land, and the built environment. The location choices of firms and households are often largely determined by access to transport links, cost and ease of transport, and availability of property, whether housing or business premises.

2. Construction

A proxy for the value of transport and infrastructure activity is the value of construction contractors' output. The total value of all construction undertaken in the East Midlands in 2004 was £7,030 million – more than double the figure for 1994. Throughout this period the East Midlands has accounted for around 8% of the total value of contractors' output in England.

3. Transport and communications

Improving transport accessibility and connectivity and the reliability of key networks is one of the main regional priorities for promoting continued sustainable growth and increased productivity in the East Midlands.

Traffic growth in the East Midlands has been higher than average – increasing by 25.4% between 1994 and 2004. People in the region also rely more on private transport than in other regions. Sixty-six percent of trips in the East Midlands were undertaken by car in 2003-04 and 6% using public transport, compared to the English average of 63% and 9% respectively. Work and business related journeys account for less than 20% of all trips undertaken in the region.

In 2003-2004, £464.7 million was spent on roads in the East Midlands. The proportion of expenditure on local roads, motorways and trunk roads is higher than for England as a whole.

Between 1994/1995 and 2004/2005 the number of bus and light rail journeys declined by approximately 2.5% in the East Midlands, while there was an increase in England as a whole. However, the East Midlands had one of the highest regional growth rates for rail patronage, with a 60% increase between 1995/96 and 2003/04 compared to 38% in England. Forty-seven percent of all train journeys originating in the East Midlands are to a destination in the region.

The number of people killed or seriously injured on East Midlands roads between 1994 and 2004 declined from 3,905 to 2,970 – a reduction of over 23%.

The economic cost of congestion in the UK is substantial, being estimated at up to £20 billion per year. The average traffic speed on trunk roads at peak and off-peak periods is one way of measuring the impact of congestion. Traffic speeds in the East Midlands are higher than the average for England during the morning and evening peak, suggesting that congestion is less of a problem in the region. Policies to tackle congestion in the East Midlands include measures both to improve supply (such as road widening, new bus lanes and improved public transport services) and to influence demand (such as street parking charges and park and ride schemes). Congestion is a particular problem for the urban areas of the East Midlands, while in rural areas limited accessibility to key services is of more concern.

The East Midlands is an attractive location for distribution activity, with a number of key infrastructural assets – such as the M1, the A1 and Nottingham East Midlands Airport (NEMA). Freight lifted by road increased by 4.2% between 1994 and 2004. However, this growth was significantly less than the average for England. More than half of this freight (87 million tonnes) was transported within the region.

At NEMA there has been a substantial increase in both the number of air transport movements (which grew by 102.5% between 1994 and 2004) and passenger traffic (which increased by 175% over the same period). NEMA's share of total air freight in England has also increased, from 3.6% to 11.2% over the decade 1994-2004. The airport specialises in express freight movements.

Approximately 93% of residential delivery points in the East Midlands can receive broadband, although the proportions are much lower in rural areas.

4. Land and property

Changes in floorspace indicate that there has been a movement away from larger to smaller factories in the East Midlands, while retail outlets have tended to become larger. The number of offices has increased, as has the amount of floorspace they occupy.

Rental values for industrial units have increased in most parts of the region since 2001, as have rental values for retail premises, which are significantly higher than for industrial units. Rental values for town centre office blocks in Lincoln, Leicester and Northampton have increased particularly significantly. Typical industrial land values in 2001 for Nottingham, Leicester and Northampton were higher than the national average.

Recent studies of the supply and demand for employment land in the East Midlands indicated that there would be a decline in demand for industrial floor space, and a significant increase in demand for office floor space over the 10-15 years from 2002. In 2003/04, over 3000 hectares of land in the region had been committed for employment purposes, of which just over two thirds was greenfield land. Both greenfield and brownfield employment land development declined between 2002/03 and 2003/04.

Businesses require different types of accommodation depending on their stage of development. Many new firms make use of incubator accommodation and small workshop premises in the East Midlands, because of the high costs of purchasing property or taking on a long lease. Firms requiring follow-on accommodation typically use second-hand poorer quality stock, the availability of which varies across the region. Once fully operational, most firms' property requirements can be met by the market either within second hand or newly built accommodation. Location choices can reflect the availability of employment land, access to transport links and other facilities, desire for proximity to similar businesses, or environmental conditions.

Key sectors within the regional economy have particular employment land requirements. Aerospace companies are currently constrained by a restricted supply of suitable employment land. In the food and drink sector, early stage producers are restricted by the fact that basic start-up accommodation often does not meet the high standards of hygiene and cleanliness required by the industry. Incubation and innovation centres play an important role in the healthcare sector. BioCity in Nottingham is the UK's largest such centre for bioscience.

5. Housing

Access to high quality housing and the creation of balanced housing markets are crucial to enhancing regional competitiveness, promoting social inclusion and supporting sustainable communities.

The average house price in the region has almost doubled over the past five years, from £79,085 to £155,286 – a much higher rate of increase than in England and Wales as a whole. Average house prices in Rutland are by far the highest in the East Midlands, while the lowest are in Nottingham City. Houses in the region are somewhat more affordable than nationally: the average house price to income ratio in the East Midlands in 2004 was 7.2, compared to 7.9 in England as a whole.

The number of residences in the East Midlands increased from 1,634,000 in 1991 to 1,843,000 in 2004. During this time, the proportion of owner occupied residences increased, while the proportion of privately rented and social housing declined. Between 2001 and April 2005, the number of priority need households living in temporary accommodation increased by 27%, while the number of households on local authority waiting lists rose by 34%.

Forty-three percent of total dwellings in the region are located in rural areas. Rates of owner occupation are higher in rural areas, and house prices have also risen more significantly than in urban areas.

Between 1998 and 2003, 11,799 new affordable houses were provided in the region, and this will increase by 5,300 in 2006-08. The Current Regional Spatial Strategy has set a target of 25% of all new dwellings to be affordable. However, less than 10% of all new houses built in the region in 2003/04 were defined as affordable. The only local authority to meet the target was Rutland.

For 2006-08, the East Midlands Regional Housing Board has allocated £44 million to local authorities to bring council housing up to the decent homes standard, and £42 million to help meet a target for at least 70% of vulnerable households in the private sector to be living in decent homes by 2010. Currently 68.3% of all private sector homes in the region are classified as decent, while 64.6% of vulnerable households are living in decent accommodation. These proportions are lower in the Derbyshire peak and eastern Lincolnshire, but higher in much of Nottinghamshire, Leicestershire, Northamptonshire and west Lincolnshire.

To meet the minimum target of 70% of vulnerable households living in decent accommodation by 2010, 16,975 households will have to have their homes brought up to the decent homes standard. However, BRE data provides only a limited picture of a dynamic process of

properties falling into disrepair and becoming non-decent and households experiencing changes in employment and benefit entitlement which in turn will affect their classification as vulnerable households. On an annual basis the BRE suggests that 0.5% of all homes occupied by vulnerable households will become non-decent every year which in the case of the East Midlands, is an additional 557 homes. In addition, new methods of evaluating the condition of housing stock introduced by the Housing Act 2004 mean that future assessments will result in more, rather than less, housing being classed as non-decent.

The number of households in the East Midlands is projected to increase by 448,000 by 2026, which represents a slightly higher percentage increase than in England as a whole. One person households account for 70% of the annual growth, with most of these in the older age groups.

The five regions which surround the East Midlands exert a considerable influence on the spatial pattern of the region's housing markets. This highlights the need for effective cross-regional working to tackle housing market imbalances.

On average around 14,500 houses are completed each year in the East Midlands, the vast majority of which (95% in 2004/05) are owner occupied. The areas with the smallest number of completions are mostly in the west of the region and in Rutland, while the largest numbers are in Nottingham and Leicester. Dwelling provision since 2001 has exceeded annual targets, except in Northamptonshire, where a substantial rise in levels of housebuilding is required by the MKSM sub-regional strategy. In the East Midlands as a whole, the majority of new houses are built at densities of less than 30 dwellings per hectare, which is slightly below the density for England. The percentage of dwellings built on brownfield sites has increased in almost all local authority areas in the East Midlands.