Chapter 8 Transport

Introduction

The Importance of Transport

8.1 Transport is important to the economy of Leicester and Leicestershire, affecting both the resident population and businesses alike. Efficient public transport, combined with a well planned and developed infrastructure, can increase the attractiveness of a region as a place to live and work. The accessibility and connectivity provided by transport infrastructure is also an important factor to businesses when considering where to locate as they require access to a strong supply of labour, as well as being able to transport intermediate and finished goods from suppliers to customers. In this way, transport is seen as an enabler of economic performance. This section will look to review the extent to which the existing network within Leicester and Leicestershire aligns with such conditions.

Transport as an Enabler

8.2 Since the early 1990s, the concept of transport as an enabler has become increasingly prevalent. In this time, transport planning and delivery has moved from the art of simply 'moving people from A to B' to one of maximising opportunity and quality of life. The Local Transport Plan process, initiated in 2000, led local authorities to directly consider how well their transport networks, and particularly public transport, provided access to employment as well as to a range of services including GPs' surgeries, schools and shops.

8.3 The second round of Local Transport Plans, for 2006/07-2010/11, also placed a new emphasis on reducing transport emissions and improving local air quality. However, it was not until the Stern Review in 2006 that government thinking on transport truly began to reflect the link between man-made, transport-related, CO2 emissions and climate change.[1]

8.4 The government's current thinking on transport planning in England, Delivering a Sustainable Transport System (or DaSTS), has the work of Eddington (which analysed the long-term links between transport and the performance of the UK) and Stern (which predicted the economic costs of climate change) at its foundation. The DaSTS concept is based around achievement of five goals relating to economic productivity and growth; climate change; safety, security and health; quality of life and environment; and equality of opportunity. These goals do not relate to transport and travel per se, but to outcomes which transport intervention can help to enable. Through the DaSTS goals, the concept of transport as an enabler has become fundamental to transport delivery at the national, regional (through the Regional Funding Allocation) and local levels (through the third Local Transport Plans).

[1] [1]Sir Nicholas Stern (2006) The Stern Review: The Economics of Climate Change

Transport's Role in Enabling Local Priorities

8.5 The priorities for action at a local level are identified in the Multi Area Agreement (MAA)[2] and the two Sustainable Community Strategies (SCS) covering the Housing Market Area (HMA)[3]. The MAA currently focuses on the economy, in particular supporting the Regional Economic Strategy, but could in future be extended to cover other areas such as transport. Nevertheless, the MAA recognises the role transport plays in shaping the HMA's economy and the role of transport provision in improving economic prosperity in Leicestershire, for example, by providing better connections to employment and training and making appropriate employment land available.

8.6 Furthermore, transport interventions are seen as a key mechanism in delivering the objectives of the Leicester SCS such as those focussed on improving business infrastructure and improving the image of the city. Similarly, the County's SCS identifies the importance of transport interchanges with regard to business growth and the importance of the improvement of access with regard to employment.

[2] Leicester & Leicestershire Multi Area Agreement 2009-2020
[3] The Leicester Partnership (2008) One Leicester – Shaping Britain's Sustainable City and Leicestershire Together (2006) Leicestershire Sustainable Community Strategy 2008

Transport and the Economy

Introduction

8.7 Good accessibility is key to equality of opportunity and improving people's life chances by enabling them to access key services and facilities such as employment, education establishments, healthcare, leisure services and food shopping – all of which are important for supporting the overall economy. The movement of people and goods, facilitated by the transport networks, is vital to enable the economy to function effectively. As Figure 2.1 demonstrates, transport provides the means by which businesses:

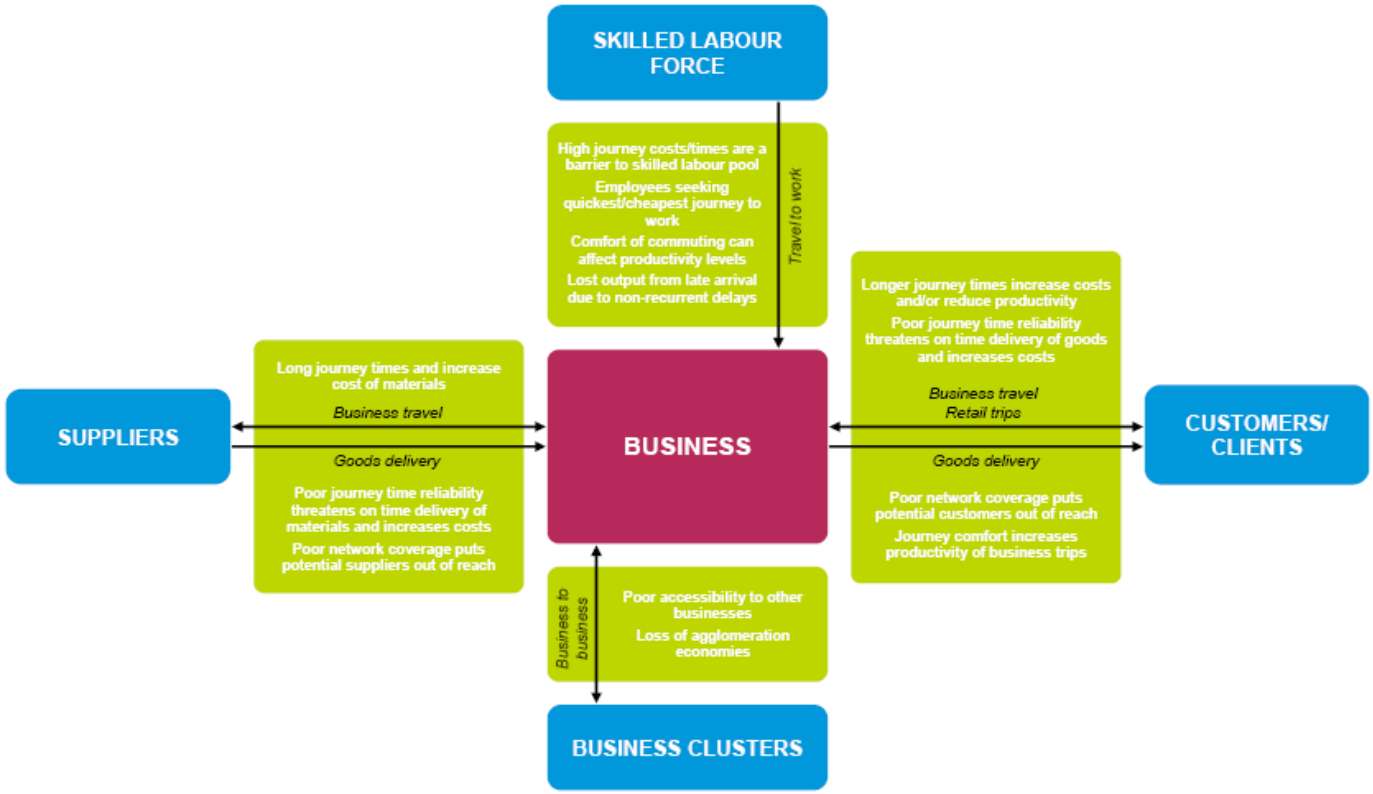
- access skilled labour
- receive materials from suppliers and supply finished goods to clients
- meet with their suppliers and clients
- interact with other organisations

Transport also provides the means by which individuals:

- access employment
- access education and training opportunities
- access retail and leisure outlets

8.8 In itself, transport, even of a high-quality, cannot create economic potential. However, good transport connectivity is considered a prerequisite for economic competitiveness and can help create new employment and inward investment opportunities. In remote or rural areas, good transport connectivity to locations of economic growth and opportunity can overcome peripherality and enable the development of vibrant local economic communities. An over-stretched or poorly performing transport network, for example, one which is congested, can constrain the productivity of businesses by increasing costs or reducing connectivity.

Figure 8.1 Micro-level Mechanisms through which Poor Transport can Impact on Businesses and the Economy



Factors Affecting Business Efficiency

8.9 In his study of transport's role in sustaining the UK's productivity and competitiveness, Sir Rod Eddington identified five ways in which transport conditions affect economic performance[4]. Each is considered in relation to travel to work, business travel and the movement of goods, as is the relative importance of each type of journey and travel characteristic to different business sectors.

a) **Journey time/cost.** The time taken to undertake a journey affects productivity, in that time spent travelling reduces time available to produce goods or provide services. Longer journey times may also lead to higher variable costs such as for staff and fuel, and for activities that cannot be done whilst travelling. Eddington points out that, whilst transport costs typically only account for 4-5% of total input costs, this can be much higher for some sectors, such as distribution, and for many businesses, transport remains necessary for their operation. Employees will seek to minimise both the time and cost associated with travel to work meaning that shorter and cheaper journeys will allow greater access to skilled labour.

b) **Journey time reliability.** A strong message from the business community is that the reliability of journey time, both for road and public transport trips, is often more of an issue than seeking to reduce journey time. Both employees and businesses want certainty over how long journeys will take. For businesses, late arrival of employees or materials can cause delays in production, or service contracts, meaning that they must therefore plan for considerably longer journey times. In doing so, this can impose additional costs through higher fares or fuel costs, and costs associated with measures to build slack capacity into the system such as additional vehicles and drivers or holding additional stock.

c) **Network coverage**. With better network coverage comes increasing connectivity and therefore quicker journeys as well as access to new locations. Both outcomes offer the potential to expand labour pools and markets into areas which were previously too costly or distant. Greater connectivity can also save costs through reduced journey times or reduced fleet sizes and can increase benefits associated with agglomeration, such as stimulation of innovation. For consumers, greater network coverage means access to an increased range of products.

d) **Journey comfort**. For public transport journeys, the comfort of the journey itself can affect productivity. Greater comfort allows business passengers, and potentially commuters, to work en route, whilst poor conditions such as overcrowding may result in journeys being less

[4] Sir Rod Eddington (2006) The Eddington Transport Study: Transport's Role in Sustaining the UK's Productivity and Competitiveness

efficient in terms of when they are made or the mode of travel used. Poor conditions for the journey to work can impact on productivity of employees through increased levels of frustration. Poor quality transport provision (through congested networks, inadequate parking provision or poor quality bus networks) has the potential to reduce the competitiveness of retail centres.

e) **Safety and security**. Non-recurrent events such as accidents, or terrorist attacks, or obstructive parking, impact on business productivity through lost output from late arrival of goods or employees or reduced journey time reliability. Delays due to disruption to the transport networks may mean that employees or assets (such as vehicles) are 'out of place', disrupting normal business processes.

8.10 Later in this chapter, we discuss the specific ways in which transport can support the HMA's economy. These are founded on the particular economic and transport conditions in Leicester and Leicestershire and the mechanisms already described. The government's DaSTS initiative builds on the principles described by Eddington by emphasising the role of transport in supporting economic growth. In doing so, DaSTS focuses on some of the principles identifying the features of transport networks that are especially important:

- reliability and predictability of journey times on key routes to minimise lost productive time for business travel, commuting and movement of goods
- good connectivity of, and access to, the labour markets of the key business centres
- avoidance of non-recurrent delays brought about by economic shocks, adverse weather, accidents, terrorist attacks and impacts of climate change through building-in greater resilience into the networks[5]

Leicester and Leicestershire's Transport Networks

The Road Network

8.11 Responsibility for the road network in the HMA is shared between the Highways Agency (the strategic highway network), Leicester City Council and Leicestershire County Council. The strategic highway network comprises the M1, running north-south through the HMA and to the west of Leicester; the M69 from the M1 Junction 21 (Leicester) via Hinckley to the M6 at Coventry; the A46 running from the M1 Junction 21a north-east towards Newark and the east coast; and the A42 / M42 from Kegworth (M1 junction 24, Ashby-de-la-

[5] Adapted from DfT (April 2009) Response to Consultation on Delivering a Sustainable Transport System *Annex 2 Goals & challenges matrix*

Zouch and Birmingham, West Midlands). Very small sections of the M6, A1 and A14 strategic routes also fall within the HMA. The A50 from Junction 24 heading westwards to Stoke and the M6 forms a further strategic road link with the West Midlands and the North.

8.12 The HMA's major settlements are connected by a number of important 'A' class roads, predominantly in a radial pattern linking Leicester to the county towns. These are (clockwise starting from the north):

- the A6 (north) between Leicester, Loughborough and the M1 at Kegworth (junction 24)
- the A607 between Leicester, Melton Mowbray and Grantham (Lincolnshire)
- the A47 (east) between Leicester, Uppingham and the A1 west of Peterborough (and A508 between Market Harborough, the A1 (junction 2) and Northampton (Northamptonshire)
- the A6 (south) between Leicester, Market Harborough and the A14 west of Kettering
- the A5199 between Leicester, the A14 (junction 1) and Northampton (Northamptonshire)
- the A426 between Leicester, Lutterworth and Rugby (Warwickshire)
- the A47 (east) between Leicester, Hinckley and Nuneaton (Warwickshire)
- the A50/A511 between Leicester, M1 (junction 22), Coalville and Burton upon Trent (Staffordshire)

8.13 Over recent years, bypasses have become a common feature of the highway network around some of the County towns on these routes (for example, Earl Shilton and Ashby-de-la-Zouch).

8.14 In addition, there are a number of other 'A' roads linking the County towns:

- the A6006 between the A6 north of Loughborough and Melton Mowbray
- the A606 between Melton Mowbray, Oakham and Stamford (Lincolnshire)
- the A6003 between Oakham, Uppingham and Corby/Kettering (Northamptonshire)
- the A4303/A4304 between the A5, Lutterworth and Market Harborough;
- the A444 between Nuneaton (Warwickshire) and Burton on Trent (Staffordshire)
- the A447 between Hinckley and Coalville

8.15 The A5 and A453 are also key routes passing through the HMA providing linkages for both intra and inter sub-regional trips.

8.16 The main road network within Leicester urban area comprises an inner and (partial) outer ring roads and radial 'spokes' representing the inner sections of the radial 'A' roads already described.

8.17 In total, the HMA's road network comprises 165 kilometres of trunk roads/motorways, 418 kilometres of principal non-trunk roads ('A' roads), 251 kilometres of 'B' class roads and 4,507 kilometres of 'C' class and unclassified roads [6].

The Rail Network

8.18 The rail network in Leicester and Leicestershire comprises four distinct elements centred around Leicester. These are:

- the Midland Mainline, running north-south between London St. Pancras and Nottingham, Derby and Sheffield (with stations at Market Harborough, Leicester and Loughborough and local 'Ivanhoe Line' stations at Syston, Sileby and Barrow-upon-Soar)
- the South Leicestershire Line running east-west from Nuneaton (Warwickshire) to Leicester (with stations at Hinckley, Narborough, South Wigston and Leicester)
- the Syston & Peterborough Line running east-west from Leicester to Peterborough (with stations at Syston, Melton Mowbray and Oakham (Rutland)
- the Leicester & Burton Line running north-west from Leicester to Burton upon Trent (currently freight only)

8.19 These lines are shown in Figure 8.2. An additional station in the County, Bottesford, lies on the Nottingham to Grantham line.

[6] Department for Transport, 2008

Figure 8.2 Rail Network in Leicestershire

8.20 A range of passenger rail services operate across this network as follows:

- East Midlands Trains high-speed services from Sheffield, Derby or Nottingham to London via Leicester, of which some additionally call at Loughborough and/or Market Harborough (peak services of up to five trains per hour in each direction)
- Cross country services between Birmingham and Leicester, with some services calling at South Wigston, Narborough and Hinckley (peak service of two trains per hour in each direction)
- Cross country trains services between Leicester and Stansted Airport, also calling at Melton Mowbray (peak service of one train per hour in each direction, comprising a continuation of the Birmingham-Leicester service)
- East Midlands Trains services between Leicester and Lincoln via Nottingham, also calling at Syston, Sileby and Barrow-upon-Soar (one train per hour per direction)

8.21 The use of the network by freight trains is discussed elsewhere in this chapter.

Bus and Coach Services

8.22 A complex network of bus and coach services exists within Leicester and Leicestershire. There are currently 75 main bus service routes offering an hourly or better daytime frequency from Monday to Saturday (36 services run at a frequency of every 30 minutes or better). However, services on Monday to Saturday evenings are much reduced (only 26 services run at a frequency of hourly or better). A similar level of coverage is provided on Sundays and Bank Holidays.

8.23 A network of town services operates in each of the County towns providing for local trips within each centre. Three-quarters of households in the more rural areas, and 95% of all people in Leicestershire, have access to an hourly daytime bus service. Away from the hourly bus network, most communities are served by less frequent scheduled bus services, or the increasing number of Rural Rider and demand-responsive connecting services in the most remote rural areas, nearly all supported by Leicestershire County Council.

8.24 A network of inter-urban bus services provide linkages between the main settlements in the HMA and beyond and to/from East Midlands Airport. Service frequencies typically operate hourly or half-hourly and journey times vary considerably between settlements and services. Longer-distance coach services, such as those operated by National Express, operate to many destinations through the St. Margaret's coach station in Leicester as a hub and through some of the market towns (such as Coalville, Market Harborough and Loughborough) en route.

8.26 There are two Monday to Saturday park and ride sites in the HMA. The first site opened at Meynell's Gorse**,** on the A47 west just inside the City boundary, in 1997. The site now operates at its 500-space capacity with bus services running into central Leicester up to six times per hour. A second site opened close to the M1 Junction 21 at Enderby in November 2009. The site has 1,000 spaces and bus services operate into central Leicester every 10 minutes. Two Saturday-only park and ride sites operate from Oadby Racecourse and County Hall, Glenfield.

Access by Air

8.27 According to an East Midlands Development Agency study in 2006, access to air services through East Midlands Airport is vital or very important for about 10% of companies in determining the decision to locate in the East Midlands region. East Midlands Airport (EMA) lies in the north of the County and is one of the UK's major freight airports. The strategic location of the airport, in the

centre of the country and adjacent to the national motorway network, has been a significant factor in the growth of both passenger numbers and cargo. EMA has one of the largest catchment areas of any airport in the UK, with 10.6 million people living within ninety minutes drive – more than any other airport in the Midlands.

8.28 In addition to serving businesses across the HMA, EMA also has a national role in supporting a range of markets across much of England, especially in relation to the airport's express freight hub role which provides international connectivity to businesses and employers in a wide range of economic markets and sectors. The airport also provides a point of access for international business travellers and tourists. Birmingham airport also has a role in supporting such economic activity.

Patterns of Travel Associated with the Economy

Introduction

8.29 Like all economies, the businesses of Leicester and Leicestershire generate a demand for travel. This travel includes employees commuting to and from work; business trips; personal travel to access retail and leisure outlets; and movements of materials and goods between suppliers, manufacturers, distributors and customers. Our understanding of the scale and patterns of each type of trip is described in the following sections.

Travel to work

8.30 Transport availability and infrastructure plays a key role in facilitating and driving commuting patterns. This, in turn, impacts on economic geography through facilitating the matching of labour markets and skills with appropriate employment opportunities and helping distribute income from urban areas to surrounding settlements and geographical areas. This income is, in turn, spent to assist other areas of the economy.

8.31 Across the East Midlands as a whole, commuting represents only 15% of person trips made. Business travel accounts for only 3% of trips and shopping a further 20%[7]. Although commuting accounts for less than one in seven journeys, the concentration of these trips into the traditional morning and evening peak periods (along with trips to/from school), and the fact that nearly

[7] emda (2009) Evidence Base 2009 (the remaining trip shares are: education: 7%; personal: 42%; sport/entertainment: 6%; holidays/day trips: 3%; and 'other': 4%) . The East Midlands Travel Survey 2003 indicates comparable figures for commuting, business travel and retail trips in the HMA of 19%, 1% and 30% respectively, albeit based on a relatively small sample.

three-quarters are made by car, makes them a major cause of congestion[8]. Further information on congestion patterns can be found later in this chapter.

8.32 Overall journey to work patterns in the region are reasonably well understood. The Census 2001 and a recent study into regional commuting commissioned by *emda* (2007) highlights two broad types of journey to work movement affecting the Leicester and Leicestershire HMA:

- **Regional Movements** - Trips between the HMA and other HMAs within the East Midlands region
- **Local Movements** - Internal journey to work trips within the HMA, either between districts or within districts (including between Leicester and the surrounding County)

Regional Movements

8.33 A study for *emda* of regional commuting patterns in the East Midlands highlights that there are a number of important journey to work linkages between the HMA and the rest of the wider region[9].

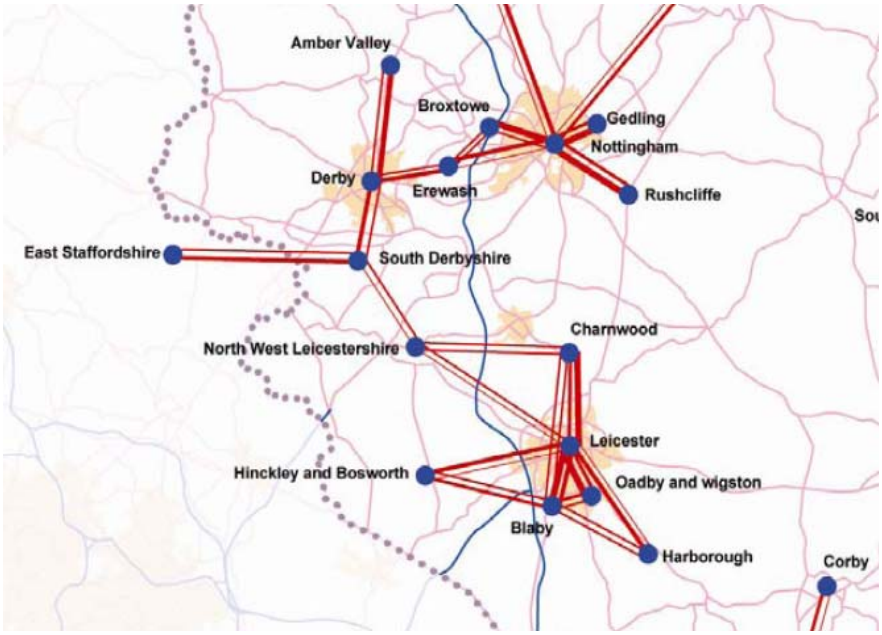
- Less than 3% of Leicester's workforce lives outside the East Midlands.
- Recent evidence suggests that there is very little commuting (by all modes) between Leicester and the two other cities in the East Midlands – Derby and Nottingham. There are only around 1,000 journeys per day between Leicester and Nottingham and even fewer between Leicester and Derby (550)[10]. This is perhaps not surprising, given that the three cities are viable as labour markets in their own right and act as substantial economic centres. However, there is a much greater degree of commuting between Derby and Nottingham. It should also be noted that some stakeholders have questioned this data and the original research is currently being checked. As part of the East Midlands regional response to the Government's DaSTS programme, a study has recently been commissioned by the East Midlands Development Agency to assess and prioritise the most appropriate and complementary approaches to improving transport movements within and between the Three Cities - Derby, Leicester and Nottingham - with the aim of maximising economic productivity benefits and limiting the carbon impacts of additional journeys.
- Links between Birmingham/Coventry and Leicester urban areas are as important as connections with Derby and Nottingham.

[8] 2001 Census Journey to Work Data shows that, in 2001, 73% of journeys to work by Leicestershire residents were made by car, van or taxi (excludes those working at home).
[9] Experian for emda (2007) Commuting Flows in the East Midlands
[10] emda (2009) Evidence Base 2009

- A high proportion of the workforce in Blaby and Oadby & Wigston live outside those districts (51% and 50% respectively) due to their proximity to large labour pools in neighbouring districts and therefore the relative ease of access to them due to the shorter travel distances involved.
- Several districts have significant numbers of employed residents working outside the HMA: 9% of Harborough commuters travel to Northamptonshire; nearly 20% of Hinckley & Bosworth's out-commuters work in Coventry/Warwickshire; and 12% of North West Leicestershire's (NWL's) out-commuters work in Derby/Derbyshire (and a further 10% of NWL's out-commuters work in Hinckley & Bosworth). These patterns reflect the attractiveness of external destinations in terms of the number and type of employment opportunities and the ease with which they can be reached.

8.34 The largest journey to work movements between districts in the East Midlands are illustrated in Figure 8.3.

Figure 8.3 Largest Journey to Work Movements in the Three Cities Area



Source: Highways Agency (2008) Regional Network Report for East Midlands 2008

Local Movements

8.35 Geographically, the HMA has a 'core periphery' structure with Leicester as its core, surrounded by densely populated towns which themselves are surrounded by large rural hinterlands. It is this structure that has contributed towards a profile of relatively self-contained travel to work movements within the sub-region. Some 50% of journeys to work are under 5

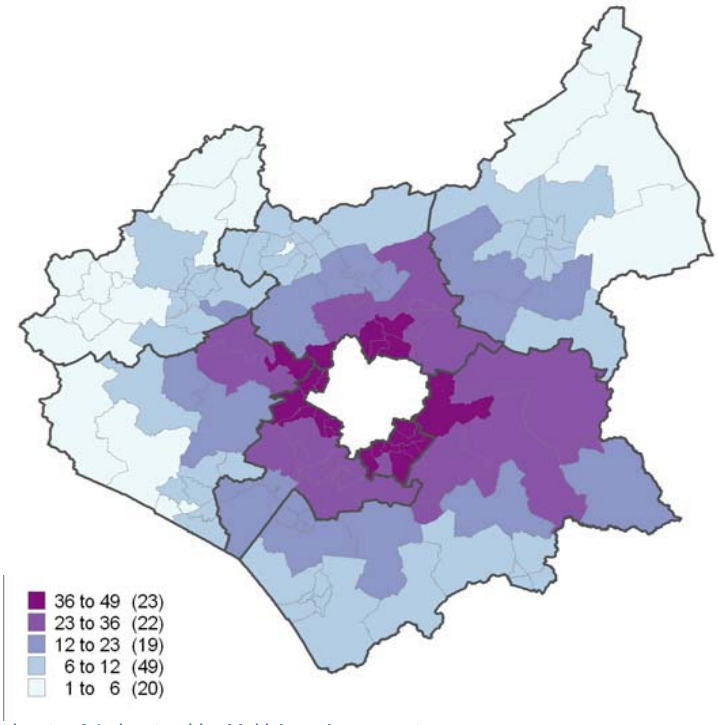
kilometres in length, consistent with the regional average of 51%. Journeys in rural areas tend to be significantly longer than in urban areas; at a national level, the average trip length for all travel to work journeys is 6.9 miles, compared to 7.4 miles for residents in small urban areas and 9.5 miles in rural areas[11].

8.36 Figure 8.4 illustrates the significance of Leicester as an employment centre and the interaction between HMA residents and the Leicester urban core as a place of work. In total, some 70,800 people commute into the City each day, compared to 27,600 commuting out, giving a net commuting in balance of 43,200 (the comparable figures for Nottingham are 98,100 in-commuters, 27,500 out-commuters, net 70,700 inbound). Leicester is extremely important to the County for the supply of jobs – 17% of County wards have between a third and a half of their workforce commuting to the City [12].

8.37 Commuting patterns between districts are shown in Tables 8.1 and 8.2. Further research could usefully be undertaken to also consider commuting patterns at a more disaggregate level, for example between major settlements rather than simply between districts.

[11] National Travel Survey, 2005. Small urban areas have a population of between 3,000 and 25.000. Rural areas include urban areas with populations below 3,000.
[12] Leicester and Leicestershire Multi Area Agreement

Figure 8.4 The Proportion of County Residents Working in the City of Leicester



Source: Leicester & Leicestershire Multi Area Agreement

Table 8.1 Resident Journey to Work Movements by District (Thousands/day)

District of Residence	**District of Workplace**									
	Blaby	Charnwood	Harborough	Hinckley & Bosworth	Leicester	Melton	North West Leicestershire	Oadby & Wigston	Outside HMA	**Employed residents**
Blaby	18.0	1.3	1.9	2.6	16.2	0.1	0.6	2.1	4.3	**47.1**
Charnwood	2.5	41.7	0.5	1.0	16.1	0.7	2.5	0.7	7.5	**73.2**
Harborough	2.6	0.6	19.5	0.8	7.0	0.2	0.3	1.5	7.3	**39.8**
Hinckley & Bosworth	3.2	1.1	1.6	27.4	6.8	0.1	1.4	0.4	9.4	**51.4**
Leicester	7.3	4.7	1.9	1.6	83.9	0.4	0.7	4.2	6.5	**111.2**
Melton	0.4	1.3	0.2	0.1	1.8	15.1	0.2	0.1	5.0	**24.2**
North West Leicestershire	1.0	3.4	0.3	1.8	2.4	0.1	24.4	0.1	8.4	**41.9**
Oadby & Wigston	2.4	0.7	0.9	0.4	11.0	0.1	0.2	9.1	1.9	**26.7**
Outside HMA	3.8	7.1	6.0	7.2	9.5	2.8	14.9	0.7		
Workforce (jobs)	**41.2**	**61.9**	**32.8**	**42.9**	**154.7**	**19.6**	**45.2**	**18.9**		

Source: Community Profile 2005 (Leicestershire County Council)

Table 8.2 Resident Journey to Work Movements by District (as % of Resident Workforce)

District of residence	District of workplace								
	Blaby	Charnwood	Harborough	Hinckley & Bosworth	Leicester	Melton	North West Leicestershire	Oadby & Wigston	Outside HMA
Blaby	38%	3%	4%	6%	34%	0%	1%	4%	9%
Charnwood	3%	57%	1%	1%	22%	1%	3%	1%	10%
Harborough	7%	2%	49%	2%	18%	1%	1%	4%	18%
Hinckley & Bosworth	6%	2%	3%	53%	13%	0%	3%	1%	18%
Leicester	7%	4%	2%	1%	75%	0%	1%	4%	6%
Melton	2%	5%	1%	0%	7%	62%	1%	0%	21%
North West Leicestershire	2%	8%	1%	4%	6%	0%	58%	0%	20%
Oadby & Wigston	9%	3%	3%	1%	41%	0%	1%	34%	7%

Source: Community Profile, 2005 (Leicestershire County Council)

8.38 The patterns of commuting suggest that there are a number of individual local labour markets in Leicestershire.

- **Central Leicestershire:** including the City, Oadby & Wigston, much of Blaby and the southern part of Charnwood (including Syston).
- **Melton:** a largely self-contained rural area, focussed on Melton as a market town. Two in five employed residents work outside the district, and 21% outside the HMA.
- **Charnwood:** nearly two in three residents work within the district and half of commuting trips outside the district are to Leicester.
- **North West Leicestershire:** although there is significant out-commuting, there is a large number commuting into the district from outside the HMA.
- **Hinckley & Bosworth:** 53% of employed residents work within the district, with most out-commuters working in the HMA (although there are cross-boundary linkages with North Warwickshire and Coventry).
- **Harborough:** a largely rural area, focussed on Market Harborough, but with 51% of commuting outside the district, particularly to central Leicestershire and 18% outside the HMA.

8.39 Table 8.1 further summarises key journey to work patterns between and beyond the HMA's districts. It is worth noting that:

- Districts with dominant market towns tend to have higher containment rates (e.g. Loughborough in the district of Charnwood and Melton

Mowbray in the district of Melton, although the reasons for these containment levels may differ).

- All the County districts except North West Leicestershire have a net out-flow of commuters. North West Leicestershire has a net in-flow due to the location of East Midlands Airport and the fact that the district has a high ratio of jobs per residents of employment age (0.70 jobs per person, second only to Leicester at 0.74 jobs per person).
- The commuter out-flow from Oadby & Wigston is equivalent to approximately two-thirds of the district's population (and 51% in Harborough)[13]. Those districts with centres of population adjacent to the city have the lowest proportion of residents working in the district and the highest proportion of residents working in Leicester (e.g. Blaby, Oadby & Wigston).
- Leicester does not represent the destination of the majority of out-commuters in the four districts with centres of population further from Leicester (Charnwood, Harborough, Hinckley & Bosworth and Melton), highlighting that, although Leicester is generally dominant, the patterns of travel to work are complex and other employment destinations are important.

Modal Share Patterns

8.40 Table 8.3 provides a breakdown of journey to work trips (residents of the HMA only) by mode for each district. Comparisons with the figures for the HMA and the region are also shown. Green shading indicates modal share above the regional average, orange shading indicates modal share below the regional average.

Rail

8.41 Table 8.3 shows that rail accounts for a very small share of journeys to work, albeit close to the regional average. This reflects the limited network coverage and service levels as well as the relatively high cost of travel compared to other modes. There are, however, large differences between much higher usage by residents of the City than the County. Note this means that a much higher proportion of Leicester's residents are commuting elsewhere (e.g. Loughborough, London, Birmingham) by rail than the proportion of County residents commuting by rail (including into Leicester).

[13] emda evidence base 2009 *Chapter 10*

Table 8.3 - Proportion of Employed Residents aged 16-74 Journey to Work Trips (by Main Mode)

District of Residency	Work from home	Rail	Bus	Car/ taxi	Bicycle	On Foot	Other
Blaby	14.2%	0.4%	4.4%	69.4%	3.2%	7.2%	1.2%
Charnwood	14.2%	0.6%	4.7%	63.7%	4.2%	11.2%	1.4%
Harborough	18.8%	0.3%	1.5%	64.1%	3.0%	10.9%	1.4%
Hinckley & Bosworth	15.4%	0.3%	2.8%	66.3%	3.4%	10.4%	1.5%
Leicester	7.4%	1.2%	14.2%	61.9%	3.1%	11.1%	1.1%
Melton	18.1%	0.2%	2.6%	61.3%	3.4%	13.0%	1.3%
NW Leicestershire	12.0%	0.2%	3.2%	73.5%	2.0%	7.4%	1.6%
Oadby & Wigston	15.2%	0.3%	5.5%	62.7%	3.8%	11.7%	0.9%
HMA	**12.2%**	**0.7%**	**7.5%**	**64.5%**	**3.2%**	**10.3%**	**1.3%**
East Midlands	**13.0%**	**0.6%**	**6.9%**	**64.4%**	**3.3%**	**10.5%**	**1.3%**

Source: Census 2001

8.42 Leicester is the busiest station in the HMA, with five million passengers annually (second in the East Midlands to Nottingham with 5.9 million passengers)[14]. Both Loughborough and Market Harborough also have significant numbers of passengers (1.36 million and 0.7 million respectively), reflecting their size, but also their location on the Midland Mainline and hence better service frequency and connectivity. Patronage of the remaining stations in the HMA is relatively modest (below 250,000) due to the size of the settlements they serve, and the lower service frequencies (hourly at best) making rail a less attractive option compared to car travel.

8.43 Table 8.4 shows annual passenger flows between selected stations. Leicester is an important station within the East Midlands - three of the top five regional passenger flows are to or from the City (to/from Nottingham, Loughborough and Derby). The largest flow beyond the East Midlands Route Utilisation Strategy (RUS) area is between Leicester and London at nearly one million trips per annum. Information on patterns of rail travel between stations within the HMA is limited. Data on flows between the county towns is not available.

[14] Network Rail Station Usage 07/08 (total entries and exits)

Table 8.4 – Journeys to/from Stations 2006/07 (Annual Passengers, Rounded to Nearest 5,000)

Between	And		
	Leicester	Nottingham	Derby
London	970,000	1,030,000	565,000
Birmingham	415,000	275,000	300,000
Loughborough	360,000	205,000	40,000
Market Harborough	185,000	30,000	5,000
Melton Mowbray	125,000	N/A	N/A
Narborough	100,000	15,000	N/A
Syston	90,000	10,000	N/A
Hinckley	90,000	10,000	N/A

Source: Network Rail (2008) East Midlands Route Utilisation Strategy Baseline Booklet

8.44 Rail patronage has grown substantially in the HMA. In the region, passenger numbers rose by an average of 4.8% per annum between 1996/97 and 2007/08[15]. Some routes have grown at an even higher rate – trips between Market Harborough and London St. Pancras rose by an average of 11% per annum over the same period to 330,500 per year. Trips to/from London St. Pancras account for approximately one in four journeys to/from Leicester (978,000) and Loughborough (289,000) and almost half the journeys from Market Harborough.

Bus

8.45 Bus journeys account for a much higher share of the commuting trips of the City's residents than the County's, reflecting the denser bus network in the city and the typically shorter journeys to work for city residents. The districts with higher proportions of out-commuters working in Leicester generally tend to have lower mode shares by car for the journey to work, suggesting that work trips to Leicester are more likely to be by public transport than those to other places (although at typically 4-5% of employed residents, the overall share is still low). This is entirely logical, given the extensive bus network in the central Leicestershire urban area. However, Blaby is an exception to this trend, having a high proportion of commuters travelling to Leicester and also a high car mode share. The reasons for this are unclear but suggest that the attractiveness of bus travel to Leicester from Blaby (compared to other modes) is less than from Oadby & Wigston, for example. Alternatively, higher than average car ownership, low unemployment levels and low deprivation may offer further explanation. This phenomenon warrants further investigation. Overall, a higher proportion of the HMA's commuters use bus

[15] Network Rail (2009) East Midlands Route Utilisation Strategy *Draft for Consultation*

than across the East Midlands as a whole whilst use of cars and taxis is very similar to the East Midlands average.

Walking and Cycling

8.46 After rail, cycling is the least-used mode of travel to work across the HMA. By comparison, walking accounts for one in ten commutes albeit with some variation between the districts. Typically, those districts with higher self-containment in terms of journey to work (such as Melton and Charnwood) tend to have higher proportions of trips using modes other than car or bus. This is to be expected as shorter journeys within the district (particularly within the Melton and Loughborough urban areas) are more likely to be made on foot or by bicycle and could also be a function of the proximity of employment to the main residential areas.

8.47 At a national level, one in ten journeys are made by public transport, two-thirds are made by car and one in four on foot or by bicycle[16]. However, there are marked disparities in mode share between large urban areas, such as Leicester, and smaller urban areas, such as the county towns, and rural areas (although the total number of trips made is broadly the same). In particular, public transport accounts for only 6% of trips in small urban areas and only 4% of trips in rural areas. Walking and cycling account for a lower share of trips in rural areas too, although not in small urban areas. The mode with an increased share in rural areas is the private car, accounting for 77% of journeys, compared to 69% in small urban areas and 68% in large urban areas. Only one in ten households in rural areas do not have a car, compared to 23% in large urban areas.

8.48 Approximately one in eight employed residents in the HMA works from home, slightly below the regional average although most districts are above the regional average. Higher levels of home-working clearly reduce the need for travel (and hence congestion and crowding issues) but may place different pressures on businesses to ensure connectivity between customers and clients is not jeopardised as a result.

Business Travel

8.49 There is very limited information available on the patterns of business travel within the HMA. An estimate of the total amount of business travel can be gained from the East Midlands Travel Survey which indicates that approximately 1-2% of total journeys are made during the course of

[16] National Travel Survey, 2005. Small urban areas are defined as having a population of 3-25,00 people. Rural areas include urban areas with a population below 3,000 people.

employment. This category will therefore include drivers making deliveries, trades people travelling to clients and so on, in addition to travel to and from business meetings[17]. Based on the 2006 HMA population estimate, and average number of trips per day from the survey, this infers that approximately 24,000 journeys are made during the course of employment on an average day. The survey indicates that the vast majority of trips during the course of work (80-90%) are made by car/van.

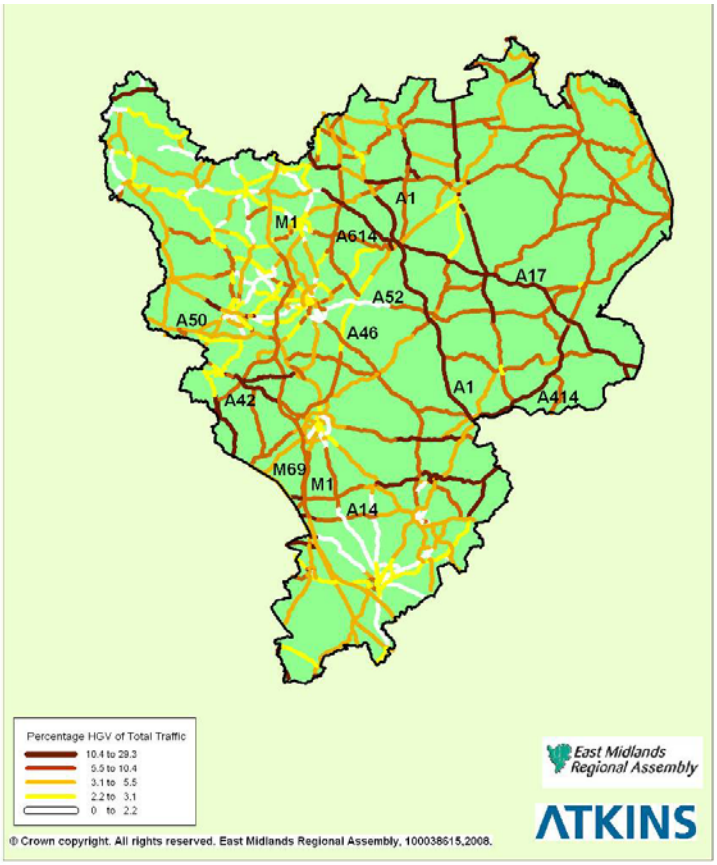
8.50 It is reasonable to assume that business travel will be centred around the main centres of employment but, without additional information, it is not possible to draw conclusions as to the spatial or temporal patterns of these trips. This is an area where the Leicester City Council and Leicestershire County Council should consider undertaking additional research to better understand patterns of business travel in the HMA.

Freight

8.51 Leicestershire lies at the heart of the UK's logistics 'golden triangle'. The area at the intersections of the M1, M6 and M42/A42 motorways is considered to be the leading location for the logistics and distribution industry. The East Coast ports, the gateway to/from continental Europe, are easily accessible via the A14 and 95% of the English population are accessible within four hours by lorry. HGV traffic is significant - there are over 140,000 truck movements per day across the East Midlands as a whole. HGV traffic as a percentage of all traffic on major roads is shown in Figure 8.5. The M1, M69, A42/M42, A38, and A50 all carry between 5,000 and 10,000 HGVs per day[18] and HGVs account for over 10% of traffic on a number of strategic links including the A511, A512 and A444.

[17] TTR for East Midlands local authorities East Midlands Personal Travel Survey (most recent data being 2003 and 2005 for Leicester, and 2003 for Leicestershire). Sample survey of approximately 1,500 households per annum across the HMA
[18] SKM for emda, EMRA & DfT (2002) The State of Freight in the East Midlands *Report 1: State of Freight Picture*

Figure 8.5 HGV Flows on the Strategic Road Network



Source: East Midlands Statement of Transport Conditions & Issues, Atkins, 2008

8.52 Land costs in the East Midlands are up to 35% less than the national average[19], providing competitive advantage for logistics firms requiring large warehousing facilities. Magna Park, in Lutterworth, is one of the largest logistics parks in Europe, with good strategic access to the M1, M6 and M69 motorways. Major rail freight facilities are located in Daventry and Corby, just outside the HMA, which are able to serve both national and European markets through the Channel Tunnel. With 11 active sites of aggregate production and a number of secondary/recycled aggregate sites across the HMA, the movement of aggregate material produced is a significant generator of freight traffic in the County. According to the East Midlands Regional Aggregates Working Party (RAWP) Survey and Annual Report to Calendar Year 2007, Leicestershire and Rutland had the highest sales of crushed rock aggregate in the region. Effective rail and road links are therefore key to the efficient transport of bulk materials from quarries including Mountsorrel, Croft and Bardon Hill.

[19] Valuation Office Agency, Property Market Report Jan 2006

8.53 Leicestershire is home to East Midlands Airport (EMA), one of the UK's largest dedicated pure freight hubs, with major international companies such as DHL, TNT, Royal Mail and UPS based at the airport. EMA is second only to Heathrow in terms of the total tonnage of air freight moved, and handles the greatest tonnage on freight-only aircraft. The airport has increased its share of the UK total market from 5.9% in 1998 to 11.6% in 2008. The airport has a particularly significant role in meeting the needs of the Express Delivery Industry, and the location of the airport at the heart of the UK's strategic road network is a key factor supporting this function.

8.54 The transport of goods by road has steadily increased in the region in recent years. The proportion of freight moved from the East Midlands as a proportion of the England total has steadily increased, from 11.6% in 2004 to 12.8% in 2008. Almost 50% of freight is carried to destinations outside the region, including Yorkshire & Humber, the West Midlands and the East of England. This reflects the crucial role of the logistics industry in the region, and the hub role of warehousing in the region in catering for movement between Europe and other parts of the UK.

Retail Trips

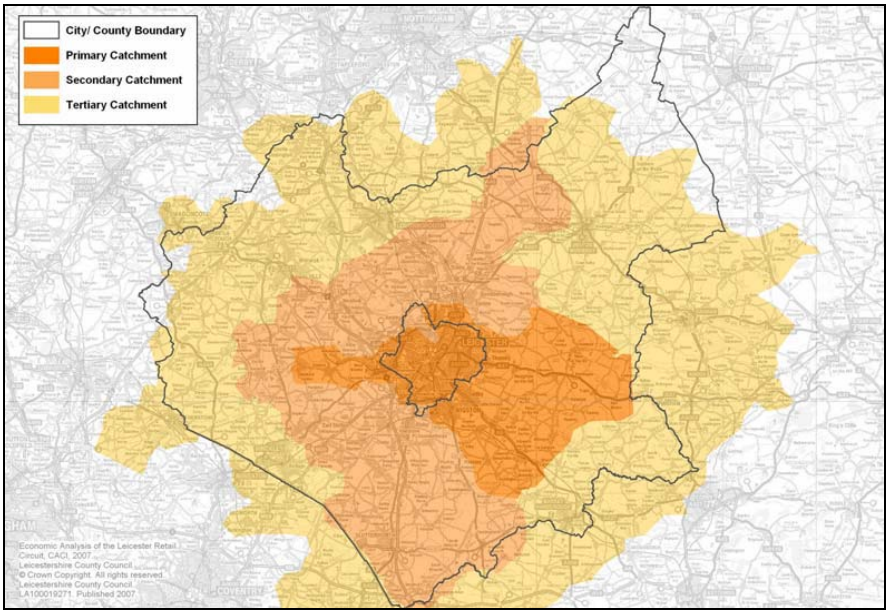
8.55 An estimated 714,000 shopping trips are made in Leicester and Leicestershire each day[20]. Leicester represents the second-largest shopping destination in the East Midlands (after Nottingham), accounting for 13% of all retail flows[21]. As such, it is the largest retail centre in the HMA and draws the vast majority of its visitors from it (and therefore a relatively small proportion of visitors are from outside the HMA). Loughborough is the 9th largest retail centre in the region with 2.2% of shopper flow. Fosse Park, located close to the M1 Junction 21, also represents a further major generator of retail activity within the HMA.

8.56 Leicester's retail catchment is shown in Figure 8.6. The primary catchment represents the area from which the first 50% of shoppers originate. Leicester City centre has over two-thirds market share of comparison goods expenditure of the 385,000 residents in the primary catchment. The secondary catchment represents the area from which the next 25% of shoppers originate (250,000 residents, 51% market share) and the tertiary catchment the next 15% (509,000 population, 15% market share).[22] The impact of the opening of the Highcross Centre in central Leicester on retail

[20] Estimated from East Midlands Personal Travel Survey 2003 and 2005 and 2006 population estimates
[21] emda (2009) The East Midlands in 2009 *chapter 10 from Experian Retail and Leisure Flows in the East Midlands, 2007*
[22] Leicester and Leicestershire MAA

flows is yet to be observed – but it is likely that this improved retail offer, alongside developments such as Curve Theatre, will have had some expansive impact on the retail catchment of the City.

Figure 8.6 Leicester City Centre Retail Catchment



Source: Leicester & Leicestershire MAA

8.57 The size and shape of the catchments are a function of the quality of the retail and the accessibility of the city centre. It is also a function of the quality and location of competing retail centres. Therefore, the primary catchment extends further east than west as to the east there is less competition from Fosse Park and other nearby cities (accessed for example via the M1). Two permanent park & ride sites at Meynell's Gorse near Junction 21A and Enderby (near to M1 J21) may account for the extension in the primary catchment to the west of the city.

8.58 For all shopping trips, car is the dominant mode, accounting for 55% of journeys, with bus travel accounting for a further 15%.[23] The same survey indicates that walking is an important mode for retail trips, accounting for approximately one in four journeys, although clearly the vast majority of walking trips will be short, either to a local centre or from locations close to Leicester City centre.

[23] Estimated from East Midlands Personal Travel Survey 2003 and 2005 and 2006 population estimates

Leisure and Tourism

8.59 Key findings from a recent study commissioned by emda (East Midlands Tourism) illustrate the strengthening role of tourism in supporting the HMA economy. In 2008, the HMA attracted over 32.6m tourists generating over £1.3 billion for the economy. This represents a 2.3% increase on figures recorded in 2007. Leicester is the largest leisure destination in the East Midlands, accounting for 18% of leisure flows (slightly ahead of 17.9% for Nottingham)[24]. Loughborough attracts a further 1.3% of regional leisure flow.

8.60 The presence of regionally significant tourist/leisure attractions such as the National Forest (currently attracting over 5.7 million visitors per annum[25]), Curve, the National Space Centre and Highcross Shopping Centre are likely to contribute to further growth. In addition to the growth of these existing tourist attractions, the Olympics in 2012 and the strategic desire to develop the HMA as a tourist destination will continue to place additional pressures on the HMA's transport network. Emda has identified a number of strategic transport priorities that will help increase the county's attractiveness as a tourist location. The main examples include:

- To minimise the impacts of congestion as a deterrent to tourists wanting to visit the area and thus increase the attractiveness of the sub-region as a place to visit – this is particularly important given that tourist provision for short-stay visitors is a strong growth area.
- To enhance route and attraction signage in addition to providing better information to support access by non-car modes to major tourist locations.
- To exploit East Midlands Airport as a gateway to Leicester and the region.
- To enhance joined-up thinking between transport planners and tourism specialists to ensure that future schemes adequately consider the transport infrastructure requirements[26].

The Impacts of the Recession on Travel in the HMA

8.61 Figure 8.7 shows the annual change in estimated car vehicle kilometres travelled in Leicester & Leicestershire, the East Midlands and Great Britain since 1994. The overall pattern is of regular growth of between 1% and 4% per annum. The rate of growth in Leicester and Leicestershire is typically above the rate for either the East Midlands or Great Britain as a whole. The

[24] emda (2009) The East Midlands in 2009 *chapter 10 from Experian Retail and Leisure Flows in the East Midlands, 2007*
[25] National Forest Company
[26] emda (2003) Regional Tourism Strategy

chart also shows average Gross Value Added (GVA) per head for the East Midlands and there is a clear relationship between times of economic downturn (as indicated by the GVA/head) and falling car travel (for example 2000). Importantly, therefore, it shows that, whilst transport is an important factor (which can support or constrain economic success), it is not the fundamental driver of economic performance - there are much larger macro factors at play[27].

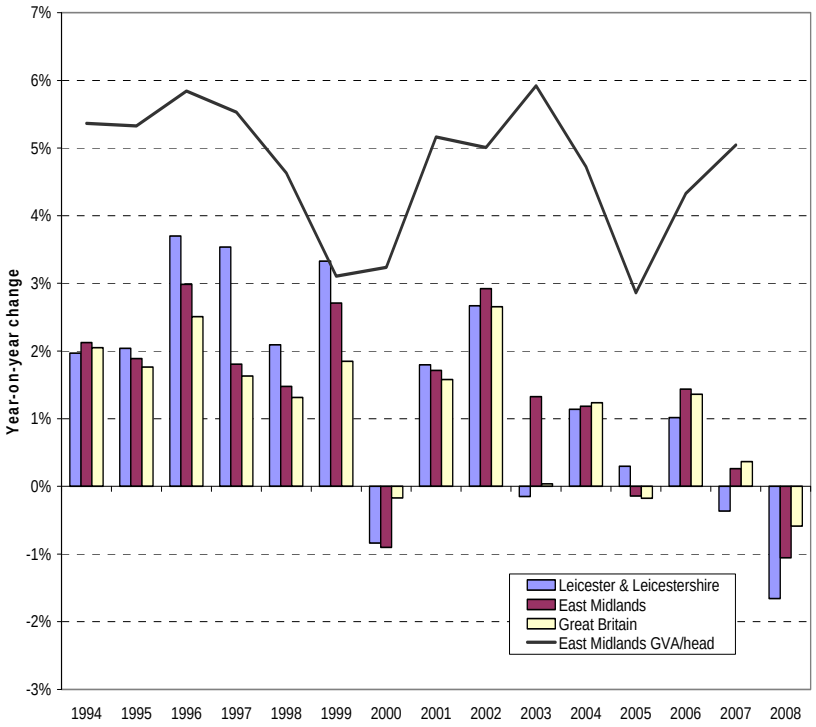
8.62 This relationship is well understood although, as the UK's economy evolves, the strong relationship between the two indicators is becoming 'de-coupled'. Other factors are also at work, however – the significant drop in car travel between 2007 and 2008 (1.7% in Leicester and Leicestershire) is largely attributable to the fuel price increases of that year rather than being a reflection of the current recession.

8.63 Detailed traffic data for 2009 is not yet available; however, we would expect to see a substantial fall in car travel between 2008 and 2009 reflecting a fall in commuting due to increasing unemployment. Congestion rises and falls exponentially to traffic levels so a small fall in traffic can result in a much larger reduction in congestion. However, the degree to which peak hour congestion will fall will depend in part on the degree to which spare capacity during the peak is filled by people choosing to retime their journeys into this period. Clearly, we are still passing through the current recession and the long-term implications are yet to be seen.

8.64 Recent figures published by the DfT suggest a reduction in delays caused by congestion. The DfT has recently commissioned consultants to review the impact of such conditions on PSA targets associated with urban congestion. Such research will help to better understand the effects of recession on mobility, but will also contribute towards an understanding of the relative effectiveness of various transport interventions adopted.

[27] For further information see Eddington (2006) The Eddington Transport Study *Volume 1*

Figure 8.7 Year-on-year Change in Car Vehicle Kilometres and GVA



Source: ONS

The Impacts of Future Housing Growth on Travel

The Link Between Housing and Business

8.65 Having the right infrastructure is vital to achieving economic prosperity in Leicester and Leicestershire. As discussed in previous sections transport infrastructure provides the key link between businesses and their suppliers, their workforce and their consumers. Housing growth has a number of implications for the HMA economy:

- businesses require housing growth as a means of access to a greater number and diversity of skilled workers needed to support the provision of goods and services.
- housing growth provides an increased consumer base for businesses and service providers.
- housing growth can result in the emergence of wider economic agglomeration benefits, in that, as businesses note increased business activity in a given area, they too, may decide to relocate into the area.
- the provision of new housing can help provide the critical mass required to build a business case for new transport infrastructure which, in turn, supports growth of the local economy.

- housing growth can create or worsen the effects of transport constraints on the local network, such as congestion, rail overcrowding, increased carbon emissions, etc., which, in turn, adversely affect business efficiency.

Housing Growth in Leicester and Leicestershire

8.66 The provision of housing in the future is therefore critical if the sub-region is to continue to attract the inward investment needed to deliver economic growth. Significant housing growth is expected in the HMA over the next twenty years; current Regional Plan policy for housing provision in districts across the HMA (as shown in Table 8.5) is for 80,400 additional dwellings between 2006 and 2026.

Table 8.5 Summary of Proposed Housing Provision 2006-2026

District	2006 Dwellings Projection	Additional Dwelling Provision to 2026	% 2006 Dwellings
Leicester	120,950	25,600	21%
Blaby	38,400	7,600	20%
Charnwood	66,750	15,800	24%
Harborough	34,950	7,000	20%
Hinckley & Bosworth	44,750	9,000	20%
Melton	21,200	3,400	16%
North West Leicestershire	39,250	10,200	26%
Oadby & Wigston	23,050	1,800	8%
Leicester & Leicestershire	**389,300**	**80,400**	**21%**

Source: East Midlands Regional Spatial Strategy

8.67 Much of the additional housing is likely to be delivered through the extension of existing urban areas including Leicester, Melton, Loughborough, Market Harborough, Hinckley and Coalville. The amount and general location of additional provision for housing up to 2031 may be covered in a partial review of the Regional Plan. Consultation on certain revised policies is due to begin in March 2010.

8.68 Cumulatively, this development will place significant pressure on the existing transport infrastructure and ultimately influence the capacity of the HMA transport network to cope with increasing demand for business and individuals to travel by all modes in a number of ways:

- Strong journey-to-work movements from districts surrounding Leicester to employment areas in the City, combined with a high level

of movements within the City already, create significant congestion problems on the main corridors into Leicester. Future housing growth will only exacerbate this problem further unless accompanied by the provision of good public transport alternatives.

- Whilst the impact of relatively small housing developments can be small, the cumulative impact of a large number of small developments on the core networks into Leicester, into market towns and through rural villages is likely to be much more significant.
- Where housing growth in rural market towns is supplemented by growth in business activity, additional travel demand will place additional congestion pressures on key routes through smaller rural settlements such as Lutterworth, Melton Mowbray, Loughborough and Coalville.
- The location of some housing may create additional demand for travel crossing or circulating Leicester rather than to it and hence public transport operators will need to respond by providing arterial routes linking homes to more peripheral work locations including park and ride services to service Sustainable Urban Extensions (SUEs).
- Additional public transport capacity may be required on key Leicester radials to minimise the impact of increased patronage on journey ambiance and quality.
- In order for businesses to maintain access to high-quality and skilled labour, connectivity between areas of housing growth and education and training facilities will be critical, for example, access to the three universities.
- Funding for improvements to highway, public transport, cycling and walking networks needs to be in place to ensure residents have good access to services and employment as soon as they move in.
- Whilst not currently an issue, additional traffic derived from housing growth will continue to put pressure on the trunk road network - constraints to the movement of goods, people and services through the sub-region and between other regions will need to be monitored over time.

HMA Growth Infrastructure Assessment

8.69 The Leicestershire Housing Market Area Infrastructure Assessment (2009) assessed infrastructure need and cost to allow for the anticipated growth in housing. The plan identifies specific corridors or areas most likely to be affected by future housing growth. The key constraints of the current transport network identified in the plan are summarised in Table 8.6.

Table 8.6 – Summary of Identified Transport Issues and Constraints by Area/Corridor

Area/Corridor	Key Transport Issues/Constraints
Charnwood Corridor	• A6 corridor between Leicester and Loughborough already suffers from significant congestion in peak hours. • Long-term improvements to the M1 may increase travel demand through it becoming more attractive to developers (Ashton Green). • Proposed park and ride at Birstall could attract additional traffic to the A46 corridor and, if not appropriately located, result in reduced public transport usage for longer-distance commutes. *Note decision on location of Birstall Park & Ride now agreed and taken.*
Thurmaston/Syston Corridor	• Considerable congestion exists, mainly through Syston and Thurmaston during peak times. • Additional public transport, cycling and walking facilities would be required to support significant housing in the Hamilton area as part of the planned SUE at Thurmaston/Hamilton. • Rail-based park and ride is being considered to support SUE at Thurmaston/Hamilton. • Congestion issues on the A607. • Access to local employment, education and retail facilities requires improving to support the SUE at Hamilton.
A6 Harborough Corridor (Oadby/Market Harborough)	• Improved rail services from Market Harborough to Leicester to support existing and future growth in patronage. • Congestion problems in built-up areas of the A6 – particularly during peak hours. • Park and ride proposals for the south-east of the Principal Urban Area may draw more traffic into an already sensitive part of the network.
Hinckley and Blaby Corridor (M69, Enderby Park and Ride)	• Congestion on the arterial A5460 is a concern. • Fosse Park and the area around M1/M69 junction is already congested – completion of Blaby SUE could exacerbate the problem further, as could the park and ride at Enderby (opened November 2009). • A new link from the Hinckley SUE to the M69 could create conditions that generate substantial commuting trips to Leicester from Hinckley.
A50 Corridor (Coalville, North West Leicestershire)	• Public transport improvements will need to focus on improving the A50 west of the A46.

Area/Corridor	Key Transport Issues/Constraints
Area between inner and outer Leicester Ring Road	• This area between the inner and outer ring road is site to substantial internal movements between housing and employment areas – this, combined with traffic from outside the urban area, has created substantial congestion issues. • Congestion on radials reduces the attractiveness of Leicester as a place to do business. • This area lends itself most to the promotion of walking and cycling modes via links along the canal/river Soar. • The inner ring road in proximity of the railway station is a barrier to movements between this area and the city centre. • There is significant parking provision in the city centre – this is not conducive to promoting public transport use. • Demand for orbital movements exists and this is likely to increase as a consequence of future housing growth, e.g., links between the university, hospital and railway station.
Leicester City Centre	• Leicester has a function as an employment and retail hub, hence its transport network is particularly vulnerable to housing growth at the county level. • Pedestrianisation of the central area around the Highcross Centre may adversely affect the visibility of bus services to it – this may be suppressing public transport access to the area. • The fragmented nature and ambiance of Leicester's public transport interchanges (Charles Street, St. Margaret's and Haymarket) in the city centre could be problematic and make public transport a less attractive alternative to the car. • Further consideration is required of the role of parking charges in managing car use for journeys to and from the city. Plentiful parking results in less dense development which in turn is inefficient in transport terms.

Key Transport Links

8.70 The relative importance of different transport links depends on the needs of different sectors in the economy and their current (and future) importance to different parts of the Leicestershire economy. This section explores the key economic characteristics of the different sub-areas of the HMA (based on the local labour markets previously identified in this chapter), and briefly discusses the roles of different elements of the transport network in meeting the needs of the local economies.

8.71 **Central Leicestershire** is a complex urban economy including manufacturing, the public sector (a very high proportion of jobs), business services (although a lower proportion than the national average), retail and the leisure economy. The City is a major draw in terms of jobs, shopping and

leisure, and there are deep and complex trading patterns within the urban area.

8.72 Central Leicestershire relies on good public transport within the urban area, together with road links into surrounding rural areas, for both its labour market and for providing connectivity to retail and leisure in the City. Congestion in the urban area increases the time taken to travel to work (although there is no particular evidence that this constrains the operation of the labour market) and increases business costs. The planned 25,600 additional houses in Leicester City, plus those in the surrounding districts, will place additional pressure on all the transport networks.

8.73 The level of importance of strategic connectivity depends on the sector of the economy. The public sector is not particularly reliant on strategic connectivity: it caters for a largely local client base, whether the NHS or local government. Business services require and benefit from good rail access to London. However, the shortcomings in rail access to Nottingham (journey time) and Birmingham (journey time, frequency and punctuality) are a potential issue, and possibly more important than rail access to London, but there is no evidence available on this issue. Central Leicestershire currently has a relatively 'underdeveloped' business services sector, and it will be necessary to better understand the factors that need to be in place to nurture the development of this sector, including connectivity. The manufacturing and logistics sectors in Leicester benefit from good access to the strategic road network, incorporating both the M1 and M69.

8.74 **Melton** district is a largely rural economy with Melton Mowbray playing a key role as a local hub for employment, shopping and services. Agriculture plays an important role in the rural area, whilst banking, finance and insurance and manufacturing are very significant. There is a particular focus in the area on the food and drink industry. Connectivity needs are largely focussed on getting around the area to jobs, shops and services in the district. Manufacturing businesses, however, are dependent on the movement of products, including food products, and access to the strategic road network is important. Congestion is a significant problem within Melton Mowbray, adding to business costs, and is constraining the potential for new development. There are long-standing proposals for a bypass for the town. However, the area has good access to strategic road networks (via the A607 to A46 at Leicester, and the A1 to the east). Cross-country rail services provide rail connections to Leicester and Birmingham, as well as to Peterborough and Stansted Airport. However, services run half-hourly at best and can suffer from severe overcrowding.

8.75 **Charnwood** is a mixed economy. Loughborough plays a key role as the second largest centre in the sub-region and is an important shopping, leisure and education centre (Loughborough University has approximately 17,500 students). The area has a mixed economy, although there is a particular focus on public sector and manufacturing employment, particularly optical and electrical equipment and chemicals. Whilst the south of the district looks towards Leicester, much of the district is focussed on Loughborough as the main centre of economic activity. Bus services play an important role in catering for access to jobs, shops and services in the town.

8.76 The district benefits from access to the strategic road network, both M1 and A46, which meets the needs of the manufacturing and logistics sectors. Congestion on the local road network, however, reduces business efficiency, especially in Loughborough, although central area congestion would be offset by the proposed Inner Ring Road scheme. The area benefits from frequent rail links to the north and south, providing good business-to-business connections in Leicester and Nottingham, although it is not apparent if these are a transport priority for businesses in the area. There are good rail freight links meeting the needs of the area's quarrying industry and the district has good access to East Midlands Airport. A further 15,800 homes could be built in the district between 2006 and 2026, representing an increase of 24%.

8.77 **North West Leicestershire** has a strong orientation towards manufacturing (focussed on minerals) and transport and logistics, which is strongly influenced by the presence of East Midlands Airport. The role of the visitor economy is also important, with a strong influence from the National Forest and East Midlands Airport (EMA). Towns in the area include Castle Donington, Ashby-de-la-Zouch and Coalville, and the 'economic footprint' of the area extends into South Derbyshire and towards Loughborough. Travel to work is dominated by the car, with very low use of public transport in the area. The recent development of Skylink bus services to EMA from Nottingham, Derby and Leicester has, however, provided a step-change in public transport connectivity to the airport, and will address the needs of both employees and passengers.

8.78 The area benefits from very good access to the strategic road network – this is one of the primary reasons for the success of East Midlands Airport as a nationally important freight hub. The A42/M42 provides a relatively uncongested route to the South West, whilst the M1 provides connectivity to other core markets within the UK (although the latter is significantly more congested at peak times around Leicester). The A50 provides the primary east-west corridor between the East Midlands and the North West, and is heavily used by goods traffic. East Midlands Airport does not have any rail

freight links: connections are exclusively by road, but this has not impacted on the competitiveness of the airport. The recent opening of East Midlands Parkway station provides good passenger rail links to most of the region, although this is likely to focus on catering for business connectivity needs for a wider area, rather than North West Leicestershire itself.

8.79 **Hinckley & Bosworth** has a particularly strong presence and a historic legacy of manufacturing, particularly machinery and the transport sector (for example, Triumph motorcycles). The main town in the district is Hinckley, which has a particular concentration of manufacturing, and three of the largest five employers in the district are in the manufacturing sector. Hinckley is close to Nuneaton, and the area has a strong functional relationship with North Warwickshire and Coventry. The area is otherwise largely rural, with rural communities having a strong dependence on Hinckley, Nuneaton and Leicester for access to jobs and services. Car use in the area is high, and the bus network is limited to key corridors and Hinckley itself.

8.80 Hinckley, and the neighbouring towns of Barwell and Earl Shilton, benefit from good access to the strategic road network, with generally easy access to the M69 and M1 motorways, which is important to both the logistics and manufacturing sectors in the town. However, the A5 can become heavily congested in this area, leading to problems accessing the M69 at Junction 1. Rail services are relatively poor, and, as such, are unlikely to play an important role in meeting the needs of either commuters or business travellers.

8.81 **Harborough** has a diverse economy, including agriculture, reflecting the rural nature of much of the district. There is a strong emphasis on the wholesale and retail sector, and transport and communications, reflecting the position of the district in the East Midlands logistics 'golden triangle'. Magna Park in Lutterworth is one of the largest logistics parks in Europe. A particular advantage is its location, being near the intersection of the M1, M6 and A14, although it has no rail connection.

8.82 Market Harborough, the main town of the district, has a particular strength in being located just north of the A14 strategic corridor to the East Coast and, indeed, the southern part of the district has strong links with Kettering and Corby. Market Harborough also benefits from fast and frequent trains to both Leicester and London, and is becoming increasingly attractive to London commuters, particularly due to the house price differential between London and the district. The rural nature of the district, however, means that many people are reliant on access to Market Harborough and Lutterworth as key centres for shopping and services, whilst many people in the rural areas

commute to Leicester. The use of the bus network is relatively low, with a high level of reliance on the car.

Transport Conditions Required for Business to Flourish and People to Take Advantage of Economic Opportunities

8.83 Transport influences businesses and the local economy through the mechanisms described earlier in this chapter. Transport continues to shape Leicester and Leicestershire's economy by providing attractive operating environments for specific sectors in terms of access to labour, suppliers and markets.

8.84 The strong presence of the manufacturing and transport and communications sectors in the HMA means that there is a dependence on the movement of freight (see previous section). In particular, businesses are looking for efficient strategic road networks that provide easy access to national and international markets.

8.85 As noted in the previous section, Leicester and Leicestershire benefit from good access to the strategic road network, and the area has a strong competitive advantage in terms of movement of freight by road which should be retained. The position of the area at the heart of the country, between the East Coast Ports and markets in the north of the UK, means that the area has been strongly placed to develop as the UK's logistics hub. Furthermore, East Midlands Airport, at the intersections of the M1, A42/M42 and A50, has developed a national role for the movement of air freight, second only to Heathrow. The relatively limited role played by rail freight does not appear to have constrained the development of the logistics sector in the HMA, although this could become more of a challenge in the future.

8.86 There are, however, challenges with the management of traffic on the strategic road network: traffic flows have been rising strongly during recent years and congestion and incidents are impacting on the transport costs, and hence competitiveness, of logistics and manufacturing firms in Leicestershire (see following section). If left unchecked, problems on the strategic road network will damage the competitive advantage of the Leicester and Leicestershire economy.

8.87 The HMA has a smaller proportion of people working in professional and financial services than the national average. However, it is likely that professional services will continue to grow in importance, and it will be important to create the conditions to enable these types of business to flourish. The City, particularly the City centre, will be the main concentration of this type of activity, which will lead to 'spillover' benefits for the

wider economy. This requires the provision of effective strategic connectivity for business travel, particularly by rail, not only to London, but also to professional services clusters in other major cities including Nottingham and Birmingham. As planned housing growth across the HMA occurs, commuting to other key centres is likely to increase meaning that the quality of these linkages will become increasingly important.

8.88 The development of a 'knowledge economy' in the HMA requires effective access to a skilled labour market. The obvious prerequisite is to upskill the existing workforce and to attract highly skilled workers to the Leicester and Leicestershire area, which will require the provision of appropriate levels of housing and other infrastructure to support a high quality of life. This also means catering for the travel to work needs of 'knowledge workers', who require effective connectivity by a range of modes, including the car and, who, with increasing salary prospects, will become more willing to travel further to work. As noted earlier, only 7.5% of journeys to work in the HMA are made by bus. For travel to work into and within the central Leicestershire urban area, a step-change in the quality of bus services is required to provide a viable and attractive alternative to the private car for a much greater proportion of the working population.

8.89 It is also necessary to address the challenge of worklessness and social exclusion in the HMA, which affects not only individuals but is also holding back the economic potential of Leicester and Leicestershire. Claimant Count Data published for October 2009 (Leicestershire County Council Unemployment Bulletin, Table 1) indicates that unemployment is highest in the City (7%), compared to 3% in the County. As discussed in previous sections, there are a number of factors affecting the employment rate in the City. For example, the large student population, poor skills, low educational attainment, poor health and multiple deprivation are all factors. Lower public transport accessibility to employment locations outside central Leicester, such as South Wigston, may also be a factor in limiting employment opportunities.

8.90 The implications of the recession are still emerging, but, without doubt, there will be a steep rise in unemployment during the next year (see Employment & Skills Chapter). This is in part due to losses in the numbers of jobs available, and there will be steep competition from applicants. Transport provision could become a factor constraining people's ability to find jobs: if incomes fall relative to the costs associated with owning and running a car, people may become more dependent on public transport. Also, if people begin to look further afield for employment, transport issues, particularly lengthy and expensive public transport journeys, will increasingly be an important factor determining worklessness.

Transport Network Performance

8.91 The following section describes the performance of the HMA's transport networks in terms of the five journey/travel characteristics outlined in paragraph 8.9 (journey time/cost and network coverage have been combined). A brief description of the usage of the networks is also given where relevant. At this time, the analysis is constrained by the availability of evidence which is in a readily-usable form. In future, it should be possible to provide a more complete assessment of conditions as and when existing information can be analysed further and/or new evidence comes to light. The majority of evidence relates to current/recent conditions, although forecasts of future conditions are presented where available and, where applicable, consideration is given to the impacts of planned housing growth.

Journey Time/Cost and Network Coverage

Highway network

8.92 As one of the ten largest urban areas in England, TrafficMaster/ITIS data is collected for the Leicester City Area on behalf of the Department for Transport for National Indicator 167. The indicator shows average journey time per mile per vehicle in 2007/08 in Leicester of 4 minutes 24 seconds – the second worst of the ten cities (the average journey time in Nottingham was 3 minutes and 48 seconds)[28]. The factors leading to these relatively slow speeds undoubtedly include levels of congestion, but also reflect the nature of monitored roads, for example, having speed limits. Whatever the cause, a lower average speed within Leicester will influence the cost of travel to businesses.

8.93 Peak hour average journey speeds outside the Leicester urban area are generally higher. Some sample average journey speeds to/from Leicester are:

- Lutterworth: 29 mph
- Market Harborough: 39 mph
- Melton Mowbray: 41 mph
- Loughborough: 21 mph
- Coalville: 21 mph
- Hinckley: 19 mph
- East Midlands Airport: 27 mph[29]

A comparison of car and rail journey times is given in Table 8.7.

[28] DfT (2008) Transport Statistics Bulletin, Road Statistics 2008, Traffic, Speeds & Congestion, Table 6.1
[29] www.tomtom.com

Passenger Rail Services

8.94 Journeys by rail involve travel to the originating station and from the destination station, waiting time and, in some cases, interchange time. Table 8.7 highlights the quickest weekday daytime timetabled rail journey times between Leicester and other selected locations. Note these therefore include waiting times where interchange is required, but exclude waiting time for the first service, access and egress times. The number of interchanges required to make the journeys are also shown.

8.95 Table 8.7 illustrates the relatively high average speeds between Leicester and other stations on the Midland Mainline – typically 65 mph or above – although the average speed to Nottingham is notably slower than this. To central areas in these destinations, rail offers a speed advantage over car travel. Speeds to major cities such as Birmingham, Manchester and Leeds are low, and much more comparable to car travel, particularly considering that the service to Birmingham is direct from Leicester. East-west journeys are typically longer (e.g. Cambridge) and access to some relatively nearby stations is slow due to indirect services (e.g. Lincoln, Northampton). In many cases, average speeds from other stations in the HMA will be slower, given the need to change at Leicester (e.g. Market Harborough to Birmingham).

8.96 Current peak return rail fares between the County towns and Leicester vary considerably – from £5.40 to/from Loughborough, £7.20 to/from Melton Mowbray, £8.60 to/from Hinckley to £8.90 to/from Market Harborough. These fares are consistently higher than the bus equivalents although they are comparable to equivalent car running costs if parking costs are included.

Table 8.7 Rail Journey Times to/from Leicester, Weekday Daytime

To/from station	Quickest Rail Journey time	Crow-fly distance (miles)	Average speed (mph)	No. of inter-changes	Peak car journey time
Loughborough	0h09m	11	73	0	0h25m
London St. Pancras	1h15m	87	70	0	2h08m
Derby	0h22m	24	65	0	0h51m
Market Harborough	0h13m	14	65	0	0h32m
Melton Mowbray	0h15m	13	54	0	0h35m
Nottingham	0h29m	22	46	0	0h51m
Leeds	1h58m	82	42	1	2h02m
Birmingham New Street	0h54m	34	38	0	0h56m
Manchester Piccadilly	1h58m	75	38	1	2h19m
Cambridge	1h51m	61	33	0	1h39m
Lincoln	1h45m	48	27	1	1h32m
Northampton	1h26m	29	19	1	0h56m

Source: National Rail Timetable, Google Maps, TomTom.com

Rail Freight

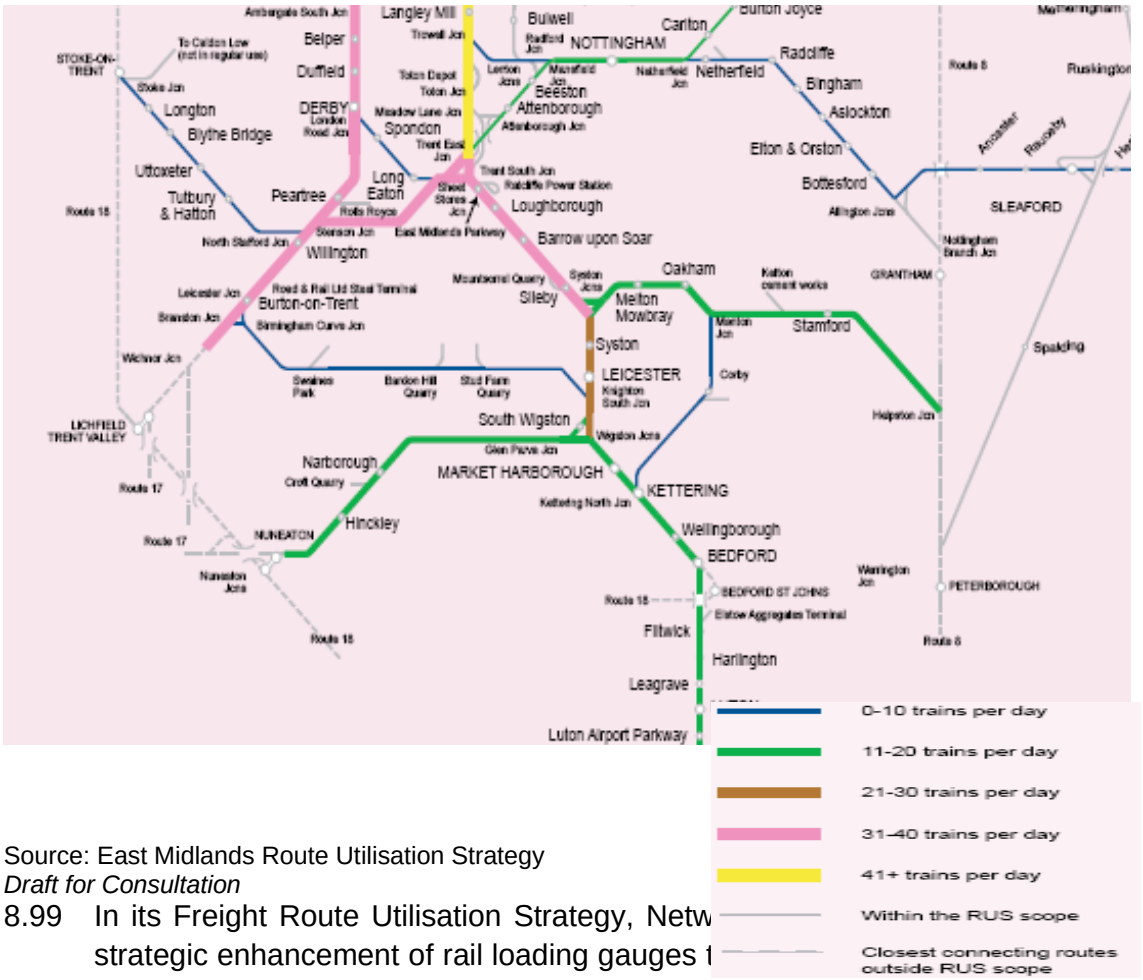
8.97 Rail accounts for 10% of all freight moved by land to, from, or within, or through the East Midlands by tonnage. Up to 30 freight trains per day pass through Leicester in each direction on the Midland Mainline (MML), approximately 20 freight trains per direction on the Nuneaton-Peterborough route (see Figure 8.8)[30]. These are not the highest flows in the UK, but the movements through Leicester, in particular, are significant. A particularly high proportion of freight paths between Leicester and the West Coast Mainline at Nuneaton are utilised (upwards of 80%).

8.98 Most freight train movements in the HMA can be categorised into:

- coal trains to/from Ratcliffe Power Station (via Nuneaton, Leicester, Loughborough)
- construction and aggregates from Bardon Hill, Croft, Stud Farm, Mountsorrel (predominantly Nuneaton-Leicester-Loughborough but also other lines including Leicester-Burton)
- metals and petroleum (north-south on MML and to some extent on cross country route east of Leicester)

Figure 8.8 Freight Trains Per Day

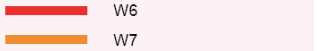
[30] Network Rail (2007) Freight Route Utilisation Strategy



Source: East Midlands Route Utilisation Strategy
Draft for Consultation

8.99 In its Freight Route Utilisation Strategy, Netw
strategic enhancement of rail loading gauges f
freight movement across the UK. The current mixture of gauges means that diversionary routes can often be long and circuitous, or trains have to be cancelled when the main route is unavailable. As shown in Figure 8.9, clearance gauges in the HMA range from W6 to W8, but are predominantly W7 or W8. This means that standard 9'6" containers to or passing through the area can only be accommodated on special wagons which, in turn, limits train length. Enhancement of the east-west route gauge to W10 is planned, which would allow 9'6" high containers to be conveyed on standard height wagons, thereby enhancing operational efficiency and making the area much more attractive to the intermodal freight market.

Figure 8.9 Load Clearance Gauge



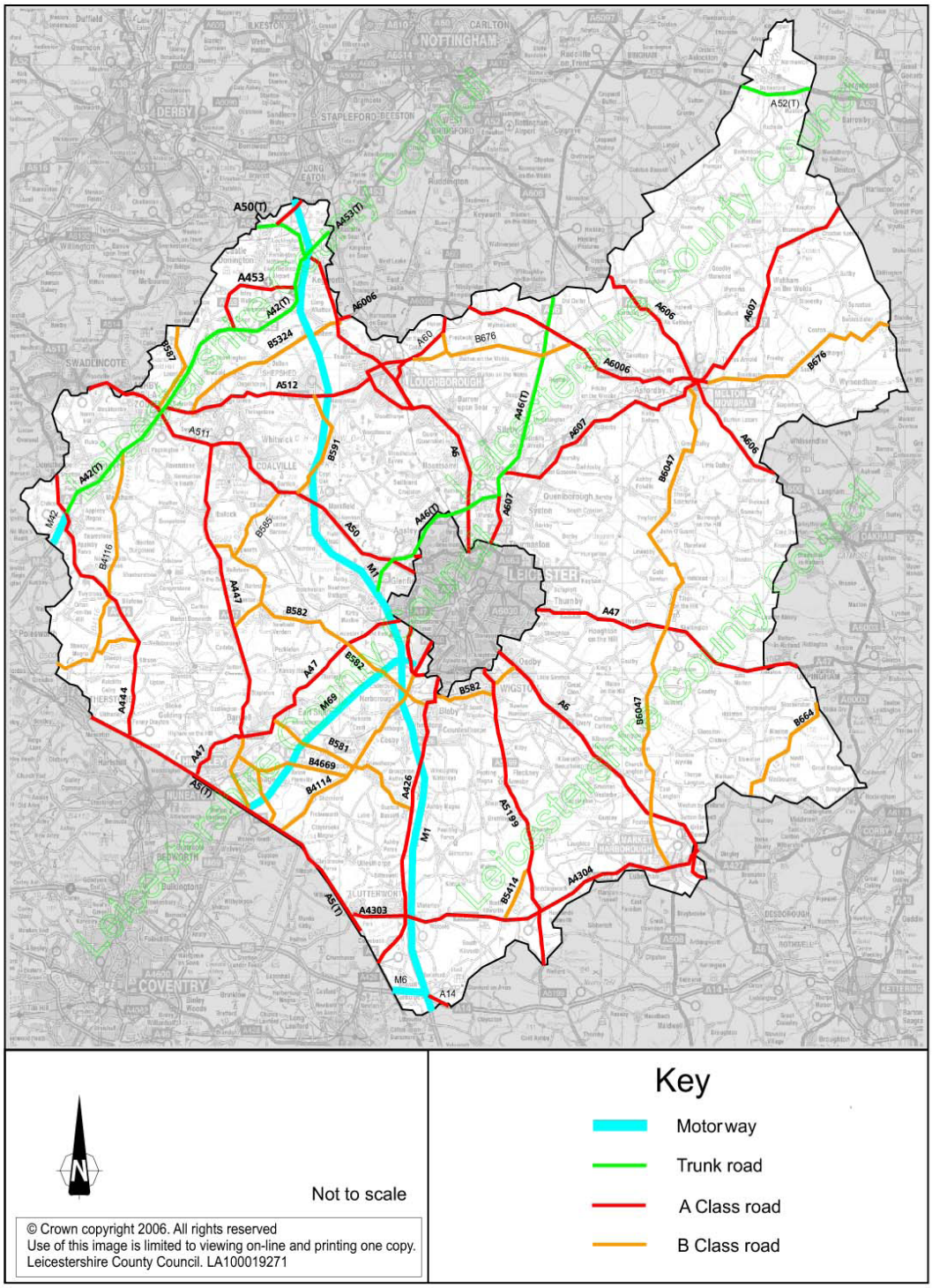
Source: East Midlands Route Utilisation Strategy *Draft for Consultation*

Road Freight

8.100 Regional distribution centres, industrial estates, producers of food and raw materials, and manufacturers are all major generators of freight traffic and, as such, are dependant upon a good road network to provide access to markets and customers. In comparison to the rail network, road offers greater potential for freight distributors to offer a door-to-door linkage between suppliers and customers. The density of the road network and flexibility regarding route choice is likely to be the primary reason why as much as 90% of freight carried to, through, or within the East Midlands is carried by road hauliers.

8.101 As set out in other parts of this section, a key strength of the Leicester and Leicestershire HMA is its location in relation to the national road network (M1, M6, A14, M42, M6), something which generally provides good road connectivity to the rest of region and beyond (e.g. to Humber Ports and Felixstowe). The core lorry network illustrated in Figure 8.10 comprises trunk roads and local authority A and B roads. Freight traffic as a proportion of all route traffic is typically highest on the M1, M69, A42/M42 and A50.

Figure 8.10 Leicestershire Lorry Network



Source: Central Leicestershire Local Transport Plan

8.102 Evidence suggests that, if no additional capacity is provided for rail freight, then road traffic volumes will increase by 28% to 2010 and 58% to 2020 (against 2000 traffic levels)[31]. This growth in demand, compounded by forecast increases in car traffic and forecast housing growth, will continue to place constraints on the highway network to adversely affect the efficiency by which goods are transported by road. Key issues affecting the current and future movement of raw materials, goods and waste products by road include:

- the increasing demand on limited road capacity which will contribute to more congestion and poor journey time reliability (particularly in urban and rural built-up areas where road capacity is often more constrained).
- longer-term plans for capacity management on the M1 through the region which will provide journey time and journey time reliability benefits for freight vehicles originating, travelling to, or through, the HMA.
- the negative impact of lorry movements on quality of life in local communities (safety, air quality, vibration) which will need to be managed against an increasing demand for transport freight by such modes – this is particularly relevant on key routes entering into urban areas and passing through rural settlements.
- the increasing capacity on the rail network to carry freight which will be challenging and, as such, will increase dependency on the road network to transport goods.

Bus Services

8.103 Bus services comprise a combination of commercial services run by operators for profit and socially-necessary services run by private operators under subsidy from the City and County Councils (the latter tend to be early morning, evening, weekend and rural with low patronage). Significant investment is made by both local transport authorities to ensure maximum network coverage and minimum journey times (through retaining/enhancing service frequencies).

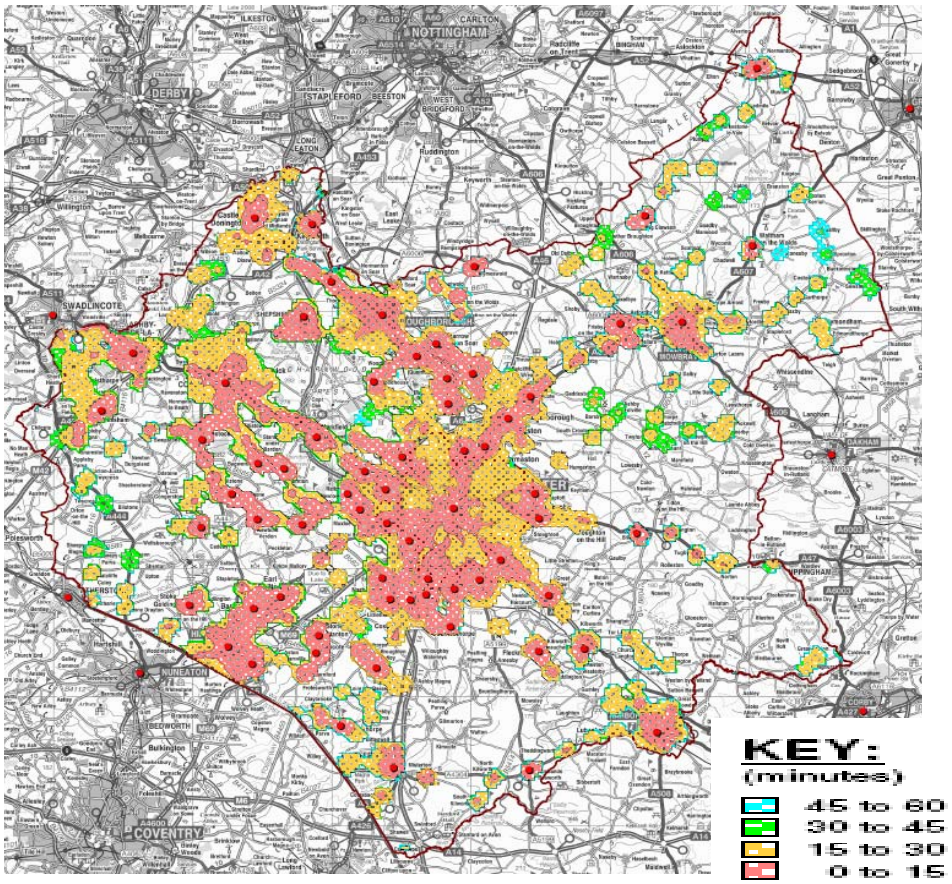
8.104 Maintaining access to jobs, education and services is a key objective of this investment. Figure 8.11 shows travel times to main urban centres, PUA settlements and rural/service centres by bus (including walking and waiting time). In 2008, bus service provision meant that, across Leicester and Leicestershire, 93% of households were within 60 minutes total travel time of a service centre, 81% being within 30 minutes[32]. For households without a

[31] SKM (2002) The State of Freight in the East Midlands *Section 1, page 20*
[32] Leicester City Council (from Accession modelling)

car, 90% are within 30 minutes of a service centre and 97% within 60 minutes.

8.105 County services operate in all of the County towns and Leicester. Where the town is not served by rail, bus service frequencies are high (typically 10 or more buses per hour) but lower where there is a competing rail service (e.g. 8 buses per hour to/from Melton Mowbray, 4 buses per hour to/from Market Harborough). Loughborough is an exception to the rule, with up to 11 trains and 17 buses an hour between it and Leicester. Journey times for cross-City bus journeys are relatively slow compared to car journeys as most require interchange in Leicester whilst bus journey times in the County are up to twice as slow as comparable car journeys. Bus fares are typically £4.50-£6.00 for a peak return, consistently less than equivalent rail fares, where available.

Figure 8.11 Accessibility by Bus to Main Centres, PUA Settlements & Rural/Service Centres Travel Time Contours (up to one hour travel time)



Source: Leicestershire County Council, 2008

Rural Accessibility

8.106 The 2006 Leicestershire Rural Transport Study, commissioned by Leicestershire Rural Partnership and Leicester Shire Economic Partnership (LSEP) provided an independent review of the work achieved through the Rural Transport Partnerships in Leicestershire. It identified gaps in existing service provision and assessed ways to identify and deliver services. The key findings of the study are reproduced below.

8.107 Access to jobs and services, particularly training and education, is a major issue for residents in rural areas. Whilst rural areas are generally perceived as being more affluent than the urban centres, there are pockets of rural deprivation where households suffer from lack of income, poor access to a car and where residents lack training and employment opportunities. The decline in local services means that many rural residents, particularly those without access to a car, find it increasingly difficult to access services that others in urban areas or on public transport corridors may take for granted.

8.108 Journeys to/from education, training or employment are especially problematic from isolated hamlets and villages due either to a total lack of public transport or a very inconvenient service. National statistics show, for example, that only 20% of school children walk to school in rural areas compared to 44% nationally; by contrast, private buses are an important mode of travel to school in rural areas, accounting for 18% of trips[33]. Whilst it was recognised that colleges do provide designated transport for students, extensive travel times and absence of convenient public transport services have been identified as a primary cause of young people dropping out of further education.

8.109 Further transport issues adversely affecting access to post-16 education were identified as:

- lengthy journey times for students on specialist courses which are only available at a limited number of sites.
- peak hour overcrowding on some public transport services with some students experiencing delays in getting to college if buses are full or delayed by congestion.
- providing transport for students with learning difficulties or disabilities being expensive.
- for low-income households, the cost of travel being a barrier despite the eligibility of many to receive an Educational Maintenance Allowance.
- lack of familiarity with public transport services and ticketing schemes amongst young people and parents limiting travel horizons.

[33] National Travel Survey 2002/05

- existing support to learners being limited to those living over three miles from their nearest college; a parental or student contribution is required up-front and this could deter those in receipt of Education Maintenance Allowance, which is paid weekly.
- travel passes being regarded as less flexible than commercially available operator tickets.
- crime and the fear of crime deterring some groups of learners from using public transport, particularly those attending evening courses.

Parking

8.110 Information on the amount of parking in Leicester and Leicestershire is limited. However, the available evidence suggests that there are approximately 7,500 public parking spaces in Leicester and a further 5,000 'private non-residential' or private car park spaces in Leicester. In Loughborough, there are approximately 3,000 public parking spaces, over 1,000 in Melton Mowbray, 1,800 in Market Harborough, 1,200 in Hinckley, and 1,000 in Coalville. These figures are fairly typical of other locations of a similar size.

8.111 Anecdotal evidence suggests that parking is the biggest single transport issue from a business perspective. Some sectors of the business community consider there to be insufficient amounts of car parking for both their staff and customers, particularly in Leicester, leading to a lack of inward investment. However, in a recent business survey, only 12% of companies said that car parking for employees was a concern (14% of urban and 5% of rural companies), although this figure did rise to 20% of companies based in Leicester City itself. Similarly, only 13% of companies said that car parking for their customers was a concern (13% of urban and 4% of rural companies), a figure that again rose to 20% of companies based in Leicester City. In terms of the top business concerns, parking for employees and customers was ranked well down the list and below other transport issues, such as petrol and diesel prices and traffic congestion (source: Leicester and Leicestershire Business Survey, Winter 2009/10).

8.112 It should be noted that the provision of additional parking capacity in central Leicestershire is not conducive to promoting more sustainable modes of travel, such as public transport, walking and cycling, a fact recognised by the Leicestershire Housing Market Area Growth Infrastructure Assessment in 2009. However, it is suggested that further consideration is required as to the role of car parking provision (including its location and charges) in Leicester City, both in the context of managing car use for journeys to and from the City and of attracting inward investment into the City.

Journey Time Reliability

Highway congestion – strategic routes

8.113 The Highways Agency is responsible for the UK's motorways and 'A' roads with a national or regional significance (known as the 'Strategic Road Network' or SRN). Observed delays per vehicle on the SRN in 2006 are shown in Figure 8.12. The worst delay hotspots on the SRN in the East Midlands tend to be outside the HMA, for example the A453 between Nottingham and the M1. Within the HMA, the longest delays per vehicle can be found:

- on the A5 around Hinckley
- on the M1 northbound around Loughborough and southbound south of Leicester
- on the A46 north-east of Leicester
- at the southern end of the M69 within the HMA
- at the western end of the A14 close to the M1

8.114 Delays on strategic routes beyond Leicester and Leicestershire will also affect journeys to or from locations outside the HMA. Delays elsewhere in the Three Cities[34] area can be seen in Figure 8.12.

8.115 National core indicator CSR07 is the PSA indicator for delays on the inter-urban road network. It is calculated based on a national sample of the SRN. Only two routes are substantially within the HMA. Surveys to year ending March 2008 identified total and average delays on the slowest 10% of journeys and on all journeys on each route, in each direction. The delays on the routes within the HMA (with national ranking out of 190 for slowest 10% of journeys nationally) are shown in Table 8.8.

[34] Three Cities: Derby, Leicester and Nottingham

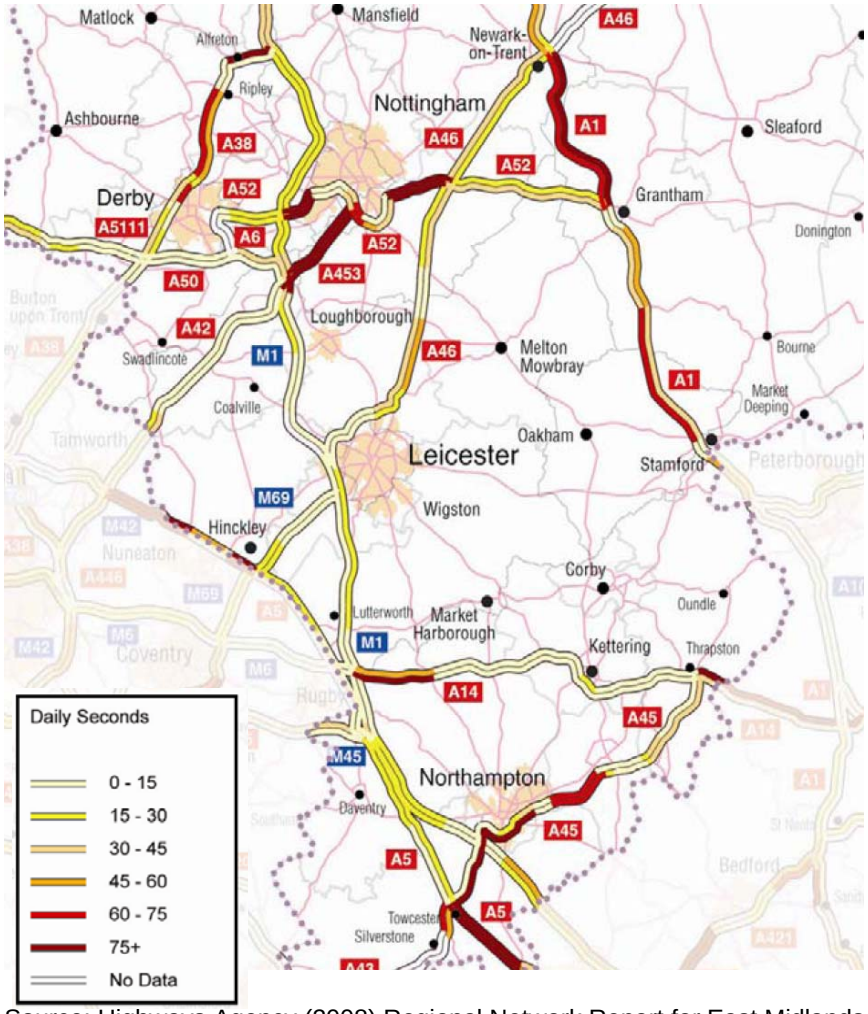
Table 8.8 Average Vehicle Delay (Minutes per 10 Vehicle Miles)

Road no.	From	To	Average delay on slowest 10% of journeys in minutes per 10 vehicle miles	National ranking (1st=worst)	Average delay on journey in minutes per 10 vehicle miles
A46	Leicester	Lincoln	2.73	119th	1.09
A46	Lincoln	Leicester	2.75	117th	0.99
M1	Jn 19 Rugby	Jn 32 Rotherham	4.58	54th	1.31
M1	Jn 32 Rotherham	Jn 19 Rugby	4.21	59th	1.11

Source: Department for Transport

8.116 Despite being only a sample, the CSR07 data indicates that delays on the SRN in Leicester and Leicestershire are typically less severe than in other parts of the East Midlands or much of the UK.

Figure 8.12 Observed Total Delay per Vehicle on the SRN 2006



Source: Highways Agency (2008) Regional Network Report for East Midlands 2008

Highway Congestion – Local Routes

8.117 Comprehensive journey time/delay surveys were undertaken as part of the 6Cs Congestion Management Study during 2007. Surveys were undertaken in the Three Cities plus a number of county towns including Ashby de la Zouch, Coalville, Loughborough, Melton Mowbray and Hinckley. The surveys showed that delays during the morning peak hour were broadly similar among the Three Cities at approximately two minutes per mile[35]. However, of the 15 sections of road with delays of over three minutes per mile, seven were in central Leicestershire:

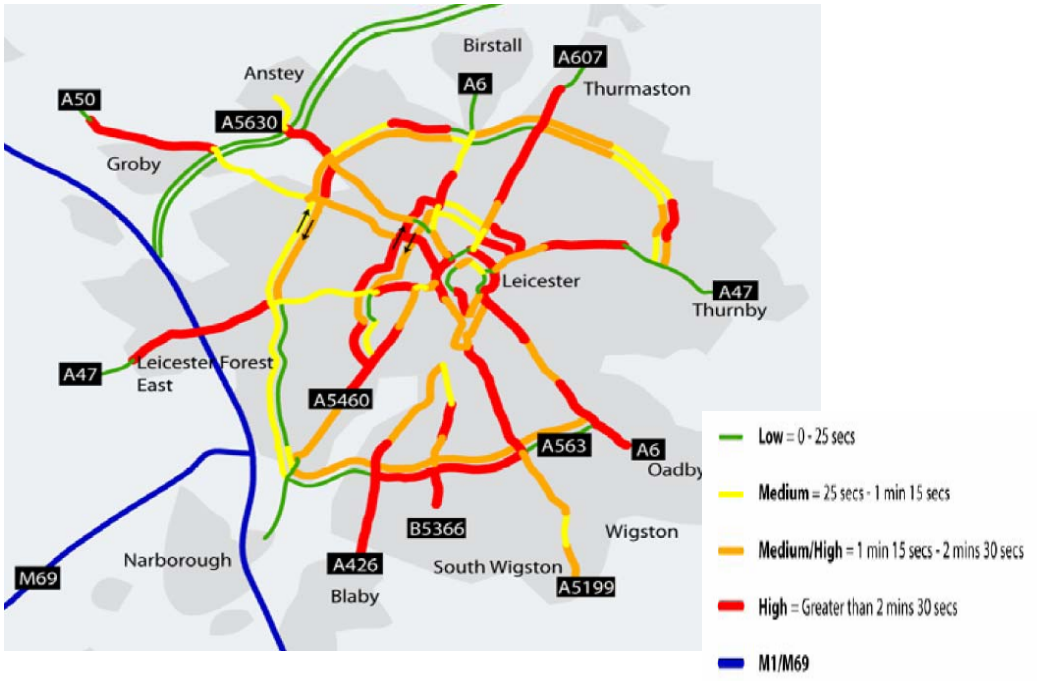
- B3566: South Wigston to A563 Ring Road (Leicester) – 752 secs

[35] Nottingham City Council (2008) 6Cs Congestion Management Study *Traffic Congestion Survey Results Report 6Cs= Derby City, Derbyshire County, Leicester City, Leicestershire, Nottingham City, Nottinghamshire*

- A426: Blaby to A563 Ring Road (Leicester) – 436 secs
- A607: Thurmaston to A563 Ring Road (Leicester) – 372 secs
- A6 (South): Oadby to A563 Ring Road (Leicester) - 286 secs
- A47 (West): Leicester Forest East to A563 Ring Road (Leicester) - 238 secs
- A6 (South): A563 Ring Road to city centre (Leicester) - 202 secs
- A426: A563 Ring Road to city centre (Leicester) – 184 secs
- A5199: A563 Ring Road to city centre (Leicester) – 181 secs

Average morning peak hour[36] delays observed in these surveys are shown in Figure 8.13.

Figure 8.13 Morning Peak Hour Delay on Radial Routes (inbound) and Orbital Routes (both Directions) in Leicester



Source: 6Cs Congestion Management Study, 2007

8.118 The surveys also state that: *"Leicestershire's county towns suffer appreciable congestion, even if generally rather less than is experienced in the conurbations. The worst affected is Loughborough, where delays per mile are comparable to those in Leicester, although the shorter journeys into Loughborough (in relation to Leicester) mean that the impact on overall journey times is not usually as bad."*

[36] Morning peak hour is 8am to 9am

8.119 In comparison to the average morning peak hour delay per mile of 127 seconds in Leicester City, delays in the surveyed county towns in Leicestershire were observed as shown in Table 8.9

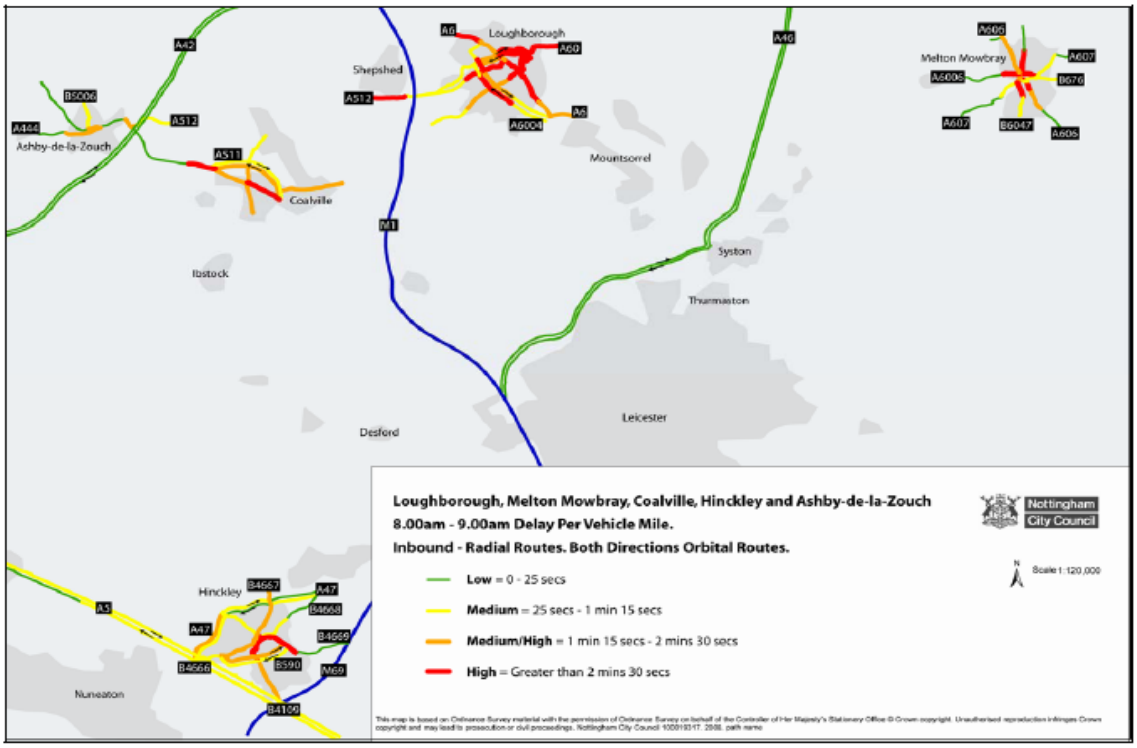
Table 8.9 Average Vehicle Delay per Mile

Settlement	Delay per mile during morning peak hour
Leicester City	2 mins 07 secs
Loughborough	2 mins 02 secs
Melton Mowbray	1 min 40 secs
Coalville	1 min 31 secs
Hinckley	1 min 10 secs
Ashby de la Zouch	0 mins 49 secs

Source: 6Cs Congestion Management Study, 2007

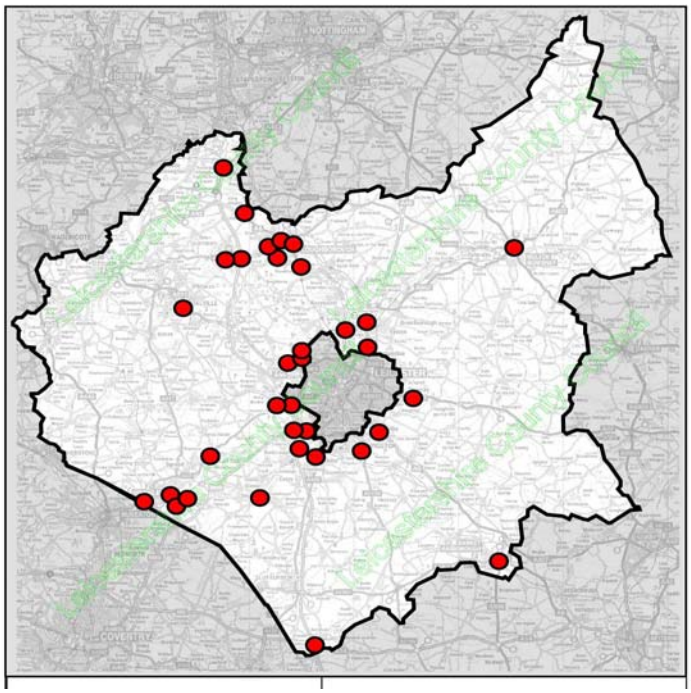
8.120 The observed delays by route (inbound on radial routes, both directions on orbital routes) are shown in Figure 8.14 and congestion hotspots, as identified by Leicestershire County Council, in Figure 8.15.

Figure 8.14 – Morning Peak Hour Delay on Radial Routes (Inbound) and Orbital Routes (Both Directions) in County Towns



Source: 6Cs Congestion Management Study, 2007

Figure 8.15 Congestion Hotspots



Source: Leicestershire County Council

Rail Punctuality

8.121 Rail punctuality is commonly measured using the Public Performance Measure (PPM) which measures an operator's punctuality against the published timetable. Long distance high speed services (e.g. to London) are considered to be on time if they are up to nine minutes late on arrival, whilst local services are on time if they are up to four minutes late.

8.122 In 2007/08, 86.7% of East Midlands Trains services were classified as 'on time', up from 81.7% the previous year[37]. For all train operators on routes in the East Midlands area, punctuality is higher at 92.7% in 2007/08, again, improved on the previous year.

8.123 Reactionary delay is also a common measure of performance and gives an indication of the impact that a delayed train has on other services due to it not running in its timetabled path. This often leads to other trains also not running on time. Reactionary delays thus provide a measure of timetable and infrastructure resilience. Analysis of reactionary delay by Network Rail for the East Midlands Route Utilisation Strategy identified a number of hotspots for delays to passenger services as being: Derby, Nottingham

[37] Network Rail (2009) East Midlands Route Utilisation Strategy *Draft for Consultation*

(including Mansfield Junction), Bedford to Flitwick, the Leicester area, and St Albans to Luton.

Bus Punctuality

8.124 Local transport authorities (LTAs) are required to collect data on bus punctuality under the mandatory indicator LTP5 (and more recently NI 178: Bus services running on time). The latest available bus punctuality data for each LTA or LTP area is shown in Table 8.10, along with national comparators.

Table 8.10 – Local Bus Service Punctuality

Location	Year	Punctuality at starting points (services less than 6 buses per hour)	Average excess waiting time over timetable (services 6 buses per hour or more
Central Leicestershire LTP area	2008/09	79%	106 secs
Leicestershire LTP area (excluding Central Leicestershire)	2007/08	85%	No frequent services
GB (excluding London)	2007	84%	92 secs
GB mixed area authorities	2007	85%	68 secs
GB rural authorities	2007	84%	94 secs
Northern/midland regions	2007	82%	102 secs

Source: Local authorities. National statistics from DfT (2007) Bus Punctuality Statistics Tables 1, 2, 5,& 6

8.125 The table shows that punctuality levels at starting points for non-frequent services (those with a service frequency of less than six buses per hour in each direction) are higher in the County than in central Leicestershire. However, sample size in central Leicestershire is lower than DfT guidelines. County non-frequent service punctuality is in line with national comparators and above some other East Midlands authorities.

8.126 There are no frequent services (those with a service frequency of six buses per hour or more) outside central Leicestershire. Within central Leicestershire, the excess waiting time for frequent services (i.e. the average time spent waiting by passengers in excess of what would be expected from the timetable) is 106 seconds. This is a relatively short length of time, and may be largely unnoticeable. The figure is above national comparators and other authorities in the region (with the exception of Lincolnshire).

Journey Comfort

Rail Crowding

8.127 In 2007, Network Rail concluded that, in general, there are few trains in the East Midlands where demand exceeds seating capacity[38]. Although there has been year-on-year growth since then, and significant timetable changes, this broad conclusion is still valid. More recent information on loadings on passenger rail services is now available through the East Midlands Route Utilisation Strategy Draft for Consultation.

8.128 The picture is one of relatively infrequent occasions during the peak hour when passengers are required to stand on trains within the HMA area. However, it is more common that services to/through the HMA are more crowded outside the HMA.

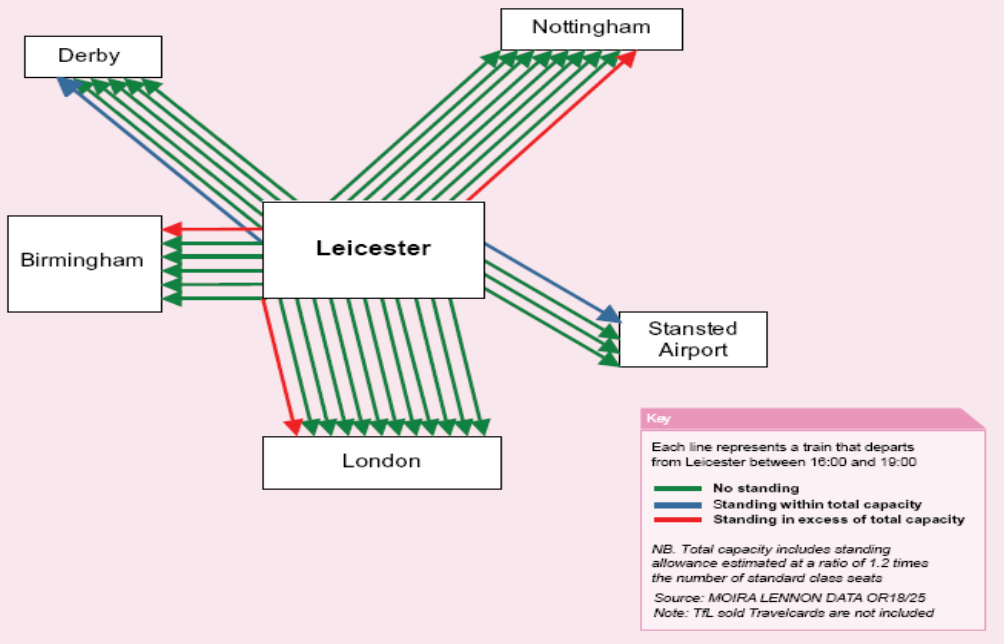
8.129 The level of crowding experienced by passengers when departing Leicester in the three hour evening peak, when crowding is more concentrated, is shown in Figure 8.16. The figure shows that overall there is sufficient capacity during the peak period. However, there are five trains (out of 37) with some standing, of which, in three cases, this exceeds total capacity.

8.130 As noted above, whilst services may be relatively lightly loaded in the Leicester/Leicestershire area, some become much more crowded in other parts of the journey. For example, the average load factor on trains arriving at London St. Pancras during the three hour morning peak is only 40% between Leicester and Market Harborough (i.e. only 40% of standard class seats are occupied)[39]. However, between Bedford and Luton this figure rises to 80% and, on arrival in London, reaches 95%. Almost half of all long-distance arrivals at St. Pancras during the morning peak three hours have some passengers standing. Whilst passengers boarding in the HMA may well therefore have a seat, they may experience crowded conditions during their journey. Further, on return journeys to the HMA, local residents and workers may be required to stand for part of their journey.

8.131 Services between Birmingham, Leicester and Stansted Airport experience some crowding both in the vicinity of the HMA and beyond. The services are well used as they represent one of only a limited number of opportunities to travel east-west by rail in England. Again, whilst overall there is sufficient capacity, certain trains experience high load factors in excess of capacity on arrival at and/or departure from Leicester. Eastbound services are notably more crowded than westbound services.

[38] Network Rail (2007) Regional Planning Assessment for the East Midlands
[39] Network Rail (2009) East Midlands Route Utilisation Strategy *Draft for Consultation*

Figure 8.16 Level of Standing on Trains Departing Leicester 16:00-19:00 (December 2008)



Source: East Midlands Route Utilisation Strategy *Draft for Consultation*

Safety and Security

Road Accidents

8.132 Nationally, road deaths and injuries are estimated to cost the economy around £19 billion[40] each year. Approximately 1.5% of all killed and of seriously injured casualties in road accidents in England occur in Leicester and Leicestershire. Road accidents and personal security issues can have direct impacts on businesses including:

- lost productivity through injury to employees
- lost productivity and additional costs resulting from longer delivery journey times and time spent travelling on business as a result of an accident
- fear of crime deterring customers travelling to retail outlets

8.133 Addressing road safety and personal security issues can therefore offer significant benefits to the HMA's economy.

[40] Delivering and Sustainable Transport System: Main Report, November 2008, Department for Transport

8.134 Local authorities and stakeholders in Leicester and Leicestershire have long had a statutory requirement to support the achievement of three national casualty reduction targets by 2010 compared to the 1994-1998 average:

- 40% reduction in people killed or seriously injured (KSI) in road accidents
- 50% reduction in child KSIs
- 10% reduction in the slight casualty rate

8.135 As shown in Table 8.11, the general picture is that good progress is being made towards these targets in the HMA, and in some cases the 2010 targets have already been achieved, particularly in the County. For example, children killed or seriously injured in the County is down by two-thirds compared with the 1994-98 average. Reductions in Leicester are less than those achieved in the County, possibly as a result of increasing traffic levels and a lower potential to introduce measures which will have significant benefits than in the County (such as dualling of single carriageway 'A' roads).

Table 8.11 Road Accident Casualty Rates 2008 and Change Compared to 1994-98 average

Area	All KSIs		Child KSIs		Slight casualties per million vehicle kms	
	Number	Change Since 1994-98	Number	Change Since 1994-98	Number	Change Since 1994-98
2010 target		-40%		-50%		-10%
Leicester	97	-23%	18	-34%	97	-15%
Leicestershire	253	-38%	14	-67%	27	-40%
Whole HMA	350	-35%	32	-54%	42	-34%
East Midlands	2,327	-43%	194	-64%	43	-33%
England	24,369	-40%	2,402	-58%	47	-37%

Source: Department for Transport, County and Unitary Authority Level Accident and Road Traffic Statistics

Personal Security

8.136 Personal security issues are particularly pertinent for pedestrians and for those using public transport. Crime, or fear of crime, is an important factor in travel behaviour and can influence the mode and time of travel, or even whether the journey is made at all.

8.137 A 2004 survey for the Department for Transport found that although 64% of respondents felt positive about their personal security while travelling, some people can still feel apprehensive and, as a result, public transport patronage would be approximately 10% higher if passengers

always felt secure[41]. However, incidence of crime against public transport passengers is relatively rare. The same survey found that two-thirds of respondents felt that the level of security on public transport was either 'good' or 'very good'.

8.138 Data on crime and fear of crime on Leicester and Leicestershire's transport networks is limited. On the rail network, British Transport Police statistics do however show that there are approximately 200 reported crimes per year at Leicester station, including on trains[42]. This equates to one reported crime per 14,000 passengers. The number of reported crimes at Leicester is higher than at other stations in the HMA as a result of the higher passenger numbers. Less than 40 crimes a year are reported at Loughborough (one per 26,000 journeys) and negligible numbers at most other stations.

Comparative Strengths and Weaknesses of Transport Provision in Supporting/Threatening the Local Economy

8.139 The transport networks in Leicestershire influence the productivity and location of businesses. The area will attract sectors which can take most advantage of local conditions, not least the strengths of the local transport networks. The comparative strengths and weaknesses of transport provision in the sub-region are described below.

8.140 The identification of these issues as strengths or weaknesses reflect the views set out in a range of policy documents including the MAA, Local Transport Plans and Regional Transport Strategy. They are also drawn from interpretation of the available evidence and from the professional opinions of the authors of this chapter and the views of the Leicester and Leicestershire Transport Strategy & Performance Group.

8.141 In some cases, these weaknesses represent symptoms of the success of the area, or agglomeration of activity. This is especially true in relation to traffic congestion. These weaknesses should also be seen in the wider context of issues facing businesses. In a recent business survey, three transport issues appeared in the top 10 concerns facing business. Transport issues ranked behind factors such as energy costs, competition and finding new business (petrol/diesel prices ranked 5th, traffic congestion 8th and travel to work by public transport for employees 10th). Only 10% of companies said that customers accessing their premises by car was a concern whilst the figure was slightly lower for those businesses concerned about customer access to their premises by public transport (9%). 18% of companies said that

[41] http://www.dft.gov.uk/pgr/crime/personalsecurity/perceptions/
[42] British Transport Police

employee travel to work by public transport was a concern whilst the figure was lower for employee access to work by car (10%)[43].

Journey Time/Cost

8.142 **Highway Network**

- Strategic location in relation to national road network (M1, M6, A14, M42, M69) provides good road connectivity to the rest of the region and beyond (e.g. to Humber Ports and Felixstowe). 95% of the English population are within four hours by road (day return for an HGV) of Lutterworth. The area is very attractive to the distribution industry.
- Road links to the A1 northbound are poor with vehicles having to travel via the sub-standard A46. Note, however, that the A46 between Newark and Widmerpool is currently being dualled, which will provide a high-quality strategic route to the A1 northbound and, indeed, an alternative route to the M1. This will provide increased resilience for business and goods traffic to markets in Yorkshire and the North East.
- M1 Junction 19 (A14/M1/M6 junction) allows for limited movements only – travel between the A14 and the M1 south of this junction is not possible. For journeys to and from south Leicestershire, access to the M1 south is therefore via the A508/Northampton, adding to journey time and unreliability issues. Congestion at the current junction for available movements can be significant (e.g. M1 southbound to A14 eastbound, A14 westbound to M6 westbound). An improvement scheme for the junction was approved in early 2009 and the Highways Agency is working on the detailed design. However, the new junction will not provide access to the M1 south of the junction and the A14.

8.143 **Rail Services**

- Frequent and fast rail services to London from Leicester (970,000 passengers per annum), Loughborough and Market Harborough.
- Infrequent (2 trains per hour) and relatively slow rail services to Birmingham (although this is the largest rail flow out of the East Midlands other than London). A series of improvements to junctions, track and signals is planned for delivery by Network Rail during Control Period 5 (2015-2019) to improve journey times between Birmingham and Stansted Airport.
- Poor rail connectivity to Manchester, Leeds, Northampton and Milton Keynes. The East Midlands RUS identified that a direct service between

[43] Leicester and Leicestershire Business Survey, Winter 2009/10.

Leicester and Manchester could reduce journey times by up to 20% but that these benefits are not sufficient to justify the associated costs.

- Low rail speed to Nottingham from Leicester (typically less than 40mph compared to 60+ mph for many comparable inter-urban journeys). The Midland Mainline line speed improvement scheme is currently in development for implementation in CP4 (2009-2014). The scheme aims to improve the line speed on the fast lines at various locations to provide future opportunities to improve the journey time between London and Leicester, Derby, Nottingham and Sheffield.

8.144 **Bus Services**

- With more bus priority, journey times by bus are becoming increasingly competitive with car travel, especially at peak times in urban areas. Leicester's Park and Ride network is expanding.
- Public transport interchange in central Leicester can be poor due to the distance between London Road railway station, Haymarket and St. Margaret's bus stations. Note that a major scheme to provide new bus termini and bus routings in Leicester is being supported by regional agencies.
- Due to the rising costs of fuel, staff and vehicle insurance costs, car travel is becoming cheaper relative to travel by rail or bus. However, bus travel still offers good value for money for many journeys, especially between major settlements.

8.145 **Parking**

- Availability of retail and employee parking (generally). In a recent business survey, only 12% of companies said that car parking for employees was a concern, although this figure did rise to 20% of companies based in Leicester City. Similarly, only 13% of companies said that car parking for their customers was a concern, a figure that again rose to 20% of companies based in Leicester City.

Journey Time Reliability

8.146 **Traffic Congestion**

- There is spare capacity on some strategic road corridors, e.g. A46, M69.
- Severe peak period traffic congestion on Leicester's arterial roads and ring roads (and M1 Junction 21) currently hinders commuting (including by bus) and business efficiency/deliveries. In the future, this could hinder the delivery of new growth and the attraction of new businesses (although as we saw earlier, relatively few businesses recently surveyed

expressed concern regarding transport issues causing a concern for either their employees or customers getting to and from their premises). Average speeds in central Leicestershire are 15.5 mph in the morning peak – the second slowest in England behind Manchester. It has been estimated that, across the Three Cities area, 0.7% of GVA (or £251 million) is lost to congestion each year[44]. Traffic congestion is the biggest transport-related concern to businesses in the HMA, although transport-related concerns are relatively low compared to other issues[45].

- Peak period congestion in County towns, particularly Loughborough and Melton Mowbray due to restricted road layouts, could hinder the performance of local businesses. Congestion in other centres, such as Blaby and Hinckley, will become an issue due to anticipated growth. However, plans for the Inner Relief Road / Eastern Gateway should relieve central area congestion in Loughborough.
- Some inter-urban traffic congestion at peak times limits connectivity (e.g. the M1 southbound approaching Junction 21, M1 Junctions 23a to 24a (including A6, A50 and A453) and A6 between Leicester and Loughborough, A14 at M1 Junction 19 and in the Kettering area south of the HMA).

8.147 **Non-recurrent Highway Delays**

- The HMA has relatively low accident rates compared to the national average, reducing the incidence of non-recurrent delays on the road network.
- Illegally parked vehicles affect delivery schedules to high streets.

8.148 **Rail Punctuality**

- Capacity and operational constraints on the rail network, affects performance in various locations on the Midland Mainline, including the Leicester area. Local constraints on performance include:
    - reduction to three tracks north of Sharnbrook Junction, and two tracks north of Kettering
    - speed differentials between East Midlands Trains and freight services between Bedford and Wigston Junction
    - conflicting moves at Wigston Junction[46]
    - platform congestion at Leicester station

[44] Atkins for emda (2007) Economic Costs of Congestion in the East *Midlands Study Report.* The study also estimated that 1.05% of GVA is lost to congestion in Central Leicestershire.
[45] Leicester and Leicestershire Business Survey, Winter 2009/10
[46] Network Rail (2009) East Midlands Route Utilisation Strategy *Draft for Consultation*

- The planned East Midlands re-signalling would improve line speeds and performance. The East Midlands Route Utilisation Strategy also proposes a number of other enhancement schemes including train lengthening, line speed improvements between Leicester and Loughborough and between Nottingham and Leeds.

8.149 **Bus Punctuality**

- Bus service punctuality is broadly at levels found elsewhere, although the punctuality of higher frequency services in central Leicestershire is worse than in the rest of the region. Increasing amounts of bus priority offer greater reliability and journey time advantage over car travel.

Network Coverage

8.150 **Highway Network**

- There is good road access to most established business parks and development land.
- Good connectivity from Leicester by road generates agglomeration benefits (although localised congestion hotspots on the road and rail networks may offset some of these benefits)[47].

8.151 **Rail Network**

- Good connectivity from Leicester by rail to Loughborough (360,000 passengers per annum (ppa)), Derby (rail 210,000 ppa) and Nottingham (rail 570,000 ppa) generates agglomeration benefits[48]. Rail journey times, especially to Nottingham, could however be improved.
- There are rail connections from most of the market towns (Loughborough, Market Harborough, Melton Mowbray, and Oakham in Rutland), together with Hinckley, Syston, South Wigston, etc., to Leicester, although some services are rather limited. The absence of rail connections to towns in North West Leicestershire, such as Coalville and Ashby-de-la-Zouch, presents a further weakness in this area of the HMA.
- Rail access to East Midlands Airport has improved with the opening of East Midlands Parkway station, although the station is some six miles from the Airport, so connecting bus services are needed, and the rail service is relatively limited (2 trains per hour). Skylink bus services, however, offer relatively frequent connections from the three cities to the airport and elsewhere.

[47] Network Rail, East Midlands RUS Emerging Issues Presentation 2008
[48] Network Rail, East Midlands RUS Emerging Issues Presentation 2008

- The transfer of the Eurostar terminus to St. Pancras offers an excellent interchange for rail journeys from the HMA to the continent. A journey from Leicester to Paris can now take as little as three and a half hours.
- Rail freight clearance on the Cross Country route (Nuneaton to Peterborough via Leicester and Melton) is currently only to W7 gauge. Network Rail plans to increase this to W8 gauge by 2013/14 to allow larger 9'6" containers and is considering further enhancement of some lines to W10 gauge to allow for deep-sea containers to pass from the southern ports to and through the East Midlands on standard wagons.
- There is insufficient rail freight capacity between Bedford and Syston, and on the Cross Country route. These sections typically have 20-30 freight trains per day.
- There is no rail terminal in the HMA (combining large-scale inter-modal facilities and rail-connected warehousing), limiting transhipment between road and rail. Magna Park is not on the rail network.
- There is insufficient parking at Leicester station to meet demand. However, providing additional parking capacity in central Leicestershire is contrary to sustainable transport policy and would result in additional congestion on the roads around the station.
- The limited geographical coverage of local rail passenger services restricts opportunities for promoting mode shift to rail for journeys to central Leicester.

8.152 **Bus Network**

- A dense network of high frequency bus services in Leicester, many of which utilise an increasing amount of bus priority features and utilise the StarTrak passenger information and vehicle tracking system. Comprehensive county town bus services and inter-urban services linking the county towns, Leicester and East Midlands Airport.
- Relatively good weekday daytime bus access to central Leicester (83% of 16-74 year olds in the HMA have access to employment on foot or by public transport)[49]. Leicester has the second-lowest car mode share for journeys to work in the East Midlands (at 66%) and the highest number of bus trips per capita (63 per annum).
- At least 95% of Leicestershire's population are within access of at least hourly bus services.
- Demand-responsive transport services to serve the most rural parts of the County providing access to key services, although they generally

[49] DfT Core Accessibility Indicators 2008

run outside the traditional commuting times and are therefore of less benefit in terms of access to employment.

- There is often limited access by bus to centres of employment outside central Leicester (such as business parks).
- Limited or non-existent public transport provision to the most rural communities limits access to employment and training, although only 5% of residents in the HMA do not have access to an hourly or better bus service.
- Over one in three rural businesses rate employee travel to work by public transport as a concern compared to only 16% in urban areas, whilst one in five rural businesses expressed concern regarding customer access to their premises by public transport compared to only 8% in urban areas[50]. Figure 8.11 confirms that most of the population, based in the city and larger towns, have access to public transport. However, a large proportion of the rural area, albeit representing a small proportion of total population, has no access to public transport whatsoever.
- Evening and weekend bus services are less frequent than at other times as patronage is lower than at other times, making the services less commercially viable. This is particularly problematic for employees working shifts. Availability of late evening and early morning bus services is the biggest business concern relating to public transport with one in five companies expressing concern, higher in rural areas. Nearly half of all companies in the HMA have no staff who travel to work by public transport[51].
- East Midlands Airport provides access to international markets and suppliers. It is also vital for the express freight industry in the region.

8.153 **Other Issues**

- There are few opportunities to develop the role of water-borne freight in the HMA due to lack of navigable rivers/canals and wharves.

Journey Comfort

8.154 **Rail Crowding**

- Rail crowding is not currently high relative to other areas, although it could increase in the future.

[50] Leicester and Leicestershire Business Survey, Winter 2009/10
[51] The Leicester and Leicestershire Business Survey, Summer 2009 found that in 46% of companies, no employees travel to work by public transport and in 54% of companies, at least 75% of staff travel to work by car.

- Opportunities for additional rail capacity to London are restricted by the section from Bedford to St. Pancras and to the number of platforms at St. Pancras itself. Train lengthening offers the only real opportunity to provide additional capacity to the capital.

8.155 **Public Transport Quality**

- The image and punctuality of public transport into central Leicester could be improved, especially for commuting. There is a long-held aspiration for a tram system for Leicester and for enhanced interchange arrangements to provide additional capacity for travel to the city centre and to attract car users onto public transport. The cost of bus travel can act as a barrier for those seeking employment.

Safety and Security

8.156 **Road Accidents**

- There have been marked improvements in road safety across the HMA over the last 10-15 years, in particular in the County where key indicators are typically above the English average.
- The rate of reduction of road accident casualties is lower in Leicester than in the County, although casualties in Leicester only account for approximately a quarter of all killed or seriously injured casualties across the HMA. The casualty rate per million vehicle kilometres is approximately three times as high in the City as in the County.

8.157 **Personal Security**

- National research suggests that crime levels on public transport are low. However, crime, and fear of crime, is seen as a deterrent to walking, cycling and use of public transport, particularly amongst women, the young and the elderly.

Summary SWOT

8.158 The evidence gathered has been summarised and presented in a SWOT analysis.

8 SWOT Transport

Strengths	Weaknesses
• Strategic location on national road network. • Good road access to peripheral business parks and development land • Delays on strategic road network less severe than regionally / nationally • East Midlands Airport – access to international markets / freight distribution. • Frequent, high speed rail services to London (and on to Europe) • Rail services to most County towns and East Midlands Parkway serving the Airport. • Good daytime bus network, especially in central Leicestershire, rural Leicestershire and inter-urban routes • Increasing levels of bus priority, bus information and park & ride • Relatively low, and falling, road accident rates	• Peak period traffic congestion in Leicester – arterial routes / ring road / M1 Junction 21 • Peak period congestion in County towns, particularly Loughborough and Melton Mowbray • Peak period congestion on some inter-urban routes limits connectivity (i.e. A6 between Leicester and Loughborough, A14 at M1 Junction 19, A6 / A50 / A453 at M1 Junctions 23a-24a) • Limited bus access to employment centres outside of the core urban areas • Poor evening and weekend bus services adversely affect access to employment (doesn't accommodate unsociable working hours) or night-time leisure services • Poor public transport competitiveness with the car – particularly for orbital and cross city movements • Poor rail accessibility to some key centres outside the region (Manchester / Birmingham / Leeds) • Low rail speeds to Nottingham / Birmingham • Modest local rail network with relatively infrequent services • Public transport interchange in Leicester • Capacity and operational constraints on the Midland Mainline and rail freight routes • No rail freight terminal in HMA
Opportunities	**Threats**
• Access to strategic road network is attractive for distribution, manufacturing, logistics sectors / movement of freight • Relatively short journey to work offers opportunity for behavioural change in reducing congestion and CO2 emissions through promotion of walking and cycling for shorter trips • Spare capacity on some key road corridors (e.g. A42, M42) • Planned enhancements of the Midland Mainline • Potential to develop a range of innovative DaSTS interventions through regional studies, Local Transport Plans and Local Development Frameworks that will foster more sustainable travel patterns and reduce economic costs • Rail crowding is not yet an issue on most services.	• Increasing vehicle kilometres and traffic flows will lead to higher emissions and worsening congestion, reducing journey time reliability for cars, freight and bus services • Increasing demand for travel due to economic, employment and housing growth • Growth in car travel as it becomes cheaper relative to public transport • Some businesses perceive a lack of parking for customers and employees as a factor affecting business desire to locate in Leicester City • Anticipated cuts in transport investment funding of up to 30% may affect ability to fund the transport infrastructure needed to support sustainable housing and economic growth • Cost of travel can act as a barrier to population accessing employment and training • Gaps in rural public transport services may affect people's ability to find jobs or access education and training opportunities • Growth in the quantity and size of HGV traffic generated from economic activity may contribute to worsening congestion