



Halton LTP3 Evidence Base Review

Update 2011

March 2011

Halton Borough Council



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Executive Summary

This Evidence Base Review provides a summary of the primary issues facing Halton's transport networks, based on available evidence.

Halton shares many of the transport challenges faced by other UK Boroughs and the UK as a whole. However, it also has a particular set of geographical and economic circumstances which give rise to different issues and unique opportunities for transport to contribute to the Borough's well-being.

Aligned with the Department for Transport's Local Transport Plan 3 guidance, this report examines a wealth of local data and information and identifies key challenges and opportunities for the Borough of Halton. The following tables summarise the primary issues identified in each of the topic areas.

These findings should be read in conjunction with:

- Halton's LTP3;
- Merseyside's LTP3 & Evidence Base Review;
- Parallel work on the new Liverpool City Region Transport Model, identifying critical pressures on the network; and
- Progress reporting of LTP2.

Summary of Primary Issues by Topic Area

Demographic and Socio-Economic Trends	
Topic Area	Challenges and Opportunities
Accessibility to employment opportunities and higher/further education	Providing readily available and accessible transport services to facilitate access to employment opportunities for all, and the development of a higher skilled local workforce.
Population and economic growth	Ensuring quality local transport systems which contribute to an offer that secures both inward migration and investment.
Accessibility for the elderly	Ensuring access to key services and opportunities for the rising elderly population.
Tourism	Offering quality transport solutions to attract and accommodate an increasing number of visitors.
Deprivation	Working to promote social and spatial inclusion – ensuring deprived populations are fully connected to new opportunities.
Health	Halton faces significant health challenges. Transport needs to mitigate against its negative impacts and work to promote a better appreciation of how active travel modes can play a significant part in addressing public health issues.

Environmental Issues and Safety

Topic Area	Challenges and Opportunities
Carbon Dioxide and climate change	The transport sector must play a central role in reducing carbon output and mitigating against climate change effects; ensuring a truly green and sustainable local transport network that facilitates a modal shift away from private car use.
Air quality in AQMA's	The Air Quality Management Area designations on the primary grounds of transport pollutant concentrations need to be addressed to contribute to a healthier local environment.
Rail network	Halton's rail network will provide a low emission mode of transport, in particular the potential electrification of the passenger line through North Widnes would provide pollution free transport at the point of delivery.
Environmental standard of the local bus fleet	Working in cooperation with local bus operators to ensure a greener local bus fleet offers a significant opportunity to reduce public transport pollution.
Maintaining Improvements in Road safety	To continue to achieve local success in reducing road injuries and fatalities there exists a substantial challenge to ensure that rigorous analysis and consistently applied targeted interventions continue to be undertaken. For this to occur successfully will require this area of work to be shielded from the effects of any overall cuts in transport expenditure.

Existing Transport Infrastructure Capacity

Topic Area	Challenges and Opportunities
Congestion performance	Maintenance of journey times on key routes, particularly during peak periods.
Rail network capacity	Continuing demand growth presents capacity challenges to accommodate forecast patronage levels, and secure a growing role for this sustainable mode. Proposed enhancements to the Halton Curve could provide extra capacity and journey opportunities.
Bus capacity	To ensure that network coverage meets changing patterns of demand, is equitable and adequately serves the 'transport disadvantaged'.
Taxi capacity	If this mode can develop its green credentials it could have a more formal role in the future in delivering an integrated public transport system.
New technology	Two key issues that may need to be addressed to assist with transport pressures include high speed broadband internet access facilitating reduced work-related travel mileage (in 2010 only 63% of Halton households had access), and the growing potential for hybrid and electric cars to deliver greener highway capacity. Halton Net is a Digital Inclusion Project offering 160 households from Castlefields and Windmill Hill a free managed internet and computer network facility. This is currently a pilot project that will test the viability and the potential community digital inclusion model, with a view to it being extended across the borough.

Travel Patterns and Trip Rates

Topic Area	Challenges and Opportunities
Rising incomes, car trip making and trip distances	Halton has higher levels of car ownership and availability than neighbouring Merseyside districts. However, with the influence of rising incomes on increased travel demands, there still exists a potential for further rises in car ownership and car usage.
Bus patronage	Challenges remain to continue the increases seen in bus ridership locally. Bus services need to offer a quality, consistent and reliable product that meets the needs, growing expectations and aspirations of the public.
Long distance commuting	Real challenges inherent in the increasing levels of long distance commuting into and out of the area. Addressing the impacts of these choices about locations of people, employment and services demands strong co-ordination with land-use planners.
Encouraging sustainable mode share	Continued pressures on the uptake of sustainable mode usage. This is well illustrated by the modal choices for access to schools where considerable effort has seen only modest changes in modal share.
Car dependency for short distance trips	A significant proportion of trips, particularly work-related trips, made by car drivers are less than 5km. This represents a real and achievable opportunity to target this market for modal shift toward more sustainable and active modes of travel for such journey types.
Walking	Good pedestrian facilities are key to meeting needs of certain population groups.
Cycling	Opportunity to increase levels of cycling, particularly given noted characteristics of relatively shorter journey times and distances travelled by Halton residents.
Ports	A relative resurgence in shipping activity in Liverpool suggests real opportunities to support further growth in this sector. Ensuring land side transport infrastructure is in place is vital. The proposed development of the new port facilities at Runcorn Docks would assist in increasing the modal share of water borne freight.

Connectivity of Existing Networks

Topic Area	Challenges and Opportunities
Sustainable mode networks	Whilst efforts have been made through LTP1 and LTP2 to enhance bus, steel wheel, and cycle network infrastructure there remain significant gaps in quality network coverage. Often the most critical pieces of infrastructure to enhance connectivity are the hardest to implement due to physical constraints in highly built-up areas. Further upgrades to these more difficult network issues represent a big challenge for LTP3.
Affordability	Using new powers from the recent Local Transport Act it is important to make every effort to ensure that access to opportunities and services using sustainable modes is not hampered by affordability constraints.
Network accessibility	Efficient provision of public transport to ensure equality of opportunity. Analysis tools and consideration of innovative intermediate transport solutions must demonstrate value for money in the use of finite resources available to maximise bus network coverage.
Equitable access to education and health services	Ensuring reliable and affordable access to key opportunities, in particular education and health services, for those non-car owning groups that suffer most from social and spatial exclusion.

Stakeholder Views	
Topic Area	Challenges and Opportunities
Maintenance of high quality rail service	There are opportunities to continue to develop the rail service, delivering continued high customer satisfaction levels. This could include electrification of the line serving Hough Green and Widnes Stations.
Improvement to bus quality	A contrasting challenge on the bus network is to raise customer satisfaction levels and meet the increasing needs, demands and aspirations of the travelling public.
Behavioural change	The response of LCR residents to the recent spike in fuel prices suggests that with the right stimulus people can make short term changes, which convert to longer term travel habits. This suggests that shifts to sustainable modes of transport are viable if the right conditions exist.
Business needs	Business relies upon transport, and the provision of efficient commuter systems and business networks is an important challenge to assist business success and the area's economic prosperity.

1. Introduction

1.1 Introduction

This report aims to provide a concise summary of the pressures, challenges and opportunities facing Halton's transport networks and infrastructure as identifiable from the substantial evidence base available.

The original Halton Evidence Base Review report, published in March 2010, was designed to inform the development of Halton's Local Transport Plan 3 (LTP3). This updated version for 2011 includes updates to many of the graphs and figures utilising the latest available data and has been redrafted to enable the document to be utilised as a detailed appendix to Halton's final LTP3 document.

1.2 The Role of the Evidence Base in the Development of LTP3

1.2.1 Challenges & Opportunities

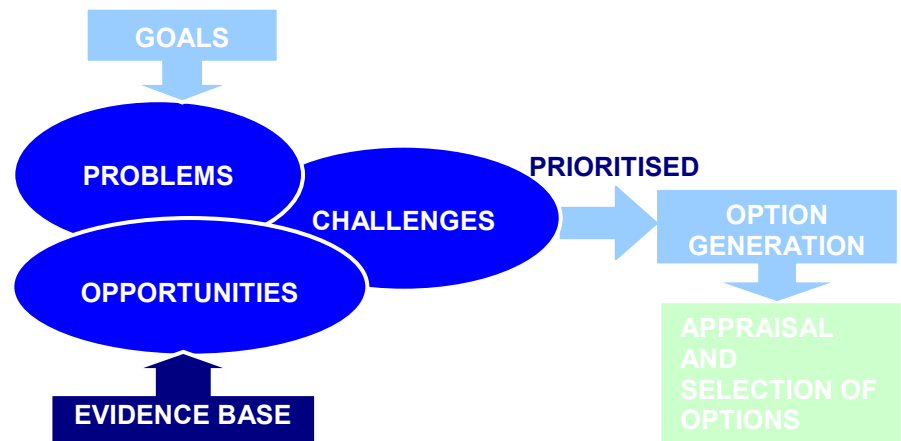
The 'evidence base' consists of a variety of local and nationally collected data measuring transport patterns, travel behaviour and user perceptions. The original Evidence Base Review was used to develop an understanding of the changing transport demands of the public, of the challenges which are likely to be faced and how best to plan for future needs.

The report addressed a recommendation of the Department for Transport's (DfT) LTP3 guidance which states that local authorities should identify problems and priorities on the basis of clear evidence and data, including:

- demographic and socio-economic trends;
- environmental issues;
- economic circumstances;
- existing transport infrastructure capacity;
- travel patterns and trip rates;
- connectivity of existing networks; and
- stakeholder views.

The evidence base was required to form part of the process for 'Developing the Plan' set out in the DfT LTP3 guidance. Figure 1.1 illustrates the role of the evidence base to help distil a well understood prioritised set of problems/challenges and opportunities that face the Borough.

Figure 1.1: Evidence Base and the 'Eddington' LTP Development Process



1.2.2 DaSTS Goals

The other component to achieve this definition of the prioritised challenges and opportunities was a clear statement of the goals of the new Halton LTP. DfT required local authorities to also consider their contribution to national transport goals as over-arching priorities for their LTPs.

A set of five key goals were specified by DfT for 'Delivering a Sustainable Transport System' (DaSTS). These five goals replace the shared priorities of LTP2 guidance, and include:

- support economic growth;
- reduce carbon emissions;
- promote equality of opportunity;
- contribute to better safety, security and health; and
- improve quality of life and a healthy natural environment.

The first two of these goals have emerged as a particular emphasis of the new coalition government.

Working with these goals and emerging local goals, the evidence base was used to provide a sound basis for planning the post 2011 period of the Halton LTP.

1.2.3 The Evidence Base Structure

The Evidence Base is organised around the DfT suggested areas for evidence base compilation, with an additional section summarising progress against LTP2 indicators:

- demographic and socio-economic trends;
- environmental issues and safety;
- existing transport infrastructure capacity;
- travel patterns and trip rates;
- connectivity of existing networks;
- stakeholder views; and
- progress against LTP2 objectives.

1.3 The Continuing Role of the Evidence Base During the Lifetime of LTP3

The evidence base has been developed with a view to it having a continuing role throughout the lifetime of LTP3. Data has been selected where possible from regularly updated nationally and locally collected sets and sources.

The report has been developed to act as a compendium of transport related data in the Halton region; a one-stop-shop to support the continuing LTP3 process, through implementation planning and delivery monitoring.

Regular updates will enable this report to be used to monitor the changes in the region and provide as robust as possible a picture of the developing transport landscape in Halton during the lifetime of LTP3.

2. Demographic and socio-economic trends

2.1 Introduction

This chapter provides a brief summary of the key issues surrounding Halton's economic performance. The focus in this short analysis is on demographic and socio-economic trends that most significantly interact with the remit of the LTP.

2.2 Recession

Whilst the chapter seeks to examine the long-term forces at play in the local economy, at the time of writing it is the impact of the recession that continues to dominate current thinking. Encouraging trends in local unemployment and benefit claimant rates have been affected by the worldwide economic downturn.

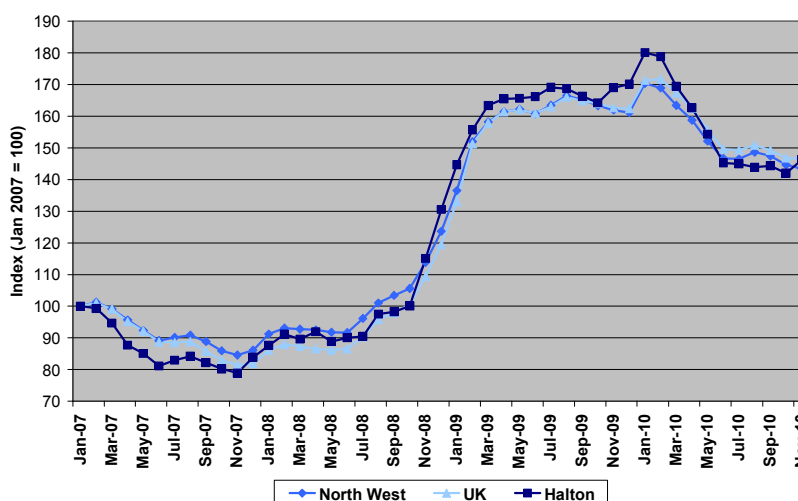
Figure 2.1 illustrates the impact of the recession on Job Seeker's Allowance (JSA) claimants both nationally and regionally.

JSA claimants in Halton increased substantially after July 2008 and reached a peak in January 2010 (rising roughly 90% in that time). This trajectory broadly followed that of both the North West and the UK, though it peaked higher in Halton.

The number of claimants has subsided considerably since March 2010 (by roughly 33%), though levels are still considerably higher than prior to July 2008.

This short-term contraction in the economy is likely to place new challenges on the local transport network. Ensuring that transport supports access to employment centres and opportunities is likely to have renewed importance.

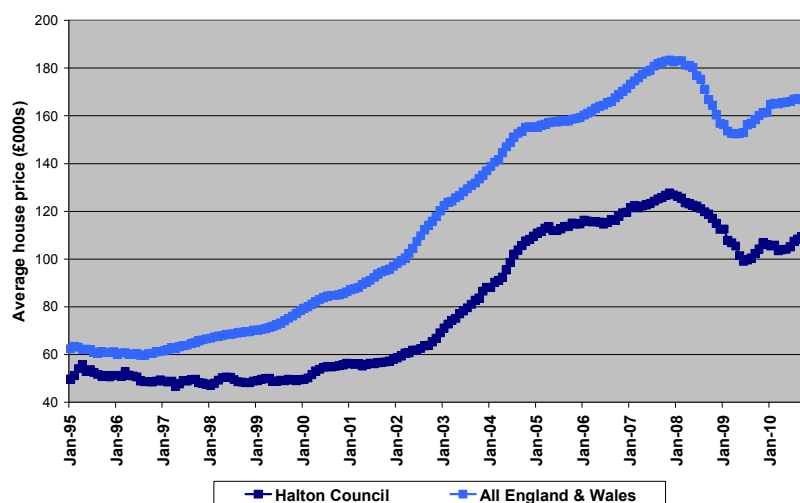
Figure 2.1: Total JSA Claimants by Region 2007-10 (Indexed to Jan 2007)



Source: ONS Claimant Count

Figure 2.2 shows a fall in average house prices both nationally and regionally between 2008 and 2009. House prices fell by 16% across England & Wales and 20% in Halton between April 2008 and July 2009. Since mid 2009 and throughout 2010 however there have been signs of house prices beginning to recover.

Figure 2.2: Average House Prices (£000s) for Halton Council and England & Wales 1995-2010



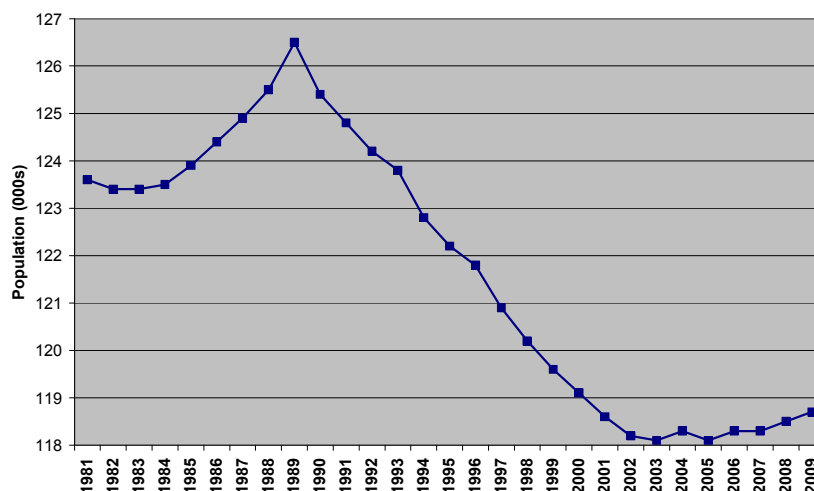
Source: Land Registry House Price Index

Information in following sections also illustrates the impact of the recession on employment and economic activity, but also shows a more general context of rising levels of employment and economic performance.

2.3 Population

Figure 2.3 shows that between 1989 and 2002, Halton experienced a 6.4% fall in population. However, since 2006, Halton's population has slowly begun to increase approaching levels recorded in 2000.

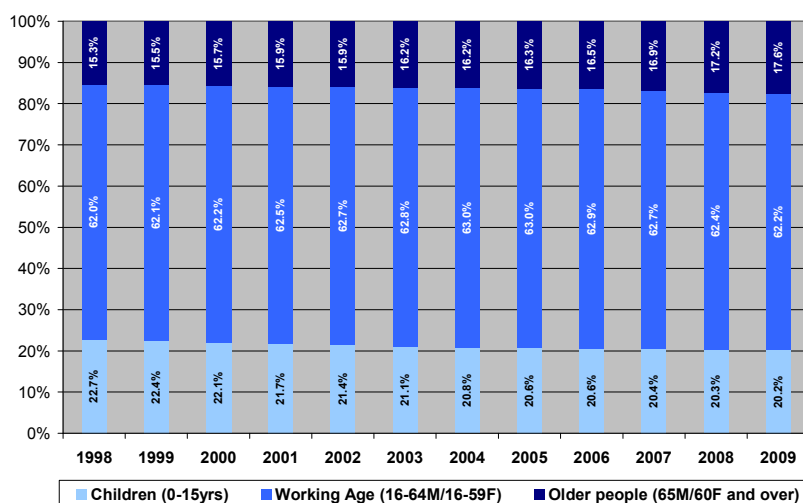
Figure 2.3: Halton Population 1981-2009



Source: ONS Midyear Population Estimates

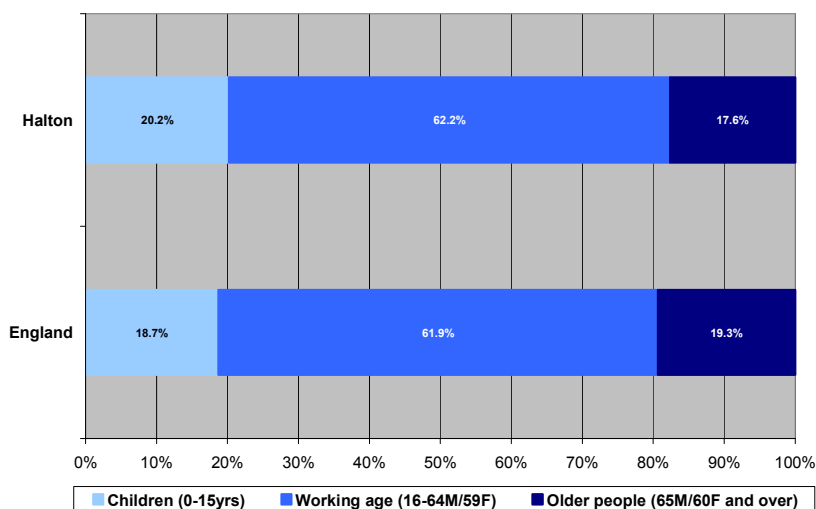
Figure 2.4 shows that the proportion of Halton's population over retirement age has increased by 2.3% since 1998. However, the most recent mid-year population estimates for 2009 show that a lower proportion of Halton's population is over retirement age compared with the national average (see Figure 2.5). An aging population will place further challenges on local public transport systems and concessionary travel; ensuing accessibility for the elderly across all transport modes in the Borough will become increasingly important.

Figure 2.4: Halton Population by Age Group 1998-2009



Source: ONS Midyear Population Estimates

Figure 2.5: Mid-2009 Population Estimates by Age Group

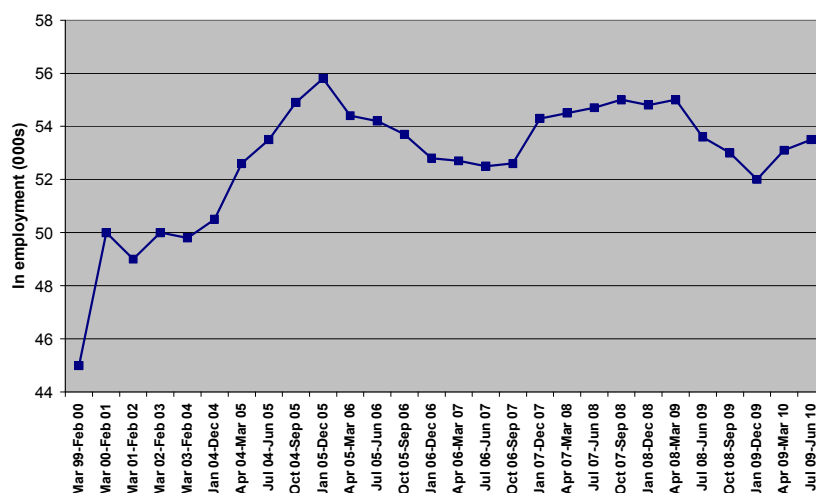


Source: ONS Midyear Population Estimates

2.4 Employment growth

Figure 2.6 shows encouraging signs that the recent fall in employment figures since Apr 08-Mar 09 may be being reversed.

Figure 2.6: Halton Employment 1999-2010



Source: ONS Annual Population Survey

Note: Numbers are for those aged 16 and over

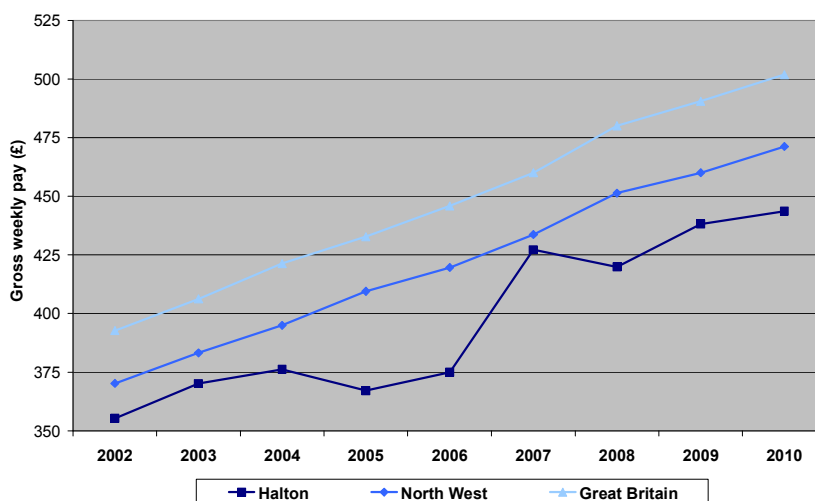
2.5 Pay and productivity

Economic performance is measured in numerous ways and changes in employment levels can mask important trends in the performance of the Borough's economy. A number of further measures are explored below and illustrate that Halton has experienced sustained growth in productivity and wealth.

2.5.1 Pay

Full-time gross weekly pay in Halton has increased largely in line with that of the North West and Great Britain (see Figure 2.7). However, pay in Halton has consistently been below that of the North West and Great Britain median, approximately 5% and 11% lower respectively. Therefore there is less income to spend on transport.

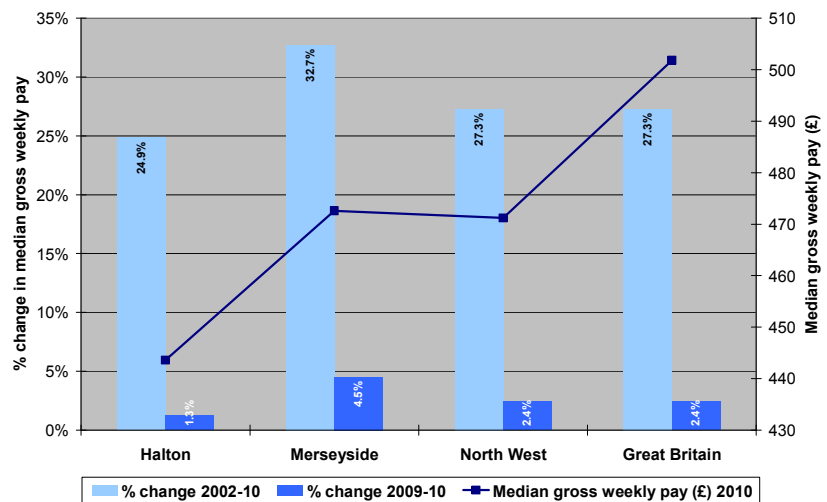
Figure 2.7: Median Gross Weekly Pay (all full-time workers) by region 2002-10



Source: ONS Annual Survey of Hours and Earnings - Resident Analysis

Between 2009 and 2010 Halton experienced the smallest increase (1.3%) in gross weekly pay for full-time workers compared to Merseyside, the North West and Great Britain (see Figure 2.8). Median gross weekly pay in Halton (£444) remains lower than in Merseyside (£473), North West (£471) and Great Britain (£502).

Figure 2.8: Median Gross Weekly Pay (all Full-time Workers) by Region 2010

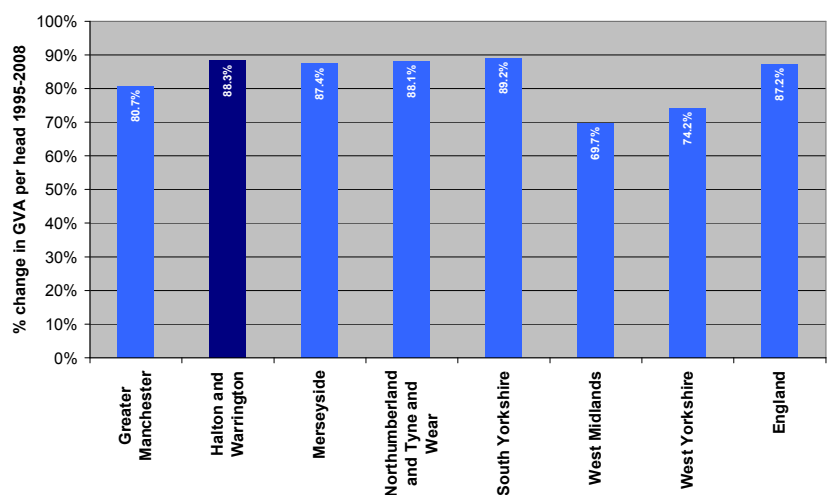


Source: ONS Annual Survey of Hours and Earnings - Resident Analysis

2.5.2 Productivity

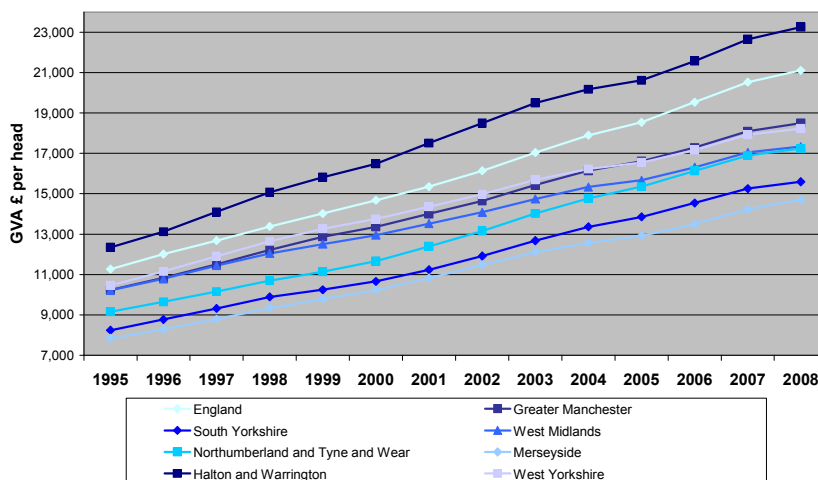
Between 1995 and 2008, Halton and Warrington experienced an 88.3% increase in gross value added (GVA) per head (from £12,347 to £23,255), slightly exceeding growth on Merseyside (see Figure 2.9). Figure 2.10 shows that Halton and Warrington outperform the national average in terms of GVA per head.

Figure 2.9: % Change in GVA Per Head by Region 1995-2008



Source: ONS Annual Survey of Hours and Earnings - Resident Analysis

Figure 2.10: GVA Per Head by Region 1995-2008

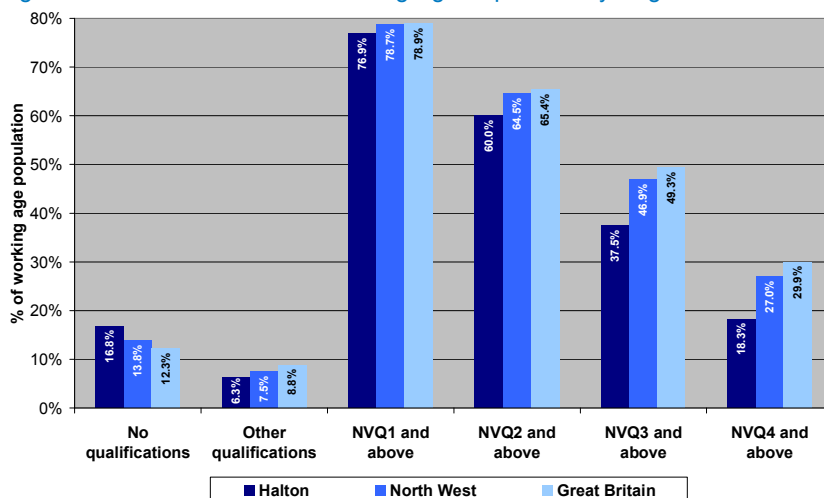


Source: ONS Annual Survey of Hours and Earnings - Resident Analysis

2.6 Qualifications

A larger proportion (16.8%) of Halton's working age population has no formal qualifications in comparison to the North West (13.8%) and Great Britain (12.3%) (see Figure 2.11). Less than a fifth (18.3%) of the working age population in Halton possess 'NVQ4 and above' qualifications, whereas 27% and 29.9% of the North West and Great Britain population respectively, hold such qualifications. Ensuring that lack of public transport provision does not act as a barrier to pursuing further education is essential to the development of a higher skilled local workforce.

Figure 2.11: Qualifications of Working Age Population by Region 2009



Source: ONS Annual Population Survey

Note: % is a proportion of resident working age population of area

2.7 Halton Tourism Strategy 2009

Halton's tourism vision for 2015 is to attract an increasing number of day visits to the Borough, thereby contributing substantially to the local economy. Areas astride the new bridge corridor have opened up opportunities for key complementary investment in leisure facilities and employment including an ice skating rink and smaller leisure and retail developments.

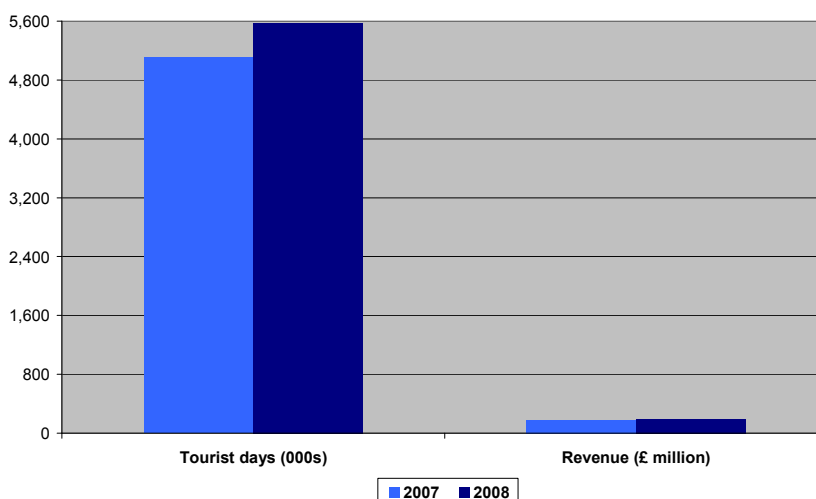
Halton's leisure and tourism industry now competes with neighbouring boroughs in terms of economic delivery, employing some 3,000 full-time equivalent (FTE) jobs and contributing over £200m to the local economy, making it one of the Borough's major employers and economic drivers.

Objectives of the Tourism Strategy 2009 include:

1. To place the visitor experience at the heart of tourism activity;
2. To increase the day visitor numbers to 6 million by 2015 by providing quality graded facilities, attractions and accommodation for the visitor;
3. To increase the day visitor spend to £130m by 2015;
4. To promote Halton to its residents and visitors as a destination of variety and uniqueness;
5. To organise, promote and aid major events and investigate new ideas for future events; and
6. To work in partnership with other organisations to promote and encourage visitors to Halton.

Figure 2.12 shows that between 2007 and 2008, Halton experienced a 9.2% increase in the number of tourism days; and a 7.2% increase in revenue generated from tourism.

Figure 2.12: Number of Tourism Days and Revenue for Halton 2007-08



Source: STEAM

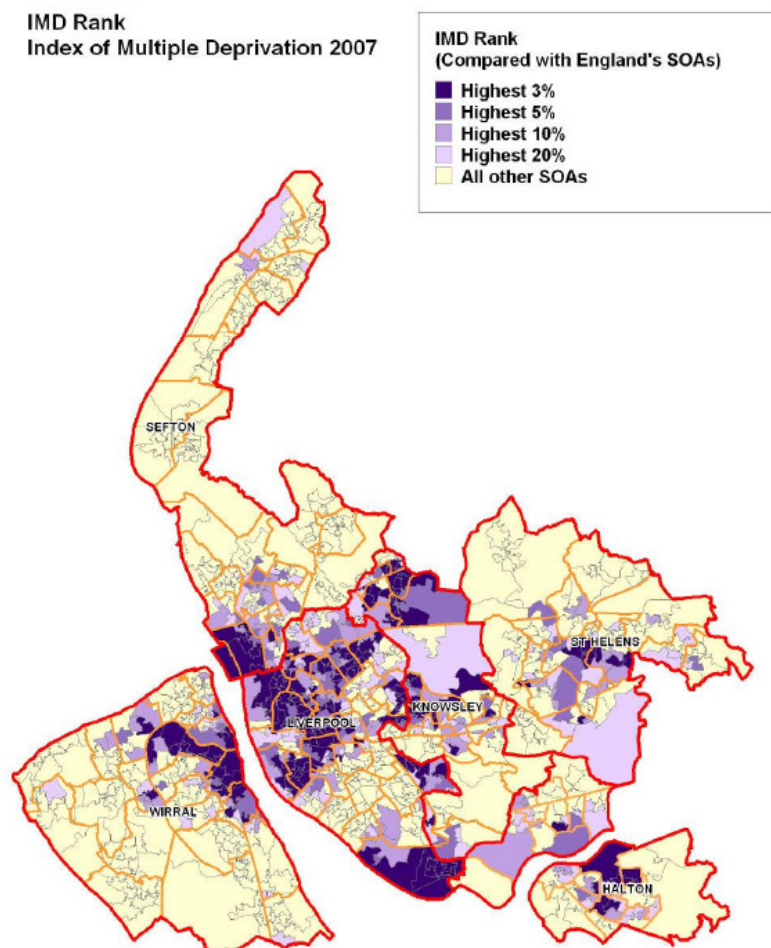
The transport needs of visitors and tourists are characteristically different to those of residents and workers, and the desired continued growth in leisure and tourism industries places new and increasing challenges on local transport networks. Transport must play a key role in responding to these needs, but also in driving growth as part of a quality experience for visitors.

2.8 Deprivation

Figures 2.13 and 2.14 show the Index of Multiple Deprivation (IMD) 2007 rank for Greater Merseyside's Super Output Areas (SOAs), including Halton. The IMD combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score for each Lower Super Output Area (LSOA) in England. This allows each area to be ranked relative to one another according to their level of deprivation.

Several LSOAs in Halton are within the highest 3% of most deprived LSOAs in England.

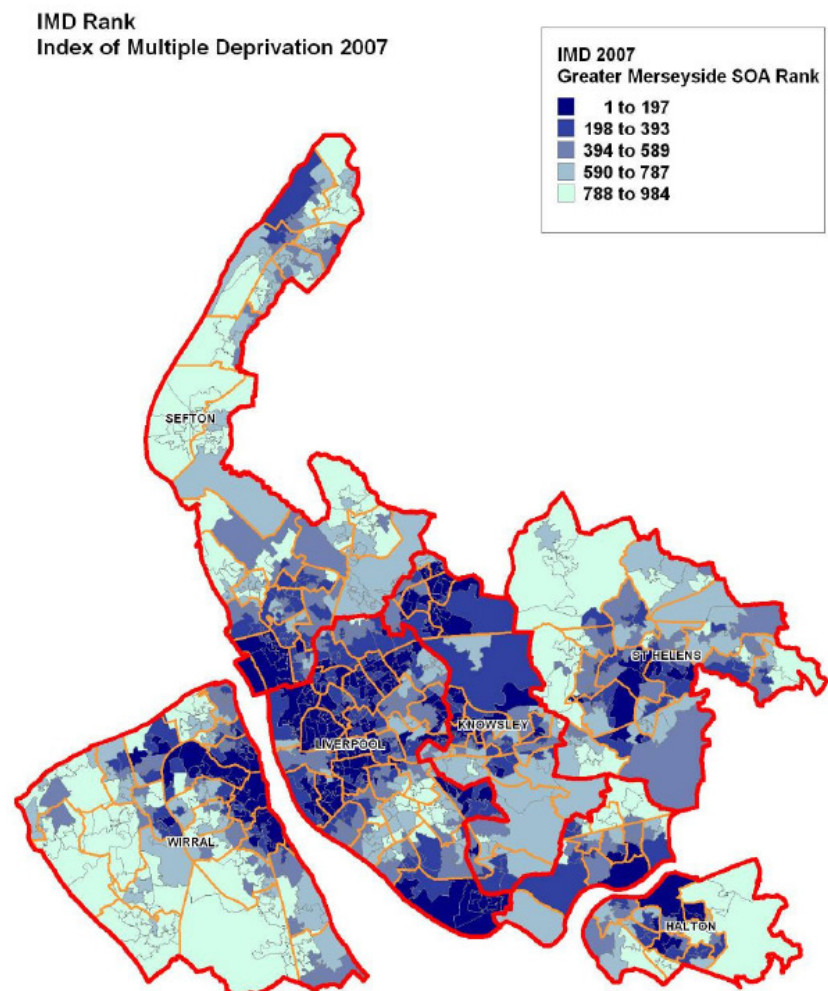
Figure 2.13: IMD 2007 Rank for Greater Merseyside's SOAs Compared with England's SOAs



Source: Index of Multiple Deprivation 2007

Areas of deprivation tend to have particular transport characteristics associated with them, namely low car ownership, low travel horizons, and poor accessibility to key services and opportunities. An accessible and inclusive local transport system is essential to facilitate mobility and social inclusion for such areas.

Figure 2.14: IMD 2007 Rank for Greater Merseyside's SOAs



Source: Index of Multiple Deprivation 2007

2.8.1 Halton Vitality Index 2010

The Halton Vitality Index (HVI) is a new index which has been developed by Halton Council's Research & Intelligence Unit to enable monitoring of deprivation at a neighbourhood level.

While the National Index of Multiple Deprivation (IMD) is a useful tool, there are some limitations:

- It is not updated on a regular basis – the last being published in 2007 and there are no plans to publish a new one.
- The data used is often out of date – for example in the 2007 IMD the data used often refers to 2005.
- The changing methodology and data sources make it difficult to measure changes over time.

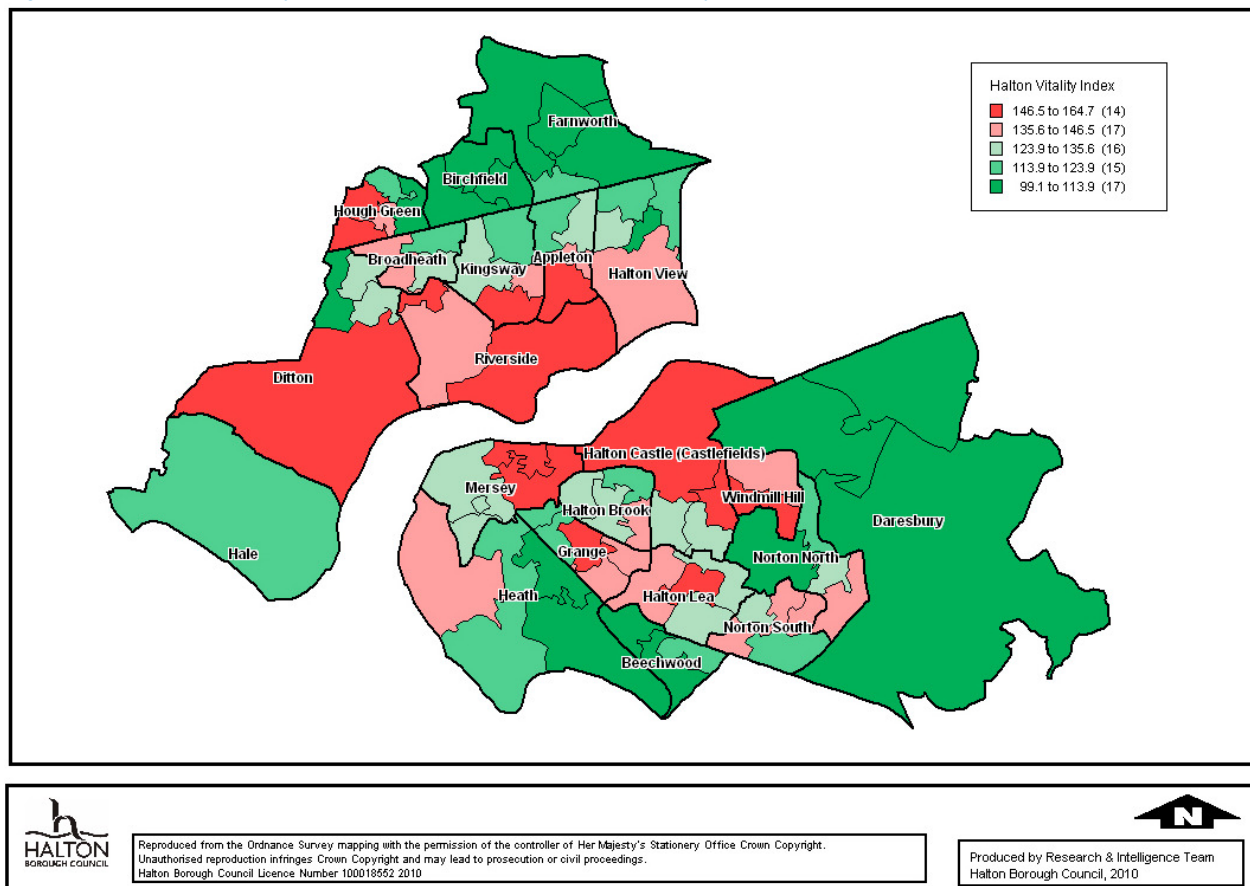
The HVI is based on a project by the Tees Valley Joint Strategic Unit and uses a methodology which has been developed and tested by their team. The work by Tees Valley has been very successful and identified as best practice by the Audit Commission.

The index uses 13 indicators covering: housing, unemployment and income, community safety, education, health and sustainable communities. Indicators were chosen based on the following criteria:

- An overall aim to include a limited number of indicators covering a range of relevant issues
- That data should be available at a significant level to enable small area (i.e. Lower Super Output Area) comparisons
- That data should be easily available to the Research & Intelligence unit
- The indicators used should be updated at least annually

Figure 2.15 shows the scores for the Lower Super Output Areas (LSOAs) across Halton from the latest Halton Vitality Index (May 2010). The red areas are the more deprived areas according to the HVI whilst the dark green areas are the least deprived.

Figure 2.15: Halton Vitality Index scores for LSOAs in Halton, May 2010



Source: Halton Vitality Index 2010

Halton Castle (Castlefields) ward contains the most deprived LSOA whilst Birchfield ward contains the least deprived LSOA.

The HVI has been monitored on a quarterly basis since May 2009. Table 2.1 shows how the 10 most deprived LSOAs from the latest HVI have changed in rank from the HVI in May 2009.

Table 2.1: The 10 most deprived LSOAs from the HVI: May 2010 & May 2009 Comparison (Rank: 1 = most deprived)

LSOA	Ward	HVI Rank (May 2010)	HVI Rank (May 2009)
E01012381	Halton Castle (Castlefields)	1	1
E01012382	Halton Castle (Castlefields)	2	6
E01012424	Kingsway	3	4
E01012367	Appleton	4	2
E01012441	Riverside	5	3
E01012422	Hough Green	6	14
E01012391	Ditton	7	5
E01012430	Mersey	8	10
E01012442	Riverside	9	20
E01012444	Windmill Hill	10	13

Source: Halton Vitality Index 2010

The most deprived LSOA in Halton has remained the same over the last 12 months according to the HVI. A range of factors appear to contribute to this, including high levels of unemployment and Anti-Social behaviour and poor GCSE pass rates. However, the largest contributory factor appears to be the Housing theme with particularly high levels of long-term vacancy (about 1 in 10 households has been vacant for over 6 months).

When looking at how areas within Halton have changed over the last 12 months:

- The most improved LSOA over the period is E01012388 in Ditton ward which improved from a rank of 22nd most deprived (out of 79) in May 2009 to 44th most deprived in May 2010. This is largely due to improved GCSE pass rates and a reduction in crime rates.
- The least improved LSOA over the period is E01012436 in Norton South ward which fell from a rank of 38th most deprived (out of 79) in May 2009 to 23rd most deprived in May 2010. This is mainly due to an increase in the number of burglaries and a worsened standard mortality ratio in 2010.

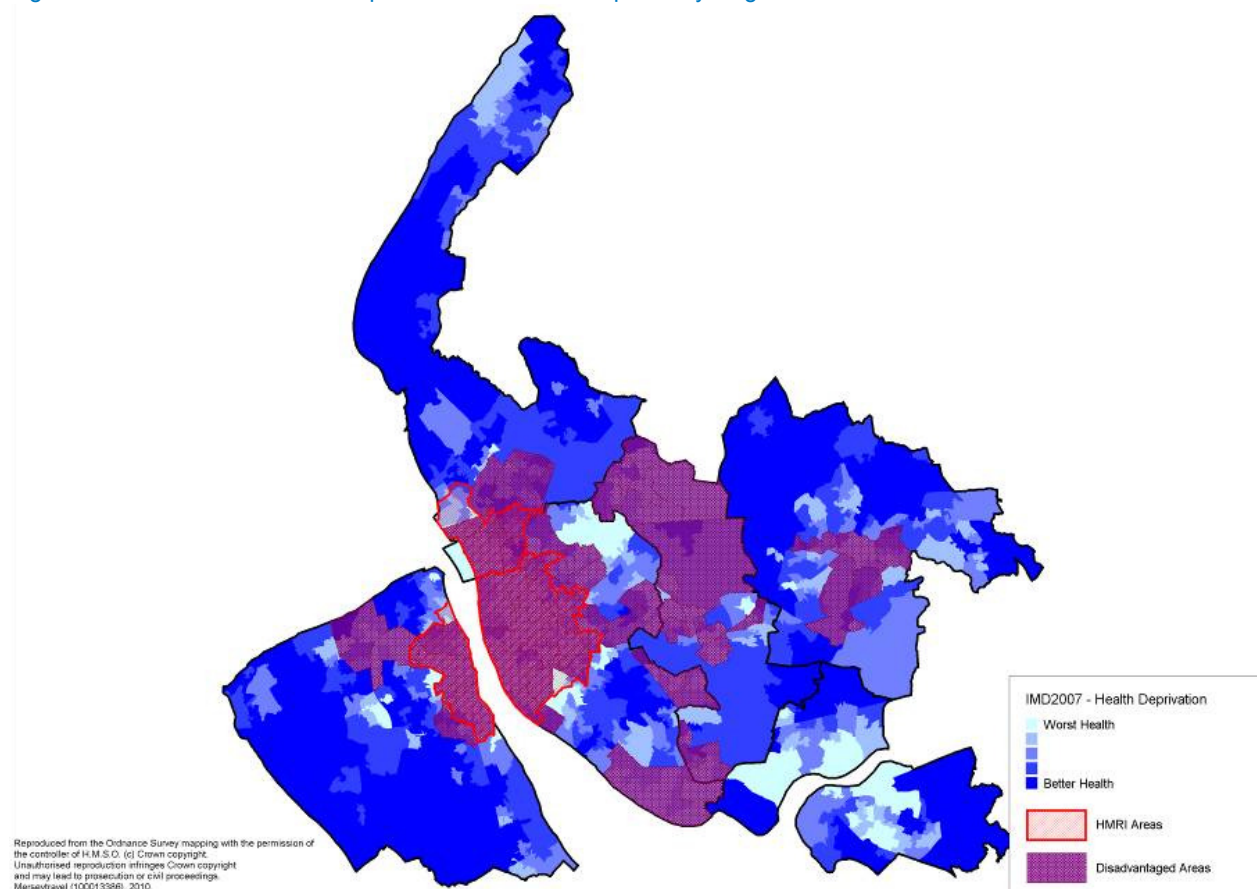
It is important to note the HVI is different to the IMD and whilst the two have been compared by the Research and Intelligence Unit to test whether the HVI looks plausible, the HVI and IMD should not be directly compared.

2.9 Health

Transport has the potential to be both a positive and negative influence on people's health. Fossil fuel powered modes can emit high levels of pollution causing adverse impacts on the health of local communities. Section 3.1 discusses the designated Air Quality Management Areas (AQMAs) that have been declared to address these issues. Figure 2.16 illustrates the areas within the Liverpool City Region (LCR) where health issues are most acute.

Equally, regular walking and cycling can reduce people's risk of illness and disease. Physical activity can make a significant contribution to maintaining personal health and wellbeing. In the UK approximately 36% of people die from cardiovascular disease (CVD), notably coronary heart disease (CHD) and stroke. Statistics show that inactive and unfit people have almost double the risk of dying from CHD compared with more active and fit people (Sustrans, 2008).

Figure 2.16: Indices of Health Deprivation 2007 for Liverpool City Region



Source: Index of Multiple Deprivation 2007

Table 2.2 shows that Halton has significantly higher levels of coronary heart disease than in the North West and England.

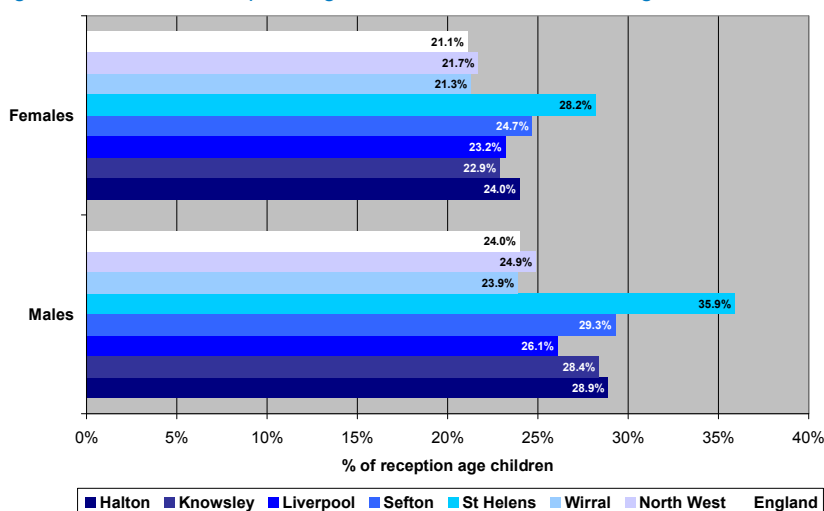
Table 2.2: Coronary Heart Disease Hospitalised Incidence Index 2003/04-2007/08

Area	Coronary heart disease hospitalised incidence index 2003/04-2007/08
Halton	154.65
Knowsley	175.09
Liverpool	135.61
Sefton	113.05
St. Helens	138.88
Wirral	118.75
North West	116.56
England	100.00

Source: North West Public Health Observatory

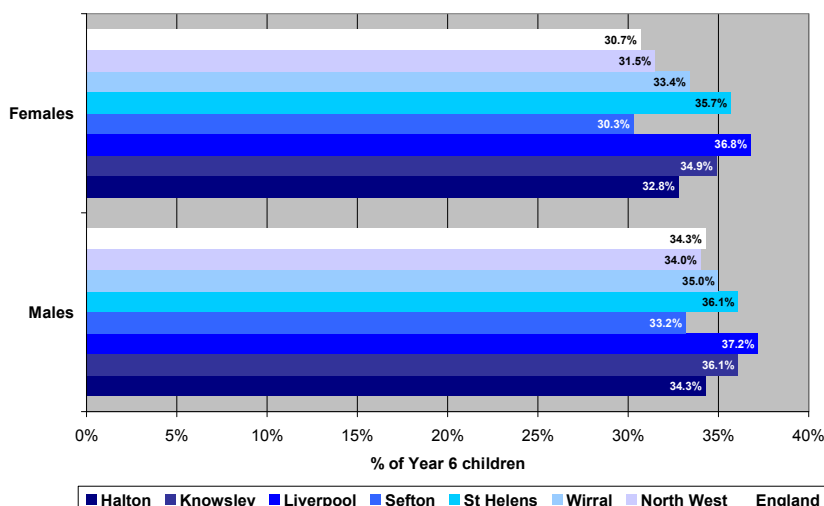
Another key health issue facing the Borough and indeed the UK as a whole is childhood obesity. Figures 2.17 and 2.18 show that in most instances Halton has a higher proportion of children classified as obese and overweight than in the North West and England.

Figure 2.17: % of Reception Age Children Obese & Overweight 2008



Source: North West Public Health Observatory

Figure 2.18: % of Year 6 Children Obese & Overweight 2008



Source: North West Public Health Observatory

2.10 Demographic and socio-economic trends: Transport challenges and opportunities

This analysis has provided a brief overview of the complex interactions between the local economy and transport network.

Table 2.3: Transport challenges and opportunities: Demographic and socio-economic trends

Demographic and Socio-Economic Trends	
Topic Area	Challenges and Opportunities
Accessibility to employment opportunities and higher/further education	Providing readily available and accessible transport services to facilitate access to employment opportunities for all, and the development of a higher skilled local workforce.
Population and economic growth	Ensuring quality local transport systems which contribute to an offer that secures both inward migration and investment.
Accessibility for the elderly	Ensuring access to key services and opportunities for the rising elderly population.
Tourism	Offering quality transport solutions to attract and accommodate an increasing number of visitors.
Deprivation	Working to promote social and spatial inclusion – ensuring deprived populations are fully connected to new opportunities.
Health	Halton faces significant health challenges. Transport needs to mitigate against its negative impacts and work to promote a better appreciation of how active travel modes can play a significant part in addressing public health issues.

3. Environmental issues and safety

3.1 Environmental impacts

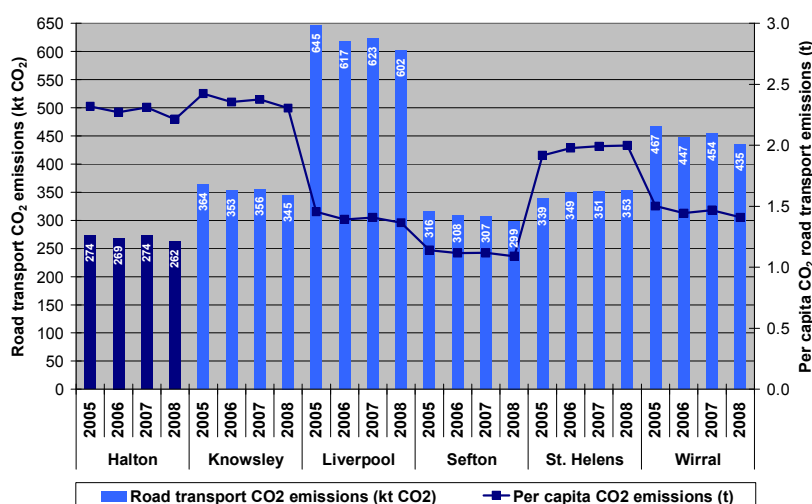
3.1.1 Carbon and climate change

Transport and the demands it places on energy resources, as well as the pollutants the sector emits, are strongly linked to climate change. Global climate change is one of the most significant and complex cumulative effects arising from an accumulation of multiple actions, each of which is of limited impact but together will have serious effects in future years. Acting on transport's role in mitigating against this is an increasing local, national and international priority.

One of the five over-arching national transport goals for LTP3 is to reduce carbon emissions with the identifiable challenge of delivering quantified reductions in greenhouse gas emissions within cities and regional networks, taking account of cross-network policy measures.

Figure 3.1 shows carbon dioxide (CO₂) emissions from road transport for LCR local authorities between 2005 and 2008. Although Halton has the lowest total road transport CO₂ emissions over the period 2005-08, it has the second highest per capita CO₂ emissions from road transport. CO₂ emissions from road transport have remained relatively static across all LCR authorities between 2005 and 2008.

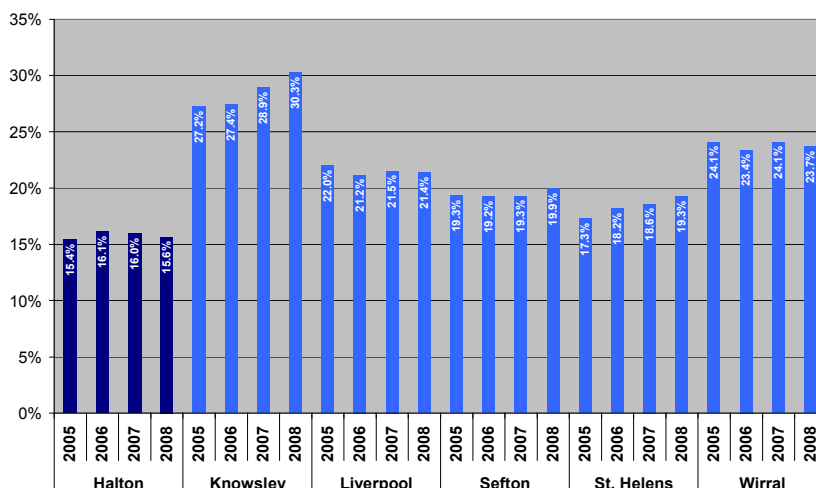
Figure 3.1: Road Transport CO₂ Emissions by Local Authority 2005-08



Source: Department of Energy & Climate Change 2008 Local Authority Carbon Dioxide Figures

In 2008 road transport contributed to 15.6% of total CO₂ emissions in Halton (see Figure 3.2). However, road transport contributes less to total CO₂ emissions in Halton than in any other LCR local authority.

Figure 3.2: % Contribution of Road Transport to Total CO₂ Emissions by Local Authority 2005-08



Source: Department of Energy & Climate Change 2008 Local Authority Carbon Dioxide Figures

3.1.2 Air quality

For the majority of urban areas across the UK, including Halton, the two main air pollutants of concern are nitrogen dioxide (NO₂) and particulate matter (PM₁₀). NO₂ is a component of overall nitrogen oxides (NO_x), and it is levels of NO_x that are considered when estimating emissions.

3.1.2.1 Air Quality Management Areas

Air quality concerns in Halton have led to the declaration of two AQMAs in Widnes town centre, where the annual mean objective for NO₂ is being exceeded (see Figure 3.3). The areas of exceedence include Milton Road, Deacon Road and the junction at Peel House Lane/Albert Road, Widnes. Air quality problems on Milton Road are believed to be due to the volume of traffic accessing the town centre and a supermarket. Houses line the road opposite to the main delivery area, customer car park and a bus stop. There is also a traffic light junction that is often heavily congested. Deacon Road and Albert Road are also affected by traffic accessing the town centre.

NO₂ monitoring in these areas will continue through the use of the existing real-time analyser on Milton Road and the NO₂ diffusion tube network. An Air Quality Action Plan (AQAP) relating to the AQMAs is being prepared and will be submitted to Defra in due course.

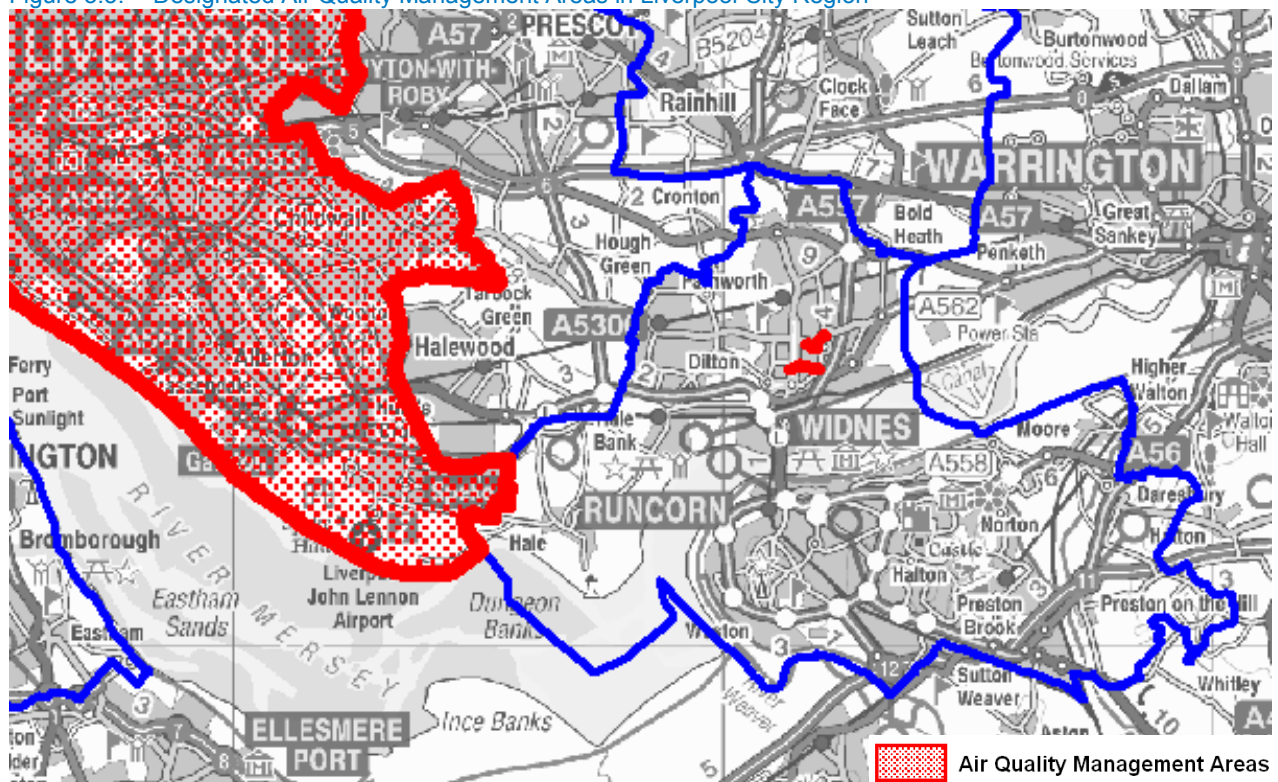
NO₂ diffusion tube monitoring on Greenway Road, Runcorn has been continued and a real-time analyser introduced. The results to date show that it is not necessary to declare an AQMA in this area at this time,

though monitoring will be continued and the results will be subject to further analysis in the future.

Other areas where the annual mean objective for NO₂ is at risk of being exceeded have been identified on Prescott Road and St Michaels Road, Widnes. The diffusion tube network has been extended to cover these areas. It is believed that air quality problems in these areas are also attributed to road traffic.

Although background pollutant levels are slightly higher in Halton than in other areas (possibly attributed to industry), those areas with elevated NO₂ are only found on the busiest roads.

Figure 3.3: Designated Air Quality Management Areas in Liverpool City Region



Source: Merseyside Air Quality Management Group

3.1.2.2 Congestion impacts on air quality

Road traffic congestion is a key issue in relation to air quality. Stop-start driving conditions and slower vehicle speeds resulting from congestion can lead to higher roadside pollutant concentrations, causing greater risk to pedestrians and adjacent residents. Ongoing work examining some of the identified congestion corridors in the LCR aims to quantify emissions impacts of congestion, helping to inform congestion management options for the region.

3.1.2.3 Air quality impacts on health

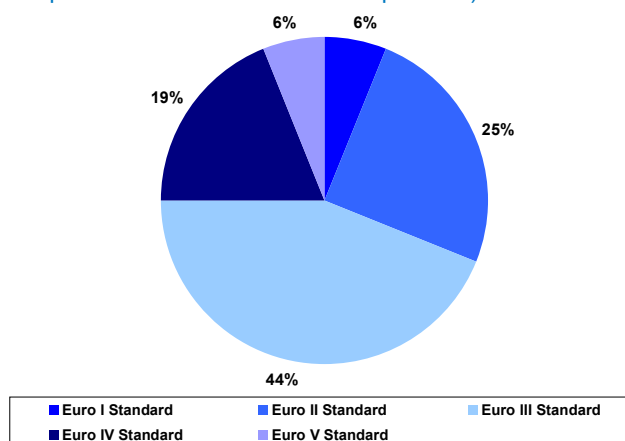
Air pollution exacerbates respiratory and pulmonary health problems. Road traffic emissions are particularly relevant due to the nature of how pollutants are emitted, at ground level where there is resultant population exposure as pollutant concentrations build up. The AQMAs within Halton have been declared in relation to health-based air quality standards and objectives, hence subsequent AQAPs will need to address pollution reduction.

3.1.3 Public transport pollution

In 2008 the average age of the bus fleet in Halton was 5.6 years old, 2.7 years below the national average fleet age of 8.3 years (DfT, 2008). Prior to this investment the average fleet age equated to 9 years old.

Figure 3.4 shows that the majority (44%) of Halton's bus fleet is of Euro III emission standard. Only 6% of the fleet comply with Euro V emission standard. Euro VI standard is being introduced in January 2013.

Figure 3.4: Environmental Standard of Halton Bus Fleet (% of Engines Meeting European Emission Standards or Equivalent)



Source: Halton Borough Council 2008

3.2 Road safety

Halton became a unitary authority in 1998 at which time it became responsible for road casualty reduction. Cheshire Police are responsible for enforcement within Halton.

The Cheshire Safer Roads Partnership (CSRP) was established in April 2007 and comprised representatives from the five highway authorities (inc. Halton, Warrington, Cheshire West and Chester, Cheshire East, and Highways Agency), the Police, Fire and Courts Services. With a remit that not only included the management and development of

greater Cheshire's speed and red light cameras, but also delivering Cheshire wider strategic road safety, education, training and publicity initiatives, the work undertaken by CSRP complemented that currently undertaken by each of the partner organisations which is important in driving progress on road casualty reductions. Due to cuts to the grant that funded the partnership, it is due to close on 31st March 2011.

All casualty reduction work is informed and targeted on the basis of accident data collected by Cheshire Constabulary using the STATS19 form for all reported injury accidents in the area. The data provides information that allows organisations to undertake investigations and analysis to fulfil their duties under the 1988 Road Traffic Regulations to identify measures and interventions to reduce the number of accidents and their severity. The data is also used to trace trends and characteristics to develop a more strategic approach to accident reduction, and to measure performance against casualty reduction targets.

Although traditionally Britain has one of the best road safety records in the world, in 2000 the Government set challenging new casualty reduction targets in its strategy document 'Tomorrow's Roads - Safer for Everyone'. This set targets to be achieved by April 2010, compared with a baseline average of 1994-98 including:

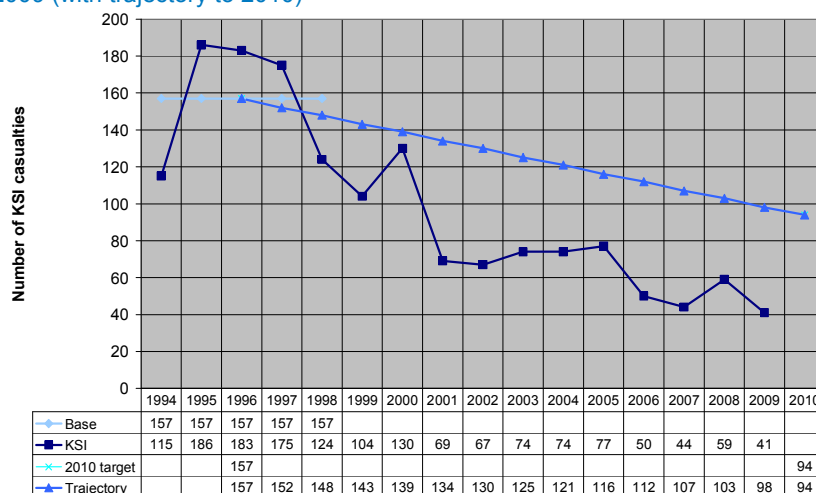
- 40% reduction in the number of people killed or seriously injured (KSI) in road accidents;
- 50% reduction in the number of child KSIs (CKSI);
- 10% reduction in the slight casualty rate, expressed as the number of people slightly injured per 100 million vehicle kilometres. Due to difficulties in producing this figure, Halton uses the pure number of SLI casualties alone, not expressed as a rate.

In 2000, examination of Halton's nationally-defined baseline casualty rates revealed that overall the authority was in an extremely poor position with KSI, CKSI and SLI rates being 1.6, 2.3 and 1.1 times greater than the national averages, respectively.

Halton Borough is a relatively small unitary authority which sits either side of the River Mersey with a population a little under 120,000. The annual number of casualties generated is relatively low in the KSI category and even more so for the CKSI class though not as a proportion of the population. The stability of the data is consequently reduced and vulnerable to being distorted by individual incidents generating multiple casualties. The value of the statistical data relating to each individual year is reduced and therefore it would be more representative to base the main statistical analysis within this report on a five-year rolling average (e.g. 2006-10). However, for consistency with the reports from neighbouring authorities, individual year data is generally used.

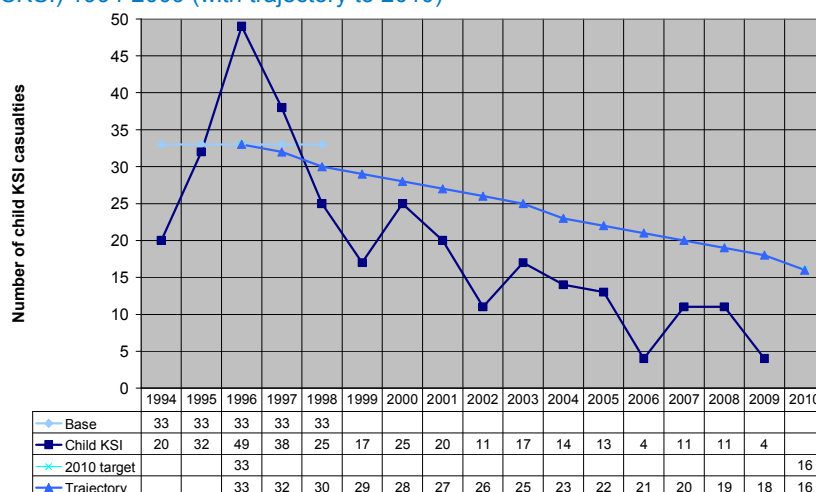
Since 2000, immense progress has been made with large reductions in the number of traffic accidents and in the number of casualties of all severities being achieved. Halton is on course to meet all three of its 2010 targets and the situation continues to improve (see Figures 3.5-3.7).

Figure 3.5: Halton Road Casualties - Killed or Seriously Injured (KSI) 1994-2009 (with trajectory to 2010)



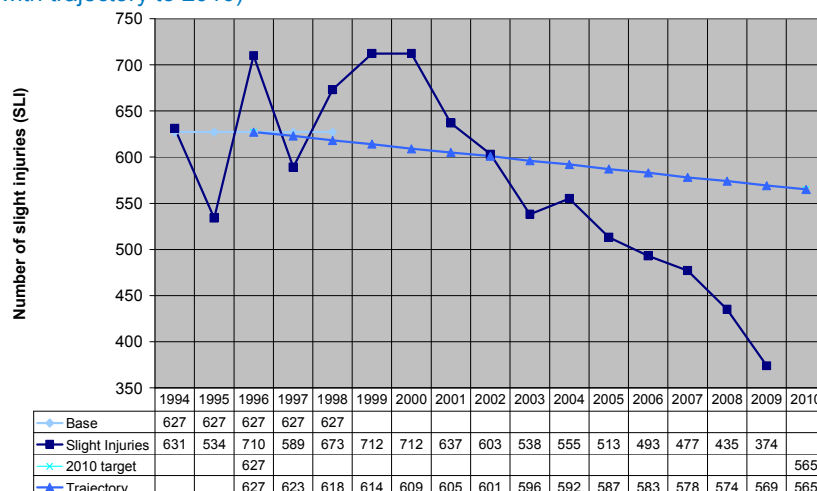
Source: Cheshire Police

Figure 3.6: Halton Road Casualties - Children Killed or Seriously Injured (CKSI) 1994-2009 (with trajectory to 2010)



Source: Cheshire Police

Figure 3.7: Halton Road Casualties - Slight Injuries (SLI) 1994-2009
(with trajectory to 2010)



Source: Cheshire Police

These casualty reductions have not been achieved across all transport modes, as there has been a notable increase in the number of two wheeled motor vehicle (TWMV) users being injured in recent years. Although the actual numbers are relatively small, this is still a growth area and one of concern.

Whilst Halton has enjoyed success in reducing the numbers of all severities of casualties, parallel progress at a national level means that in Halton in 2008:

- the KSI rate per capita is now 1.03 times the national average (previously 1.6 times higher through 1994-98 baseline period);
- CKSI rate is 1.95 times the national average (previously 2.3 times higher through 1994-98 baseline period); and
- SLI injury numbers remain 1.07 times higher than the national rate per capita (previously 1.1 times higher through 1994-98 baseline period)

The progress that has been made in Halton thus exceeds that made nationally, most particularly in terms of all-age KSI and child KSI casualties, but the rate of child death/serious injury for those under 16 years old remains much higher than the current national norm, despite the work that has been done locally since the 1990s. There is considerable evidence that the trend for the annual CKSI total to 'flatline' at around its current level despite a range of targeted initiatives, and reducing the numbers appreciably looks to be a real challenge. With no 'silver bullet' on the horizon, established methods for reducing child casualties will have to be refined and efforts redoubled.

With 59 KSI casualties and a population of 119,762 in 2008, Halton has a KSI rate per 100k of population of 49.3. Although this is higher than equivalent rates in neighbouring Merseyside authorities, the individual KSI total for 2008 was lower than expected (see Figure 3.5). However, in comparison to Cheshire (77.6) and Warrington (65.7), Halton has a lower KSI rate per 100k of population. It should be noted, however, that these areas are very different and any comparisons should be made with caution, especially for a single year of data.

2009 road casualty figures have seen a substantial reduction from those seen in 2008.

Analysis of the Halton casualty data for 2008 identified some areas where local activity and CSRP interventions and investment could provide greatest rates of return in terms of KSI reduction within Halton:

3.2.1 Car occupants

There is a need to focus on 16-35 year olds. Targeting of young adult road users (16-25 year olds) is recommended through CSRP Young Road User Strategies. However, increased resources and activities targeted at 26-35 year old car occupants at a local level is a priority as these are the primary group of casualties in 2008, greater than that of the young road user group. Halton's position on this echoes that of the rest of Cheshire.

3.2.2 Motorcyclists

The number of motorcyclist KSI casualties in Halton is increasing, despite the wider Cheshire situation reducing. It is recommended that former CSRP motorcycle group activities are increased as a priority, together with additional local strategies. However, Halton's key casualty demographic in this group does not match that of the wider force (i.e. middle aged males on high powered bikes). In Halton, resources and activities should be targeted at the 16-25 year old males riding 50-125 cc. motorbikes.

3.2.3 Children

Evidence suggests that current targeted activities within Halton are working. However, despite an overall downwards trend in CKSI road casualties, as a percentage of Halton's total KSI, children are being over represented with approximately a fifth of KSI casualties in 2008 involving children (compared with a tenth of the force-wide picture). Again, increased resources and targeted activity are needed at a local level.

3.2.4 Vehicle user education, training, publicity and enforcement

This should focus on preventing accidents where contributory factors include:

- Failed to look properly;
- Careless/reckless in a hurry;
- Loss of control;
- Impaired by alcohol and/or drugs; and
- Exceeding speed limit

3.2.5 After 2010 - Government targets through to 2020

(As detailed in 'A Safer Way: Consultation on Making Britain's Roads the Safest in the World')

The DfT has recently consulted on a series of road casualty reduction targets that it is proposing to set for the year 2020, based on the 2004/08 baseline average. The targets are to reduce:

- Road deaths by at least 33%;
- Road serious injuries by at least 33%;
- Road deaths and serious injuries to children and young people (aged 0–17) by at least 50%; and
- The rate of KSI per kilometre travelled by pedestrians and cyclists by 50%

Halton Borough Council has lodged a series of responses to the Government's proposals, including:

'It is remiss that given the availability of data on past performance on casualty reduction that you have chosen to implement a 'one size fits all' approach to target setting. These targets fail to recognize the substantial reductions already achieved in some areas (authorities) and the inability of other areas to achieve the 2010 targets. This places unrealistic expectations on the 'high' performing authorities (such as Halton), whilst the lower performing authorities are 'let off the hook'.

Furthermore, no mention is made of increased levels of funding being made available to address the enhanced targets. This will present particular difficulties for smaller authorities that are facing huge cutbacks in public sector spending.'

The DfT have indicated that there is a belief that high casualty reductions in the future can be achieved through addressing the high casualty rate on rural national speed limit roads. In relation to this, Halton responded:

'It also needs to be acknowledged that small urban authorities that have a low proportion of the high casualty rural roads will find it more difficult to achieve the enhanced targets.'

In response to a target based on KSI casualties per kilometre travelled by pedestrians and cyclists:

'The reasons for introducing casualty rates into the performance indicators are well understood, but no mention is made of how the base data on distance travelled for each mode will be provided. If left to local authorities, this will place an unreasonable burden on smaller authorities to collect this data.'

3.3 Environmental issues and safety: Transport challenges and opportunities

Table 3.1: Transport challenges and opportunities: Environmental issues and safety

Environmental Issues and Safety	
Topic Area	Challenges and Opportunities
Carbon Dioxide and climate change	The transport sector must play a central role in reducing carbon output and mitigating against climate change effects; ensuring a truly green and sustainable local transport network that facilitates a modal shift away from private car use.
Air quality in AQMA's	The Air Quality Management Area designations on the primary grounds of transport pollutant concentrations need to be addressed to contribute to a healthier local environment.
Rail network	Halton's rail network will provide a low emission mode of transport, in particular the potential electrification of the passenger line through North Widnes would provide pollution free transport at the point of delivery.
Environmental standard of the local bus fleet	Working in cooperation with local bus operators to ensure a greener local bus fleet offers a significant opportunity to reduce public transport pollution.
Maintaining Improvements in Road safety	To continue to achieve local success in reducing road injuries and fatalities there exists a substantial challenge to ensure that rigorous analysis and consistently applied targeted interventions continue to be undertaken. For this to occur successfully will require this area of work to be shielded from the effects of any overall cuts in transport expenditure.

4. Existing transport infrastructure capacity

4.1 Highways

4.1.1 Parking

This section provides a brief snapshot of the parking situation in 2008 for each of Halton's three town centres.

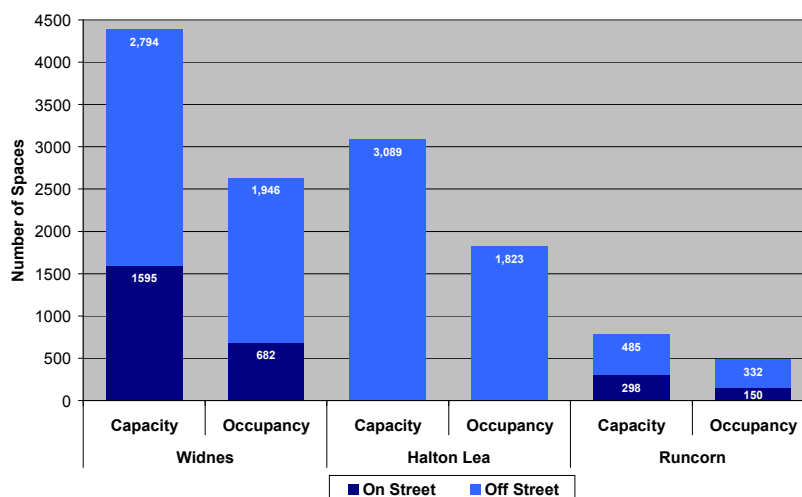
Runcorn Old Town has a total of 455 off-street parking spaces of which 37% are privately operated. 70% of total off-street capacity and 45% of total on-street capacity is occupied on a weekday (at 1pm peak), with less demand on a weekend. With the exception of Runcorn mainline station car park (which falls outside the town centre survey area) no charge is made in any of the off-street car parks, and no limits are imposed on length of stay off-street. Nor is a charge made for on-street parking, although on-street overstay is prevalent. Proposed (but not committed) development in the town is predicted to result in a marginal shortfall in off-street supply.

Widnes Town Centre has a total of around 2,800 off-street parking spaces, the majority of which are privately operated. There are also around 1,600 on-street spaces. Peak occupancy (around 11am) of off-street car parks is around 75% (on both weekdays and Saturdays), and on-street peak occupancy is 35% on weekdays and 30% on Saturdays. No charge is made for parking either on- or off-street and no limits are imposed on length of stay off-street. The new retail park in Widnes currently has a 3 hour time limit but doesn't charge for the parking. On-street yellow line parking and overstaying is prevalent, limiting spaces for shoppers. Committed development may cause some issues with demand exceeding supply and parking management, which needs to be monitored.

Halton Lea shopping centre, including the main centre's four multi-storey car parks and Asda and Trident Shopping Park areas, has a total of around 3,100 spaces. All are privately operated, and available free of charge. No on-street parking is permitted around the centre, and illegal on-street parking is very rare. Limits are imposed on length of stay on Asda, Trident and certain levels of the multi-storey car parks. Peak occupancy reaches 100% in Asda and Trident on Saturdays (100% and 80% respectively on weekdays). However, in the four multi-storey car parks only around 50% of the total available capacity is used at any one time on a weekday.

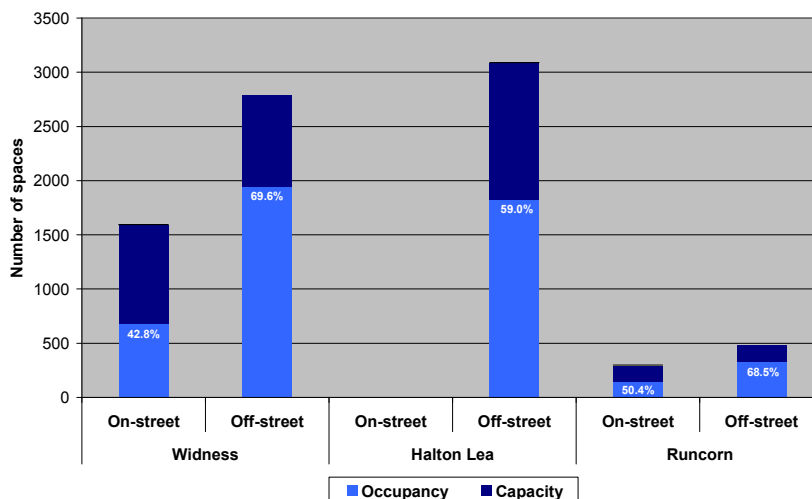
Figure 4.1 shows that both on- and off-street parking capacity in Halton's three town centres exceeds weekday demand. Roughly between 50% and 70% of on- and off-street parking spaces are occupied on weekdays (see Figure 4.2).

Figure 4.1: Parking Capacity and Occupancy in Halton 2008 (11AM Weekday Occupancy)



Source: MIS Halton Parking Study

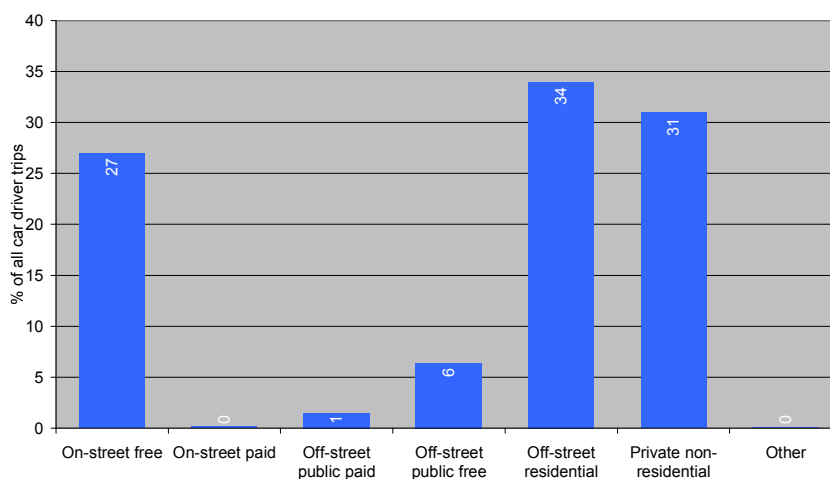
Figure 4.2: Proportion (%) of Parking Capacity Occupied on Weekdays (11AM) in Halton 2008



Source: MIS Halton Parking Study

Figure 4.3 utilises data from Halton's Countywide Travel Survey 2010 to show the types of parking most commonly used for driver trips.

Figure 4.3: Parking Usage by Parking Type

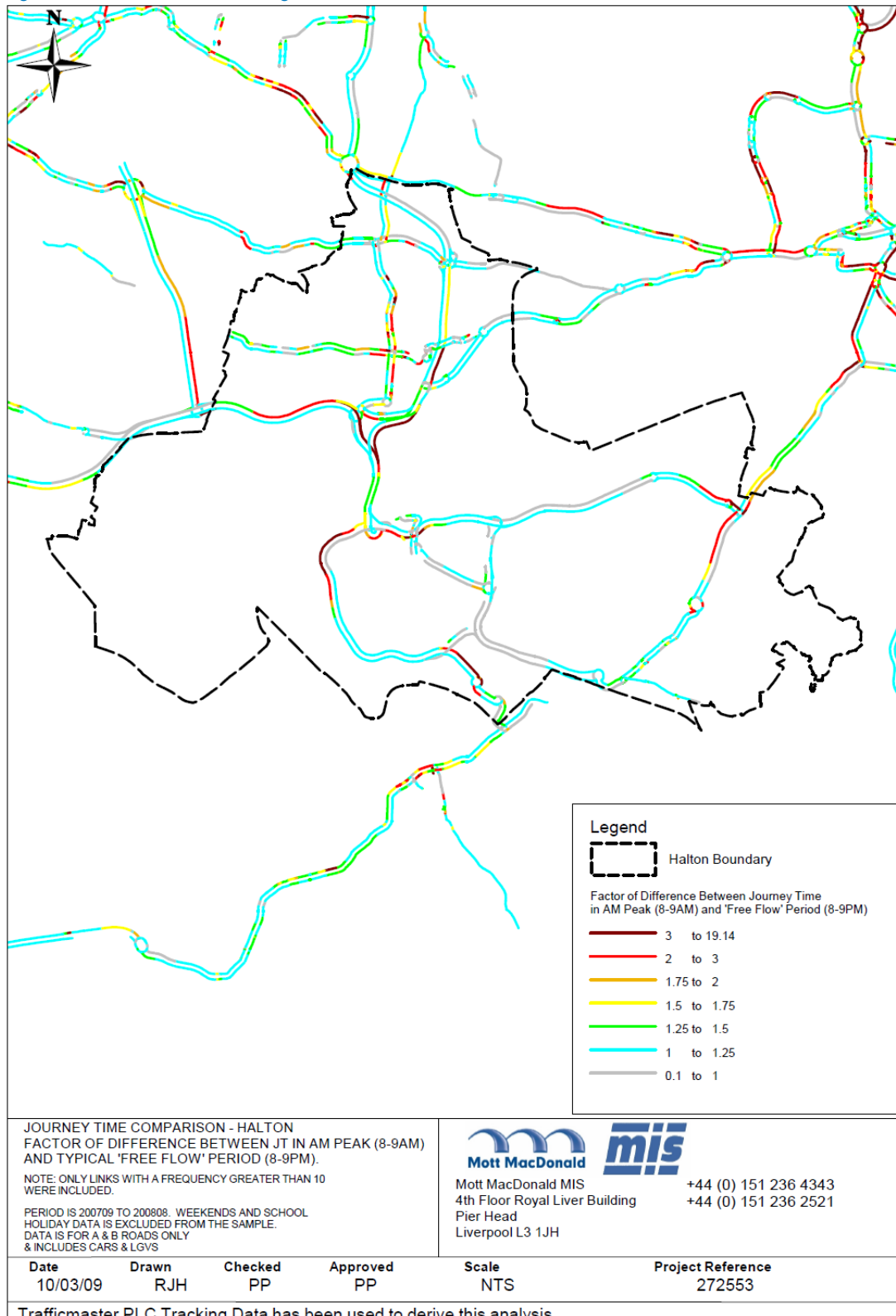


Source: Halton Countywide Travel Survey 2010

4.1.2 Road capacity and congestion

The main congestion points in Halton, measured by the difference between journey time in the AM peak (8-9AM) and typical 'free flow' period (8-9PM), are shown in Figure 4.4. Links experiencing the worst AM peak congestion include the A562, A533 and A557.

Figure 4.4: Trafficmaster Congestion Points in Halton 2008/09



Source: Trafficmaster PLC Tracking Data

4.2 Public transport

4.2.1 Rail

There are four railway stations in Halton, including Runcorn, Runcorn East, Hough Green and Widnes.

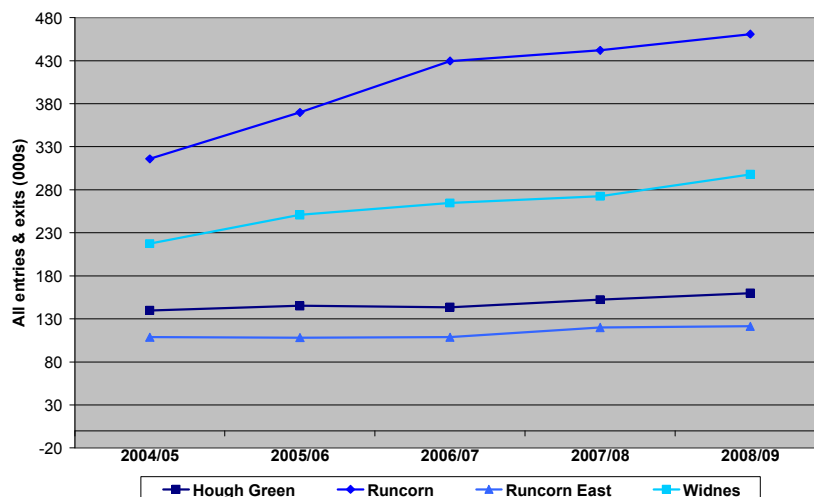
Hough Green and Widnes stations are served by frequent local and longer distance services operated by Northern Rail and London Midland. Northern Rail operates frequent services to Liverpool and Manchester City Centre from Hough Green and Widnes. In addition, East Midland Trains links Widnes Station at hourly intervals throughout the day to Liverpool, Manchester, Stockport, Sheffield, Nottingham and Norwich.

Runcorn Mainline station is well served by longer distance services operated by Virgin Trains and London Midland. Virgin Trains operates an hourly service to London Euston and Liverpool Lime Street. London Midland operates a frequent service throughout the day to Liverpool and Birmingham New Street.

Runcorn East station is served by an hourly service to Chester, Warrington and Manchester operated by Arriva Trains Wales.

Figure 4.5 shows the station usage for all four stations serving Halton between 2004/05 and 2008/09. Between 2004/05 and 2008/09, total entries and exits increased most at Runcorn station. From 2004/05 to 2008/09 Runcorn station experienced the largest number of entries and exits.

Figure 4.5: Station Usage: All Entries & Exits at Hough Green, Runcorn, Runcorn East and Widnes Stations 2004/04-2008/09



Source: Office of Rail Regulation Station Usage Data

	Halton is currently working with surrounding Local Authorities to provide Bi-directional working on the Halton Curve. This would help allow a new passenger service between Chester and Liverpool via Runcorn.
4.2.2	Bus
	Currently the bus mileage within the borough equates to 3,456,189 miles.
4.2.3	Taxi
	There are currently 267 licensed Hackney Carriages and approximately 150 private hire vehicles in Halton.
4.3	Freight
	Both the Freight and North West Route Utilisation Studies (RUS) recommend the construction of a new chord linking the Bootle branch to the Chat Moss line eastbound at Olive Mount (now completed), and to enhance loading gauge to W10 between the Port of Liverpool and the West Coast Main Line (WCML) via both Runcorn and Earlestown to meet identified gaps in rail freight capacity. The work on the Halton Curve could also be used to enhance rail freight movement. The development of the 3MG site will provide both Regional and National freight distribution, this will include enhancements to rail facilities to enable modal shift from road to rail.
4.4	Existing transport infrastructure capacity: Transport challenges and opportunities

Table 4.1: Transport challenges and opportunities: Existing transport infrastructure capacity

Existing Transport Infrastructure Capacity	
Topic Area	Challenges and Opportunities
Congestion performance	Maintenance of journey times on key routes, particularly during peak periods.
Rail network capacity	Continuing demand growth presents capacity challenges to accommodate forecast patronage levels, and secure a growing role for this sustainable mode. Proposed enhancements to the Halton Curve could provide extra capacity and journey opportunities.
Bus capacity	To ensure that network coverage meets changing patterns of demand, is equitable and adequately serves the 'transport disadvantaged'.
Taxi capacity	If this mode can develop its green credentials it could have a more formal role in the future in delivering an integrated public transport system.
New technology	Two key issues that may need to be addressed to assist with transport pressures include high speed broadband internet access facilitating reduced work-related travel mileage (in 2010 only 63% of Halton households had access), and the growing potential for hybrid and electric cars to deliver greener highway capacity. Halton Net is a Digital Inclusion Project offering 160 households from Castlefields and Windmill Hill a free managed internet and computer network facility. This is currently a pilot project that will test the viability and the potential community digital inclusion model, with a view to it being extended across the borough.

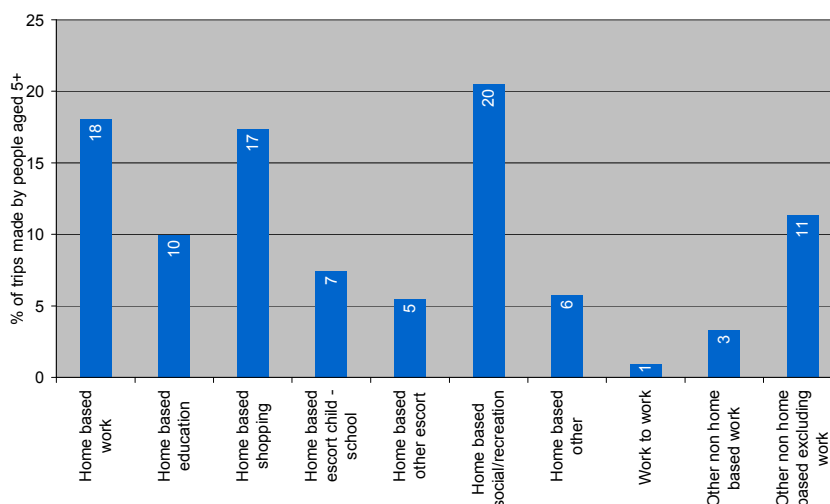
5. Travel patterns and trip rates

5.1 Travel Characteristics

In 2010 a detailed travel diary survey was undertaken with Halton residents to better understand the travel choices that they make. The Halton Household Travel Interview Survey provides an important insight into travel choices in the borough. For full details of this survey see the separate report which provides detail of sample sizes and survey methodology.

Figure 5.1 shows that the most common reasons for travel are commuting, shopping and social/recreation. These are similar results to those recorded in neighbouring Merseyside districts.

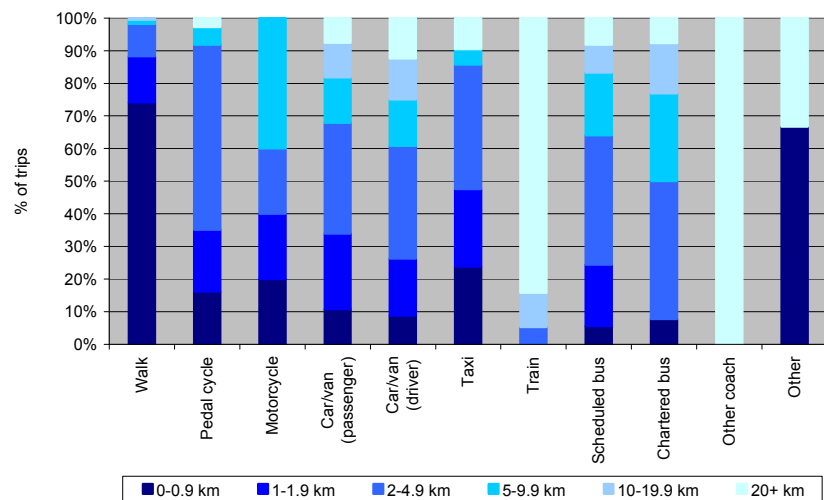
Figure 5.1: Overall Trip Purpose: Halton 2010



Source: Halton Countywide Travel Survey 2010

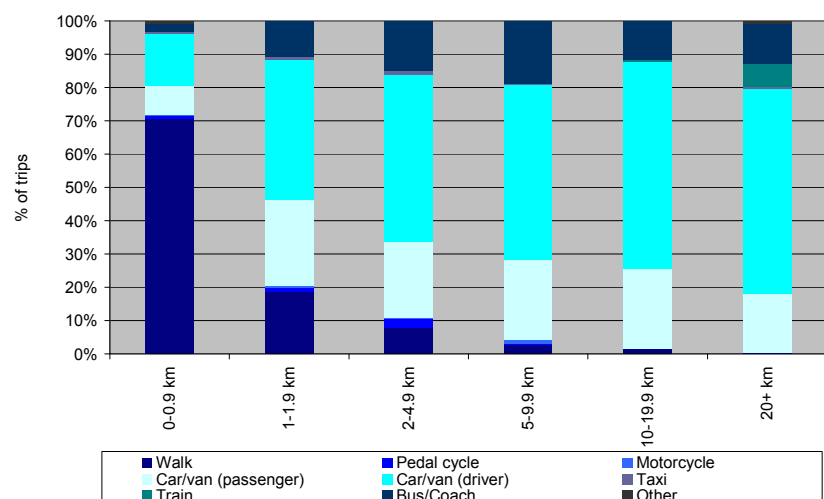
Figure 5.2 shows, by mode, the proportion of journeys made in six different distance bands, while Figure 5.3 shows the modal split of these trips by each distance band. Notable trends include the extent to which train is used predominately for long distance travel, and the significant number of car journeys (around 60%) that are made for trips of under 5km. Figure 5.4 looks at travel to work trips of under 2km and records that 43% of such trips are made by car, where presumably for many of these trips walking and cycling are reasonable alternatives to car use.

Figure 5.2: Trip Distance by Mode



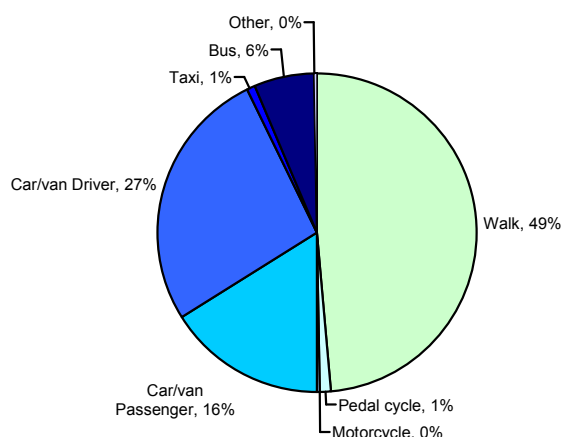
Source: Halton Countywide Travel Survey 2010

Figure 5.3: Modal Split by Distance Band



Source: Halton Countywide Travel Survey 2010

Figure 5.4: Travel to Work Trips of Less Than 2km



Source: Halton Countywide Travel Survey 2010

5.2 Trip making and the economy

'The State of the Borough in Halton' 2009 report provides an audit of the economic, social and environmental situation in the Borough. Using 2001 census commuting data, the audit provides an index score between local employment and the local resident workforce, indexed against Great Britain as a whole. The 2001 score for Halton was 96.3 which indicates that the area is likely to be a net exporter of labour (a score above 100 would indicate that the number of local jobs exceeds the available workforce, accepting that people can hold more than one job) (see Table 5.1). Of the comparator districts, Middlesbrough, Liverpool, Warrington and Chester are all net importers of labour.

Table 5.1 shows that in 2002/03 the average travel to work time in Halton (22 minutes) was longer than both the North West (19.4 minutes) and Great Britain (20.2 minutes) average.

Table 5.1: Transport Accessibility and Mobility

Local Authority District (LAD)	Proportion of people who travel to work by car, 2001	Proportion of people who travel to work by public transport, 2001	Proportion of people who travel to work by foot or bicycle, 2001	Net commuting, 2001 (GB=100)	Average travel to work time (in minutes), 2002-03
Middlesbrough	64.8	12.0	14.3	101.5	21
Knowsley	62.9	17.5	10.9	86.4	24
Liverpool	55.1	24.6	12.3	111.5	20
Warrington	72.7	6.6	10.4	133.3	20
Wirral	65.9	13.9	10.1	77.2	21
Ellesmere Port and Neston	73.6	6.0	10.7	92.1	17
Sefton	63.1	14.1	12.4	90.0	24
Halton	71.5	8.4	11.8	96.3	22
St. Helens	71.1	10.1	10.2	86.2	17
Vale Royal	74.9	3.3	9.9	83.5	20
Chester	66.1	7.7	14.2	133.0	19
Hartlepool	66.5	9.0	14.4	90.0	19
Greater Merseyside	63.3	16.2	11.4	95.2	21.3
North West	65.9	11.0	12.5	102.3	19.4
Great Britain	61.2	14.8	13.0	100.0	20.2

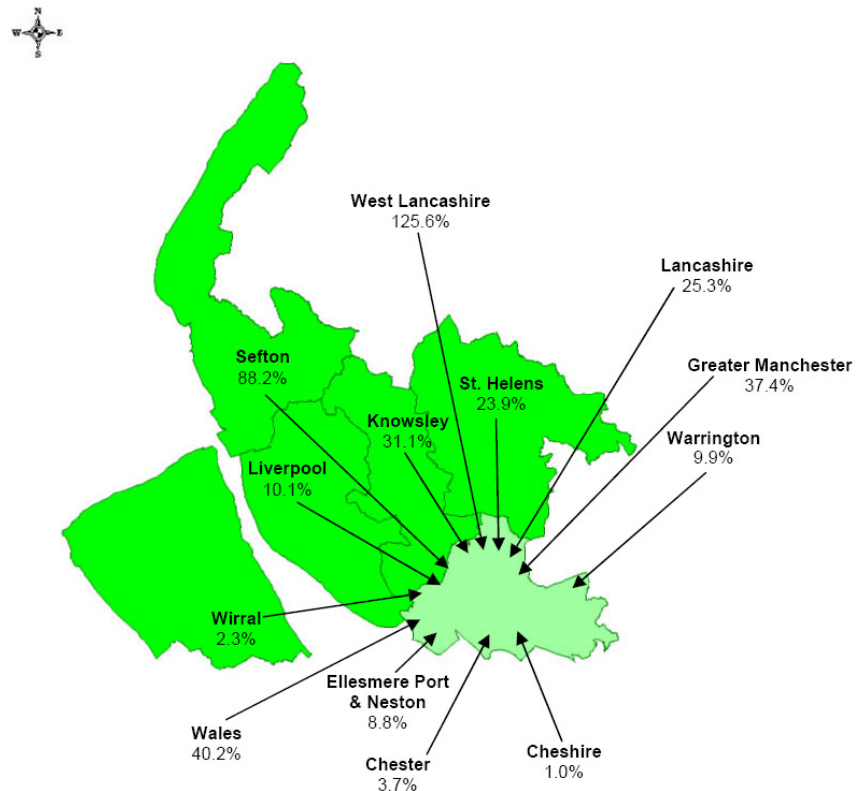
Source: Halton Data Observatory, Local Futures

Figure 5.5 illustrates that between 1991 and 2001 Halton experienced increased levels of in-commuting from neighbouring regions, in particular West Lancashire (125.6%), Sefton (88.2%), Wales (40.2%) and Greater Manchester (37.4%).

This growth in longer distance commuting is a result of a number of linked economic and social factors, including:

- Rising economic activity and affluence, and in-turn higher car ownership facilitating longer journeys to work;
- Acceptance of longer commuting distances and journey times; and
- Outward population migration to more rural outlying commuter area

Figure 5.5: Halton as a Destination for Travelling to Work: % Change in Inflow Between 1991 and 2001

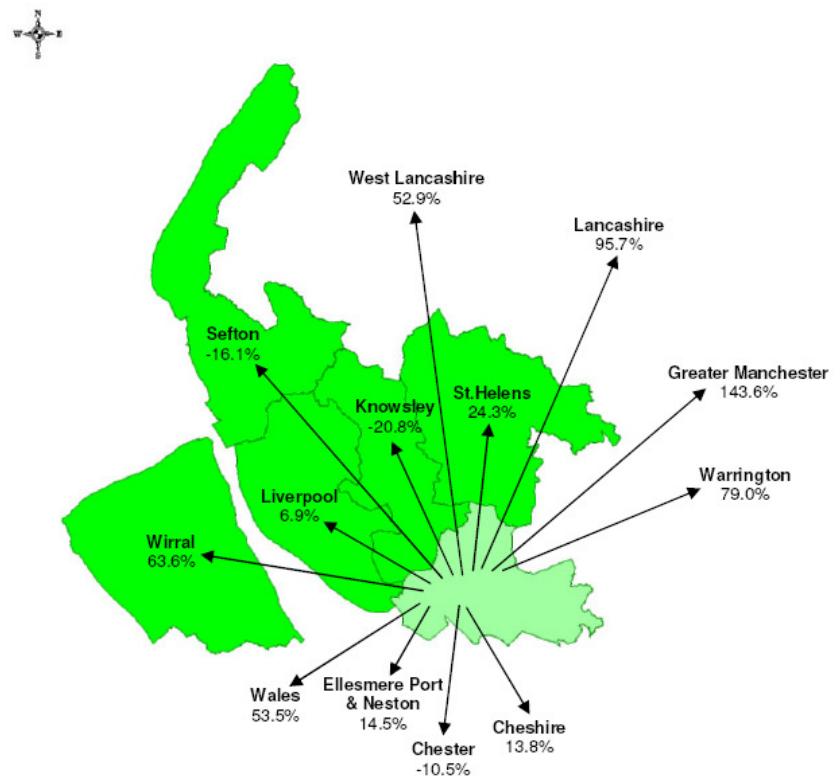


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Source: Census 1991/2001

Figure 5.6 illustrates that between 1991 and 2001, the number of trips-to-work from Halton to Greater Manchester (143.6%), Lancashire (95.7%) and the Wirral (63.6%) increased significantly, whereas commuting trips to Knowsley (-20.8%), Sefton (-16.1%) and Chester (-10.5%) decreased.

Figure 5.6: Halton as Origin for Travelling to Work: % Change in Outflow Between 1991 and 2001

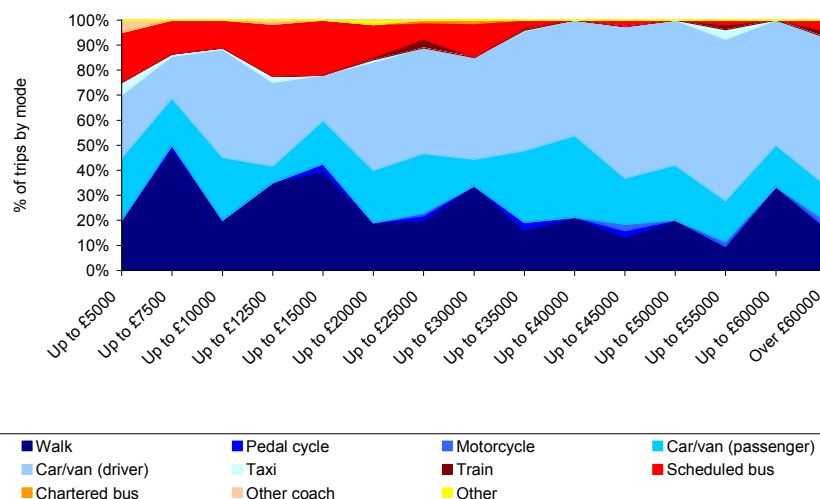


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Source: Census 1991/2001

Figure 5.7 illustrates the way in which household income influences transport choices in Halton. It shows that car usage as a driver increases substantially as income levels increase, with notable proportional decreases in bus usage.

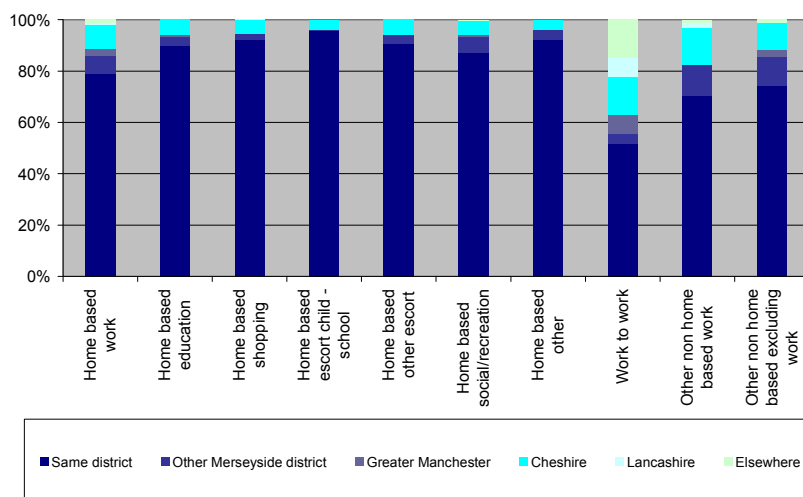
Figure 5.7: Modal Choice by Household Income Band



Source: Halton Countywide Travel Survey

Figure 5.8 illustrates the trip destinations that are used for different trip purposes by Halton residents. It shows that travel within Halton is dominant, with a notable proportion of commuting and work related travel outside of the district.

Figure 5.8: Trip Destination by Purpose

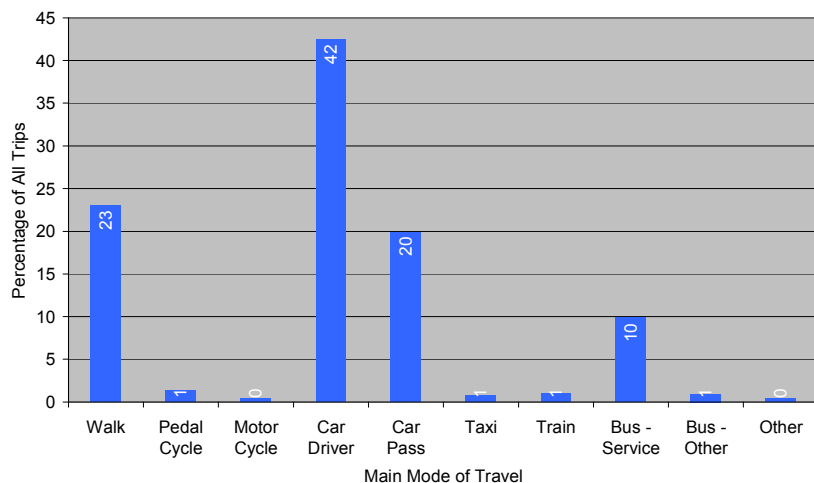


Source: Halton Countywide Travel Survey

5.3 Modal choice

Figure 5.9 shows that in 2010 almost two thirds (62%) of Halton residents undertook their trips by car (42% as driver and 20% as passenger). Walking accounted for nearly a quarter of journeys undertaken (23%) while bus transport stood at 10% of all trips.

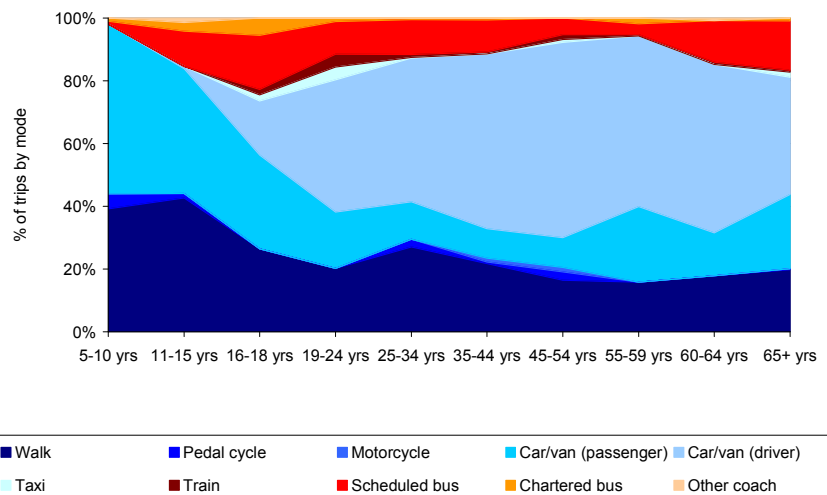
Figure 5.9: Main Mode of Travel



Source: Halton Countywide Travel Survey 2010

Analysis by age group (Figure 5.10) illustrates that younger and older people make greater use of the bus. Walking in general seems to decrease with age.

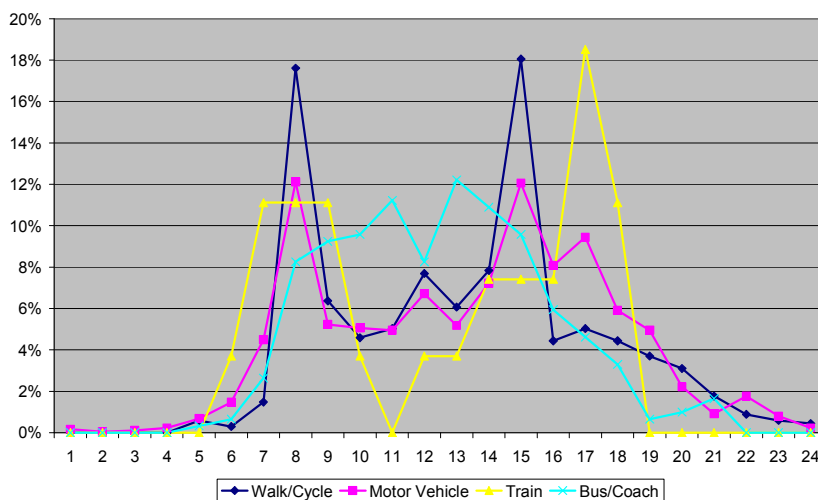
Figure 5.10: Modal Choice by Age Group



Source: Halton Countywide Travel Survey 2010

Analysis of modal choice by time of day is provided in figure 5.11. Travel by train is most “peaky”, with bus travel conversely concentrated in the off peak hours. Walk and car trips persist longer into the evening when little public transport usage is recorded.

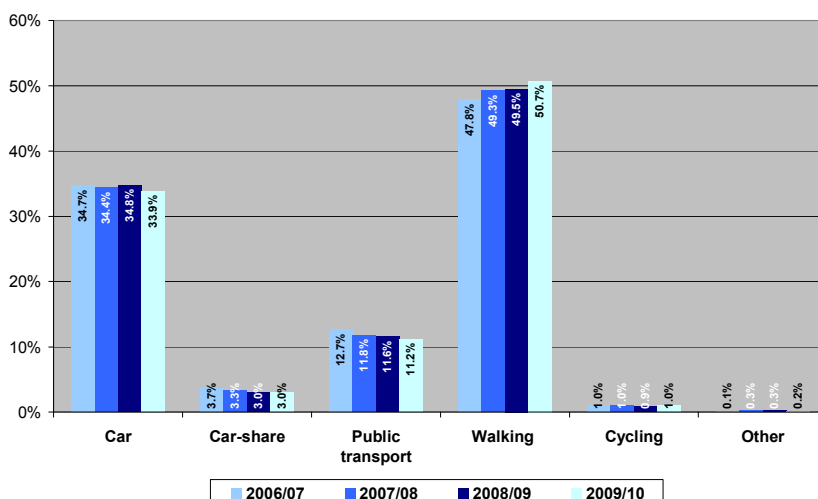
Figure 5.11: Modal Choice by Time of Day



Source: Halton Countywide Travel Survey 2010

Travel to school data shows that the majority of pupil trips to school in Halton are made by walking (50.7%), followed by car (33.9%) and public transport (11.2%) (see Figure 5.12). Since 2006/07 there has been a marginal fall in trips to school by car and public transport, and a slight increase in trips made on foot.

Figure 5.12: Travel to School Modal Share 2006/07-2009/10



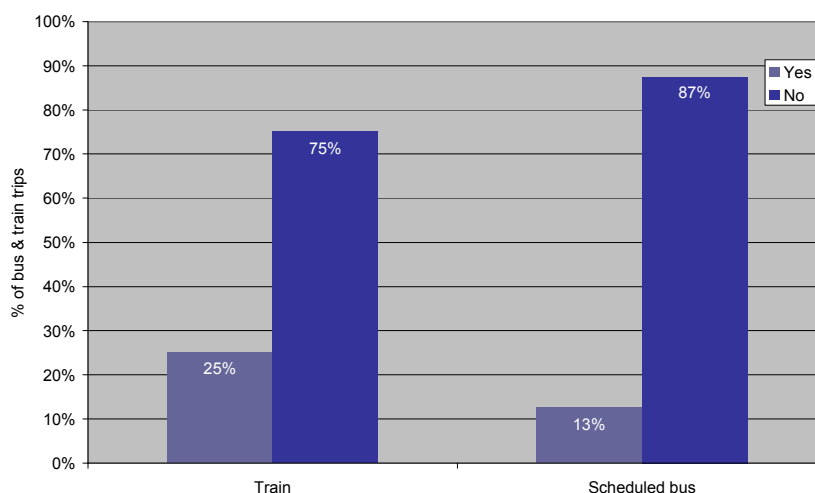
Source: School Census

The school census defines 'Car share' as 'travel in a car with a child/children from a different household'

Figure 5.13 provides some insight into the choices that people have made in using public transport modes. For rail users 25% have chosen

not to use their car for the journey. For bus users 87% had no alternative choice of use of a car for their journey.

Figure 5.13: Car Availability: Bus & Train Trips

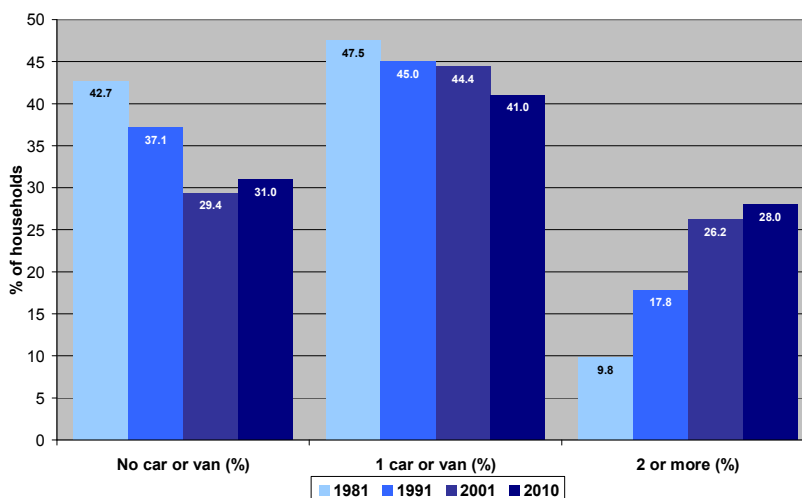


Source: Halton Countywide Travel Survey 2010

5.4 Car ownership

Figure 5.14 shows that car ownership in Halton has increased significantly over the past two decades. The number of households without a car available had fallen by 13.3% between 1981 and 2001. Since then recent results from the Halton Travel Survey suggest that increases in car ownership have halted.

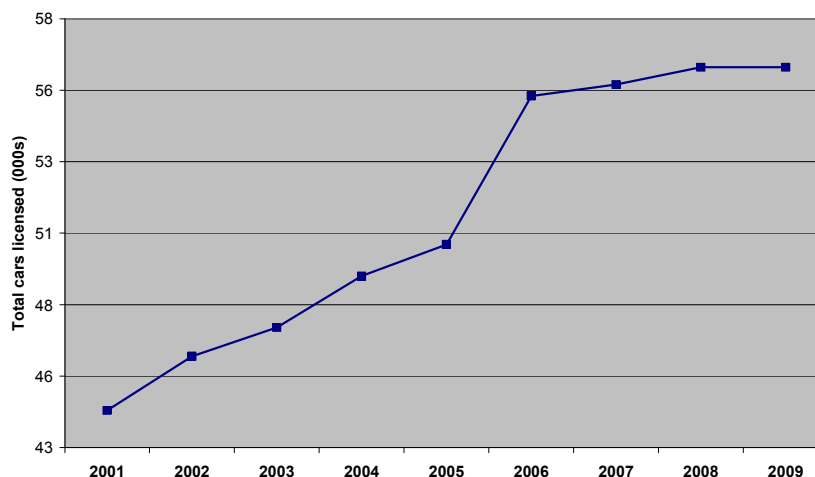
Figure 5.14: Number of Cars Usually Available to Households: Halton 1981-2010



Source: Census 1981/1991/2001
Halton Countywide Travel Survey 2010

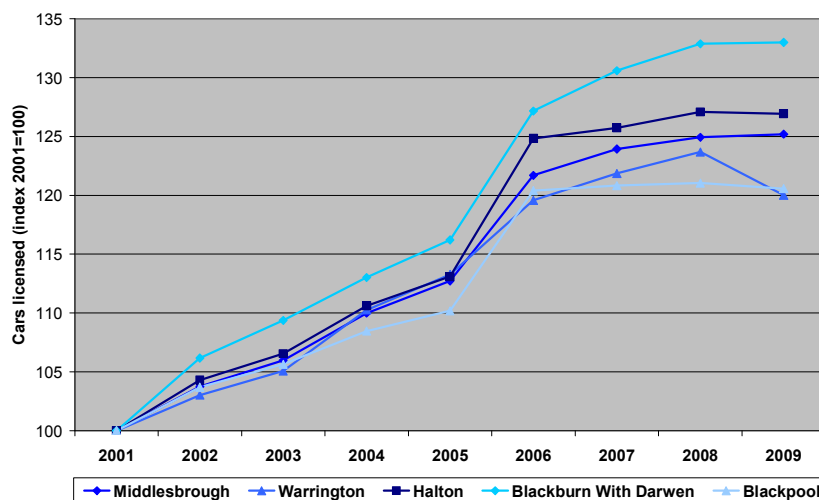
The number of cars licensed in Halton between 2001 and 2009 increased by 27% (see Figure 5.15). There are, in line with results above, further signs here that ownership levels have stabilised in recent years. Figure 5.16 shows that in comparison to other unitary authorities, the number of cars licensed in Halton has increased at a greater rate than in Middlesbrough, Warrington and Blackpool. Car ownership growth has a detrimental impact on public transport use, which is likely to remain a challenge over the LTP3 period as economic activity and wealth continue to grow.

Figure 5.15: Cars Licensed: Halton 2001-2009



Source: DfT Vehicle Licensing Statistics

Figure 5.16: Total Cars Licensed (Indexed) by Unitary Authority 2001-09

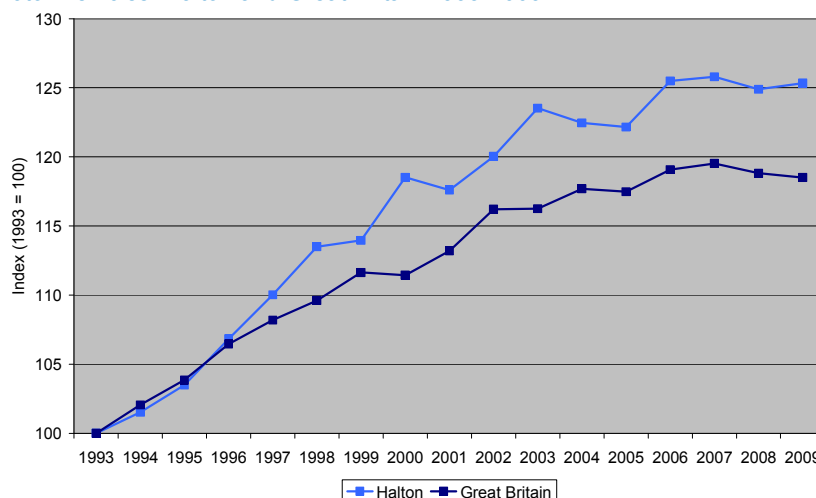


Source: DfT Vehicle Licensing Statistics

5.5 Traffic

The DfT measure for traffic growth shows that since 1993 Halton has experienced a greater increase in traffic growth than in Great Britain as a whole (see Figure 5.17).

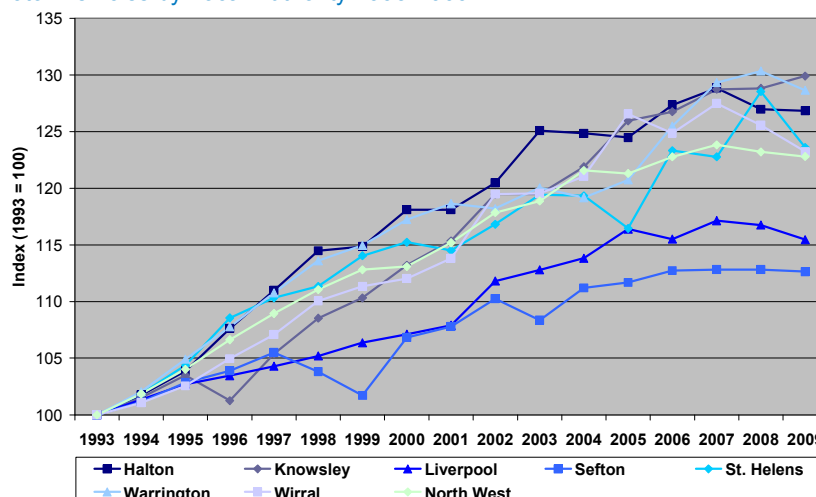
Figure 5.17: Estimated Traffic Flows (Vehicle Kilometres Travelled) for All Motor Vehicles: Halton and Great Britain 1993-2009



Source: DfT National Road Traffic Survey

Figure 5.18 shows that between 1993 and 2009 Halton experienced a 27% growth in road traffic, a greater increase than in Sefton (13%), Liverpool (15%), Wirral (23%) and the North West as a whole (23%). This increase in road traffic across the LCR corresponds with long-term trends in rising affluence, car ownership, trip-making and longer commuting distances.

Figure 5.18: Estimated Traffic Flows (Vehicle Kilometres Travelled) for All Motor Vehicles by Local Authority 1993-2009



Source: DfT National Road Traffic Survey

5.6 Public transport usage

5.6.1 Bus

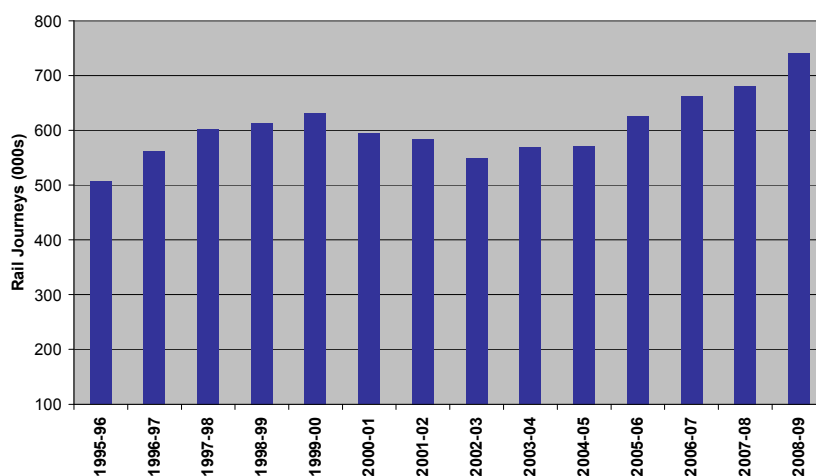
National Performance Indicators demonstrate the following:

NI 177 - Local bus and light rail passenger journeys originating in the authority area (2009/10) – 6,219,683.

5.6.2 Rail

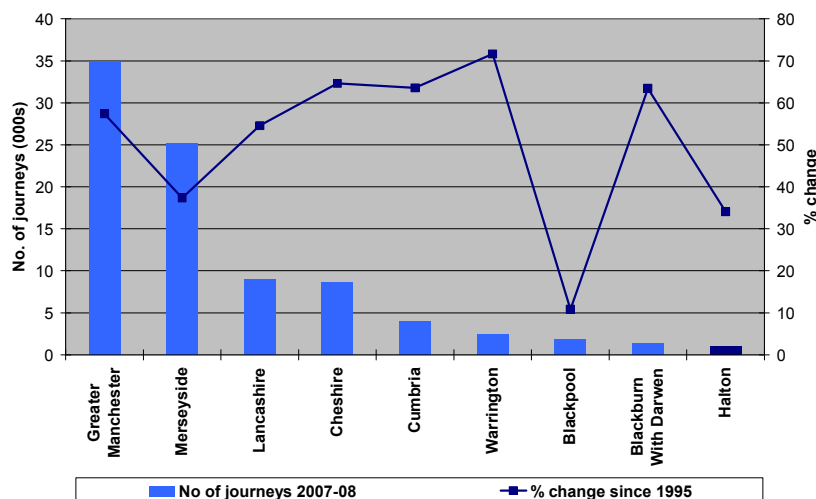
The total number of rail journeys to/from/within Halton increased by nearly a half (46%) between 1995 and 2009 (see Figure 5.19). In comparison to other county and unitary authorities in the North West, Halton experienced a similar growth in the number of rail journeys to that in Merseyside (37.3% (to 2008) – Figure 5.20).

Figure 5.19: Number of Rail Journeys to/from/within Halton 1995-06 to 2008-09



Source: Office of Rail Regulation Historical Rail Database:
National Rail Trends 2009-10 Yearbook

Figure 5.20: Total Number of Rail Journeys to/from/within Each County/Unitary Authority 2007-08 and % Change Since 1995



Source: Office of Rail Regulation Historical Rail Database:
National Rail Trends 2008-09 Yearbook

5.7 Fares and Ticketing

Halton Borough Council offer concessionary travel in line with the current national scheme.

In addition Halton residents who are registered as blind persons are also eligible for a free local bus pass. Children under 5 years of age are also eligible for free travel, and half price travel is offered for children aged 5-16 years of age.

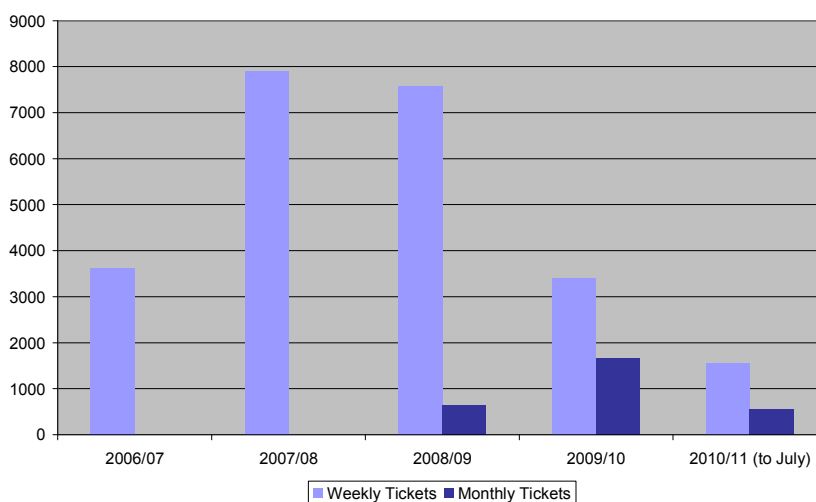
All of the above concessionary travel passes are based on a conventional manual pass based system. Usage surveys are undertaken on a regular basis by Cheshire County Council who administers the scheme on behalf of Halton Borough Council.

Halton Transport and Arriva are the main bus operators in Halton and each offer a variety of operator specific ticket products.

5.7.1 Pre-Paid Ticketing

Launched in 2006, the Halton Hopper pre-paid ticket, costing £49 for a monthly ticket £14.50 for a weekly ticket, offers a multi-operator pre-paid ticket for travel within the Halton boundary. The ticket has proved popular and has contributed towards recent patronage growth (see figure 5.21).

Figure 5.21: Halton Hopper Ticket sales



Source: Halton Borough Council

5.8 Walking

Walking is the second most common method of travel in Halton (see Figure 5.9). Roughly a quarter (23%) of all trips to are made on foot, furthermore walking is used for virtually all journeys as a supporting mode. Data on walking trips is relatively scarce and notoriously hard to collect in a reliable and consistent way, due to it's disaggregate and fragmented nature.

Quality infrastructure for walkers provides particular benefits to those with mobility and sensory impairments.

Access to information on available walking routes, including the health benefits of walking is a critical factor in the increased uptake of walking as a mode of choice.

5.9 Cycling

Halton has low levels of cycling, with only 1% of trips made by bicycle (see Figure 5.9). However, this reflects regional and national levels, as only 1% of people are recorded as cycling across all trips in Merseyside also (Merseyside Countywide Travel Survey 2010).

5.10 Travel patterns and trip rates: Transport challenges and opportunities

Table 5.2: Transport challenges and opportunities: Travel patterns and trip rates

Travel Patterns and Trip Rates	
Topic Area	Challenges and Opportunities
Rising incomes, car trip making and trip distances	Halton has higher levels of car ownership and availability than neighbouring Merseyside districts. However, with the influence of rising incomes on increased travel demands, there still exists a potential for further rises in car ownership and car usage.
Bus patronage	Challenges remain to continue the increases seen in bus ridership locally. Bus services need to offer a quality, consistent and reliable product that meets the needs, growing expectations and aspirations of the public.
Long distance commuting	Real challenges inherent in the increasing levels of long distance commuting into and out of the area. Addressing the impacts of these choices about locations of people, employment and services demands strong co-ordination with land-use planners.
Encouraging sustainable mode share	Continued pressures on the uptake of sustainable mode usage. This is well illustrated by the modal choices for access to schools where considerable effort has seen only modest changes in modal share.
Car dependency for short distance trips	A significant proportion of trips, particularly work-related trips, made by car drivers are less than 5km. This represents a real and achievable opportunity to target this market for modal shift toward more sustainable and active modes of travel for such journey types.
Walking	Good pedestrian facilities are key to meeting needs of certain population groups.
Cycling	Opportunity to increase levels of cycling, particularly given noted characteristics of relatively shorter journey times and distances travelled by Halton residents.
Ports	A relative resurgence in shipping activity in Liverpool suggests real opportunities to support further growth in this sector. Ensuring land side transport infrastructure is in place is vital. The proposed development of the new port facilities at Runcorn Docks would assist in increasing the modal share of water borne freight.

6. Connectivity of existing networks

6.1 Accessibility and mobility

'The State of the Borough in Halton' 2009 audit assesses the Borough's accessibility and connectivity using a composite of measures including distance from London, the 'Local Hub' Index (the concentration of transport hubs such as motorway junctions, airports, ports and mainline railway stations), and the 'Contiguity Index' (a score based on an area's proximity to transport hubs in neighbouring districts). The Community Strategy for Halton sees the Borough as having 'an excellent network of roads and footways that provide safe and accessible transport routes for motor vehicles, public transport, pedestrians, cyclists and horse-riders'.

Table 6.1 shows the connectivity score and rank for Halton. The Borough is ranked 138th out of 408 districts in Great Britain, for accessibility and connectivity, down slightly from its 2002 rank of 120th. Using the Council's composite measure, Halton has an overall connectivity score of 60.4 (indexed against Great Britain), slightly below the regional figure of 66.7, and below the national benchmark of 100.

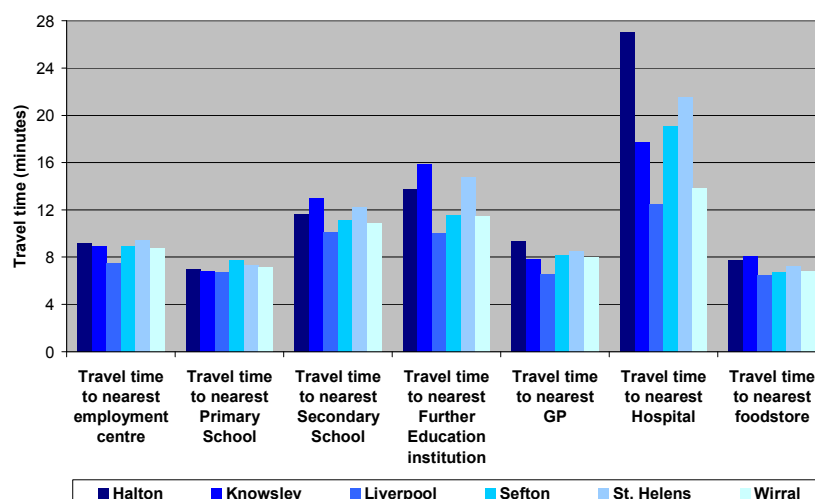
Table 6.1: Transport Accessibility and Mobility

Local Authority District (LAD)	Connectivity score (2005) (GB=100)	Connectivity score rank (of 408)
Middlesbrough	121.5	83
Knowsley	106.4	95
Liverpool	104.8	97
Warrington	91.2	108
Wirral	77.3	121
Ellesmere Port and Neston	67.8	133
Sefton	65.0	134
Halton	60.4	138
St. Helens	38.0	186
Vale Royal	26.2	215
Chester	19.1	249
Hartlepool	12.7	276
Greater Merseyside	157.7	7 (of 53)
North West	66.7	3 (of 11)
Great Britain	100.0	

Source: Halton Data Observatory, Local Futures

Figure 6.1 shows that accessibility, in terms of travel time to key services by public transport/walking in Halton is similar to that of other LCR authorities. However, travel time to the nearest hospital by public transport/walking is significantly poorer in Halton (27 minutes) than in any other LCR area.

Figure 6.1: Travel Time (minutes) to Nearest Key Service by Public Transport/ Walk by Unitary Authority



Source: DfT Transport Statistics

6.2 Networks

In light of the Mersey Gateway proposals, the Strategic Highway Network is under review.

6.3 Connectivity of existing networks: Transport challenges and opportunities

Table 6.2: Transport challenges and opportunities: Connectivity of existing networks

Connectivity of Existing Networks	
Topic Area	Challenges and Opportunities
Sustainable mode networks	Whilst efforts have been made through LTP1 and LTP2 to enhance bus, steel wheel, and cycle network infrastructure there remain significant gaps in quality network coverage. Often the most critical pieces of infrastructure to enhance connectivity are the hardest to implement due to physical constraints in highly built-up areas. Further upgrades to these more difficult network issues represent a big challenge for LTP3.
Affordability	Using new powers from the recent Local Transport Act it is important to make every effort to ensure that access to opportunities and services using sustainable modes is not hampered by affordability constraints.
Network accessibility	Efficient provision of public transport to ensure equality of opportunity. Analysis tools and consideration of innovative intermediate transport solutions must demonstrate value for money in the use of finite resources available to maximise bus network coverage.
Equitable access to education and health services	Ensuring reliable and affordable access to key opportunities, in particular education and health services, for those non-car owning groups that suffer most from social and spatial exclusion.

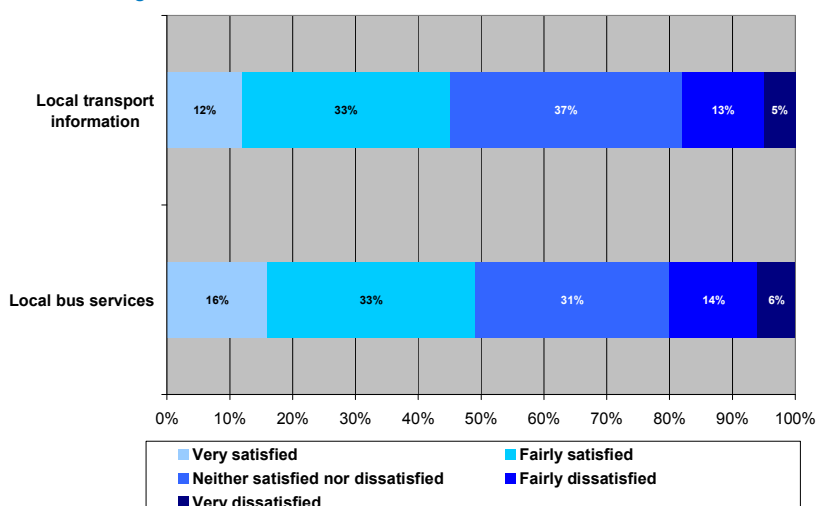
7. Stakeholder views

The selection of stakeholder feedback included in this chapter covers only a small subset of stakeholder views. A full consultation on the emerging LTP3 priorities was undertaken in 2010 and this forms the main stakeholder input into LTP3.

7.1 Public transport and information provision

Figure 7.1 shows that most (45%) Halton residents are either 'very' or 'fairly satisfied' with the local transport information provided by the Council. Similarly, the majority (49%) are either 'very' or 'fairly satisfied' with the local bus services provided/supported by Halton Borough Council.

Figure 7.1: Satisfaction with Transport Services Provided or Supported by Halton Borough Council 2008



Source: Place Survey 2008

7.2 Highways, Private transport and congestion

7.2.1 National Highways and Transport Public Satisfaction Survey 2009

The National Highways and Transport (NHT) Network Public Satisfaction Survey is a postal survey, involving 76 English authorities. The survey aims to ascertain how important, if at all, members of the public regard different aspects of roads and transport services and how satisfied or dissatisfied they are with each aspect.

Halton participated in the 2009 survey and was ranked as the country's top performing unitary authority for overall satisfaction with highways and transport. The Council scored highly in a number of other areas, including ease of access to key services, tackling congestion and satisfaction with road safety overall. Local bus services and the condition of highways were also well regarded. However, public

satisfaction with road safety training & education, public rights of way information and with some aspects of cycling and cycle facilities in the Borough was ranked relatively poorly.

7.3 Stakeholder views: Transport challenges and opportunities

Full consultation on LTP3 was undertaken in 2010, and is reported separately. Some early issues raised by recent stakeholder consultation are identified below.

Table 7.1: Transport challenges and opportunities: Early views from stakeholders

Stakeholder Views	
Topic Area	Challenges and Opportunities
Maintenance of high quality rail service	There are opportunities to continue to develop the rail service, delivering continued high customer satisfaction levels. This could include electrification of the line serving Hough Green and Widnes Stations.
Improvement to bus quality	A contrasting challenge on the bus network is to raise customer satisfaction levels and meet the increasing needs, demands and aspirations of the travelling public.
Behavioural change	The response of LCR residents to the recent spike in fuel prices suggests that with the right stimulus people can make short term changes, which convert to longer term travel habits. This suggests that shifts to sustainable modes of transport are viable if the right conditions exist.
Business needs	Business relies upon transport, and the provision of efficient commuter systems and business networks is an important challenge to assist business success and the area's economic prosperity.

8. Progress against LTP2 objectives

This chapter provides a brief summary of the progress being made against the 'core indicators' for delivering the LTP2 goals. The core indicators (see Figure 8.1) are those considered to be the most important in meeting the transport objectives in Halton. This information was derived from year end 2008/09 data.

Table 8.1 illustrates the progress being made against the core LTP2 mandatory indicators at the LTP2 mid-term review. The green/yellow/red notion relates to whether the indicator was:

- Green – target met
- Yellow – target on-track
- Red – target not met

Table 8.1: Progress Against Core LTP2 Mandatory Indicators

Core LTP2 mandatory indicator	Performance monitoring
Principal road condition	Green
Classified non-principal road condition	Green
Unclassified road condition	Green
Total KSI casualties	Green
Child KSI casualties	Green
Total slight casualties	Green
Accessibility to Whiston Hospital	Green
Accessibility to Warrington Hospital	Green
Accessibility to Runcorn Campus	Red
Accessibility to Widnes Campus	Red
Bus punctuality	Green
Met	On-track
	Not met

Source: Halton Local Transport Plan 2006/07 to 2010/11 Mid-Term Review - September 2008

The majority of LTP2 mandatory indicators in the table 8.1 are being 'met'.

The most recent data available (year end 2009/10) shows that performance on the unclassified road condition indicator is no longer on target, and there have also been problems meeting bus punctuality targets. Recent severe winters have caused damage to road surfaces but it is hoped that subsequent investment will have mitigated against further problems. On bus punctuality, bus operators note that road works have affected their operation.

More positively, the accessibility to Bridgewater and Widnes campus indicators are now meeting targets. New college bus services provided by Halton Transport have helped.

9. Summary of sources

This report has drawn upon the following sources of data:

- Census 1981, 1991, 2001, www.ons.gov.uk/census/index.html
- Cheshire Police, www.cheshire.police.uk
- Department for Transport (DfT), www.dft.gov.uk/pgr/statistics
- Department of Energy & Climate Change (DECC), www.decc.gov.uk
- Halton Borough Council, www.halton.gov.uk
- Halton Data Observatory, www.halton.localknowledge.co.uk
- Indices of Deprivation 2007, www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07
- Land Registry, www.landregistry.gov.uk
- Merseyside Air Quality Management Group
- Merseyside Information Service (MIS), www.mis.mottmac.com
- National Highways and Transport Public Satisfaction Survey 2009, www.nhtnetwork.org
- Nomis - official labour market statistics, www.nomisweb.co.uk
- North West Public Health Observatory, www.nwph.net/nwpho/default.aspx
- Office of National Statistics (ONS), www.statistics.gov.uk
- Office of Rail Regulation (ORR), www.rail-reg.gov.uk
- Place Survey 2008. www.communities.gov.uk/publications/corporate/statistics/placesurvey2008
- TrafficMaster PLC
- Halton Vitality Index 2010 www2.halton.gov.uk/pdfs/councilanddemocracy/research/HaltonVitalityIndex

www.mottmac.com