

# Mersey Tunnel tolls impact study

December 2015

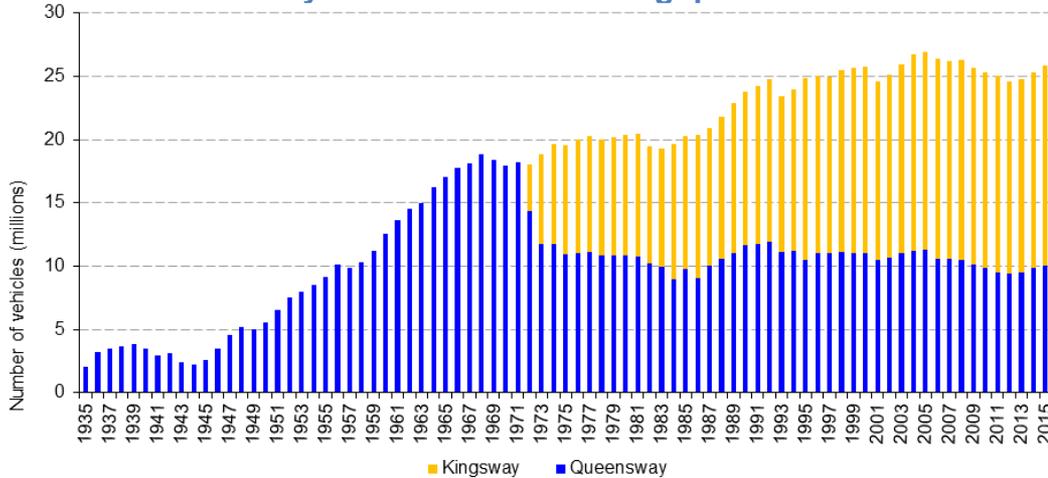
Merseytravel



# Context

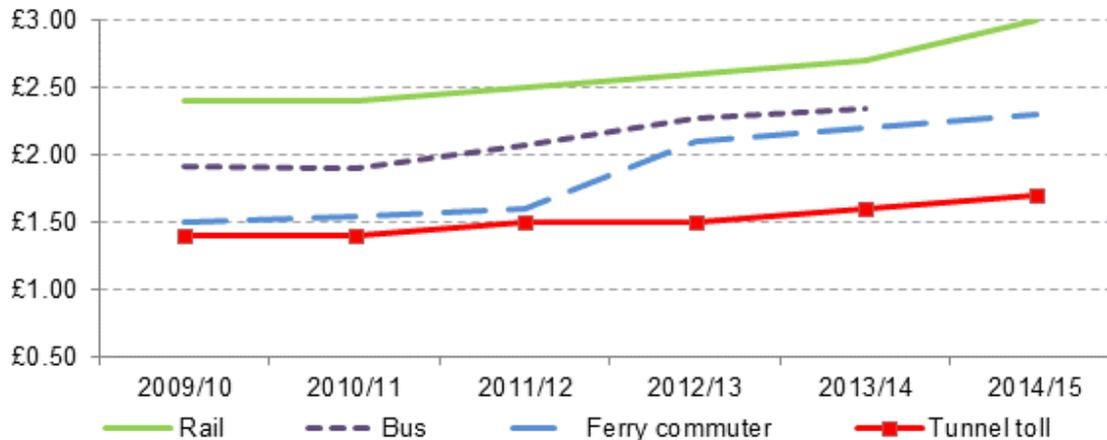
The Mersey Tunnels, Kingsway and Queensway are a vital part of the LCR's strategic highway network, connecting Liverpool to the Wirral underneath the River Mersey with around **25 million vehicles** travelling through them annually.

**Mersey Tunnels annual throughput since 1934**



The tolls to use the tunnels have also remained stable over the past ten years, rising with inflation and remaining the least costly option to cross the River Mersey (compared with rail, bus and ferry prices). Furthermore, we note that the tunnel tolls are on a per vehicle basis, whereas the alternative transport fares are costs per person.

**Changes of fares to cross the River Mersey (based on a single adult journey)**



## Context

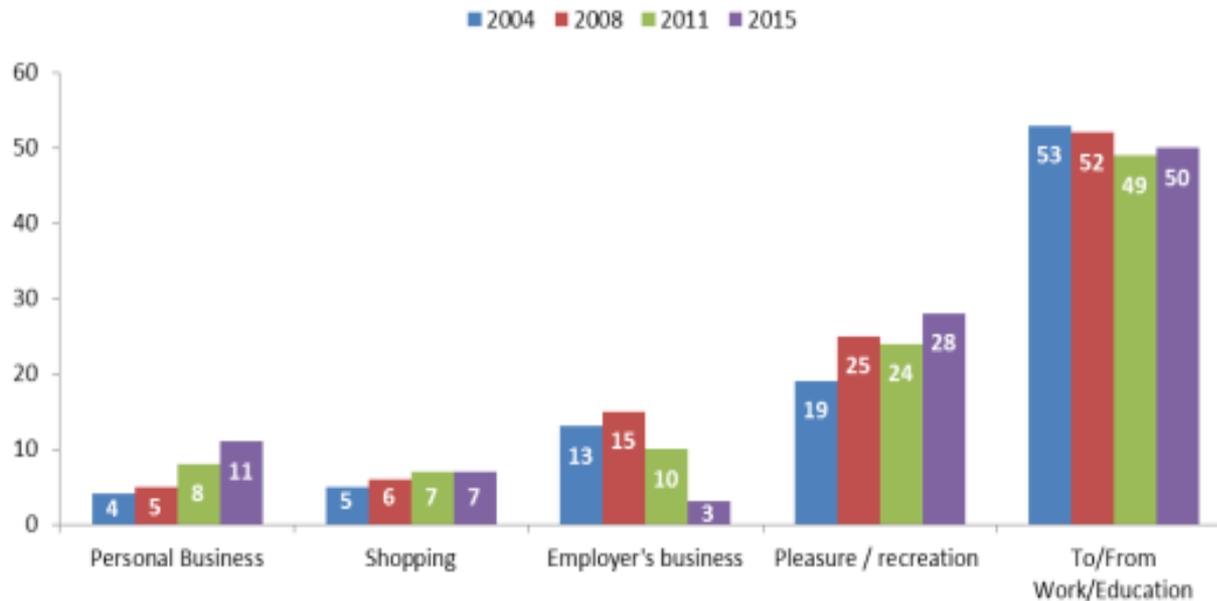
When asked in the Customer Survey (2015) what alternative route they would have taken if both tunnels were closed for a day:

- c.30% would not have made the trip at all
- c.80% would find it highly inconvenient

**Journey purpose:** The statistics illustrate the role the tunnels play in the LCR and how people use and view the tunnels. Commuting to work or place of education is the main journey purpose through the Mersey Tunnels.

**The high proportion of work-related journeys and the high level of perceived inconvenience from temporary tunnel closures indicate the importance of the tunnels for businesses and individuals in the LCR and beyond.**

Journey purpose by year (%)



## Policy Framework

The LCR's vision is to secure job growth of between 95-130,000 jobs over the next 5 to 15 years through supporting growth across a range of economic sectors. Schemes including the Liverpool 'Superport' and the Mersey Gateway Project should inject a total £1bn capital investment and are seen as 'strategic necessities' to build on the city-region's port, airport, rail and logistics assets to benefit the whole of the UK.

The LCR Transport Plan for Growth demonstrates how key priorities for transport relate to other strategically important areas of policy including economic development, employment, housing, air quality and health.

### The Superport initiative



An investment to create the most effective and cost efficient environment for freight cargo logistics and passenger transit in the UK and to make the Superport a multimodal freight hub.

The increased logistics capacity has the opportunity to deliver a transformation of the sector and enhance the region's attractiveness for retail and manufacturing logistics operations, and with it the potential to create 30,000+ jobs in the next 20 years.

### The Mersey Gateway



A major scheme to build a six-lane toll bridge over the River Mersey between the towns of Runcorn and Widnes to relieve congestion on the ageing Silver Jubilee Bridge.

The project will provide additional road connections to the LCR from the South, thereby improving connectivity and reducing congestion. The new road capacity will rebalance the transportation infrastructure within Halton towards delivering local sustainable transport and economic goals.

## Economic Profile

Analysis of a range of key economic indicators for the LCR found that:

### Commuting

- The majority of people live and work within the LCR.
- Wirral has the highest rate of people living in the local authority, yet working elsewhere

### Earnings

- Both workplace and resident-based mean earnings are lower than national average.

### Business Creations

- Net business creations have increased over the past 10 years, but at a slower rate than England

### Unemployment

- Every district in the LCR has seen a reduction in the rate of residents claiming Jobseeker's Allowance from 2005 to 2015. However most are still higher than national average (1.6%).
- The claimant rate in Liverpool is 2.4%, the highest in the LCR, whereas the Wirral has the lowest claimant rate in the LCR at 1.4%.

### GVA

- Output per head has exhibited positive growth in recent years across all six districts in the LCR – growth of 31% between 2003 and 2013.

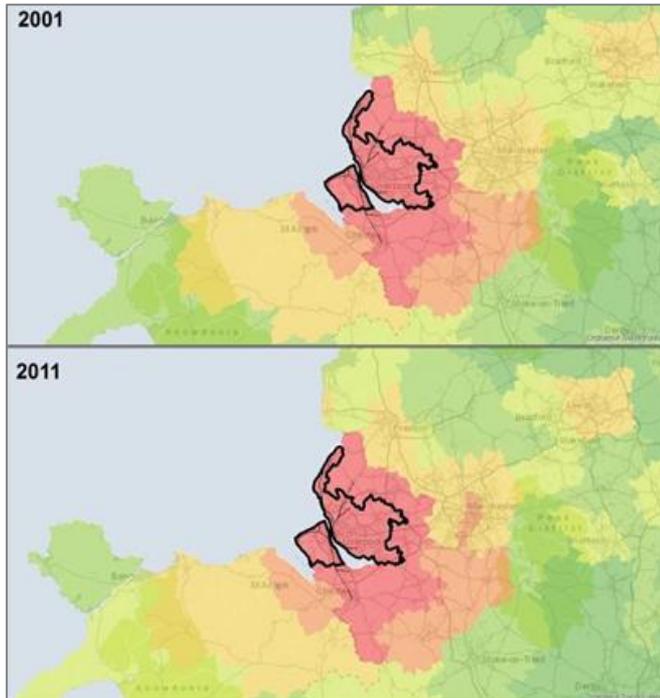
### Economic Growth

- This economic growth across the region and on both sides of the Mersey shows that the region is one economic unit and not made up of separate entities.

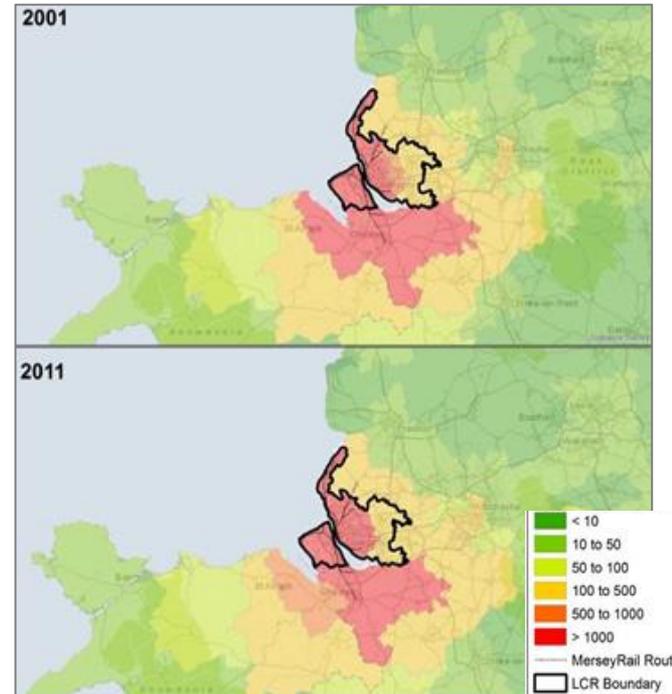
## Economic Profile

The majority of those commuting into Liverpool and the Wirral come from the LCR and the North West, showing there is good business connectivity in the region/ city-region. There are also a significant number of commuters from North Wales travelling to work in the Wirral and Liverpool. The tunnels contribute to opening up Liverpool's labour market to include the Wirral and North Wales.

Commuting into Liverpool



Commuting into the Wirral



The Mersey Tunnels play an important role in this economic integration as they connect the Wirral with Liverpool and the rest of the LCR. The tunnels serve to reduce the distance between the Wirral and the rest of the LCR by increasing the transport options and reducing the time and cost required to make the journey. In this way, the tunnels are key to ensuring economic growth and labour market mobility.

## Social Profile

### Keep tolls

The tunnels continue to be an important part of the transport system for all sections of society and any measures that support people to travel by the most affordable and convenient means should be considered. In this way, the tunnels can support people to affordably access employment, leisure and community facilities in all part of Merseyside, including the Wirral.

### Remove tolls

This assessment has identified that retaining the tolls will do less to support the achievement of these ambitions and may fail to address the existing potential negative consequences of the tolls, particularly around affordability, accessibility and severance. The Fast Tag system to discount the toll for regular users, used by 54% of tunnel users surveyed in the 2015 Customer Survey, does mitigate some personal affordability impacts and is non-discriminatory as all users are eligible.

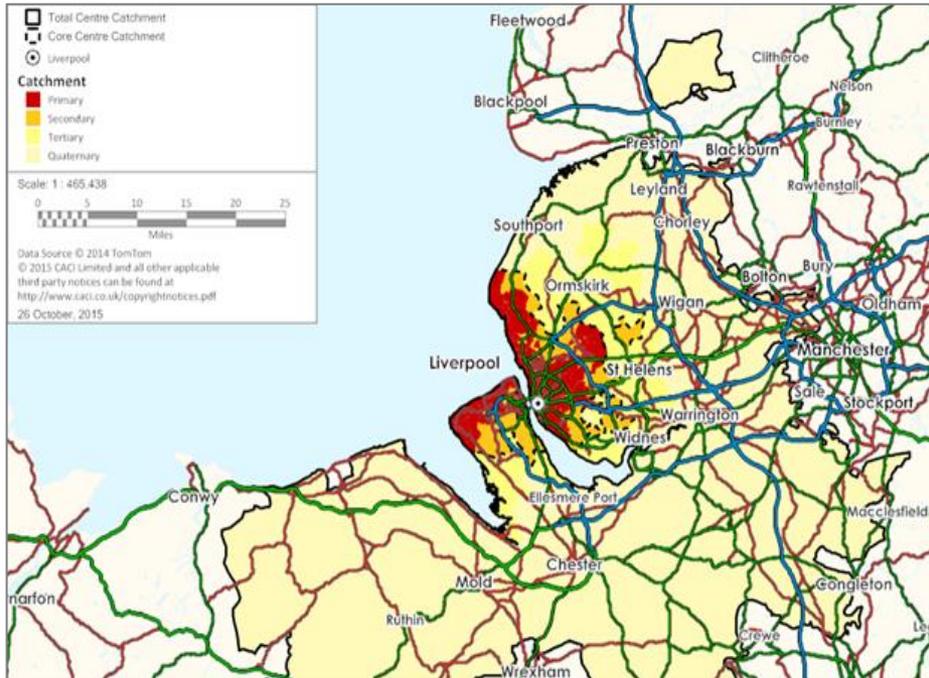
## Retail Sector Profile

- We have compared two of the LCR's main retail areas, Liverpool city centre and Birkenhead town centre. Our findings show that the retail sector is important for Liverpool and Wirral. However, the retail centres differ significantly in type, offering and target market.
- Liverpool has received much public investment and has grown as a retail offering, and has a large catchment area that extends beyond the LCR.
- Birkenhead is a major retail centre for those in the Wirral, it is generally mass-market led, containing less than 10% premium retailing. The majority of shoppers originate from the Wirral, with few coming from outside the LCR.
- The Mersey Tunnels allow people to move between these different retail centres according to the type of retail offering they require with more ease and less time or expense.
- However, the costs of crossing the River Mersey, such as the rail and ferry fares and tunnel tolls, also incentivise those living in the Wirral to shop locally. As such, this encourages more people to shop in Birkenhead town centre instead of travelling across the Mersey to Liverpool and thus sustains a strong level of local demand in Birkenhead.

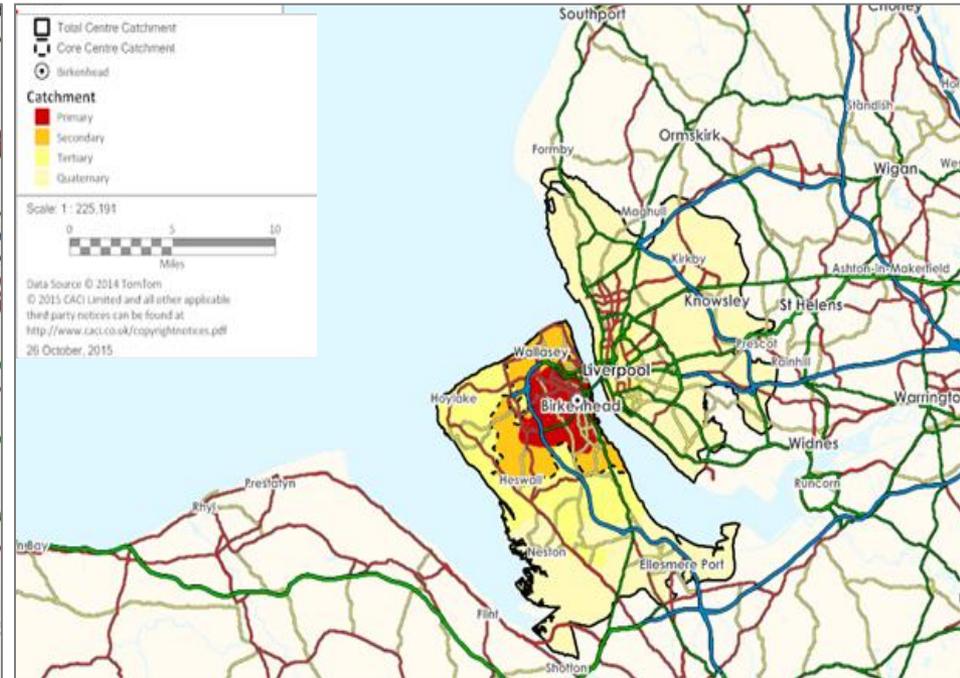


# Retail Sector Profile

Liverpool Retail centre catchment (Source: CACI)



Birkenhead Retail centre catchment (Source: CACI)



The Mersey Tunnels play a key role in incentivising those living in the Wirral to shop locally and therefore in ensuring there is sufficient demand for Birkenhead to remain a viable retail centre, while still enabling people to travel between the different retail centres in Liverpool and the Wirral according to the type of retail offering they require.

The tunnels thus facilitate a **more balanced retail sector in the LCR** and subsequently a more balanced demand for labour in retail in Liverpool and the Wirral, and the LCR more widely .

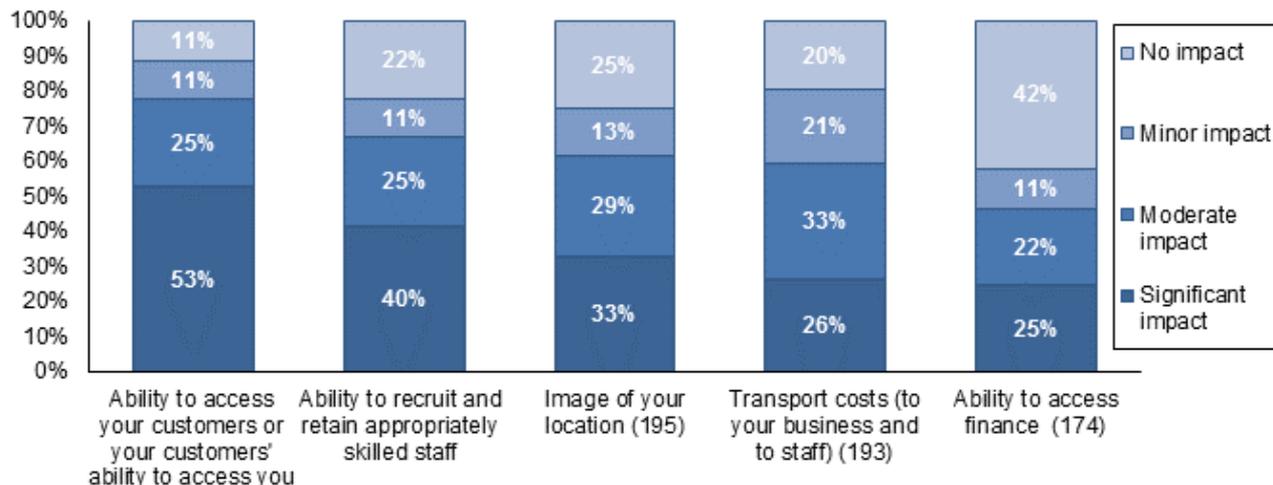
# Business Survey

Businesses who participated in the survey were located on both sides of the River Mersey, and represented a broad range of sectors.

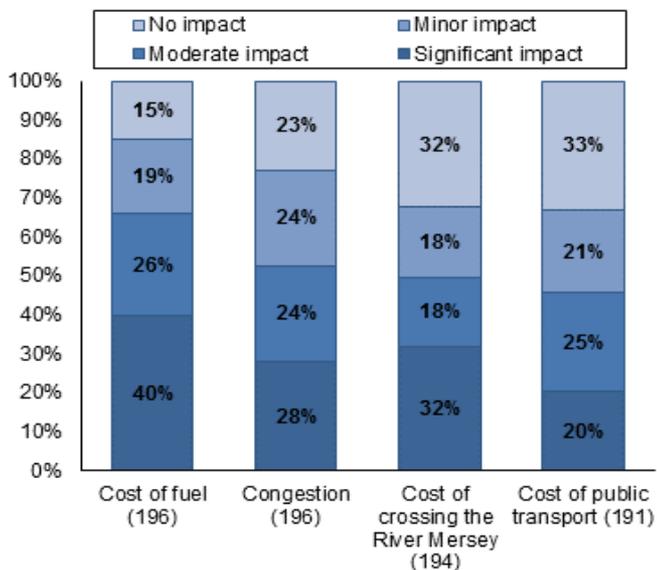
Accessibility was highlighted as a key factor which impacts upon business performance, as shown on the right.

Business location was highlighted as a key strength for businesses in both Liverpool and the Wirral, whilst most could not identify any specific weaknesses regarding their site.

## To what extent do the following factors affect your organisation's performance?



## How would you rate the following in terms of their impact on your organisation's transport costs?



The **cost of fuel and congestion** were both highlighted as issues which businesses felt had a significant or moderate impact upon both their organisational and individual staff transport costs, as shown on the left.

**Car** was a popular mode of travel to work, with businesses in both Liverpool (42%) and the Wirral (53%) indicating that over three quarters of their staff travel in this way.

**Tunnel costs** were highlighted as a barrier to doing businesses across the River Mersey by around three in ten respondents (Liverpool/Sefton: 31%; Wirral: 38%); however a similar proportion indicated that there was nothing in particular which presented a barrier to doing businesses across the river (Liverpool/Sefton: 34%; Wirral: 36%).

# Current and Future Travel Demand

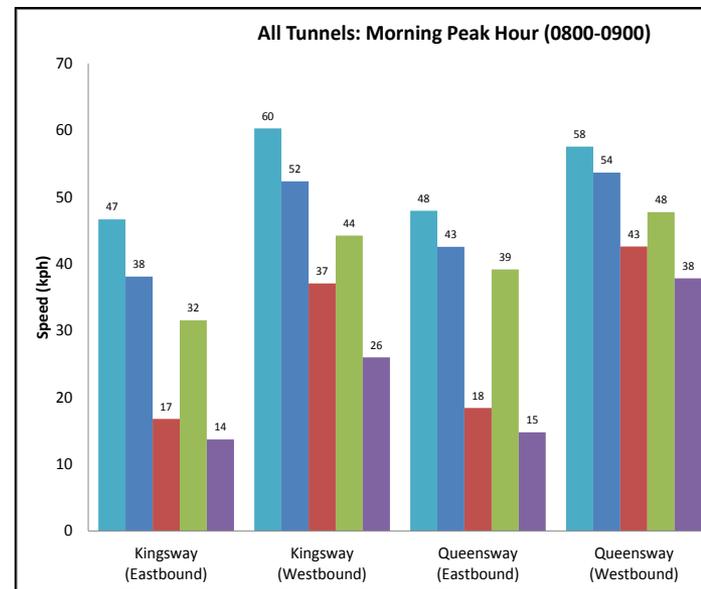
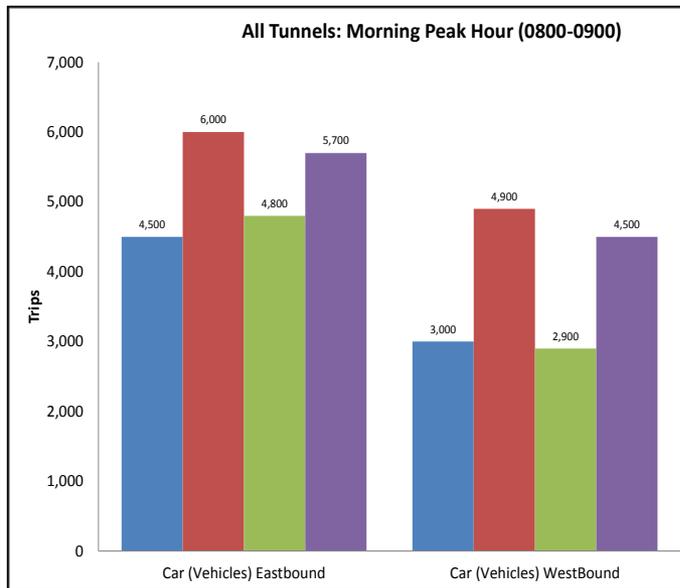
Mott MacDonald examined current and future travel demand for the Mersey Tunnels; along with testing the impact of removing the tunnel tolls using the **LCR Transport Model (LCRTM)**.

- Most people travel through the tunnel by **car**, followed by **rail**, with significantly fewer **bus** passengers.
- Tunnel usage is highest in the morning and evening peak hours, with there being a larger number of trips travelling towards Liverpool in the morning and vice versa in the evening.

## Removal of the tunnel tolls

Removal of the tunnel tolls leads to increases car usage of the tunnels.

**Congestion** in the tunnel increases significantly when the toll is removed and traffic speeds slow.



**The net economic impact of removing the toll has been examined and there is an estimated cost to the economy of £1.0 billion over the 60-year assessment period.**

## Removal of Tunnel Tolls and their Consequences



Benefit to the wider economy from removing the tolls in terms of some social impacts



Congestion in the tunnels increases significantly as traffic speeds fall  
(by an average of 20kph in the morning and evening peak hours)



Increased car usage of the tunnels due to changes in the route people use



Increased greenhouse gases; a direct consequence of the increase in vehicle kilometres



Economic value is more than offset by the dis-benefits of increase in travel time and vehicle operating costs



Combing the net present value of the transport user benefits and the total wider economic benefits from removal of the tolls presents a **significant net cost to the economy of approximately £1.0 billion over the 60-year assessment period**

