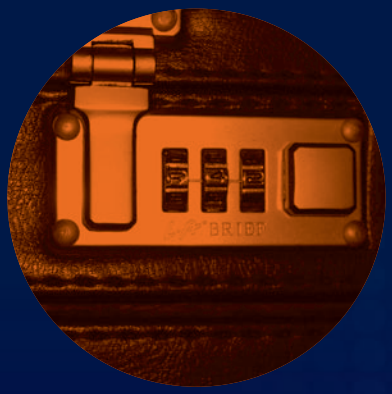
Executive Summary



This report describes a scoping study into the changing nature of car ownership and use within British society since the previous *Car Dependence* study, published by the Royal Automobile Club Foundation in 1995. It draws on a reanalysis of the National Travel Survey, a review of international literature and British attitude surveys, and findings from a small number of exploratory focus groups and professional interviews commissioned as part of this study.

The study finds that the car is now the dominant mode of travel in most people's daily lives, and is seen as a major asset by most households. Whilst car use per person has grown for nearly half a century, this trend now seems to have come to a halt, although the reasons for this are not clear. Our analysis identifies that since the early 2000s, annual car mileage has grown only in line with increases in the adult population. However, levels of car use are now well above those considered to be sustainable nationally, as outlined in the latest Department for Transport's *Delivering a Sustainable Transport Strategy* document (2008). Our report raises important issues concerning the potential economic and social consequences of substantial 'non voluntary' reductions in car use in the move towards a low carbon economy.

Key findings

1. Car ownership and use have continued to grow and extend across the population since the late eighties and are now embedded into most aspects of daily life in Britain. However, whilst car mode share (driver and passenger), as a percentage of all person trips, rose from 46% in 1975 to 63% in 2002, it has not increased between then and 2006.
2. Low-income households have experienced most growth in car ownership and use over the last ten years. There has been some convergence in car use between low-income households and the average population, but the difference is still large. Those without regular access to a car have lower overall trip rates and are travel disadvantaged in a number of respects.
3. Whilst overall road traffic has continued to grow (mainly due to the increased number of vans in the fleet), the car and taxi component has grown at a slower rate in recent years, and since 2002 has stabilised on a per adult basis. This may be due to a number of factors, such as the completion of the major new road capacity programme and the associated dispersion of land uses, the changing socio-demographic profile of the car driving population or the growth in traffic congestion; other transport policies may have had some influence, but the evidence is unclear.
4. In national attitude surveys and our focus groups, people regularly referred to their work or home location being the main reason for needing a car and said that grocery shopping was the main trip they couldn't manage without a car. After-school child escort trips were also given as an important reason for many parents needing a car.

5. Many people from non-car owning households rely heavily on their friends and families to drive them around in the absence of alternative travel choices. People who do not own cars or cannot not drive often said they felt isolated and a burden on their friends and families.
6. Whilst the car is seen to have a wide range of benefits, most people also recognise the disbenefits of car ownership and use. The most significant are the costs of ownership and use and although some people said they would prefer not to drive, they felt they had no choice.
7. Local transport authority car reduction policies primarily focus on car use management and voluntary behaviour change programmes. Many local authorities are taking a more segmented social marketing approach although there appears to be little certainty amongst their officers about how the Government's new 80% reductions in CO_2 emissions can be met nationally. This study aims to inform that debate.

Current patterns of car ownership and use

Over three quarters of households now own at least one car, and 70% of adults have a driving licence. As a consequence, the car dominates most people's daily travel patterns. The average citizen makes two-thirds of trips by car and three-quarters of their weekly mileage the same way. Even amongst the lowest household income quintile where car ownership levels are much lower than for the average population, cars are used for 45% of daily trips and 65% of travel mileage. Forty percent of household members in this quintile report travelling by car at least once a week; however, they account for only around one-tenth the car trips made by members of one car households, and they make far fewer trips in a week overall, using any mode of transport.

Trends in car ownership and use since 1989

Car ownership grew throughout the period from 1989 to 2006, both on a per household and a per capita basis, as did driving licence holding. Reflecting these trends, car use has extended to all sectors of the population. However, amongst the population as a whole, the growth in per capita car use has stabilised in recent years. The percentage of weekly mileage by car peaked in 1995 since when it has dropped back slightly; the modal share of trips by car has stabilised more recently, since 2002.

Continuing growth in car ownership combined with a stabilisation in car use implies that the intensity of use of the average car must have declined over time. In fact, the number of car trips has dropped from 30 trips per week per car in 1989 to 24 trips per

week per car in 2006 – a 20% drop in all. The pattern for distance is more complex, with a gradual increase from 1989 up to 1996 (up from 142 to 152 miles), followed by a gradual decline, down to 132 miles per car per week in 2006.

One possible explanation for this apparent stabilisation may be the result of constraining socio-demographic factors, such as the increase in lower income and older drivers who tend to travel less, bringing the overall averages down. There has been convergence in total car modal shares between men and women. Men make more trips as drivers whilst women make more as passengers. Amongst drivers aged between 16 – 29 years, a reduction in the number of miles travelled by car has been recorded. However, the 70+ age group has been responsible for offsetting these figures by travelling further and more often in recent years. There has been relatively little increase in the proportions of trips and distances travelled by car by the top two income groups since 1989. However the proportions have increased considerably in the lower income quintiles over the last ten years, which has led to some convergence in car use between income groups, but the differences are still large.

Other possible explanations for the levelling off in overall car use might include an increase in the number of people living in larger settlements, with better local access to goods and services by non-motorised modes, and in areas with good public transport accessibility. However, evidence from the National Travel Survey (NTS) does not show any consistent trends of this type. It might also be associated to some extent with increasing levels of international travel thereby reducing annual travel rates in the UK, or with an increase in traffic congestion on Britain's roads; the NTS does suggest a drop in average speeds by car in recent years.

Public attitudes towards the car

Our analysis of the published survey data suggests that people's attitudes to driving have remained fairly consistent over the last twenty years, with between 80 to 90 percent of people still saying that they would find it difficult to adjust their lifestyles to living without a car. During the last three to four years there appears to be a slight increase in the numbers of drivers who say they would be prepared to use their cars less if public transport were better. It is unclear whether this is because people think public transport is getting worse over time or whether their attitudes towards public transport have become more positive.

Various surveys have found that the majority of the population (even those who do not themselves own cars) tends to favour car travel over any other mode for day-to-day travel. The wide-ranging benefits of car-based travel are discussed in some academic literature in terms of convenience, coverage, flexibility, security and status. However, there is also a considerable and growing body of literature referring to the disbenefits of

mass car ownership. These include traffic congestion, traffic accidents, the effects of vehicle emissions on climate change and air quality, and poor public health resulting from the car replacing walking as a means of travel.

Focus groups which included members of the public broadly supported the findings of our literature review. It was confirmed that car owners value highly the freedom and independence having a car offers, as well as wider access to goods and services. Conversely, public transport is seen as being outside personal control and many people without cars to whom we spoke were still largely reliant on their car owning friends and families to get them to the places they needed to go. This sometimes made them feel a *burden* and *isolated* and was a particular problem for the older people, single parents and rural dwellers in the groups.

Many people in the groups acknowledged that there were also disbenefits to car ownership and use, both for themselves and their families and wider society. Many people noted the considerable expense of maintaining and running a car and there were at least one or two 'reluctant drivers' in each of the five groups. Some said the car made them lazy and expressed the desire to walk or use public transport more. They felt this was often impossible because these alternatives were not available or their lives were too busy to allow for such a switch. However, it should be noted that in almost all cases participants felt the benefits of a car far outweighed its disbenefits either to themselves or to wider society.

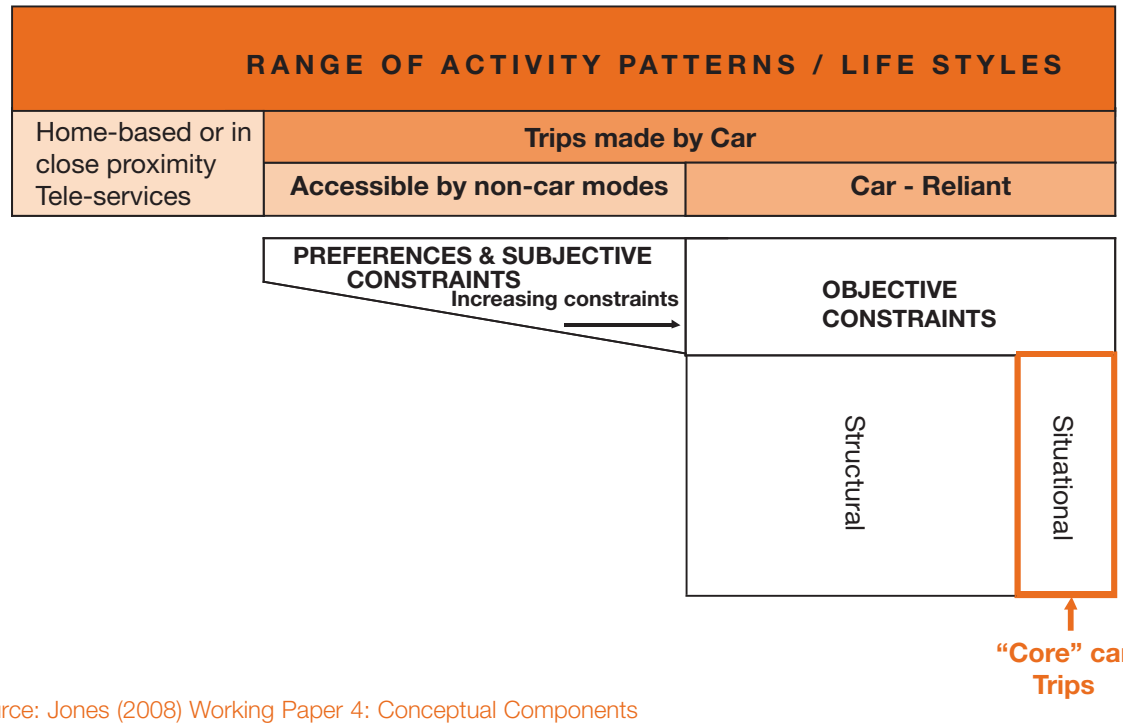
Car use: choice or necessity?

There have been numerous attempts in the literature to understand the theories underlying people's car use behaviours. It is clear that the influence of the car works at many levels, both physical and psychological. But in many situations it is not the actual car that people are dependent on, rather what it delivers for them in the context of time constrained, dispersed and highly security conscious lifestyles. Often there are alternative forms of transport available but they are generally perceived by the public as less convenient and reliable and sometimes more expensive.

In the focus groups, people were able to identify when and where they were using their cars out of choice or convenience and when out of necessity for their own or their family's well-being. Children's escort trips were seen as a significant factor in people being car reliant amongst parents in all the groups (but most of the people we spoke to were dependent on their cars, to varying degrees, for the majority of their trips). A number of people said that travelling to work and servicing family needs such as shopping were the prime motivations for using their cars and for which they felt they could least do without a car.

The population collectively engages in a very wide range of activities that support many different lifestyles. Some of these activities are carried out at home but most require travel and tend to be accessed by car. In several instances these trips could be made by non-car modes although with varying degrees of difficulty. In many cases, however, there are currently no reasonable or practicable transport alternatives to car use that can sustain the kinds of activity patterns and lifestyles that people have built around their daily use of the car. These different degrees of car dependence are represented in Figure 1, with the size of each area roughly corresponding to the relative importance of that form of car use. The 'core' car trips are those where the situation requires a car, due to personal mobility restrictions, or the need to carry heavy loads.

Figure 1: Different degrees of car dependence, across a range of activity patterns and lifestyles



Source: Jones (2008) Working Paper 4: Conceptual Components

Car reliance and dependence tend to grow over time. There is a 'ratchet effect', in which people start substituting cars for trips where there are modal alternatives, but they become locked into car use as these transport alternatives are cut back due to reduced levels of use, and people become attracted to other, car-based, destinations. It becomes increasingly difficult for them to return to their pre-car travel patterns, and so they are less responsive to increases in fuel prices or to policies to encourage reductions in car use.

The cost of adjustment to a low carbon future

Currently, national and local policy measures to reduce car use do not fully consider the impacts they might have on people's lifestyles and livelihoods, especially for those with limited travel alternatives. The empirical evidence relating to the economic and social consequences of significantly reducing people's car use and the wider costs of such an adjustment is limited. There are a few experimental studies suggesting that in the short term people absorb such costs, but in the medium term some groups may experience economic and social hardships. We do not know what the knock-on effects of reduced ability to travel might have on the wider economy and society as a whole, as this is largely not considered by the literature.

Some useful research has been undertaken in other disciplines about the wider costs of adjustment to economic shocks, which may have lessons that could usefully be applied to the transport field. Our focus groups demonstrated that many people have already adjusted their car use and the way they drive in response to recent economic pressures and environmental concerns. However, most people cannot envisage a future without their cars and most would go to considerable lengths to maintain their ownership and use, although many said they would make more use of public transport.

Recommendations for further research

Whilst there will be scope to explore some of these issues through the re-use of existing data sets, detailed empirical research is needed in order to examine fully the kinds of constraints that prevent voluntary reductions in car use, and the nature and extent of the 'costs of adjustment' that result from 'forced' behavioural change, where economic and political pressures result in households cutting back substantially in car use, beyond that which they would do voluntarily. Further research should seek to identify the kinds of measures that could be taken, by both the public and private sectors, to reduce any undue burden and/or social exclusion arising from pressures to reduce car use.