

Roads Task Force – Technical Note 12

How many cars are there in London and who owns them?

Introduction

This paper forms one of a series of thematic analyses, produced to contribute to the Roads Task Force Evidence Base. The primary topic for this analysis paper is “who owns and who does not own a car” and how this has changed over time. In practice there is no simple answer to this question. However, what we can say is which groups are more or less likely to own a car, and what the factors are that influence car ownership rates.

Summary

- There are 2.6m cars registered in London. 54 per cent of London households have at least one car.
- The proportion of households with one or more cars appears to have declined slightly over the last few years, so in 2005/06 around 57 per cent had at least one car.
- Londoners are more likely to own a car if they live in outer London, live in an area with poor access to public transport, have a higher income, have a child in the house, and are of Western European nationality.
- Personal car ownership increases with age to a peak of 58 per cent amongst 55–59 year olds, after which it declines again.
- Car ownership is higher amongst men than women (46 per cent compared to 34 per cent). This gap is greater in lower income households.
- Up to household incomes of £75k, household car access rises as income increases, flattening off after that point.
- People in households with at least one child are nearly a third more likely to own a car than those without.
- Car ownership (households with access to a car) varies substantially across London: at a borough level it ranges from 26 per cent in Islington to 75 per cent in Richmond Upon Thames, outer London boroughs generally seeing higher levels than inner London boroughs.

Key sources

To analyse whether there has been any change in the levels of car ownership, this paper uses the last 7 years of the London Travel Demand Survey (LTDS), from 2005/06 to 2011/12. When looking at how car ownership rates vary between groups within the London population, this paper uses the most recent wave of LTDS, 2011/12. This paper also makes use of statistical analysis of the factors which influence levels of car ownership, undertaken to develop TfL’s Car Ownership Model for London.

Background

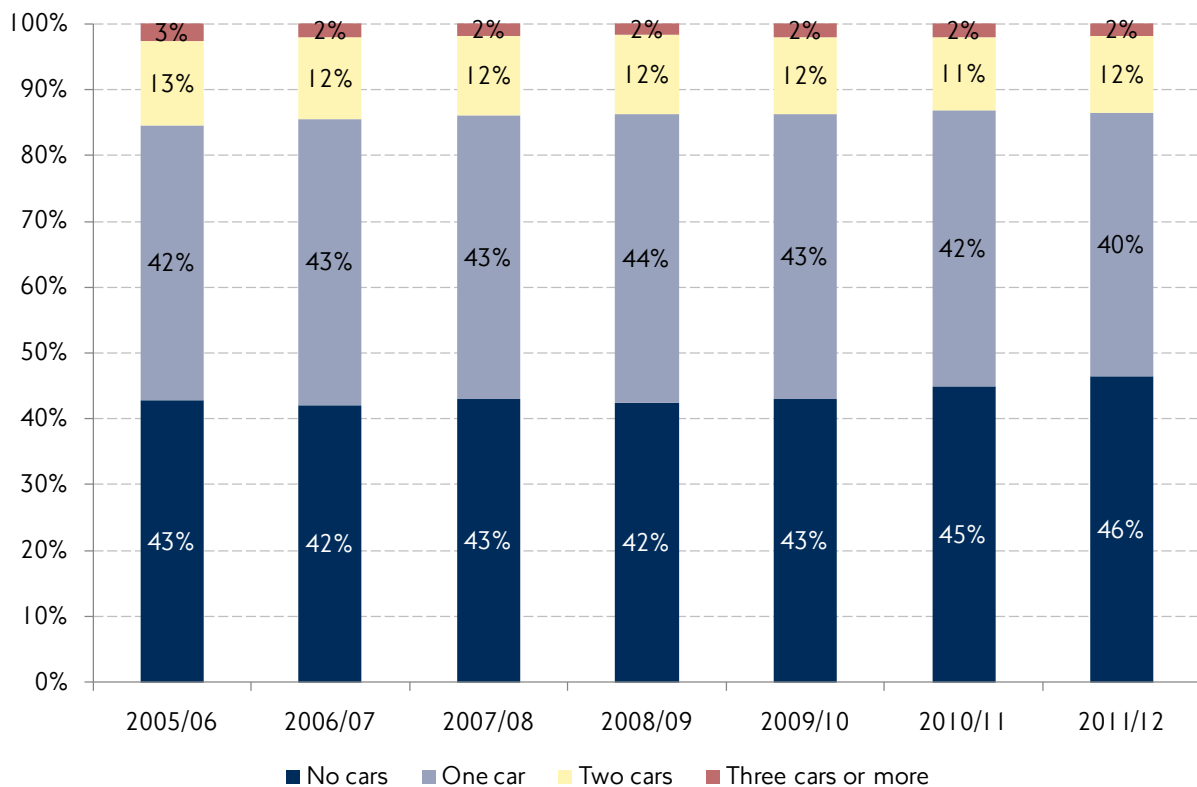
There are 2.56m cars licensed in London. This equates to an average of 0.3 cars per adult. In total, 46 per cent of households do not have a car, 40 per cent have one car and 12 per cent have two or more cars, with very few households owning more than two cars.

Household car access

In overall terms, household car access rates have been fairly stable in recent years. Over the past two years, there is some evidence of a slight decline in car ownership, with the proportion of households without a car increasing to 45 per cent in 2010/11 and 46 per cent in 2011/12 and a commensurate fall in the proportion with one car. It remains to be seen if this is a long term change.

Compared to mid-nineties levels, household car access appears to have decreased: for example, in 1995 the proportion with no cars was reported in the National Travel Survey¹ as 39 per cent, one car 43 per cent and two or more cars 18 per cent.

Figure 1 Household car ownership in Greater London (LTDS).



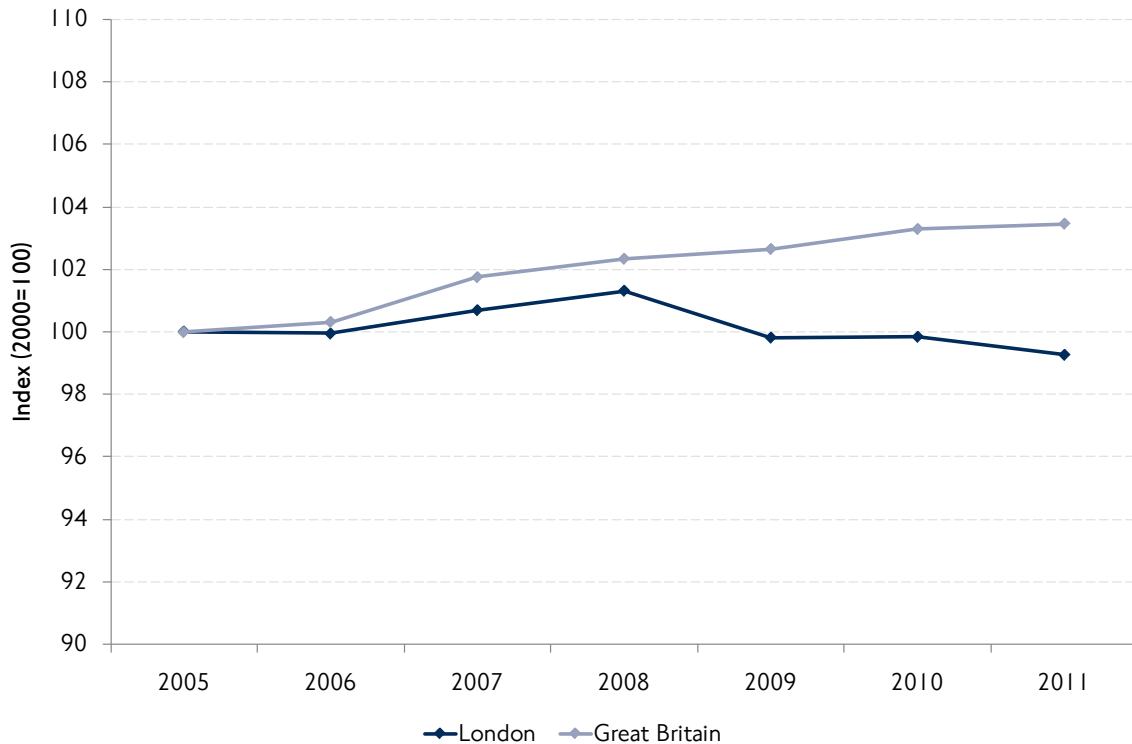
Source: LTDS 2005/2006, 06/07, 07/08, 08/09, 09/10, 10/11 and 2011/12 [1].

¹ Note that the National Travel Survey undertaken by the DfT has tended to give slightly different results to the LTDS so care needs to be taken in making direct comparisons

Cars licensed

Over the period 2005-2011, the number of cars licensed in London has remained largely static, as illustrated in Figure 2 (this also shows how at the same time there's been a slight increase in Britain as a whole in the number of cars licensed).

Figure 2 Cars licensed in London and Great Britain (DfT).



Who does and does not own a car

Whether or not a Londoner owns a car principally depends upon where they live, their income, and life-stage or household composition. Statistical analysis has shown that the following factors are most closely associated with higher than average car ownership:

- living in outer London;
- lower levels of public transport accessibility;
- higher income;
- children in the household;
- more than one adult in the household;
- in full time employment;
- Western European nationality.

Personal car ownership by demographic characteristics

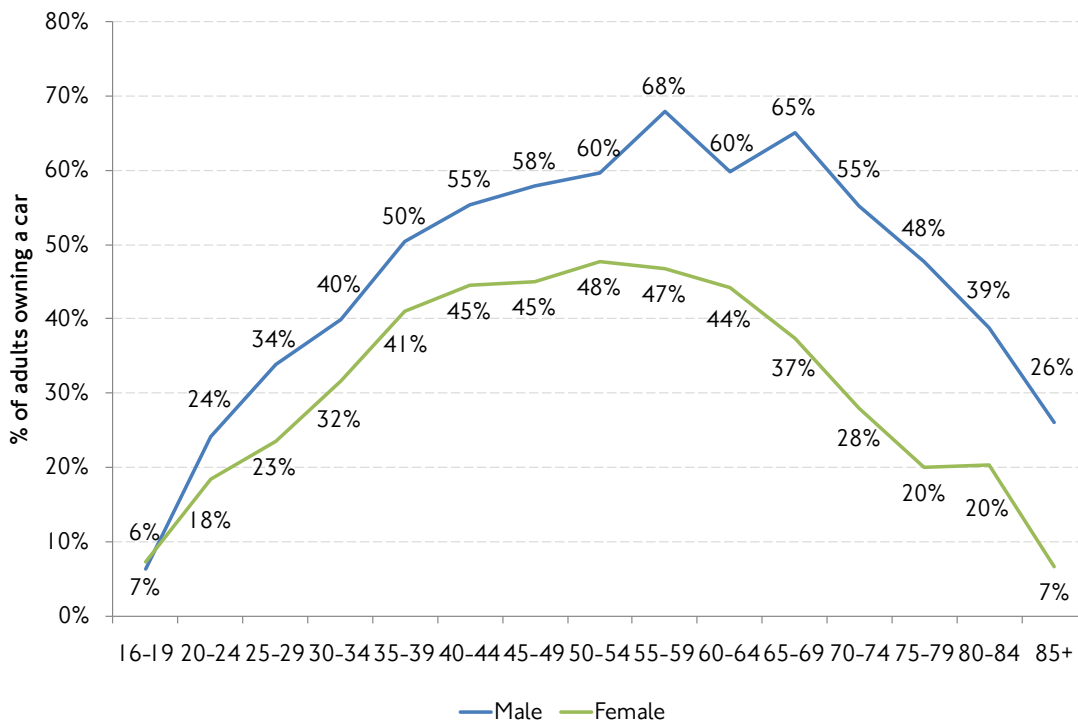
The following section presents analysis of car ownership by demographic characteristics, including age, gender, and ethnicity, using the London Travel Demand Survey 2011/12.

Personal car ownership by age and gender

At an individual level, car ownership varies by age and gender, as shown in Figure 3:

- Broadly, car ownership increases with age up to around 50-60 years old and then declines beyond that.
- On average, 46 per cent of men and 34 per cent of women have access to a car in London.
- Across all age bands, car ownership is lower amongst women, with this gap increasing beyond age 40.

Figure 3 Personal car ownership by age and gender, London residents.

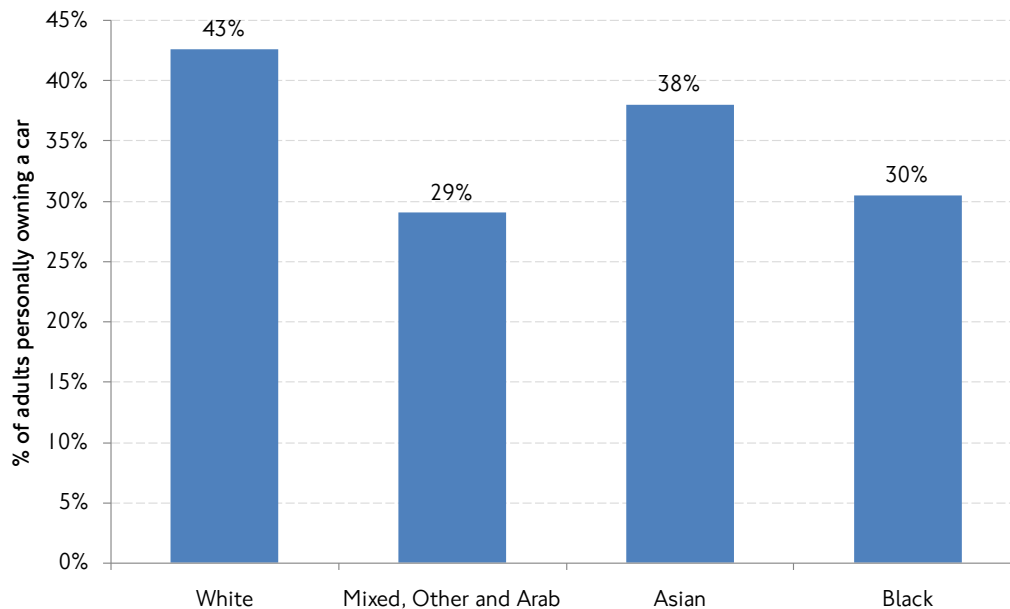


Source: LTDS 2011/12.

Personal car ownership by ethnicity

Car ownership is highest amongst London residents of White ethnic origin, with car ownership around a third lower amongst Black and Mixed or Other ethnic groups. Asian families are more likely than other ethnic minority groups to own a car. Note that car ownership patterns vary substantially between different groups within the 'Asian' categorisation, so that Bangladeshi households, for example, are much less likely to own a car than Indian households.

Figure 4 Personal car ownership by ethnicity, London residents.



Source: LTDS 2011/12.

Personal car ownership/household car access by household characteristics

The following section describes analysis of car ownership by household characteristics, including the presence of children in the household and life stage using the London Travel Demand Survey 2005/11.

Household car access amongst households with children

Household car ownership is higher in households with children than those without, in each income band. The difference is greatest at household incomes between £25,000 and £49,999, and smallest at incomes over £75,000. Overall, 68 per cent of households with children have access to at least one car, compared to 52 per cent of households who do not have children.

Household car access by life stage and income

Of the households with children, car access is highest in households where the youngest child is old enough to attend school (5 – 17). Overall, households with under 5s have similar car access rates to those with no children under 18, although 85 per cent of pre-school households in the £25,000 - £49,999 income band have access to a car, compared to 76 per cent of households with no under 18s.

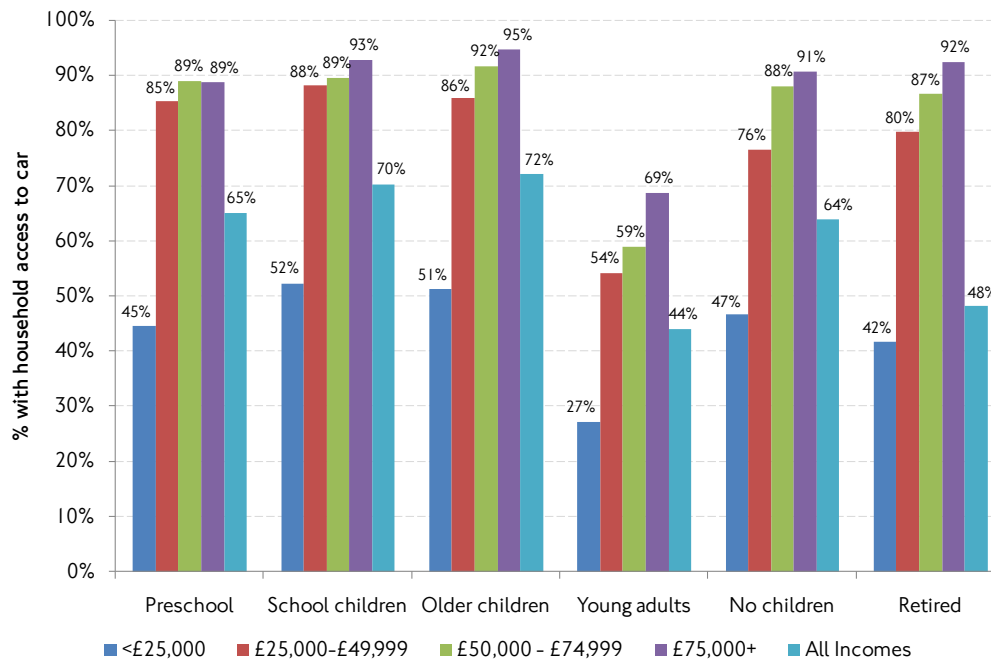
Young adults, and those under 44 with no children have the lowest rates of household access to a car, at 44 per cent. Households with retired people have only slightly higher access at 48 per cent, although this is considerably higher for those with incomes above £25,000.

Figure 5 Household car access by whether or not there are children in the household, London residents.



Source: LTDS 2005/11.
Note: household income before tax.

Figure 6 Household car ownership by life stage and income, London residents.

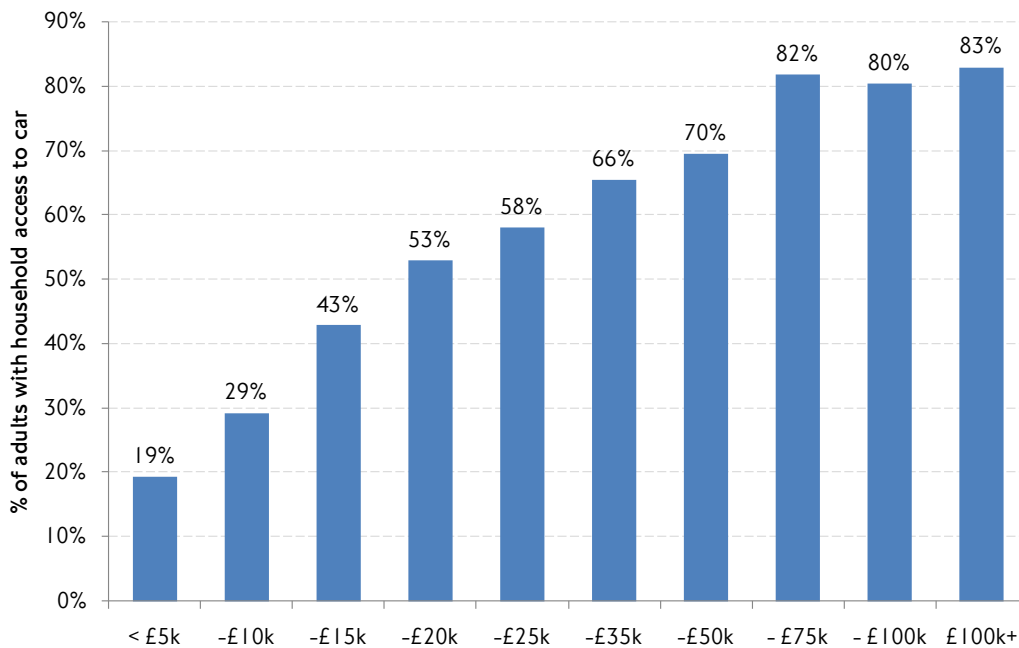


Source: LTDS 2005/11.
Note: household income before tax.

Household car access by income

As one would expect, the general trend is for household car access to rise as household income increases, Figure 7 shows that car ownership rises steadily with income amongst households with incomes of up to £75k a year. Beyond this point, car ownership no longer rises with income, remaining at just over 80 per cent on average.

Figure 7 Household car access by income, London residents.



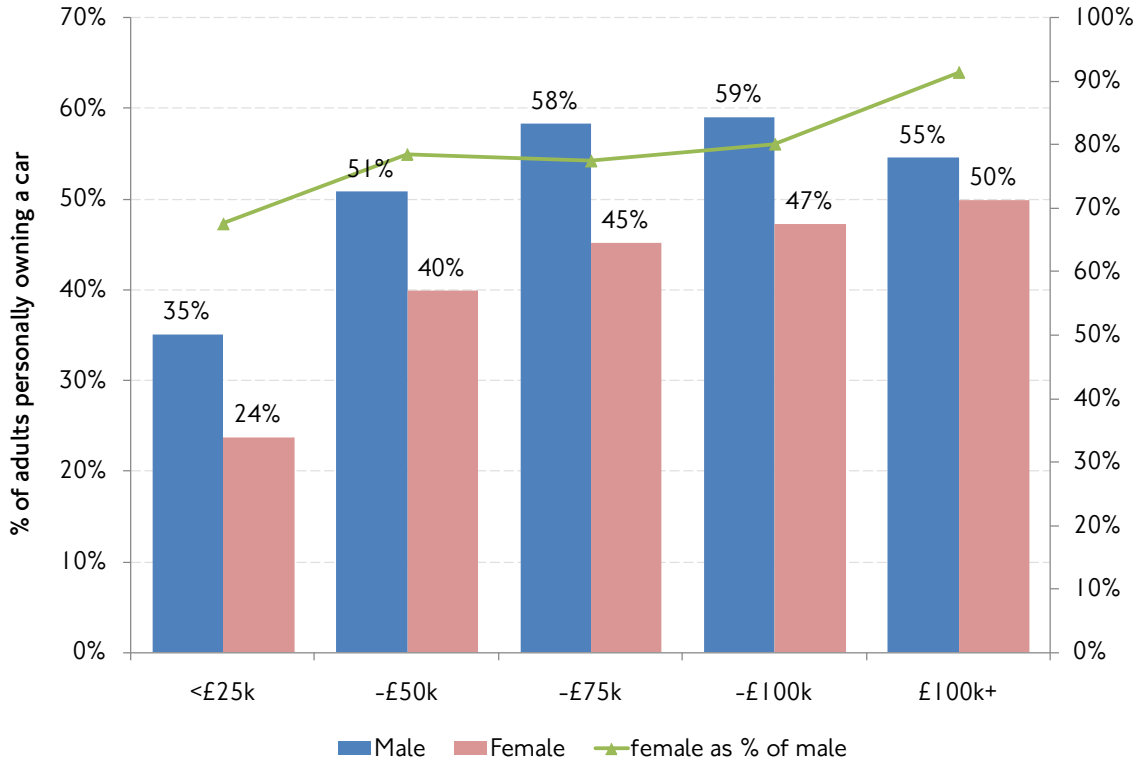
Source: LTDS 2011/12.

Note: household income before tax.

Personal car ownership by gender and income

Figure 8 highlights the interaction between income, gender and car ownership. At lower income levels, the difference between male and female car ownership is greater, with the gap reducing as income rises. So, in households with an income less than £25k a year, car ownership amongst women is 68 per cent of that for men, whereas amongst households with a household income over £100k, car ownership amongst women is 91 per cent that of men.

Figure 8 Personal car ownership by income and gender, London residents.

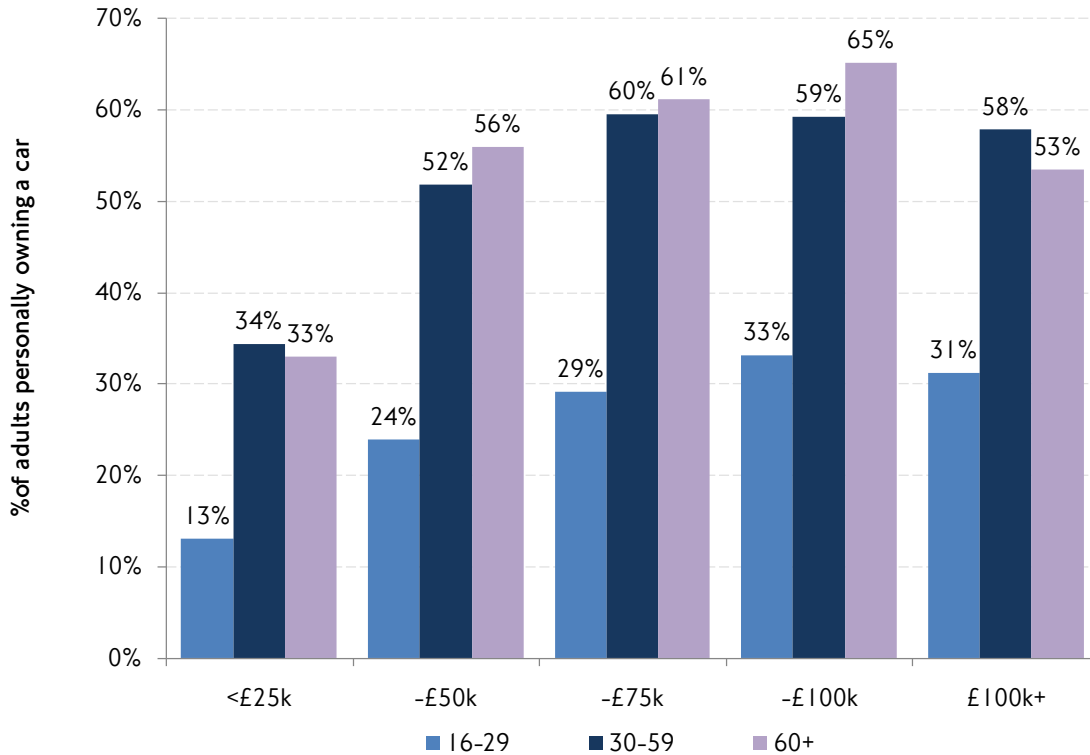


Source: LTDS 2011/12.
Note: household income before tax.

Personal car ownership by age and income

There is also an interesting interaction between age, income and car ownership (Figure 9): irrespective of the income band, car ownership is always substantially lower amongst the younger age group (under 29) than either the middle or older age groups. For all age groups car ownership peaks at household incomes of around £50k, so even as incomes increase above this there is little impact on car ownership.

Figure 9 Personal car ownership by income and age, London residents.



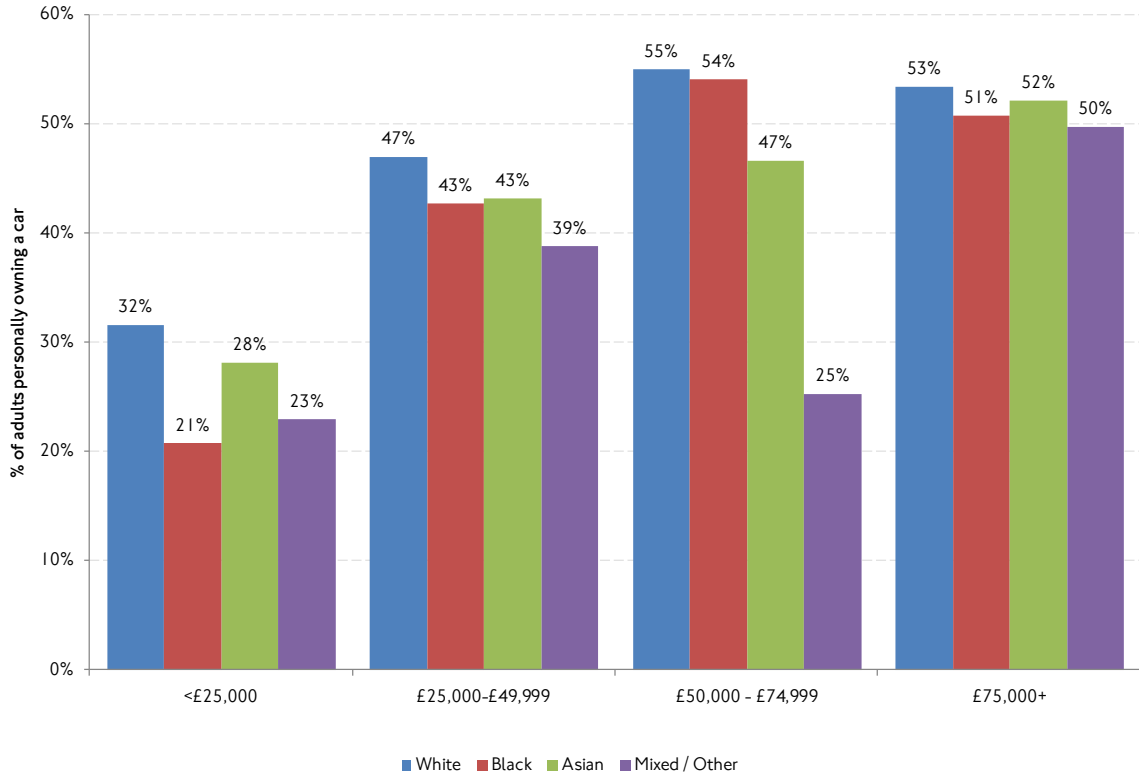
Source: LTDS 2011/12.

Note: household income before tax.

Personal car ownership by ethnicity and income

Some, but not all, of the difference in car ownership between different ethnic groups can be accounted for by differences in patterns of household income, as shown in Figure 10. Differences by ethnicity are highest in the lowest income groups, with car ownership levels amongst higher income households fairly similar across all ethnic groups. The differences may reflect patterns of residence, with White Londoners more likely to live in outer London, where public transport is less available.

Figure 10 Personal car ownership by ethnicity and income, London residents.



Source: LTDS 2011/12.

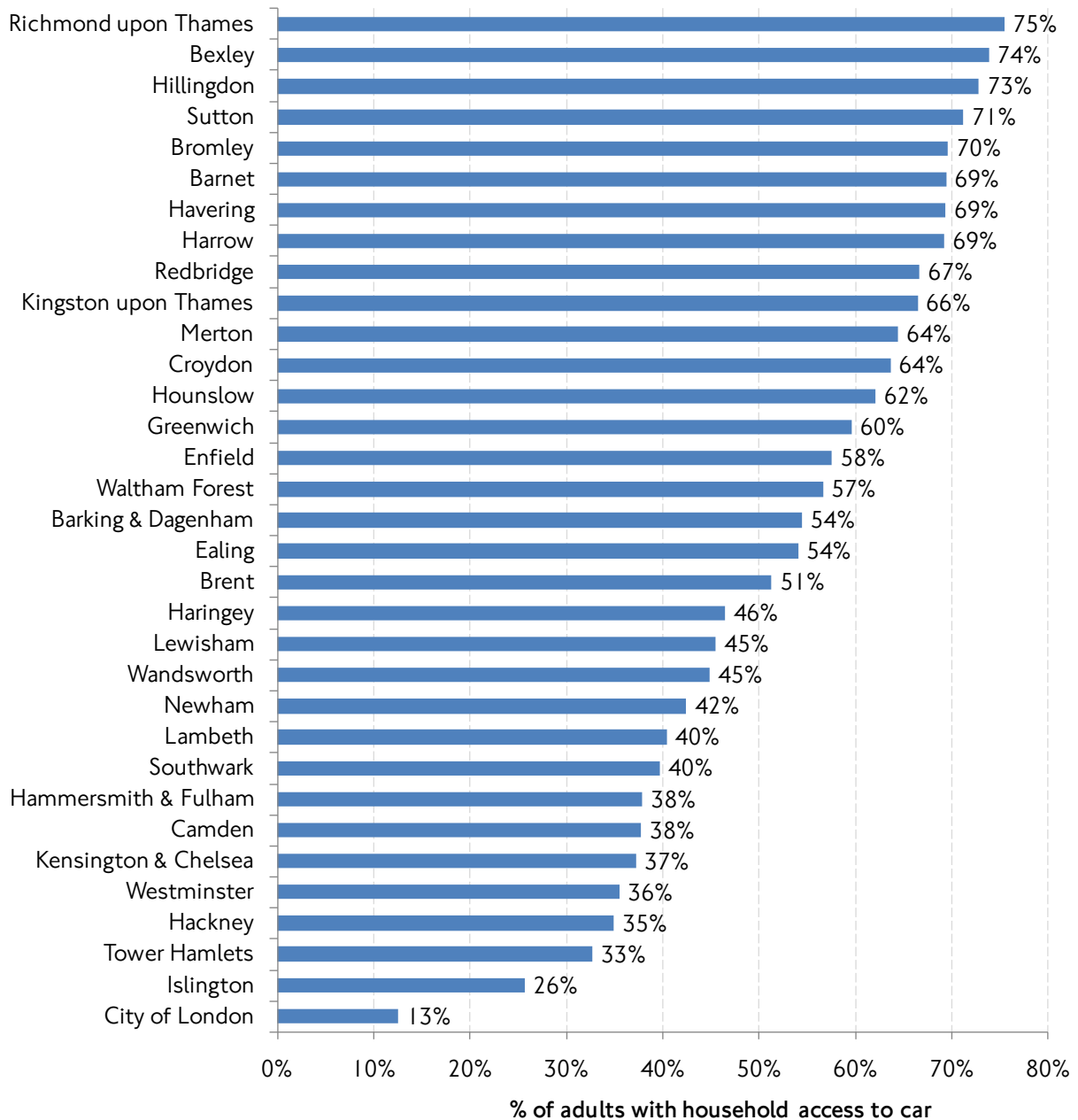
Note: household income before tax.

Household car access by region and borough

In total, 39 per cent of inner London households and 64 per cent of outer London households have access to a car.

Household access is higher in all outer London boroughs than any inner London borough, so that even the wealthiest inner London boroughs have lower car ownership than the most deprived outer London boroughs. Islington has the lowest level of car ownership, at 26 per cent, and Richmond upon Thames the highest at 75 per cent (ignoring the City of London, which has a very small resident population and is thus not well represented in the survey data).

Figure 11 Household car access by borough, London residents.



Source: LTDS 2011/12.

*Note: the results for the City of London should be treated with caution due to the small sample size

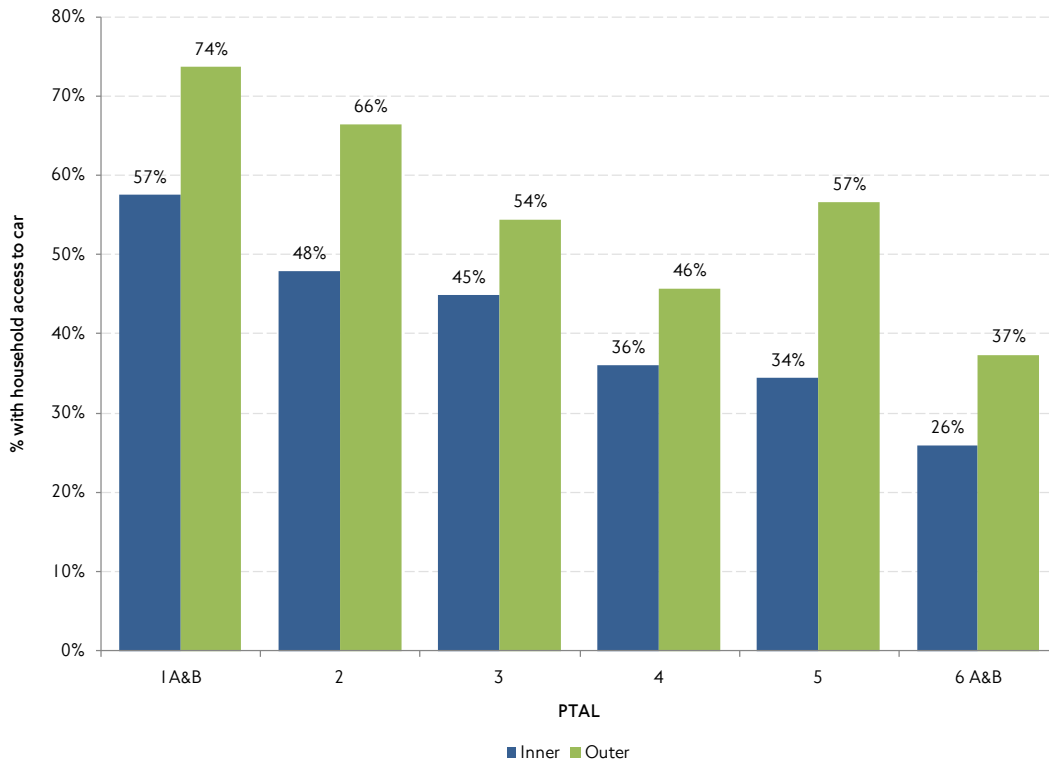
Household car access by access to public transport

There is a strong relationship between household car access and access to public transport, with household car access rising as public transport accessibility falls.

There is also an additional relationship between inner and outer London, with household car access higher in outer than inner London at all public transport accessibility levels (see Figure 12).

It is notable that those parts of inner London with the least good access to public transport have higher household car ownership than those areas of outer London with the best public transport access.

Figure 12 Household car access by access to public transport accessibility and region, London residents.



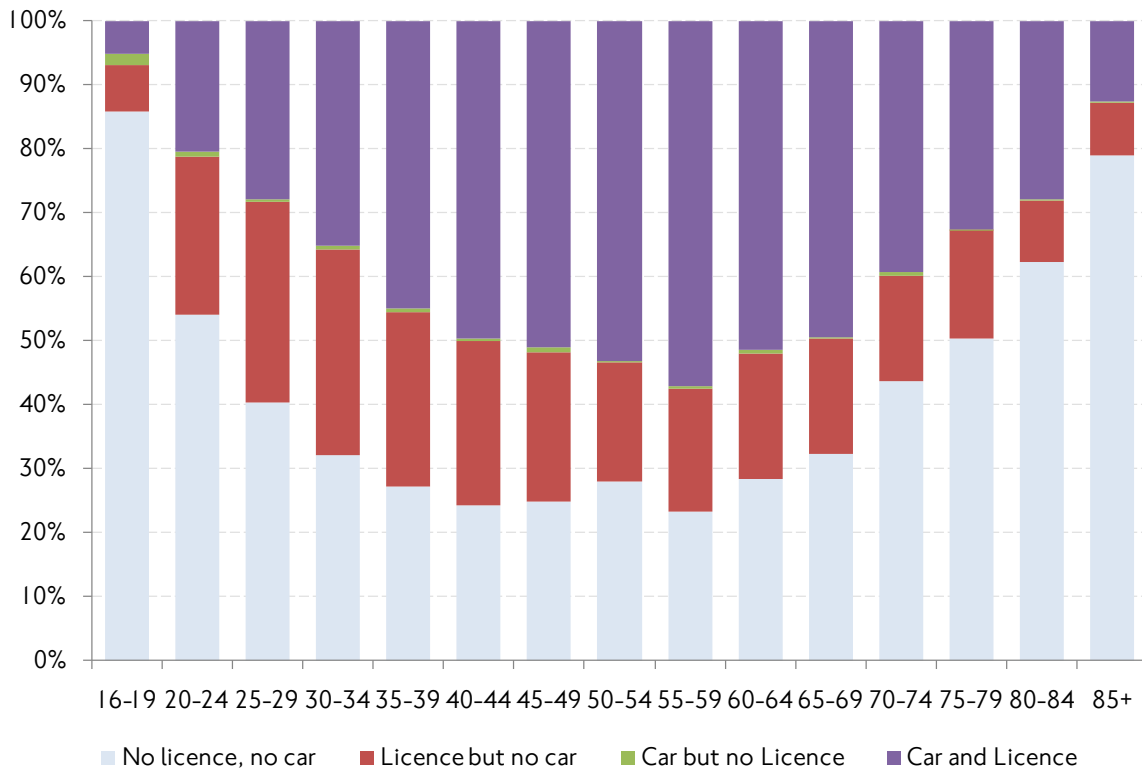
Source: LTDS 2011/12.

Personal car ownership and licence holding

Around two thirds of London adults without access to a car do not hold a driver's licence. As shown in Figure 13, younger and older people are more likely to have neither a car nor a licence, whilst people aged 20 to 50 without a car are as likely to have a licence as not.

In total, 39 per cent of London adults have a licence and access to a car, 23 per cent have a licence but no car and 37 per cent have neither a licence nor a car. At any given time, a very small proportion of the adult population have a car but no licence, either reflecting the fact that they intend to learn to drive or the impact of driving bans.

Figure 13 Comparison of personal car ownership and holding of a driver's licence, by age, London residents.



Source: LTDS 2011/12.

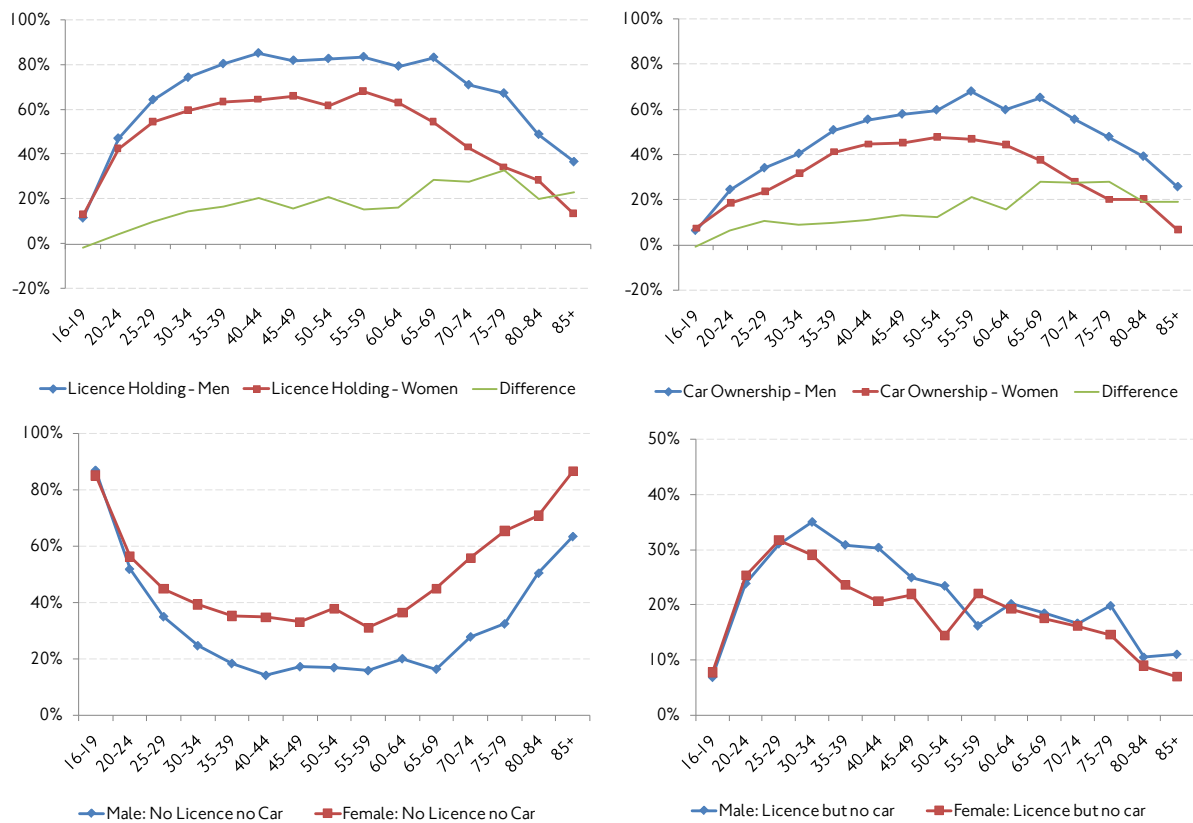
The differences in car ownership and licence holding between men and women are illustrated in the following charts (see Figure 14). The first (top left) compares licence holding amongst men and women by age, with the green line showing the percentage difference between the genders. Women of all ages are less likely to hold a licence, with this tendency increasing with age until around age forty, and then increasing again amongst those of retirement age.

The chart on the top right compares car ownership by age. The difference between men and woman averages around 10 per cent until starting to rise amongst those aged 55 plus. Amongst older people, the difference is as much as 30 per cent.

The bottom two charts illustrate the combined effects of the slightly differing trends in licence holding and ownership. The chart on the bottom left shows the proportion of men and women in each age group who do not hold a licence or have a car. Women of all ages are more likely to have neither a licence nor a car, with the gap between men and women being greatest amongst the retired population.

Finally, the chart in the bottom right shows the proportion of men and women at each group who hold a licence but do not have access to a car. There is a greater difference in the tendency of men in their mid-twenties to late forties to hold a driver's licence than women of the same age, than there is in patterns of car ownership. Therefore, men of this age are more likely to hold a licence but not own a car than women.

Figure 14 Comparison of personal car ownership and licence holding, by age and gender, London residents.



Source: LTDS 2011/12.

Implications for the Roads Task Force

Car ownership is higher amongst certain demographic groups and in certain types of household so that, for example, a family with children is more likely to own a car than a retired couple. Car ownership is also driven by household income, so that as household income rises, car ownership rises, to a seeming 'cap' of around 80 per cent. Finally, location and accessibility to public transport determine levels of car ownership, so that areas with less public transport have higher car ownership rates.

As the population in London grows and changes, the nature of the population that emerges will to some extent define patterns of car ownership and use. If the population rises more in outer London, and particularly away from public transport hubs, we can expect to see more car ownership than if the population growth is greater in highly accessible parts of inner London or the outer London metropolitan centres, or amongst groups less likely to own a car.

These relationships are not fixed – in particular, we can see that even amongst higher income households, car ownership rates do not rise much above 80 per cent, so that a significant proportion of higher income households appear to be choosing to live without a car. This is not typically seen outside London, and demonstrates how local conditions, such as the ready availability of public transport in London, can influence and change the propensity to own a car.

So, both the pattern of population and future transport policy will act together to influence patterns of car ownership in future, and car ownership could feasibly rise or fall depending on this.

References & relevant publications

TfL (2005-2012) London Travel Demand Survey: TfL

MVA (2008) Car Ownership model for London: MVA on behalf of TfL

DfT (to date) National Travel Survey: ONS

DfT (2012) Transport Statistics Great Britain