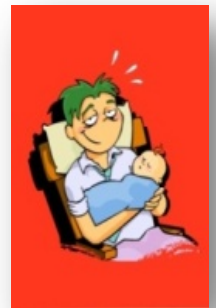


Life Transitions and Travel Behaviour Project Research Storyline

Changes in Car Ownership and the Role of Life Events and Spatial Context

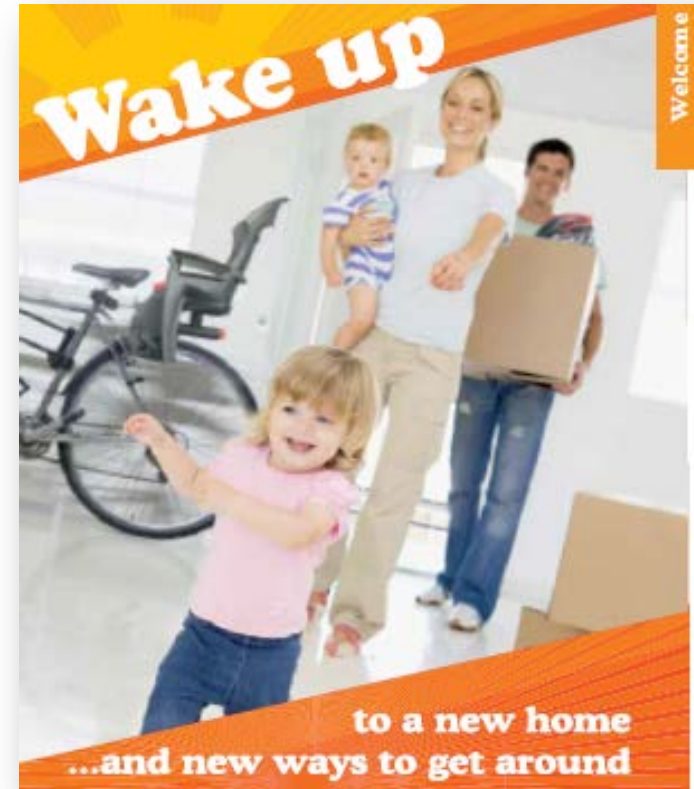


University of the
West of England



The value of understanding car ownership

- Acquiring or relinquishing a car can strongly shape personal mobility
- Previous research has shown the number of cars that households own is stable year to year, but most likely to change at the time of life events like moving home or having children
- However, there was a need to better understand what changes are made to car ownership by which people and in which circumstances
- This can be used to identify how **life events** can be capitalised on as opportunities for behaviour change



Understanding Society

- **Longitudinal studies** survey the **same participants** at regular intervals **over time**
- This enables us to understand how and why their behaviour is *changing* over time
- **Understanding Society** began in 2009 as a **new longitudinal study** of the UK population
- It is tracking the lives of members of **40,000 households** and is part funded by DfT



The screenshot shows the 'About' page of the Understanding Society website. The page features a navigation menu with links for 'Home', 'About', 'About Understanding Society', 'Survey design', 'Who is it for?', and 'Research and impact'. A search bar is located in the top right corner. The main content area includes a header image of Union Jack flags, a sub-header 'About - Everything you need to know about the study', and a main text block describing the study as a unique and valuable academic study that captures important information every year about the social and economic circumstances and attitudes of people living in 40,000 UK households. It also mentions that the study collects additional health information from around 20,000 of the people who take part. A 'Key facts' section lists several bullet points: 40,000 households - 2,640 postcode sectors in England, Scotland and Wales - 2,400 addresses from Northern Ireland; £48.9 million funding (until 2015); Approximately 3 billion data points of information; Innovation Panel of 1,500 respondents; Participants aged 10 and older; Building on 18 years of British Household Panel Survey; and 35-60 minutes: the average time to complete each face to face interview.

Understanding Society
THE UK HOUSEHOLD LONGITUDINAL STUDY

Home → About

About Understanding Society

Survey design

Who is it for?

Research and impact

Search

About - Everything you need to know about the study

Understanding Society is a unique and valuable academic study that captures important information every year about the social and economic circumstances and attitudes of people living in 40,000 UK households.

It also collects additional health information from around 20,000 of the people who take part.

Information from the longitudinal survey is primarily used by academics, researchers and policy makers in their work, but the findings are of interest to a much wider group of people including those working in the third sector, health practitioners, business, the media and the general public.

Key facts

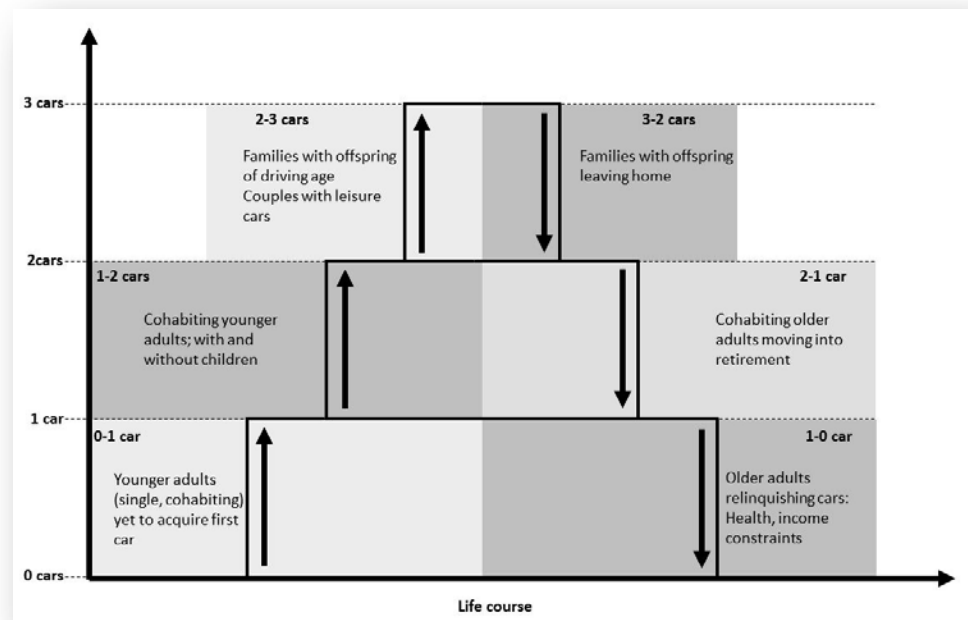
- 40,000 households - 2,640 postcode sectors in England, Scotland and Wales - 2,400 addresses from Northern Ireland
- £48.9 million funding (until 2015)
- Approximately 3 billion data points of information
- Innovation Panel of 1,500 respondents
- Participants aged 10 and older
- Building on 18 years of British Household Panel Survey
- 35-60 minutes: the average time to complete each face to face interview

A longitudinal study of household car ownership

The Life Transitions and Travel Behaviour Project

- Took advantage of the first two waves of Understanding Society (2009/10 and 2010/11)
- It enabled us to examine the circumstances in which households *change* the number of cars that they own
- Separate consideration was given to different car ownership level changes (0 to 1 car, 1-2 cars and vice versa)
- These are likely to occur at different stages in the life course and may be influenced by different life events

We investigated the relationships between car ownership changes and life events by examining bivariate associations and conducting multiple regression analysis



1 in 5 households (18%) changed car ownership level from one year to the next

9% of surveyed households *gained* one or more cars

% households experiencing different types of car ownership change from year to year						
No. of cars in 2010/11						
No. of cars in 2009/10	0 car	1 car	2 cars	3 cars	4+ cars	Total
0 car	20.8 %	2.2 %	0.2 %	0.0 %	0.0 %	23.2 %
1 car	2.4 %	37.5 %	3.5 %	0.2 %	0.1 %	43.7 %
2 cars	0.3 %	3.7 %	20.3 %	1.8 %	0.2 %	26.3 %
3 cars	0.1 %	0.4 %	1.4 %	2.8 %	0.5 %	5.1 %
4+ cars	0.0 %	0.1 %	0.2%	0.5 %	0.9 %	1.7 %
Total	23.6 %	43.8 %	25.6 %	5.2%	1.8 %	100 %

Source: Understanding Society Wave 1 and Wave 2 (2009/10 to 2010/11); n=19,545 households

and 9% of surveyed households *relinquished* one or more cars



We find a wide range of life events are associated with *increased likelihood* of car ownership change

For example...

43% of households lost a car when a household member lost a partner

Life event experienced by any household member	n	% households gaining a car		% households losing a car	
		with life event	without life event	with life event	without life event
Lost a partner	372	7.0	9.0	42.7	8.4
Gained a partner	447	38.7	8.2	14.8	8.9
Gained a driving licence	794	34.0	7.9	5.7	9.2
Residential relocation	1426	14.4	8.5	23.4	7.9
Entered employment from non-empl.	1525	15.0	8.4	9.8	9.0
Lost employment (excl retirement)	1023	9.4	8.9	14.8	8.7
Changed employer	1647	15.6	8.3	11.4	8.8
Had child	622	11.4	8.9	11.9	9.0
Retired	355	6.8	9.0	12.7	9.0

Source: Understanding Society Wave1 and Wave 2 (2009/10 to 2010/11); n=19,344

Bold figures highlight greater prevalence of car ownership changes amongst the group of households experiencing the life event

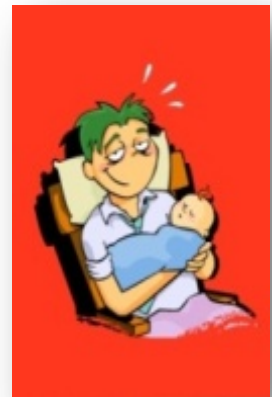
The table illustrates simple bivariate associations. Households may experience more than one life event at a time.

while only 8% of households lost a car in the absence of this life event

Changes to *household structure* have the *strongest effects* on household car ownership

- **Partnership formation** increases likelihood of gaining a car (triggering changes from 0-1 and 1-2 cars)
- While **partnership dissolution** increases likelihood of losing a car (triggering changes from 2-1 and 1-0 cars)
- *This shows that cars are brought and taken with people when these events occur and are not immediately shared by partners*

- **Child birth** increases likelihood of moving from zero to one car but also increases likelihood of moving from two cars to one car
- *This suggests that households may tend to seek a one car solution when having children*



Those *gaining a driving licence* want access to a car of their own

- **Gaining a driving licence** *strongly* increases likelihood of a household gaining a car (moving from 0-1 or 1-2 cars) *regardless of the number of cars already available*



Car ownership is affected by employment

- **Moves into employment** *moderately* increase the likelihood of *acquiring* cars (0-1 and 1-2 cars)
- **Changing employer** *moderately* increases the likelihood of moving from one to two cars
- **Moves out of employment** *moderately* increase the likelihood of *relinquishing* cars (2-1 and 1-0 cars)



Income changes have a *separate effect* to employment changes

- In 2009/10 **increases in income** were associated with increased likelihood of households acquiring cars (0-1 and 1-2 cars)
- While **reductions in income** were associated with *even greater likelihood* of households relinquishing cars (2-1 and 1-0 car)
- This may be an effect of the economic recession of the time in which households were tending to economise on car related expenditure



Residential moves generate *deliberation* over car ownership needs

- **Residential relocations** are predictors of *reductions* in car ownership level (2 to 1 and 1 to 0 car), but not *increases* in car ownership level
- The likelihood of reductions is more pronounced when moving to areas with higher population density and more bus services
 - Moving home may involve a general re-organisation of mobility patterns, including economising on car related expenditure
 - On the other hand, increases in the number of cars owned at the time of a move were found to be more strongly associated with simultaneous changes in household composition (e.g. partnership formation)



Good public transport links to jobs can *restrain demand* for car ownership

- **Poor access to employment opportunities by public transport** increases likelihood of non-car owning households acquiring a car (0-1 car)
- **Better access** increases likelihood of one-car owning households relinquishing a car (1-0 car)

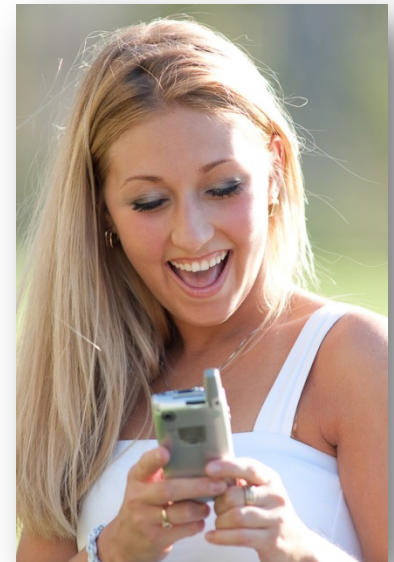


Younger car owners often *relinquish* cars



- Households with *younger* household heads (<30) are *more likely* to *reduce* car ownership level (2-1 and 1-0 car) than other age groups
- The lives of younger adults are *less stable* and car ownership changes *more frequently* during this period

- There is growing interest in the idea that the current generation of young adults may be less reliant on cars than previous generations (preferring city living and mobile technologies for example)
- However, further data and research is required to compare generations to examine this hypothesis

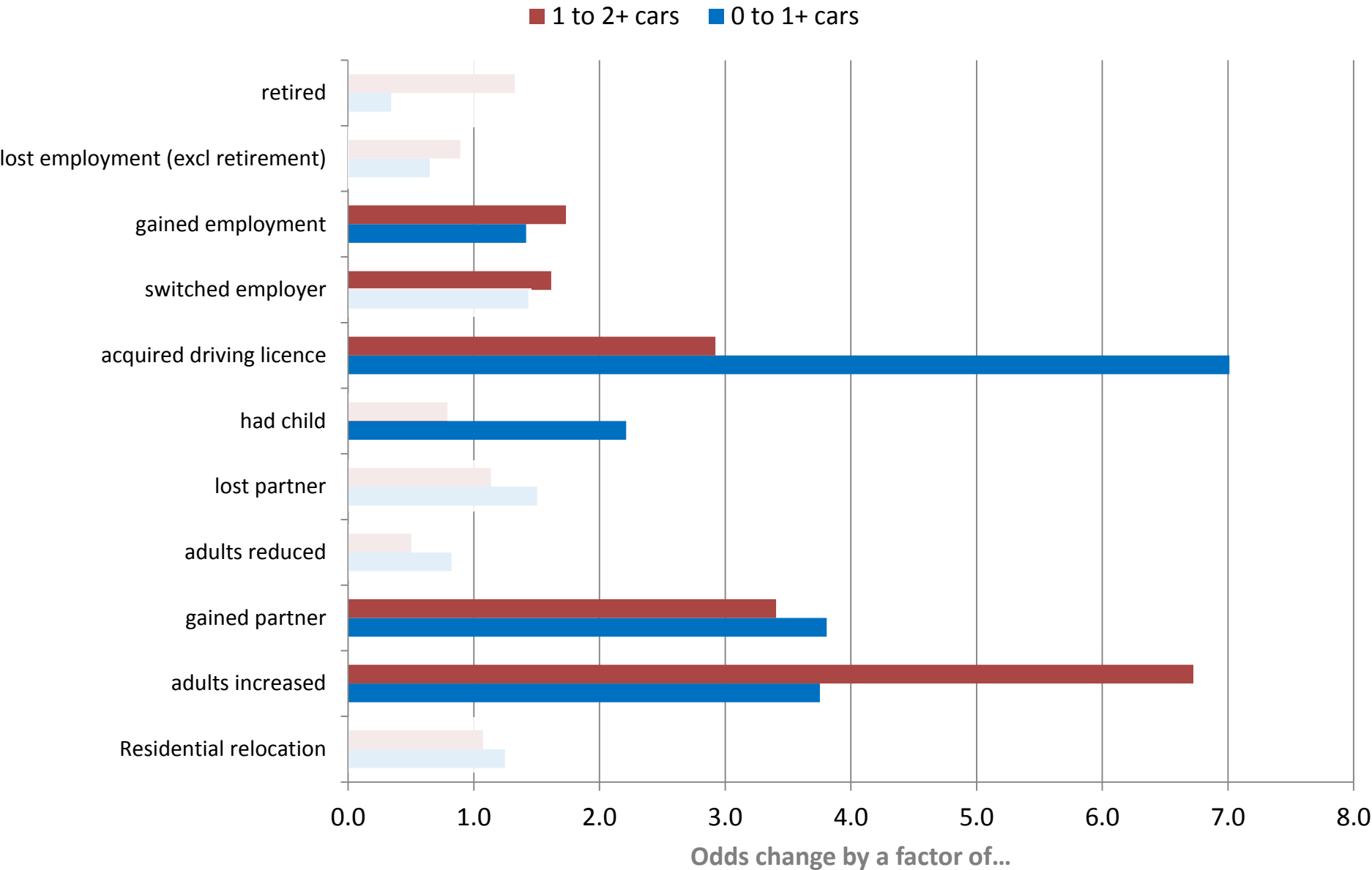


Illustrating the effects of life events

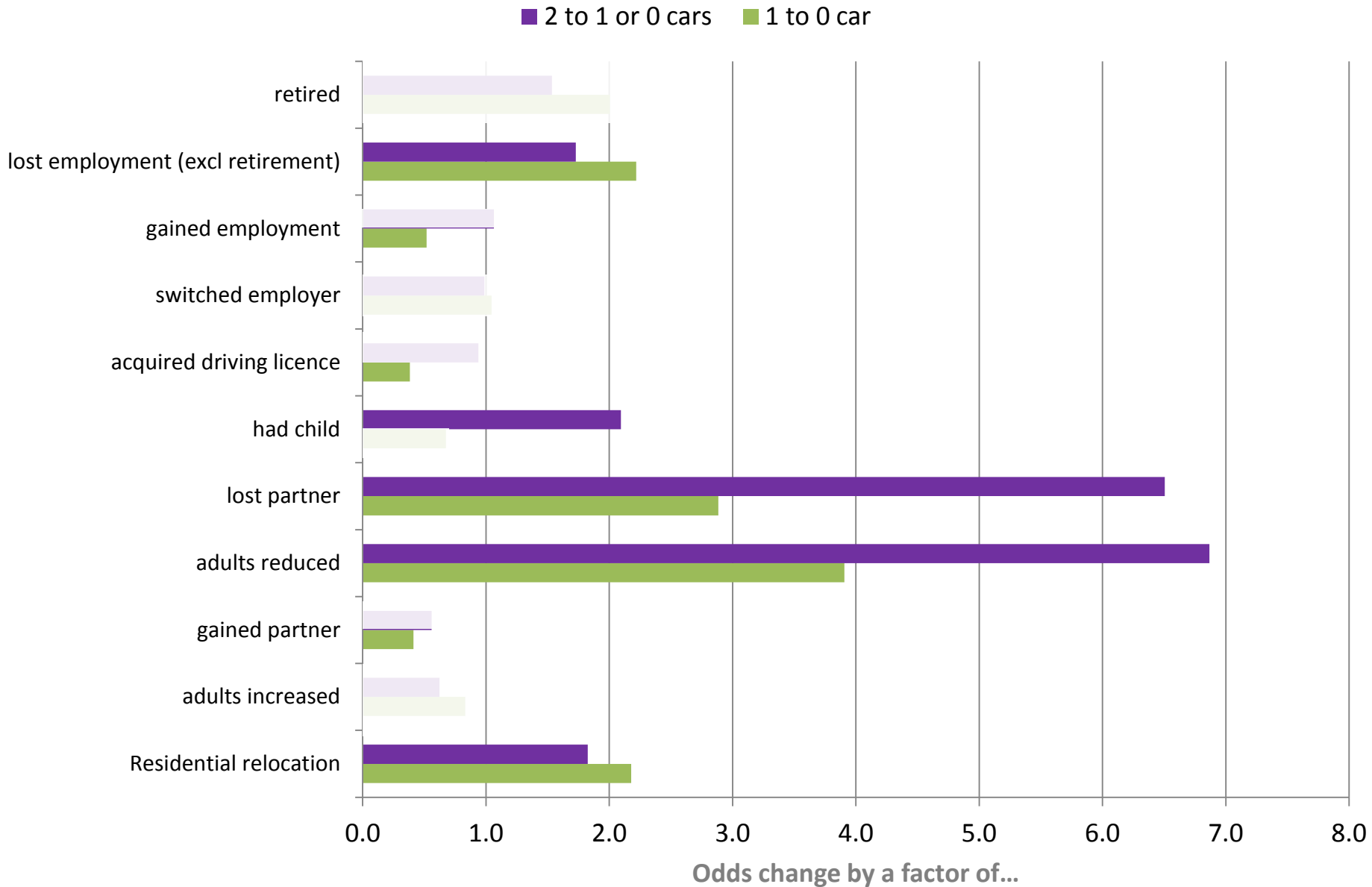
- The next *two bar charts* illustrate the *relative effects* of different life events
- Note the *much stronger* effect of *household composition changes* compared to employment and residential changes...
 - **Longer bars** indicate **greater likelihood** of car ownership changes occurring
 - **Greyed out bars** indicate that the life event has **no effect**



Gaining a car and life events



Losing a car and life events



Implications

- Family composition and employment events are *major triggers* for car ownership changes
- Public transport accessibility also matters
- Policy areas that can take account of this include:
 - Travel planning
 - Public transport provision
 - Spatial planning
- For further information, including a more detailed Evidence Summary, see...