Life Transitions and Travel Behaviour Project
Research Storyline

How Life Events Prompt Changes in the Commute to Work

University of the West of England
ESRC Economic & Social Research Council
Department for Transport
University of Essex
The value of gaining a better understanding of commuting

- Commuting trips account for about a quarter of carbon emissions from passenger transport.
- Achieving a modal shift in commuting towards public transport, walking and cycling will generate considerable benefits locally and globally.
- But commuting behaviours become routine and people are often resistant to change.
- Research is needed to understand in what circumstances people are open to changing commute mode.
- There is increasing interest in life events like moving home or changing jobs 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.
A longitudinal study of commuting behaviour

The Life Transitions and Travel Behaviour Project

• Took advantage of the first two waves of Understanding Society (2009/10 and 2010/11)

• For the first time it enabled us to examine the circumstances in which individuals change their commuting mode across a large sample of the English workforce

We investigated the relationships between commute mode changes and life events by examining bivariate associations and conducting multiple regression analysis
How were people commuting to work in 2009/10?

Mainly by car…

- Nearly 2 in 3 people travelled to work by car in 2009/10

<table>
<thead>
<tr>
<th>Commute mode</th>
<th>Percentage of English workforce (weighted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car (as driver or passenger)</td>
<td>64.2%</td>
</tr>
<tr>
<td>Walk</td>
<td>10.0%</td>
</tr>
<tr>
<td>Working from home</td>
<td>7.8%</td>
</tr>
<tr>
<td>Bus/coach</td>
<td>5.4%</td>
</tr>
<tr>
<td>Train</td>
<td>4.5%</td>
</tr>
<tr>
<td>Cycle</td>
<td>3.6%</td>
</tr>
<tr>
<td>Underground/light rail</td>
<td>2.7%</td>
</tr>
<tr>
<td>Other</td>
<td>1.7%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: Understanding Society Wave 1 (2009/10)
How likely is it for people to change commute mode from year to year?

**This depends on commute mode**

- Non-car commuters were much more likely to change mode than car commuters e.g.
  - 1 in 3 cyclists and public transport users switched to another mode
  - Only 1 in 10 car commuters made a change

- **The car also exerts a strong pull** to users of other modes
  - Half of the cyclists and public transport users that changed mode switched to car commuting
  - Young adults (<30) were the most likely age group to switch to commuting by car
Car commuting is **highly stable**

- Car commuting is also sustained for **twice as long** as non-car commuting:

<table>
<thead>
<tr>
<th>Average period of time spent commuting by different modes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(no. of consecutive years)</td>
<td></td>
</tr>
<tr>
<td>Car / motorcycle</td>
<td>6.3</td>
</tr>
<tr>
<td>Walk or cycle</td>
<td>3.2</td>
</tr>
<tr>
<td>Public transport</td>
<td>3.0</td>
</tr>
</tbody>
</table>


- Once people start commuting by car they remain commuting by car for a significant period of time
Changes to and from car commuting are **much more common** for those experiencing life events.

For example, 15% of non-car commuters changed to car commuting with **no change** in employment, compared to 30% with a change in employment.

### % of workers switching from:

<table>
<thead>
<tr>
<th>Life event</th>
<th>Life event prevalence</th>
<th>with life event</th>
<th>with no life event</th>
<th>with life event</th>
<th>with no life event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gained a driving licence</td>
<td>1.9%</td>
<td>18.48</td>
<td>8.49</td>
<td>34.68</td>
<td>16.10</td>
</tr>
<tr>
<td>Switched employer</td>
<td>10.5%</td>
<td>18.21</td>
<td>7.38</td>
<td>29.39</td>
<td>15.08</td>
</tr>
<tr>
<td>Gained a partner</td>
<td>1.9%</td>
<td>16.32</td>
<td>8.40</td>
<td>23.86</td>
<td>16.65</td>
</tr>
<tr>
<td>Residential relocation</td>
<td>6.8%</td>
<td>15.01</td>
<td>8.04</td>
<td>23.24</td>
<td>16.15</td>
</tr>
<tr>
<td>Had child</td>
<td>3.9%</td>
<td>8.54</td>
<td>8.58</td>
<td>22.85</td>
<td>16.56</td>
</tr>
<tr>
<td>Lost a partner</td>
<td>1.2%</td>
<td>16.45</td>
<td>8.48</td>
<td>15.78</td>
<td>16.81</td>
</tr>
</tbody>
</table>

**Source:** Understanding Society Wave 1 and 2 (2009/10 to 2010/11); n=15,200 workers

**Bold figures highlight greater prevalence of commute mode change amongst the group experiencing each life event.**

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

**This doubles to 30%** of non-car commuters changing to car commuting with a **change** in employment.
Change in distance to work is the main driver of changes to commuting mode.

Clearly this occurs when people move home or change employer.

- Change to car commuting is more likely if the distance increases above two miles (30 times more likely!)
- Change to non-car commuting is more likely if the distance reduces below three miles (9 times more likely)

Commuting mode is highly sensitive to distance, especially to increases in distance.
Changing where you live is also influential

• There is *increased likelihood* of switching to non-car commuting with:
  – Moves to areas with higher population density
  – Moves to areas with lower journey times to employment by public transport

• There is *increased likelihood* of switching to active commuting (walking and cycling) with:
  – Moves to areas with mixed land uses (homes, shops, jobs and services)
Changing employer has an independent effect beyond changes in work distance

- Changing employer makes it more likely that people change to or from commuting by car.
- This may relate to a change in transport availability to or at the workplace.
- But it could also be that employment change simply prompts deliberation over commuting behaviour.
Environmental attitude makes a difference

- Car commuters are more likely to switch to non-car commuting if they are ‘willing to act to protect the environment’
- Conversely, being unwilling to act does **not** make it more likely to switch to car commuting
Other factors that make it more likely to change to/from car commuting

**Changing to car commuting**
- Acquiring a driving licence
- High no. of household cars
- Live outside London
- Live close to large employment centres
- Aged 16-29
- Male
- Do not have higher education qualification

**Changing to non-car commuting**
- Stopping cohabitation
- Low no. of household cars
- Live in an area with a poorer living environment (main roads)
- Self-employed or working for a small employer
Implications

• Job changes and home moves are frequently experienced events that strongly increase the likelihood of a change in commuting mode
• The characteristics of where people live also matters
• Policy areas that can respond to this:
  – Travel planning, especially working with employers
  – Public transport provision
  – Spatial planning
• For further information, including a more detailed Evidence Summary, see...