



Valuing the social impact of bus travel

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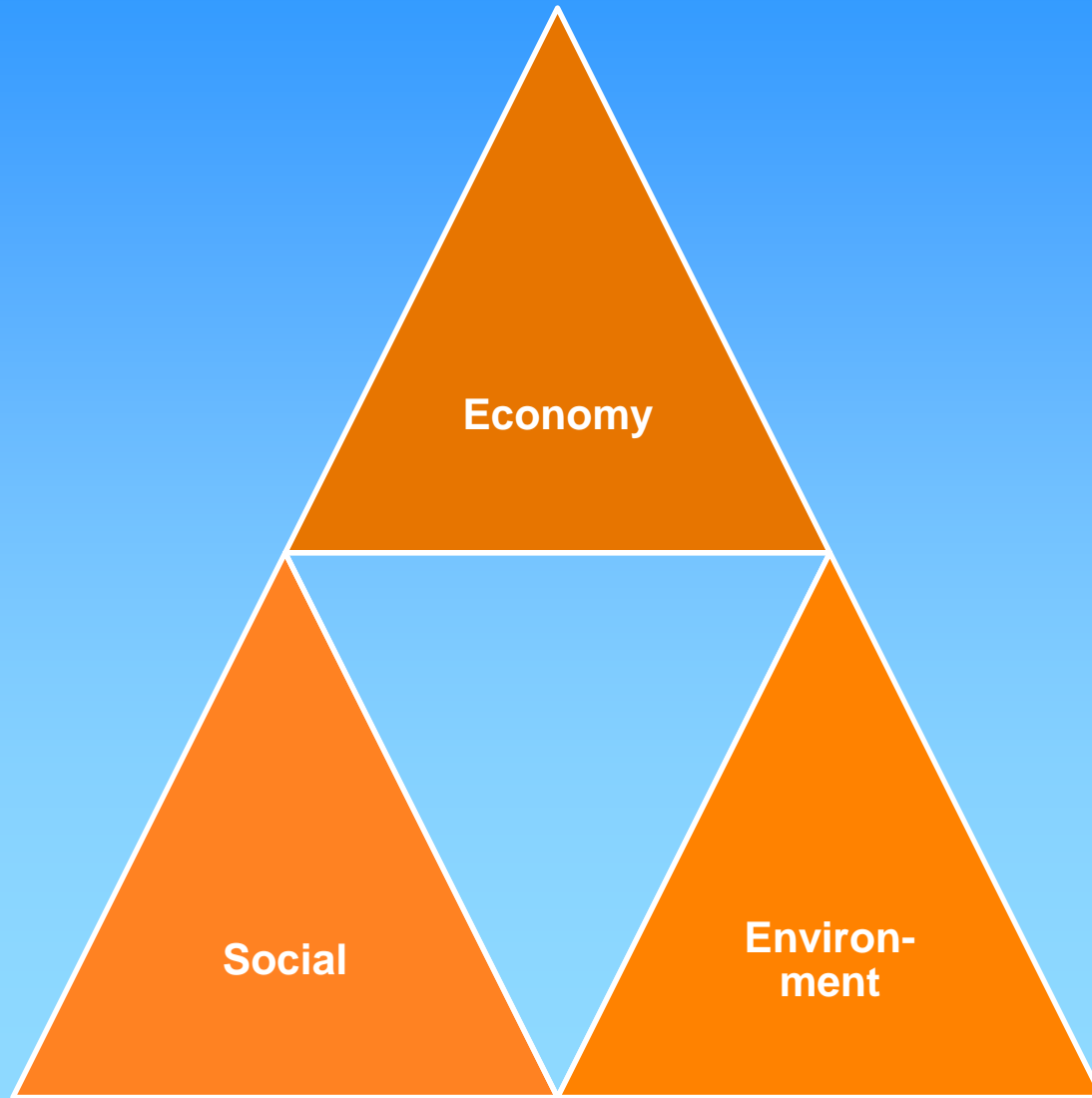
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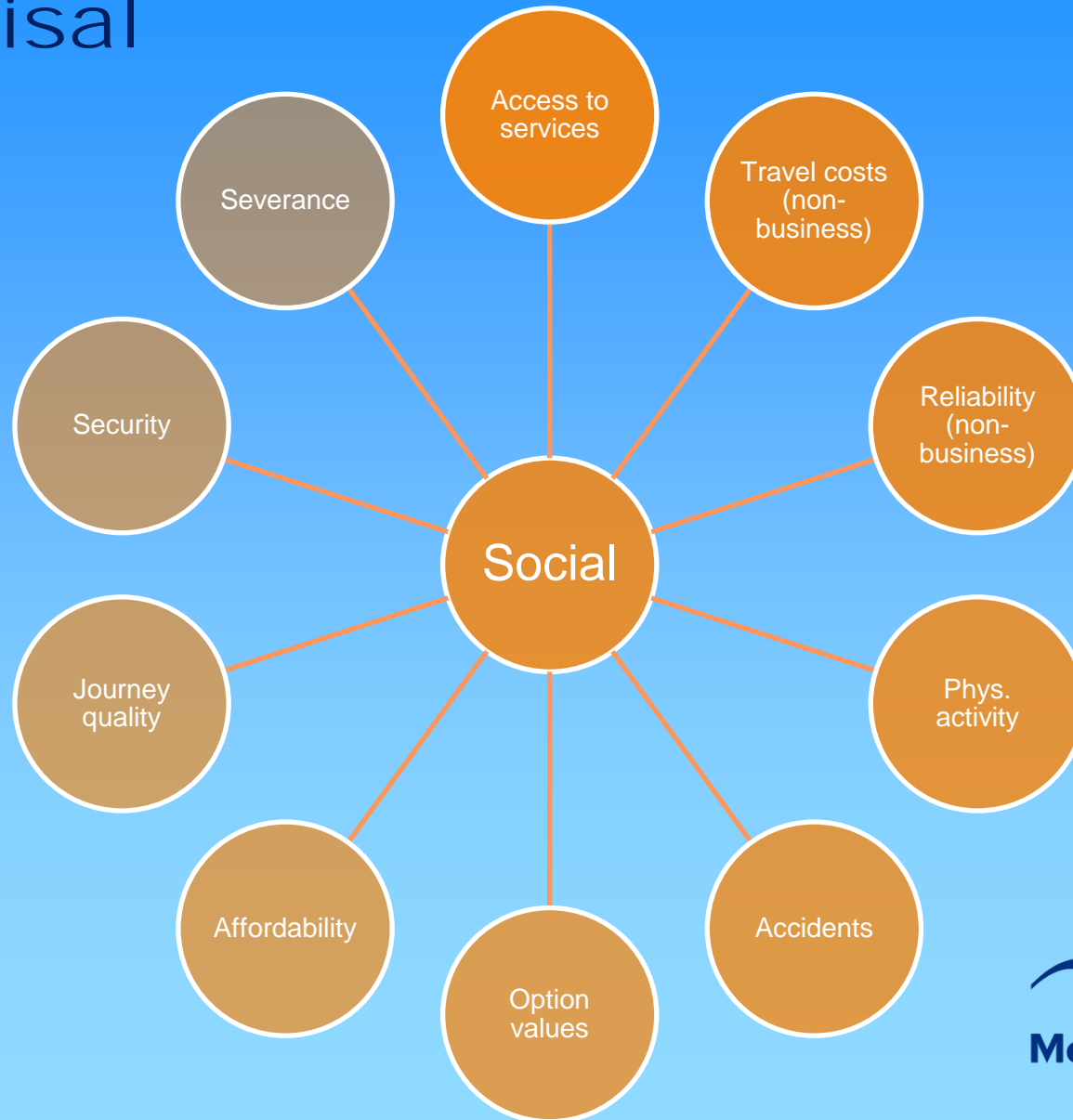
Project team

- Client: UK Department for Transport
- Project team:
 - Mott MacDonald (lead)
 - Institute for Transport Studies, University of Leeds (SP design and analysis)
 - Accent Marketing and Research (fieldwork)

Context – Conventional sustainability appraisal structure



Social benefits in UK (WebTAG) Appraisal



Project definition of social impact

“...the value bus users enjoy from accessing particular services that they would not otherwise have had easy access to”

Guiding principles

- Social value comes from the activity undertaken at the destination, not from the act of travelling itself.
- Bus travel only has a ***social*** impact if, in the absence of bus, the trip would ***not*** be made by another mode.

Methodology

- Use Stated Preference (SP) and willingness to pay to establish the value of activities undertaken by bus users.
- Establish which bus trips would not switch mode in the absence of bus, i.e. those for which we can claim a social value.

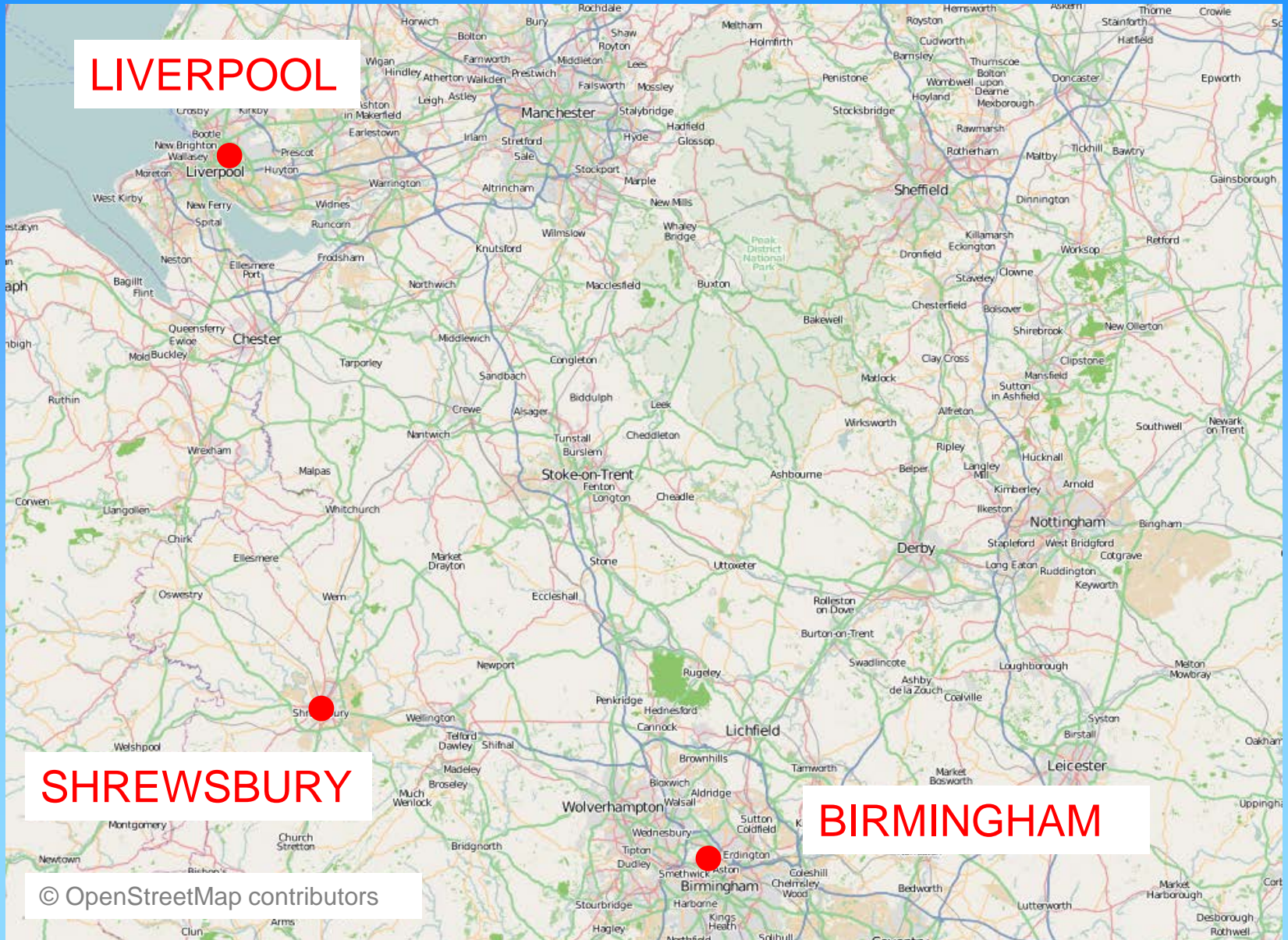
Project phases

- Literature review
- Pilot SP study
- Main SP study

Literature review

- Confirmed that no suitable values available “off the shelf”
- Identified particular groups benefiting from bus travel, usually associated with low car availability/licence holding:
 - People on low incomes
 - People with disabilities
 - Younger and older people
 - Women
 - People from BAME communities
 - Single parents
 - People living in remote areas

Main SP study - locations



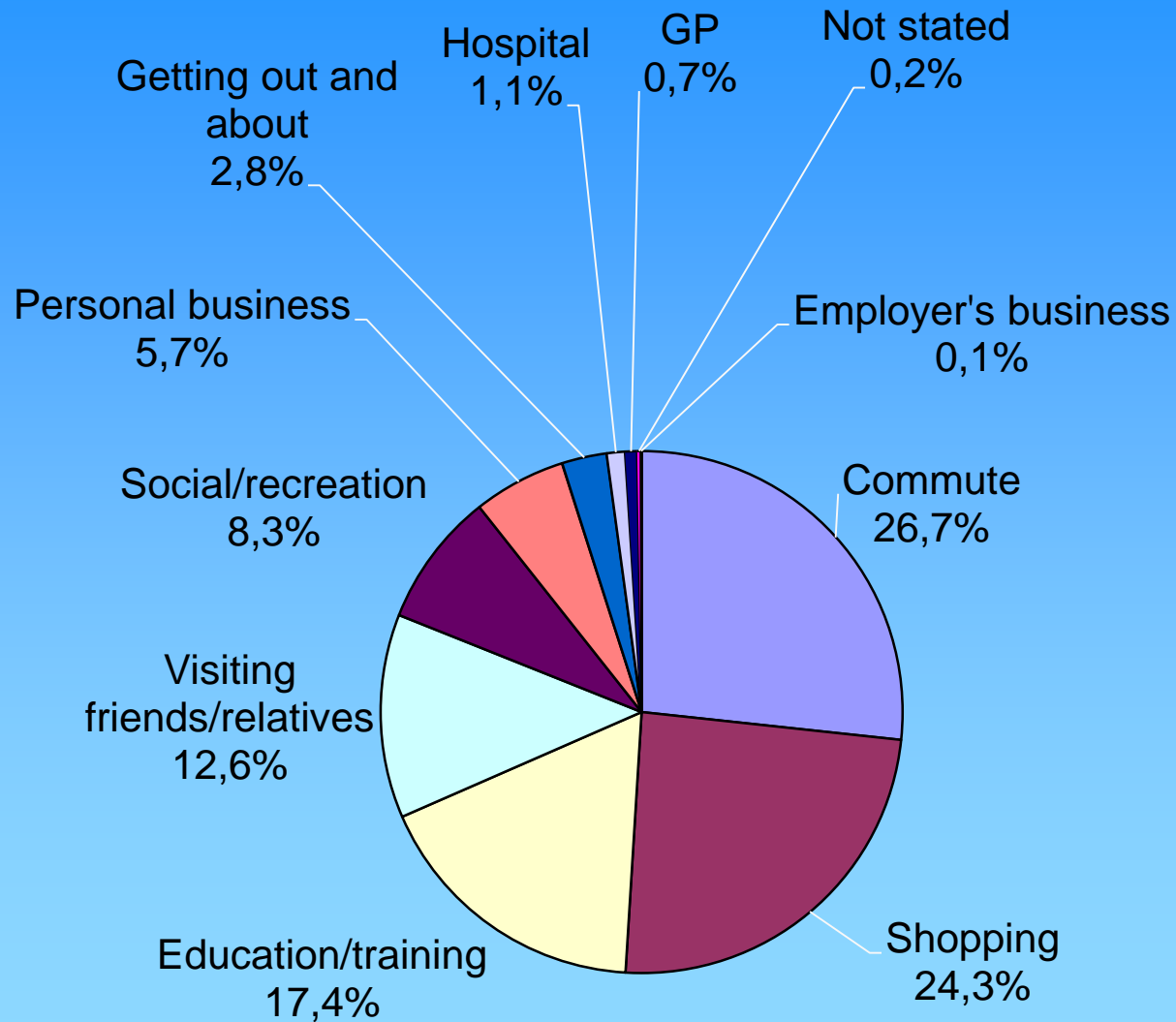
Main survey overview

- Area types:
 - Metropolitan City Centre (Liverpool)
 - Local centre in major conurbation (Perry Barr, W Midlands)
 - Market town (Shrewsbury)
 - Rural (Shrewsbury surrounding area)
- 200 interviews per location
- Quotas on age, income and gender

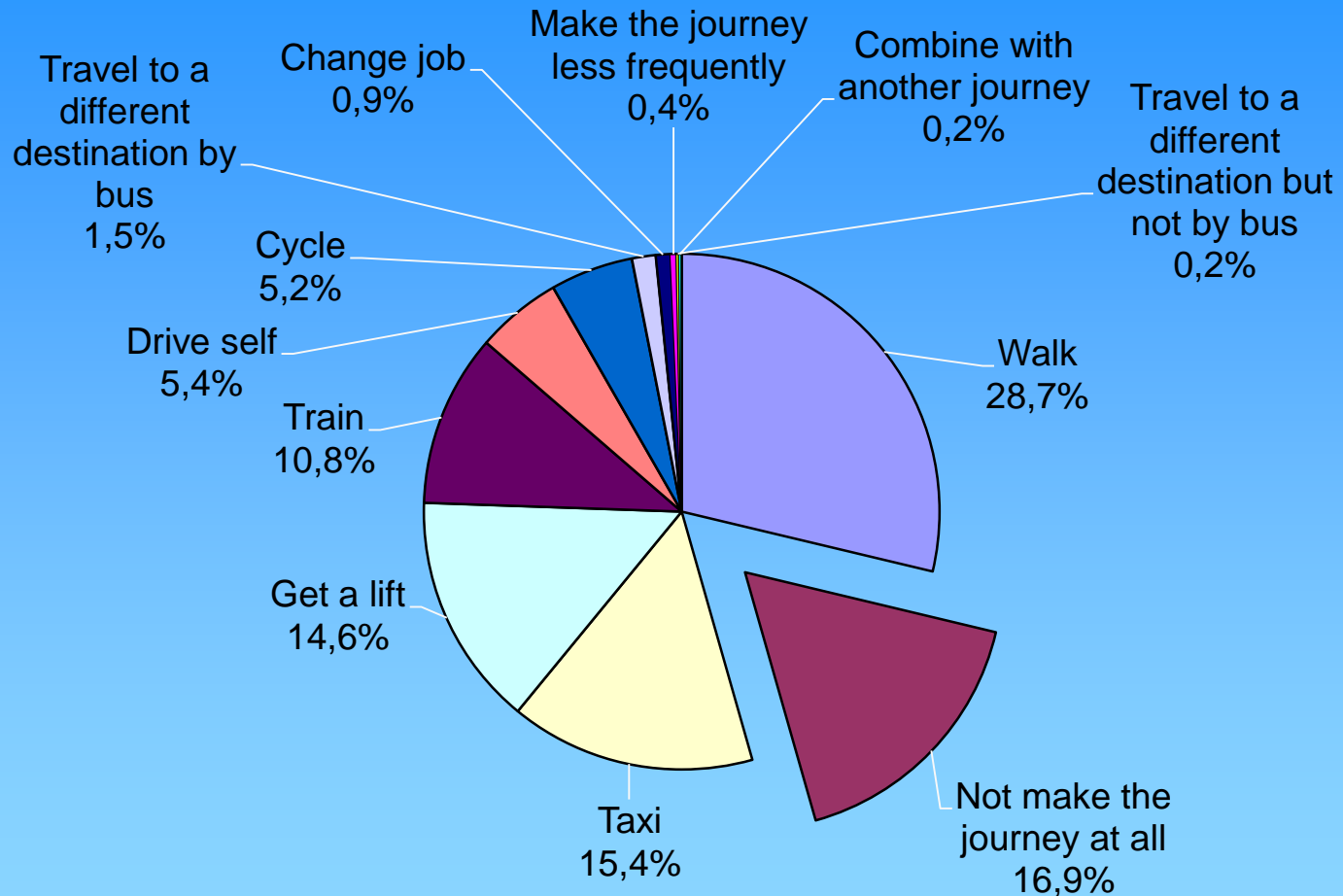
Data collected

- Mini travel diary of last week's bus trips
 - Purpose, destination, travel time, best alternative etc.
- Socio-economic data
 - Age, employment status, income, car availability etc.
- Stated preference choices
 - Bus always made worse (slower, more expensive, less frequent) than current service
 - Choice between continuing to use bus and specified “best alternative”
 - Eight pairs of choices for each trip

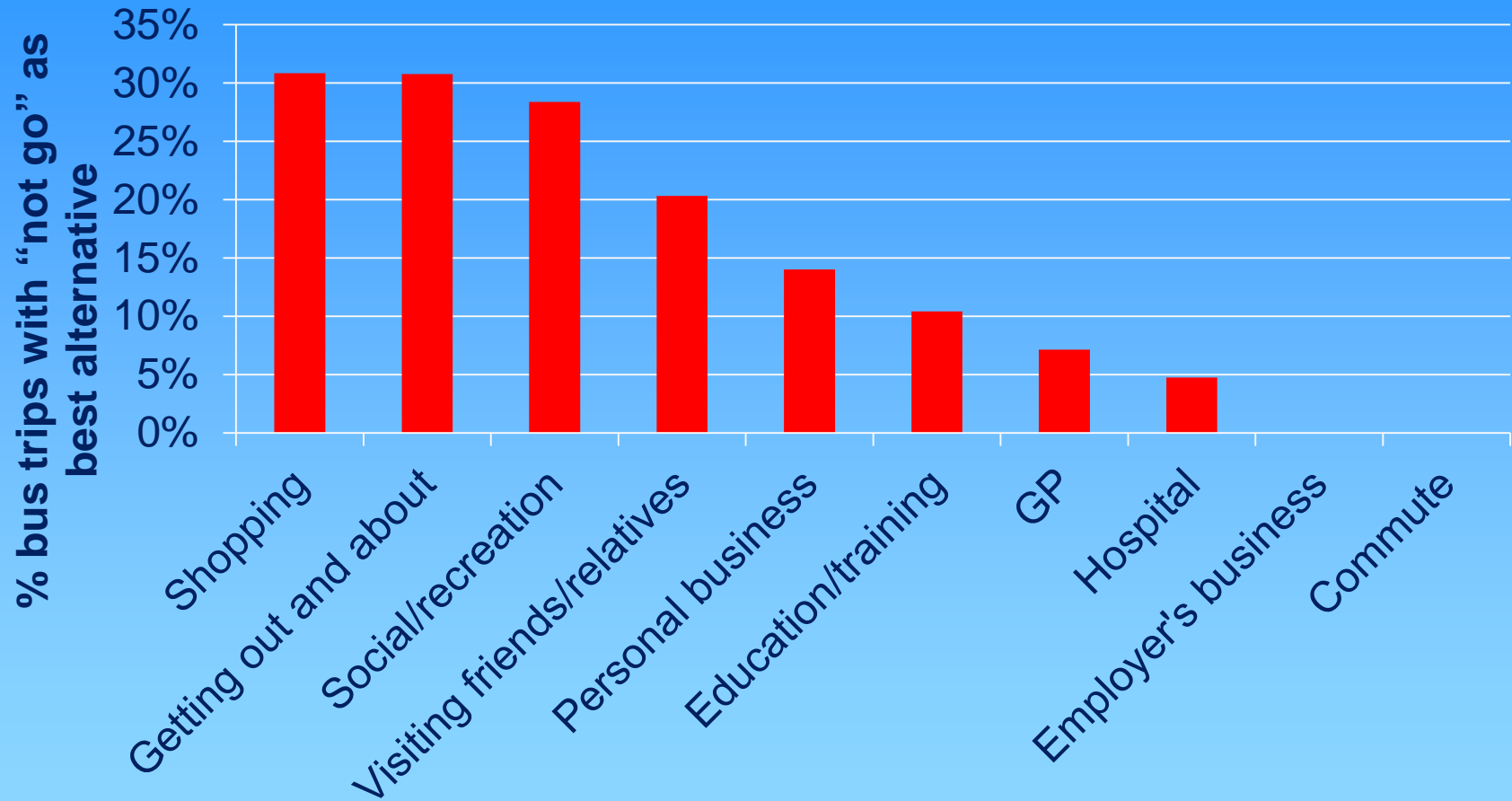
Results: trip purpose split



Results: best alternative to bus



Results: effect of purpose on “not go”



Stated preference analysis

- Step 1: Simple model with no segmentation
- Step 2: Segmentation determined by statistical significance
- Step 3: Exclude segmentation variables not likely to be available in practice
- After step 3 only significant variable was concessionary travel pass ownership

Results: social values

- Values per return bus trip, 2010 prices
- Concessionary travel pass holders: €4.57
- Non-pass holders: €9.72
- (Only apply where traveller would “not go” if bus not available)

Results: observations

- No plausible income effect detected
- There is a cost associated with “get a lift”. Is this associated with loss of independence etc.?
- We checked demand elasticities and values of time against available evidence

Application to scheme appraisal: draft guidance

- Estimate number of new bus trips created by intervention
- Apply look-up table to estimate what proportion have “not go” as best alternative
- Apply estimated social values per return bus trip to this subset

Emerging Issues

- Our research provides greater information on separating social impacts from travel cost impacts
 - e.g. net disbenefit of 50c= loss of €8 social benefit, but €7.50 travel cost saving
 - Benefits may be additional to current estimates
 - Further research needed
- Strategic case: Social impacts may provide useful information, particularly if competing against non-transport schemes (e.g. Structural Fund)

Social impacts – what’s missing?

- We’ve only looked at “private” benefits to individual
- Wider benefits to society, e.g.
 - Access to employment: savings in benefit payments?
 - Less social isolation: reduced healthcare costs?



Summary



Summary

- We have estimated social value per bus trip to the individual
- Only applies when travellers would not travel in the absence of bus
- Consideration of additionality when considered against current appraisal approach based on rule of a half benefits remains an area for debate
- Approach is helpful when comparing transport investment against non-transport schemes in a social welfare context



<https://www.gov.uk/government/publications/social-benefits-of-buses-valuing-the-social-impacts>

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