



SCHOOL OF GEOGRAPHY  
AND THE ENVIRONMENT



## **SOCIAL JUSTICE AND TRANSPORT**

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**ESRC Seminar Series**

**Modelling on the Move: Towards Sustainable  
Transport Systems**

**Launch Event, St Anne's College, Oxford**

**7<sup>th</sup> December 2012**

# What do we mean by 'social justice in transport'?

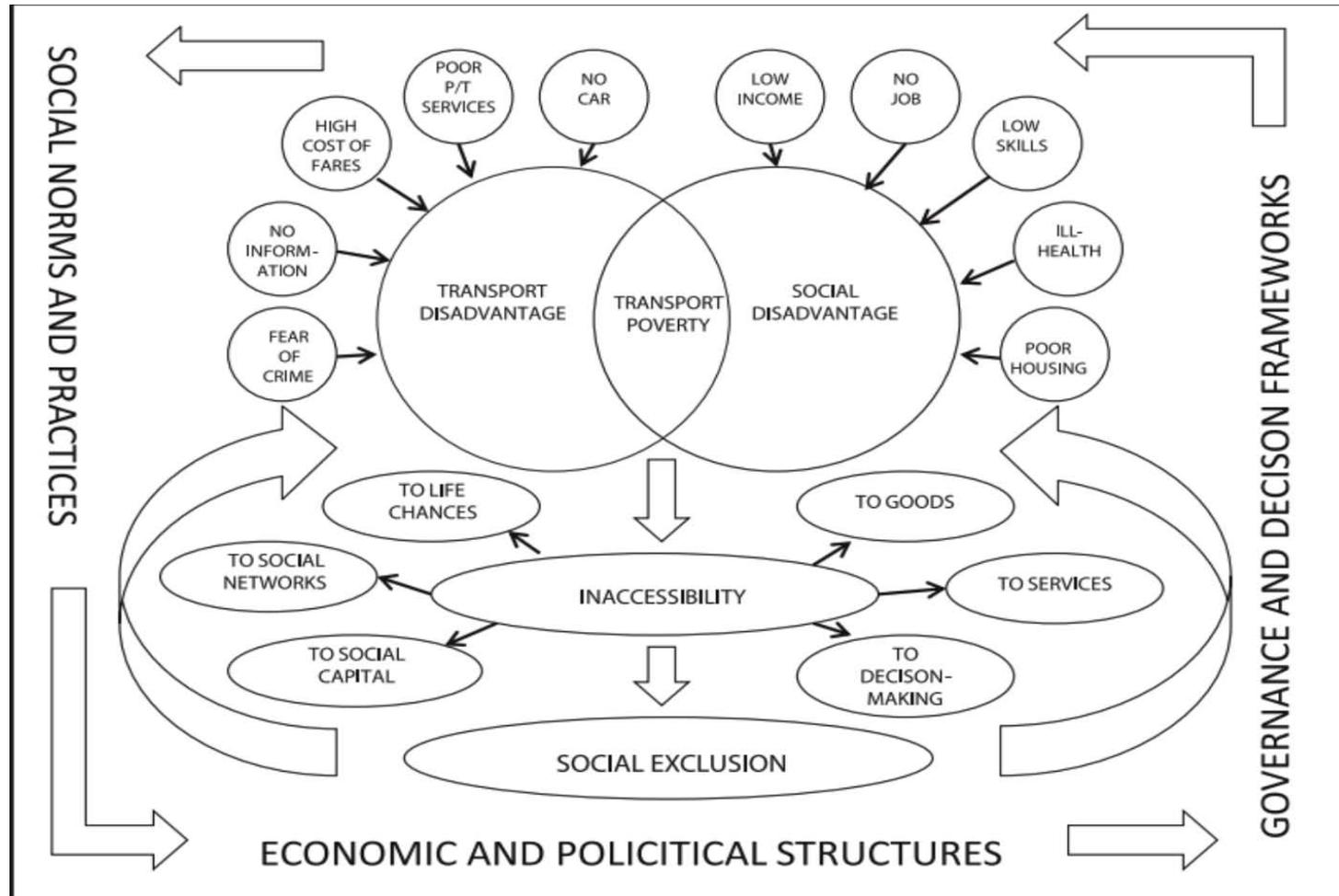
- Distribution of benefits and dis-benefits of transport system
- Unequal mobility and disproportionate exposure to externalities
- (including crime
- Travel expenditures and suppressed demand
- Differential accessibility and participation in activities
- Needs, perception of needs, capacities, capabilities.
- Already disadvantaged/vulnerable social groups and areas
- Agency, power, ability to act



Involvement in decision making and recourse to justice



# Relationship between transport disadvantage and social exclusion



# Unequal mobility

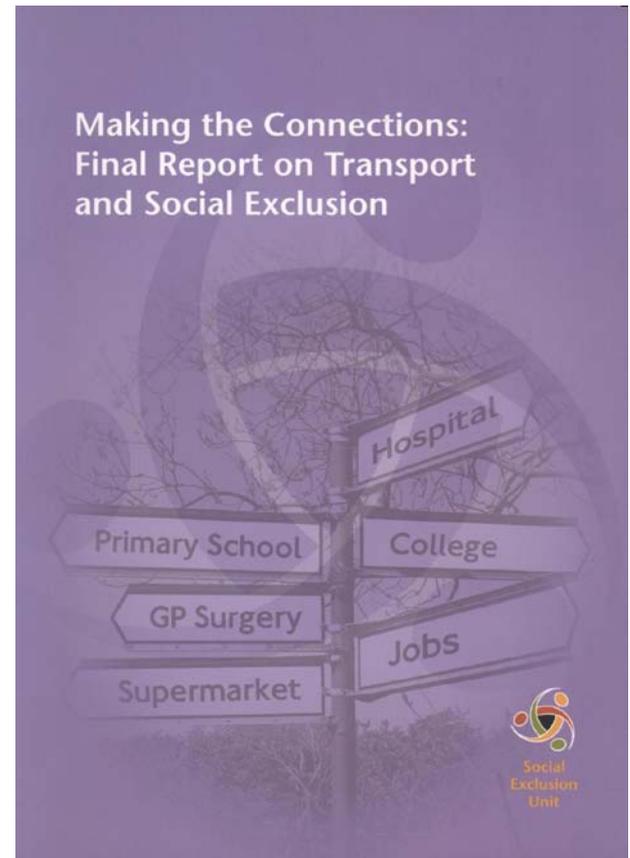
- People on low incomes more are likely to be non drivers and in a household without a car (48% of h/hs)
- They are also more likely to be:
  - Single parent families (mostly female hoh) (57%)
  - Separated (30%) or widowed (32%)
  - Children below 19 years
  - People aged over 70 (70% are women over 70 years)
  - Non white people (33% compared with 17% of whites)

# The social consequences of poor transport

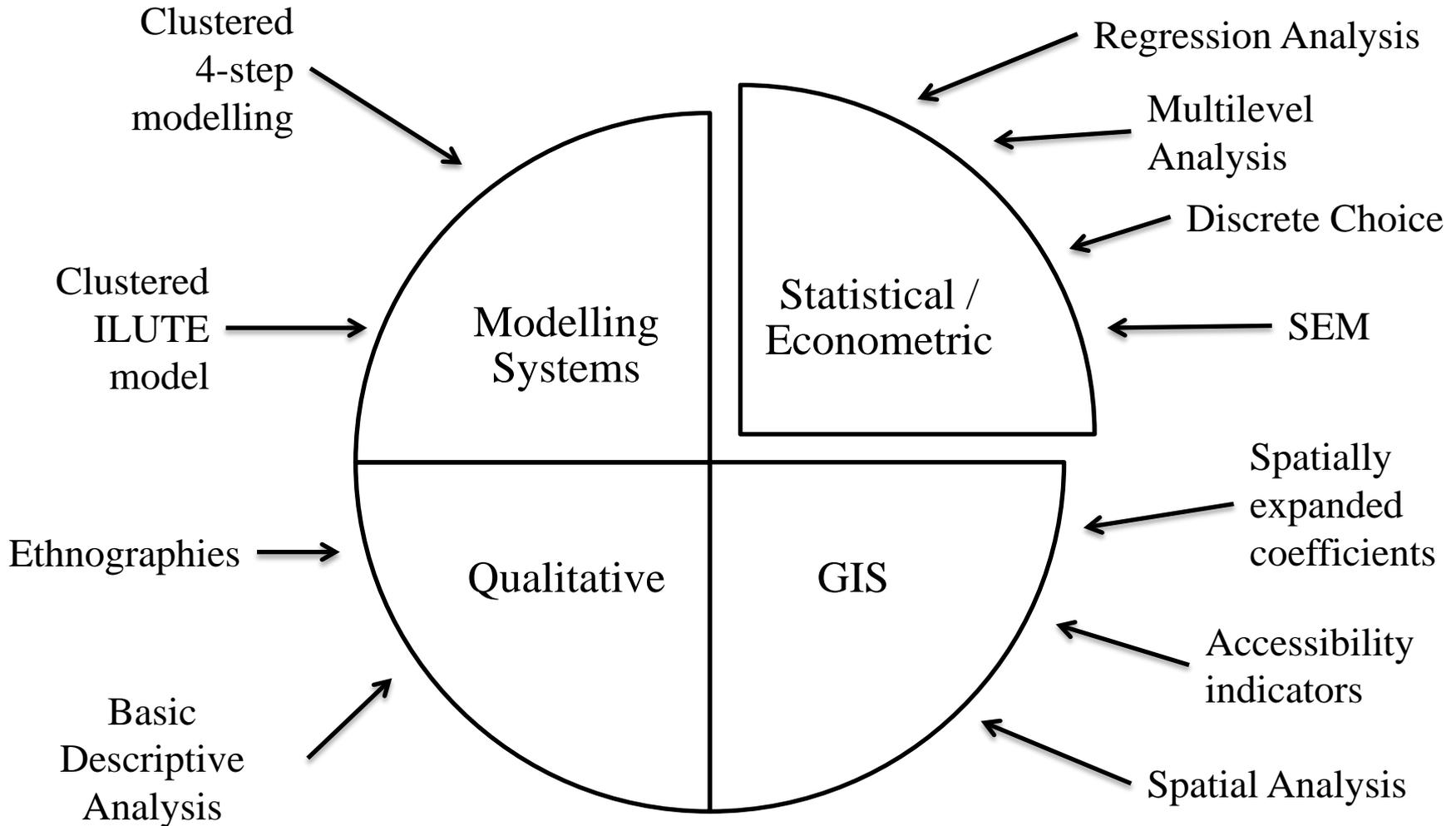
Lack of transport can:

- Be a significant barrier to accessing work
- Be linked to young people dropping out of college
- Prevent people seeking medical attention
- Affect people's participation in a range of other activities
- Be linked to higher incidence of road traffic accidents and exposure air and noise pollution from road traffic.

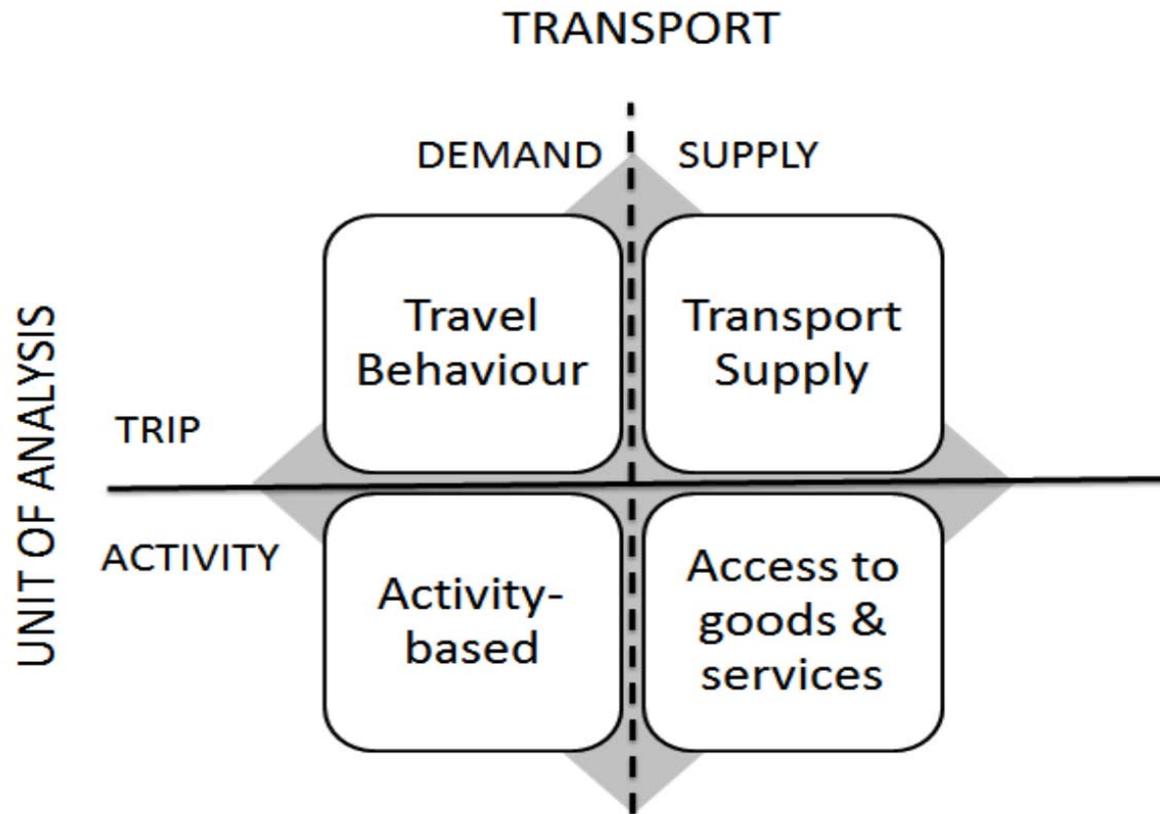
(SEU, 2003)



# Methodological Approaches (1)



# Analytical focus



# Empirical studies of social equity

- Majority focus on gender differences or age (children/elderly) but do not control for income/SEG
- Many are qualitative studies and do not involve modelling techniques
- Majority of those employing modelling techniques are GIS placed-based models of accessibility
- Many focus on spatial equity of transport systems and treat 'rurality' as an equity issue

# Modelling studies of social equity

Segment	Cite	Method	Technique (*)
Children, youth and students	Licaj, I., Haddak, M., Pochet, P., and Chiron, M. (2012). Individual and contextual socioeconomic disadvantages and car driving between 16 and 24 years of age: a multilevel study in the Rhône Département (France). <i>Journal of Transport Geography</i> 22 pp.19-27	Statistical/ Econometric	Multilevel analysis
Elderly	Schmöcker, J., Quddus, M., Noland, R., and Bell, M. (2008). Mode choice of older and disabled people: a case study of shopping trips in London. <i>Journal of Transport Geography</i> 16 (4) pp.257-267	Statistical/ Econometric	Linear Regression Nested Logit
Ethnicity	Blumenberg, E. (2008). Immigrants and transport barriers to employment: The case of Southeast Asian welfare recipients in California. <i>Transport Policy</i> 15 (1) pp.33-42	Statistical/ Econometric	Logistic Regression
Rural transport	Mulley, C. (2010). Promoting social inclusion in a deregulated environment: Extending accessibility using collective taxi-based services. <i>Research in Transportation Economics</i> 29 (1) pp.296-303	Statistical/ Econometric	Descriptive analysis
	Wright, S., Nelson, J., Cooper, J., and Murphy, S. (2009). An evaluation of the transport to employment (T2E) scheme in Highland Scotland using social return on investment (SROI). <i>Journal of Transport Geography</i> 17 (6) pp.457-467	Statistical/ Econometric	Exploratory analysis

# Methodological issues

- Moving beyond qualitative and descriptive understandings
- Unit and methods of analysis
  - People vs. place-based indices
  - GIS vs. statistical modelling
  - Revealed behaviours vs. stated preferences
- Aggregate vs. disaggregate models
- Dependent and independent variables
  - What indicators of social disadvantage?
  - Determining the ‘direction’ of travel indicators – is more or less and indicator of disadvantage

# Data issues

- Using potentially non-representative, limited and fragmented pre-existing datasets
- High cost of ‘bespoke’ surveys – smaller sample sizes and other compromises
- Capturing ‘hard to reach’ and/or ‘scrutiny shy’ populations within national surveys
- Particularly ‘hidden’ population sectors e.g. teenagers, ethnic minorities
- Retention and commitment issues for longitudinal surveys
- Low literacy and communication skills
- Capturing dynamic and cumulative effects of poverty and social disadvantage (e.g. suppressed travel demand over time)

# ESRC mid-career fellowship

- Explore the value of applying different core socio-theoretical perspectives of transport poverty within the main transport modelling approaches
- Offer new insights on how to incorporate the multiple dimensions of transport poverty and the social consequences within transport models;
- Identify the nature, extent and intensity of transport poverty in relation to different social groups and settlement types through a targeted empirical study;
- Identify the likely social and distributional impacts of a range of local transport interventions
- Communicate the outcome of these modelled exercises to both the academic community and the national and local decision-makers

Watch this space  
&  
thanks for listening

<http://www.tsu.ox.ac.uk/people/klucas.html>

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