Travel to School:
Social and Spatial Inequalities in Local Housing and Education Markets

Dr Sue Easton
Department of Town & Regional Planning
University of Sheffield
Travel to School Policy Contexts/ Debates

Population Health:
Active Commuting (Obesity),
Exposure to Pollution

Environment:
Pollution,
Sustainability (fossil fuels)

Education Policy:
Choice, Equity,
Social Segregation,
Rationing Welfare

Urban Policy:
Sprawl, Sustainability,
Transport, Efficiency
Urban form

Housing:
Planning, Affordability,
Social-spatial
Segregation
Interplay of Housing & Education Markets

- Local authority run community schools still geographically tied to local neighbourhoods through catchment areas where distance is the “tie-breaker” if over-subscribed (Allen, 2007; Allen et al., 2013; Andersson et al., 2012; Burgess et al., 2011; Harris et al., 2007; Sheffield City Council, 2013; Taylor, 2009).

- >>> Parents with resources attempt to access the best schools by moving into “desirable” catchment areas of the most popular schools. This has led to an increase in price of housing in such areas (Black, 1999; Cheshire and Sheppard, 2004; Fingleton, 2006; Gibbons and Machin, 2003; Leech and Campos, 2001).
School Performance Affects House Prices

• Leech and Campos (2001) estimated the average additional increase in price for living in the catchment area for a good secondary school in Coventry in July 2000 to be between £10,000 and £20,000 (16-20%).

• Thus local school performance is linked to processes of spatial and social polarisation by feeding into “residential sorting” mechanisms.

• Low income families - cannot choose to “go private”; - may not have the option to move house; - may be excluded from some areas through pricing; - may not have the resources to support travel to school
# Primary School Performance Statistics

<table>
<thead>
<tr>
<th>PRIMARY School Name</th>
<th>Key Stage 2 Engl &amp; Maths</th>
<th>Mean for all England</th>
<th>Difference from Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbey Lane Primary</td>
<td>94.7</td>
<td>79</td>
<td>15.7</td>
</tr>
<tr>
<td>Acres Hill Com.</td>
<td>77.4</td>
<td>79</td>
<td>-1.6</td>
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<tr>
<td>Angram Bnk Primary</td>
<td>89.2</td>
<td>79</td>
<td>10.2</td>
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<td>Anns Grove Primary</td>
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<td>Arbourthorne Com.</td>
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<td>79</td>
<td>-3.1</td>
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<tr>
<td>Athelstan Primary</td>
<td>71.2</td>
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<tr>
<td>Ballifield Primary</td>
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<td>Bankwood Primary</td>
<td>62.1</td>
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<td>-16.9</td>
</tr>
<tr>
<td>Beck Primary School</td>
<td>78.8</td>
<td>79</td>
<td>-.2</td>
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<tr>
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<td>79</td>
<td>1.0</td>
</tr>
<tr>
<td>Birley Spa Primary</td>
<td>86.4</td>
<td>79</td>
<td>7.4</td>
</tr>
<tr>
<td>Bradfield Dungworth</td>
<td>87.5</td>
<td>79</td>
<td>8.5</td>
</tr>
</tbody>
</table>
House Price (2010-11) and Primary School Performance (2012) in Sheffield

Key to symbols:

KS2 English & Maths
-36 - -11
-10.9 - -4
-3.9 - 3.1
3.2 - 9.9
10 - 21
High £5,000,000
Low £21,350
Changes to Education Policy

- 1980 Education Act & 1988 Education Reform Act enshrined “parental choice” and encouraged schools to “opt out” of Local Authority control.
- Some parents have more choice than others…
- Some schools with city-wide catchment areas (faith, single sex schools, academies).
- However, use of selection criteria enables opted out schools to “cream-skim” through selection by ability and to exclude certain types of pupil e.g. by behaviour (Allen, 2007; West et al., 2004).
Social & Spatial Inequity

• Over-subscription and selection criteria mean that nearby schools may not be accessible to local children.

• Constraints to obtaining a place at the best state schools have increased significantly for children from lower socioeconomic status (SES) backgrounds (Burgess and Briggs, 2006); (Hamnett and Butler, 2011).

>>> “De facto” school catchment areas increasingly socially and spatially polarised (Harris and Johnston, 2008).

• Burgess et al. (2011) estimated that lowest SES quintile children in metropolitan areas were effectively excluded from over 70% of schools within 3km of their home.
School Choice & Excess Commuting

• Over half of all pupils now engage in “excess commuting” (travel further than their nearest school) (Allen, 2007; Ferrari and Green, 2013)

• Estimated to be 60% longer commute than nearest school in 2002-3 (Allen, 2007).

• Ferrari & Green (forthcoming) have estimated the daily excess commute to be 87,400 km for secondary pupils and 55,000 km for primary – equating to approx. 1,500 tons of CO2 per year.

• Significant implications in terms of sustainability, carbon emissions and traffic congestion/flow for the future.
Costs and Policy Conflict

• High level of dependency on motorised transport linked to rising prices of fossil fuels.

• Increased cost to the public purse through local authorities subsidising bus passes for children who travel over 3 miles etc.

• Also issues of public health concern re – active commuting, childhood obesity and building healthy exercise habits for life (Griffiths et al., 2013).

• Furthermore as the number of opted out schools increases (e.g. parent-run “Free schools”), local authorities have less and less control to plan and manage despite rising demand for primary school places.
Our Research on Travel-to-School

• Examining Pupil, School & Neighbourhood characteristics within the same multilevel model.

• Mapping “de facto” and “de jure” catchment areas for Sheffield schools for different socioeconomic groups.

• Mapping the real educational choices available to families living in different neighbourhoods of the city –

• - Barriers include: distance and travel time, access to transport e.g. bus routes, “walkability” and “cyclability” of the area (urban form measures).
Mapping with GIS – Routes to Faith Schools
Network Model - Drive Time from Sheffield City Centre

Legend

Drive time (seconds)
- 60
- 300
- 600
- 900
- 1200

Data Sources: Census 2011 LAD Boundary & Ordnance Survey Integrated Transport Network Map (with Urban Path Data)

Sue Easton
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University of Sheffield