Validating the Street Mobility Toolkit: Triangulation of findings in Finchley Road

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We thank our funders:
Participatory mapping

The UCL Street Mobility project

Video survey

Street audits

Spatial analysis

Stated Preference survey

Health and Neighbourhood Mobility Survey

Spatial analysis

Participatory mapping

The UCL Street Mobility project

Video survey

Street audits

Spatial analysis

Stated Preference survey

Health and Neighbourhood Mobility Survey
Case study 2: Finchley Road
Study results

Finchley Road
Using triangulation to assess a suite of tools to measure community severance


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Walkability and connectivity - HIDE

- Space syntax showed that Finchley Road is structurally important for pedestrian activity. Red, Blue
- The walkability model shows that Finchley Road is one of the peak walkability areas in London.
- However, traffic flow data showed that it is also the arterial with the highest motorised traffic levels of any non-motorway road in London. This co-existence of heavy traffic and high walkability suggests community severance will be high.
- Free text comments from participants confirmed this.
Syntax analysis (local scale)
London’s walkability

London Walkability Model © Ashley Dhanani/UCL
Levels of traffic within peak walkability boundaries

- 39,500-46,500 vehicles (07.00-24.00)
- High % heavy good vehicles & buses/coaches
Walkability and connectivity

“Finchley Road is probably the most congested, dangerous, noisy, dirty road in the world.”

(Male, 65-74; Health and Neighbourhood Mobility Survey)
• Local residents asked on the street report that the road is a strategic destination with popular local amenities (Swiss Cottage Farmers’ Market, Leisure Centre, O2 Shopping Centre)
Factors affecting participants’ self-reported ability to walk around their neighbourhood

<table>
<thead>
<tr>
<th>Factors</th>
<th>Never affected (%)</th>
<th>Occasionally affected (%)</th>
<th>Often or always affected (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of traffic, N (%)</td>
<td>109 (53%)</td>
<td>66 (32%)</td>
<td>30 (15%)</td>
</tr>
<tr>
<td>Speed of traffic, N (%)</td>
<td>111 (54%)</td>
<td>65 (32%)</td>
<td>29 (14%)</td>
</tr>
<tr>
<td>Other N (%)</td>
<td>160 (79%)</td>
<td>29 (14%)</td>
<td>14 (7%)</td>
</tr>
</tbody>
</table>
% at least occasionally affected by volume of traffic (own road):
P=0.002
Perception (participatory mapping) of road as socio-economic border between two different groups, reinforced by findings from the Index of Multiple Deprivation (from Oliver O'Brien's blog of IMD deciles)
The PERS survey results show there are barriers to walking other than road traffic, such as railways and dark alleyways (in the NW part) and slopes (in some streets leading to the Finchley road in the E part).
25% of survey participants who did not live on the busiest road reported that they avoided walking along the busiest road.
Crossing Finchley Road
Crossing Finchley Road
Participants in the SP survey prefer to use straight pelicans
Participants in the SP survey prefer to use straight pelicans unless there is another type of crossing that is closer.

<table>
<thead>
<tr>
<th>Type of Crossing</th>
<th>Walking Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staggered pelican</td>
<td>0.3</td>
</tr>
<tr>
<td>Footbridge</td>
<td>1.6</td>
</tr>
<tr>
<td>Underpass</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Walking times (minutes) above which people would choose those other types of crossing.
Air pollution- HIDE

1 in 5 PM participants cited pollution as a negative perception of the road

36% Health & Neighbourhood Mobility Survey participants reported air or noise pollution presented a difficulty for them in walking around the local area
Noise and air pollution

61.04 µg/m³ mean Nitrogen Dioxide levels for October 2014 - October 2015 (EU annual limit is 40 µg/m³)

“I avoid the pollution on Finchley Road by using the bus – it’s foul crossing by the cinema (Swiss Cottage), really disgusting.” (Street survey)

“Exhaust fumes from huge airport buses are dreadful. Killing us.” (H&NM Survey participant)
Noise / air pollution
(% problem on road): $P=0.002$

- 500-799m
- 250-499m
- 0-249m
- All
People also report that the pavement conditions are not adequate for the people with disability.

“I have arthritis and use a walking stick. Many of the pavements are cracked and I have fallen on several occasions.”

H&NM Survey participant
Community severance measurement toolkit

www.ucl.ac.uk/street-mobility/toolkit

Most of the toolkit is now available

www.ucl.ac.uk/street-mobility

(The valuation tool will follow in the next few weeks)