Relating Cultural Participation to Cultural Opportunities using Commercial and Government Data

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What Drives Cultural Participation?
Sociological Literature: Cultural Consumption

- Dominated by Bourdieu
  - Cultural tastes socially constructed by/against elite groups
  - Cultural consumption reinforces social stratification
- Influenced by “habitus”, life routines shaped by personal disposition & external structures, including neighbourhood
  - But empirical sociological studies have ignored place effect
- Policy research has followed sociologists lead
  - Lack of data on cultural provision, because no need for it
  - Targets to increase attendance from priority groups, not improve access to culture
  - Planners lack guidance on cultural facilities, unlike quantitative standards for eg leisure amenities
Accessibility analysis

- Access to public facilities found to be highly relevant to their usage: polling stations, parks, health centre
- Analysis of accessibility often an analysis of spatial equity
- Differences between neighbourhoods as opportunity structures:
  - “socially constructed and socially patterned features of the physical and social environment which may promote or damage” the lives of residents “either directly, or indirectly through the possibilities they provide for people” (Macintyre, Ellaway, & Cummins, 2002, p. 132).
Hypothesis

“The access to cultural facilities provided by the places that people live is important in influencing whether or not they participate in culture”

- Tested here comparing policy estimates of opera attendance to box office data supplied by project partners
- And by incorporating an accessibility index for museums and galleries to survey on cultural participation, comparing effect of access to a venue to individual characteristics
Operationalising accessibility

- “Container” approach common: no. facilities in each area
  - But appropriate geographic scale critical: not every area will need a university or cancer centre

- Gravity approach more appropriate
  - Continuous over space – no artificial administrative boundaries
  - Accounts for larger venues having longer geographic reach

Measuring Participation: Taking Part Survey

- Official statistics, commissioned by DCMS with ACE
- Wealth of data on cultural behaviours and attitudes
- Used 4 waves of data 2006-2010, c100,000 responses
- Special access to respondents 2001 Census Output Area
Case Study 1: Opera in London

- ACE produce geo-demographic segmentation of arts attenders using Taking Part & other survey data
- Compare ACE estimates to observed attendance in London using pooled administrative (Box Office) data
  - 12 venues, 2 years (2004-6) aggregated to 2001 Census OAs
  - Highly socially stratified audience
  - High level of data collection
- Accessibility index calculated:
  - no tickets sold per venue/ log distance
- Variables of interest from 2001 Census appended
- Used in group logistic regression (no. positive outcomes/total possible outcomes)
## Modelling results

<table>
<thead>
<tr>
<th>Segmentation</th>
<th>% Deviance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE</td>
<td>60.1%</td>
</tr>
<tr>
<td>Census &amp; accessibility</td>
<td>70.0%</td>
</tr>
</tbody>
</table>

### Selected Parameters, Census & Accessibility

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coeff.</th>
<th>Std Err</th>
<th>z</th>
<th>OR (10%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility index (standardised 0-1)</td>
<td>3.77</td>
<td>0.09</td>
<td>43.86</td>
<td>146%</td>
</tr>
<tr>
<td>Log median income</td>
<td>0.32</td>
<td>0.03</td>
<td>12.25</td>
<td>103%</td>
</tr>
<tr>
<td>% households without access to a car</td>
<td>-0.75</td>
<td>0.05</td>
<td>-15.29</td>
<td>93%</td>
</tr>
<tr>
<td>% Asian Indian</td>
<td>-1.73</td>
<td>0.10</td>
<td>-17.57</td>
<td>84%</td>
</tr>
<tr>
<td>% Black African</td>
<td>-1.90</td>
<td>0.14</td>
<td>-14.03</td>
<td>83%</td>
</tr>
<tr>
<td>% NS-SeC 7</td>
<td>-1.87</td>
<td>0.23</td>
<td>-8.02</td>
<td>83%</td>
</tr>
<tr>
<td>% Qualifications level 3 (A level)</td>
<td>2.79</td>
<td>0.14</td>
<td>19.65</td>
<td>132%</td>
</tr>
<tr>
<td>% Qualifications level 4-5 (degree or above)</td>
<td>4.15</td>
<td>0.06</td>
<td>72.83</td>
<td>151%</td>
</tr>
</tbody>
</table>
Geographic bias to ACE prediction errors

ACE segmentation underestimates attendance in areas close to opera venues, and underestimates attendance from further away.
Case Study 2: Museums and Galleries in London
Measuring access using Google searches

- Destinations list: Museums & Galleries Yearbook
- Measuring attractiveness: visitor figures not available
- 205 London venues fed into Google Keyword Tool
  - No. searches performed per month within UK (5-201,000)
  - Google Trends offers information over time, used to track disease outbreaks and public opinion trends
  - Triangulated against visitor figures for top 10 venues
- Logistic regression model built
  - incorporating variables from literature/theoretically justified:
  - Individual characteristics: age, education, occupation etc
  - Area level: access to museums, transport, deprivation levels
Predicted probabilities of attendance

Strength of effect of access varies between groups

1.78

1.68

1.49

1.52

1.81

2.46

Acc1 Acc2 Acc3 Acc1 Acc2 Acc3 Acc1 Acc2 Acc3 Acc1 Acc2 Acc3 Acc1 Acc2 Acc3

White BAME White BAME White BAME

No quals GCSEs/A levels Degree
Conclusions

- Access to opportunities to attend opera /museums and galleries strongly related to attendance levels
  - With previously-identified demographic & socio-economic factors
- Areas operate as “opportunity structures” for attendance: significant effect of access, but also IMD and public transport.
- Could be argued that people have a predisposition to attend, according to their education, class, ethnicity etc, which then is acted on, or not, according to their surroundings.
- Level of supply does not entirely determine whether or not people attend, however, better access to opera and museums/galleries does increase attendance from all groups.