Multigenerational mobility in India / Vegard Iversen, Anustup Kundu & Kunal Sen
Multigenerational mobility in India

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September 13, 2019
SOCIAL MOBILITY - WHY SHOULD WE STUDY IT?

- Intergenerational Mobility is an under-researched area in Development Economics. Quite puzzling, given the focus on poverty, inequality and (in)equality of opportunity.
- Emerging interest amongst the researchers and policy makers on Intergenerational Mobility.
- Multi-generational Mobility largely missing except for a few developed economies.
Literature

- Intergenerational mobility in developing countries \(^1\)
  - **Educational mobility** (Azam and Bhatt, 2015; Emran and Shilpi, 2015; Hnatkovska, Lahiri and Paul 2013; Hertz et al., 2007)

- Multigenerational mobility studied mainly in developed countries (Lindahl et al., 2015; Long and Ferrie, 2015; Zeng and Xie, 2014; Lucas and Kerr, 2013)

- Multigenerational mobility not studied in Indian context

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\(^1\) Iversen, Krishna and Sen (2019) provides an in depth review.
OUR CONTRIBUTION AND PREVIEW OF RESULTS

- Contributes towards Multi-generational Mobility.
- Multi-generational Mobility work in a developing country.

Findings

- Backward caste people are showing ↓ mobility compared to general caste.
- Urban people exhibit ↑ mobility compared to rural people (not shocking!).
We use the India Human Development Survey-II (IHDS-II) a nationally representative dataset collected by the University of Maryland and the National Council of Applied Economic Research (NCAER) in 2011-12.
OCCUPATIONAL CATEGORIES

- **Category 1:** Professional (Occupation codes 00-29)
- **Category 2:** Clerical and other (Occupation codes 30-49)
- **Category 3:** Farmers (Occupation codes 60-62)
- **Category 4:** Higher status vocational occupations (Occupation codes 50-52, 56-59, 79, 84-87).
- **Category 5:** Lower status vocational occupations (often caste based, traditional): 53-55, 68, 71-78, 80-83, 88-93, 96-98
- **Category 6:** Agricultural and other manual labourers, including construction workers (Occupation codes 63-67, 94, 95, 99)
MOBILITY PATTERNS ACROSS GENERATIONS

Figure: Gen 1 & Gen 2

Figure: Gen 2 & Gen 3
We use Solon (2004, 2014) adaptation of the Becker-Tomes model.

\[ O_{i,c} = \beta_0 + \beta_1 O_{i,p} + \beta_2 O_{i,gp} + \Pi X_i + \epsilon_i \]  

(1)

where
- \( O_{i,c} \) = Child’s occupation
- \( O_{i,p} \) = Parent’s occupation
- \( O_{i,gp} \) = Grandparent’s occupation
- \( \Pi X_i \) = Control
- \( \epsilon_i \) = Error term
### Multigenerational Mobility

<table>
<thead>
<tr>
<th></th>
<th>Gen 2 ocp(1)</th>
<th>Gen 3 ocp(2)</th>
<th>Gen 3 ocp(3)</th>
<th>Gen 3 ocp(4)</th>
<th>Gen 3 ocp(5)</th>
<th>Gen 3 ocp(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen 1 occupation</td>
<td>0.412***</td>
<td></td>
<td></td>
<td>0.333***</td>
<td>0.136***</td>
<td>0.137***</td>
</tr>
<tr>
<td></td>
<td>(0.00619)</td>
<td></td>
<td></td>
<td>(0.00920)</td>
<td>(0.0127)</td>
<td>(0.0126)</td>
</tr>
<tr>
<td>Gen 2 occupation</td>
<td></td>
<td>0.486***</td>
<td>0.490***</td>
<td></td>
<td>0.441***</td>
<td>0.445***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0102)</td>
<td>(0.0102)</td>
<td></td>
<td>(0.0105)</td>
<td>(0.0106)</td>
</tr>
<tr>
<td>Gen 2 age group</td>
<td></td>
<td></td>
<td>0.0985***</td>
<td></td>
<td></td>
<td>0.105***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.0267)</td>
<td></td>
<td></td>
<td>(0.0268)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.538***</td>
<td>2.110***</td>
<td>1.825***</td>
<td>2.717***</td>
<td>1.766***</td>
<td>1.461***</td>
</tr>
<tr>
<td></td>
<td>(0.0495)</td>
<td>(0.0509)</td>
<td>(0.0878)</td>
<td>(0.0460)</td>
<td>(0.0557)</td>
<td>(0.0868)</td>
</tr>
<tr>
<td>Observations</td>
<td>36626</td>
<td>12796</td>
<td>12796</td>
<td>16308</td>
<td>12739</td>
<td>12739</td>
</tr>
</tbody>
</table>

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
We use Difference in Differences (DiD) method to exploit multigenerational nature of our data and test for mobility across different social groups

\[ O_{ij} = \beta_0 + \beta_1 S_{ij} + \beta_2 G_{ij} + \beta_3 S_i \times G_{ij} \]  

(2)

where

- \( O_{ij} \) = Child’s occupation
- \( S_{ij} \) = Social group dummy (eg. religion/caste)
- \( G_{ij} \) = Generation/time dummy
- \( S_i \times G_{ij} \) = Interaction term
## Multigenerational Mobility - DiD

<table>
<thead>
<tr>
<th></th>
<th>Occupation (1)</th>
<th>Occupation (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time</strong></td>
<td>-0.00737</td>
<td>0.126***</td>
</tr>
<tr>
<td></td>
<td>(0.0244)</td>
<td>(0.0163)</td>
</tr>
<tr>
<td><strong>Treatment=Social group (SC,ST)</strong></td>
<td>1.152***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0167)</td>
<td></td>
</tr>
<tr>
<td><strong>DiD (SC,ST)</strong></td>
<td>0.0839**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0339)</td>
<td></td>
</tr>
<tr>
<td><strong>Treatment=Location</strong></td>
<td></td>
<td>-0.579***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0139)</td>
</tr>
<tr>
<td><strong>DiD (Location)</strong></td>
<td></td>
<td>-0.366***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0284)</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>3.391***</td>
<td>4.192***</td>
</tr>
<tr>
<td></td>
<td>(0.0121)</td>
<td>(0.00806)</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>48874</td>
<td>82386</td>
</tr>
</tbody>
</table>

Standard errors in parentheses

* * p < 0.1, ** p < 0.05, *** p < 0.01
CONCLUSION

- Persistence is high!
- In-spite of having affirmative policies (quotas) for lower castes, lower caste people are showing \(\downarrow\) mobility compared to general caste, quite puzzling! Affirmative targeted policies not working?
- urban people exhibit \(\uparrow\) mobility compared to rural people (not shocking!).
THANK YOU