Traditional Hierarchies and Affirmative Action in a Globalizing Economy: Evidence from India

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Traditional Hierarchies

• Historical systems of stratification, e.g. race in the US or caste in India, imp markers of identity in several countries.
• Countries also have group-based AA to redress historical inequalities.
• To what extent do traditional hierarchies provide the correct lens to understand contemporary inequalities?
Two Questions

• Are caste gaps narrowing over time?
  o Globalisation \( \rightarrow \) new opportunities
  o Reduced discrimination due to market competition
  o Increase in pol rep \( \rightarrow \) decrease in grp disparities.

• Does AA work in terms of conferring the intended benefit on the target group?
  – Evidence on the first-order effects of AA by looking at the effect of extension of job quotas to OBCs in 1993.
Changing Contours of Caste Disadvantage

- Data from NSS Employment-Unemployment Survey (EUS): 55\textsuperscript{th} round 1999-2000 and 68\textsuperscript{th} round 2011-12
- Age cohorts:

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Age in 2012</th>
<th>Birth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>65-56</td>
<td>1947-1956</td>
</tr>
<tr>
<td>2</td>
<td>55-46</td>
<td>1957-1966</td>
</tr>
<tr>
<td>4</td>
<td>45-36</td>
<td>1967-1976</td>
</tr>
<tr>
<td>5</td>
<td>35-26</td>
<td>1977-1986</td>
</tr>
<tr>
<td>6</td>
<td>25-16</td>
<td>1987-1996</td>
</tr>
</tbody>
</table>
Absolute and Relative Gaps

\[
\text{RelativeGap}_{jk} = \frac{\text{Indicator}_{ijn}}{\text{Indicator}_{ikn}}, (1)
\]

and

\[
\text{AbsoluteGap}_{jk} = \text{Indicator}_{ijn} - \text{Indicator}_{ikn}, (2)
\]
Diff-in-diff: Relative Gaps

\[ D - I - D - \text{RelativeGap}_{jk} = \left[ \frac{\text{Indicator}_{ij(n+1)}}{\text{Indicator}_{ik(n+1)}} \right] - \left[ \frac{\text{Indicator}_{ijn}}{\text{Indicator}_{ikn}} \right]. \]
Diff-in-diff: Abs Gaps

\[ D - I - D - \text{AbsoluteGap}_{jk} = [\text{Indicator}_{ij(n+1)} - \text{Indicator}_{ik(n+1)}] - [\text{Indicator}_{ijn} - \text{Indicator}_{ikn}] \]
Years of Education
Higher Secondary & above Edu
Graduate and Above Education
Intergenerational Transmission of Education

\[ E_i^S = \alpha + \beta_1 Others \times E_i^f + \beta_2 SCST \times E_i^f + SC - ST_i + OBC_i + \beta_3 E_i^f + R_i + S_j + A_i + \varepsilon_i \]
Intergenerational Transmission: Results

<table>
<thead>
<tr>
<th></th>
<th>NSS -55</th>
<th>NSS -68</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intergenerational Coeff * Others ($\beta_1$)</td>
<td>-0.0458***</td>
<td>-0.0531***</td>
</tr>
<tr>
<td></td>
<td>(0.0122)</td>
<td>(0.0126)</td>
</tr>
<tr>
<td>Intergenerational Coeff * SC-ST ($\beta_2$)</td>
<td>0.0371**</td>
<td>-0.00331</td>
</tr>
<tr>
<td></td>
<td>(0.0154)</td>
<td>(0.0145)</td>
</tr>
<tr>
<td>Intergenerational Coefficient ($\beta_3$)</td>
<td>0.503***</td>
<td>0.449***</td>
</tr>
<tr>
<td></td>
<td>(0.0095)</td>
<td>(0.0088)</td>
</tr>
<tr>
<td>SC-ST dummy</td>
<td>-0.801***</td>
<td>-0.735***</td>
</tr>
<tr>
<td></td>
<td>(0.0648)</td>
<td>(0.0749)</td>
</tr>
<tr>
<td>Others dummy</td>
<td>1.229***</td>
<td>1.209***</td>
</tr>
<tr>
<td></td>
<td>(0.0756)</td>
<td>(0.0979)</td>
</tr>
<tr>
<td>Age</td>
<td>0.287***</td>
<td>0.312***</td>
</tr>
<tr>
<td></td>
<td>(0.0193)</td>
<td>(0.0210)</td>
</tr>
<tr>
<td>Age squared</td>
<td>-0.00400***</td>
<td>-0.00447***</td>
</tr>
<tr>
<td></td>
<td>(0.000316)</td>
<td>(0.000334)</td>
</tr>
<tr>
<td>Urban Dummy</td>
<td>0.907***</td>
<td>0.763***</td>
</tr>
<tr>
<td></td>
<td>(0.0576)</td>
<td>(0.0627)</td>
</tr>
<tr>
<td>State Dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>32,940</td>
<td>23,595</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.336</td>
<td>0.336</td>
</tr>
</tbody>
</table>

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1
White-Collar Jobs
Wages and Lab Mkt Discrimination

\[ \ln W_{igst} = \alpha + \beta_g Group_g \times Round_t + \beta_g Group_g + NSS\_Round_{68} + X_{igst} + \gamma_s + \epsilon_{igst} \]
Results

• Workers earning below median log wage: convergence b/w Others & OBC, and Oth-SCST.
• Comparing workers earning above median log wage, SCST fell behind the Others by 12 ppt over the decade.
• OBCs: gap static.
• Blinder-Oaxaca decomposition: unexplained component of the wage gap increased from 7 to 15% (SCST) & 16.13 to 18.6 (OBCs).
Caste Disadvantage: Conclusions

• No reversal of traditional caste hierarchies, despite flux in the middle and narrowing of gaps between younger cohorts of OBCs and “Others”.

• This uses legal OBCs, which include some dominant castes and hence would bias the OBC averages upwards.

• Caste continues to be an axis of disadvantage.
II: Impact of OBC Quotas in 1993
Indian AA

• Primarily caste-based.
• India: constitutionally mandated 22.5% quotas for Scheduled Castes (SCs) and Scheduled Tribes (STs) in govt edu, jobs and elections
• Additional 27% to Other Backward Classes (OBCs): central govt jobs (1993); higher ed (2006).
• OBC quotas at the state level started at different points since 1947.
Impact of OBC Quotas in 1993

• 3 outcomes:
  – Access to public sector jobs
  – Share of group with undergraduate & above edu
  – Share of group with secondary school & above edu (need at least Class X for Category D or Class IV jobs)

• Identification strategy: No change for “Others” (no quotas before and after) & SC-STs (same quota both before and after)
Identification Strategy

• Thus, OBC individuals who were 16 or younger in 1993 (35 in 2012) had the possibility of changing their edu choices in 1993 in response to job quotas.

• For jobs, individuals who were 20 or younger in 1993 (40 or younger in 2012) could aim for public sector jobs due to the introduction of quotas.
Cohorts & D-I-D estimator

• Treated cohorts in 2012
  – tc1: 21-25 years
  – tc2: 26-30 years
  – Tc3: 31-35 years

• D-I-D estimator:

\[ O_{ijk} = \delta_0 + \sum_{k=5}^{k=1} (OBC_j \cdot c_{ik})\delta_1k + \sum_{k=5}^{k=1} (SC - ST_j \cdot c_{ik})\beta_1k + OBC_j + SC - ST_j \]

\[ + \text{year}_i + \text{state}_i + \text{Urban\_dummy} + \epsilon_i, \]