Absence: Electoral Cycles and Teacher Absenteeism in India

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Introduction
The Problem of Absenteeism

• Public sector workers are often absent...
• ...and when present are rarely teaching.
• And it is expensive: $1.5 Billion/year
The Problem of Absenteeism

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Absenteeism

Chaudhury et al. (2005) found that 19 percent of teachers and 35 percent of health workers were absent across various low- and middle-income countries.

Within India, absence varied from 15 percent in Maharashtra to 42 percent in Jharkhand (Kremer et al. 2005).
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- And it is expensive: $1.5 Billion/year
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2. Leads to improvements in test scores the following year
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Empirical Puzzle: Absence & Electoral Cycles
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1. …absence would be higher when political attention is likely to be higher
Increased Absence?

• Teachers work as election monitors, campaign for political parties (Beteille 2016; Larreguy, Montiel Olea, & Querubin, 2017)
• Independently campaign for their preferred candidates (Kingdon & Muzammil 2001)
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2. or lower?
Decreased Absence?

- Increased monitoring by politicians at election time (Callen et al. 2017)
- Increased monitoring by mid-level bureaucrats reduced absence (Chaudhury et al. 2005)
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What explains variations in absence across time and space and incentives to monitor front-line functionaries?
• Teachers are embedded in larger networks of political accountability. They both:
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  2. Are independent political agents of their own accord.
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  1. Respond to political pressures from their principals in a principal-agent relationship...
  2. And are independent political agents of their own accord.
I show that politicians can exert strong control over teachers when they are incentivized to do so, and this has spillovers for service provision quality.
Data & Methods
School Report Cards

• Self-reported data on school infrastructure, enrollment, staffing for universe of government schools and large private school in India.

• Geographic location & teacher attendance.

• 1,300,000 government and 525,000 private schools in data from 2006 to 2018 academic years.

• 10,000,000 and 3,000,000 school-year observations respectively.
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Electoral Data

Electoral results for every state-level election from 2001 to 2021
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Geo-Referencing Schools

• Match locations of schools to electoral constituencies
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Results
Leverage the staggered nature of Indian elections in a repeated event study design:
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\[ Y_{i,t} = \sum_{j \in \{-2, 2\}} \alpha_j m_{j,i,t} + \beta_1 y_{i,t-1} + Z_{i,t} + \gamma_i + \zeta_t + \mu_{i,t,d} \]
Estimation Strategy

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- \( i \) identifies school
- \( t \) represents year
- \( m_{j,i,t} \) is an indicator variable that equals one when school \( i \) is \( j \) years away from the state election.
<table>
<thead>
<tr>
<th>Years to Election</th>
<th>A: Probability Absent</th>
<th>B: Average Number of Absences</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>-0.050</td>
<td>-0.050</td>
</tr>
<tr>
<td>2</td>
<td>-0.025</td>
<td>-0.025</td>
</tr>
<tr>
<td>3</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
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<td>0.025</td>
</tr>
<tr>
<td>5</td>
<td>0.050</td>
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Election Years: 1, 2, or more

Absences: -2 or more, -1, 0, 1, 2, or more
Electoral Cycles and Absenteeism

A: Probability Absent

B: Average Number of Absences
Absence in the Private Sector

• Repeat the same analysis for absence in private schools
• Definitely undercount of private schools, but those most likely to have political pressures are included.
• If results are spurious, should seem similar electoral cycle in private sector.
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Mechanisms and Data Concerns

Mechanisms:
- Fewer competitive parties in constituency result in greater decrease in absenteeism.
- Electoral competitiveness and match between ruling party at state and constituency level do not lead to reduced absenteeism.

Data Concerns:
- Replicate analysis with separate cross-national independently collected audits from the Indian Human Development Survey (IHDS) and find similar rates of absenteeism.
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<th>Math</th>
<th>Writing</th>
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<tbody>
<tr>
<td>1</td>
<td>−0.3</td>
<td>−0.2</td>
<td>0.0</td>
<td>−2 or more</td>
</tr>
<tr>
<td>2 or more</td>
<td>−0.2</td>
<td>−0.1</td>
<td>0.0</td>
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<th>Election Year</th>
<th>A: Test Scores for Students in Government Schools</th>
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<th>B: Test Scores for Students in Private Schools</th>
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<tr>
<td>1</td>
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Decreased Absenteeism Improves Service Quality...

A: Test Scores for Students in Government Schools

B: Test Scores for Students in Private Schools
...And Saves Money
• Depending on your preferred specification, results in a fiscal recovery between $36,080,163 and $75,703,081
Conclusions
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• Teachers are far more likely to be present in election years than in years far from an election.
• Suggestive evidence that when it is easier for teachers and political parties to strike bargains, absence will be reduced.
• Question for policy is how to extend these incentives over the entire electoral cycle?
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Thank You

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