



Educational Outcomes in India

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Objectives

- What determines good educational outcomes?
- What is the effect of governance on educational achievement?
 - Governance - incentives through contracts
 - Achievement - completion of elementary education
- So what?



Highlights

- Data – census of recognized schools
- Teachers matter
- Incentives matter
- Incentives versus enhancing resources
 - Use incentives to elicit good teacher performance
- Evaluate and reallocate resources
 - Impact on outcomes is the appropriate barometer

- DISE Data – a million schools across India
- Data – 95000 schools in Andhra Pradesh
 - Upper primary rural government schools 15000
 - Study includes over 10000 schools
 - Common examination in terminal year of elementary or upper primary school or grade 7
- Link multiple datasets
 - Teachers and students – DISE, NUEPA-MHRD
 - Parents (households) – NSS, NSSO
 - Communities – Census, RGI

- OLS achievement equation

$$E_k = \alpha + \beta_1 T_{gk} + \beta_2 T_{trk} + \beta_3 T_{dmgk} + \beta_4 T_{itrk} + \beta_5 T_{incntk} \\ + \beta_6 P_{incntk} + \beta_7 P_{dmg} + \beta_9 S_{tchgk} + \beta_{10} S_{lk} + \beta_{11} S_{distk} + u_k$$

- Dependent variable
 - Percent of students passing grade 7
- Controls - Teacher, Pupil, and School attributes
- Key variable – para (contract) teachers
 - Existence, number, and attributes of para teachers

Challenges

- Accounting for community or “village voice” – use
 - District and block fixed effects
 - Community variables – outside data matched by location
- Is there an instrument for “village voice?”

- Factors associated positively with achievement
 - Teacher experience
 - Student incentives
 - Basic infrastructure
- Factors associated negatively with achievement
 - Teacher age
 - In-service training
 - Peers – weaker sections (SC, ST, OB)

- Para teachers – negative association
 - Presence of para teachers
 - Number of para teachers
 - Para teacher experience
- Community variables
 - Education, consumption, proportion of weaker sections
 - Distance from nearest town



Key Issue Remaining

- Para teachers versus “para-teacher” schools
- How to address?
 - Deepen location matching
 - Devise an instrument
 - Use panel data
- Extensions – other states



Incentives. So What?

- Public sector performance in education
 - Incentives matter
 - Different effects - para teachers and regular teachers
 - Innovative enhancing of resources insufficient
 - Augmenting teacher input through para (contract) teachers is not sufficient
- Consider incentives for regular teachers



Enhancing Resources. So What?

- Evaluate resources-enhancing
 - (Number of para teachers)
 - In-service teacher training
 - Student scholarships
 - School infrastructure
- Consider impact evaluation, follow-up, reallocate resources

- Public sector – teacher performance
 - Incentives matter - consider incentives for both permanent and contract teachers
- Assess current programmes
 - Impact evaluation
- Strengthen data
 - Develop panels with parental information



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Thank You.