

Teacher Assignment Policies in *Education Prioritaire* Middle Schools and Educational Inequalities

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# Motivation of the Study

- *Education prioritaire* : program aimed at reducing educational inequalities by channeling additional resources to schools in disadvantaged areas
- Existing studies focus on overall impact of the program (Benabou et al., 2009), but no study on teacher assignment
- Yet, important economic literature showing that teachers are a major determinant of student outcomes (Chetty et al., 2014)
- Thus, teacher assignment policies : important lever for reducing educational inequalities in *Education Prioritaire*

# What this Study Does

Two dimensions of teacher assignment in *Education prioritaire* schools :

- ① Project I – Teacher Absences and Assignment of Substitute Teachers
- ② Project II (with Julien Grenet) – Evaluation of a non-pecuniary, “career-path oriented” centralized incentive scheme designed to attract and retain teachers in disadvantaged middle schools

To my best knowledge, currently no empirical evidence on both questions

# Project I – Teacher Absences and Assignment of Substitute Teachers

- Teacher absences : disruptive event in students' instructional time (Clotfelter et al., 2009 ; Duflo et al., 2012 ; Herrmann and Rockoff, 2012)
- In reaction to this event :
  - assignment or not of a substitute teacher
  - choice between tenured substitute teacher or contract substitute teacher
- Potential source of inequality
- Research Question : How substitute teachers are assigned in *Éducation Prioritaire* ? What is the impact of teacher absences and substitution on student achievement in *Éducation Prioritaire* ?

# Data and Empirical Strategy

- Focus on middle school and *Diplôme national du brevet*
- Unique individual administrative data from the Ministry of Education linking :
  - each teacher to her students
  - each absence spell to her substitute teacher
- Empirical Challenge : teacher absences and assignment of substitute teachers can be related to unobserved determinants of student achievement
  - Less motivated teachers can be more absent
  - Fewer tenured substitute teachers available in disadvantaged areas
- Empirical Strategy : comparison, within teacher, across years

## Preliminary Results

	<i>EP*</i>	<i>Non EP</i>
Nb of absence spells per teacher	4.29	3.90
Nb of business days of absence per teacher	10.43	12.46
Share of replaced absence business days	10 %	16 %
Share of replacement made by a contract teacher	60 %	34 %

\* EP : *éducation prioritaire* ; Sample : all middle school teachers in 2015.

## Project II – Non-Pecuniary Incentive Scheme to Attract Teachers in *Education Prioritaire*

- Inexperienced teachers more likely to be assigned to disadvantaged schools (OECD, 2005)
- Main determinants of the teacher quality gap (Clotfelter et al., 2006) :
  - Difficulty to attract quality teachers
  - Difficulty to retain them : higher turnover in disadvantaged schools (OECD, 2005)
- Public policy issue : how to attract quality teachers and retain them in *Education prioritaire* middle schools?

# Research Questions

- ① Teachers are assigned according to a centralized point-based assignment system. Main Criteria :
  - experience : number of years since entering the teaching profession
  - seniority : number of consecutive years spent in the current school
  - **seniority in the same disadvantaged school**
- ② Research Questions :
  - How teacher are distributed between Education prioritaire and other schools ?
  - How effective are disadvantaged schools seniority bonuses at attracting quality teachers and at retaining them ?
  - What is their effect on the student achievement gap in middle school ?



# Method : A Natural Experiment

Major reform in 2005 :

- Change in the structure of the disadvantaged school seniority bonus, to give teachers incentives to stay at least 5 years
- Two groups of schools :
  - Disadvantaged schools benefiting from points (13 % of public middle schools) hereafter APV (*Affectation prioritaire à valoriser*)
  - Non - disadvantaged schools hereafter non APV

⇒ exogenous variation in the structure of incentives : identify the effectiveness of this incentive scheme

Thank you for you attention