Does Beginning Teacher Mentoring Impact Their Retention? Evaluating a Mentoring Program in a Western State

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Introduction

- Generally, beginning teachers and teachers of color have lower retention rates compared to their counterparts.
- Mentoring programs are provided to help accelerate new teachers’ professional growth and increase their willingness to stay in teaching positions.
- Current research on the impact of the mentoring programs shows mixed results.

Research Questions

- How does participating in the mentoring program impact the beginning teachers’ probability of leaving or staying in their school districts?
- Does the mentoring program have any long-term impacts?
- Does the impact of mentoring program vary by district level teacher diversity?

Data

Program data:
- List of districts who received a mentoring grant programme were obtained from the state department of education (DOE) (2009-2016)

Teacher Data:
- Administrative records of DOEs (2007-2017)

Outcome variables:
- Teachers leave or stay in the state or in the school district 1 year or 3 years later

Treatment variable:
- Program teachers: teachers met program requirements & in a program district in year 1
- Program cohorts: teachers had been program teachers in their 1st or 2nd year

Covariates:
- Teacher characteristics: gender, age group, base salary level, part-time/full-time, multiple assignments or not, degree, elementary/middle/high school, special education teacher or not, licenses or not
- Student characteristics of each school district: student enrollment, FRPL %, student of color %, 4-year graduation rate

Analysis sample (2018-2016):
- K-12 teachers in the state (N = 263,288)
- K-12 teachers working in high teacher diversity districts: % minority teachers >19.9% (the national average in 2016) (N = 21,914)

Research Method

- Each year districts apply for grants from the state department of education and receive funding for a one-year mentoring program.
- Since the program only targets beginning teachers and not all the districts applied and received grants each year, we can estimate the effect of the program on teacher retention through a “difference-in-difference” design.

- The “intent-to-treat (ITT)” effects are estimated through the following two models (with all S.E. clustered in the district level):

Model 1: \( Y_{it} = \alpha + \beta \text{Program} + \gamma \text{Novice} + \kappa \text{Program} \times \text{Novice} + \delta \text{Year} + \delta \text{District} + \lambda X + \epsilon \)

Model 2: \( Y_{it} = \alpha + \beta \text{Program cohort} + \gamma \text{Year} + \delta \text{District} + \lambda X + \epsilon \)

Key Findings

- Model 1: Impact on Program Teachers (Full sample)

Impact in High Teacher Diversity Districts (Sub-sample)

- Model 2: Impact on Program Cohorts (Full sample)

- Teacher retention rates in the state (2009-2016)

Discussion

- Results for the ITT effects are mixed.
- The program significantly reduced the probability of teachers leaving in one year and in three years when we compare teachers who met the program requirements and in the program districts in that year to teachers who were not eligible to the program or not in the program districts (Model 1).
- However, the program significantly increased the probability of teachers leaving their school districts in one year and in three years when we compare teachers who had been program teachers in their 1st or 2nd year to teachers who had never been program teachers (Model 2).
- If we only look at districts with relatively high teacher diversity rates, there is no significant program impact observed.

Limitations and future directions

- Teacher individual level participation data will be added to test “treatment on the treated” effects.
- Program mentors data will be added to gain insights of mentor characteristics.
- We were unable to observe all of the factors that could influence beginning teachers’ retention decisions.
- Improving the retention rate is only one goal of the program. Future work will look at other outcomes, such as student academic outcomes, teachers’ job satisfaction, etc.

Reference


Acknowledgements

We would like to thank representatives from the state department of education for their tremendous help on providing information on the program. We appreciate all the valuable advices from our colleagues. Support for this project was provided by grants from the National Science Foundation (BSES-L1620419) and the Spencer Foundation.

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