

# **NEPC Review: The Effects of High-Performing, High-Turnover Teachers on Long-Run Student Achievement: Evidence From Teach for America (Annenberg Institute for School Reform at Brown University, November 2022)**



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March 2023

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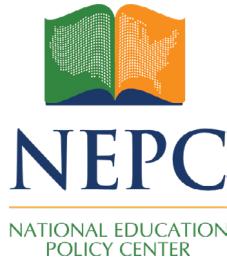
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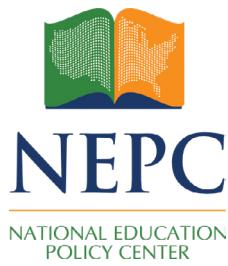
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March 2023

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## Summary

The Annenberg Institute at Brown University recently published a research brief that presents findings from a study examining Teach for America (TFA) teacher turnover and teachers' contributions to fourth through eighth grade student achievement in New York City public schools between 2012 and 2019. Comparing TFA teachers with similarly experienced non-TFA teachers, the study examines the relationship between teacher retention and teachers' improved performance in the early years of their careers. The study finds that, after six years of teaching, TFA teachers continue to improve their contributions to students' standardized test scores at higher rates than their non-TFA colleagues. This finding is well-supported by the data, although only a small number of TFA teachers remain in classrooms for this extended period of time. The report's broader conclusions overreach, however. Specifically, it concludes that "the performance of the TFA workforce is strong enough to offset turnover," and that the "TFA performance advantage is large enough to offset turnover costs." Unfortunately, the report fails to define the "costs" of turnover or to account for the broader effects of the instability of the labor market on schools and districts—including negative effects on school climate, financial costs to districts, and the disproportionate placement of inexperienced TFA teachers in under-resourced schools. While the report may contribute to literature related to the importance of supporting and retaining early career teachers, these broader conclusions about the effects of TFA teachers and alumni should be interpreted cautiously.



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## I. Introduction

The teaching profession continues to experience teacher shortages, particularly in under-resourced urban and rural schools.<sup>1</sup> Recent estimates suggest that in 2022, there were approximately 36,000 vacant teaching positions, and approximately 163,000 positions held by noncertified or underqualified teachers across the nation.<sup>2</sup> To fill vacancies, school districts have increasingly partnered with fast-track teacher certification programs and non-university-based pathways, such as Teach for America (TFA).

Now more than 30 years old, TFA has become a prominent voice in educational reform. TFA recruits and places recent college graduate and career-changer teacher “leaders” in under-resourced urban and rural schools across the U.S.<sup>3</sup> While most TFA teachers leave their positions after a two-year commitment, a limited number of alumni continue teaching in their original schools or districts.<sup>4</sup>

In November 2022, the Annenberg Institute at Brown University published a research brief, *The Effects of High-Performing, High-Turnover Teachers on Long-Run Student Achievement: Evidence from Teach For America*, authored by Virginia Lovison.<sup>5</sup> This report presents findings from a study examining TFA teacher turnover and teachers’ contributions to fourth through eighth grade student achievement in New York City (NYC) public schools between 2012 and 2019. Specifically, by comparing TFA teachers with similarly experienced non-TFA teachers, the study examines the relationship between teacher retention and teachers’ improved performance in the early years of their careers.

## **II. Findings and Conclusions of the Report**

The report presents findings in three key areas: TFA and non-TFA teacher placement and retention; teachers' rate of improvement in contributions to student achievement; and the relationship between retention and teachers' year-to-year contributions to student achievement.

### **Comparisons of Placement and Retention**

The report indicates that in comparison to average NYC public schools, the schools employing TFA teachers had significantly lower student achievement, higher proportions of students living in poverty, and higher proportions of students of color and students from minoritized backgrounds.

After one year of teaching, TFA teachers were more likely to remain teaching in the district than their non-TFA counterparts. However, after the two-year TFA commitment, retention of TFA teachers was lower than for non-TFA teachers in similar public schools. Further, after five years of teaching, 25% of TFA teachers and 43% of non-TFA teachers remained in NYC public schools. After six+ years, only 13% of TFA teachers remained, while 33% of non-TFA teachers continued teaching.

### **Comparisons of Teacher Contributions to Student Achievement Over Time**

Through an analysis of individual teacher contributions to student achievement from one year to the next, the report finds that all teachers tend to increase their contributions to student achievement in their first six years of teaching. A closer look indicates that after the two years of teaching, in the short-term TFA alumni improve their contributions to students' standardized test scores at "twice the rate" of their non-TFA colleagues.<sup>6</sup> Although non-TFA teachers "catch-up" in the intervening years, the report finds that after five and six+ years of teaching, remaining TFA teachers tend to increase their contributions to student achievement at higher rates than non-TFA teachers.

### **Conclusions**

The report finds that although "TFA teachers turnover at relatively high rates, they also improve rapidly over the years they choose to teach"<sup>7</sup> and contribute to higher student achievement outcomes. Overall, the report concludes that the positive net effect of TFA teachers on achievement counterbalances the continual replacement of frequently departing TFA teachers, as long as positions are filled by a constant supply of new TFA teachers who demonstrate similar and consistent patterns of achievement gains over time.

### **III. The Report’s Rationale for Its Findings and Conclusions**

The analyses and conclusions are based on several key assumptions. First, while noting that a teacher’s estimated contributions to student achievement scores is “an imperfect and incomplete measure,”<sup>8</sup> the report assumes that student achievement and value-added assessments are adequate proxies for teacher quality and performance. Second, the report assumes that there is a constant supply of TFA teachers to replace departing colleagues, maintaining equilibrium of TFA teachers in under-resourced, low-performing schools. Third, the report assumes that the effects of teacher turnover and labor instability can be offset by average teacher improvement, as measured by increases in the average student standardized test scores of individual teachers.

### **IV. The Report’s Use of Research Literature**

The report cites research literature from peer-reviewed publications, policy institutes, and nonprofit organizations in four areas: research on the “revolving door” of teachers entering and leaving the profession;<sup>9</sup> research on the relationship between teacher experience and teacher improvement, particularly in the first five years of teaching; research on the effects of TFA teachers on student achievement; and methodological research on estimating teacher contributions to student standardized test scores over time.

In relation to research literature on the effects of TFA teachers on student achievement, the report cites nine experimental or quasi-experimental studies, including six peer-reviewed publications, and three reports from policy institutes and research centers. The report selectively interprets findings from these studies, stating, “extensive prior research documents that TFA teachers perform as well or better than *their most-likely alternative during the first two years in the classroom* [emphasis added].”<sup>10</sup> Of these studies, the report points to only one study referred to as an “exception” on the mixed effects of TFA teachers on student achievement.<sup>11</sup>

Notably, the report does not address critiques of these cited studies, including that in many, the “most-likely alternative” comparison teachers were noncertified teachers or substitute teachers.<sup>12</sup> Moreover, the report does not address findings of peer-reviewed research comparing TFA teachers to fully certified teachers, which suggests that TFA teachers do not perform as well in particular subject areas or compared to their fully certified colleagues.<sup>13</sup>

Further, the report omits peer-reviewed research on broader impacts of TFA, including additional research on attrition of TFA teachers,<sup>14</sup> limited spillover effects of novice TFA teachers on schools,<sup>15</sup> financial costs of TFA on partnering districts,<sup>16</sup> or any qualitative research that sheds light on TFA’s organizational structures and practices.<sup>17</sup> The report’s narrow focus and selective interpretation of the research literature leads to a skewed understanding of prior research on TFA’s broader outcomes.<sup>18</sup>

## V. Review of the Report's Methods

The report's statistical methods are consistent with current approaches of estimating teacher contributions to student achievement scores over time.<sup>19</sup> The report uses a "teacher fixed effects" model, taking into account students' prior years' test scores and student demographic variables including gender, race, English learner status, disability status, and class- and school-level averages of these student demographic variables. Additionally, the report is cautious in outlining caveats, assumptions, and limitations of the data and methods, including the inability to distinguish teachers beyond six years of teaching experience, assumptions around the labor market, and possible counterfactual interpretations of the analyses.

However, the methods have several shortcomings, including inconsistencies in reporting sample size as well as failure to fully describe and disaggregate teacher and student achievement data.

In describing the overall sample size, the report indicates that there were "308 unique TFA teachers and approximately 40,000 non-TFA teachers"<sup>20</sup> included in the analyses. However, Table A1 (located in the Appendix) indicates a total teacher sample size of 32,917 teachers. While teachers would likely be removed due to missing student achievement data, the inconsistency in sample size raises questions about the number of TFA teachers and non-TFA teachers included in the analyses.

Additionally, the report indicates that "there are no observable demographic differences between the matched [non-TFA] sample and the full population of NYC TFA teachers over the study period,"<sup>21</sup> and assumes, based on prior research,<sup>22</sup> that a substantial number of the TFA teachers are first-generation college graduates, teachers of color, and teachers who grew up living in poverty conditions. However, the report does not disaggregate teacher characteristics by certification status, years' experience, or teacher demographic data including gender, racial identities, or socioeconomic status, which limit any conclusions about the TFA teachers and comparison teachers themselves.

The lack of description is similar when reporting student achievement data. Unlike prior research examining differential effects in TFA teacher influence on student achievement in English Language Arts (ELA) and mathematics,<sup>23</sup> the report does not disaggregate achievement by subject area, possibly masking baseline achievement differences between TFA and non-TFA teachers in those areas. Further, smaller increases in one subject area could be obscured by somewhat larger increases in the other.

Finally, because of the small TFA sample size relative to the comparison group, the stability of the TFA estimates over time may be questionable. As demonstrated in Figure 2 of the report, and likely due to TFA teacher sample size (reported as 308 TFA teachers/alumni), with each year of TFA teacher teaching experience, the margin of error of the TFA teacher student achievement increases. In other words, with each year of teaching experience, there is greater variability and less stability in the estimates comparing TFA teachers and non-TFA teachers' contributions to student achievement.<sup>24</sup>

## **VI. Review of the Validity of the Findings and Conclusions**

This report provides evidence about TFA and non-TFA teachers and their year-over-year rate of improvement, as measured by student standardized test scores. Findings from this study suggest that across the sample, on average both TFA and non-TFA teachers increase their contributions to student achievement from their second through sixth+ years of teaching. Further, findings suggest that of the limited number who remain in teaching, TFA teachers continue to improve their contributions to students' standardized test scores at higher rates than their non-TFA colleagues after six years of teaching. This is well-supported by the data.

However, the overall conclusions of the report, that "the performance of the TFA workforce is strong enough to offset turnover,"<sup>25</sup> and that the "TFA performance advantage is a large enough to offset turnover costs,"<sup>26</sup> are not substantiated by the data.

Unfortunately, the report fails to define the "costs" of turnover or broader effects of the instability of the labor market on schools and districts. Substantial research literature points to the overall negative effects of teacher turnover on school climate.<sup>27</sup> Further, research also points to the financial costs of teacher attrition on school districts.<sup>28</sup> For example, when faced with continuous teacher turnover, districts must allocate funds and time to recruitment, hiring, and onboarding, thus taking away funds from professional development and other strategies to support successful teacher retention. Additionally, like similar research of this kind, the report fails to problematize the distribution and placement of inexperienced TFA teachers and their most likely alternatives in under-resourced, low-performing schools.<sup>29</sup> In sum, the analyses in this report do not consider broader structural and systemic "costs" of TFA placement and turnover.

## **VII. Usefulness of the Report for Guidance of Policy and Practice**

This report contributes to the large body of peer-reviewed research that links improvement in teacher performance with years of teaching experience, particularly in the first years of teaching,<sup>30</sup> through a methodologically sound approach to estimating teacher contributions over time, as measured by student achievement. As such, this report could guide policy and practice supporting the retention and long-term capacity of successful teachers. Further, this report could guide policy recommendations around increasing the TFA commitment to five years as a mechanism to improve student achievement, increase stability, and reduce teacher attrition over time.

However, caution is warranted in considering the broad conclusions around the improved effects of TFA teachers and alumni in relation to teacher retention. The data do not support conclusions that benefits outweigh costs, and the report should not be used to inform policy decisions about whether (or not) to hire TFA teachers.

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