



Do All Students Have Access to Great Principals?

TN EDUCATION
RESEARCH
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A Research Brief on Strengthening Tennessee's Education Labor Market

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Introduction

In Tennessee, high-needs schools tend to have less effective principals. This second brief in TERA's series aimed at building our knowledge of effective school leadership shows that principals in high-poverty and low-achieving schools have less total principal experience and fewer years at their current school, and also are rated as less effective by their supervisors. Recent TERA research has documented how high-quality principals in Tennessee positively influence a variety of school outcomes, including teacher quality, teacher turnover, school climate, and student achievement. Taken together, these findings raise serious educational equity concerns.

This brief examines research by Jason A. Grissom, Brendan Bartanen, and Hajime Mitani on the distribution of principal quality—measured in multiple ways—across schools in Tennessee. In addition, we explore how patterns of hiring and turnover may contribute to principal quality gaps.

We find two key results in the second brief on effective school leadership:

- 1** *Principal quality is unevenly distributed in Tennessee. More experienced and higher rated principals are concentrated in schools with fewer students in poverty, low-achieving students, and students of color.*
- 2** *Hiring and turnover drive inequities in principal quality across the state. Schools with higher proportions of students in poverty, low-achieving students, and students of color are more likely to hire inexperienced or ineffective principals and to experience greater principal turnover.*

TERA'S FIRST BRIEF IN THIS SERIES FINDS THAT:

- Students achieved more in schools with higher principal ratings.
- Highly rated principals enjoy more positive teacher perceptions of school leadership and climate.
- Highly rated principals retain a greater number of effective teachers.



HOW WE MEASURE PRINCIPAL QUALITY

We measure principal quality in two ways: years of experience in the principal position and rubric-based ratings of effective principal practice taken from the state's evaluation system.

Previous studies show that principals become more effective as they gain experience, and that schools experience greater achievement growth under more seasoned principals (Béteille et al., 2012; Clark, Martorell, & Rockoff, 2009; Dhuey & Smith, 2013). Principal supervisors' ratings of principal practice captured in TEAM (Tennessee's evaluation system) meaningfully predict multiple school outcomes, and also align with teachers' survey-reported measures of the quality of leadership in the school (Grissom, Blissett, & Mitani, 2018). Thus, principal experience and ratings likely are good indicators of principal quality.

HOW WE MEASURE SCHOOL DIFFERENCES

We examine the distribution of principal quality across schools by three components of school demographics.

First, we calculate the fraction of students eligible for free or reduced lunch, a measure of school poverty, and use that number to categorize each school as low-poverty (0–20% low-income students), medium-poverty (20–80%), and high-poverty (80%+).

Second, we perform a similar grouping for schools according to the fraction of Black and Hispanic students they educate: low (0–20%), medium (20–80%), and high (80%+).

Finally, we sort schools on the basis of their academic performance based on standardized test levels (not growth), categorizing schools as low-achieving (bottom 20%), middle-achieving (middle 60%), or high-achieving (top 20%). We also consider the distribution of principal quality by locale type, using data from the National Center for Education Statistics (NCES) to classify each school as urban, suburban, or town/rural.



KEY FINDINGS

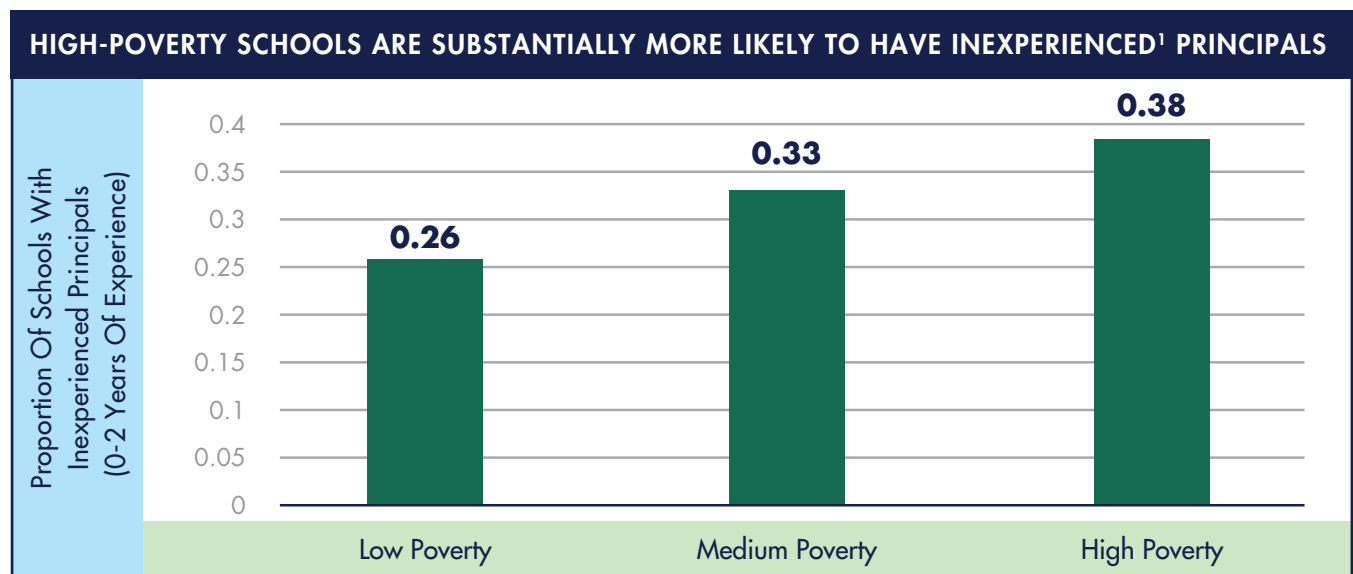


The analysis below examines principal distribution across three measures of school demographics—student poverty, student achievement, and the percentage of students of color—as well as where the schools are located (urban, suburban, rural/town). We first show trends by each of these measures. Because the distribution of principals tends to be similar regardless of whether we categorize schools by poverty, achievement, and student race/ethnicity, for simplicity we then shift to focusing on student poverty only.

1

PRINCIPAL QUALITY IS UNEVENLY DISTRIBUTED IN TENNESSEE

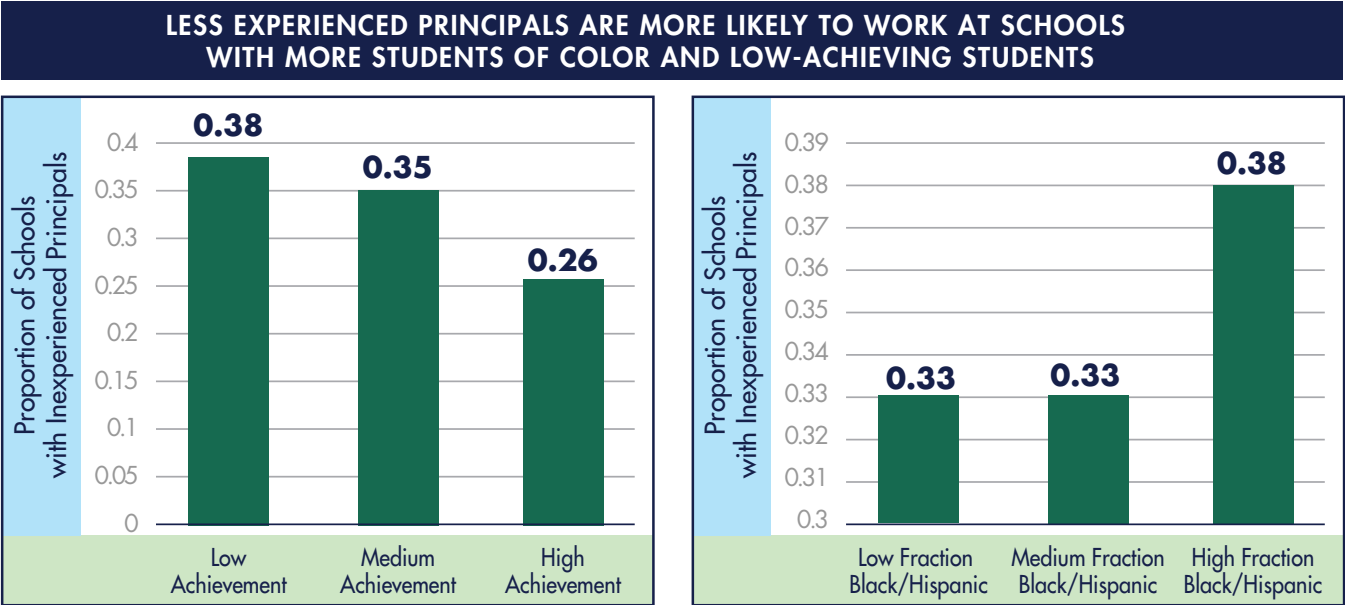
Less experienced and less effective principals are concentrated in schools with higher percentages of students in poverty, low-achieving students, and students of color. Additionally, less experienced and less effective principals are more likely to work in urban or rural schools.



Note: Poverty groups correspond to 0-20%, 21-80%, and 81-100% of students who qualify for free/reduced price lunch.

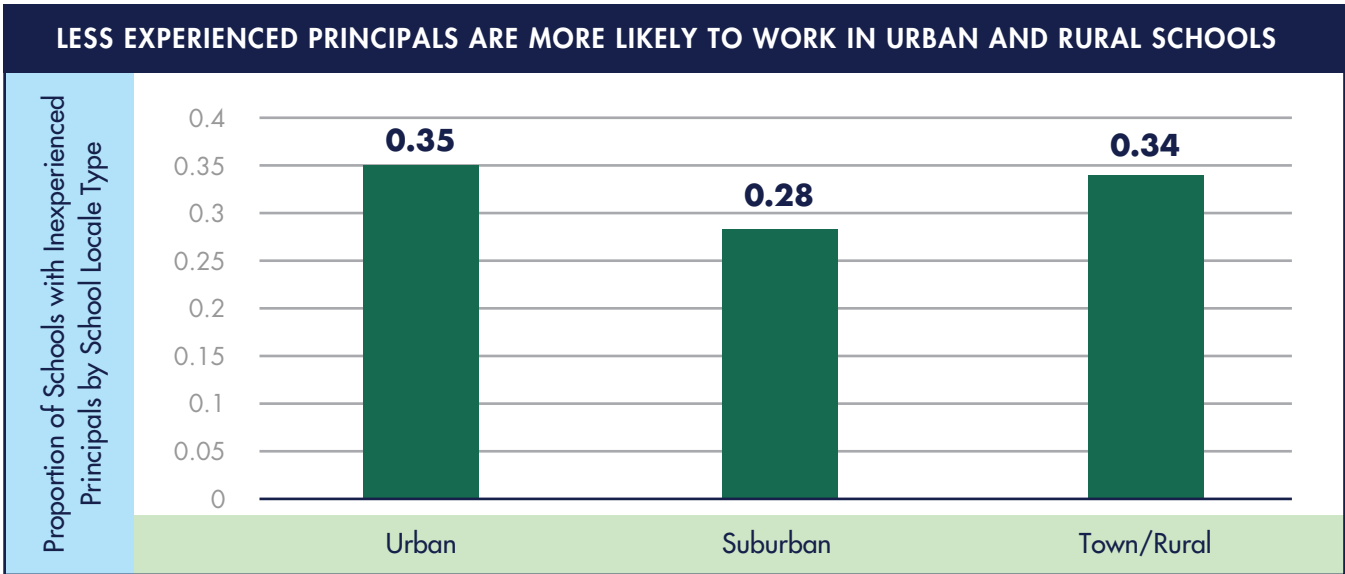
¹ We define inexperienced principals as principals with fewer than three years of prior principal experience.

This pattern also holds true when we examine schools with more students of color and low-achieving students.



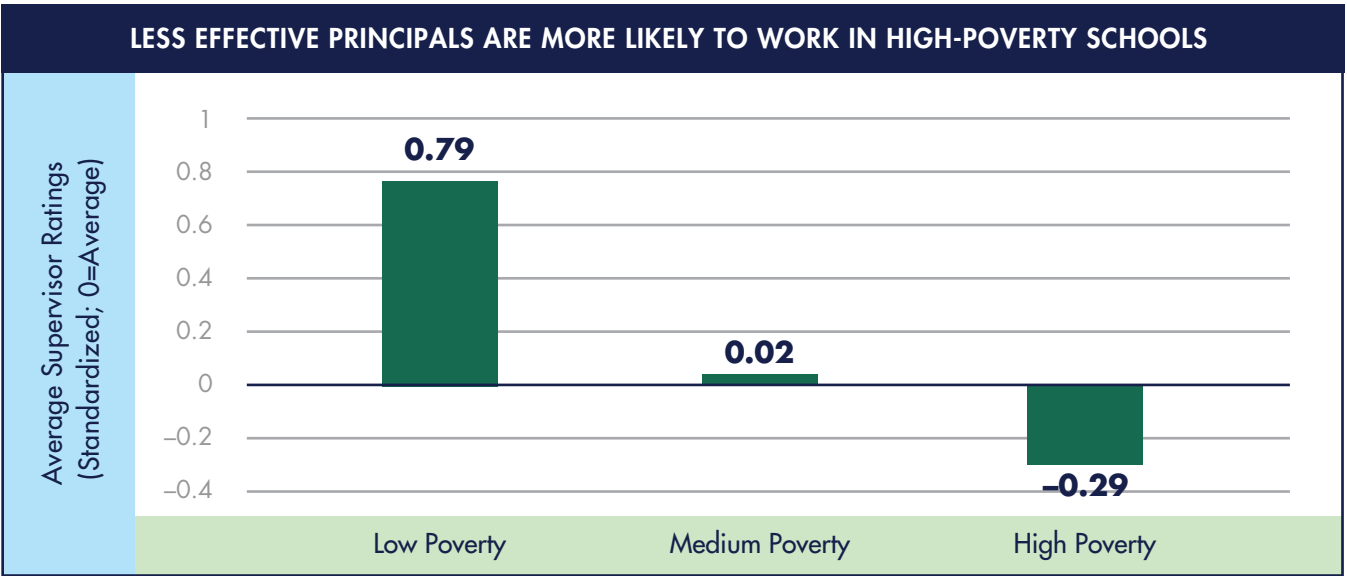
Note: Achievement groups correspond to the top 20%, middle 60%, and bottom 20% of schools based on average student achievement levels. Black/Hispanic groups correspond to 0-20%, 21-80%, and 81-100% students of color.

Further, when we look at school locale, suburban schools are less likely to be led by inexperienced principals than schools in urban or rural areas.



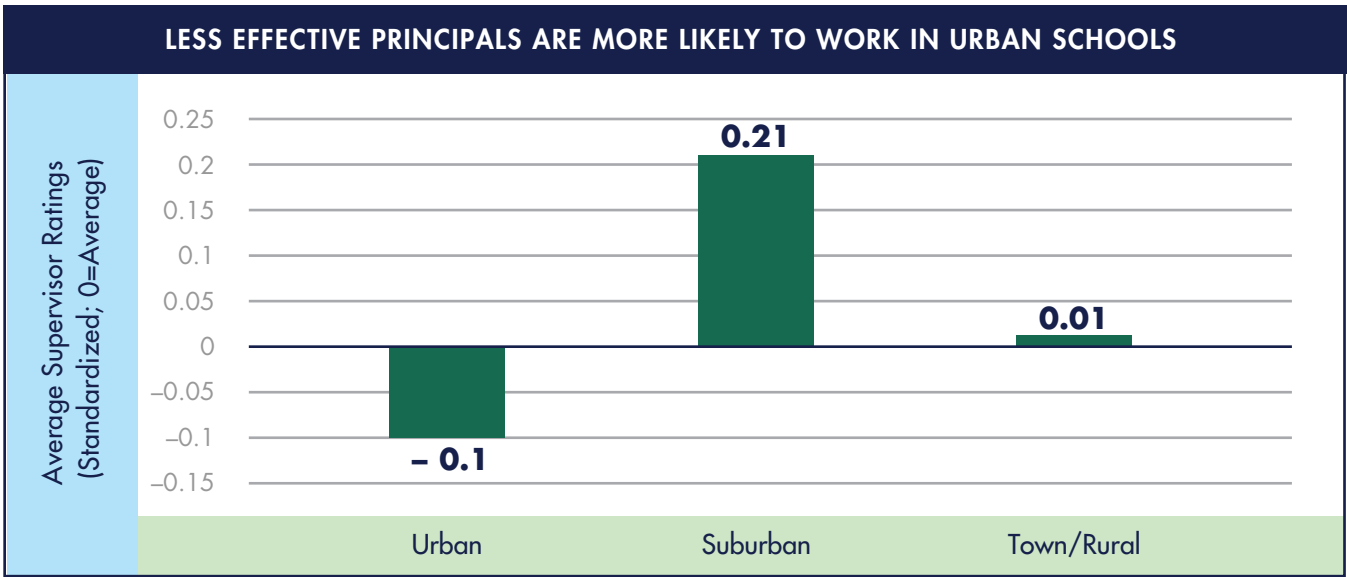
High-Poverty Schools Have Lower-Rated Principals

Consistent with our findings for principal experience, principals in high-poverty schools tend to be rated as less effective by their supervisors. Disparities between the most and least advantaged schools are stark, as they are when we sort schools by achievement level. These disparities in principal effectiveness narrow when comparing schools based on the percentage of students of color, but there still remain substantial differences.



Note: Poverty groups correspond to 0-20%, 21-80%, and 81-100% of students who qualify for free/reduced price lunch.

When looking again at school locale, principals in suburban schools tend to receive higher ratings than those in urban or town/rural schools. As school locale type is related to school poverty, the high principal ratings in low-poverty schools may partially explain such high ratings for principals in suburban schools.



Do school characteristics influence principal ratings

It is important to consider whether school characteristics themselves influence principal ratings. Lower principal ratings in disadvantaged schools may reflect, in part, more challenging work environments, which supervisors may not fully account for in assessing principals' job performance. Prior work by TERA researchers has suggested that school characteristics may affect ratings to some degree. However, as shown in an earlier TERA school leadership brief, these ratings predict school outcomes even after accounting for measures of school disadvantage. In other words, higher-rated principals tend to have higher student achievement and growth, and higher teacher satisfaction and retention than lower-rated principals—even in schools that share the same level of school disadvantage. Thus, although ratings could partially reflect school disadvantage, the principal ratings assigned through TEAM seem to also pick up real information about the quality of school leadership.



2

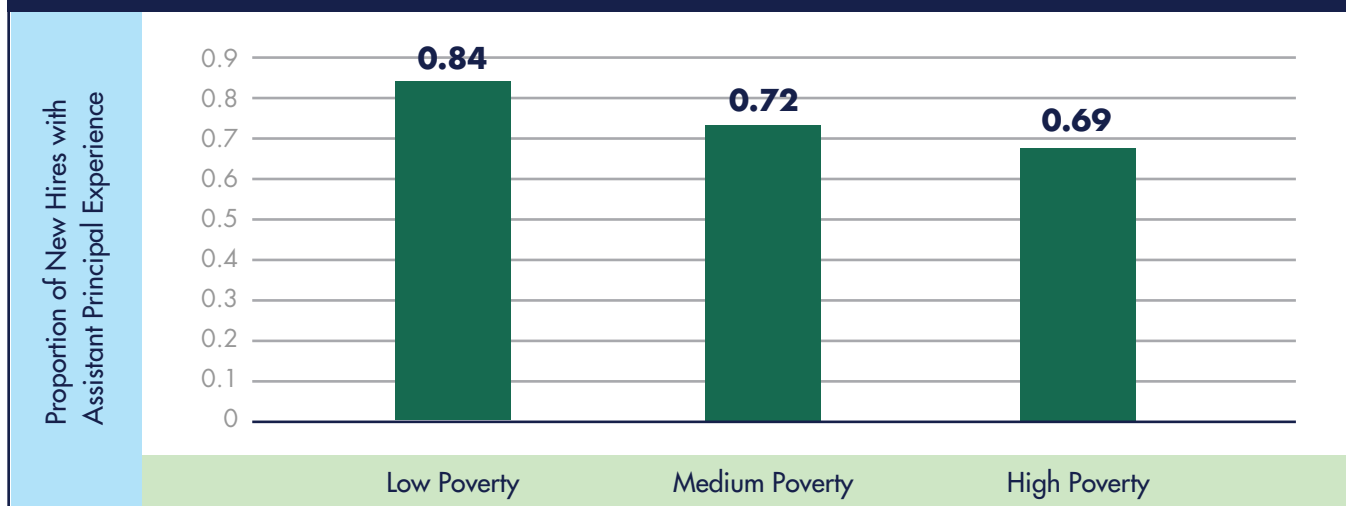
HIRING AND TURNOVER DRIVE INEQUITABLE DISTRIBUTION OF PRINCIPALS

In our second set of findings, we discuss two primary mechanisms that may help explain the unequal distribution of effective principals throughout Tennessee: hiring and turnover. Specifically, we find that high-poverty schools are more likely to hire inexperienced and ineffective principals and that principals in high-poverty schools are more likely to leave their positions.

Newly Hired Principals at High-Poverty Schools Have Less Assistant Principal Experience

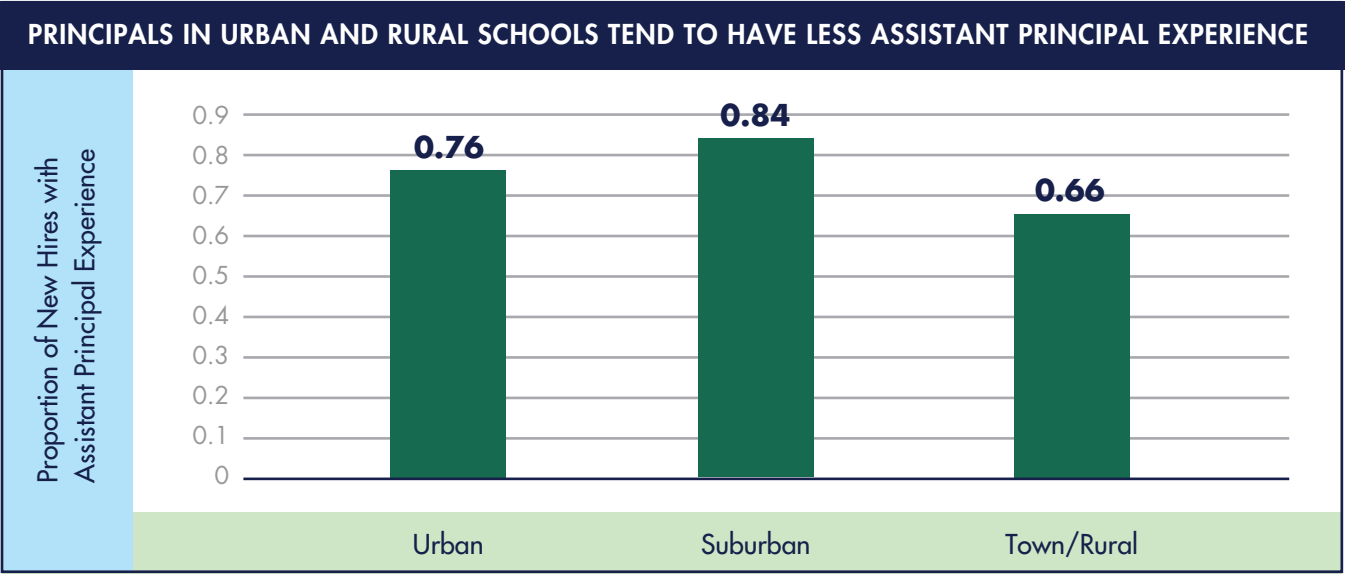
Although new hires in advantaged and disadvantaged schools have comparable levels of principal experience, high-poverty schools tend to hire principals with less prior experience as an assistant principal. When comparing the total number of years of assistant principal experience between high- and low-poverty schools, this disparity translates to more than a full additional year of experience as an administrator. We observe a similar pattern in student achievement where low-achieving schools tend to have fewer new hires with assistant principal experience.

PRINCIPALS AT HIGH-POVERTY SCHOOLS TEND TO HAVE LESS ASSISTANT PRINCIPAL EXPERIENCE



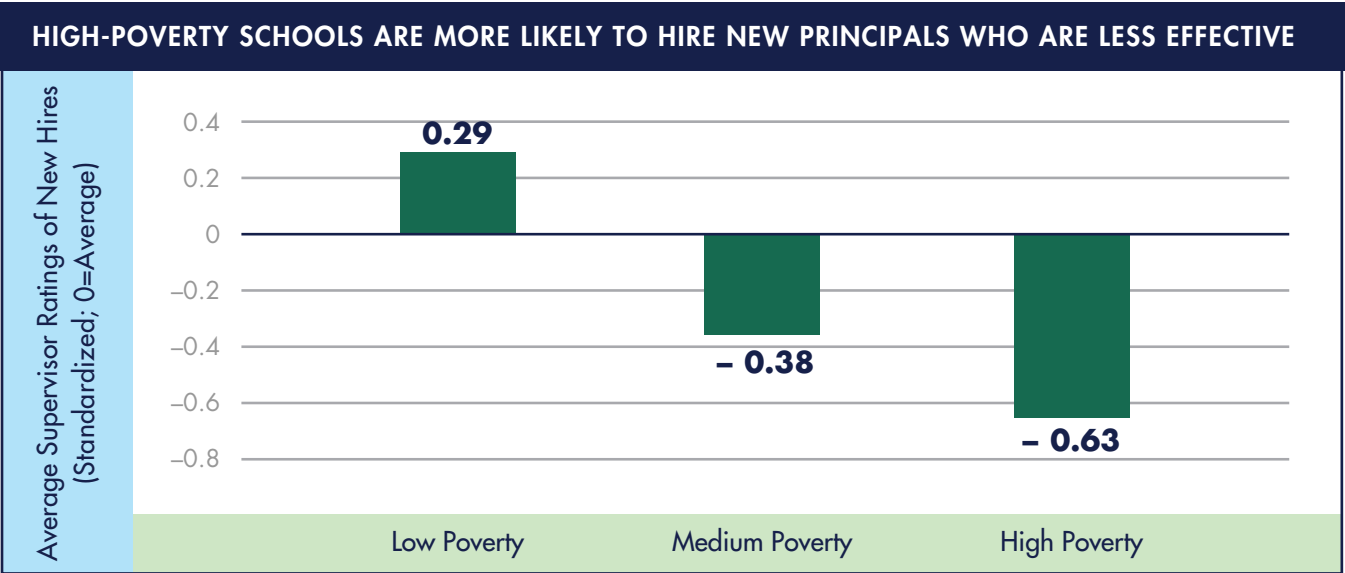
Note: Poverty groups correspond to 0-20%, 21-80%, and 81-100% of students who qualify for free/reduced price lunch.

Additionally, assistant principal experience is much more common in suburban schools than schools located in urban or rural areas.



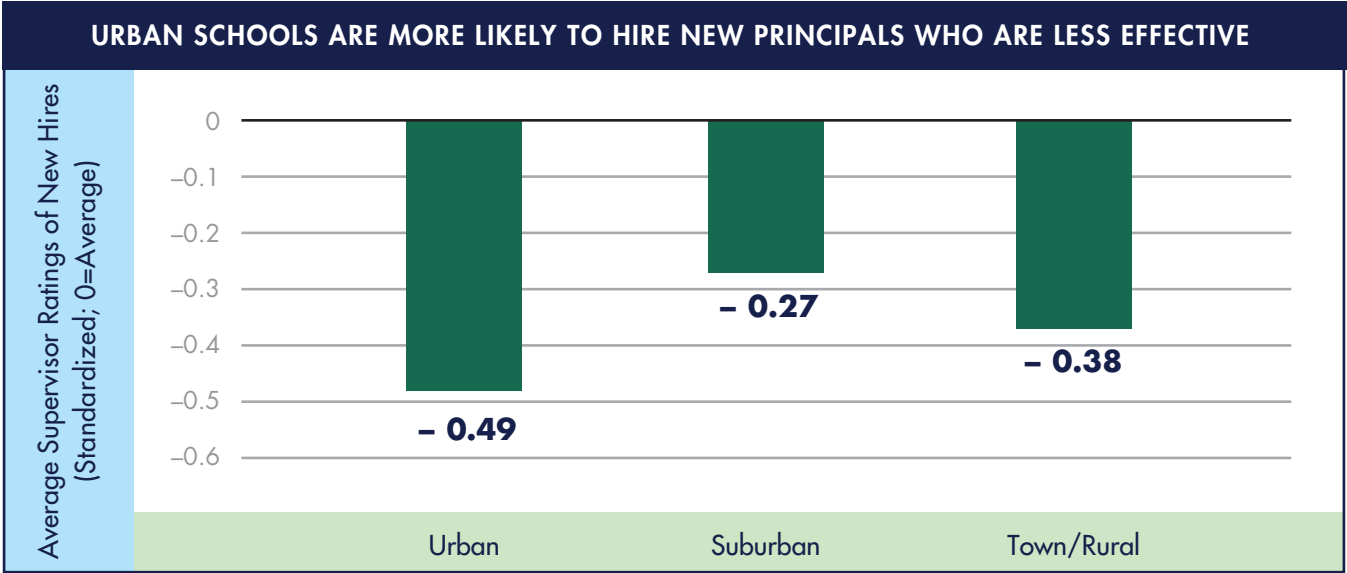
High-Poverty Schools Hire Less Effective Principals

New principals in high-poverty schools receive substantially lower supervisor ratings in their first year than new principals in low-poverty schools. Supervisor ratings are also lower for new hires in low-achieving schools and schools with more students of color.



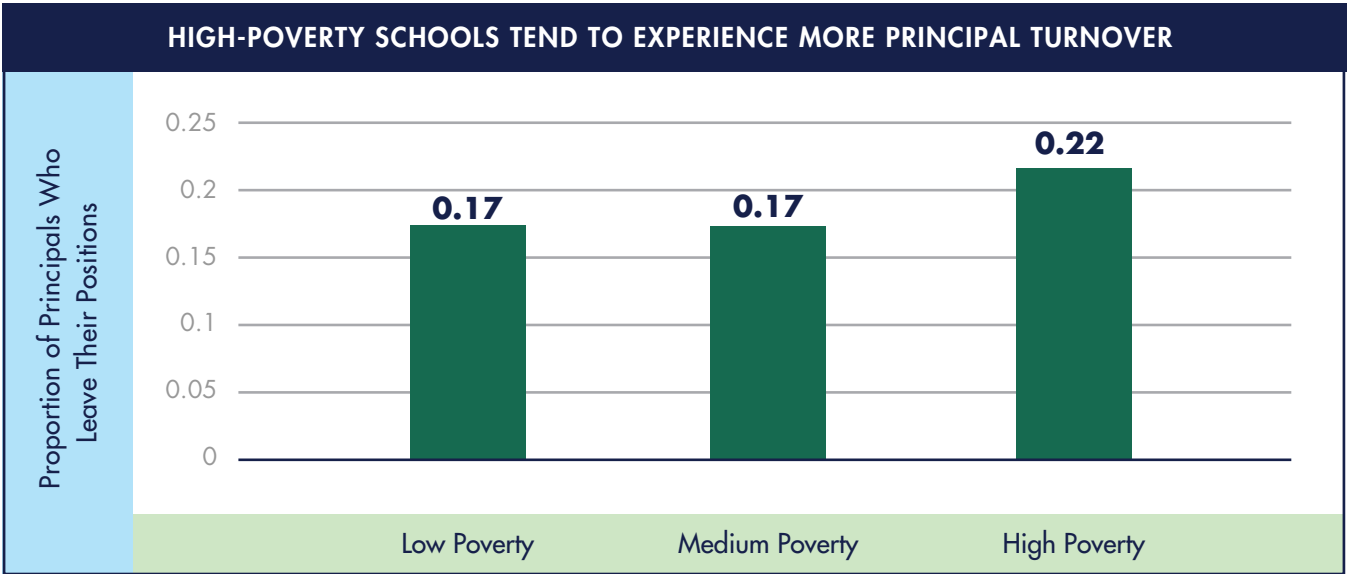
Note: Poverty groups correspond to 0-20%, 21-80%, and 81-100% of students who qualify for free/reduced price lunch.

Consistent with the patterns above, suburban schools have higher first-year supervisor ratings than urban and rural schools. Further, when comparing the *prior* supervisor ratings of newly hired principals (ratings from their previous position as a principal or assistant principal), we find these same patterns. Taken together, these results suggest that disadvantaged schools tend to hire less effective principals, which contributes to the overall disparities in the distribution of principal quality.



Principals at High-Poverty Schools Are More Likely to Leave Their Positions

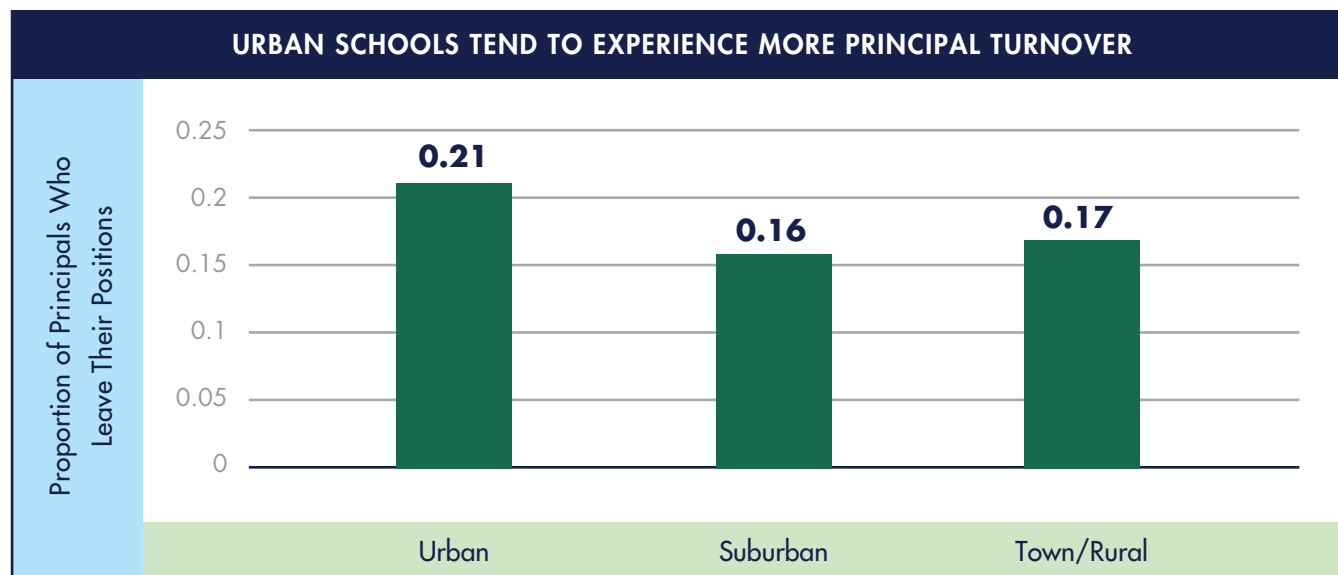
Finally, we also find that principal turnover in disadvantaged schools is higher than turnover in schools with lower student poverty, higher student achievement, and fewer students of color.



Note: Poverty groups correspond to 0-20%, 21-80%, and 81-100% of students who qualify for free/reduced price lunch.



Similarly, we find that principals in suburban schools are the least likely to leave their positions, whereas principals in urban schools are the most likely to leave.



Higher principal turnover rates among disadvantaged schools are driven by higher rates of demotion, transfer, and attrition. For example, five percent of principals in low-achieving schools are demoted each year, compared to only one percent in high-achieving schools. Transfer rates are also higher in disadvantaged schools, and principals tend to transfer to larger schools and schools with higher student achievement. And while seven percent of principals each year leave the education system altogether, the highest rates of attrition are from schools serving more than 80 percent students of color. These higher rates of turnover contribute to the inequitable distribution of principal quality because high turnover means that schools are more frequently replacing their principal with a less experienced leader. Also, because effectiveness grows with experience in the school, high turnover can contribute to lower average principal effectiveness ratings in these schools as well.

SUMMARY AND IMPLICATIONS



Our findings suggest that the current distribution of principals in Tennessee is not equitable. We uncover several explanations for these inequitable patterns. First, disadvantaged schools seem to hire less effective principals, evidenced by less prior administrator experience and lower performance ratings. Second, principals are more likely to leave disadvantaged schools, creating a cycle of inexperienced leaders at schools already facing difficulty.

TERA's previous brief on principal leadership found that principals with higher performance ratings have a significant positive influence on student math scores, school growth scores, and teacher turnover. To the extent that effective principals are more likely to serve students who already perform well academically, existing achievement gaps based on race and income likely will widen. In particular, the unequal access to principal effectiveness and experience in low-achieving schools is troubling

To address turnover differences, policymakers might consider giving additional support to principals in high-poverty, low-achieving schools. Furthermore, principal salary could be a strong policy lever, both as a means to attract and retain effective principals to disadvantaged schools.

given that driving improvement in such schools is a central tenet of federal and state education policy.

Yet, policymakers have the capacity to address this problem. Since principals are hired and assigned through school district central offices, policymakers at the district level have some leverage in deciding how to place principals across different types of schools.

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