### TN EDUCATION RESEARCH

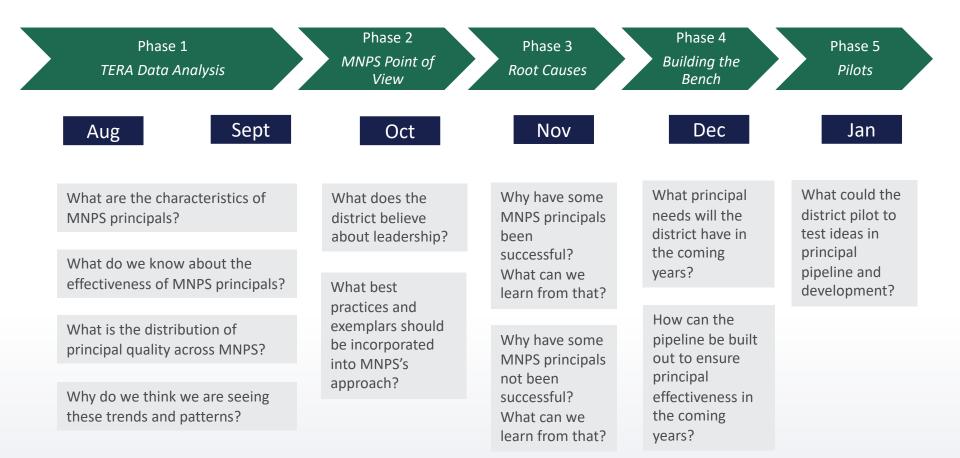


Nashville Public Education

### Improving Principal Quality in MNPS

Workshop 1: Key Facts and Patterns from Quantitative Data

#### **Project Phases and Key Questions**





#### Today's Discussion

Phase 1 TERA Data Analysis

What are the characteristics of MNPS principals?

What do we know about the effectiveness of MNPS principals?

What is the distribution of principal quality across MNPS?

Why do we think we are seeing these trends and patterns?

#### TN EDUCATION RESEARCH

#### Presentation of Race and Experience Data

#### • Individual reflection:

What do you already know about the topics?

#### Group discussion:

- What strengths do you see?
- What opportunities would you like to pursue based on the findings?

#### • Follow-up survey:

 Based on our discussion today, what do we now know we need to address when we begin refining the selection, bench-building, and development processes?

### Why are we here?

Because principals matter.



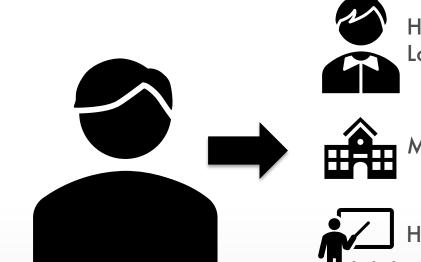
### Across studies nationally, the effect of swapping out a below-average principal for an above-average one is enough to move the average student from the 50<sup>th</sup> to 57<sup>th</sup> percentile in math

Source: Forthcoming research synthesis on principal leadership for the Wallace Foundation



Staffing schools with effective principals is one of the surest pathways districts can take to success.

Our research using Tennessee data shows that leadership impacts extend beyond test scores.

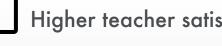


**Effective principals** 



Higher attendance Lower chronic absenteeism

More positive school climates



Higher teacher satisfaction

Lower turnover among effective teachers (and higher turnover among ineffective ones)

"How Principals Drive School Success" (TERA Research Brief) https://peabody.vanderbilt.edu/TERA/principal\_quality.php

### To use MNPS and state data to:

- establish a baseline set of facts and patterns about MNPS principals
- inform and provoke discussions about district efforts around principal quality



### What you will see

- Results from our descriptive analysis of principal characteristics in MNPS over the last 10 years
  - Analysis excludes charters and ALCs (N ≈ 130 schools each year)
- Descriptive analysis of principal effectiveness measures, including by school characteristics
- A preliminary descriptive look at principal turnover, hiring, and placement patterns



# What are the characteristics of MNPS principals?



#### Who are MNPS's principals?

Demographics	
Female principals	63%
Black principals	45%
White principals	53%
Other principals	2%
Average age	48
Highest Degree	
Bachelor's/Master's	26%
Master's Plus	19%
Education Specialist	16%
Doctorate	39%
Experience	
Years of experience in education	18
Years as a principal	5.6
Years as principal at current school	3.6



For comparison:

- 45% of MNPS students are Black
- 22% are Hispanic
- 4% represent other non-white groups

The typical MNPS principal has been in the job for 4 years and leading their school for 2 years.

# What do we know about the effectiveness of MNPS principals?



### Individual Reflection: Principal Quality

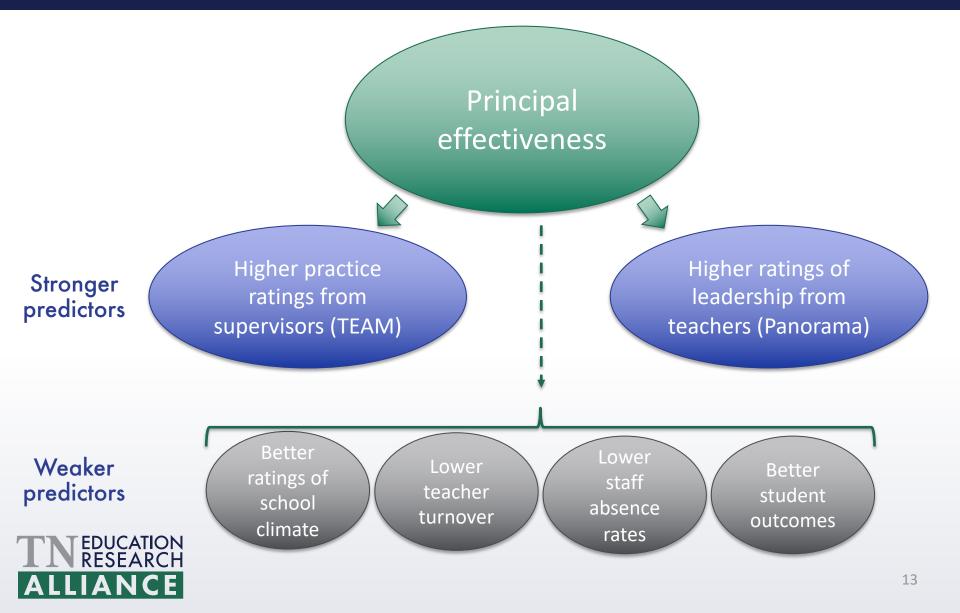
What do you know about principal quality?

- Silently reflect:
  - What do you think the current quality of our principals is?
  - What percentage of principals do you think are exceptional in our district? Average? Struggling?

Throughout the presentation of data about principal quality, jot down what the findings are making you wonder about.



# Effectiveness is challenging to analyze because it is hard to observe.

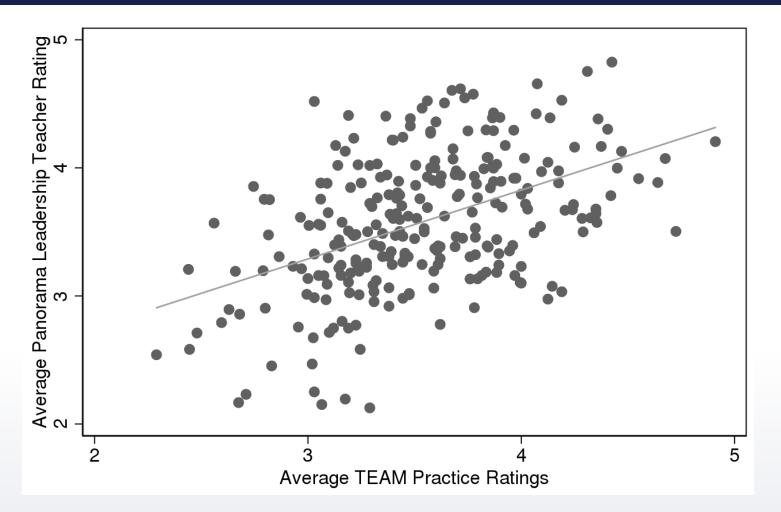


In work using statewide data, we have found that TEAM practice ratings can be a good "shorthand" for effectiveness.

- Makes sense: if ratings are implemented with fidelity, they should describe good leadership practice (according to TILS)
- Indeed, across Tennessee, they tend to predict:
  - Teacher ratings of leadership
  - Teacher retention
  - Teacher climate ratings
- We have been able to replicate some of these results using MNPS data

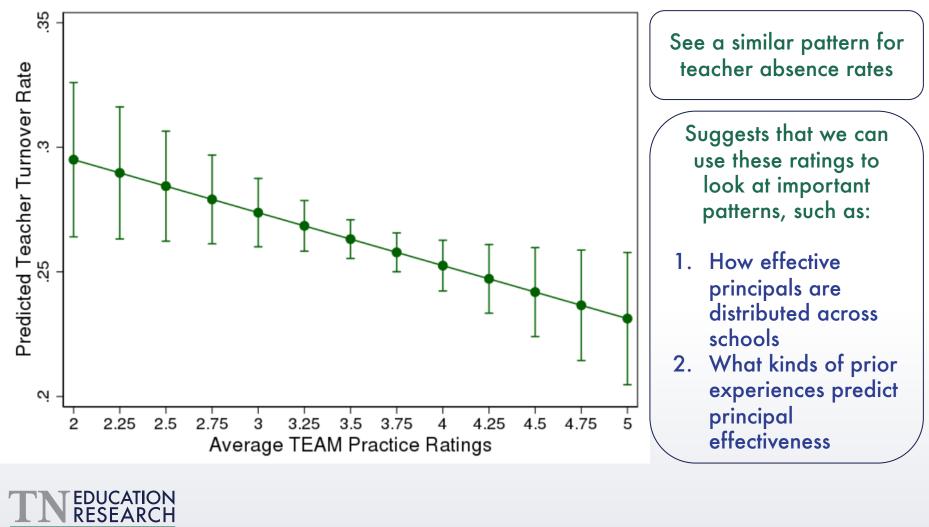


## Principals with higher TEAM practice ratings also tend to be rated more favorably by their teachers.





There are only 12 schools in which the average TEAM ratings and leadership ratings are more than 1 point different. Teacher retention rates are predicted to be 2 percentage points higher at a school with a level 5 principal than at a school with a level 4 principal

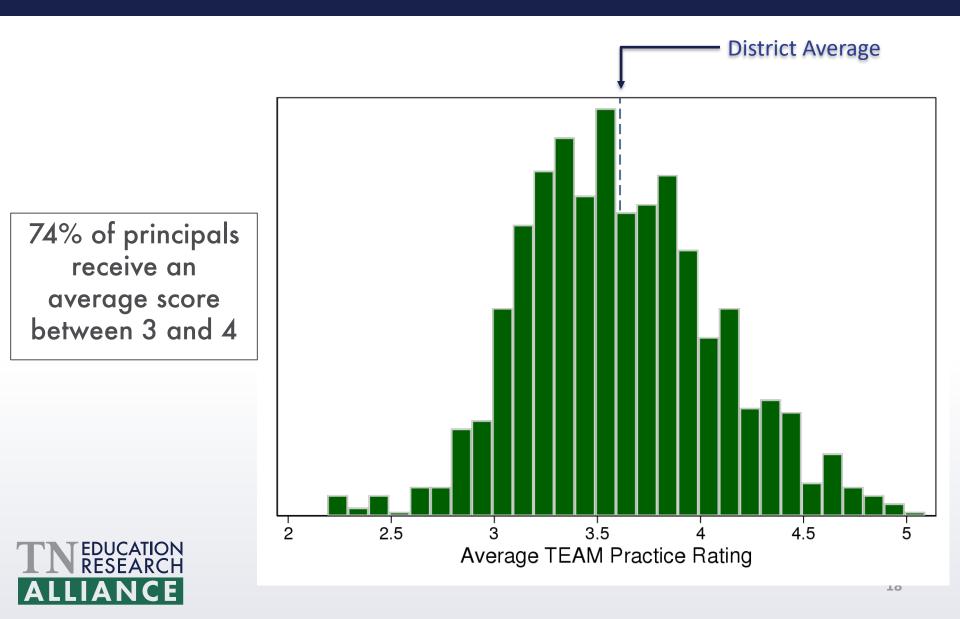


#### TEAM ratings have some issues, however

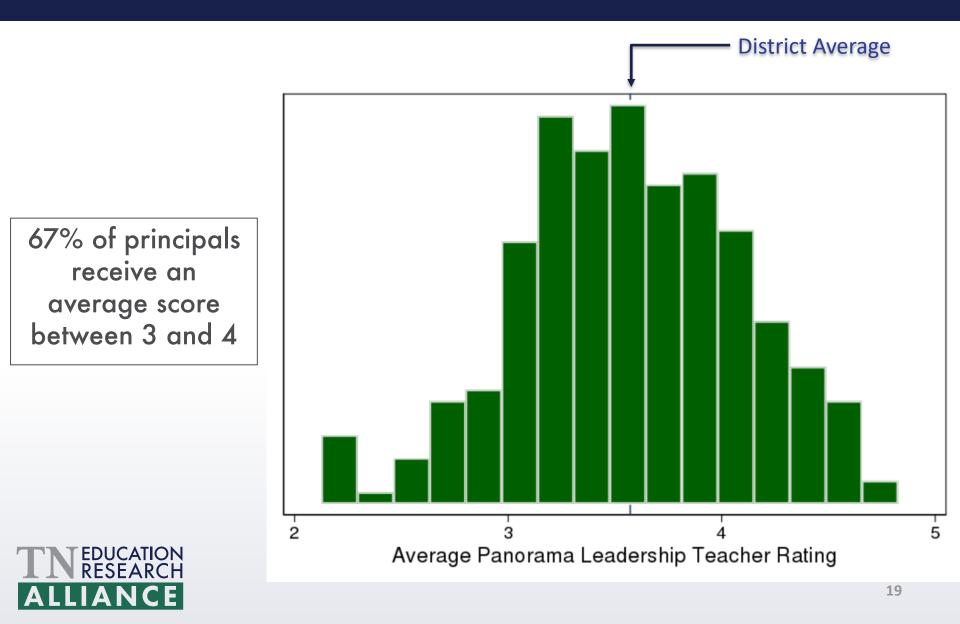
- 1. Non-differentiation across areas of rubric
  - Indicators are very highly inter-correlated, undercutting the ratings' usefulness for feedback
- 2. Lack of variation



## From 2012-2019, TEAM practice ratings have closely clustered around the district average (3.61)



## Panorama leadership ratings are clustered around the district average (3.57)

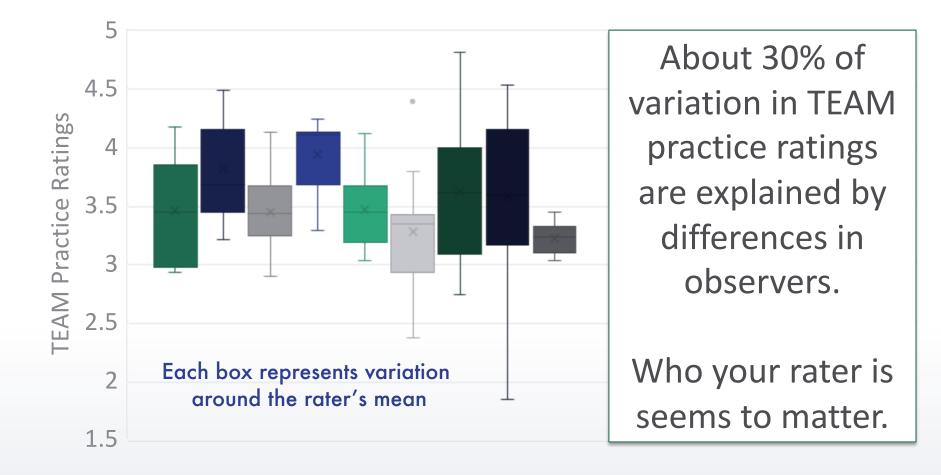


#### TEAM ratings have some issues, however

- 1. Non-differentiation across areas of rubric
  - Indicators are very highly inter-correlated, undercutting the ratings' usefulness for feedback
- 2. Lack of variation
- 3. Potential inconsistency across raters



#### TEAM practice ratings vary somewhat across raters





Still, in general, the evidence suggests that they contain good information about principals' effectiveness.

For much of the remainder of this presentation, we focus on the TEAM practice ratings to describe patterns in principal effectiveness across the district.



### Group Discussion: Principal Quality

- Given what we just reviewed about:
  - What we know about principal effectiveness in MNPS
  - The correlation of various measures of effectiveness in MNPS
  - The effect of principal quality on teacher attrition
  - The differences between principal supervisor ratings
- What strengths do you see?
- What opportunities would you like to pursue based on the findings?



# What is the distribution of principal quality across MNPS?



#### Individual Reflection: Principal Distribution

What do you know about principal distribution? Silently reflect:

- What do you know about principal turnover in our district?
- What do you know about the quality of principals based on the type of school they are in (priority, reward, etc.)?

Throughout the presentation of data about principal distribution, jot down what the findings are making you wonder about.



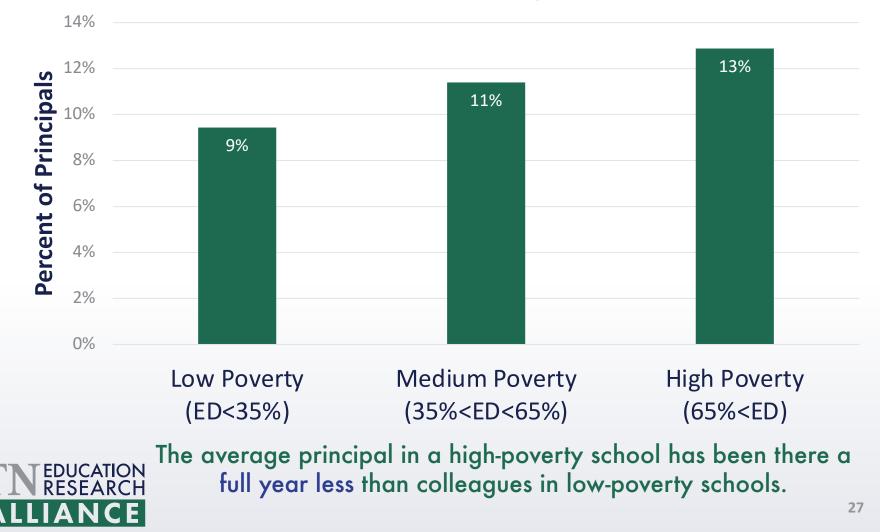
### Grouping schools by poverty and achievement

- We group schools into low (0-35%), medium (35-65%), and high poverty (65%+) based on the proportion of students classified as economically disadvantaged (as of 2019)
- Also group schools by achievement level (not growth) into lowest quartile, middle 50%, and highest quartile
  - Don't show these results, but patterns are virtually identical.

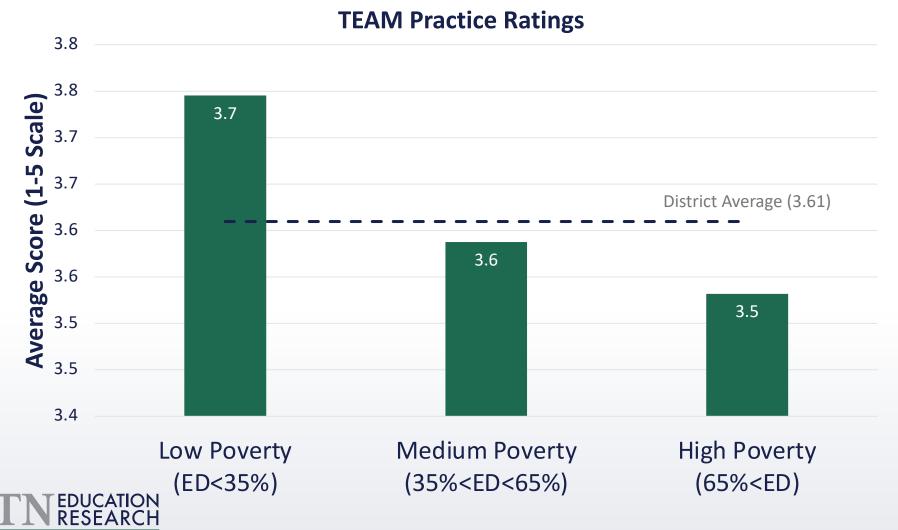


## High-poverty schools have a much higher proportion of first-year principals.

#### First Year as a Principal

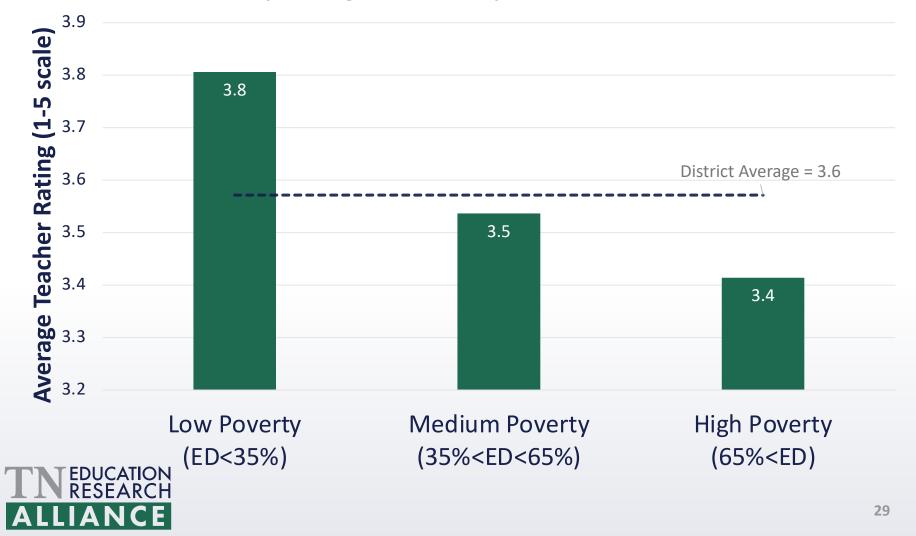


## Principals' practices are rated more positively by supervisors in low-poverty schools.

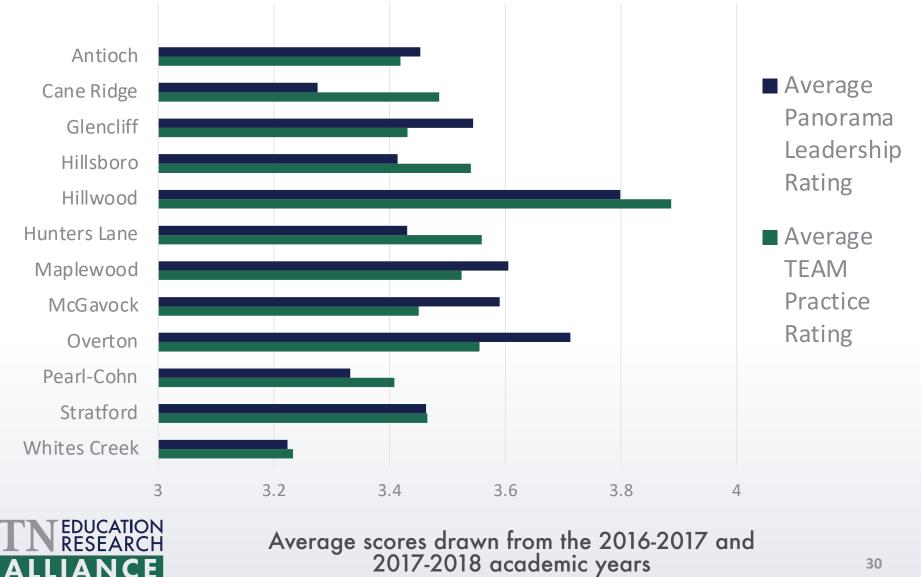


## Teachers in low-poverty schools also rate their leaders more positively.

Leadership Ratings Provided by Teachers on Panorama

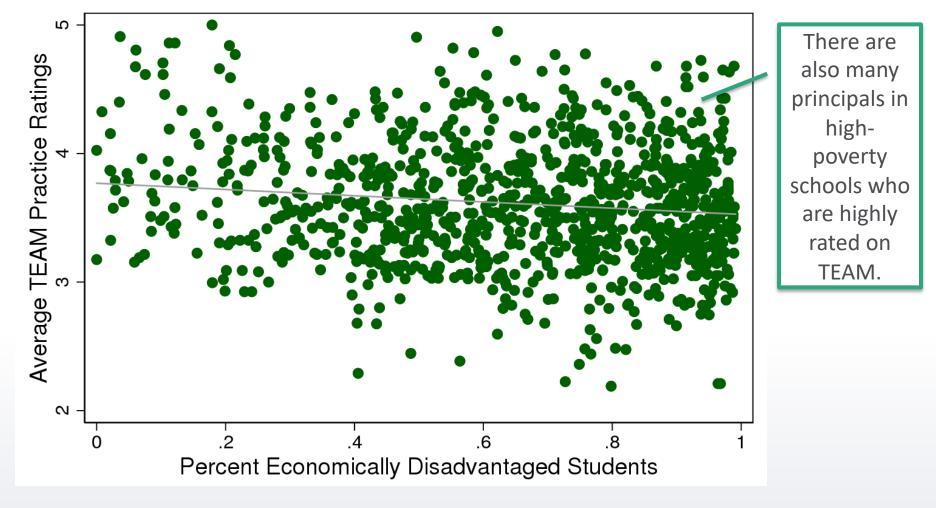


#### Leadership effectiveness measures seems to vary somewhat across clusters



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## Principals in lower poverty schools tend to have higher TEAM practice ratings.



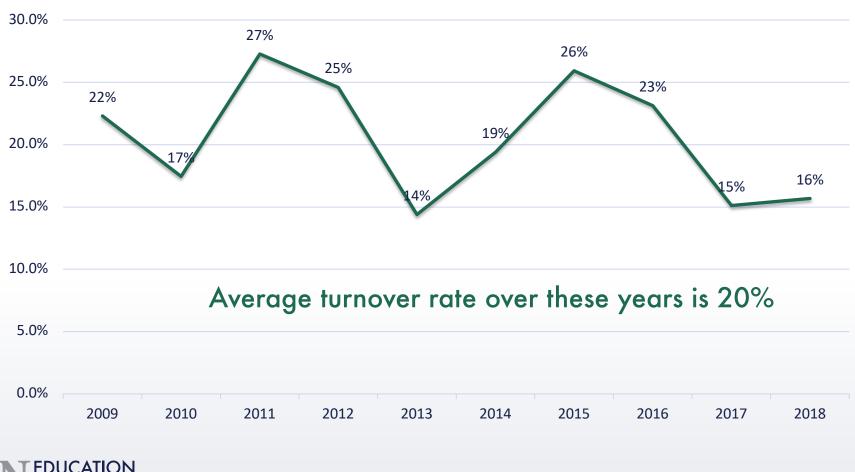


# Why do we think we are seeing these trends and patterns?

Principal turnover



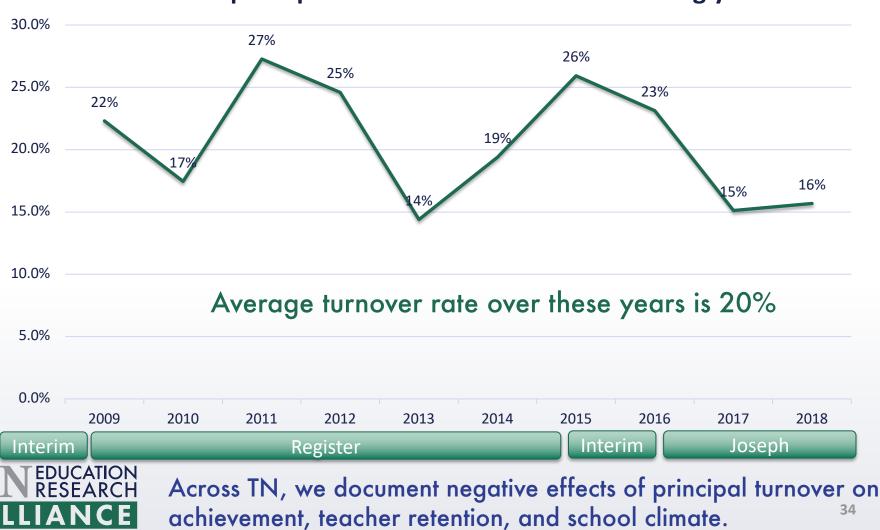
## Turnover has fluctuated between 15% and 30%, giving an average annual turnover rate of 20%.



#### Percent of principals that turned over the following year

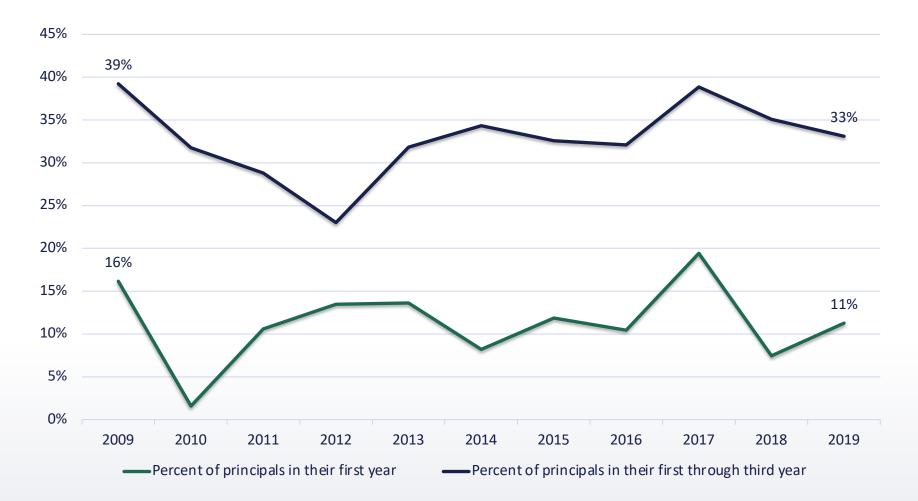


## Turnover has fluctuated between 15% and 30%, giving an average annual turnover rate of 20%.



#### Percent of principals that turned over the following year

#### Roughly 10% of principals are in their first year on the job. A third are in their first 3 years.

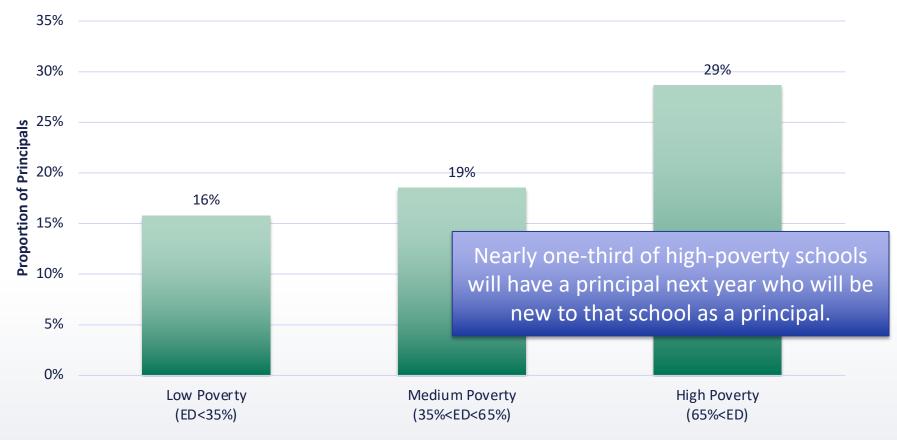




The typical MNPS principal has been in the job for 4 years and in their school for 2 years.

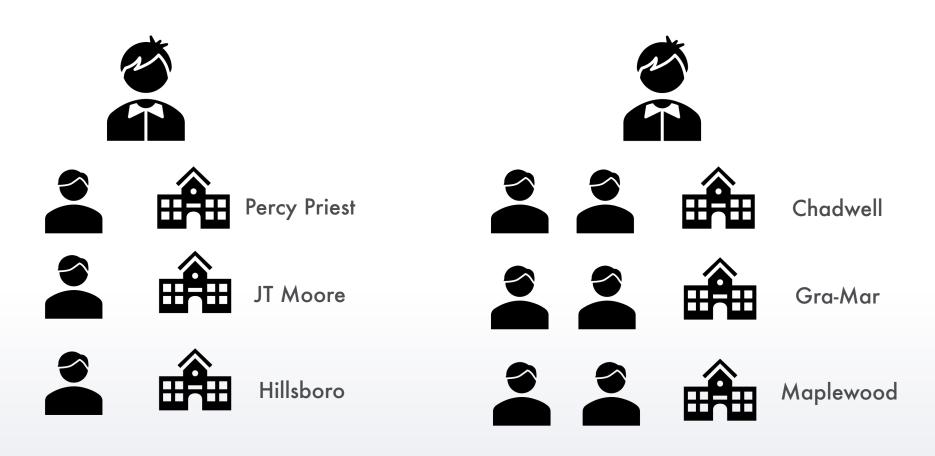
High-poverty schools are nearly twice as likely as low-poverty schools to experience principal turnover each year.

#### Schools experiencing principal turnover





A student in a high-poverty feeder pattern will have twice the number of principals as one in a low-poverty feeder pattern.





## How does high turnover reduce principal effectiveness in high-poverty schools?

- Research by a TERA research affiliate on principal onthe-job improvement shows that returns to experience the largest for principals in high-poverty schools

   It takes time to learn how to lead a challenging school well
- When new leaders are constantly coming into highpoverty schools, that learning keeps being wiped away
- Implication: high rates of administrator turnover in highneeds schools contribute to achievement gaps.



# Why do we think we are seeing these trends and patterns?

Principal hiring and placement



## What patterns in the data would we expect to see if principal hiring and placement was done equitably?

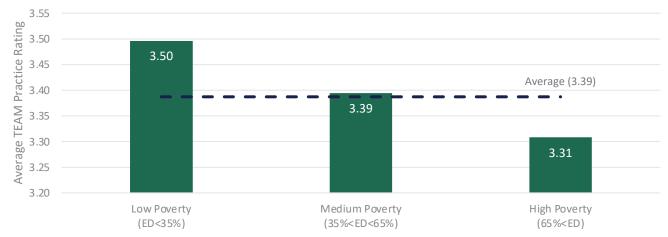
- We'd hope to find that principals hired into highneeds schools were at least as effective as those hired into low-needs schools.
- We can try to get at this in a few ways:
  - Look at qualifications measures (as a proxy for effectiveness)
  - Look at practice ratings of principals during their first year in the school
  - Look at practice ratings of principals in their prior jobwhat information was available about their job performance when they were hired?



### Mixed evidence

- Principals hired into high-poverty schools are more qualified in terms of years as a principal and years as an AP.
- They are rated less well during their first year in the school, however.







## Among principals transferring from other schools, they were also rated less well in their prior principal job.

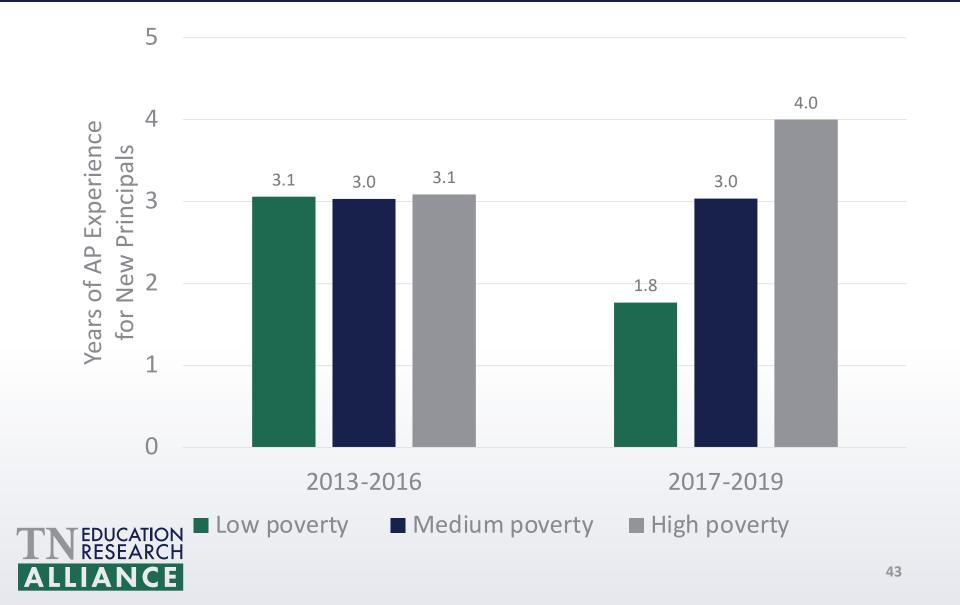






We see no differences in prior performance ratings for those advancing from AP positions.

### We also see some evidence that the district has moved in a more equitable direction in recent years.

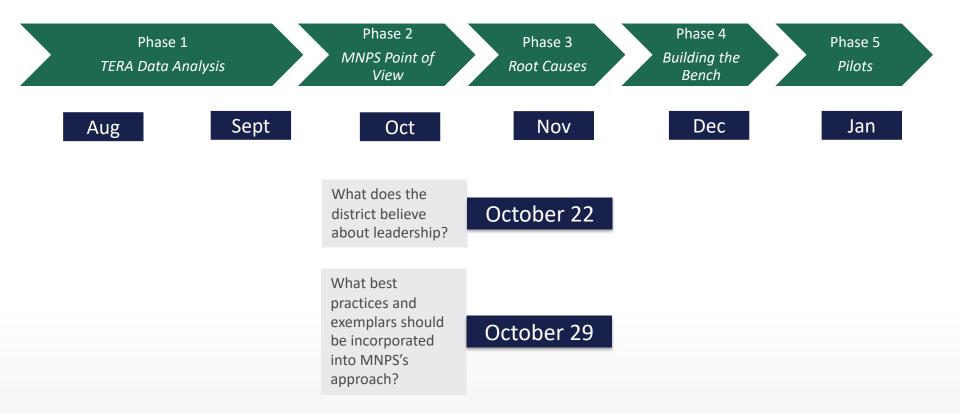


### Group Discussion: Principal Distribution

- Given what we just reviewed about:
  - The distribution of principal quality across the district
  - How the district moves principals around
  - What we know about the principals we move around
- What strengths do you see?
- What opportunities would you like to pursue based on the findings?



### Next Steps

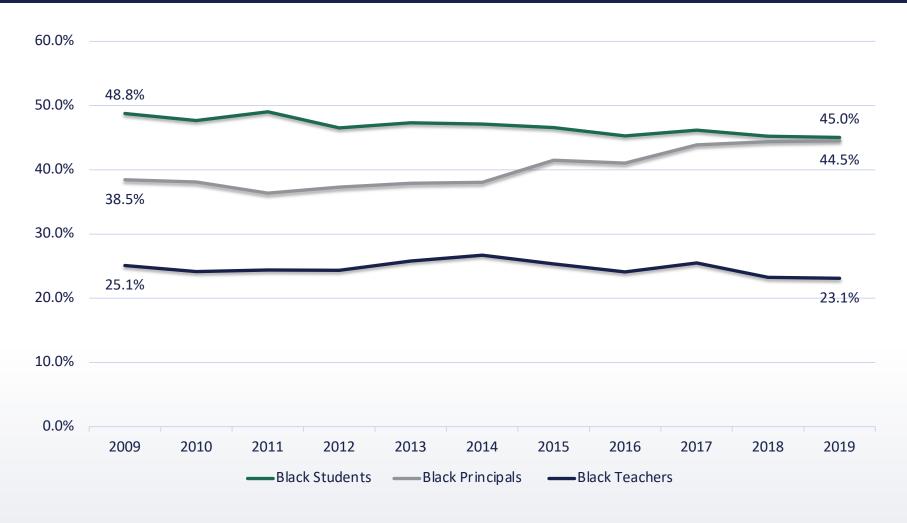




### **Additional Slides**

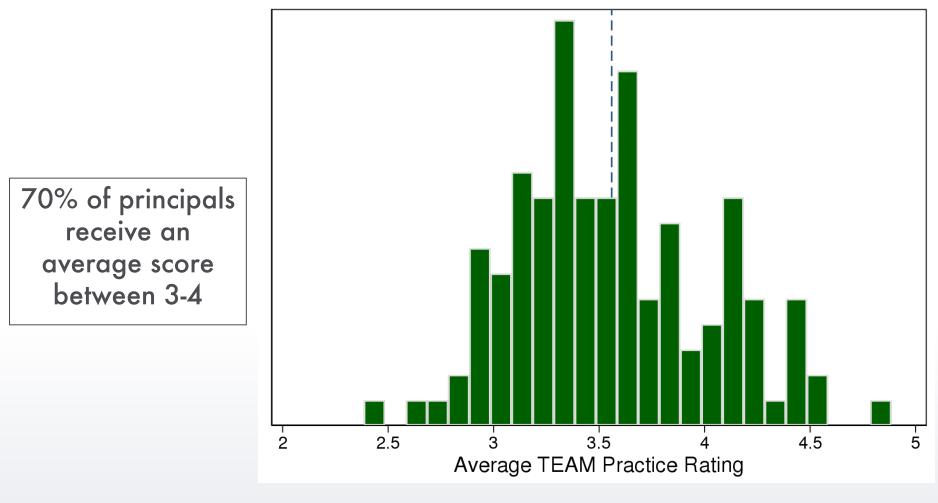


## Representation of Black students is much higher for principals than teachers and has increased in recent years.



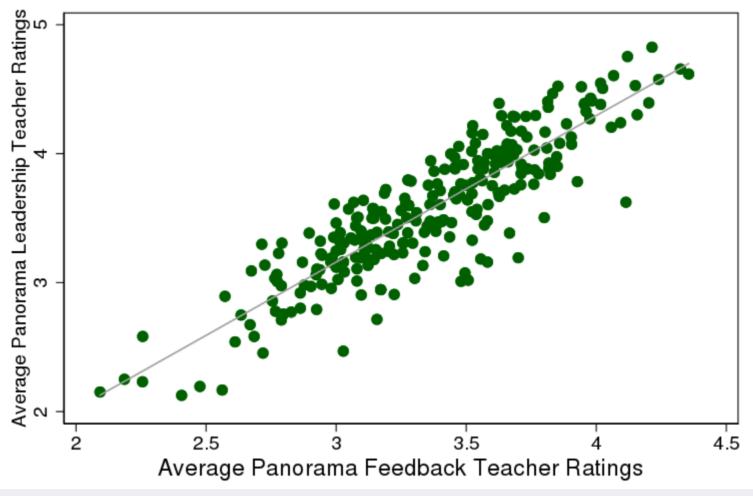


### In 2019, TEAM practice ratings have closely clustered around the district average (3.56)



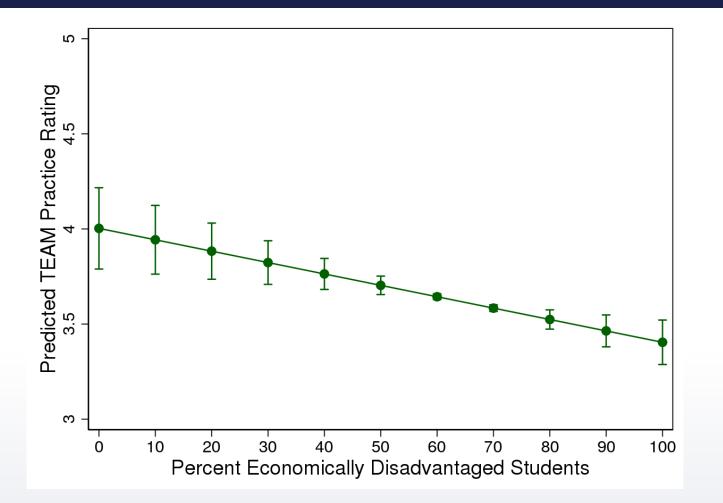


### Panorama leadership ratings are strongly associated with other teacher ratings on Panorama





## The relationship between student poverty and TEAM ratings cannot be explained by principal experience.





A 20 percentage point increase in economically disadvantaged students is associated with 0.12 decrease in the principal's average TEAM practice ratings.

### Experienced principals are more effective than novice principals, even when they are new to a school.

#### Average observation scores by tenure in current school

