

School Administrators in Tennessee Turnaround Schools

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Introduction

In the 2012-13 school year, Tennessee implemented two ambitious school reforms, the Achievement School District (ASD) and local Innovation Zones (iZones), to turn around the state's lowest-performing schools, known as priority schools. The ASD is a state-run school district that removes priority schools from their local district in order to oversee them directly or assign their management to a charter management organization. The key strategies of the ASD at its inception were autonomy for operators, additional resources, an emphasis on outcomes and accountability, and a supportive environment (Glazer et al., 2015). In contrast, the iZones are a district-led reform that provides greater autonomy to school leaders, and devotes resources for school capacity-building and for recruiting and retaining effective staff (Zimmer et al., 2017). Between 2012-13 and 2017-18, Memphis, Nashville, Chattanooga, and Knoxville established local iZones.

In earlier studies, we found iZones had positive effects on student achievement while reforms in ASD schools had no effects on student achievement, on average (Zimmer et al., 2017; Pham et al., 2020). Both models replaced the principal and hired high-performing teachers in the first year of intervention (Zimmer et al., 2017). However, the iZones also emphasized retaining and developing teachers and leaders in subsequent years, which our team found partially drove the positive effects in iZone schools (Henry et al., 2020).

To provide additional insights about the implementation of these reforms and how the effects of ASD and iZone schools may have occurred, this brief describes the characteristics of school administrators under both school reform models. Specifically, we describe the turnover, degree attainment, experience, salary, and racial demographics of school administrators who led ASD and iZone schools during six years of turnaround reforms.



In this brief, we explore four key findings from the research:

- 1** *After the first year of reform, ASD schools experienced more principal turnover than iZone schools, and ASD principal turnover tended to occur more often among principals of higher-performing schools.*
- 2** *After the first year of reform, principals in iZone schools had more years of experience and higher degree attainment, on average, than principals in ASD schools.*
- 3** *Overall, priority schools were led mostly by Black principals, and a higher percentage of Black principals in ASD schools were replaced with non-Black principals in the first two years than in iZone schools.*
- 4** *Principals in iZone schools earned higher salaries than principals in other priority schools before and during the turnaround reforms, even after accounting for differences in experience and degree attainment, and these differences grew larger over time.*



How We Explore the Characteristics of School Administrators

Our descriptive analysis compares administrator characteristics in ASD and iZone schools, respectively, to priority schools receiving no turnaround interventions, which we call comparison schools. Namely, we examine the following: turnover (as measured by the average proportion of administrators who are new to their school at the beginning of the year), average years of experience in an administrator role, average tenure in their current administrator role in the school, race/ethnicity, graduate degree attainment, and salary. We also describe average principal performance using a standardized measure of their school's score on the Tennessee Value-Added Assessment System (TVAAS) in the prior year, which reflects gains in student test scores on state assessments.

To examine school administrator characteristics, we use two approaches. First, we compare average administrator characteristics for years before and years after the turnaround interventions, which vary depending on when the school began the ASD or iZone intervention. Years “before turnaround” is defined as all years from 2006-07 through the year

just prior to the school becoming an ASD or iZone school. With the exception of principal turnover, we define years “after turnaround” as years one through year six of the reform. For principal turnover, we define years after turnaround as years two through six to account for the intervention requiring the replacement of principals in the first year after schools began reforms. In the appendix, we also examine these same characteristics for assistant principals before and after turnaround interventions began.

In addition to before-and-after comparisons, we also describe the characteristics of school administrators in each year of turnaround, where we define the baseline year (year 0) to be the year just prior to a school's entry into the ASD or iZone. Thus, for the first cohort of ASD or iZone schools, year 0 is 2011-12, and year 1 is 2012-13. For the second cohort, year 0 is 2012-13, and year 1 is 2013-14, and so on. Most—but not all—iZone and ASD schools are located in Memphis, and our conclusions do not change when we examine only schools in the Memphis iZone.

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AFTER THE FIRST YEAR OF REFORM, ASD SCHOOLS EXPERIENCED MORE PRINCIPAL TURNOVER THAN iZONE SCHOOLS, AND ASD PRINCIPAL TURNOVER TENDED TO OCCUR MORE OFTEN AMONG PRINCIPALS OF HIGHER-PERFORMING SCHOOLS.

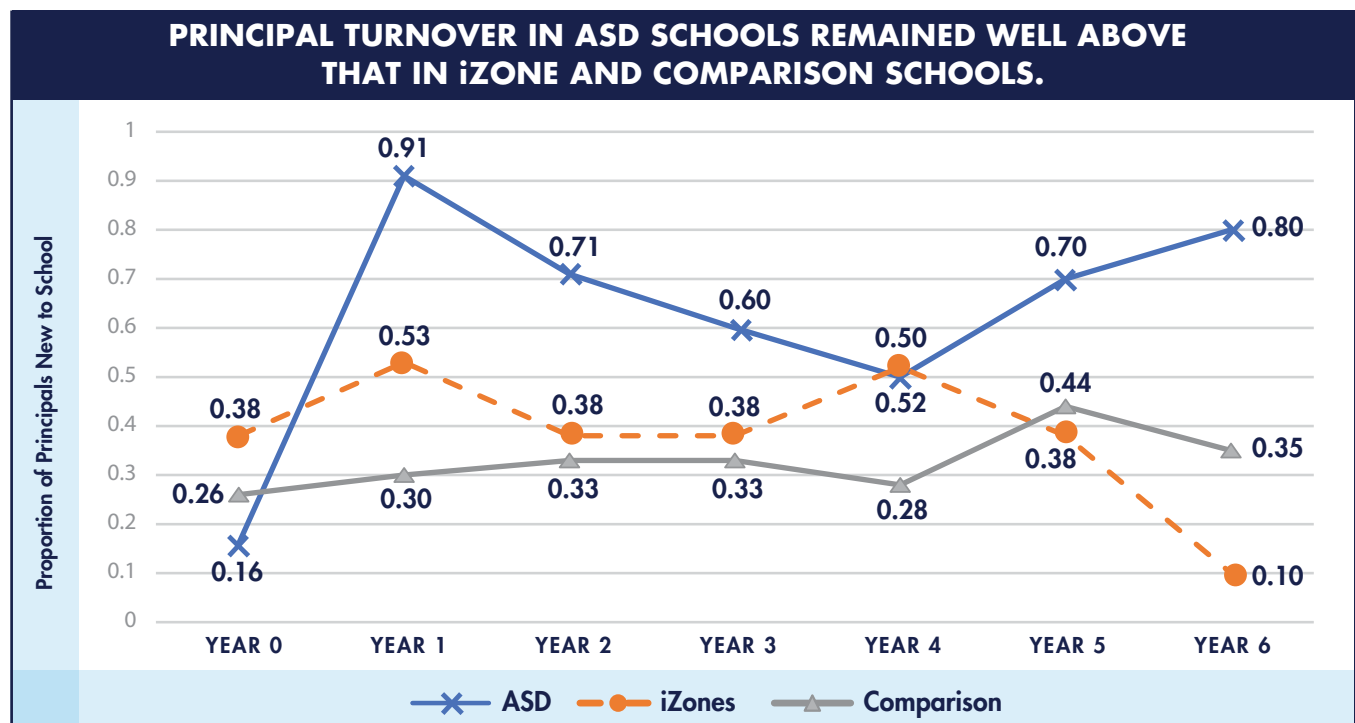
Principals are an integral part of any whole-school reform, in part due to their impact on the quality of the teaching staff. Prior TERA research has found that effective principals tend to hire more effective and more experienced teachers (Grissom et al., 2019) and that teacher effectiveness explains at least part of the effects of Tennessee's turnaround reforms (Henry et al., 2020). Since all principals in ASD and iZone schools were replaced in the first year by design, it is important to examine principal turnover trends in subsequent years in order to learn more about what happened during the implementation phase of these reforms.

Our analysis finds that after the first year of reform, principals in ASD schools continued to turn over at higher rates than principals in iZone schools. Figure 1 demonstrates this pattern. As shown in the figure, 16 percent of ASD principals were new to their school in the year just prior to reform. In iZone schools,

38 percent of principals were new to their school in the year just prior to reform. Within the first year of reform, principal turnover increased to 91 percent in ASD schools and 53 percent in iZone schools. However, after the first year, ASD schools began the school year with a new principal 64 percent of the time, while iZone schools began the school year with a new principal 39 percent of the time.

We compared these turnover rates to other priority schools in the state. In the comparison schools, the percentage of principals who were new to their school increased from 26 percent in the year prior to reform to 30 percent in the first year. After the first year, comparison schools began the year with a new principal 34 percent of the time. This pattern of lower school administrator turnover in iZone schools may help to explain the comparably positive iZone effects on student achievement found in previous research (Zimmer et al., 2017; Pham et al., 2020).

FIGURE 1



Another way of looking at principal turnover in ASD and iZone schools is to look at the average tenure of school administrators in their school. **We find that as the reforms progressed, the average tenure of principals in their school decreased more in ASD schools than in iZone or comparison schools.**

Principals who left ASD schools during the reform averaged about 1.4 years serving as a principal in the school. The comparable figure for the iZone schools is 2.2 years, which amounts to principals serving about 1.6 times longer before leaving iZone schools than in ASD schools before exiting. To the extent that higher principal turnover can negatively affect student achievement and increase teacher turnover (Henry & Harbatkin, 2019; Grissom & Bartanen 2019; Bartanen et al., 2019), these patterns of tenure in a school are consistent with the lack of positive effects in ASD schools.

We also examined the performance of schools from which principals exited. We find principal turnover in iZone schools tended to occur more often among principals of lower-performing schools, which is consistent with patterns of strategic staffing. (That is, principals at lower-performing schools were either dismissed or were more likely to leave voluntarily.) In contrast, principal turnover in ASD schools occurred more frequently in higher-performing schools, which is consistent with loss of leadership capacity. We find the ASD lost principals whose schools registered higher than average test score gains the previous year (+0.21 standard deviations), while iZone schools lost principals whose schools had below average test score gains in the previous year (-0.07 standard deviations). Assistant principal turnover followed a similar pattern.



As the reforms progressed, the average tenure of principals in their school decreased more in ASD schools than in iZone or comparison schools.

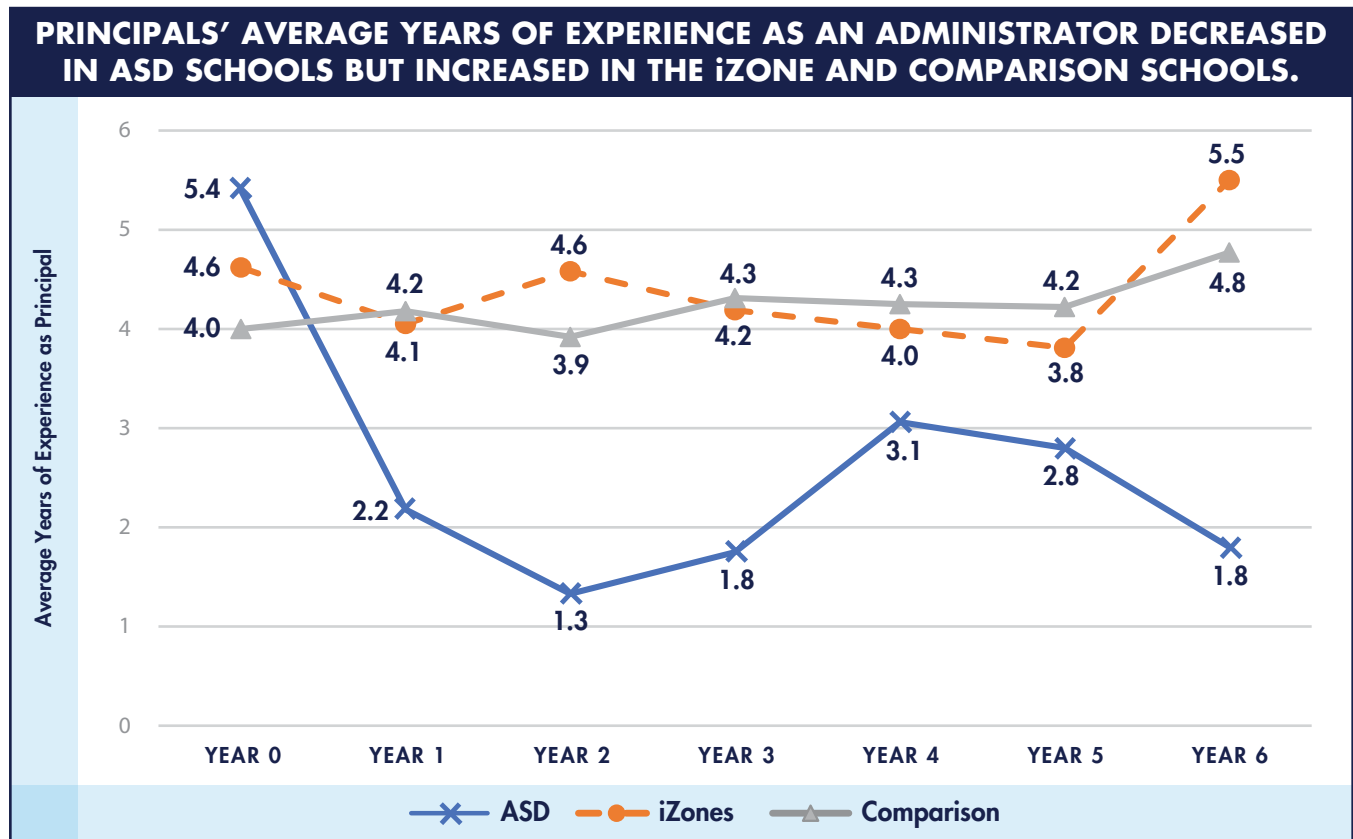
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AFTER THE FIRST YEAR OF REFORM, PRINCIPALS IN iZONE SCHOOLS HAD MORE YEARS OF EXPERIENCE AND HIGHER CREDENTIALS, ON AVERAGE, THAN PRINCIPALS IN ASD SCHOOLS.

As principals with more experience tend to be more effective and achieve larger gains in student achievement (Bêteille et al., 2012; Grissom et al., 2019), the years of principal experience is an important characteristic to examine among ASD and iZone principals. We find that in the years following the first year of turnaround reform, average total years of principal experience decreased for ASD schools and increased in both iZone and comparison schools. In ASD schools, average years of principal experience declined from 3.5 years before turnaround to 2.1 years after schools entered the ASD (see Appendix Table 1). Conversely, the average years of principal experience for a principal in iZone schools changed from 3.8 years before turnaround to 4.3 years after schools entered the iZones (see Appendix Table 1). Part of the difference in average years of principal experience in ASD and iZone schools may be explained by how often these schools hired principals with no prior experience. Following the reforms, about 57 percent of all principals in ASD schools and 21 percent of all principals in iZone schools had no prior experience as a principal.

Going beyond pre- and post-reform comparisons, we also examined principal experience in each year after turnaround, relative to the year just prior to the reform (Year 0). Figure 2 shows that ASD principals had an average of 5.4 years of principal experience in the baseline year. By year six, ASD principals averaged about 1.8 years of principal experience. In comparison, iZone school principals had an average of 4.6 years of principal experience in the baseline year, declining from year two to year five, and then climbing to 5.5 by year six.

FIGURE 2



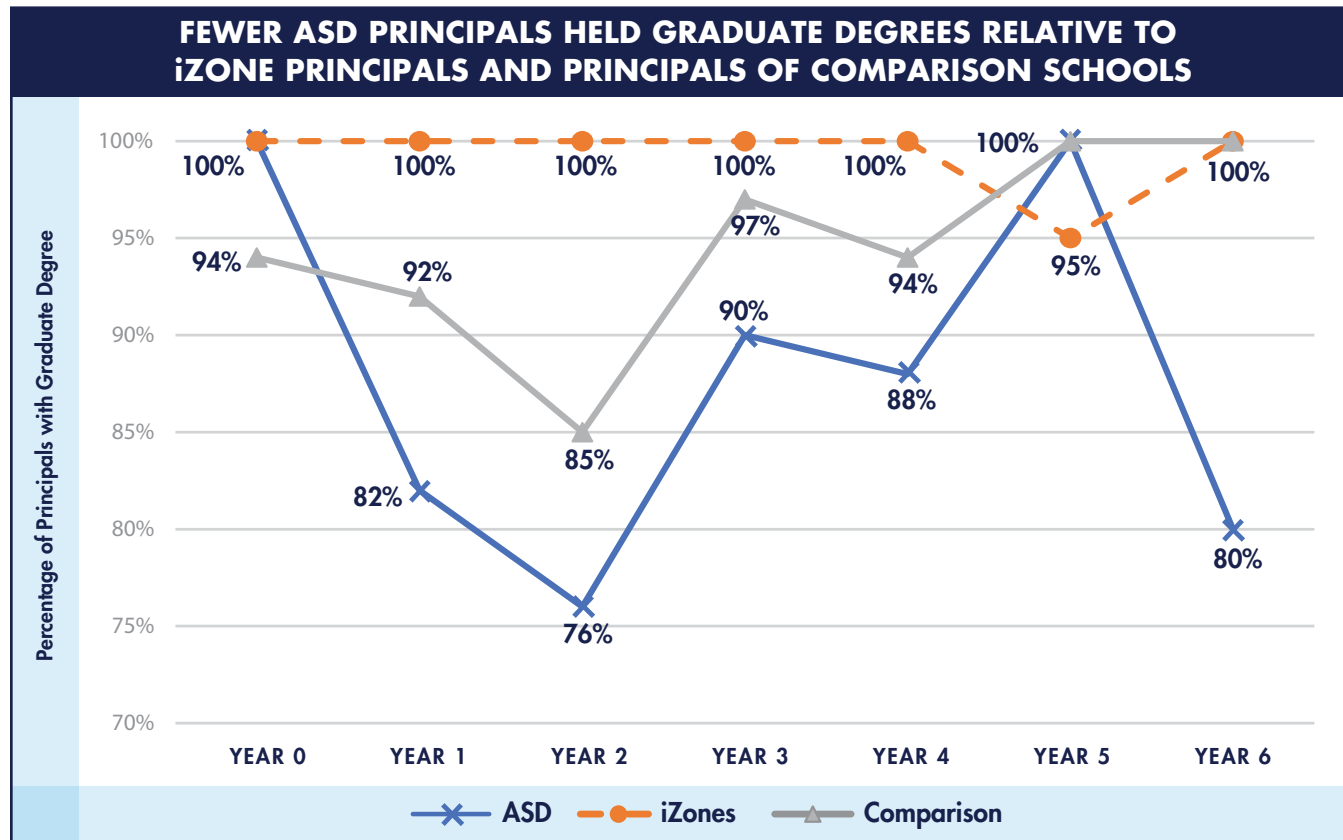
As a measure of administrator credentials or educational background, we also examined the percentage of principals with a master's degree or higher. While not an indicator of quality per se, a graduate degree is generally required for school leader licensure. Lack of such a degree may indicate an alternate route to the principalship (e.g., through a charter management organization). Averaging over the six years of turnaround, we find that 86 percent of principals in ASD schools held a master's degree or higher, compared to 99 percent of principals in iZone schools and 94 percent in comparison schools (see Appendix Table 1). Thus, fewer ASD principals held a graduate degree relative to principals in iZone and other priority schools.

Figure 3 shows the trends in educational attainment among the principals in each school type during the six years of reform. All iZone principals held



a graduate degree in every year except the fifth year of turnaround when 95 percent had a master's degree or higher. By contrast, the percentage of ASD principals with a master's degree or higher dropped to as low as 76 percent in the second year of reform. We find similar trends among assistant principals.

FIGURE 3



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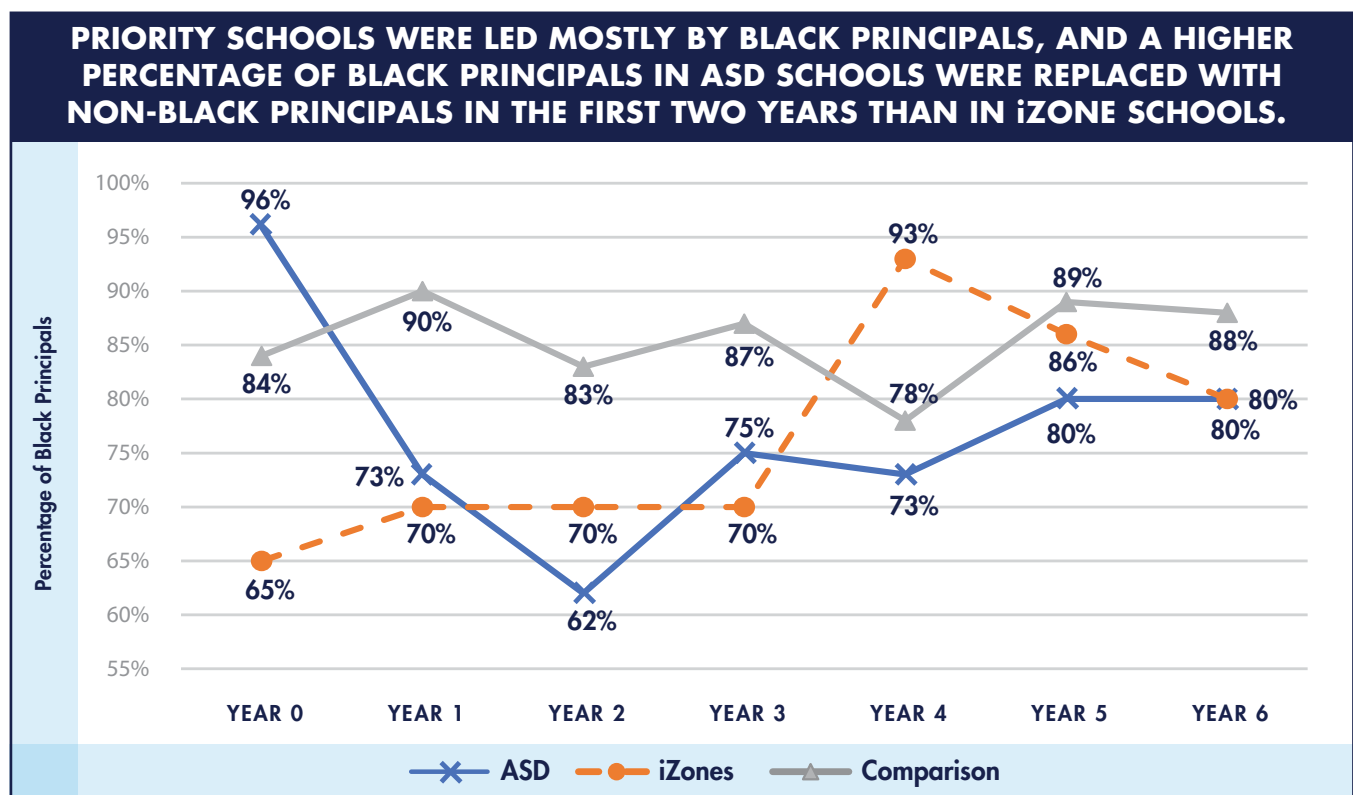
OVERALL, PRIORITY SCHOOLS WERE LED MOSTLY BY BLACK PRINCIPALS, AND A HIGHER PERCENTAGE OF BLACK PRINCIPALS IN ASD SCHOOLS WERE REPLACED WITH NON-BLACK PRINCIPALS IN THE FIRST TWO YEARS THAN IN iZONE SCHOOLS.

Since most of Tennessee’s priority schools serve predominantly Black students, it is important to consider the racial demographics of school administrators in light of research on racial congruence between school staff and students in their schools. Specifically, in Tennessee, a Black student having a Black principal can positively impact the student’s math achievement (Bartenen & Grissom, 2019) and initial community mistrust of the ASD involved concerns for staff diversity (Glazer & Egan, 2016).

We find that 96 percent of ASD principals were Black in the year prior to the reforms, but this declined to 73 percent in the first year of turnaround. In contrast, in iZone schools, the percentage of Black principals increased from 65 to 70 percent between the baseline year (the year prior to the turnaround intervention) and the first year of reform. In comparison schools (other priority schools similar to those in the ASD and iZones), the percentage of Black principals in a school ranged between 78 and 90 percent. Figure 4 displays the trends in principal race/ethnicity from the baseline year through year six of the reform. Overall, these findings suggest that Black administrators were disproportionately replaced with non-Black administrators in the ASD (Glazer & Egan, 2016), but not in the iZones or other priority schools.



FIGURE 4



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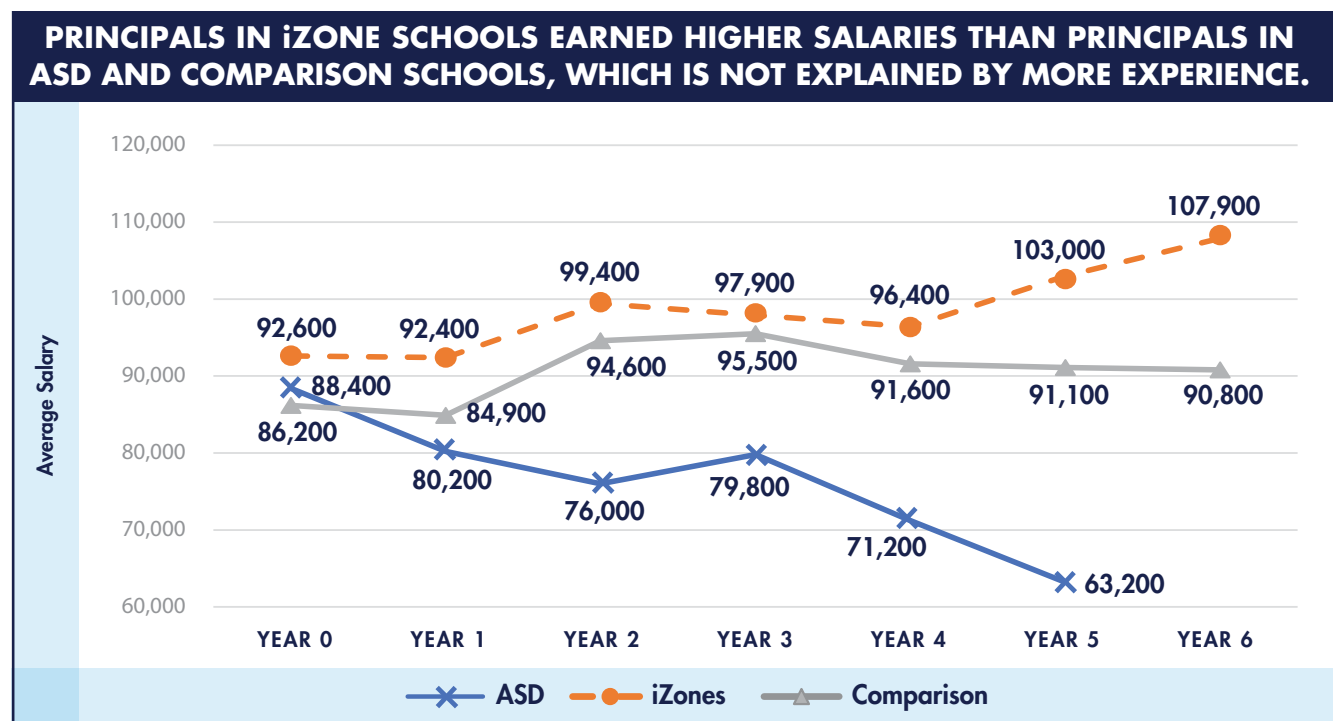
PRINCIPALS IN iZONE SCHOOLS EARNED HIGHER SALARIES THAN PRINCIPALS IN OTHER PRIORITY AND ASD SCHOOLS, EVEN AFTER ACCOUNTING FOR DIFFERENCES IN EXPERIENCE AND DEGREE ATTAINMENT, AND THESE DIFFERENCES GREW LARGER OVER TIME.

While additional financial resources and human resources were part of the theory of change for both the ASD and iZone schools under Race to the Top funding, the iZones may have applied more resources to talent management (Zimmer et al., 2017). We find the average annual principal salary in iZone schools increased by \$14,200 after the reforms, from \$83,700 to \$97,900. By years five and six, iZone principal salaries further increased to an average of \$103,000 and \$107,900, respectively. In contrast, average principal salaries in ASD schools decreased from \$83,300 to \$75,900 following the reforms.

As shown in Figure 5, ASD school administrators earned less than iZone and comparison school administrators in the first year of turnaround. After the first year, ASD school administrators continued to receive lower average salaries than iZone or comparison school principals, with additional reductions after the third year. While the decline in average salaries is driven to a significant degree by schools hiring less experienced principals (who receive lower salaries), we find the **iZones paid higher principal salaries than the ASD, even after adjusting for principals' years of experience and graduate degree attainment.**

Given the substantive differences we find in school administrator characteristics between ASD and iZone schools, we examined the relationship between administrator characteristics and turnover. We find that higher salaries and more experience were associated with a lower likelihood of principal turnover. This finding, coupled with other findings from this brief, may support the use of financial incentives to reduce principal turnover and its potentially deleterious effects on teachers and students (Bartanen & Grissom, 2019; Grissom & Bartanen, 2019).

FIGURE 5



Note: ASD data were unavailable for year 6.

CONCLUSIONS AND IMPLICATIONS



In this research brief, we examine the characteristics of school administrators in Tennessee's ASD and iZone schools, both over time and in comparison to other priority schools in Tennessee. On multiple dimensions, ASD principals compare less favorably to principals in other priority schools—including iZone schools—and to principals in the same schools prior to the reform. Consistent with other TERA research showing that less experienced and less effective Tennessee principals tend to work in lower-performing schools (Grissom et al., 2019), we find that ASD schools more frequently hired principals who previously worked at lower-performing schools than principals who exited ASD schools. We also find ASD schools continued to experience high rates of principal turnover after the first year, hired less experienced administrators, paid lower salaries, and hired fewer principals who had attained a master's degree or higher than did iZone schools. During the first year of reforms, the ASD also hired fewer Black principals than were employed in the same schools in the year prior. On the other hand, iZone schools attracted school administrators with higher credentials, more experience, racial congruence with students in priority schools, and who previously worked at higher-performing schools.

These findings suggest strategic talent management is important in whole-school reform. Namely, it is possible to recruit and retain experienced and highly credentialed administrators in low-performing schools while matching the racial/ethnic demographics of administrators to the student demographics in low-performing schools. Human capital policies in the iZone

appear to have been more attentive to these factors than those in ASD schools. Future interventions may want to consider the racial match between administrators and the schools they are hired to lead, and future research could examine the significance of racial match on student achievement, teacher quality, school culture, and parental/community engagement in low-performing schools (Bartenen & Grissom, 2019; Glazer & Egan, 2016).

Our findings also suggest that higher salaries may be an important component of talent management in successful turnaround strategies. We find higher salaries to be associated with lower principal turnover in the study's sample of low-performing schools with ASD schools having higher turnover and lower salaries. Future qualitative research could explore reasons why principals left their respective schools and if salary played a role in any voluntary turnover after the first year of reform.

Finally, future research should aim to examine principal turnover and qualifications within the three categories of low-performing schools under the Every Student Succeeds Act policy environment (i.e., comprehensive support and improvement schools, targeted support and improvement schools, and additional targeted support and improvement schools) and determine the significance of salary in the talent management of principals within each low-performing school category. Through such studies and the findings of this brief, education stakeholders can acquire a better understanding of the type of school leaders needed to turnaround the lowest-performing schools and how to retain those leaders.

Recruiting and retaining effective school leaders is critical to whole-school reform. iZone schools appear to have been more attentive to these strategic talent management policies than those in ASD schools.

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APPENDIX

APPENDIX TABLE 1

CHARACTERISTICS OF ALL ADMINISTRATORS BEFORE AND AFTER TURNAROUND REFORMS						
	ASD		iZone		Comparison	
	Before	After	Before	After	Before	After
Principal Characteristics						
Principal New to School	0.24	0.64	0.30	0.39	0.28	0.34
Proportion Black	0.76	0.72	0.78	0.78	0.79	0.85
Proportion with Master's Degree	0.99	0.86	1.00	0.99	0.96	0.94
Principal Salary (in \$1,000s)	83.3	75.0	83.7	99.6	80.7	93.1
Principal Tenure in School (in years)	2.95	1.49	2.56	2.41	2.87	3.25
Years of Principal Experience	3.47	2.07	3.78	4.30	3.34	4.24
Prior Year School Performance (standardized)	-0.28	-0.12	0.54	0.14	-0.36	-0.36
Assistant Principal (AP) Characteristics						
Proportion AP New to School	0.37	0.69	0.42	0.38	0.42	0.36
Proportion Black	0.85	0.62	0.73	0.80	0.84	0.84
Proportion with Master's Degree	1.00	0.89	0.99	0.98	1.00	0.98
AP Salary (in \$1,000s)	65.8	67.2	65.7	74.6	67.1	73.5
AP Tenure in School (in years)	2.31	1.39	2.32	2.66	2.08	3.41
Years of AP Experience	3.09	1.67	3.14	3.85	3.02	5.31
Prior Year School Performance (standardized)	-0.97	-0.08	-0.57	-0.02	-0.71	-0.43
N Principals	78	55	154	85	134	106
N APs	85	41	232	118	118	87
Schools	25	25	40	40	50	50
<i>Note. AP: Assistant Principals. For each characteristic, the value under "After" shows the average for year two to year six of the reform.</i>						