# A Descriptive Portrait of the Paraeducator Workforce in Washington State

Roddy Theobald
Lindsey Kaler
Elizabeth Bettini
Nathan Jones

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**Roddy Theobald**
*American Institutes for Research / CALDER*

**Lindsey Kaler**
*Boston University*

**Elizabeth Bettini**
*Boston University*

**Nathan Jones**
*Boston University*

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# Acknowledgments

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## Abstract

We use over 25 years of longitudinal data from Washington state to provide a descriptive portrait of the paraeducator workforce in the state. Paraeducators are more racially and ethnically diverse than special education teachers, particularly in the last decade, and tend to be less experienced. They also have full-time salaries that are about half of the average special education teacher salary. Paraeducator-to-student ratios have decreased over time in the state, but they are higher in schools serving more students of color. Finally, and perhaps most importantly, paraeducator attrition rates from the state's public school workforce have increased dramatically over time; for example, the paraeducator attrition rate after the 2021-22 school year (23%) was over twice as high as the attrition rate after the 2008-09 school year (8%). These findings have implications for how policymakers and school leaders should approach decision-making related to the paraeducator workforce, as well as how researchers might approach further research with this group of educators.

# 1. Introduction

Paraeducators are critically important members of school communities, particularly for students with disabilities and the teams of educators who serve them (Mason et al., 2021). Also known as instructional assistants, teachers' aides, or paraprofessionals, paraeducators represent a significant portion of the educator workforce; in fact, the national paraeducator workforce increased at a rate over 100% more than that of teachers between 1990 and 2018, rising from around 400,000 to over 800,000, compared to an increase in teachers from about 2.5 million to just over 3 million (Bisht et al., 2021).

Paraeducators fill many roles in schools (Mason et al., 2021). In the classroom, paraeducators may lead small instructional groups, provide behavior management, and support students in accessing the curriculum, particularly in inclusive settings (e.g., Lillis et al., 2021; Mason et al., 2021; Mathews et al., 2021). Additionally, paraeducators may participate in Individualized Education Program (IEP) meetings, communicate with students' families, and support clerical tasks (Bisht et al., 2021; Fisher & Pleasants, 2012; French, 2003).

These roles are particularly key in inclusive general educational settings (Giangreco et al., 2010), in which an increasing proportion of students with disabilities are being served for the majority of the school day (Theobald et al., 2019; Williamson et al., 2019). For example, Lillis et al. (2021) documented the crucial role of paraeducators in supporting students' transition from self-contained to general education settings. Extant scholarship indicates that paraeducators contribute substantially to students' outcomes; Hemelt et al. (2021) found significant positive effects of a higher ratio of teaching assistants to students on students' reading and mathematics achievement, with especially strong effects in low-income districts serving more students of color.

Despite rapid growth in the national paraeducator workforce (Bisht et al., 2021; Fisher et al., 2022) and evidence of their importance for student outcomes (Aurora & Farkas, 2022; Hemelt et al., 2021), extant scholarship provides limited insights into the characteristics of the paraeducator workforce – who they are, how they are distributed across schools, or their attrition rates. This is a particularly important area of study given recent research demonstrating significant shortages of paraeducators; in a study of job postings in Washington state, Goldhaber et al. (2022) found districts posted more paraeducator positions than teacher positions, and further, a substantial proportion of these positions remained open over time, indicating that districts were struggling to find personnel to fill them. Understanding the characteristics and turnover of paraeducators is essential for understanding how policymakers and leaders could foster a robust paraeducator workforce.

We use over 25 years of longitudinal data from Washington state to examine long-term trends in who paraeducators are, where they are teaching, and at what rate they turn over. Throughout, we compare these data to special education teacher workforce data, which have been better studied in prior research, to provide context for our findings. Although these two areas of the workforce may work differently as labor markets, the two positions are closely tied in practice and are both student-facing on a daily basis. Thus, a comparison of descriptive characteristics between paraeducators and special education teachers provides a practical contextualization of similarities and differences, and grounds our findings about paraeducators within what we already know about special education teachers. This study provides the first statewide, longitudinal investigation that we are aware of focused on the characteristics of the paraeducator workforce, including attrition rates.

## 2.    Literature Review

Most prior research on paraeducators has been small-scale qualitative, mixed-methods, or single-case design research. These studies have focused on understanding paraeducators' roles in schools (e.g., Mason et al., 2021), paraeducators' relationships with teachers (e.g., Iadarola et al., 2015; Kratz et al., 2015), or effective professional development practices for paraeducators (e.g., Brock et al., 2021). By comparison, relatively few studies have examined the paraeducator workforce more broadly, and extant scholarship provides few insights into who paraeducators are, where they are teaching, and their attrition rates. In the following sections, we review the limited extant research on the composition, distribution, and turnover of the paraeducator workforce overall.

### 2.1    *Composition*

A key aspect of the paraeducator workforce is its racial composition. As stated previously, relatively few studies have explored the ethnic/racial composition of the paraeducator workforce. Yet scholars have long expressed concerns about the lack of ethnoracial diversity in the special educator workforce (e.g., Kozleski & Proffitt, 2020; Scott & Proffitt, 2021; Tyler et al., 2004). More than 80% of special educators are White (Billingsley et al., 2019), whereas more than 50% of students with disabilities are students of color (OSEP, 2022). This substantial disparity is particularly concerning given robust, growing evidence of the important role educators of color play in promoting positive outcomes for students of color (e.g., Holt & Gershenson, 2017; Redding, 2019; Shirrell et al., 2021; Villegas & Irvine, 2010). Given the lack of ethnoracial diversity in the special educator workforce, scholars have pointed to the paraeducator workforce – which is posited to be more ethnoracially diverse than the teacher workforce – as a pool of prospective future teachers who could help to diversify the teacher workforce (e.g., Carver-Thomas, 2017; Gist et al., 2019; Villegas & Clewell, 1998).

Although this may be a promising route for increasing the diversity of the special educator workforce, to our knowledge only one study provides large-scale data on the ethnoracial diversity of the paraeducator workforce (Bisht et al., 2021). Analyzing the Common Core of Data on U.S. schools nationally, Bisht et al. (2021) found that the paraeducator workforce, while majority White (60.9%), is considerably more diverse than the overall teaching workforce, which is 79.3% White. To our knowledge, other characteristics of the paraeducator workforce have not been studied. For example, given strong, consistent evidence of the importance of experience for teachers' effectiveness (e.g., Chetty et al., 2013; Feng & Sass, 2013; Master et al., 2013), more experienced paraeducators could hypothetically be more effective in supporting students. Yet we are not aware of any prior evidence regarding paraeducators' average years of experience.

## 2.2    *Distribution*

Similarly, just as we know very little about the composition of the paraeducator workforce, we also know very little about how paraeducators are distributed in schools. We do, however, have some context for how teachers are differentially distributed in schools. The teacher workforce differs along several dimensions across schools that serve more socioculturally privileged versus marginalized students. Of great concern is the fact that ample extant research has documented that more experienced teachers, including special educators, are inequitably distributed across schools, such that lower poverty schools serving more White students are staffed by more experienced teachers than higher poverty schools serving more students of color (Bettini et al., 2022; Cooc & Yang, 2016; Goldhaber et al., 2015; Mason-Williams, 2015). More encouragingly, scholars have also documented that the teacher workforce is more ethnoracially diverse in higher poverty schools serving more students of color (Billingsley et al., 2019; Cooc & Yang, 2016; Ingersoll et al., 2019).

It is possible that paraeducators may also be differentially distributed across schools, based on experience and ethnoracial identity markers. Yet to our knowledge, no extant studies have documented the distribution of specific paraeducator characteristics (e.g., experience, race/ethnicity) across schools. Several studies indicate that higher poverty schools tend to have a higher ratio of paraeducators to students (Bisht et al., 2021; Cramer et al., 2017). Bisht et al. (2021) found that districts with more students with disabilities, fewer English language learner students, and more Hispanic students tend to have higher paraeducator-to-student ratios. Similarly, Cramer et al. (2017) found more paraeducators employed in Washington state schools with higher proportions of students with disabilities, students eligible for free and reduced-price meals, and classroom teachers, as well as schools that receive federal funding through Title I, Part A. Collectively, these findings suggest that paraeducators may be more concentrated in schools serving more socioculturally marginalized students. Better understanding other aspects of the distribution (e.g., paraeducator experience) could provide deeper insights into the nature of staffing inequities across schools, particularly as paraeducator staffing distributions relate to those of teachers.

## 2.3    *Turnorver*

Turnover refers to changes in educators' positions over time, including movement from one type of position to another (e.g., paraeducators who become teachers, often termed "switching"), movement from one school to another (often termed "mobility," "moving," "school migration," or "between-school attrition"), and movement out of the public education workforce (often termed "exiting" or "exit attrition"; Billingsley & Bettini, 2019; Boe, 2006; Mason-Williams et al., 2020; Nguyen et al., 2022). Scholars have documented higher turnover rates for special educators relative to general educators for decades (e.g., Billingsley, 2004; Boe et al., 1997; Gilmour et al., 2022), including considerable movement from special to general

education teaching positions early in teachers' careers (Theobald et al., 2021). Teacher turnover is problematic for several reasons; turnover contributes to longstanding special education teacher shortages in U.S. public schools (Mason-Williams et al., 2020; McLeskey et al., 2004), it costs districts time and money to hire and train new personnel (Milanowski & Odden, 2007; Levy et al., 2012), and some evidence indicates that it has detrimental effects on school reform efforts (Sindelar et al., 2006) and on student outcomes (Ronfeldt et al., 2013; Sorensen & Ladd, 2018).

To our knowledge, no scholarship has documented rates of paraeducator turnover. Extant research indicates that there are not enough paraeducators to fill open positions (Goldhaber et al., 2022), suggesting that, when paraeducators turn over, schools may struggle to find qualified personnel to replace them. Although the paraeducator labor market may behave differently than that of teachers – for reasons including, but not limited to, differences in qualifications, working conditions, and incentives for remaining in the position (e.g., financial incentives; Bisht et al., 2021) – understanding the magnitude of paraeducator attrition rates, and how those attrition rates vary across different kinds of schools, could inform policymakers' and leaders' efforts to ensure a robust paraeducator workforce.

## 3.    Purpose and Research Questions

We build on prior evidence about paraeducators and special educator labor markets by conducting an empirical investigation of the composition, distribution, and turnover of the paraeducator workforce. Our analysis addresses the following research questions:

1.    What are the characteristics (e.g., race/ethnicity, experience, salaries) of paraeducators in Washington state public schools?

2.    What is the student-to-paraeducator ratio over time in Washington public schools?

3.     What are the average paraeducator turnover rates in Washington state and where are

paraeducators going when they turn over (e.g., different schools, moving to other

positions, leaving the state)?

4.     How do each of these patterns differ across school and community contexts (e.g.,

school-level racial/ethnic distribution of students and school urbanicity)?

Throughout, we benchmark results against comparable results for the special education teacher

workforce in the state, to provide a frame of reference for these results. Findings represent the

first statewide, longitudinal evidence that we are aware of about the paraeducator workforce in

public schools, and thus they have key implications for fostering a robust paraeducator

workforce.

## 4.     Method

This study relies on publicly available, longitudinal data on the public school workforce

in Washington state. This dataset, the S-275, has provided certificated staffing information for

public schools in Washington since the early 1980s and has been the basis for several decades of

studies on teacher attrition in Washington (e.g., Goldhaber & Theobald, 2022; Krieg, 2006;

Theobald & Gritz, 1996). Since the 1995-96 school year, the S-275 has also included data on

*classified* staff in the state, including aides and other school staff.

We use the S-275 to identify all individuals working in paraeducator and special

education teacher positions in public schools in Washington between the 1995-96 and 2022-23

school years (though we use the most recent 2022-23 data only to identify attrition mobility

outcomes for paraeducators in 2021-22). We define these positions using the *duty*, *program*, and

*activity* codes in the S-275, as did Cramer et al. (2017) in their analysis of paraeducators using

the same dataset. We define special education teachers as employees whose duty is in a teacher

position, program is in special education, and activity is in teaching. Our primary definition of

paraeducators includes employees whose duty is in an aide position and whose program is in special education. We also consider alternative definitions of paraeducators that restrict the above definition to staff in teaching activities (i.e., removing paraeducators who may have non-teaching responsibilities) and remove the restriction to special education programs (i.e., including all "teaching aides" in the definition of paraeducator). However, our primary results focus on the first definition, as it seems most consistent with the definition of paraeducator considered in the prior literature (e.g., Bisht et al., 2021; Cramer et al., 2017; Mason et al., 2020) and most appropriate for our specific focus on special education.

The S-275 provides considerable additional demographic and position information about these special education teachers and paraeducators, including gender, race/ethnicity, final salary (discussed more extensively below), assignment-level position, information including the full-time equivalency (FTE) associated with each position, and the school and district in which the position is located. We identify individuals' "primary positions" using the position in which they have the highest FTE—i.e., if a staff member's highest FTE is in a paraeducator position, they are considered a paraeducator for the purposes of this analysis. While teaching experience is directly observed and recorded for teachers, it is not recorded for classified staff. For this reason, we developed a proxy for experience (starting with the data in 2009-10) in which we simply count the number of prior years we observe each employee in the workforce; since this variable is clearly right-censored, we report experience in categories (0-5 years, 5-10 years, and 10+ years) that should not be influenced by right censoring since we have over 10 years of prior data with which to calculate this experience.

An important caveat in all analyses comparing special education teachers and paraeducators, particularly relevant for the parts of RQ1 and RQ2 considering salaries and

staffing ratios, is that FTE is defined differently for certified and classified staff in Washington. A full-time teacher who teaches for 180 days is treated as 1.0 FTE in the S-275, while a paraeducator who works for 180 days would only be treated as 0.72 FTE (as certificated FTE is based on a 2000-hour work year). As a hypothetical example, suppose a special education teacher earns a salary of $50,000 while a paraeducator earns a salary of $20,000, both working 180 days per year. We need to decide whether to "adjust" these salaries for reported FTE, which would suggest that the paraeducator is actually making an "annual" salary of $20,000/0.72 = $27,777. Since it is unclear *a priori* which comparison is most reasonable, we report all salaries (i.e., for RQ1) and staffing ratios (i.e., for RQ2) both adjusted and unadjusted for employee FTE.

To investigate paraeducator attrition and mobility, we leverage the longitudinal nature of the data and define six mutually exclusive outcomes for each paraeducator and year. If the paraeducator is not in the S-275 at all the following year, we categorize them as having "left the workforce." If they are in an aide position the following year but not in a special education program, we define this as moving to a "different aide position." If they are in a teaching position the following year, they "left for a teaching position." If they are in a non-aide and non-teaching position (e.g., office staff) the following year, they "left for other position." If they are still a paraeducator the following year but are in a different school, they "switched schools." Otherwise, the rest of the paraeducators are still in the same position and school in the following school year.

Finally, to investigate variation across school and community contexts (RQ4), we bring in two additional sources of data from the National Center for Education Statistics (NCES) and the Washington Office of Superintendent of Public Instruction (OSPI). Specifically, we merge NCES Public School Universe data by school identifiers in the S-275 to consider the urbanicity

(urban, suburb, town, or rural) of each employee's school. We merge OSPI Report Card

Enrollment data to consider the total enrollment of students, as well as the percent of students in

each employee's school who are from underrepresented minority (URM) backgrounds

(American Indian, Black, or Hispanic). While this category does not include all students of color,

we identify these students in the URM category because they are racially/ethnically

underrepresented in Washington state public schools as a whole. Additionally of note, "High

URM" includes schools in the top quartile of enrollment of URM students in a given school year

and "Low URM" includes schools in the bottom quartile of URM enrollment in a given school

year. Our focus on URM students, henceforth "students of color," is motivated by considerable

prior evidence on the inequity of school staffing across schools serving more or fewer students of

color (e.g., Clotfelter et al., 2005; Goldhaber et al., 2015; Rodriguez et al., 2023).

## 5. Results

### 5.1 RQ1: What Are the Characteristics of Paraeducators in Washington State Public Schools?

We begin, in the top panel of Figure 1, by describing the paraeducator workforce in

Washington in terms of race and ethnicity over time. In the most recent year of data (2021-22), a

little under 80% of paraeducators in Washington were White. We provide analogous figures for

special education teachers in the bottom panel; the comparable percentage of White special

education teachers in 2021-22 was 90%. Among other race/ethnicity categories, about 8% of

paraeducators were Hispanic, 6% were Asian, 4% were Black, and 1% were American Indian.

Figure 1 also shows that the diversity of the paraeducator workforce in Washington has increased

considerably over the past 25+ years, as over 90% of paraeducators were White in the first year

of available data (1995-96). Of note, however, is that the proportion of American Indian

paraeducators has remained around 1% over time, in comparison to increases in Black, Hispanic,

and Asian paraeducators since 1996. Additionally, while the racial/ethnic diversity of the paraeducator and special education teacher workforce has increased over time, it remains disproportionate to the statewide student population, which was only 53% White in 2022.

Next, we examine the years of experience of paraeducators and special education teachers in Washington public schools (2010-22) in Figure 2. As stated previously, we calculate experience as the number of years an individual is observed in the dataset since 1996. Paraeducators currently are – and consistently have been, since 2010 – more likely to be new to the workforce (less than 5 years of experience) when compared to special education teachers. Further, the number of new paraeducators has increased by over 40% in the past 10 years: 28% of paraeducators had less than 5 years of experience in 2012 versus 48% in 2022. Relatedly, while about 70% of special education teachers in 2022 had 5 or more years of experience, only about half of paraeducators had the same.

Finally, turning to average paraeducator salaries in Figure 3, we see that conclusions about paraeducator salaries are strongly influenced by whether or not we adjust for reported FTE. If we do not adjust for FTE (i.e., just consider final salaries without adjustment), the average paraeducator in Washington earned a salary of just less than $30,000 in 2021-22. This average raw salary for paraeducators has increased substantially over time from about $12,000 in 1995-96 and about $20,000 as recently as the 2013-14 school year. However, if we adjust paraeducator salaries for reported FTE to create "full-year" salaries, the average paraeducator earned almost $50,000 in 2021-22. We do not believe this is necessarily an appropriate adjustment given that there are almost no paraeducators in the state making this much *through their paraeducator position* given FTE reporting requirements, but it is consistent with typical

adjustments to translate hourly/daily salaries into annual salaries, so we report both for comprehensiveness.

This adjustment makes nearly no difference for average special education teacher salaries in the state, given that nearly all special educators in the state are working 1.0 FTE (and thus do not require FTE adjustment). The average special education teacher was earning a little over $85,000 per year in 2021-22, up considerably from the less than $40,000 average salary in 1995-96 and, due to McCleary reforms to teacher salaries in 2018-19 (e.g., Sun et al., 2022), up substantially even from the mid-2010s. Comparing special education teacher and paraeducator salaries, the average special education teacher earns roughly twice as much as the average paraeducator in the state in each year of available data, even accounting for FTE adjustments in paraeducator salaries that may actually understate these differences.

## 5.2    RQ2: What Is the Student-to-Paraeducator Ratio Over Time in Washington Public Schools?

Figure 4 shows the counts of unique paraeducators and special education teachers over time (i.e., counting each individual as "1") as well as the sum of total FTE for paraeducators and special education teachers (i.e., counting an individual with 0.5 FTE as "0.5"). In 2021-22, there were about 14,500 paraeducators in Washington working a total of about 8200 combined full-time FTE positions; in comparison, these counts are 7326 and 7168 for special education teachers. The number of paraeducators in the state has more than doubled in the last 25+ years, with only two dips in this time period: in 2009-10 during the "Great Recession," when school staffing in the state was downsized; and in 2020-21, after the first year of the COVID-19 pandemic.

Of course, the number of students in Washington public schools has also dramatically increased over time, so raw counts of the number of personnel can be deceptive without

examining the student-to-paraeducator *ratio* in public schools. We show these ratios in Figure 5. In fact, these ratios have been monotonically decreasing during the years of available data, from about 100 unique paraeducators per student in 2009-10 to the current ratio of about 75 unique paraeducators per student. Trends are similar for special education teachers, and when we consider total paraeducator FTE instead of the number of unique paraeducators in the denominators of these ratios.

### 5.3    RQ3: What Are the Average Paraeducator Turnover Rates in Washington State and Where Are Paraeducators Being Lost?

Figure 6 shows rates of paraeducator turnover over time according to the various definitions of turnover described in the previous section. We refer to these as "school-level" turnover rates because we weight all calculations by the FTE of individual paraeducators aggregated to the school level, so these rates can be interpreted as the proportion of FTE paraeducators across the state who (from bottom to top in Figure 6) leave the state public school workforce entirely, leave for a different aide position, leave for a teaching position, leave for a different school position, or switch to a paraeducator position in a different school.

Figure 6 shows that, for most of the late 1990s and through the early 2010s, rates of paraeducator attrition from the workforce (i.e., exit attrition) were between 8% and 11% in each year. For comparison, we show rates of special education teacher attrition as a line in Figure 6, which were between 6% and 8% in every year. However, the situation has changed markedly over the past decade, with paraeducator attrition rates increasing (except for a notable dip after the second year of the COVID-19 pandemic) to a peak of 23% after the third year of the pandemic, 2021-22. This paraeducator attrition rate is over double the paraeducator attrition rate

in any year between 1995-96 and 2012-13. Combining all forms of paraeducator turnover, over 40% of paraeducators did not return to their paraeducator position in the 2022-23 school year.

Also notable from Figure 6 is that the rate at which paraeducators leave for teaching positions has increased over time, though this is still infrequent (e.g., less than 3% of paraeducators transitioned into teaching positions in any given year). That said, this growth in transitions into teaching corresponds with state efforts to develop "grow your own" programs to encourage recruitment of paraeducators into shortage area teaching positions, such as special education. Time will tell whether these rates continue to increase and serve to address special education teaching shortages as intended.

## 5.4     RQ4: How Do Each of These Patterns Vary Across School and Community Contexts (e.g., School Percent Student of Color and School Urbanicity)?

We now compare trends discussed above for RQs 1-3 for paraeducators in different schools, both in terms of the percent of students of color (comparing schools in the top "High URM" or bottom "Low URM" quartiles of the state distribution) and in terms of urbanicity (comparing city/suburban schools to town/rural schools). In all cases, we show only the most recent year of data from 2021-22, but data from other years tend to show similar trends.

Starting first with the distribution of paraeducator race and ethnicity in Figure 7, we see a very different breakdown of race/ethnicity in city/suburban schools relative to town/rural schools. About 20% of paraeducators in city/suburban schools are non-White (1% American Indian, 8% Asian, 5% Black, and 6% Hispanic), while 17% of paraeducators in town/rural schools are non-White, almost all of whom (13%) are Hispanic. Not surprisingly, there are far more non-White paraeducators in high URM schools (over 30%) than low URM schools (11%).

Next, we compare the prior experience of paraeducators across city/suburban, town/rural, high URM, and low URM schools in Figure 8. In the 2021-22 school year, paraeducators across school contexts had relatively similar levels of experience. Special educators across school contexts also had similar levels of experience. Yet, notably, these proportions were different for paraeducators versus special educators. While the majority of paraeducators (just under 50%) across school contexts had under 5 years of experience, just under 30% of special educators had the same. In contrast, the majority of special educators (between 39% and 42%) had over 10 years of experience.

We now turn to student-to-paraeducator ratios by school context in Figure 9. We see very little difference in these ratios by school urbanicity, but substantial differences by school percent students of color: high URM schools have a student-to-paraeducator ratio of 90 (156 when we weight by FTE) compared to 73 (129 weighted by FTE) in low URM schools. Finally, when we disaggregate turnover rates by school setting in Figure 10, we see that paraeducator attrition rates are somewhat higher in city/suburban schools, while overall turnover rates are greatest in high URM schools.

## 6.    Discussion

This descriptive study provides a longitudinal picture of the state of the paraeducator workforce in Washington. Paraeducators in the state are more racially and ethnically diverse than special education teachers and have become more racially and ethnically diverse over time, but they also tend to be less experienced, with full-time salaries that are about half of the average special education teacher salary. Paraeducator-to-student ratios have actually decreased over time in the state but are considerably higher in schools serving more students of color. Finally, paraeducator attrition rates from the state's public school workforce have increased dramatically

over the past decade, with more than one in five paraeducators not returning to any position in Washington public schools after the 2021-22 school year.

## 6.1    *Limitations*

This study has several limitations that are important to acknowledge. First and foremost, we examined one state that has been the focus of considerable prior research on the teacher labor market, allowing us to contextualize findings in relation to the special education teacher workforce. However, this state may not be representative of paraeducator labor markets across the country. Limitations in position assignments also created some ambiguity in our definitions of paraeducators in this study, though our final definition (aides in special education programs) is broadly consistent with definitions used in the existing literature. Finally, differences in FTE reporting requirements between special education teachers and paraeducators complicate some comparisons (particularly for salaries) between these two groups of school employees. Despite the limitations, this study provides the first longitudinal evidence regarding the composition, distribution, and turnover of the paraeducator workforce, using over 25 years of data on all paraeducators and special education teachers employed in Washington state.

## 6.2    *Implications*

Our findings clearly point to a crisis in paraeducator retention. We acknowledge that the term "crisis" is used far too loosely in education policy circles. Yet we find that paraeducator turnover is substantially higher than special education teacher turnover, and is increasing at a rapid rate, at the same time as other studies indicate districts are struggling to fill paraeducator positions (Goldhaber et al., 2022).

How are schools serving students with disabilities in the absence of paraeducators to provide crucial services? What are the consequences of this turnover for students' access to the

legally mandated services specified in their IEPs? Extant research does not indicate how paraeducator turnover shapes students' services and outcomes. However, a small body of scholarship does indicate that, when paraeducators are absent, special education teachers must take on additional labor, filling in for paraeducators to address crucial safety concerns, while triaging other responsibilities (e.g., instruction; Miesner, 2022; Mathews et al., 2021). It is possible that, in contexts shaped by paraeducator turnover, special educators and other school personnel may be taking on additional responsibilities, limiting their capacity to provide needed services or compromising the quality of the services they provide. Although further research is needed to document the consequences of paraeducator turnover, we strongly urge school leaders and policymakers to consider potential strategies for strengthening paraeducator retention.

Our analysis does not allow us to pinpoint the *cause* of dramatically increasing paraeducator turnover rates. However, it is plausible that relatively low salaries, combined with deteriorating working conditions during the COVID-19 pandemic, a tight labor market with many other employment options, and increasing inflation, may have simply made working as a paraeducator an untenable employment option for many individuals who have previously worked in paraeducator positions. Given that paraeducator pay and working conditions were central issues in the Seattle teachers' strike in Fall 2022 (Shapiro et al., 2022), it is likely that these are also pressing policy issues for other schools, districts, and educators across the state and are worthy of urgent policy action and further research.

Finally, results have implications for efforts to diversify the teacher workforce. Scholars have pointed to paraeducator pathway programs as a potential strategy for diversifying the teacher workforce (Gist et al., 2019). Although the paraeducator workforce in WA is indeed more ethnoracially diverse than the teacher workforce, it is nevertheless still disproportionately

white. As such, leaders, policymakers, and scholars should also be considering potential strategies to diversify the paraeducator workforce. Further, our findings indicate paraeducators are not a limitless resource, but are themselves in short supply. Thus, efforts to recruit them into teaching should also concurrently consider how to better recruit and sustain paraeducators. Career ladder programs, which provide pathways into paraeducator positions and then subsequently into teaching, could be a potential strategy for making both paraeducator and special education teacher positions more attractive and accessible to people who have traditionally been excluded from the profession (Bianco & Goings, 2022; Bianco & Marin-Paris, 2019); future research on these kinds of programs would be especially beneficial for informing more comprehensive educator workforce policy.

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**Figures**

*Figure 1. Race/Ethnicity of Paraeducators and Special Education Teachers in Washington Over Time*
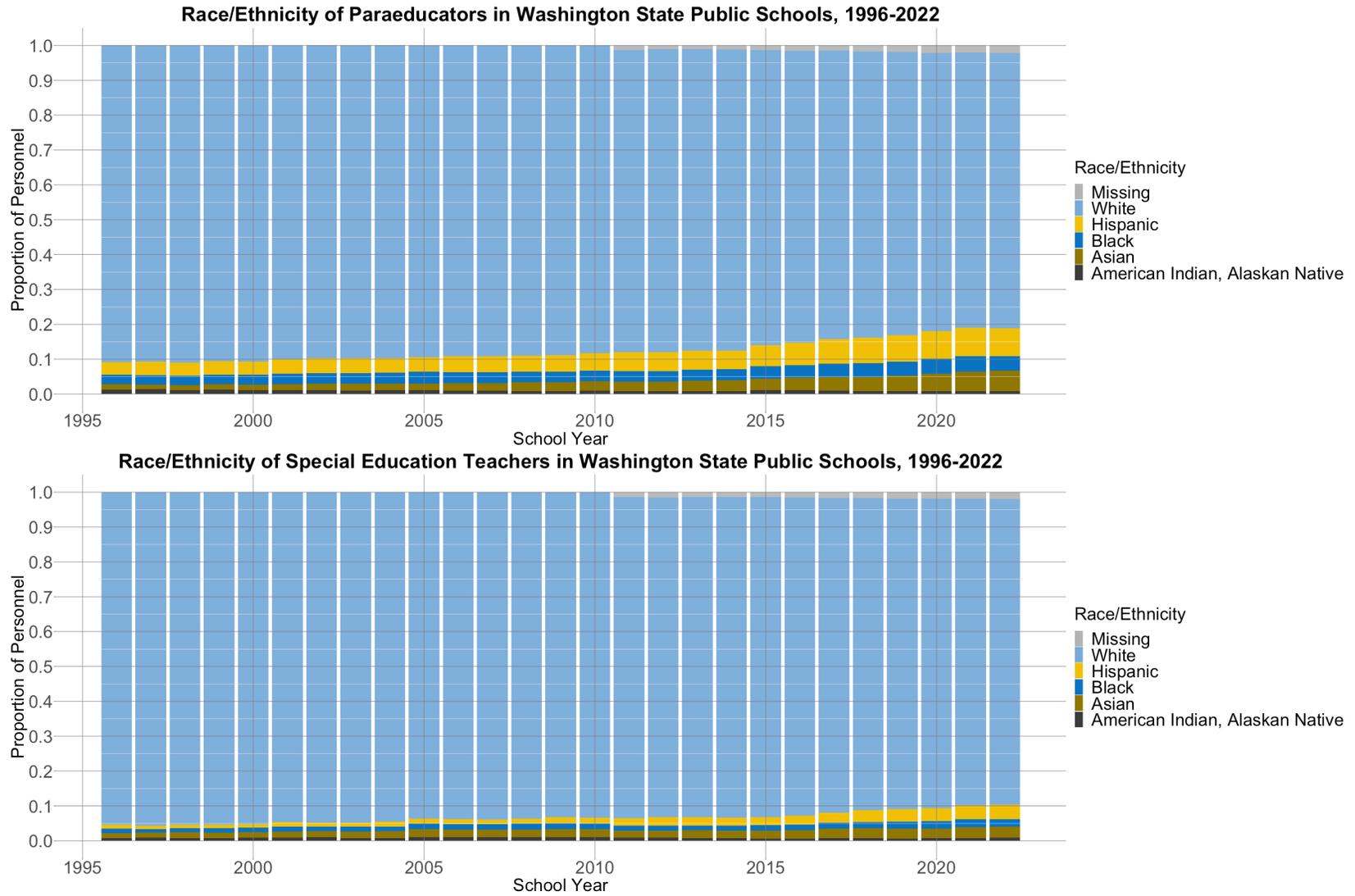
*Figure 2. Prior Experience of Paraeducators and Special Education Teachers in Washington Over Time*

**Years of Experience in Washington State Public Schools for Paraeducators, 2010-2022**

**Years of Experience in Washington State Public Schools for Special Education Teachers, 2010-2022**
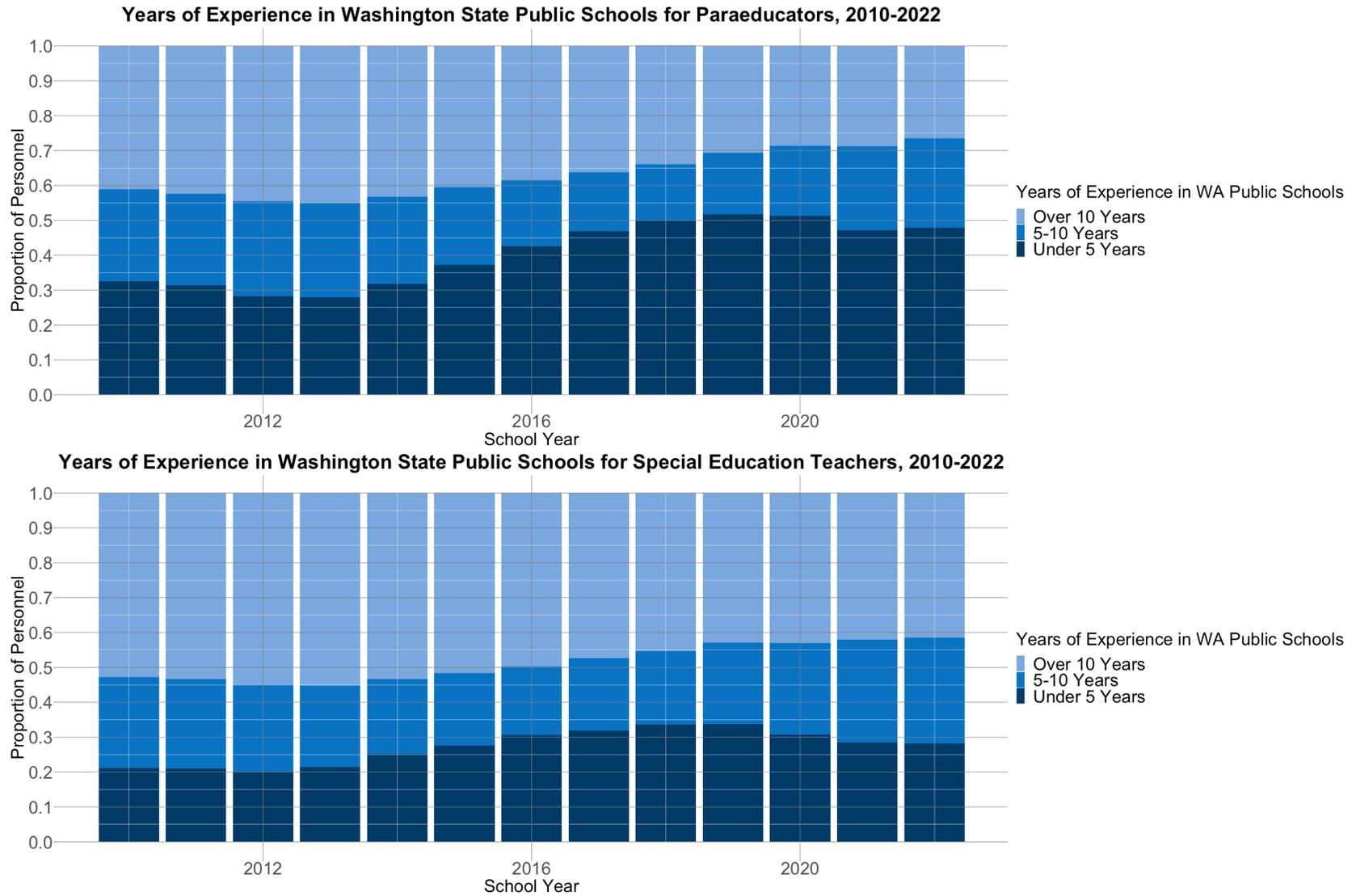
***Figure 3. Average Final Salaries of Paraeducators and Special Education Teachers in Washington Over Time***

**Paraeducator and Special Education Teacher Salaries in Washington State Public Schools, 1996-2022**
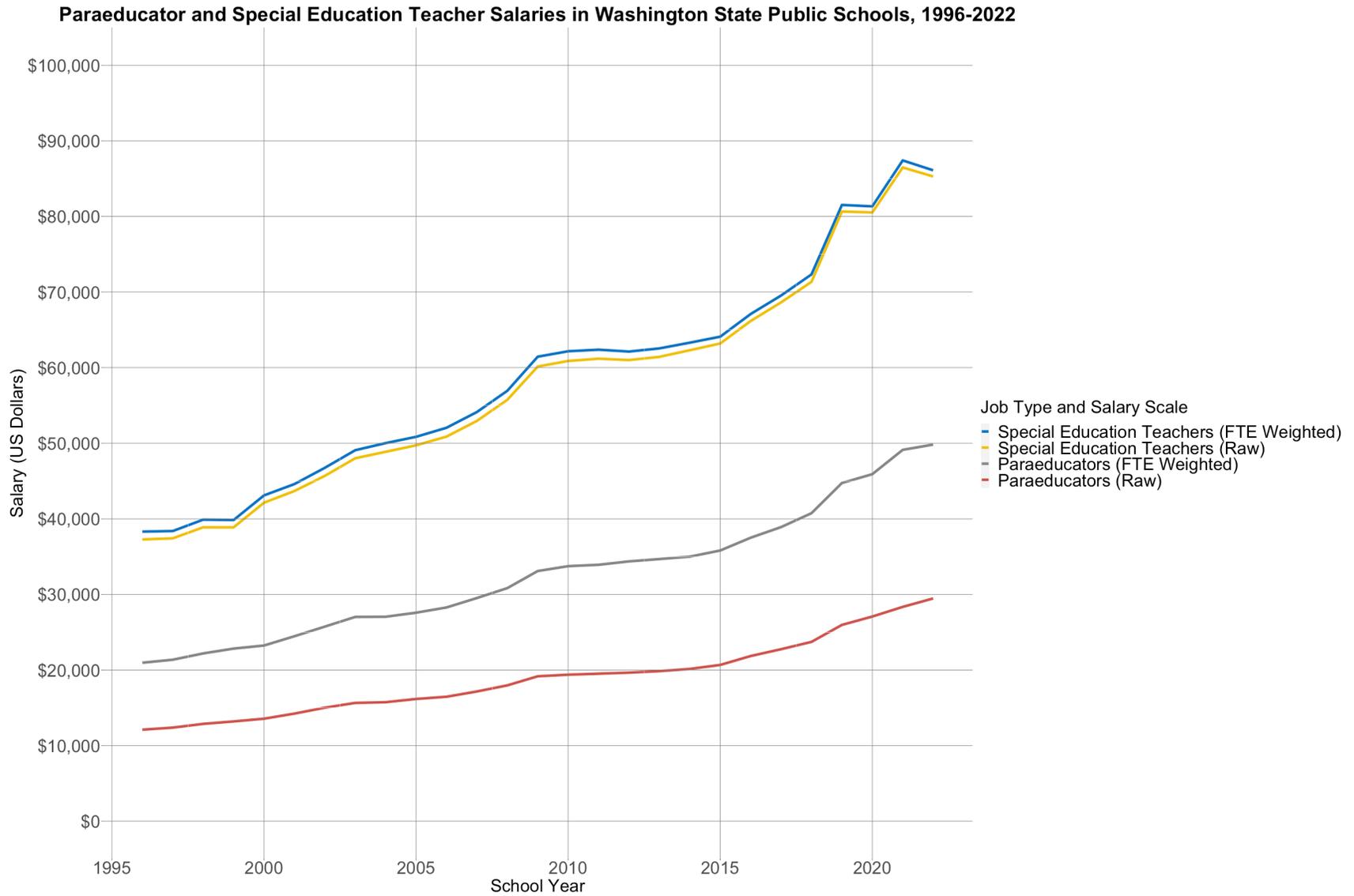
*Figure 4. Counts and Total FTE of Paraeducators and Special Education Teachers in Washington Over Time*

**Paraeducator and Special Education Teacher Personnel Counts and FTE Sums, 1996-2022**
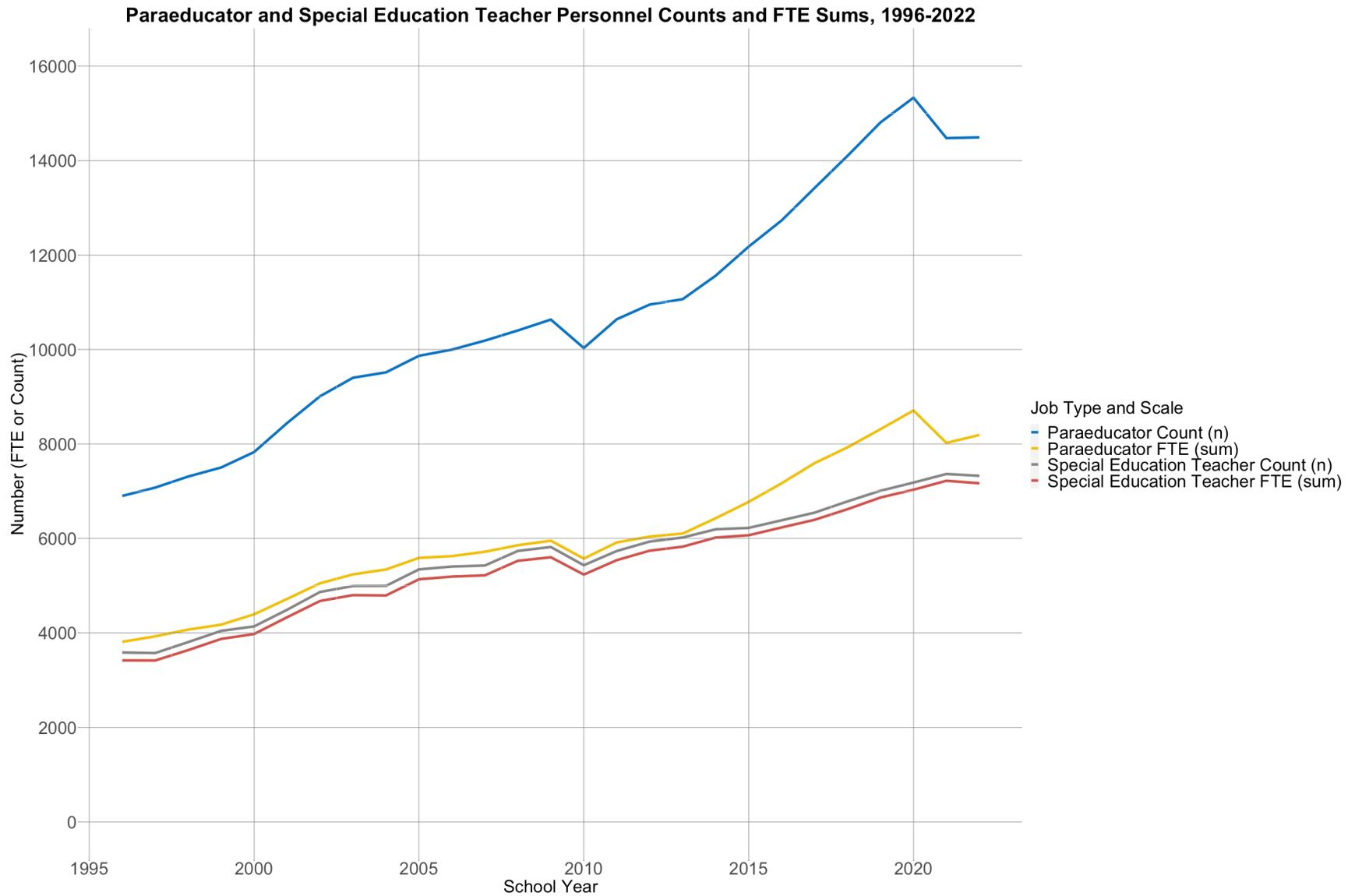
*Figure 5. Statewide Student-to-Staff Ratios for Paraeducators and Special Education Teachers in Washington Over Time*

**Student-to-Staff Ratio for Paraeducators and Special Education Teachers in Washington State Public Schools, 2010-2022**
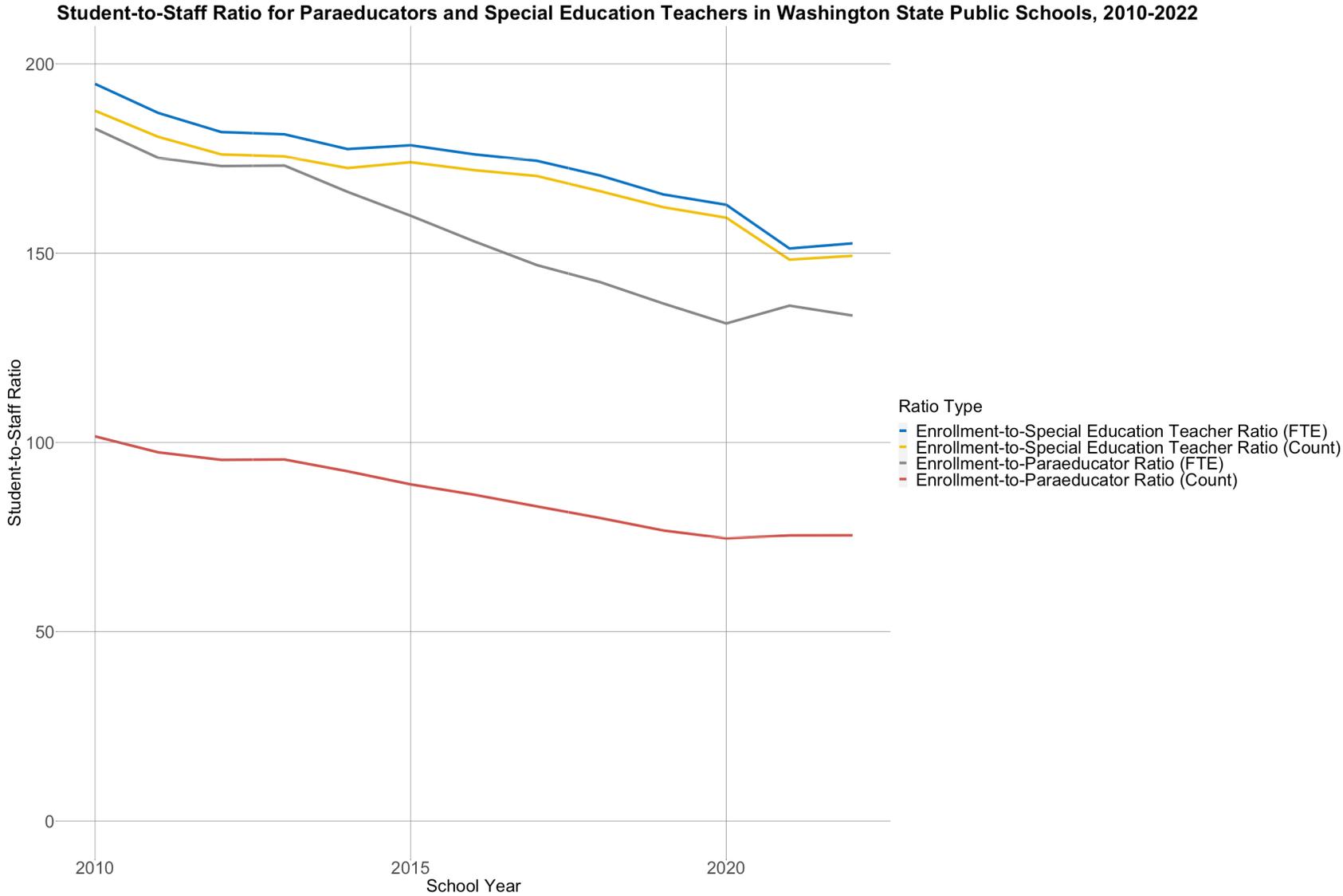
*Figure 6. Attrition and Mobility Rates for Paraeducators and Special Education Teachers in Washington Over Time*

**Paraeducator and Special Education Teacher Turnover in Washington, 1996-2022**
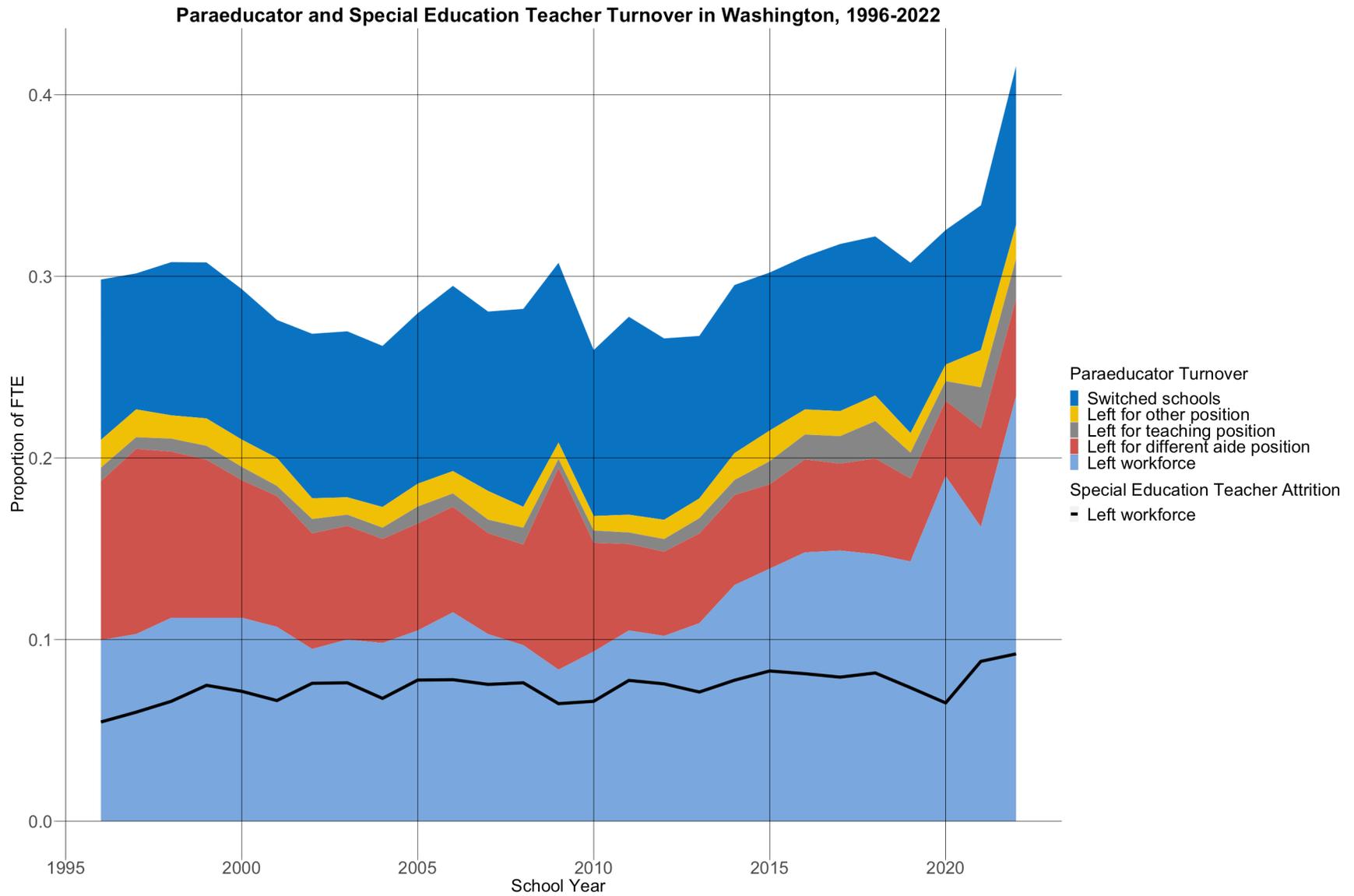
*Figure 7. Race/Ethnicity of Paraeducators by School Context in 2022*



**Race/Ethnicity of Paraeducators by School Context, 2022**

**Race/Ethnicity of Special Education Teachers by School Context, 2022**
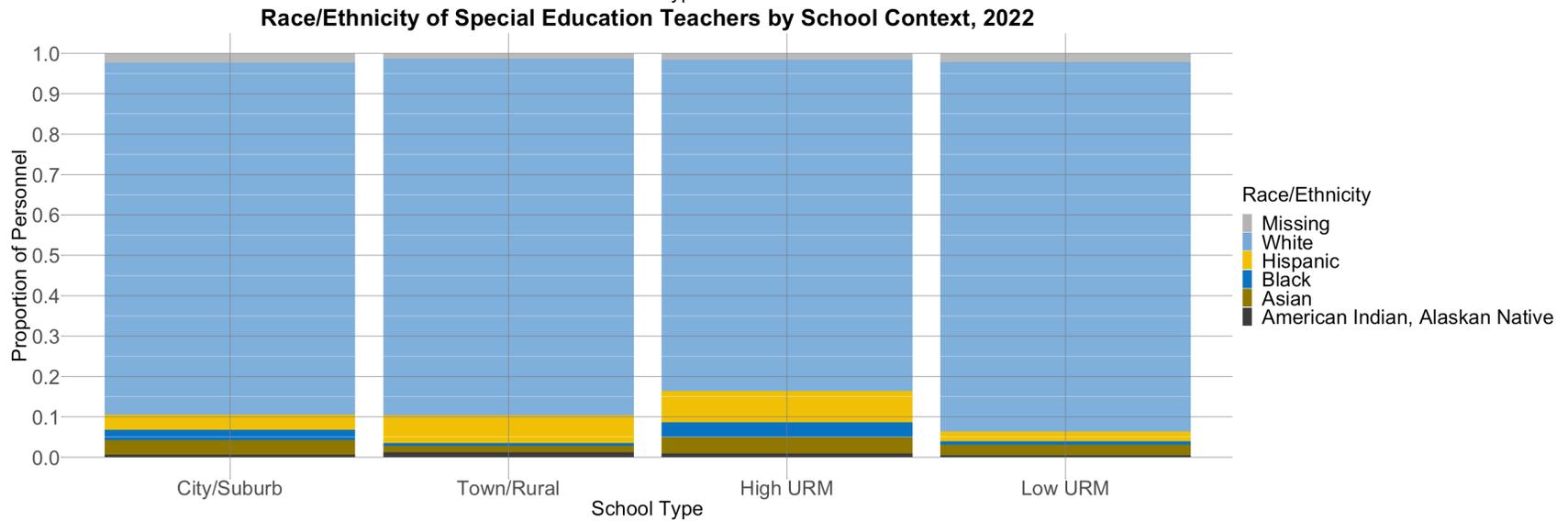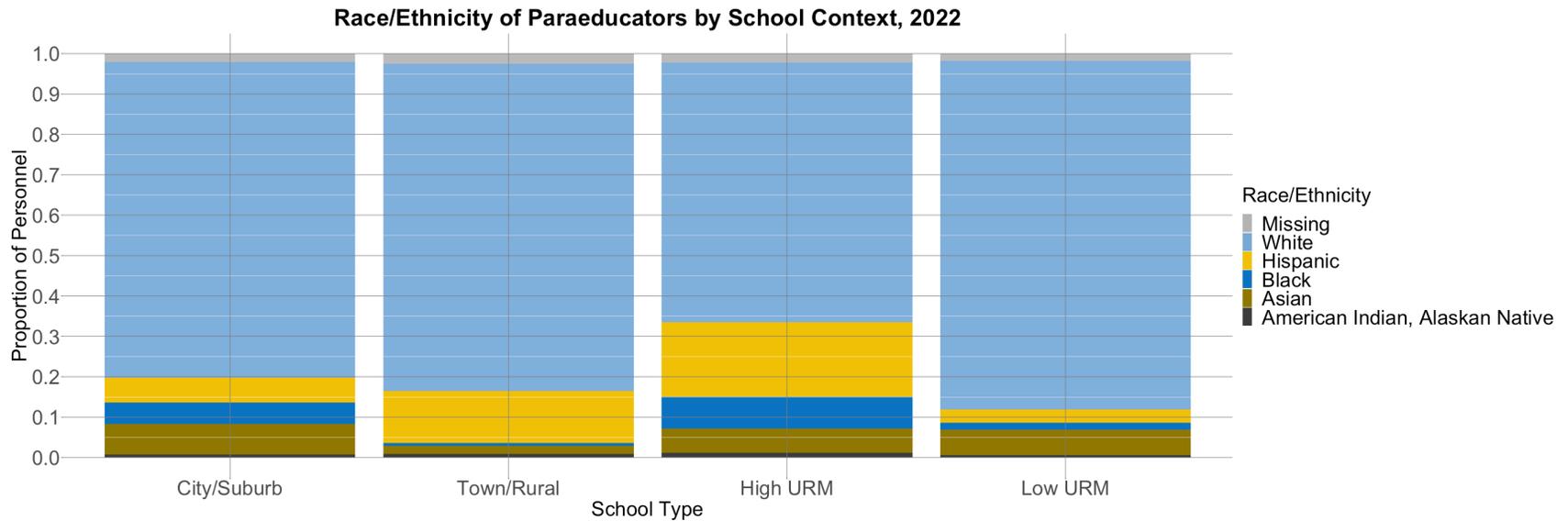
*Figure 8. Prior Experience in Washington State Public Schools for Paraeducators by School Type in 2022*



Years of Experience in WA Public Schools for Paraeducators by School Type, 2022

Years of Experience in WA Public Schools for Special Education Teachers by School Type, 2022
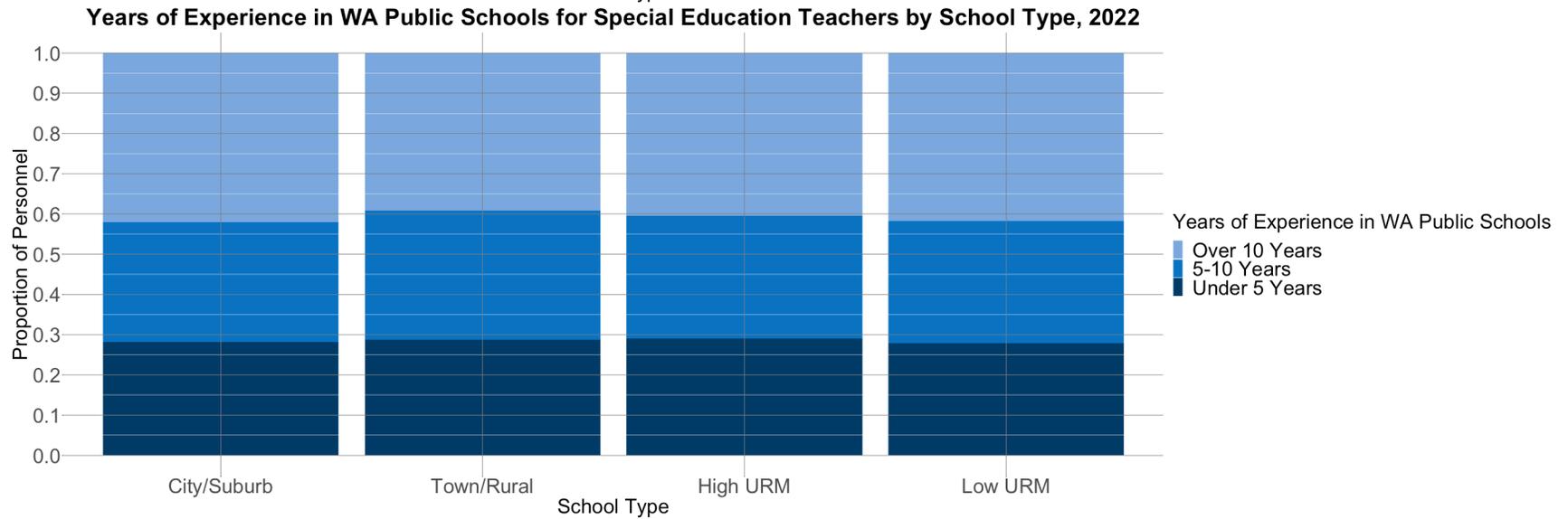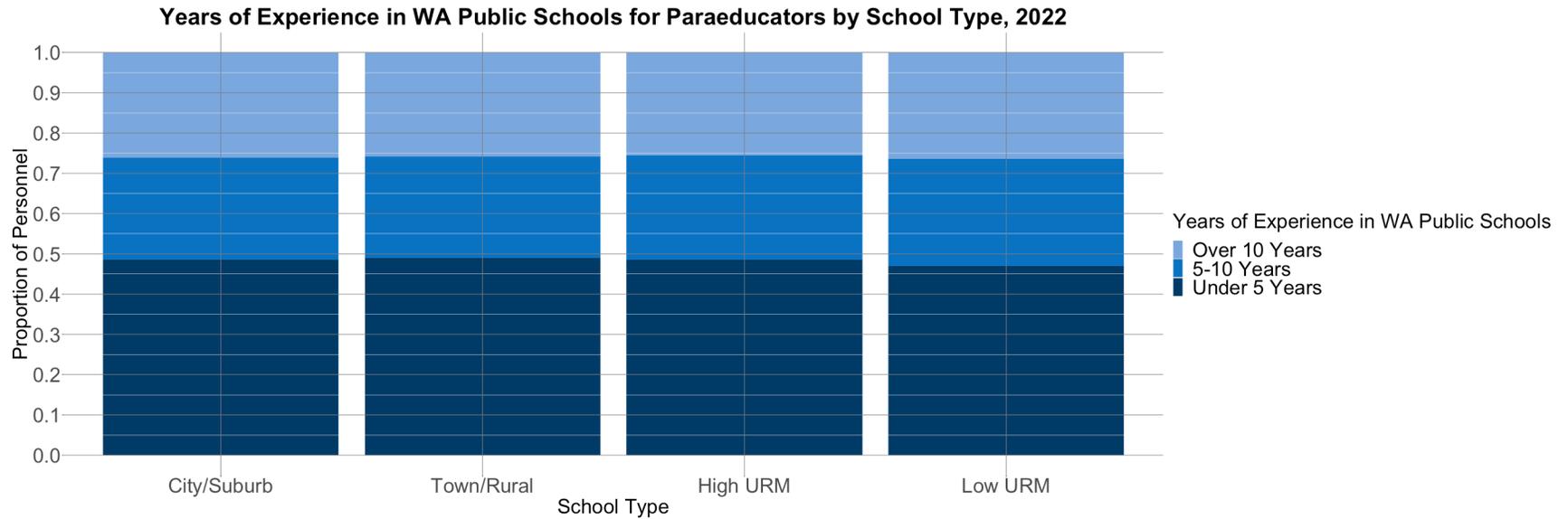
*Figure 9. Statewide Student-to-Staff Ratios for Paraeducators by School Context in 2022*



Student-to-Staff Ratio for Paraeducators by School Context, 2022

Ratio Type
- Enrollment-to-Paraeducator Ratio (FTE)
- Enrollment-to-Paraeducator Ratio (Count)

Student-to-Staff Ratio for Special Education Teachers by School Context, 2022

Ratio Type
- Enrollment-to-Special Education Teacher Ratio (FTE)
- Enrollment-to-Special Education Teacher Ratio (Count)
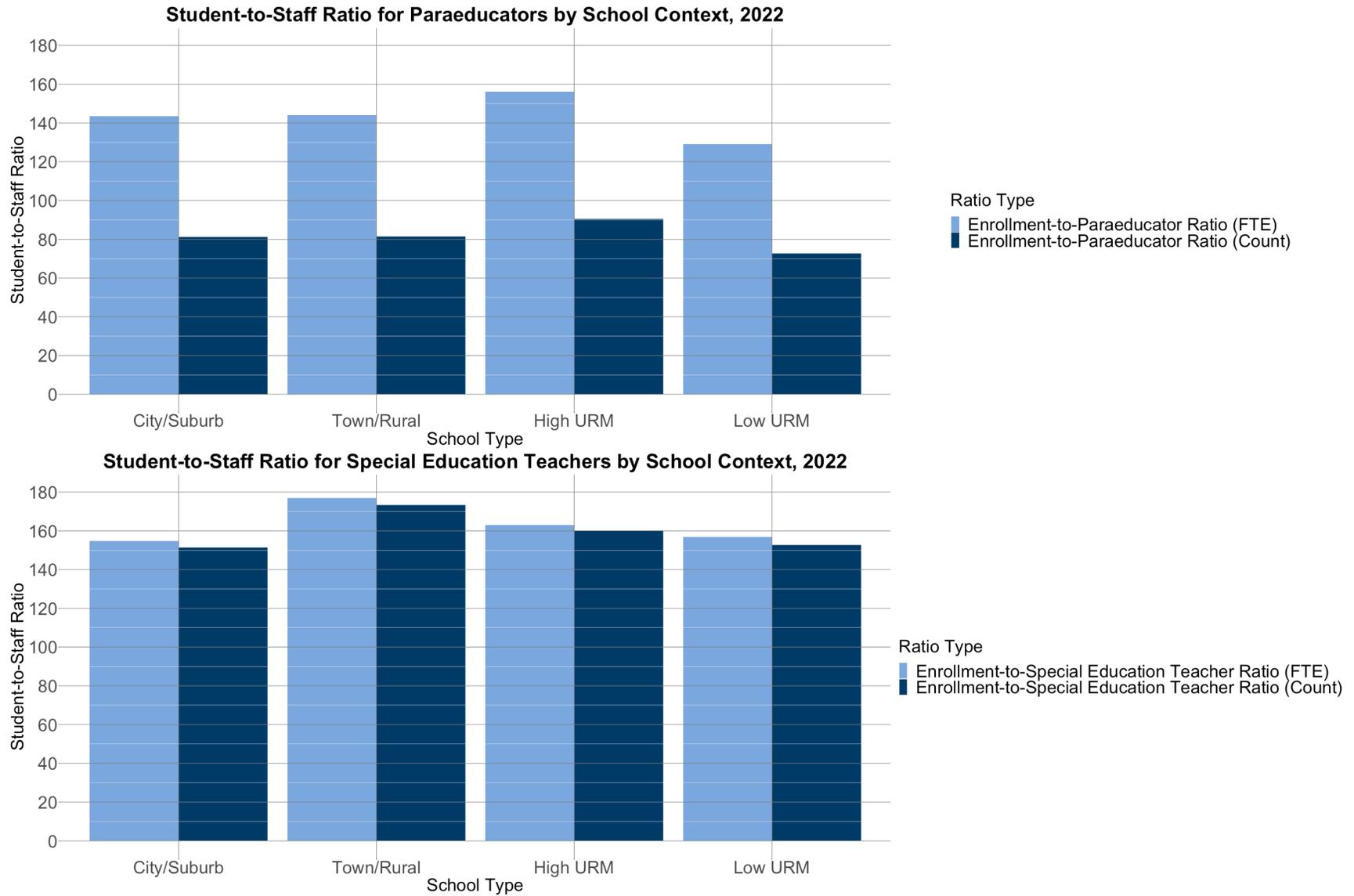
*Figure 10. Attrition and Mobility Rates for Paraeducators by School Context in 2022*



Paraeducator Attrition and Mobility Rates by School Context, 2022