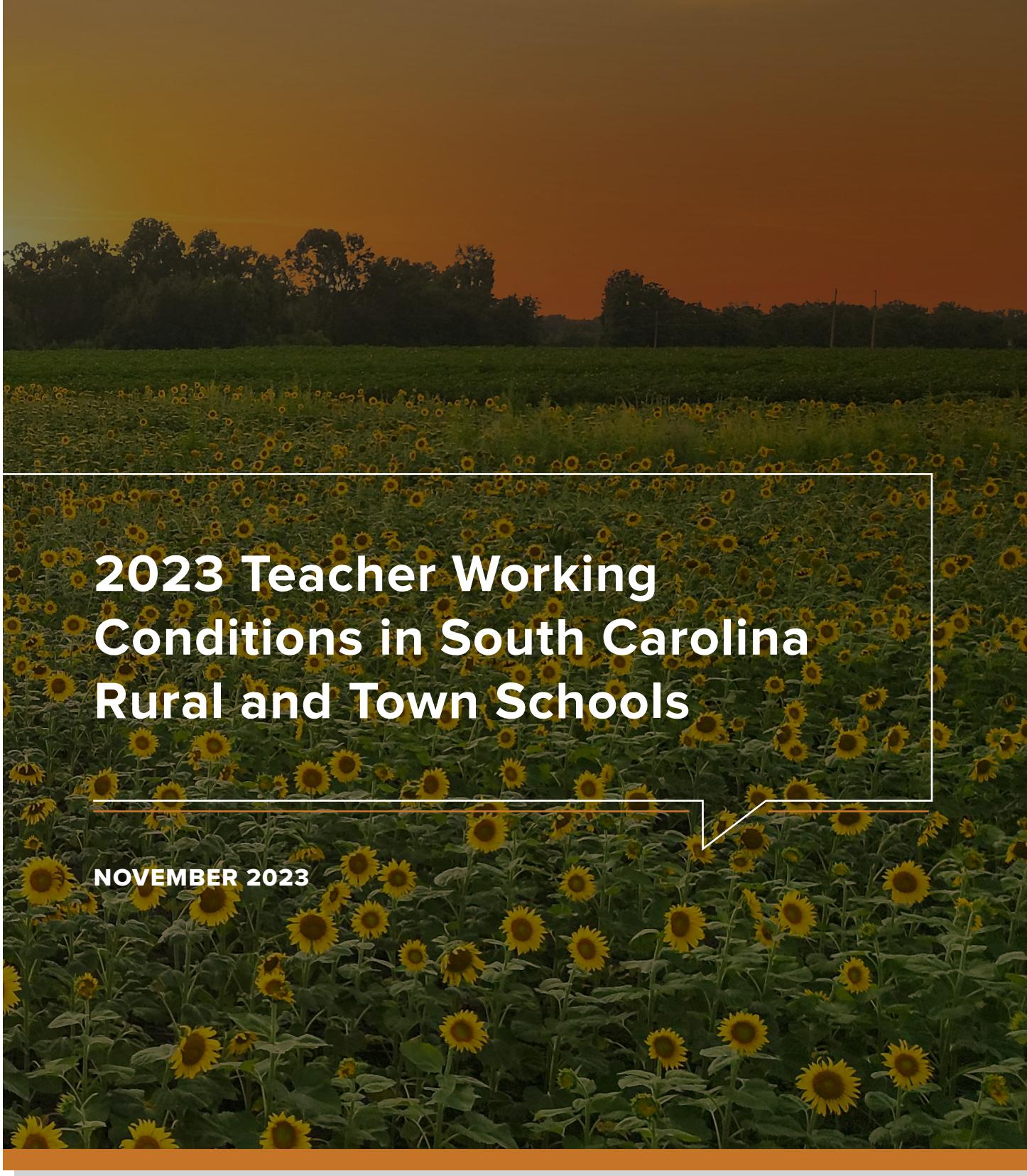
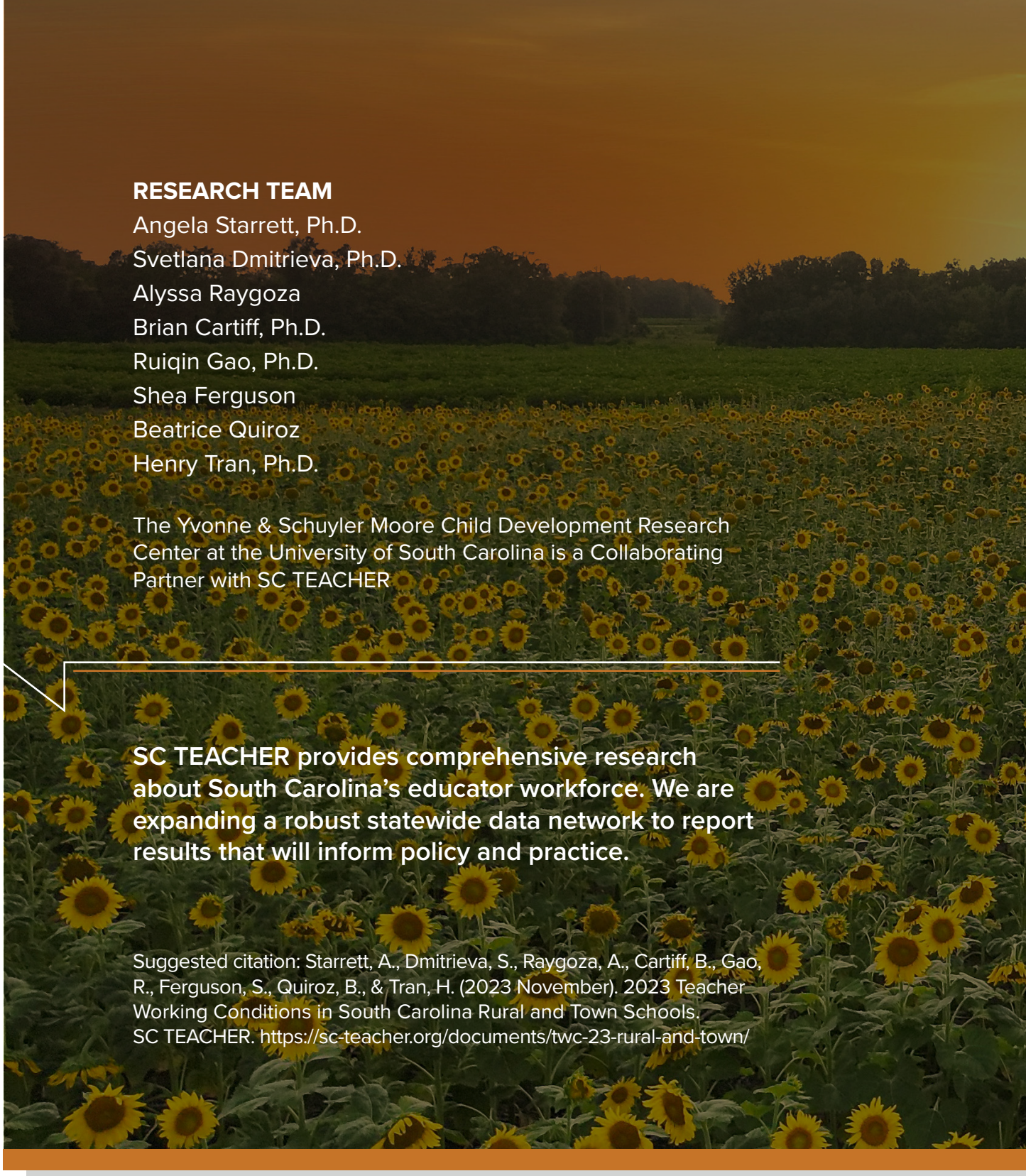


# 2023 Teacher Working Conditions in South Carolina Rural and Town Schools

**NOVEMBER 2023**

SC TEACHER

TEACHER WORKING CONDITIONS
SUPPLEMENTAL REPORT

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**SC TEACHER provides comprehensive research about South Carolina's educator workforce. We are expanding a robust statewide data network to report results that will inform policy and practice.**


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# Teacher Working Conditions in South Carolina Rural and Town Schools

## + SUMMARY


This report provides a thorough examination of town and rural schools (collectively referred to as nonmetropolitan schools) in South Carolina, using designations of town and rural from the National Center for Educational Statistics (NCES). The NCES framework, which defines schools as being located in cities, suburbs, towns, or rural areas, follows the U.S. Census Bureau's guidelines. It relies on factors like population size, where cities and suburbs are considered urban areas with many people (more than 50,000), towns are smaller urban clusters with fewer people (less than 50,000), and rural areas have very few residents (less than 5,000). Schools in urban clusters are given town designations, while those not in urban areas or clusters are rural. NCES also categorizes these schools based on how far they are from nearby cities or towns: close (fringe), somewhat removed (distant), or far away (remote). In South Carolina, around 53% of public schools are situated in town or rural areas. These schools serve approximately 350,000 students, which makes up about 44% of the total student population in the state. Additionally, nearly 23,000 teachers—44% of all teachers in South Carolina—are employed in these town and rural schools.

In spring 2023, SC TEACHER conducted the South Carolina Teacher Working Conditions Survey (SCTWCS) as required by Act 185 of the 2022–23 South Carolina state appropriations. This survey allowed educators to express their views on their schools' strengths and challenges. Based on the Job Demands-Resources model, the survey considered 11 working conditions, including four demands and seven resources. The demands were comprised of *amount of paperwork and routine duties, student engagement, student behavior,* and *student safety and health*. The resources were comprised of *administrative support, communication with principal, availability of resources, parent support, cooperation and recognition among staff, influence over school policy and decision-making roles,* and *autonomy in the classroom that supports state and local standards.*

This report offers in-depth profiles of town and rural schools by degree of remoteness by considering student diversity; students living in poverty; and local, state, and federal funding. We also compare teacher working conditions by locale and degree of remoteness to provide a better understanding of the similarities and differences in teachers' experiences in these educational settings. By considering both town and rural designations and levels of remoteness, SC TEACHER can analyze school profiles and teacher working conditions at a more nuanced level for in-depth considerations of policy implications.

## Key Takeaways Regarding Teacher Working Conditions in Town and Rural Schools in South Carolina

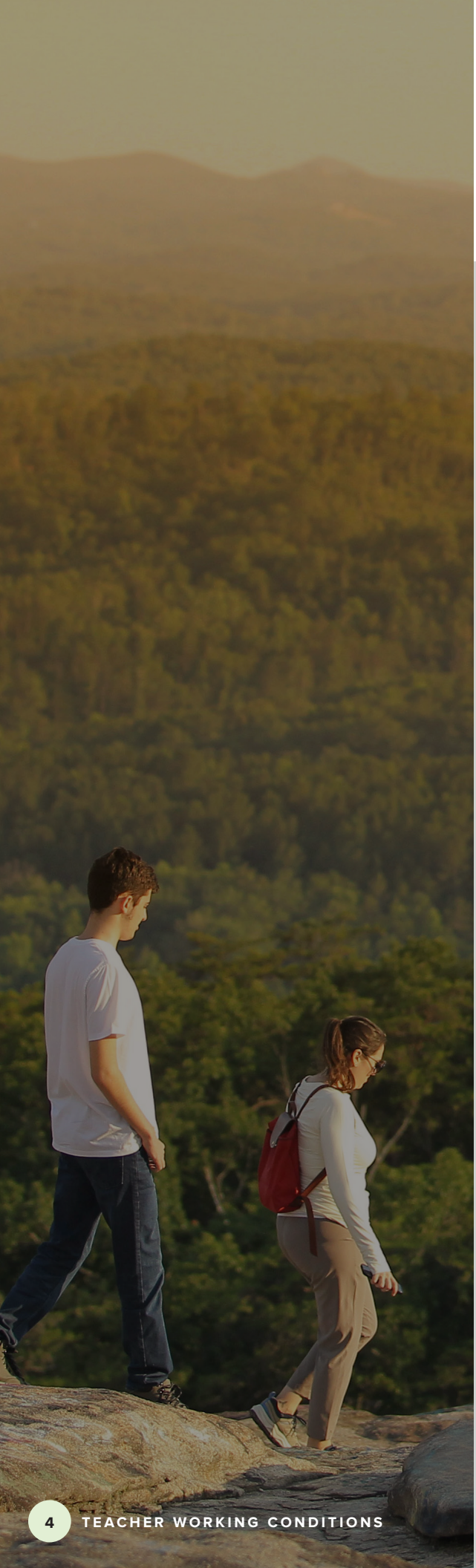
- Our results suggest that defining rural is more complicated than simply "not urban." Similarly, defining town is more complex than "urban." The findings in this report suggest that town and rural schools may be more similar than they are different.
- Teachers in both town and rural schools generally have similar access to resources, with the highest-rated resources being *communication with the principal, cooperation and recognition from staff,* and *autonomy in the classroom.*
- Regardless of locale or remoteness, teachers' perceptions of demands were relatively similar. However, teachers in town schools perceived higher demands, specifically in the area of *student behavior.*
- Despite similarities in teachers' perceptions of working conditions in town and rural schools, a significant discrepancy exists by degree of remoteness, particularly in terms of *autonomy in the classroom, student behavior,* and the *amount of paperwork and routine duties*. Teachers at more remote (non-fringe) town and rural schools perceived higher levels of *autonomy in the classroom*, better *student behavior*, and more favorable *amounts of paperwork and routine duties.*

## + INTRODUCTION

The quality of public education largely rests on the quality of the teaching workforce. Unfortunately, evidence has long supported the idea that teachers leave their profession at a much higher rate than most other occupations (Borman & Dowling, 2008). Additionally, global teacher attrition rates appear to have increased due to changing conditions during the COVID-19 pandemic (Dugger, 2021), and the resultant shortages are now a significant concern throughout the world (Amitai & Van Houtte, 2022; Booth et al., 2021). Recognizing that teacher turnover can negatively affect student achievement (Ronfeldt et al., 2013), as well as school culture and cohesion (Guin, 2004; Hanselman et al., 2014), educational researchers have recently increased their investigations of the factors that play essential roles in schools' retention or loss of teachers (García & Weiss, 2019).

The geographic location of the school appears to be one of those factors. For example, Carver and Darling-Hammond (2017) found that teacher attrition rates were highest in the South (16.7%) and lowest in the Northwest (10.3%) regarding broad geographic areas in the United States.

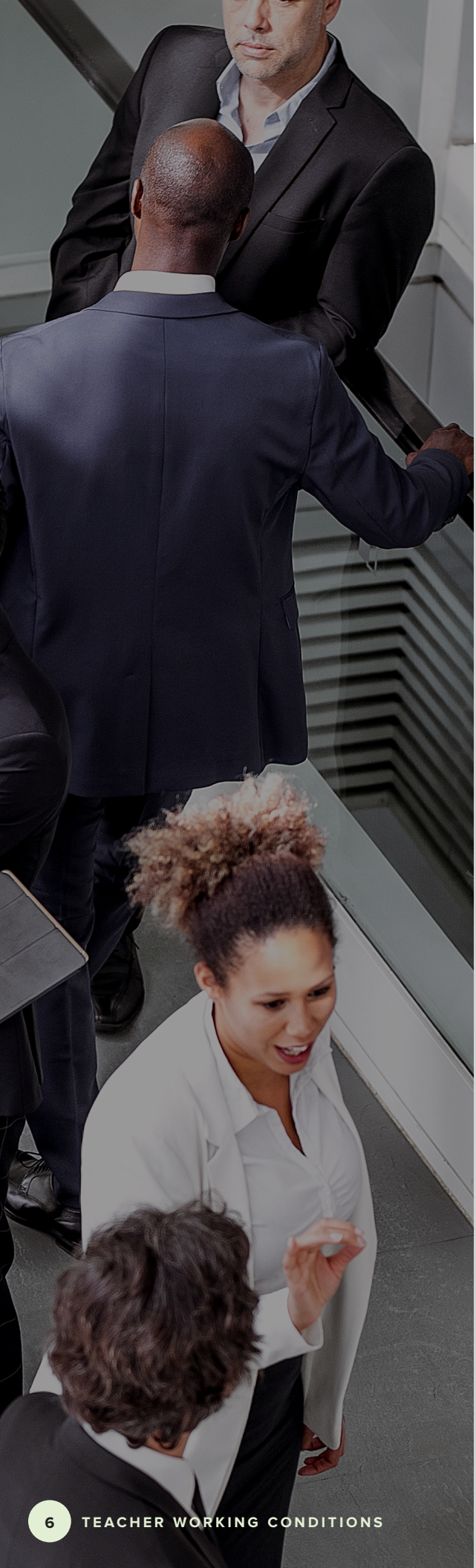
On a more refined level, scholars have recognized that the type of locale (i.e., city, suburb, town, rural) can also influence teachers' job satisfaction and their intentions to stay in their position (Ingersoll & Tran, 2023).



Teachers' perceptions of their career and work may vary across locales (i.e., city, suburb, town, rural) because of variable resources (e.g., community support) and demands (e.g., student engagement) they experience. Understanding these potential differences can, therefore, provide important insight into issues related to teachers' job satisfaction and turnover. The Job Demands-Resources (JD-R) model is a framework developed to identify precursors of work-related burnout and attrition due to imbalances in job demands and resources (Bakker & Demerouti, 2007; Skaalvik & Skaalvik, 2015). Demands represent stressors (e.g., student behavior, time pressures) that may lead to adverse outcomes (e.g., teacher burnout and turnover) if not managed effectively. In contrast, resources (e.g., cooperation with colleagues and administrative support) provide teachers with support that can enhance their daily experiences and buffer against the negative effects of job demands (Baker et al., 2005; Bottiani et al., 2019.) Research based on the JD-R model suggests that finding a balance between work demands and resources is essential for maintaining teaching engagement (Simbula et al., 2011), job satisfaction with one's position (Björk et al., 2019; Skaalvik & Skaalvik, 2017), teaching performance (Bottiani et al., 2019; van Wingerden et al., 2017), and ultimately student achievement (Collie & Martin, 2017). An imbalance with excessive demands and insufficient resources, however, can lead to stress (Bottiani et al., 2019), burnout (Skaalvik & Skaalvik, 2009), and attrition (Björk et al., 2019).

In spring 2023, SC TEACHER developed and administered the South Carolina Teacher Working Conditions Survey (SCTWCS), as mandated by Act 185 of the 2022–23 South Carolina state appropriations (S.C. General Assembly, 2022; Starrett et al., 2023). This instrument provided an opportunity for educators to share their perceptions of the specific strengths and challenges of their current schools. Analyses of the responses from the statewide survey illustrated significant differences between contexts, including differences in perceived working conditions between teachers in city schools and those in town schools (Starrett et al., 2023).

Such differences are critical to examine, especially as states often group town schools with city and suburban schools into a collective "urban" category. In contrast, the federal government previously combined town and rural schools into a single "nonurban" category but decided that town and rural schools were distinctly different and should be separated beginning in the 2007–08 school year (Ingersoll & Tran, 2023). Results from SCTWCS illustrating that town and city schools have important differences may indicate that South Carolina should follow a similar path (Starrett et al., 2023). However, it may be the case in South Carolina that town and rural schools share enough similarities to warrant being combined into a single category. These locale designations can have important implications on issues like funding. Some federal programs, such as the Rural Education Achievement Program (REAP), are designed to provide additional funding to rural schools.



## KEY QUESTIONS

Very little research exists comparing town and rural teachers, but several studies examine similarities and differences among students in these locations. Results highlight minimal differences between rural and town students but find significant differences in student outcomes by the degree of remoteness, which measures the isolation of rural and town settings from urban areas (Petrin et al., 2014; Puryear & Kettler, 2017). Additionally, one study found differences in the labor market of school administrators by level of remoteness (Yang et al., 2021). These findings indicate the need to include this variable in analyzing teachers' perceptions of their jobs and intentions to stay. Therefore, this report provides profiles and comparisons of town and rural schools (collectively called nonmetropolitan) throughout South Carolina, including by degree of remoteness, to better understand similarities and differences in teacher working conditions across these contexts.

This report addresses the following key questions:

1. What are the profiles of town and rural schools in South Carolina?
2. How do teachers in town and rural schools differ in their perceptions of working conditions?

## DEFINITIONS, DATA, VARIABLES, AND ANALYSES

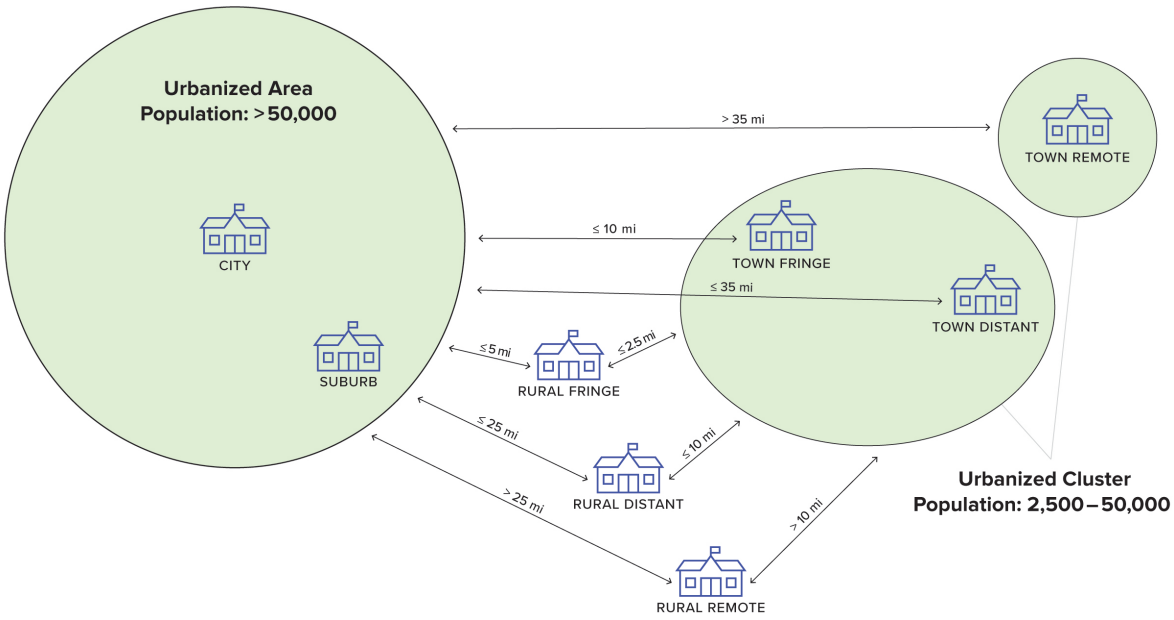
### DEFINITIONS

Contexts surrounding the definition of school locales can vary greatly. For example, Starrett et al. (2023) found meaningful differences between teachers' perceptions of working conditions across city and town schools in South Carolina. Therefore, in this study, we used the National Center for Education Statistics (NCES) locale framework that classifies all schools in the nation into one of four categories: city, suburban, town, and rural.

The NCES framework was based on the U.S. Census Bureau's definitions of *urban* and *rural*. These categories, therefore, are urban-centric (i.e., based on what is considered urban and not urban), and designations are derived from population counts, residential population density, and nonresidential land use. Based on these criteria, cities and suburbs are urbanized areas with a population of at least 50,000 people, towns have populations between 2,500 and 50,000 people and are designated as urbanized clusters, and rural areas are those falling outside of the urban measure (i.e., fewer than 2,500 residents). Therefore, schools inside urbanized clusters are identified as town schools, and schools located outside urbanized areas and urbanized clusters are classified as rural. Throughout this report, town and rural schools will be collectively referred to under the umbrella term of nonmetropolitan schools.

Additionally, in the NCES framework, town and rural schools are subdivided into fringe, distant, and remote categories. These designations are based on the distance from the school (in cases where there is a physical building) to the nearest urban area. For town schools, the designation is based on the school's distance from the closest urbanized area (i.e., city), with fringe schools being the closest to the city and remote being the furthest. For rural schools, these designations are based on the school's distance to either an urbanized cluster (i.e., town) or an urbanized area (i.e., city), whichever is closest. Figure 1 illustrates the distances from urbanized clusters and urbanized areas for different types of town and rural schools.

**Figure 1.** *Distances From Urbanized Clusters and Urbanized Areas for Different Types of Town and Rural Schools*



## DATA

This study used data from three different sources. School-level data was collected from the South Carolina School Report Cards and the NCES from the 2021–22 school year. Data on geographic location, student poverty level, and diversity was obtained for 668 town and rural schools in the state.

The third source of data (i.e., the South Carolina Teacher Working Conditions Survey) was part of a broader research project that examined South Carolina teachers' perceptions of their working conditions (Starrett et al., 2023). This teacher-level data was collected from 15,428 PK–12 classroom teachers from 44 school districts throughout the state in the spring of 2023. This study used a subsample of that dataset from 6,153 teachers working in 381 town and rural schools across 38 South Carolina districts.

## VARIABLES

The school-level variables included specific information on the school location. This data was used to create a binary code representing each school as either town or rural. This location information was also used to determine whether schools should be designated as fringe, distant, or remote, based on definitions of these terms by NCES and the school's distance to the closest urban area or cluster (i.e., fringe being closest and remote being furthest). Because of the relatively small number of remote schools in the sample, distant and remote schools were combined into non-fringe categories (i.e., town non-fringe, rural non-fringe).

Poverty level was also determined at the school level by examining the percentage of pupils-in-poverty (PIP) reported in the school report card data. Three levels of this variable were used. High-poverty schools were those designated in the highest quartile (i.e., top 25%) of PIP in the sample, and low-poverty were those in the lowest quartile (i.e., bottom 25%). Schools were designated as moderate-poverty if their PIP percentages were in the middle two quartiles (i.e., 25%–75%).

The last school-level variable included in this analysis was a diversity factor. Student race information from school report cards with total school enrollment numbers was used to calculate a percentage of non-White students to represent a continuous diversity variable for each school.

The working condition variables collected from SCTWCS included four demands and seven resources. The demands involved variables related to teachers' perceptions of *amount of paperwork and routine duties, student engagement, student behavior,* and *student safety and health*. The resources comprised variables related to teachers' perceptions of *administrative support, communication with principal, availability of resources, parent support, cooperation and recognition among staff, influence over school policy and decision-making roles,* and *autonomy in the classroom that supports state and local standards.*

All items on SCTWCS utilized a 5-point agreement scale, with higher scores representing greater levels of agreement, except in the case of *student behavior*, which was reverse-scored to align its scores with the other conditions. The scores for each domain (i.e., working condition) were averaged to facilitate interpretations and comparisons.

Additionally, teachers were presented with three open-ended questions about the challenges and supports they experienced at their schools during the 2022–23 school year. The responses to these items were analyzed by researchers who appropriately coded these segments as reflecting different resources and demands. In some cases, these segments were further subcoded into more specific categories (e.g., concerns about student absences and tardiness) to enhance their interpretability.

## ANALYSES

This report aims to provide information that can inform actions and policies that improve educational experiences and outcomes for all stakeholders in rural and town schools in South Carolina. Descriptive statistics were used to examine both key questions. Multilevel regression models were also used to explore the second key question. These multilevel models enabled us to consider that teachers working in the same schools may have more similar perceptions of the working conditions. For each question, we provide 1) a summary of the relevant data and analyses and 2) a comparison of the results to published research findings. A technical description of all research, including detailed descriptions of all statistical analyses, can be found in the Technical Appendix.

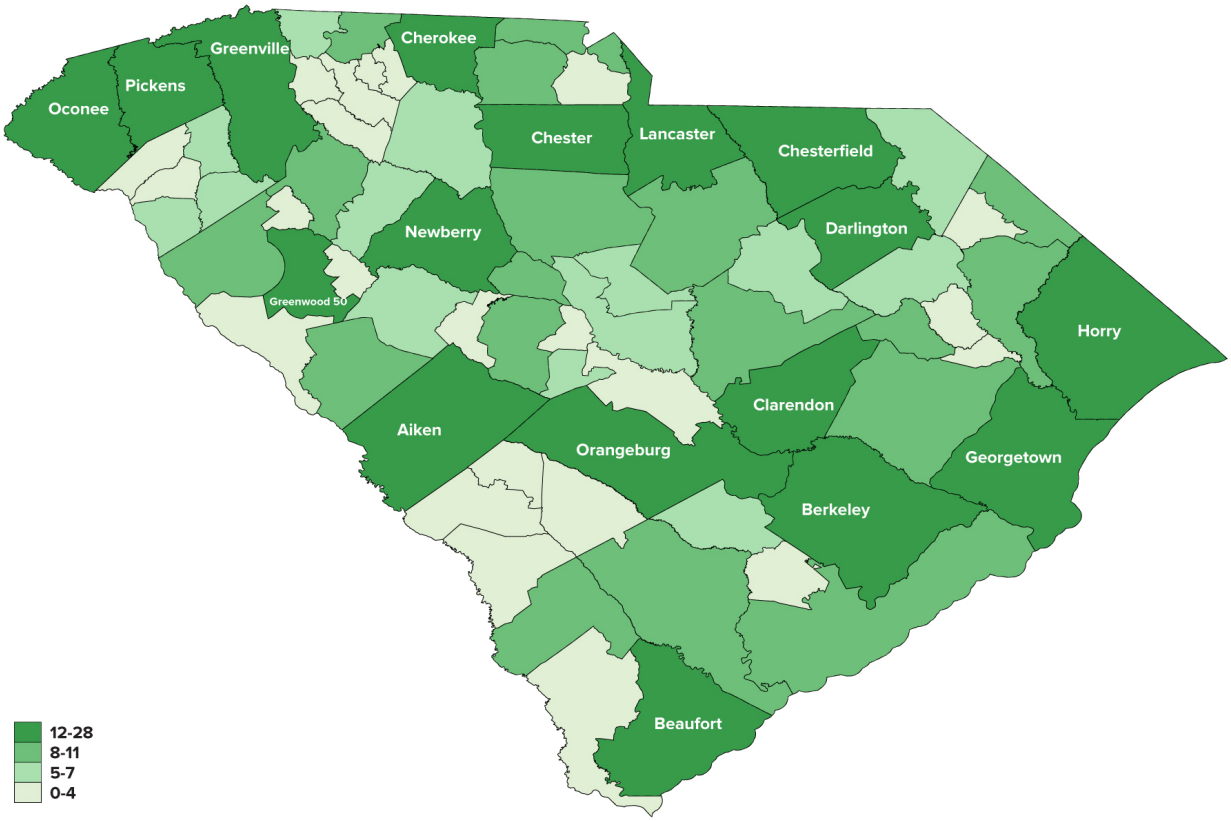
# Our Key Questions

## + KEY QUESTION 1:
## What are the profiles of town and rural schools in South Carolina?

To address Key Question 1, we examined the profiles of all nonmetropolitan (i.e., town and rural) schools based on remoteness, poverty levels, student body diversity, and school funding. There are 668 nonmetropolitan schools in South Carolina, representing more than 52% of all the schools in the state. Orangeburg, Horry, Beaufort, and Greenville are the four school districts with the largest numbers of nonmetropolitan schools. Figure 2 shows districts with higher and lower numbers of nonmetropolitan schools.

Although South Carolina has three major metropolitan areas (i.e., Charleston, Columbia, and Greenville), the state is largely comprised of towns and rural areas. In South Carolina, nearly 53% of all public schools are located in town or rural areas. Approximately 350,000 children (44% of the state total) attend these schools and almost 23,000 teachers (44% of the state total) work in these schools.

**Figure 2.** *School Districts With Higher and Lower Numbers of Nonmetropolitan Schools*




Of the 668 nonmetropolitan schools in South Carolina, more than 75% are designated as rural schools, and about 25% are located in towns. Most schools are classified as either fringe (51%) or distant (47%), with very few remote schools in Hampton, Newberry, and Orangeburg school districts.

Figure 3 shows the percentage of town, rural, and all nonmetropolitan schools in each poverty level category. Data on poverty levels reveal that most nonmetropolitan schools are categorized as schools with moderate and high poverty levels, with as few as 3% falling into the low poverty level category. The poverty level is higher in non-fringe schools than in fringe schools, suggesting poverty increases by the degree of remoteness.

**Figure 3.** *Percent of Nonmetropolitan Schools by Poverty Level*

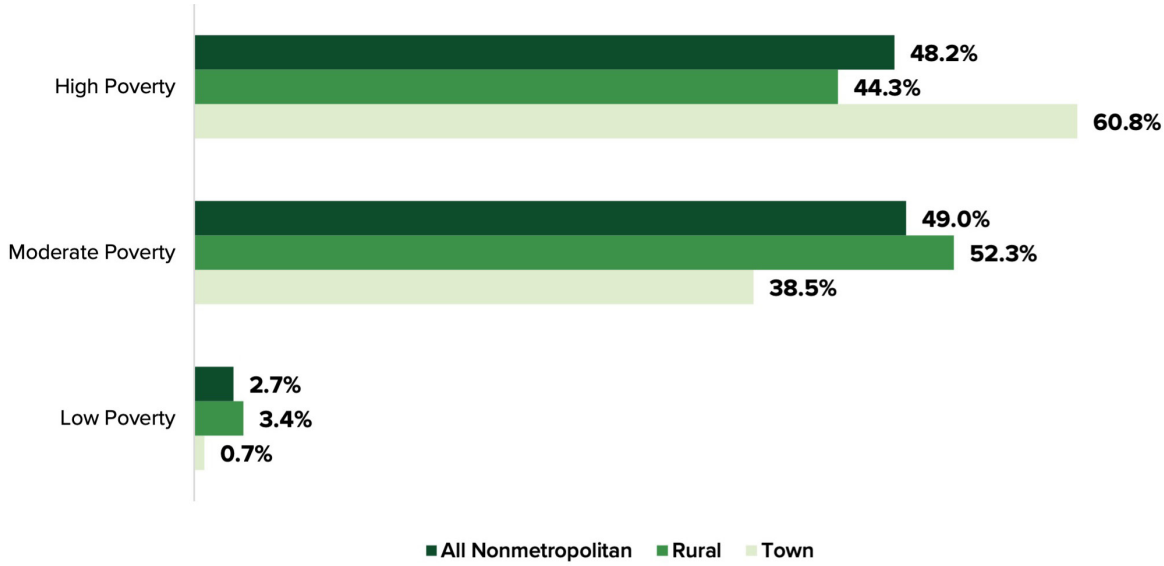
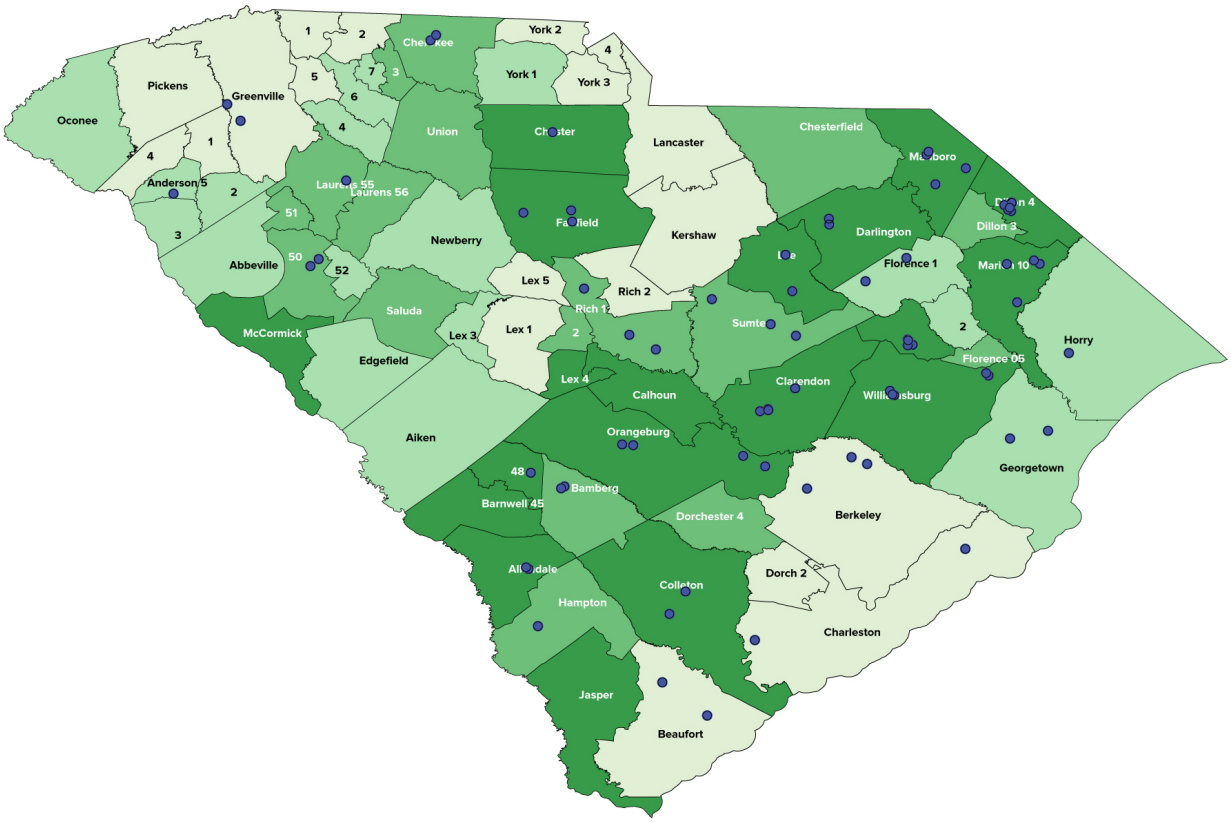



Figure 4 shows the locations of nonmetropolitan schools with more than 90% of students in poverty. Higher-poverty nonmetropolitan schools and districts tend to be located along the I-95 Corridor.

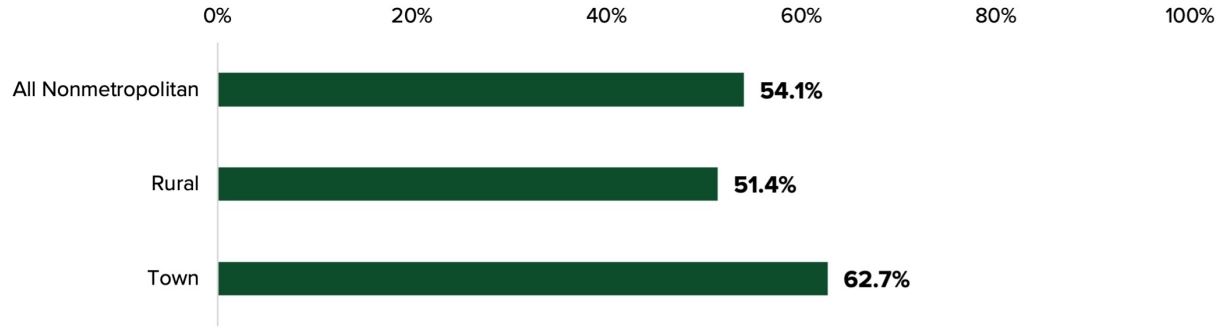
**Figure 4.** *Map of School Districts by Poverty Level*




*Note.* Darker shades represent districts with higher poverty levels. Blue circles represent schools with more than 90% of students in poverty.

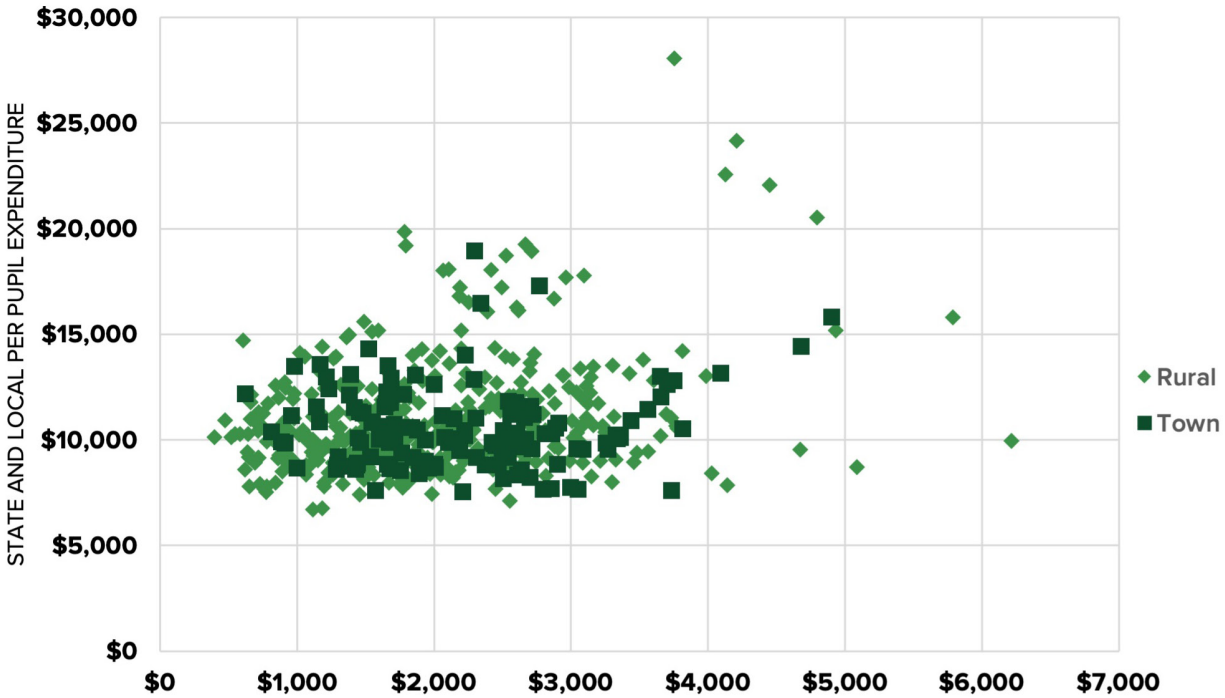
Nonmetropolitan schools have varying levels of diversity, with the percentage of non-White students ranging between 7% and 100%. More than half of all the nonmetropolitan schools in South Carolina are predominantly non-White. Figure 5 shows the percentage of non-White students for town, rural, and all nonmetropolitan schools. In most of these schools, Black students constitute the largest non-White racial group. At the same time, 10 predominantly Hispanic nonmetropolitan schools are located in Greenville, Charleston, Jasper, Laurens 55, and Saluda school districts.

**Figure 5.** *Percent of Non-White Students in Nonmetropolitan Schools*




Regarding school funding, we examined the available data from 552 nonmetropolitan schools (421 rural and 131 town schools) and found that the state and local per pupil expenditure for nonmetropolitan schools varies between $6,707 and $28,069, and the federal per pupil expenditure ranges from around $399 to $6,215. Fringe nonmetropolitan schools have lower federal and state/local per pupil expenditures than non-fringe schools. Figure 6 shows federal and state/local funding for rural and town schools.

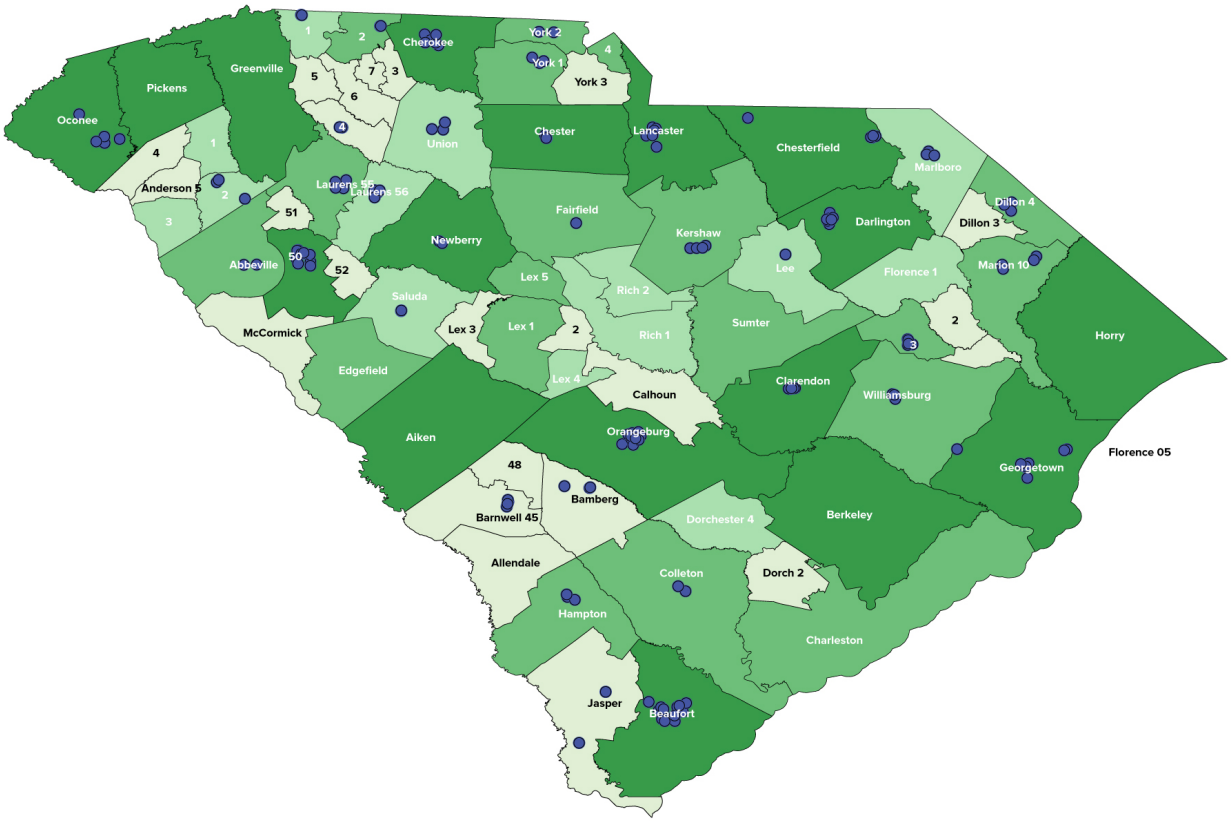
**Figure 6.** *Scatterplot of Federal and State/Local per Pupil Expenditure for Nonmetropolitan Schools in U.S. Dollars*



## Profile of Town Schools in South Carolina

Figure 7 shows the locations of town schools throughout the state. This map indicates some districts with large numbers of nonmetropolitan schools, which are exclusively rural. School districts with the greatest number of town schools are Beaufort (11 town schools), Greenwood 50 (nine town schools), Lancaster (nine town schools), and Orangeburg (nine town schools). Most town schools in South Carolina are classified as non-fringe schools.

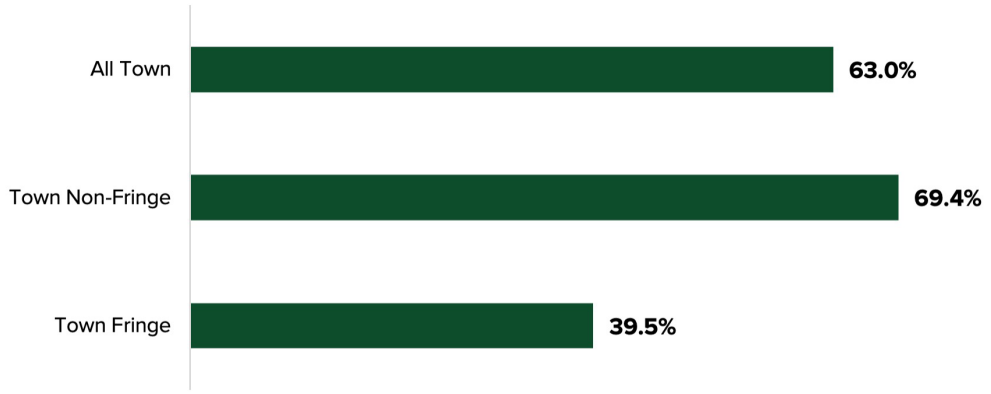
**Figure 7.** *Locations of Town Schools*




*Note.* Darker shades represent districts with a greater number of nonmetropolitan schools. Blue circles represent town schools.

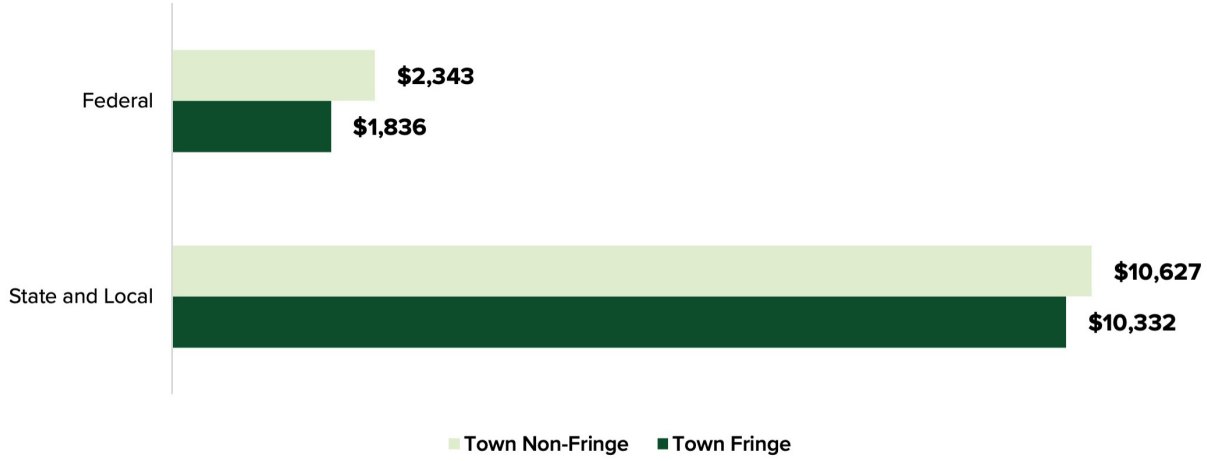
More than three out of four students attending town schools live in poverty, with town non-fringe schools having a higher percentage of students in poverty (80%) than town fringe schools (64%). Figure 8 shows that the student population in town schools is also diverse, with schools averaging more than 60% non-White students. Town non-fringe schools are more diverse than town fringe schools, with an average difference of 30%.

**Figure 8.** *Percent of Non-White Students in Town Schools*




On average, the difference in town fringe and non-fringe schools' state and local per pupil expenditure funding is approximately 2.8%, with non-fringe schools receiving slightly more funding. Town fringe schools have less variability in the distribution of funding at the state and local levels. Town schools receive $2,222 in federal per pupil funding. On average, federal per pupil funding for town fringe schools is approximately 21.7% less than for town non-fringe schools.

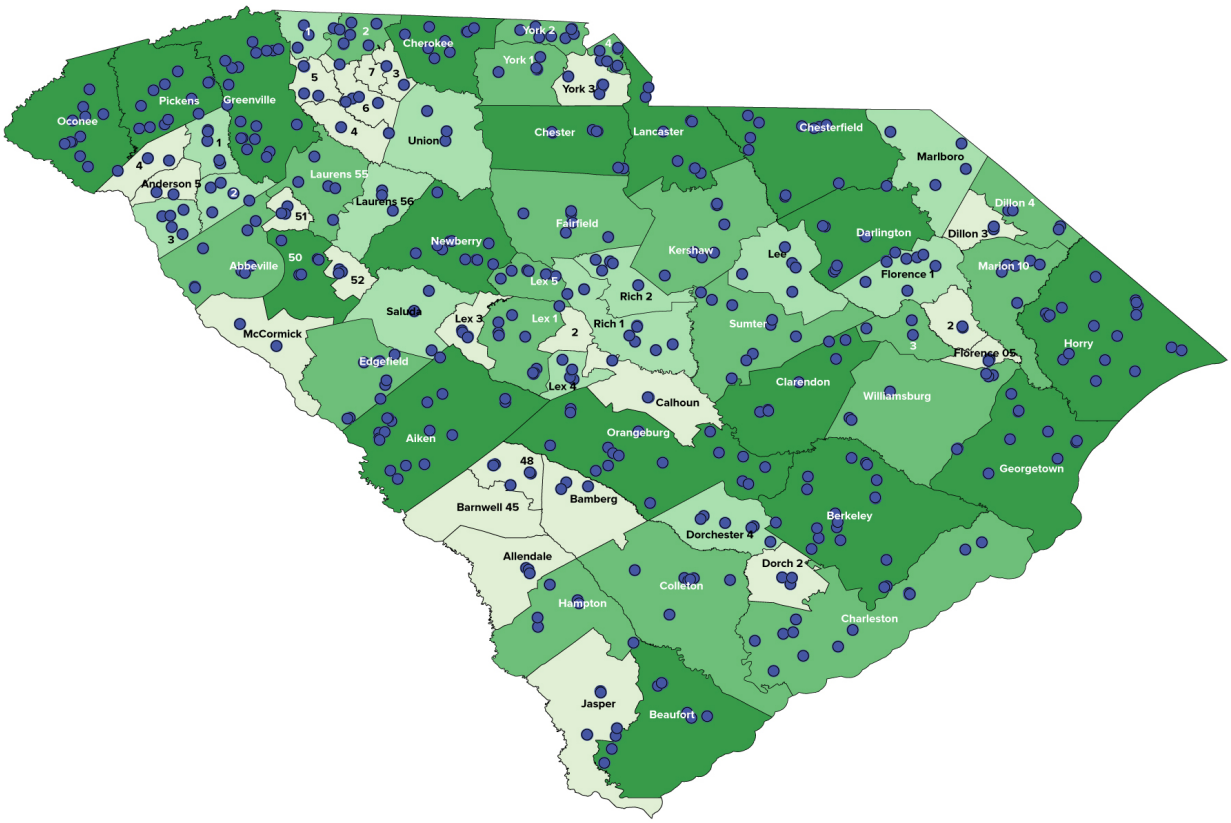
**Figure 9.** *Per Pupil Expenditure in U.S. Dollars in Town Schools*



## Profile of Rural Schools in South Carolina

Figure 10 shows the locations of rural schools in South Carolina. The majority of districts in the state have some rural schools, with just a few exceptions (e.g., Lexington 2). Aiken, Berkeley, Greenville, Horry, and Orangeburg school districts have the largest numbers of rural schools. Most rural schools in South Carolina are classified as fringe schools.

**Figure 10.** *Locations of Rural Schools*



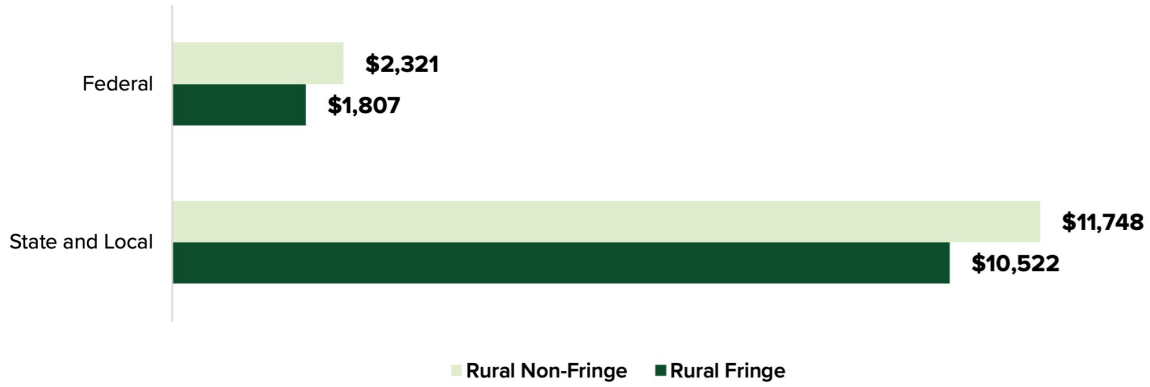

*Note.* Darker shades represent districts with a greater number of nonmetropolitan schools. Blue circles represent rural schools.

On average, rural schools have about 70% of students in poverty, with rural non-fringe schools showing a higher poverty index (76%) compared to rural fringe schools (64%). Figure 11 highlights the diversity in rural schools, with half comprised of more than 50% non-White students. Similar to the pattern observed among town schools, rural non-fringe schools are more diverse than their fringe counterparts. However, this difference is relatively small.

**Figure 11.** *Percent of Non-White Students in Rural Schools*

On average, rural schools' state and local per pupil expenditure is relatively higher than funding in town schools by a difference of approximately 4%. Comparing funding by remoteness, rural non-fringe schools have the highest average funding from state and local sources. Additionally, looking at both state and local levels of funding, data reveals there is more variability in expenditures for rural schools. On the federal level, rural schools receive an average of $2,008 per student in funding. Considering the remoteness factor, rural fringe schools receive approximately 22.2% less federal money per student than rural non-fringe schools.

**Figure 12.** *Per Pupil Expenditure in U.S. Dollars in Rural Schools*




### Relationship Between Profiles of South Carolina Rural and Town Schools and Published Studies

Many studies have emphasized that research on rural education is complicated by the variation between rural schools (Greenough & Nelson, 2015; Showalter et al., 2019). Differences in proximity to urban centers, types of industry present in the community, student body diversity, and student poverty rates are among the characteristics contributing to the variation among rural schools. Similarly, our analysis shows that South Carolina nonmetropolitan schools vary greatly in proximity to urban spaces and student diversity.

Rural schools in South Carolina have one of the nation's highest enrollments of students of color (Showalter et al., 2019). Our examination of more recent data from 2021–22 is well-aligned with this observation: More than half of all the nonmetropolitan schools in South Carolina have predominantly non-White student bodies. Nationwide, Hispanic students have become a key population in shifting the demographic landscape of rural schools (Means & Sansone, 2021). South Carolina may be experiencing a similar trend, with several predominantly Hispanic nonmetropolitan schools.

Nationally, rural schools continue experiencing challenges due to high levels of student poverty (Lavalley, 2018; Showalter et al., 2019). Similarly, South Carolina nonmetropolitan schools have large percentages of impoverished students, especially in non-fringe locations. Previous research showed that students in distant and remote schools were more economically disadvantaged than those attending fringe schools (Greenough & Nelson, 2015). Our findings suggest a higher percentage of students in poverty in both town and rural non-fringe schools than in fringe nonmetropolitan schools in South Carolina.

Rural districts tend to have higher costs for student transportation, infrastructure, special education, and English language learner services (Dhaliwal & Bruno, 2021). These increased costs lead many states to provide rural districts with greater funding (Showalter et al., 2019). Provasnik and colleagues (2007) compared differences in funding between rural and nonrural districts using national data showing that rural low-poverty districts had higher per pupil expenditures than rural high-poverty districts. Dhaliwal and Bruno (2021) found differences in per pupil expenditure among rural fringe, distant, and remote schools in California, with remote schools having the highest per pupil expenditure. We observed a similar pattern in nonmetropolitan schools in South Carolina, with non-fringe schools having higher per pupil expenditures.

## + KEY QUESTION 2:

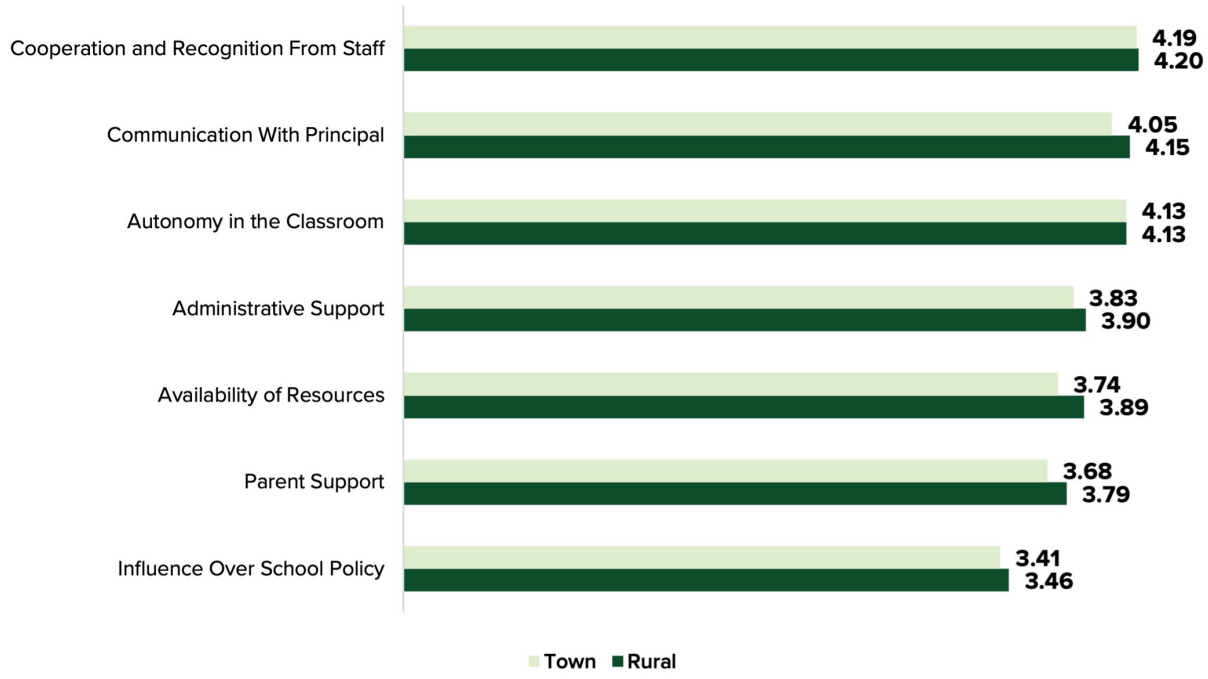
### How do teachers in town and rural schools differ in their perceptions of working conditions?

For Key Question 2, we examined teachers' perceptions of working conditions (seven resources and four demands) in South Carolina's nonmetropolitan schools using multilevel regression. Multilevel regression considers that data is nested in different levels, like teachers in schools. This approach helps understand how, for example, teachers in the same school can influence each other instead of assuming they are all independent. Before conducting the analyses, we examined the variation between schools and found that, while it was relatively small, it still warranted multilevel modeling. This decision was further supported by calculating the design effect. When the design effect is less than 2.0, multilevel modeling is recommended, especially if researchers want to understand higher-level factors like the school's influence. Our design effect values ranged from 1.3 to 3.0, depending on the specific resource or demand. Since locale and remoteness relate to the school level, our models focused on explaining differences at the school level only. Additionally, profiles of rural and town schools in Key Question 1 highlight the significant role of school poverty and diversity in nonmetropolitan schools in South Carolina. Therefore, we included school poverty and diversity as control variables throughout these analyses to help us understand the role of locale or remoteness without interference from these variables. A technical description of all statistical analyses and results can be found in the Technical Appendix.

#### Teachers' Perceptions of Working Conditions Between Rural and Town Schools

Key Question 2 compares working conditions between rural and town schools. Figure 13 illustrates that teachers in rural and town schools had similar access to resources, with *communication with the principal, cooperation and recognition of staff,* and *autonomy in the classroom* rated the highest.

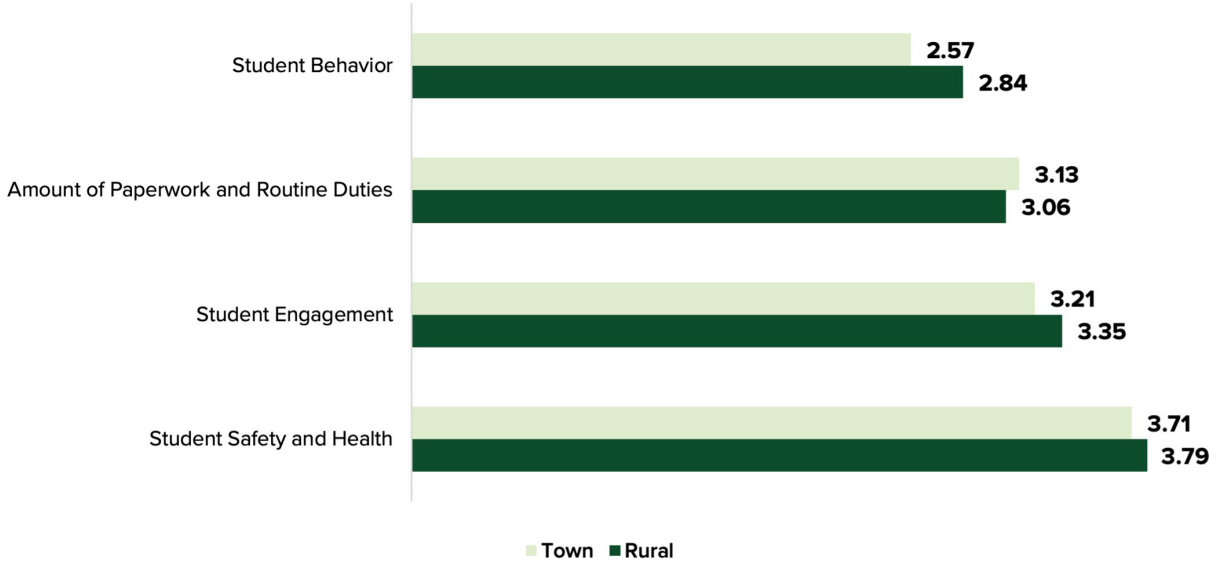
**Figure 13.** *Teachers' Perceptions of Resources Between Town and Rural Schools*




*Note.* Higher scores indicate higher levels of agreement and, therefore, areas of greater access to resources.

Figure 14 demonstrates that teachers in rural and town schools experienced relatively similar demands. In both locations, teachers noted greater demands from *student behavior* and the *amount of paperwork and routine duties.* However, teachers in town schools perceived higher demands from *student behavior* than those in rural schools.

**Figure 14.** *Teachers' Perceptions of Demands Between Town and Rural Schools*




*Note.* Lower scores indicate lower levels of agreement and, therefore, areas of greater concern about demands.

Multilevel regression revealed only one significant difference between town and rural teachers' working conditions above and beyond the effect of school poverty. A statistically significant difference between town and rural teachers was noted in the perceptions of *student behavior.* Teachers from town schools perceived *student behavior* as significantly worse.

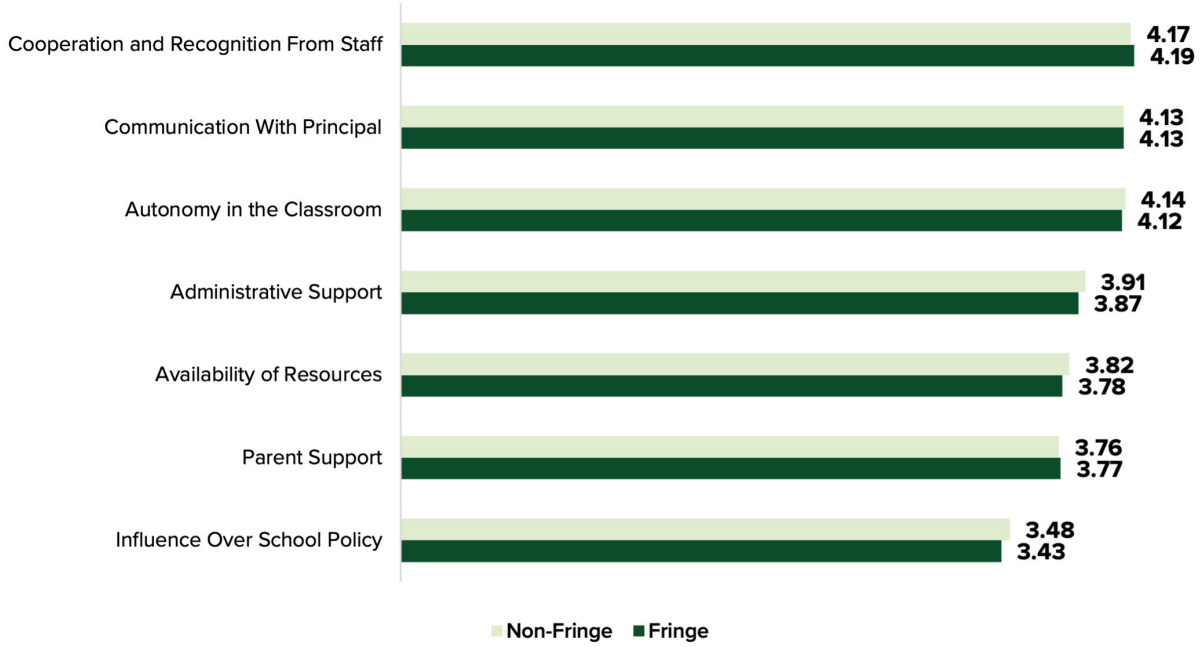
This finding was supported by an analysis of the open-ended items, which revealed that town teachers discussed *student behavior* issues proportionally more than rural teachers in their answers to open-ended questions. However, much of the qualitative analyses did not match the quantitative comparative analysis between town and rural teachers. For example, frequency analyses of qualitative responses indicated that rural school teachers discussed issues related to the *amount of paperwork, autonomy in the classroom,* and *student engagement* proportionally more than town school teachers, a finding that did not show up in the quantitative analysis. These qualitative findings may indicate meaningful differences that were not captured by the objective items. However, they may also be artifacts of summing and calculating frequencies of teacher comments that are meaningfully different. For example, students assaulting a teacher and students being late to class were both classified as concerns about student behavior but are qualitatively and notably different.

To better understand the demand of *student behavior*, we further subcoded and analyzed the comments to see how many of them referred to issues of *student mobility* (i.e., students enrolling or disenrolling during the school year) versus *absences, tardies, and truancies*. Our analysis revealed that rural teachers discussed *student mobility* more frequently than town educators. Conversely, teachers at town schools expressed their concern with *absences, tardies, and truancies* proportionally more.

### Teachers' Perceptions of Working Conditions Between Fringe and Non-Fringe Schools

Teacher perceptions were compared between fringe and non-fringe schools. Much like the town and rural comparison, Figure 15 shows that teachers in fringe and non-fringe schools had similar access to resources. Regardless of remoteness, the resources of *communication with the principal, cooperation and recognition of staff,* and *autonomy in the classroom* were rated the highest.

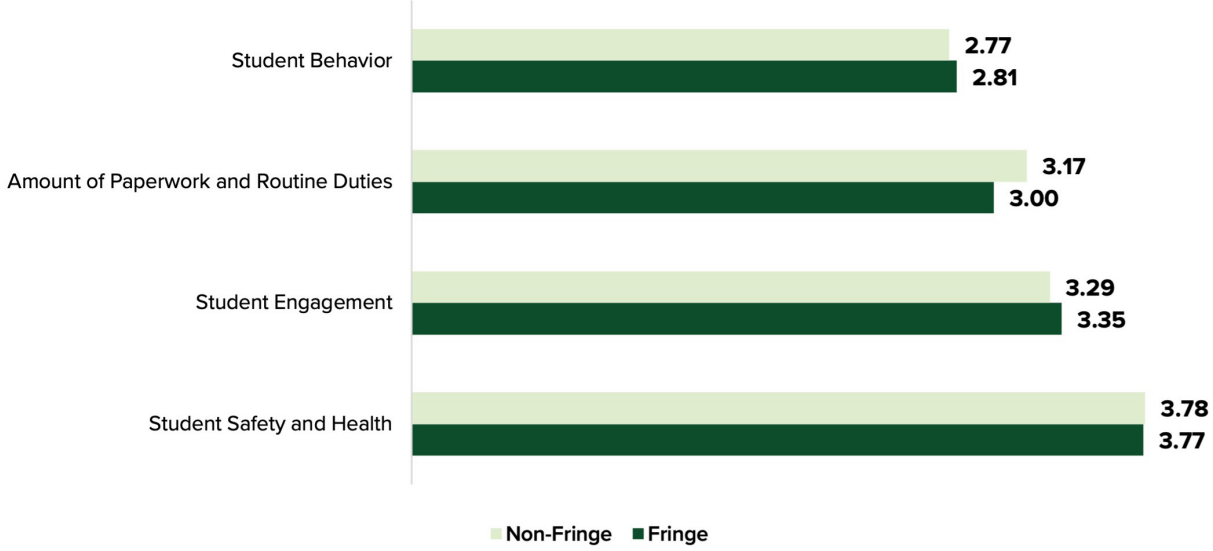
**Figure 15.** *Teachers' Perceptions of Resources Between Fringe and Non-Fringe Schools*




*Note.* Higher scores indicate higher levels of agreement and, therefore, areas of greater access to resources.

Figure 16 highlights that teachers in fringe and non-fringe schools also experienced relatively similar demands. Regardless of remoteness, teachers noted greater demands from *student behavior* and the *amount of paperwork and routine duties*. However, teachers in more remote schools perceived less demand from the *amount of paperwork and routine duties* than those in fringe schools.

**Figure 16.** *Teachers' Perceptions of Demands Between Fringe and Non-Fringe Schools*




*Note.* Lower scores indicate lower levels of agreement and, therefore, areas of greater concern about demands.

Multilevel regression revealed a few significant differences between fringe and non-fringe teachers' working conditions above and beyond the effect of school poverty. Specifically, regarding resources, teachers in non-fringe schools perceived having significantly higher levels of *autonomy in the classroom* in comparison to teachers working in fringe schools. Teachers in fringe and non-fringe schools differed in their perception of *student behavior*, with teachers working in non-fringe schools rating the behavior of their students significantly higher. These teachers also differed in their perceptions of the *amount of paperwork and routine duties*, with teachers in non-fringe schools more favorably perceiving the amount of time for such work.

In examining the open-ended items across fringe and non-fringe contexts, we found that teachers in fringe schools discussed challenges more frequently than their non-fringe counterparts. The greatest difference (almost 20%) appeared in their comments about *autonomy in the classroom*. On the other hand, while comments about *student behavior* were the most frequent among both groups, they were basically made by the same percentage of the teacher populations across contexts. As an additional reminder, caution should be taken in interpreting these frequency results as they may be missing important nuances.

Again, we considered the *student behavior* subcodes of *student mobility* (i.e., students enrolling or disenrolling during the school year) and *absences, tardies, and truancies*. Examining these comments with regard to remoteness revealed that educators at fringe schools appeared to be more concerned about *student mobility* than those in non-fringe contexts. However, there was no substantial difference in the frequency of comments about *absences, tardies, and truancies* among these two groups of teachers.

### Relationship Between South Carolina Teachers' Perceptions of Working Conditions Across Town and Rural Locales and Published Studies

There is a dearth of research analyzing the differences between teachers' working conditions across locales. There appears to be none based on relative remoteness (i.e., fringe, distant, remote) and nominal ones comparing town and rural locales. This is likely because, as discussed previously, town schools have frequently been grouped with either city and suburban schools in an "urban" category or they have been combined with rural schools, as the United States federal government previously did. Those studies that do exist may additionally lack clarity. For example, Smith et al. (1996) presented comparisons of working conditions such as class size and number of classes, but the authors grouped large-town schools with urban fringe and city schools together, while also grouping rural and small-town schools together.

Smith et al. (1996) is a bit dated, but much of the more recent comparative literature on teacher working conditions follows a similar route. For instance, Hanushek & Rivkin (2007) overtly compared only urban, suburban, and rural schools as distinct categories. They only mentioned town schools once in a way that seemed to imply they, too, grouped small-town schools with rural ones. Other published studies solely compare urban and rural teachers (e.g., Ladd, 2011).

The most apt research comes from an NCES study published more than fifteen years ago (i.e., Provasnik et al., 2007). The authors of this report compared the "percentage of public school teachers who reported potential problems as 'serious problems' in their schools" (Provasnik et al., 2007, p. 103) across the locale of school (i.e., city, suburban, town, and rural). Some of these "problems" included working conditions like parental support, student engagement (which the authors framed as student apathy), student behavior, and poverty. A little less than 20% of teachers in town and rural schools thought parental involvement was a problem, but there was no measurable difference based on locale. This finding matches the results found in our study. With regard to student engagement, a smaller percentage of public school teachers in rural schools (15.0%) reported concerns compared to town school teachers (16.8%). This does not match our findings, as we saw no significant differences based on locale for student engagement. Provasnik et al. (2007) looked at student behavior but broke it down into several subcategories (i.e., disrespect of teachers, bullying, physical conflicts with other students, verbal abuse of teachers, and disorder in classrooms). The teachers in rural schools reported all these phenomena less frequently than town school educators, but the differences were only meaningful with regard to physical conflicts (7% vs. 9%) and bullying (15% vs. 17%), and these differences were still relatively small. These past findings were similar to the data presented in this report.

## + CONCLUSIONS

This report offers a comprehensive overview of nonmetropolitan schools in South Carolina, encompassing both town and rural schools. It includes profiles and comparisons, considering the level of remoteness, in order to gain insight into the commonalities and distinctions in teacher working conditions within these settings. Key Question 1 revealed several significant findings related to town and rural schools in South Carolina:

- Distribution of Nonmetropolitan Schools: South Carolina has 668 nonmetropolitan schools, which make up more than 52% of all schools in the state. The majority of these schools are designated as rural, with only about 25% located in towns. Most of the nonmetropolitan schools are categorized as either "fringe" or "distant," and there are very few "remote" schools.

- School Poverty: The data indicates that many nonmetropolitan schools, particularly non-fringe schools, have moderate to high poverty levels. Only a small percentage falls into the low poverty category. Additionally, the level of poverty tends to increase with the degree of remoteness.

- Student Body Diversity: Nonmetropolitan schools in South Carolina exhibit varying levels of diversity, with the percentage of non-White students ranging from 7% to 100%. More than half of these schools are predominantly non-White, with Black students being the largest non-White racial group in most of these diverse schools. There are also ten predominantly Hispanic nonmetropolitan schools in certain districts.

- School Funding: School funding in nonmetropolitan schools varies significantly, with state and local per pupil expenditures ranging from $6,707 to $28,069 and federal per pupil expenditures ranging from about $399 to $6,215. Fringe nonmetropolitan schools tend to have lower federal and state/local per pupil expenditures compared to non-fringe schools.

- Profile of Town Schools: Town schools are mostly non-fringe schools, with a significant portion of students living in poverty. These schools are diverse, with more than 60% non-White students on average. Town non-fringe schools tend to have a higher percentage of students in poverty compared to town fringe schools. The difference in state and local per pupil funding between these two types of schools is approximately 2.8%, with non-fringe schools receiving slightly more funding. Town fringe schools have less variability in funding distribution at the state and local levels, and they receive $2,222 in federal per pupil funding, which is approximately 21.7% less than town non-fringe schools.

- Profile of Rural Schools: The majority of South Carolina districts have some rural schools. These schools are mostly classified as fringe schools and have an average of about 70% of students living in poverty. Rural non-fringe schools have a higher poverty rate (76%) compared to rural fringe schools (64%). Approximately half of rural schools are comprised of more than 50% non-White students. On average, rural schools receive higher state and local per pupil funding compared to town schools, with a difference of approximately 4%. Rural non-fringe schools receive the highest state and local funding among town and rural schools. However, there is more funding variability in rural schools at the state and local levels. On the federal level, rural schools receive an average of $2,008 per student, with rural fringe schools receiving about 22.2% less federal funding per student compared to rural non-fringe schools.

Key Question 2 revealed significant differences in teachers' working conditions in town and rural schools. The findings provide an important understanding regarding the relative resources and demands that teachers experience. Based on both qualitative and quantitative analyses of teacher perceptions of all 11 working conditions, there were several notable findings:

- Teachers in both town and rural schools reported similar access to resources. In both settings, the highest-rated resources were *communication with the principal, cooperation and recognition from staff,* and *autonomy in the classroom*. The results for teachers in fringe and non-fringe schools mirrored those of town and rural teachers.

- Regardless of locale or remoteness, teachers experienced relatively similar demands. Teachers in town schools perceived higher demands, specifically in the area of *student behavior*. Teachers in more remote schools (non-fringe) perceived fewer demands in the area of *amount of paperwork and routine duties* compared to teachers in fringe schools.
- The primary significant difference between teachers in town and rural schools was related to their perceptions of *student behavior*. Teachers from town schools perceived *student behavior* as significantly worse than their rural counterparts. Qualitative data analysis supported this finding, as town teachers discussed *student behavior* issues more frequently in their open-ended responses. The qualitative analysis revealed some differences that were not captured in the quantitative comparative analysis. For instance, while quantitative analysis showed that town teachers perceived worse *student behavior*, the qualitative analysis indicated that rural teachers discussed issues related to paperwork, classroom autonomy, and student engagement more frequently. This suggests there may be nuances not captured by quantitative data.
- Non-fringe teachers perceived higher levels of *autonomy in the classroom*, better *student behavior*, and more favorable *amounts of paperwork and routine duties*. Qualitatively, teachers in fringe schools discussed challenges more frequently, particularly in terms of *autonomy in the classroom*. However, comments related to *student behavior* were made by similar percentages of teachers in both fringe and non-fringe schools.

In conclusion, the findings of this report provide a more nuanced understanding of town and rural schools, as well as the teacher working conditions within those schools. Our results suggest that defining rural is more complicated than simply "not urban." Similarly, defining town is more complex than "urban." The findings in this report suggest that town and rural schools may be more similar than they are different. Furthermore, teachers in these schools experience similar demands and resources. However, we find differences when we consider how far away the school is from a city or town. Research has shown that rural fringe schools often belong to urban districts and can have access to more resources, such as higher salaries (Miller, 2012). Nevertheless, results from SCTWCS suggest teachers at non-fringe town and rural schools benefit from greater classroom autonomy and fewer demands. Differences between fringe and more remote town and rural schools suggest that analyzing these schools under a generic "town" or "rural" label may overlook crucial distinctions. These findings can further inform considerations of policy related to funding designation for schools and the development of strategies for school improvement and teacher retention.

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## + TECHNICAL APPENDIX

This appendix details the data analysis procedure. All of the relevant definitions, statistical methods, measures, and results are detailed here.

### Data Sources

Two data sources were used for the analyses conducted in this study. For Key Question 1, we included school-level data from the South Carolina School Report Cards for the 2021–22 school year. There were 1,269 schools that received report cards. Schools in the data were categorized by their geographic location based on National Center for Education Statistics (NCES) categories (city, suburban, town, and rural). For this study, we analyzed data from the 668 schools that were designated by NCES as either town or rural schools.

For Key Question 2, we used a subsample of the data collected in the spring of 2023 from the South Carolina Teacher Working Conditions Survey (SCTWCS) that aimed to examine teachers' perceptions of their working conditions (Starrett et al., 2023). The analyses in this study included 6,153 South Carolina teachers working in 381 town and rural schools in 38 school districts. This number of teachers represented 39.9% of all those who participated in SCTWCS. Table A3 provides numbers of participating town and rural teachers and schools by school district.

**Table A3.** *Participating Teachers and Schools in Town and Rural Locations by School District*

| District | Participating Town and Rural Teachers | Participating Town and Rural Schools |
|---|---|---|
| Aiken | 184 | 18 |
| Anderson 1 | 163 | 5 |
| Berkeley | 337 | 19 |
| Calhoun | 44 | 3 |
| Charleston | 270 | 11 |
| Cherokee | 249 | 15 |
| Chesterfield | 213 | 16 |
| Clarendon County | 192 | 12 |
| Colleton County | 165 | 9 |
| Dillon 4 | 109 | 8 |
| Dorchester 2 | 62 | 3 |
| Dorchester 4 | 107 | 6 |
| Fairfield | 136 | 8 |
| Florence 1 | 162 | 7 |
| Florence 2 | 7 | 2 |
| Florence 3 | 151 | 8 |
| Florence 5 | 43 | 3 |
| Georgetown | 253 | 18 |
| Greenville | 394 | 20 |
| Hampton | 70 | 10 |
| Horry | 371 | 19 |
| Kershaw | 207 | 11 |
| Lancaster | 11 | 6 |
| Lee | 52 | 5 |
| Lexington 1 | 346 | 11 |

| | | |
|---|---|---|
| **Lexington 3** | 27 | 3 |
| **Lexington 4** | 110 | 6 |
| **Lexington-Richland 5** | 364 | 8 |
| **Marlboro** | 135 | 7 |
| **Newberry County** | 265 | 14 |
| **Oconee County** | 32 | 12 |
| **Orangeburg** | 354 | 30 |
| **Pickens County** | 124 | 12 |
| **Richland 1** | 71 | 7 |
| **Richland 2** | 160 | 5 |
| **Rock Hill (York 3)** | 71 | 4 |
| **Williamsburg** | 69 | 11 |
| **York 1** | 65 | 7 |
| **Governor's School for Math and Science** | 5 | 1 |
| **Department of Juvenile Justice** | 3 | 1 |
| **Total** | **6,153** | **381** |

## Measures

### SCHOOL-LEVEL FACTORS

School-level factors examined in this report included geographic location and remoteness, school poverty level, and percentage of non-White students. For geographic location, we created a binary variable for rural and town designations based on NCES codes discussed previously. Throughout the analyses, the rural designation was considered a reference category. To indicate remoteness, we used NCES codes for fringe, distant, and remote schools both in town and rural settings. Due to the small number of remote schools in South Carolina, we combined the distant and remote categories. This combination resulted in a four-level categorical variable representing rural fringe, rural non-fringe, town fringe, and town non-fringe schools. This variable was used in the descriptive quantitative analysis. Further, we also combined town and rural fringe schools and town and rural non-fringe schools to create a dichotomous remoteness variable (fringe vs. non-fringe), with fringe schools representing the reference group. This variable was used in the multilevel model analysis discussed below.

School poverty level was calculated based on the percentage of pupils-in-poverty (PIP) reported in the South Carolina School Report Card. The state's Department of Education identifies a child as living in poverty if the student is enrolled in Medicaid, Temporary Assistance for Needy Families (TANF), the Supplemental Nutrition Assistance Program (SNAP), and/or the foster system. Using these markers, the Department of Education identifies the percentage of PIP at the school level. In this study, teachers were categorized in terms of PIP as teaching in high-poverty (upper 25%), moderate-poverty (25%–75%), and low-poverty (lower 25%) schools.

To capture the school-level diversity factor, we calculated the percentage of non-White students based on the school-level race variables and the total school enrollment numbers from the South Carolina School Report Cards.

### WORKING CONDITIONS

Teachers' perceptions of their working conditions were measured using a total of 59 items associated with a set of 11 total resources and demands (Starrett et al., 2023). For these items, teachers reported their level of agreement on a 5-point scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree. The seven resources included: (1) *administrative support* (e.g., "Administrators at your school recognize your accomplishments"), (2) *communication with principal* (e.g., "Your principal has positive interactions with you"), (3) *availability of resources* (e.g., "You have access to professional development that deepens your content knowledge"), (4) *parent support* (e.g., "Parents of your students recognize you as an educational expert"), (5) *cooperation and recognition among staff* (e.g., "You and your colleagues work together as a team"), (6) *influence over school policy and decision-making roles* (e.g., "Administrators at your school include your input in decision-making on school improvement planning"), and (7) *autonomy in the classroom that supports state and local standards* (e.g., "In your classroom, you are able to adapt the learning material in order for your students to master the content"). The four demands measured included items related to (1) *amount of paperwork and routine duties* (e.g., "You have enough time to create lesson plans"), (2) *student engagement* (e.g., "In your classroom, you students put effort into doing their schoolwork"), (3) *student behavior* (e.g., "Student tardiness frequently interferes with your teaching"), and (4) *student safety and health* (e.g., "You feel prepared to recognize students exhibiting physical, social, and verbal bullying behavior").

All items on SCTWCS utilized a 5-point agreement scale, with higher scores representing greater levels of agreement, except in the case of *student behavior*, which was reverse-scored to align its scores with the other conditions. As the number of items in each area differed, we used the average scores for each area of the SCTWCS for all cross-area comparison purposes and analyses.

## Data Analysis

First, we conducted a descriptive analysis of school-level variables for all South Carolina town and rural schools (n = 668) by calculating means and standard deviations for separate categories of town, rural, town fringe and non-fringe, and rural fringe and non-fringe schools. This was done for poverty level, diversity, state and local per pupil expenditure, and federal per pupil expenditure variables. We also used Pearson correlations to examine the relationship between diversity and poverty levels in nonmetropolitan schools.

Second, we examined differences in teachers' perceptions of their working conditions. Before conducting regression analyses, we examined these differences based on descriptive statistics. Means and standard deviations were calculated for each aspect of the working conditions across three contexts of interest: town vs. rural schools, locale differences between fringe and non-fringe remoteness, and three poverty levels.

This descriptive analysis was followed by a series of multilevel regression models with seven resources and four demands serving as outcomes of interest. Multilevel modeling is used to account for observations grouped within different levels (e.g., individual student, class, school). For example, it can provide insights into how different teachers at the same school can affect each other, rather than treating them as if they were completely independent. This allows for both within-group and between-group variations. To conduct this analysis, we began by estimating a variance-components model M1 and calculating an intra-class correlation coefficient (ICC) value for each outcome. Although ICC values were small, ranging from .02 to .15, we proceeded with multilevel modeling to account for the nested nature of the data. This choice was further supported by calculations of the design effect (DEFF). Multilevel modeling is recommended when the DEFF, a function of ICC and average cluster size, is less than 2, especially if researchers are interested in the effects of higher-level predictors (e.g., school level; Lai & Kwok, 2014). The DEFFs for our models ranged between the lowest of 1.3 (student safety) and the highest of 3.0 (student engagement and autonomy in the classroom outcomes). At the same time, all the model predictors were level-2 (i.e., school level) variables. Thus, our models are means-as-outcomes models (Raudenbush & Bryk, 2002) that explain variance at the school level only.

Specifically, for each working condition aspect, we estimated a random-intercept model M2 with four predictor variables at the school level:

$$\gamma_{ij} = \gamma_{00} + \gamma_{01}\,(town) + \gamma_{02}\,(poverty\ level) + \gamma_{03}\,(remoteness) + \gamma_{04}\,(diversity) + \upsilon_{0j} + \varepsilon_{ij}$$

Finally, based on the results obtained from multilevel modeling, we conducted a descriptive analysis of coded qualitative data segments for the following five aspects of working conditions: *parent support, autonomy in the classroom, amount of paperwork and routine duties, student engagement,* and *student behavior*. In the SCTWCS, teachers were asked to give responses to three open-ended questions about their working conditions. These responses were coded by a team of researchers into large categories related to the resources and demands captured by the objective items. These responses were then more finely subcoded into positively and negatively valenced categories. Some statements related to negative student behavior were further delineated into subcodes representing comments about *absences, tardies, and truancies* or comments about *student mobility* (i.e., students enrolling or disenrolling from schools during the school year).

Across all the working conditions codes, most responses received a negative valence code because survey participants saw open-ended questions as an opportunity to provide a more personal account of their challenges. Therefore, positively coded segments were excluded from this study's analysis due to exceptionally small numbers. For each of the five large codes of interest, we grouped negative segments by town vs. rural and fringe vs. non-fringe schools to calculate the frequencies and percentages of negatively coded segments within each category. However, the group sizes were unbalanced within rural vs. town and fringe vs. non-fringe. Therefore, to more accurately compare frequencies, we used weights to balance the number of coded segments. Weights represented ratios of rural to town teachers (w = 4.80) and fringe to non-fringe teachers (w = 1.48). In the results tables, we provide both raw and weighted frequencies to be as transparent in the analysis as possible.

## Results

### KEY QUESTION 1: WHAT ARE THE PROFILES OF TOWN, RURAL, AND ALL NONMETROPOLITAN SCHOOLS IN SOUTH CAROLINA?

There are 668 nonmetropolitan schools in South Carolina, which represent more than 52% of all the schools in the state. These schools serve more than 345,000 students (approximately 44% of all students in South Carolina). Orangeburg, Horry, Beaufort, and Greenville are the four school districts with the largest numbers of nonmetropolitan (i.e., town and rural) schools.

In South Carolina, 23.4% (n = 156) of all nonmetropolitan schools are located in towns, and 76.7% (n = 512) are in rural areas. Further, 51.4% (n = 343) of nonmetropolitan schools are classified as fringe, 47.2% (n = 315) are distant, and only 1.5% (n = 10) are remote. These remote nonmetropolitan schools are in the Hampton, Newberry, and Orangeburg school districts. Most town schools (more than 76%) are classified as distant, whereas most rural schools (more than 60%) are fringe. Table A4 presents the classification of South Carolina schools by locale (i.e., town or rural) and remoteness (i.e., fringe, distant, remote). Since there are very few remote schools in South Carolina, in our analyses, we will combine remote and distant schools into one category of non-fringe schools.

**Table A4.** *Classification of Nonmetropolitan Schools in South Carolina*

| | Town | Rural | Total |
|---|---|---|---|
| **Fringe** | 34 | 309 | 343 |
| **Distant** | 119 | 196 | 315 |
| **Remote** | 3 | 7 | 10 |
| **Total** | **156** | **512** | **668** |

Data on poverty level were available for 624 of the 668 South Carolina nonmetropolitan schools. Based on these data, more than 48% (n = 301) of nonmetropolitan schools are in the high-poverty category. Around 49% (n = 306) of town and rural schools, collectively, are in the moderate-poverty category, and only about 3% (n = 17) of nonmetropolitan schools are in the low-poverty category. Thus, the vast majority of nonmetropolitan schools are moderate- and high-poverty schools.

On average, town schools have a PIP percentage of 76%. The South Carolina Governor's School for Science and Mathematics is the only town school in the state categorized as low poverty. For rural schools, the average PIP index is slightly lower, at 69%. A total of 16 rural schools (or more than 3% of all rural schools) are in the low-poverty category. Table A5 presents the percentage of town and rural schools in each of the three poverty levels.

**Table A5.** *Percent of Town and Rural Schools by Pupils-in-Poverty Categories*

| | Town | Rural |
|---|---|---|
| **Low Poverty** | 0.7% | 3.4% |
| **Moderate Poverty** | 38.5% | 52.3% |
| **High Poverty** | 60.8% | 44.3% |

Adding the dimension of remoteness to town and rural schools shows that town non-fringe schools have the highest poverty level with an average PIP index of 79.5%, followed by rural non-fringe schools at an average index of 76.2%. Both rural fringe and town fringe schools averaged slightly more than 64% of students in poverty. Table A6 provides details on descriptive statistics for poverty levels in town and rural schools in combination with remoteness.

**Table A6.** *Averages and Ranges for Percent of Students in Poverty in Town and Rural Schools*

| | N | Mean | SD | Min | Max |
|---|---|---|---|---|---|
| **Town Fringe** | 33 | 64.1% | 14.4 | 30.9% | 91.5% |
| **Town Non-Fringe** | 115 | 79.5% | 13.6 | 13.9% | 95.4% |
| **Rural Fringe** | 284 | 64.2% | 20.3 | 9.7% | 96.9% |
| **Rural Non-Fringe** | 192 | 76.2% | 13.2 | 18.3% | 100% |
| **Total** | **624** | **70.7%** | **18.2** | **9.7%** | **100%** |

Nonmetropolitan schools vary in levels of diversity, with the percentage of non-White students ranging between 7.1% and 100% and an average of 54.5%. More than half (54%; n = 337) of all nonmetropolitan schools are predominantly non-White (i.e., they have a non-White student population of more than 50%). Further, about 26% (n = 162) of nonmetropolitan schools are in the upper quartile for the percentage of non-White students. Although Black students constitute the predominant non-White racial group in diverse schools, there are ten predominantly Hispanic nonmetropolitan schools. These schools are located in the Charleston, Greenville, Jasper, Laurens 55, and Saluda school districts.

South Carolina town schools are more diverse than rural schools, with an average of about 63% of town school student populations being non-White, compared to rural schools where the average is slightly more than 51%. This higher percentage of non-White students observed in town schools is driven by higher levels of diversity in town non-fringe schools, where the average is 69.4%. For town fringe schools, the average is 39.5%. Similarly, for rural schools, non-fringe schools see a somewhat higher average (54.5%) as compared to rural fringe schools (49.3%).

Table A7 provides means, standard deviations, and ranges for the percentage of non-White students attending low-, moderate-, and high-poverty schools.

**Table A7.** *Means, Standard Deviations, and Ranges for Percentage of Non-White Students by School Poverty Level in Nonmetropolitan Schools*

| | Mean | SD | Min | Max |
|---|---|---|---|---|
| **Low Poverty** | 27.6 | 11.0 | 12.5 | 57.2 |
| **Moderate Poverty** | 37.4 | 18.1 | 7.1 | 98.2 |
| **High Poverty** | 72.0 | 19.7 | 12.7 | 100.0 |
| **All Nonmetropolitan** | **53.7** | **25.7** | **7.1** | **100.0** |

Data on school funding, including federal and state/local funding, were available for 561 nonmetropolitan schools in the sample. For the purposes of the analysis, we excluded nine schools from this sample. One rural school in Charleston County was excluded because it was an outlier on the upper end of the distribution, and eight charter schools, for which funding data were available, were excluded because the funding policy for charter schools is different than it is for other public schools. Our final sample included 552 nonmetropolitan schools, with 131 town and 421 rural schools.

Table A8 presents descriptive statistics for the variable of state and local expenditure per pupil for town and rural schools, including fringe and non-fringe subcategories. Overall, for nonmetropolitan schools, state and local funding ranged between $6,707 and $28,069. The mean state and local per pupil expenditure was somewhat higher in rural schools relative to town schools, with a difference in means of about $442 (or 4%). This difference was mostly driven by rural non-fringe schools, which had the highest mean for state and local per pupil expenditure (M = $11,748). Rural non-fringe and town non-fringe funding differed by $1,121 (or 10.2%), with more funds given to rural non-fringe schools. In contrast, the difference in funding between rural fringe and town fringe schools was quite small (i.e., close to $190; 1.8%). The differences within town and rural categories based on remoteness (i.e., fringe vs. non-fringe) indicate more funding for non-fringe schools. Town fringe schools received about $295 (or 2.8%) less in state and local per pupil expenditure than town non-fringe schools, while rural fringe schools received about $1,227 (or 10.4%) less than rural non-fringe schools.

The distribution of the per pupil expenditure variable for rural schools had a higher standard deviation (SD = $2,687) as compared to the distribution for town schools, reflecting a wider variability in funding for rural schools at the state and local levels. The highest variability in state and local funding was observed for rural non-fringe schools (SD = $3,192). Town fringe schools had the lowest funding mean (M = $10,332) and the least distributional spread (SD = $1,421).

**Table A8.** *Descriptive Statistics for State and Local per Pupil Expenditure*

| | Mean | SD | Min | Max |
|---|---|---|---|---|
| **Town Fringe** | $10,332 | $1,421 | $7,689 | $13,145 |
| **Town Non-Fringe** | $10,627 | $2,117 | $7,529 | $18,938 |
| **All Town** | $10,557 | $1,974 | $7,529 | $18,938 |
| **Rural Fringe** | $10,522 | $2,184 | $7,119 | $19,844 |
| **Rural Non-Fringe** | $11,748 | $3,192 | $6,707 | $28,069 |
| **All Rural** | $10,999 | $2,687 | $6,707 | $28,069 |
| **All Nonmetropolitan** | **$10,877** | **$2,552** | **$6,707** | **$28,069** |

Federal per pupil expenditures for nonmetropolitan schools ranged between $399 and $6,215, with a mean of about $2,059. Federal funding for rural schools was, on average, about $214 (or 10%) less than funding for town schools. Fringe schools, both town and rural, received less federal per pupil funding as compared to non-fringe town and rural schools. The mean federal funding for town fringe schools was about $508 (or 21.7%) less than for town non-fringe schools, and the mean for rural fringe schools was about $514 (22.2%) less than for rural non-fringe schools. Table A9 presents descriptive statistics for federal per pupil expenditure for the two categories of town and rural schools, as well as collectively.

**Table A9.** *Descriptive Statistics for Federal per Pupil Expenditure*

| | Mean | SD | Min | Max |
|---|---|---|---|---|
| **Town Fringe** | $1,836 | $704 | $625 | $4,098 |
| **Town Non-Fringe** | $2,343 | $818 | $889 | $4,908 |
| **All Town** | $2,222 | $819 | $625 | $4,908 |
| **Rural Fringe** | $1,807 | $886 | $399 | $6,215 |
| **Rural Non-Fringe** | $2,321 | $827 | $663 | $5,090 |
| **All Rural** | $2,008 | $898 | $399 | $6,215 |
| **All Nonmetropolitan** | **$2,059** | **$884** | **$399** | **$6,215** |

## KEY QUESTION 2: HOW DO TEACHERS IN TOWN AND RURAL SCHOOLS DIFFER IN THEIR PERCEPTIONS OF WORKING CONDITIONS?

Teacher working conditions were analyzed to determine and examine differences across locales. Tables A10–A11 provide the full comparison of average means and standard deviations for each aspect of the working conditions across the two contexts of interest: town vs. rural schools and locale differences between fringe and non-fringe designations. Based on these descriptive statistics, teachers in rural and town schools rated *communication with the principal, cooperation and recognition of staff,* and *autonomy in the classroom highest*, recognizing that these resources were most accessible to them. Rural and town teachers were largely in agreement with their concerns about *student behavior* and the *amount of paperwork and routine duties*, rating those two demands as the most problematic. The same pattern of highest and lowest ratings was preserved for teachers from fringe and non-fringe schools.

**Table A10.** *Descriptive Statistics—Teacher Perceptions of Working Conditions Between Rural and Town Schools*

| Working Conditions | Rural Mean (SD) | Town Mean (SD) |
|---|---|---|
| **Resources** | | |
| Administrative Support | 3.90 (.92) | 3.83 (.93) |
| Communication With Principal | 4.15 (.98) | 4.05 (1.01) |
| Availability of Resources | 3.89 (.94) | 3.74 (.97) |
| Parent Support | 3.79 (.87) | 3.68 (.88) |
| Cooperation and Recognition From Staff | 4.20 (.83) | 4.19 (.87) |
| Influence Over School Policy | 3.46 (1.01) | 3.41 (1.03) |
| Autonomy in the Classroom | 4.13 (.83) | 4.13 (.78) |
| **Demands** | | |
| Amount of Paperwork and Routine Duties | 3.06 (1.21) | 3.13 (1.16) |
| Student Engagement | 3.35 (.95) | 3.21 (.98) |
| Student Behavior | 2.84 (.96) | 2.57 (.92) |
| Student Safety and Health | 3.79 (.85) | 3.71 (.86) |

**Table A11.** *Descriptive Statistics—Teacher Perceptions of Working Conditions Between Fringe and Non-Fringe Schools*

| Working Conditions | Fringe Mean (SD) | Non-Fringe Mean (SD) |
|---|---|---|
| **Resources** | | |
| Administrative Support | 3.87 (.93) | 3.91 (.92) |
| Communication With Principal | 4.13 (.99) | 4.13 (.98) |
| Availability of Resources | 3.78 (.95) | 3.82 (.93) |
| Parent Support | 3.77 (.87) | 3.76 (.88) |
| Cooperation and Recognition From Staff | 4.19 (.84) | 4.17 (.83) |
| Influence Over School Policy | 3.43 (1.03) | 3.48 (.99) |
| Autonomy in the Classroom | 4.12 (.82) | 4.14 (.81) |
| **Demands** | | |
| Amount of Paperwork and Routine Duties | 3.00 (1.21) | 3.17 (1.74) |
| Student Engagement | 3.35 (.95) | 3.29 (.95) |
| Student Behavior | 2.81 (.95) | 2.77 (.97) |
| Student Safety and Health | 3.77 (.85) | 3.78 (.84) |

Overall, across the 11 outcomes, the levels of poverty and remoteness were the two predictor variables that contributed most often to the differences in teachers' perceptions. Thus, in the context of this study, student poverty and remoteness had the strongest associations with how teachers working in nonmetropolitan schools think about their working conditions. Please refer to Tables A12–A14 for complete results.

Specifically, regarding resources, teachers working in schools with moderate levels of poverty (but not high levels) rated *parental support* significantly lower ($\gamma_{02}$= -0.22, $p < .001$) as compared to teachers in low-poverty schools. Teachers in non-fringe schools perceived their levels of *autonomy in the classroom* as significantly higher ($\gamma_{03}$= 0.10, $p < .05$) in comparison to teachers working in fringe schools. Regarding the demands, poverty played a significant role in teacher perceptions of both *student engagement* and *student behavior*. In both cases, teachers working in schools with moderate poverty had lower rated perceptions of *student engagement* ($\gamma_{02}$= -0.17, $p < .05$) and *student behavior* ($\gamma_{02}$= -0.29, $p < .001$) as compared to teachers in low-poverty schools. Teachers in high-poverty schools had lower rated perceptions ($\gamma_{02}$= -0.27, $p < .001$) of *student behavior* as compared to their colleagues in low-poverty schools, though this finding did not hold true for *student engagement*. Teachers in fringe and non-fringe schools differed in their perception of *student behavior*, with teachers working in non-fringe schools rating the behavior of their students significantly higher ($\gamma_{03}$= 0.14, $p < .001$). These teachers also differed in their perceptions of the *amount of paperwork and routine duties*, with teachers in non-fringe schools perceiving more favorably ($\gamma_{03}$= 0.17, $p < .001$) the amount of time for such work.

The level of student diversity was not significant for any of the resources or demands. The only statistically significant difference between town and rural teachers was noted for the perceptions of *student behavior*. Teachers from town schools perceived *student behavior* as significantly worse ($\gamma_{01}$= -0.18, $p <.001$).

None of the four contextual predictors of the level of poverty, town vs. rural, remoteness, or diversity contributed significantly to the variation in teachers' perceptions of *administrative support, communication with the principal, availability of resources, cooperation and recognition, influence over school policy*, or *student safety and health*. The examined contexts did not matter for these outcomes.

**Table A12.** *Multi-Level Random-Intercept Modeling Results for Administrative Support, Communication With Principal, and Availability of Resources*

| Variable | Administrative Support | | Communication With Principal | | Availability of Resources | |
|---|---|---|---|---|---|---|
| | $M_1$ B(SE) | $M_2$ B(SE) | $M_1$ B(SE) | $M_2$ B(SE) | $M_1$ B(SE) | $M_2$ B(SE) |
| *Fixed Effects* | | | | | | |
| Intercept $\gamma_{00}$ | 3.90*** (0.02) | 3.92*** (0.07) | 4.12*** (0.02) | 4.22*** (0.07) | 3.80*** (0.02) | 3.79*** (0.06) |
| Town $\gamma_{01}$ | | -0.08 (0.06) | | -0.09 (0.07) | | -0.08 (0.06) |
| Poverty $\gamma_{02}$ | | | | | | |
| Mid | | -0.10 (0.07) | | -0.13 (0.07) | | -0.09 (0.06) |
| High | | 0.02 (0.10) | | -0.01 (0.11) | | 0.09 (0.09) |
| Remoteness $\gamma_{03}$ | | 0.05 (0.05) | | 0.03 (0.05) | | 0.04 (0.05) |
| Diversity $\gamma_{04}$ | | 0.00 (0.00) | | -0.00 (0.00) | | 0.00 (0.00) |
| *Random Effects* | | | | | | |
| L2 (Between Schools) Variance $\upsilon_{0j}$ | 0.11 | 0.11 | 0.13 | 0.12 | 0.07 | 0.07 |
| L1 (Between Teachers) Variance $\varepsilon_{ij}$ | 0.74 | 0.75 | 0.84 | 0.86 | 0.83 | 0.83 |
| ICC | 0.13 | 0.13 | 0.13 | 0.12 | 0.08 | 0.07 |
| *Information Criteria Fit* | | | | | | |
| $AIC_{corrected}$ | 15,096.85 | 13,986.38 | 16,121.41 | 14,949.43 | 15,740.51 | 14,555.35 |

*Note*. $M^1$ is a variance-components model, and $M^2$ is the full random-intercept model.
*$p < .05$, **$p < .01$, ***$p < .001$

**Table A13.** *Multi-Level Random-Intercept Modeling Results for Parental Support, Cooperation and Recognition, Influence Over School Policy, and Autonomy in the Classroom*

| Variable | Parent Support | | Cooperation and Recognition | | Influence Over School Policy | | Autonomy in the Classroom | |
|---|---|---|---|---|---|---|---|---|
| | $M_1$ | $M_2$ | $M_1$ | $M_2$ | $M_1$ | $M_2$ | $M_1$ | $M_2$ |
| | B(SE) | B(SE) | B(SE) | B(SE) | B(SE) | B(SE) | B(SE) | B(SE) |
| *Fixed Effects* | | | | | | | | |
| Intercept $\gamma_{00}$ | 3.78*** (0.02) | 3.87*** (0.05) | 4.17*** (0.02) | 4.25*** (0.04) | 3.46*** (0.02) | 3.47*** (0.07) | 4.12*** (0.02) | 4.10*** (0.06) |
| Town $\gamma_{01}$ | | -0.08 (0.05) | | -0.04 (0.04) | | -0.05 (0.07) | | 0.04 (0.06) |
| Poverty $\gamma_{02}$ | | | | | | | | |
| Mid | | **-0.22*** (0.05)** | | -0.07 (.05) | | -0.11 (0.08) | | -0.09(0.06) |
| High | | -0.13 (0.07) | | -0.06 (.07) | | -0.08 (0.11) | | -0.17 (0.09) |
| Remoteness $\gamma_{03}$ | | 0.06 (0.04) | | 0.04 (0.04) | | 0.06 (0.06) | | **0.10*(0.05)** |
| Diversity $\gamma_{04}$ | | 0.00 (0.00) | | -0.00 (0.00) | | 0.00 (0.00) | | 0.00 (0.00) |
| *Random Effects* | | | | | | | | |
| L2 (Between Schools) Variance $\upsilon_{0j}$ | 0.05 | 0.04 | 0.03 | 0.03 | 0.14 | 0.13 | 0.10 | 0.09 |
| L1 (Between Teachers) Variance $\varepsilon_{ij}$ | 0.71 | 0.71 | 0.66 | 0.67 | 0.89 | 0.90 | 0.58 | 0.57 |
| ICC | 0.07 | 0.06 | 0.05 | 0.04 | 0.13 | 0.13 | 0.14 | 0.14 |
| *Information Criteria Fit* | | | | | | | | |
| $AIC_{corrected}$ | 14,887.81 | 13,755.97 | 14,428.31 | 13,367.07 | 15,393.16 | 14,204.33 | 13,554.57 | 12,407.84 |

*Note.* $M^1$ is the variance-components model, and $M^2$ is the full random-intercept model.
*$p < .05$, **$p < .01$, ***$p < .001$

**Table A14.** *Multi-Level Random-Intercept Modeling Results for Amount of Paperwork, Student Engagement, Student Behavior, and Student Safety and Health*

| Variable | Amount of Paperwork and Routine Duties | | Student Engagement | | Student Behavior | | Student Safety and Health | |
|---|---|---|---|---|---|---|---|---|
| | $M_1$ | $M_2$ | $M_1$ | $M_2$ | $M_1$ | $M_2$ | $M_1$ | $M_2$ |
| | B(SE) | B(SE) | B(SE) | B(SE) | B(SE) | B(SE) | B(SE) | B(SE) |
| *Fixed Effects* | | | | | | | | |
| Intercept $\gamma_{00}$ | 3.08*** (0.03) | 2.86*** (0.08) | 3.35*** (0.02) | 3.53*** (0.07) | 2.79*** (0.02) | 3.08*** (0.06) | 3.78*** (0.01) | 3.80*** (0.04) |
| Town $\gamma_{01}$ | | 0.01 (0.08) | | -0.05 (0.07) | | **-0.18*** (0.06)** | | -0.06 (0.04) |
| Poverty $\gamma_{02}$ | | | | | | | | |
| Mid | | -0.07 (0.08) | | **-0.17* (0.07)** | | **-0.29*** (0.06)** | | -0.05 (0.04) |
| High | | -0.04 (0.12) | | -0.01 (0.11) | | **-0.27*** (0.09)** | | -0.09 (0.04) |
| Remoteness $\gamma_{03}$ | | **0.17** (0.06)** | | -0.01 (0.05) | | **0.14*** (0.04)** | | 0.05 (0.03) |
| Diversity $\gamma_{04}$ | | 0.00 (0.00) | | -0.00 (0.00) | | -0.00 (0.00) | | 0.00 (0.00) |
| *Random Effects* | | | | | | | | |
| L2 (Between Schools) Variance $\upsilon_{0j}$ | 0.17 | 0.15 | 0.13 | 0.12 | 0.09 | 0.06 | 0.01 | 0.01 |
| L1 (Between Teachers) Variance $\varepsilon_{ij}$ | 1.27 | 1.26 | 0.77 | 0.78 | 0.82 | 0.82 | 0.71 | 0.71 |
| ICC | 0.12 | 0.11 | 0.15 | 0.13 | 0.10 | 0.07 | 0.02 | 0.01 |
| *Information Criteria Fit* | | | | | | | | |
| $AIC_{corrected}$ | 17,102.62 | 15,739.75 | 14,631.39 | 13,495.37 | 14,482.08 | 13,268.82 | 13,347.8 | 12,309.18 |

*Note.* $M^1$ is the variance-components model, and $M^2$ is the full random-intercept model.
*$p < .05$, **$p < .01$, ***$p < .001$

Table A15 illustrates that teachers in town schools discussed challenges with *student behavior* more often as compared to rural teachers. These findings are consistent with the quantitative analysis results presented above. The comparison of *parent support* code frequencies is also consistent with the quantitative, as there was no detectable difference between town and rural teachers.

We did not find any statistically significant differences in the quantitative data between town and rural teachers' perceptions of the *amount of paperwork, autonomy in the classroom*, and *student engagement*. However, differences in the frequencies of the coded qualitative data segments for these demands and resources were observed, as rural school teachers discussed challenges with these working conditions more frequently than town school teachers. The most notable of these differences related to teachers' perceptions of their *autonomy in the classroom*. At the same time, it should be noted that out of the five working conditions aspects, *autonomy in the classroom* received the least amount of concern from both town and rural teachers. Segments under the *autonomy in the classroom* code constituted only 4% of all segments from the responses of rural teachers. For town teachers, the percentage of *autonomy in the classroom* codes was about 2% of all the segments.

**Table A15.** *Frequencies of Codes From Teachers' Comments About Their Working Conditions Between Town and Rural Schools*

| | Rural | Town | Rural | Town |
|---|---|---|---|---|
| | Raw | | Weighted | |
| Amount of Paperwork | 842 (85.7%) | 140 (14.3%) | 842 (55.6%) | 672 (44.4%) |
| Autonomy in the Classroom | 125 (91.9%) | 11 (8.1%) | 125 (70.2%) | 53 (29.8%) |
| Parent Support | 365 (82.8%) | 76 (17.2%) | 365 (50.0%) | 365 (50.0%) |
| Student Engagement | 541 (84.8%) | 97 (15.2%) | 541 (53.7%) | 466 (46.3%) |
| Student Behavior | 1,162 (80.3%) | 285 (19.9%) | 1,162 (45.9%) | 1,368 (54.1%) |

*Note.* The table should be read horizontally across rows to compare weighted values.

Overall, the discussion of the five working conditions follows the same frequency pattern for rural and town teachers. Table A16 demonstrates that teachers in both groups discussed challenges around *student behavior* most frequently, followed by the *amount of paperwork, student engagement, parent support,* and *autonomy in the classroom*.

**Table A16.** *Frequencies of Codes From Teachers' Comments About Their Working Conditions Within Town and Rural Schools*

| | Rural | Town |
|---|---|---|
| Student Behavior | 1,162 (38.4%) | 285 (46.8%) |
| Amount of Paperwork | 842 (27.7%) | 140 (23.0%) |
| Student Engagement | 541 (17.8%) | 97 (15.9%) |
| Parent Support | 365 (12.0%) | 76 (12.5%) |
| Autonomy in the Classroom | 125 (4.1%) | 11 (1.8%) |
| **Total** | **3,035 (100%)** | **609 (100%)** |

*Note.* The table should be read vertically by column to understand which codes are prevalent in the open-ended responses for each group of teachers.

Table A17 highlights that teachers working in fringe schools discussed their challenges slightly more often when compared to teachers working in non-fringe schools. The largest difference appears in the frequency of segments in the *autonomy in the classroom* code, and the smallest difference appears in *student behavior*. These findings differ from the results obtained in the quantitative analysis.

**Table A17.** *Frequencies of Codes From Teachers' Comments About Their Working Conditions Between Fringe and Non-Fringe Schools*

| | Fringe | Non-Fringe | Fringe | Non-Fringe |
|---|---|---|---|---|
| | Raw | | Weighted | |
| Amount of Paperwork | 633 (64.5%) | 349 (35.5%) | 633 (55.0%) | 517 (45.0%) |
| Autonomy in the Classroom | 93 (68.4%) | 43 (31.6%) | 93 (59.2%) | 64 (40.8%) |
| Parent Support | 279 (63.3%) | 162 (36.7%) | 279 (53.8%) | 240 (46.2%) |
| Student Engagement | 408 (63.9%) | 230 (36.1%) | 408 (54.5%) | 340 (45.5%) |
| Student Behavior | 872 (60.3%) | 575 (39.7%) | 872 (50.6%) | 851 (49.4%) |

*Note.* The table should be read horizontally across rows to compare weighted values.

Similar to rural and town comparisons, Table A18 illustrates that teachers working in fringe and non-fringe schools discussed challenges related to *student behavior* most often. The remaining four working conditions were discussed in the following order based on frequencies: *amount of paperwork, student engagement, parent support,* and *autonomy in the classroom*. Overall, these frequency trends are comparable to rural and town teacher groups discussed previously.

**Table A18.** *Frequencies of Codes From Teachers' Comments About Their Working Conditions Within Fringe and Non-Fringe Schools*

| | Fringe | Non-Fringe |
|---|---|---|
| **Student Behavior** | 872 (38.2%) | 575 (42.3%) |
| **Amount of Paperwork** | 633 (27.7%) | 349 (25.7%) |
| **Student Engagement** | 408 (17.9%) | 230 (16.9%) |
| **Parent Support** | 279 (7.1%) | 162 (11.9%) |
| **Autonomy in the Classroom** | 93 (4.1%) | 43 (3.2%) |
| **Total** | **2,285 (100%)** | **1,359 (100%)** |

*Note.* The table should be read vertically by column to understand which codes are prevalent in the open-ended responses for each group of teachers.

We explored the *student behavior* aspect of the working conditions in more depth because our quantitative analysis showed that teachers across all dimensions of comparison (i.e., rural vs. town and fringe vs. non-fringe) differed in their perceptions of specific issues related to *student behavior*. Table A19 shows that rural teachers brought up matters related to *student mobility* more often than town teachers, but town educators expressed their concern with *absences, tardies, and truancies* more frequently.

**Table A19.** *Frequencies of Student Behavior Coded Segments for Rural and Town Teachers*

| | Rural | Town | Rural | Town |
|---|---|---|---|---|
| | Raw | | Weighted | |
| **Student Mobility** | 22 (88.0%) | 3 (12.0%) | 22 (61.1%) | 14 (38.9%) |
| **Absences, Tardies, and Truancies** | 253 (78.6%) | 69 (21.4%) | 253 (43.3%) | 331 (56.7%) |

Table A20 demonstrates that teachers working in fringe schools talked more frequently about *student mobility* than those in non-fringe contexts. At the same time, there was no substantial difference in the frequency of segments pertaining to *absences, tardies, and truancies* between these two groups of teachers.

**Table A20.** *Frequencies of Student Behavior Coded Segments for Teachers in Fringe and Non-Fringe Schools*

| | Fringe | Non-Fringe | Fringe | Non-Fringe |
|---|---|---|---|---|
| | Raw | | Weighted | |
| **Student Mobility** | 16 (64.0%) | 9 (36.0%) | 16 (55.2%) | 13 (44.8%) |
| **Absences, Tardies, and Truancies** | 190 (59.0%) | 132 (31.0%) | 190 (49.4%) | 195 (50.6%) |

# TEACHER WORKING CONDITIONS

## SUPPLEMENTAL REPORT