

DISSERTATION

EXPLORING BURNOUT AMONG TEACHERS: A COMPARATIVE ANALYSIS ACROSS
PUBLIC, CHARTER, AND PRIVATE ELEMENTARY SCHOOL ENVIRONMENTS

Submitted by

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ABSTRACT

EXPLORING BURNOUT AMONG TEACHERS: A COMPARATIVE ANALYSIS ACROSS PUBLIC, CHARTER, AND PRIVATE ELEMENTARY SCHOOL ENVIRONMENTS

This quantitative study utilized secondary data from the nationally representative 2020-2021 National Teacher and Principal Survey (NTPS), conducted by the U.S. Department of Education, to investigate the relationships between teacher burnout and work environment factors among 13,560 full-time K-5 elementary school teachers in U.S. public, charter, and private schools. To ensure generalizability to the U.S. teaching population, the NTPS's complex sampling design was accounted for by applying required data weights during all analyses. The study addressed three primary research questions. First, burnout levels significantly differed across school types ($\chi^2(2) = 102.89, p < .001$). Private school teachers reported the highest burnout, followed by public and charter school teachers. Second, significant differences were found across all work condition variables—workload, classroom control, teacher collective control, recognition, leadership, teaching community, parent support, student apathy, and school types. Pairwise comparisons indicated that public and charter school teachers shared similar perceptions regarding leadership, teaching community, recognition, student apathy, and parent support, while private school teachers differed significantly from both groups. Differences emerged between education management organization (EMO) and non-EMO charter school teachers and religious and non-religious private school teachers in several work condition variables; however, effect sizes were trivial.

The final research question examined correlations between work conditions and burnout across school types. Strong positive correlations were observed between leadership and the teaching community, and between leadership and recognition. The relationship between student apathy and parent support remained consistently weak and negative across all school types ($\rho = -0.25$). Burnout exhibited strong negative correlations with leadership and the teaching community with moderate effect sizes across all school types. Charter school teachers showed the strongest negative correlation between burnout and leadership ($\rho = -0.57$). Similarly, charter school teachers reported the strongest positive correlation between leadership and the teaching community ($\rho = 0.77$). Findings highlight common patterns and variations in the associations between work conditions and burnout across public, charter, and private school teachers. This study compared teacher burnout and work environment factors across public, charter, and private schools, highlighting significant differences. The aim was to determine if different school types and working conditions impact teacher burnout and identify potential environmental factors to mitigate burnout.

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CHAPTER 1: INTRODUCTION

For over fifty years, teacher burnout has been a topic of interest for academic scholars and educational practitioners. With the COVID-19 pandemic, interest in teacher burnout has only accelerated. Google searches for “teacher burnout” were up 172% since the start of the pandemic from its upward trend in the last few years, and the phrase “is being a teacher worth it” searches were up over 365% from before the pandemic to now (Archer Education, 2022). The National Education Association (NEA), the nation’s largest professional teacher organization, believes the nation is in a “five-alarm crisis” with the teacher shortage, and its root cause is teacher exhaustion, frustration, lack of support, and burnout (Walker, 2022). A January 2022 nationwide poll of 3,621 of NEA’s K-12 teachers supports this crisis conclusion, with 90% reporting they felt burnout, 91% stressed due to the pandemic, and more than half of surveyed members plan to leave the teacher profession sooner because of the pandemic (Gorno-Badakhshan Autonomous Oblast [GBAO], 2022). The RAND’s State of the U.S. Teacher Survey conducted in early 2021 painted a slightly less troubling assessment of the state of stress and burnout in teachers, though the results still signal a crisis, especially due to the pandemic. Approximately 75% of teachers reported being frequently stressed, and half reported feeling burned out. The main stressors included working conditions, risk of health concerns, and changes in the instructional model throughout the year (Steiner & Woo, 2021).

Teacher burnout is a psychological syndrome that occurs when teachers experience chronic and prolonged periods of stress due to their work and is characterized by feelings of an inordinate amount of exhaustion, cynicism, and inefficacy (Leithwood et al., 2010; Maslach, 2006; Maslach & Leiter, 2016). The World Health Organization (WHO) classifies burnout as an

occupational phenomenon “resulting from chronic workplace stress that has not been successfully managed” (2019). Teachers’ workplace stress factors include heavy workloads, low salaries, lack of resources, challenging student behavior, and limited support from colleagues and administration, which lead to burnout (Cano-García et al., 2005; Kyriacou, 2001; Leithwood et al., 2010; Shackleton et al., 2019; Skaalvik & Skaalvik, 2017b). Teachers experiencing burnout may feel overwhelmed, disengaged from their work, and unable to cope with the demands of their job. The repercussions of teacher burnout are costly to both teachers and students.

Burnout has been shown to negatively affect a teacher’s health and performance. Physical and psychological health problems such as fatigue, insomnia, and mental health issues have been linked to burnout (Armon, 2009; Leone et al., 2008; Maslach, 2017). A meta-analysis of thirty-six health and burnout research studies found burnout was a significant predictor of physical ailments, including high cholesterol, diabetes, heart disease, physical pain, headaches, and gastrointestinal problems (Salvagioni et al., 2017). The same study also found the psychological effects of insomnia and depressive symptoms as significantly related to burnout. Health problems from burnout result in consequences on teachers’ classroom performance. In a meta-analysis of 115 studies, burnout has been positively correlated with absenteeism, turnover, and job performance (Swider & Zimmerman, 2010).

Students know which of their teachers are burned out, and research has shown that students’ achievements and health are impacted. When students’ ratings of their teachers’ burnout were compared to self-reported teacher burnout, Evers et al. (2004) discovered students could perceive the symptoms of burnout in their teachers. Taking this one step further, Klusman et al. (2008) studied students’ perceptions of their teachers’ performance and their teachers’ self-reported burnout. Students were more likely to rate their burned-out teachers lower in providing

support, classroom management, and general pacing of the curriculum. Teacher burnout has also been shown to impact the academic achievements of students. Emotional exhaustion, a key component of burnout, was significantly negatively related to mathematics achievements in elementary students (Klusmann et al., 2016). In their groundbreaking research, Oberle and Schonert-Reichl (2016) measured cortisol levels, the body's main stress hormone, in elementary students and compared results to the students' teachers' self-reported burnout. The higher rating of a student's teacher's level of burnout significantly predicted the students' morning cortisol level.

The impact of teacher stress and burnout is evident in job vacancies and teacher dissatisfaction rates. Based on nationwide data, the 2021-2022 school year conservatively had 36,500 vacant teaching positions (Nguyen et al., 2022). Researchers hypothesized, however, this number could have been closer to 52,800 based on extrapolating the vacancy rate on an overall per-student basis for states with no data. Along with stress and burnout, teachers are dissatisfied, and dissatisfied teachers and burned-out teachers are more likely to leave the profession (Nguyen & Kremer, 2022; Skaalvik & Skaalvik, 2011; 2017a). Using longitudinal data from the Schools and Staffing Surveys beginning in 2003 through 2021, teacher discontent has steadily risen over the past two decades (Redding & Nguyen, 2023). Researchers concluded that low levels of morale and higher than normal rates of teacher burnout during the 2020-2021 school year explain the higher rate of teachers leaving their positions (Diliberti & Kaufman, 2020).

Teachers are entrusted with our nation's children, and they are the most vital part of the educational system. A student's academic and developmental success largely depends on their teachers' quality and well-being (Johnson, 2019; Maslach & Leiter, 2010; McIntyre et al., 2017). Educational leaders must prioritize addressing and working to prevent teacher burnout within

their organizations (Maslach, 2017; Skaalvik & Skaalvik, 2009; Skaalvik & Skaalvik, 2011).

This call to action is even more crucial due to the COVID-19 pandemic and the effects of stress, burnout, and the desire of many to leave the profession after this stressful time in recent educational history. As districts and schools nationwide strive to retain teachers, educate students, and attend to the well-being of both, there arises an imperative to investigate teacher burnout further.

Purpose of the Study

This study compared teacher burnout, various school types, and context variables within each type. If differences existed, the study provided an understanding of how different school types impact educators' well-being so working conditions could be identified and improved to address teacher burnout. Prior research identified distinct differences in burnout, subject taught, and school level (Nguyen & Kremer, 2022). Therefore, this study focused on full-time teachers working at the elementary level.

Research Questions/Hypotheses

Research Question 1: Is there a significant difference in the level of burnout among teachers working in different elementary school types (public, charter, and private)?

Sub-question 1: Is there a significant difference in burnout among teachers working in different types of charter schools (Education Management Organization [EMO] vs. non-EMO) and private schools (religious vs. non-religious)?

- a. Within Charter Schools: Is there a significant difference in burnout between EMO and non-EMO charter school teachers?
- b. Within Private Schools: Is there a significant difference in burnout between religious and non-religious private school teachers?

Research Question 2: Is there a significant difference in school environment variables (Workload, Classroom Control, Teacher Collective Control, Recognition, Leadership, Teaching Community, Parent Support, and Student Apathy) among teachers working in different school types (public, charter, and private)?

Sub-question 1: Is there a significant difference in workload among public, charter, and private elementary school teachers?

SQLa: Is there a significant difference in contractual workload hours among public, charter, and private elementary school teachers?

- a. Within Charter Schools: Is there a significant difference in contractual workload hours between EMO and non-EMO charter school teachers?
- b. Within Private Schools: Is there a significant difference in contractual workload hours between religious and non-religious private school teachers?

SQLb: Is there a significant difference in actual workload hours (including all teaching-related activities) among public, charter, and private elementary school teachers?

- a. Within Charter Schools: Is there a significant difference in actual workload hours between EMO and non-EMO charter school teachers?
- b. Within Private Schools: Is there a significant difference in actual workload hours between religious and non-religious private school teachers?

Sub-question 2: Is there a significant difference in perceived classroom control among public, charter, and private elementary school teachers?

SQ2a: Is there a significant difference in perceived classroom control among teachers in different types of charter schools (EMO vs. non-EMO) and private schools (religious vs. non-religious)?

- a. Within Charter Schools: Is there a significant difference in perceived classroom control between EMO and non-EMO charter school teachers?
- b. Within Private Schools: Is there a significant difference in perceived classroom control between religious and non-religious private school teachers?

Sub-question 3: Is there a significant difference in perceived teacher collective control among public, charter, and private elementary school teachers?

SQ3a: Is there a significant difference in perceived teacher collective control among teachers in different types of charter schools (EMO vs. non-EMO) and private schools (religious vs. non-religious)?

- a. Within Charter Schools: Is there a significant difference in perceived teacher collective control between EMO and non-EMO charter school teachers?
- b. Within Private Schools: Is there a significant difference in perceived teacher collective control between religious and non-religious private school teachers?

Sub-question 4: Is there a significant difference in perceived recognition among public, charter, and private elementary school teachers?

SQ4a: Is there a significant difference in perceived recognition among teachers in different types of charter schools (EMO vs. non-EMO) and private schools (religious vs. non-religious)?

- a. Within Charter Schools: Is there a significant difference in perceived recognition between EMO and non-EMO charter school teachers?
- b. Within Private Schools: Is there a significant difference in perceived recognition between religious and non-religious private school teachers?

Sub-question 5: Is there a significant difference in perceived leadership among public, charter, and private elementary school teachers?

SQ5a: Is there a significant difference in perceived leadership among teachers in different types of charter schools (EMO vs. non-EMO) and private schools (religious vs. non-religious)?

- a. Within Charter Schools: Is there a significant difference in perceived leadership between EMO and non-EMO charter school teachers?
- b. Within Private Schools: Is there a significant difference in perceived leadership between religious and non-religious private school teachers?

Sub-question 6: Is there a significant difference in perceived teaching community among public, charter, and private elementary school teachers?

SQ6a: Is there a significant difference in perceived teaching community among teachers in different types of charter schools (EMO vs. non-EMO) and private schools (religious vs. non-religious)?

- a. Within Charter Schools: Is there a significant difference in perceived teaching community between EMO and non-EMO charter school teachers?
- b. Within Private Schools: Is there a significant difference in perceived teaching community between religious and non-religious private school teachers?

Sub-question 7: Is there a significant difference in perceived parent support among public, charter, and private elementary school teachers?

SQ7a: Is there a significant difference in perceived parent support among teachers in different types of charter schools (EMO vs. non-EMO) and private schools (religious vs. non-religious)?

- a. Within Charter Schools: Is there a significant difference in perceived parent support between EMO and non-EMO charter school teachers?
- b. Within Private Schools: Is there a significant difference in perceived parent support between religious and non-religious private school teachers?

Sub-question 8: Is there a significant difference in perceived student apathy among public, charter, and private elementary school teachers?

SQ8a: Is there a significant difference in perceived student apathy among teachers in different types of charter schools (EMO vs. non-EMO) and private schools (religious vs. non-religious)?

- a. Within Charter Schools: Is there a significant difference in perceived student apathy between EMO and non-EMO charter school teachers?

- b. Within Private Schools: Is there a significant difference in perceived student apathy between religious and non-religious private school teachers?

Research Question 3: Is there a significant association between work conditions and burnout (Workload, Classroom Control, Teacher Collective Control, Recognition, Leadership, Teaching Community, Parent Support, Student Apathy, and Burnout) among teachers in diverse school environments (public, charter, and private)?

Definition of Terms

The following terms are defined to ensure clarity and consistency throughout this study. The definitions align with established research and within the context of the National Teacher and Principal Survey (NTPS).

Burnout is commonly characterized as a syndrome with three distinct dimensions: exhaustion, cynicism or depersonalization, and inefficacy (Maslach, 1982a; Maslach & Jackson, 1981). It results from chronic job-related stress that an individual has not managed successfully (Maslach, 1982a; World Health Organization [WHO], 2019). For this study, burnout was examined as a single construct, averaging specific questions from the NTPS, which measured the three dimensions and have been used in prior research to measure burnout (Boyle et al., 2023; Engle et al., 2024; Mosley et al., 2022; Nguyen & Kremer, 2022).

Charter Schools are K-12 publicly funded, tuition-free educational institutions independently managed and operated under a contract or charter with a state or local education agency.

Community refers to the condition of social interactions between individuals within an organization. According to Maslach and Leiter (2008), community encompasses the overall

condition of social interactions between individuals and their colleagues, supervisors, and clients and the sense of shared beliefs and values within the organization. For this study, the term community collectively refers to the collegiality between teachers, the support teachers receive from the parent community, the recognition teachers perceive from administration, and the perception of student apathy within their schools.

Control refers to a teacher having the necessary decision-making and flexibility to do their job (Jimenez & Dunkl, 2017).

Depersonalization is a dimension of burnout. It refers to a teacher's negative attitudes toward individuals within the work environment and a diminished commitment to their school or organization (Leiter & Maslach, 2004; Schaufeli & Buunk, 2003).

Education Management Charter School (EMO) is a charter school that is part of an organization, which may be either for-profit or non-profit, managing multiple charter schools and providing support and oversight for their operations.

Emotional exhaustion, the most agreed-upon dimension of burnout in the research community, is a feeling of fatigue and depletion of a teacher's emotional and physical resources and represents the stress component of burnout (Leiter & Maslach, 2004).

Inefficacy, also called reduced personal accomplishment, is the self-evaluation dimension of burnout. It refers to a teacher's lack of confidence and achievement in teaching practice (Maslach & Leiter, 2008).

Leadership is a teacher's perception of their administration's emotional, instrumental, informational, and appraisal support for them (House, 1981). Such support includes respect, encouragement, necessary resources, professional development, and constructive feedback.

Non-EMO Charter School (non-EMO) is an independent charter school not part of a larger organization and is operated by a local board or non-profit organization.

Teacher Collective Control refers to teachers' perception of shared decision-making power over key aspects of the school's operation, policies, and instructional practices.

Traditional Public Schools are educational institutions for children in grades K-12 run by local school districts, overseen by state boards of education, and funded by local, state, and federal tax dollars. Assigned zones typically determine attendance within a specific geographical region.

Private schools are independent institutions, not publicly or government-funded, educating students in grades K-12. They can be non-profit or for-profit, have a religious or secular orientation, and be governed independently or under a parent organization.

Student Apathy is a child or young adult's disinterest, disengagement, and indifference to their educational studies (Raffini, 1988). Behaviors include avoiding challenges, declining grades, relying on others, neglecting to complete assignments, and expressing disinterest in their studies (Eccles et al., 1993; Givvin et al., 2001; Walsh, 2006).

Workload refers to job demands that are characteristics of a position that require prolonged physical or mental effort associated with a physiological or psychological cost (Demerouti et al., 2001).

Delimitations

This study focused on K-5 elementary teachers in the United States who participated in the 2020-2021 National Teacher and Principal Survey (NTPS). The NTPS is the most extensive survey of United States K-12 schools, encompassing public, charter, and private school teachers. Several key choices define the scope of this study:

1. **Population:** The study was delimited to full-time K-5 elementary teachers, excluding teachers from middle schools, high schools, and other educational levels. This focus ensured that the findings were relevant to the context of elementary education.
2. **Geographical Area:** The study included only teachers from the United States. This geographical limitation meant the findings may not be generalizable to elementary teachers in other countries with different educational systems and cultural contexts.
3. **Survey Instrument:** The study used data from the 2020-2021 NTPS teacher questionnaire. This survey included questions about teachers' perceptions of their working conditions, such as leadership, community, workload, and student apathy. Additionally, it gathered information on teachers' feelings of burnout in their current roles.
4. **Time Frame:** The data was collected during the 2020-2021 school year. This period was significant as it includes the impacts of the COVID-19 pandemic, which may have influenced teachers' experiences and responses.

These delimitations helped to narrow the study's focus and ensure that the research remained manageable and relevant to the specific context of K-5 elementary education in the United States during the 2020-2021 school year. By defining these boundaries, the study aimed to provide a clear and focused analysis of elementary teachers' burnout and work environment perceptions within different school types.

Limitations and Assumptions

This study offered a unique analysis of teachers working in different school types and their level of burnout while examining their perceptions of working conditions within their school. The primary limitation was using the NTPS to measure burnout instead of a more

established tool like the Maslach Burnout Inventory (MBI). This choice may limit the alignment of this study with prior research that utilized one of the standardized burnout measures, potentially affecting the comparability of results. While the NTPS questions have been used in prior research to measure fatigue, burnout, and exhaustion (Boyle et al., 2023; Engle et al., 2024; Mosley et al., 2022; Nguyen et al., 2022), they may not fully capture burnout or the dimensions of burnout as defined by the World Health Organization (WHO) – emotional exhaustion, depersonalization, and inefficacy.

Another limitation was the variability within each type of school. Public, charter, and private schools vary widely in size, location, resources, governance, and student demographics. This diversity inevitably introduced confounding variables that are difficult to control and may affect the generalizability of the findings.

Teachers completed the NTPS survey between September 2020 and July 2021 during the unprecedented COVID-19 pandemic, during which schools nationwide were affected by different state and local protocols and mandates. While the 2020-21 NTPS included questions about the pandemic focused on instructional modality (remote, hybrid, or in-person), the survey may have missed unique working conditions tied to burnout during the pandemic. These crucial factors could have influenced the study's findings.

Biases such as response bias, social desirability bias, and recall bias may have influenced the self-reported data used in the study. Because of these biases, teachers might not have accurately reported their burnout levels and work environment perceptions. Additionally, the cross-sectional NTPS data limits the ability to make cause-and-effect inferences about the relationship between work environment factors and burnout. Analyzing the data longitudinally

could help determine whether specific work environment factors contribute to or alleviate burnout in different types of schools.

Despite these limitations, this study aimed to expand the knowledge base of different school types, provide valuable insights into the factors contributing to teacher burnout in different school types, and highlight areas for further research and intervention.

Researcher's Perspective

My research questions are grounded in my 25 years of experience in education. Throughout my career, I have taught in traditional public, magnet, Montessori, and private schools, and I have also served as an administrator in private and charter schools. In each of these educational settings, I encountered differences in leadership styles, parental support, student behavior, control, workload, and other factors that influence the work environment, and I witnessed many colleagues struggling with stress and burnout.

Although research has shown that individual characteristics can make a teacher more susceptible to burnout (Mojsa-Kaja et al., 2015; Swider & Zimmerman, 2010), factors in a teacher's work environment contribute heavily to stress and burnout (Byrne, 1991; Leiter & Maslach, 2004; Maslach, 2017; Maslach & Leiter, 1997). As an educational leader, I am uniquely positioned to shape and influence the work environment to reduce or eliminate factors that can lead to teacher burnout and to create a culture of support for student and teacher well-being. My desire for this research was to illuminate what factors in a teacher's work environment were associated with reduced burnout and expand the research to include the three main types of schools in the United States (public, charter, and private) to examine if differences existed across school types as well. My goal was to highlight differences, share any insights to support

teachers' well-being in schools, lay the foundation for future research, and apply what I learned in my school as an administrator.

Conceptual Framework

Framed by the foundational work of Jackson and Maslach, this study aligned with the World Health Organization's definition of burnout as a syndrome resulting from chronic stress in the workplace characterized by exhaustion, cynicism (depersonalization), and inefficacy, although measuring it as a single construct. Based on the World Health Organization's definition of burnout, the causes of teacher burnout are rooted in the chronic stress factors in the teacher's work environment. Maslach and Leiter (1997) stated that chronic workplace stress, the source of burnout, results from a mismatch in the relationship between the individual and their work. Their research created the Areas of Worklife framework, a structured model for understanding the organizational factors contributing to employee well-being or burnout.

The Areas of Worklife framework examines how burnout arises from the interaction between an individual and their job around three key dimensions: capability, social, and moral, and two aspects within each dimension. The capability dimension focuses on workload and control, examining whether employees have manageable demands based on available resources, sufficient autonomy to do their jobs, and opportunities to influence decision-making within an organization. The social dimension emphasizes the importance of reward and community, considering whether employees feel valued and recognized for their contributions financially, emotionally, and socially and experience positive relationships with all members of the work community. The moral dimension centers on fairness and values. This dimension assesses whether employees perceive equitable treatment and believe that their work aligns with their personal values. The Areas of Worklife framework proposes that a greater perceived alignment

in these six aspects leads to a greater probability of engagement in an individual's work. In contrast, greater perceived misalignment in some or all of these aspects increases the likelihood of burnout (Maslach, 2017). Maslach and Leiter (2022) point out that these six aspects are not independent and can overlap with one or more areas.

Although this study did not fully employ Maslach and Leiter's theoretical framework using their accompanying Areas of Worklife Survey, the NTPS's Teacher Questionnaire captures each framework's dimensions through the work environment questions. The study variables directly examined four aspects of the framework within the capability and social dimensions. The moral dimension was examined indirectly through the leadership and teaching community variables. The NTPS's questions provided a valuable means to understand the work environment experienced by teachers within Maslach and Leiter's framework, as illustrated in Figure 1.

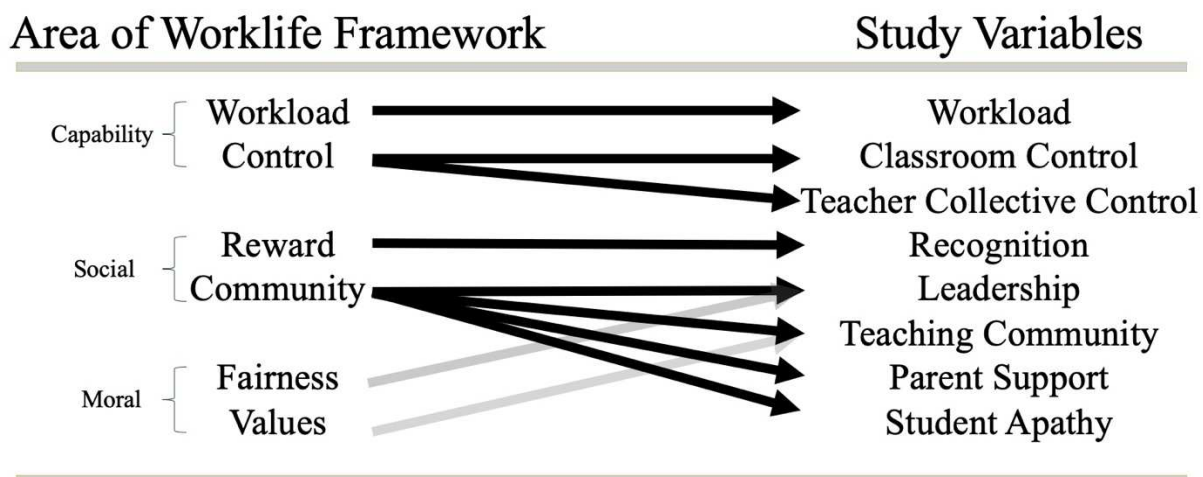


Figure 1

Study Variables Alignment with the Areas of Worklife Framework

Research Approach

This quantitative research aligned with the postpositive research approach. According to Guba and Lincoln (1994), from the postpositivist viewpoint, reality does exist, but understanding

is unattainable and incomplete. Clark (1998) suggested postpositivism adopts a realist perspective in which unobservable factors exist and can explain observable phenomena. Researchers and their perceptions are intertwined in the inquiry process, and the research goal is to describe, explain, and predict, though the findings of a study are bound and not necessarily generalizable (Rancher & Robinson, 2002). Postpositive researchers understand the complexity and variability of real-world situations (Borland, 1999), and researchers seek to develop context-specific “working hypotheses” (Cronbach, 1975, p. 124).

A quantitative approach in the postpositive paradigm was appropriate for this research because it allowed for the statistical analysis of large datasets, which provided a strong way to compare burnout levels across different types of schools while accounting for work environment variables. Using the NTPS data ensured that the findings were based on a broad, representative sample, which improved the reliability and the ability to create Cronbach’s “working hypotheses” of teacher burnout across different school types.

CHAPTER 2: LITERATURE REVIEW

The rationale and context of this study are rooted in an extensive literature review. A literature survey was completed in three main topic areas and associated subtopics to effectuate this study's intention. The three main areas were school models, teacher burnout, and prior research comparing teacher burnout in different school models, focusing on predictive elements of burnout in the work environment. School type subtopics encompass an overview of the three dominant models of education in the United States of America – public, charter, and private schools – along with an examination and comparison of the teachers working in each type. The subtopics of teacher burnout encompassed the history, definitions, and measurements. The subtopics of prior research comparing different school models included an overview of research examining elements in a teacher's work environment, specifically leadership, community, control, workload, and student apathy connected to retention, job satisfaction, and burnout. School comparison research was limited to studies conducted within the past ten years in K-12 United States schools.

Methodology of the Literature Review

The researcher completed a multi-stage search for literature focusing on teacher burnout and the impact of perceptions of the work environment and school type. To ensure a comprehensive literature review, various Colorado State University databases were used, including ERIC, Academic Search Premier, APA PsycArticles, APA PsycInfo, MEDLINE, and OpenDissertations. The researcher also used the Colorado State University library to examine books for this study.

The American Education Research Association's criteria for research was used to discern if a study was acceptable. The selected studies reviewed met most or all of the outline criteria.

Specifically, studies needed to include problem formulation, design and logic of study, sources of evidence, measurement and classification, analysis and interpretation, generalization, and ethics in reporting (American Education Research Association, 2006). This literature review focused on research published in peer-reviewed academic journals. The researcher also used dissertations, textbooks, and books to conduct a comprehensive review.

The literature review involved three phases to complete. The first phase required an examination of different school types, public and private. The second phase examined the evolution of the burnout construct, teacher burnout, and the development of different quantitative tools to measure the construct over time. The final phase investigated research comparing United States K-12 teachers working in different models of schools over the past ten years, focusing on burnout and including working conditions, such as leadership, community, control, workload, and student apathy.

The Education Landscape: An Overview of Public, Charter, and Private Schools

The Oxford English Dictionary (2023) defines a school as “an establishment or institution for the formal education of children or young people.” Two primary types of schools exist in the United States: public and private. Although they have many similarities, the primary difference is in how they are funded. Public schools rely on funds from the government at the local, state, and federal levels. In contrast, private schools depend on tuition fees, donations, and additional funding from religious organizations, grants, and endowments. Choice is another prominent difference between private and public schools. Attendance is exclusively by choice in private schools, while some public schools offer choice through enrollment options like magnet, charter, and open enrollment. In addition, there are notable differences in the management of public and private schools, particularly when it comes to curricula and policies. Public schools are overseen by local school boards and their state’s department of education. In contrast, private schools

typically have their own governing board and more flexibility and freedom from following state and national education regulations.

It is worth noting that there is not a distinct line between public and private schools. Despite their differences, both types of schools also share many similarities. Examining each type of school and the teacher and student populations provides a more comprehensive understanding of both.

Public Schools in the United States of America

The origins of public education in America can be traced back to colonial times. In 1647, Massachusetts Bay Colony passed the General School Act, which mandated all towns with 50 or more households to hire a teacher and towns with 100 or more families to open a grammar school (Kober, 2007). Our country's Founding Fathers, notably Thomas Jefferson and John Adams, championed the idea of public education and believed it was necessary for the survival of our new nation's democracy. Kober (2007) explained that during the 1780s, three states enacted laws to establish tax-supported public schools, but public education did not gain momentum until the 1830s. Educational reformer and Massachusetts Senator Horace Mann desired to guarantee that all children from diverse social and economic backgrounds received a standardized education that would enhance national unity by reinforcing shared moral values, developing a standard skill set, and preparing children for active participation in a democratic society as adults (Mendez et al., 2017). Mann is widely considered the father of American public schools for establishing common schools, standardizing curriculum, promoting teacher training, and supporting compulsory attendance laws (Johnson et al., 2001; Mendez et al., 2017). Following Mann's reforms in the mid-19th century, American public education continued to grow and evolve. The period between the late 19th and early 20th centuries saw the spread of

public schooling, the introduction of laws mandating compulsory education, and the establishment of high schools across the country (Johnson et al., 2001; Kober, 2007; Mendez et al., 2017). Further changes occurred in the 20th and 21st centuries through landmark legislation such as *Brown v. Board of Education*, new movements such as charter schools, and federal programs like No Child Left Behind (Mendez et al., 2017). To this day, public education is still evolving with ongoing debates about curriculum and funding while balancing equity, access, and inclusion issues for students and shortages, retention, and burnout for teachers.

There are two types of public schools in the United States: traditional and charter. According to the National Center for Education Statistics (2023a), traditional public schools are the most common type of public school, and they are run by local school districts and overseen by state education agencies. Public school attendance is typically determined by assigned zones within a district's geographical region. Exceptions exist; some school districts offer school choice or open enrollment options for students outside their residential zone. Additionally, districts may have schools with magnet programs that offer different specialized focuses that students can choose to attend based on their interests. Charter schools are a relatively new addition to the public education system. They first appeared in Minnesota in 1991 and are becoming increasingly popular nationwide. This surge in popularity could be linked to the belief that public funds should be used to support these publicly funded schools instead of school vouchers, which allow parents to choose between public and private schools for their children (Sadler & Zittleman, 2007). Charter schools are independently managed public schools that operate under a contract, or charter, with a state or local education agency. The charter grants these schools greater autonomy and flexibility over traditional public schools, allowing them to make independent decisions regarding curriculum, staffing, and academic focus. Lastly,

according to the National Alliance for Public Charter Schools (n.d.), charter schools provide an alternative public school option for students, regardless of the public schools they are zoned to attend, promoting diversity and innovation within the educational landscape.

According to Kober (2007), public schools in America have six main themes that summarize their mission. Although how schools achieve these goals has changed over time, their roots are traceable throughout our country's history. Firstly, the public school system aims to provide free education to all, making it accessible to everyone. Secondly, it is committed to ensuring equal opportunities for all children and promoting inclusivity. The mission also focuses on bringing together a diverse population, preparing individuals for citizenship in a democratic society, fostering economic self-sufficiency, and contributing actively to improving social conditions. These themes collectively emphasize the many goals of the public education system in shaping educated, equitable, and engaged citizens.

Private Schools in the United States of America

Private schools have also been part of the American education system since colonial times, for the first schools were established by teachers who offered their services to children from wealthy families (Clotfelter, 2004; Reynolds, 2017). Private schools in the United States are independent institutions that are not government-funded, and they can be non-profit or for-profit, have a religious or secular orientation, and be governed independently or under a parent organization. Private schools differ significantly concerning population, purpose, size, structure, and resources and remain a significant alternative to public school education for children in the United States (Ben-Porath & Johanek, 2019; Clotfelter, 2004; Reynolds, 2017).

American parents' fundamental right to choose a private school education for their children was established by the United States Supreme Court's 1925 ruling on the case *Pierce v.*

Society of Sisters of the Holy Names of Jesus and Mary (U.S. Department of Education, 2019). The Supreme Court ruled against Oregon's law requiring mandatory attendance at public schools, finding the statute unconstitutional, and emphasized in the decision that the state has no general power to standardize children by compelling them to receive instruction only from public school teachers (Shiffrin, 2009; U.S. Department of Education, 2019). Because of this ruling, all 50 states now have laws granting parents the right to choose private education as an alternative to public school attendance requirements (U.S. Department of Education, 2019). While the Supreme Court's ruling established a parents' right to choose private education for their children, the Court also recognized in other cases, such as *Wisconsin v. Yoder* (1972), that states had the authority to place reasonable regulations on private schools to educate children (U.S. Department of Education, 2019).

Definitions and Demographics of Public and Private Schools

This research study used the National Center for Education Statistics' National Teacher and Principal Survey (NTPS) data. Therefore, the different types of schools were classified based on the NTPS's definitions and categorizations. According to the National Center for Education Statistics (NCES), a *public school* is defined as an educational institution serving at least one of the grades 1-12 (or equivalent ungraded levels), staffed with one or more teachers for instructional purposes, situated in one or more buildings, reliant on public funds as its primary financial support, and under the operation of an education agency (Taie & Lewis, 2022). On the other hand, a *charter school* is "a public school, that in accordance with an enabling state statute, has been granted a charter exempting it from selected state or local rules and regulations" (National Center for Education Statistics, 2020, pp. 2–3). Finally, a *private school* is an institution that is not supported by public funds and "provides classroom instruction for one or

more of grades K-12 or comparable ungraded levels and has one or more teachers” (National Center for Education Statistics, 2020, p. 3). The NCES definition of a private school excludes organizations that offer assistance to homeschools that do not provide classroom instruction to students.

In the 2020-2021 academic year, most students were served by public education in traditional or charter public schools. According to the U.S. Department of Education, the United States and the District of Columbia had 99,271 traditional public K-12 schools, serving 49,342,118 students. The National Center for Education Statistics (2023b) reported that 3.5 million traditional public school teachers supported the public school system. Across the 50 states and the District of Columbia, 7,996 public charter schools operated nationwide, educating 3,682,526 students in 2020-2021 (White, 2023). According to the National Center for Education Statistics (n.d.), the District of Columbia also had the highest proportion of public school students enrolled in charter schools at 45%, with Arizona following at 20%. In eight other states—Colorado, Nevada, Florida, Louisiana, Delaware, California, Utah, and Michigan—charter school enrollment comprised 10 to 15% of the public school student population. According to White (2023), charter schools enrolled 7.4% of all public school students, up from 6.8% during the prior school year. Approximately 251,000 teachers were employed in public charter schools (National Center for Education Statistics, 2023b).

In 2020-2021, approximately 4.7 million, or 8.7% of K-12 American students were enrolled in 29,700 private schools across the United States (National Center for Education Statistics, 2023b). Notably, 66% of all private schools are religious-oriented, and 68% prioritize regular elementary or secondary programs (Taie & Lewis, 2022). Private schools had a

workforce of approximately 466,000 full-time-equivalent teachers (National Center for Education Statistics, 2023b).

Demographics of the United States Teaching Force

The United States teaching force has many similarities across different school types but also a few distinct differences. Regardless of school type, teachers in the United States are predominantly White, female, and around forty years of age on average (Taie & Lewis, 2022). Over half of the teachers hold advanced degrees and have between 10 and 15 years of classroom teaching experience (Taie & Lewis, 2022). However, traditional public, charter, and private K-12 school teachers differ in their average salary, average class sizes, and number of teachers holding state teaching certifications, as seen in Table 1.

Table 1

Comparison of Average Teacher Characteristics Across School Types 2020–21

	Traditional Public	Charter	Private
Age (in years)	43.1	40.2	45.4
Women	76.9%	75.6%	76.6%
Experience (in years)	14.8	10.4	14.5
Advanced Degrees	61.7%	50.9%	49.8%
Salary	\$62,100	\$54,400	\$46,400
Class size	19.0	20.8	14.2
State Certified	90.9%	75.3%	26.1%

Note. (National Center for Education Statistics, 2023b)

According to the 2020-21 NTPS data, Table 2 provides an overview of the racial and ethnic distribution of traditional public, charter, and private schools during the academic year. Most teachers are White, accounting for 79.9% of the total K-12 teaching force, with a higher percentage in traditional public schools than in charter schools. Hispanic teachers make up 9.4% of public school teachers, with a slightly higher representation in charter schools. Black teachers account for 6.1% of public school teachers, with a higher percentage in charter schools than in

traditional public schools. Asian teachers comprise 2.4% of public school teachers, with slightly higher representation in charter schools. In contrast, private school teachers are predominantly White, accounting for 83.3%, followed by Hispanic, Black, and Asian teachers. These statistics highlight significant disparities in racial and ethnic representation within the teaching profession, regardless of school type.

Table 2

Racial and Ethnic Composition of Teachers in Public and Private Schools 2020–21

	Traditional Public	Charter	Private
White	80.7%	68.5%	83.3%
Hispanic	9.0%	15.2%	8.2%
Black	5.8%	10.3%	3.7%
Asian	2.3%	3.4%	2.5%
Other	2.2%	2.6%	2.3%

Note. Other: Native Hawaiian, Other Pacific Islander, American Indian, or Alaska Native

Insights into the definitions, establishment, and demographics of public, charter, and private schools have been provided, shedding light on the educational landscape in America to date. The following two sections will focus on teacher burnout and the differences research has discovered in prior studies of teachers working in different school types. Teacher burnout is a critical area that requires thorough examination due to its impact on individual educators and the implications for students and the United States education system. By exploring the history and construct of teacher burnout, the subsequent section highlights the challenges of defining and measuring it and the generally accepted measurable dimensions of burnout agreed upon in the research community.

Burnout

History of the Construct

According to Maslach (2006), burnout research had two phases: pioneer and empirical. The pioneer phase began in the mid-1970s in the United States as a “social problem” versus a “scholarly construct” (Maslach & Schaufeli, 2018, p. 2). This phase focused on practitioners, not scholars, publishing works on the burnout phenomena’s possible causes and interventions (Perlman & Hartman, 1982). This focus was evident in Perlman and Hartman’s meta-analysis of forty-eight articles on burnout published between 1974 and 1981, which found that only 10% of the articles included any empirical data (1982). By the 1980s, the empirical phase of research began, spurred on by more specific definitions and an accepted tool, the Maslach Burnout Inventory, to standardize the measurement of the phenomenon. Burnout research expanded to occupations beyond the human service realm, and variables such as work factors, job satisfaction, stress, and relationships at work were studied (Maslach, 2006).

The two research scholars to emerge independently during the pioneer phase were Freudenberger and Maslach, and their contributions were the foundation for the empirical phase. Freudenberger’s work was based on observations of medical staff working in free drug addiction clinics during the 1960s and 1970s. Freudenberger first used the term “burnout” in a research publication, which informally referred to the adverse effects of long-term drug abuse (1974). Freudenberger’s early work claimed burnout was often the outcome of work situations, and the individuals who succumbed to burnout had unrealistic and unattainable ideals about working in their helping profession (Freudenberger & Richelson, 1981).

Maslach, a social psychologist and researcher of burnout for over four decades, began working to understand burnout in the late 1970s. Like Freudenberger, Maslach’s research also

began with individuals in the medical profession. However, the initial interest began with examining the strong emotional arousal of medical professionals, such as detachment and dehumanization, when they cared for patients (Maslach, 2018). Themes of emotional exhaustion, negative shifts of concern, and feelings of incompetence over time emerged from Maslach's initial interviews with medical professionals. Upon learning the term "burnout" and the possibility this same phenomenon occurred outside the medical field, Maslach expanded interviews to people working in helping professions and found similar themes and evidence that burnout was more like a syndrome than a stress response (Maslach, 2018). Using qualitative work as the foundation, Maslach shifted to a quantitative approach to study burnout. Collaborative work with fellow researcher Jackson in the late 1970s led to the definition and standardized survey most used in burnout research for the past forty years (Maslach, 2006).

Definition of Burnout

Burnout was not clearly defined in publications in the 1970s and early 1980s. Maslach (1982b) wrote an article on the confusion and disagreement among researchers, counselors, and the media and uncovered fifteen separate and unique definitions of the term. A proposed reason for the lack of a clear definition may be that early researchers believed burnout was interchangeable with terms like stress or depression, or it was a "buzzword" to rebrand earlier research phenomena (Burisch, 1993; Heath, 1981; Maslach, 1982b).

In 1981, Maslach and Jackson defined burnout as a psychological syndrome experienced due to chronic job stresses and comprised of three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, 1982a). Emotional exhaustion is a feeling of fatigue and depletion of an individual's emotional and physical resources and represents the basic individual stress component of the dimension (Leiter &

Maslach, 2004). Depersonalization, the interpersonal part of the dimension, refers to the negative attitudes towards individuals within the work environment and a diminished commitment to the organization (Leiter & Maslach, 2004; Schaufeli & Buunk, 2003). Reduced personal accomplishment is the self-evaluation component of burnout and refers to an individual's lack of confidence and achievement in work (Maslach & Leiter, 2008).

Not all researchers subscribe to Maslach and Jackson's three dimensions of burnout. Many believe exhaustion is the fundamental dimension (Freudenberger, 1974; Leiter, 1991; Malakh-Pines & Aronson, 1988; Shirom, 1989). Like Freudenberger, Malakh-Pines and Aronson (1988) defined burnout as "a state of physical and emotional exhaustion caused by long-term involvement in situations that are emotionally demanding" (p. 9). Malakh-Pines and Aronson (1988) pointed to high expectations and long-lasting situational stress as the root of emotional exhaustion. Schaufeli and Greenglass (2001) concurred with Malakh-Pines and Aronson's definition, though they also included mental exhaustion. When examining research, many cite Shirom's (1989) definition of burnout as a "combination of physical fatigue, emotional exhaustion, and cognitive weariness" (p. 33). However, other researchers believe exhaustion and depersonalization are two fundamental dimensions of burnout (Demerouti et al., 2003; Skaalvik & Skaalvik, 2010). Studies have examined the relationships between Maslach and Jackson's (1981) three dimensions to support conclusions of what dimension(s) encompass burnout. In a meta-analysis of thirty-three studies of burnout measuring the three-dimension model, Lee and Ashforth (1996) found emotional exhaustion strongly related to depersonalization ($r = .64$, 95% CI [.54,.75]) and personal accomplishment only moderately negatively related to exhaustion ($r = -.33$, 95% CI [-.46,-.21]) and depersonalization ($r = -.36$, 95% CI [-.52,-.26]).

Though some debate remains in the research community, the World Health Organization (WHO) defined burnout in the 11th revision of the International Classification of Diseases (ICD-11) in 2019:

“Burn-out is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions: feelings of energy depletion or exhaustion; increased mental distance from one’s job, or feelings of negativism or cynicism related to one’s job; and reduced professional efficacy” (para. 3).

The three dimensions align with Maslach and Jackson’s original definition from 1981.

Teacher Burnout

Like other helping professions, informal and observational research on teacher burnout started with practitioners, such as administrators and teachers, in the late 1970s and early 1980s. Professional magazines and organizations offered anecdotal causes, cures, and definitions. In 1979, a special report in *Instructor*, a professional magazine for educators, referred to burnout as a “debilitating disease” caused by lack of promotion, public criticism, and budget cuts (“Teacher Burnout How to Cope When Your World Goes Black,” 1979, p. 56). The article interviewed Spaniol, a professor from Boston University, who stated burnout had three levels: first-degree, second-degree, and third-degree. As the names suggest, a third-degree burnout was the most severe, involving physical ailments like headaches, ulcers, and back pain. Throughout the article, many other professionals, from teachers, principals, counselors, and professors, shared their personal insights on the causes of teacher burnout and provided suggestions for how to avoid it. Four years later, *The Clearing House*, a professional journal for middle and high school educators, published an article by Campbell, an education professor who defined burnout as an illness resulting from exhaustion. Campbell (1983) pointed to oversized classes, low pay, interaction with parents, and problems with colleagues and administration as the causes of burnout for teachers. Campbell stated that burnout becomes more serious over time and even

“acute” after ten or more years without citing supporting research. Professional organizations also addressed burnout in 1980. The National Education Association’s president, McGuire, stated the organization desired to give teacher burnout the attention it deserved and to bring to light the stresses teachers encounter. McGuire believed the four sources of stress were teacher training, conflict in their role, public pressures, and negativity directed at teachers as professionals (McGuire, 1981).

Early academic research on teacher burnout also began to address the phenomenon in the late 1970s and early 1980s. The research on teacher burnout was a mix of descriptive and narrative, with a few beginning the shift toward empirical research (Maslach, 2006; Perlman & Hartman, 1982). In their meta-analysis of burnout research, Perlman and Hartman (1982) closely examined the four empirical studies of the forty-eight published studies on teacher burnout. Of the four, two studies were dissertations with statistical analysis. Metz (1980) compared teachers who self-identified as either burned-out or renewed. More males between the ages of 30-49 identified themselves as burned-out compared to females in the same age range. The renewed teachers found sources of restoration in perceived administrative support and positive relationships with colleagues. In researching the relationship between teacher tenure and burnout, Westerhouse (1979) studied the relationship between burnout, role conflict, and work orientation. Data analysis revealed that role conflict was significant in predicting burnout, and the best single predictor of burnout was conflicts with students about grades.

Measuring Teacher Burnout

Although early definitions of burnout differed, many stated that burnout was the result of prolonged or chronic stress (Malakh-Pines & Aronson, 1988; Maslach, 1982a). If stress could be identified and managed, teachers would not experience burnout. Therefore, measuring stress in a

teacher's environment became the focus of some early researchers. In one early attempt, Kyriacou and Sutcliffe (1978) created a questionnaire to investigate teacher stress and surveyed 257 schoolteachers in the United Kingdom. Based on the results, Kyriacou and Sutcliffe classified 20% of the teachers as very stressed or extremely stressed. The analysis of their 51-item questionnaire found four factors contributing to teacher stress: student misbehavior, poor working conditions, time pressure, and poor school culture. These four factors accounted for 18.6%, 12.2%, 11.9%, and 9.3% of the total variance, respectively. Believing stress and burnout were complex, with numerous factors contributing to teachers' stress, Fimian (1984) developed an instrument to measure occupational stress using the Teacher Stress Inventory (TSI). Fimian focused on stress, both its frequency and strength, because high stress levels are the precursor to burnout. After analysis, the measure resulted in two dimensions of stress—sources and manifestations—with three factors in each category. Sources of stress were personal/professional stressors (lack of time/too much work), professional distress (lack of promotion and respect), and discipline and motivation (student misbehavior and lack of motivation). The manifestations of stress were emotional, biobehavioral, and physiological fatigue. Fimian discussed that much work needed to be done on the TSI and believed other factors, such as time management, may need to be researched and added. According to Selye (1978), stress is unavoidable, and if all teachers experience stress but not all teachers experience burnout, a measure for burnout needed to be developed.

In the 1980s, researchers aimed to develop quantitative measures of burnout, and much of the focus was on helping professions due to the stress and strain of working in a client-based profession such as teaching (Day & Leiter, 2020). While several burnout measures were developed over the decade, most were limited to a single study, and only two emerged as options

for broader use in the research community (Enzmann et al., 1998; Schaufeli & Enzmann, 1998; Schaufeli et al., 2017). Based on their definition of burnout as a syndrome of three dimensions of emotional exhaustion, depersonalization, and reduced personal accomplishment, Maslach and Jackson developed the Maslach Burnout Inventory (MBI) survey (Maslach & Jackson, 1981). Originally published in 1981, the survey was later revised in 1986. The original MBI's target population was individuals who work in professions with recipients (i.e., nurses, doctors, and teachers), and the updated survey included versions of the MBI tailored to specific fields, such as education with the Maslach Burnout Inventory-Education Survey (MBI-ES) (Maslach & Jackson, 1981; Schaufeli et al., 2017). The second leading burnout measure in the 1980s was Malakh-Pines and Aronson's (1988) Burnout Measure (BM). Designed to be used regardless of employment, the 21-item self-reported assessment approached burnout as a state of physical, emotional, and mental exhaustion. Though their definition of burnout was defined as three different types of exhaustion, the survey was one-dimensional (Malach-Pines, 2005; Malakh-Pines & Aronson, 1988). Evidence from two empirical studies challenged the one-dimensionality of the BM. Independently, Enzmann and Kleiber (1989) and Schaufeli and Van Dierendonck (1993) suggested the BM measures three dimensions: demoralization, exhaustion, and loss of motivation.

The MBI emerged as the quantitative measure of choice for researchers through the 1980s and 1990s. In the 2000s, two other viable quantitative measures emerged to challenge the MBI and to expand burnout research beyond the helping professions (Demerouti et al., 2003; Kristensen et al., 2005; Schaufeli & Enzmann, 1998). Taking issue with the wording of the MBI's questions and its availability of use as a commercial, not public domain survey, paired with differing opinions of the core dimensions of burnout, the Oldenburg Burnout Inventory

(OLBI) and the Copenhagen Burnout Inventory (CBI) emerged as options for researchers (Demerouti & Bakker, 2008; Kristensen et al., 2005). Kristensen et al. (2005) believed the core of burnout was exhaustion and fatigue and structured the CBI into three domains: personal, work-related, and client-related. The personal and work domains could be used to determine if burnout was related to nonwork factors, while the client domain could reveal to what degree burnout related to working with clients (i.e., patients or students). Developed to address issues with the MBI's only negative wording of questions for exhaustion and depersonalization and its three-factor model, the Oldenburg Burnout Inventory (OLBI) offered a survey measuring burnout by two factors, exhaustion and disengagement, with a balance of positive and negative wording of each scale (Demerouti et al., 2003; Halbesleben & Demerouti, 2005). The OLBI included questions to assess exhaustion's cognitive and physical components, which expanded on the MBI's sole focus on emotional exhaustion (Halbesleben & Demerouti, 2005).

Within the last five years, one additional burnout measure, the Burnout Assessment Tool (BAT), emerged to address other measures' shortcomings and challenge the conceptual factors of burnout (Schaufeli et al., 2020). Interestingly, the lead author of the BAT is cited as one of the authors of the revised MBI. Schaufeli et al. (2020) redefined burnout as

“a work-related state of exhaustion that occurs among employees, which is characterized by extreme tiredness, reduced ability to regulate cognitive and emotional processes, and mental distancing. These four core dimensions of burnout are accompanied by depressed mood as well as by non-specific psychological and psychosomatic complaints” (p. 4).

The four core factors are divided into two subcategories: the inability to invest energy (exhaustion, cognitive impairment, and emotional impairment) and the unwillingness to invest energy (mental distance). The secondary factors load as two factors (depressive mood and psychological distress/psychosomatic complaints). Schaufeli et al. (2020) found their new tool had convergent and discriminant validity with the MBI and OLBI. Unlike the MBI and OLBI,

however, a composite score on the BAT could determine if an individual was burned out.

Schaufeli et al. (2020) believed this made the BAT a more practical application in measuring and addressing burnout than other tools, for the four core factors represent symptoms of burnout while the secondary factors represent the condition of burnout.

Since teacher-specific burnout measures are limited, numerous research studies have used the MBI, BM, CBI, or OLBI to measure teacher burnout (Angelini et al., 2021; Cano-García et al., 2005; Demir Polat & İskender, 2018; Dias et al., 2021; Evers et al., 2004; Klusmann et al., 2016; Skaalvik & Skaalvik, 2009; Timms et al., 2007). The most notable and widely used teacher-specific measure, the Maslach Burnout Inventory-Educators Survey (MBI-ES), was released in 1986. This updated version of the MBI used wording tailored to teachers, administrators, and volunteers working in the educational setting while still measuring emotional exhaustion, depersonalization, and reduced personal accomplishment. Believing that the wording modifications of the MBI-ES—such as changing clients to students—did not capture the essence of teacher burnout, Seidman and Zager (1987) and Friedman (1993) used the original MBI as a foundation to create measures specifically for teacher burnout. Released a year after the updated MBI-ES, the Teacher Burnout Scale (TBS) was created to measure and address four teacher-specific factors: career satisfaction, perceived administration support, coping with job-related stress, and attitudes toward students (Seidman & Zager, 1987). A few years later, the Friedman Teacher Burnout Scale (FTBS) was published, incorporating ten items from the original MBI along with eight additional questions (Friedman 1993). The three-factor structure (exhaustion, depersonalization, and personal accomplishment) of the MBI remained, and the FTBS aimed to capture the unique content and concept of teacher burnout.

Burnout surveys, like burnout definitions, are not in short supply; each measures different dimensions and has strengths and limitations. A review of twelve questionnaires, which included all the surveys mentioned except the Friedman Teacher Burnout Scale (FTBS), found all included exhaustion as a dimension, and all nine of the multidimensional measures included some form of depersonalization (Schaufeli et al., 2020). The research community supports these two dimensions in studying burnout while questioning personal accomplishment due to its low correlation with the other two dimensions and researchers' skepticism that it is a result of burnout (Demerouti & Bakker, 2008; Demerouti et al., 2003; Schaufeli & Taris, 2005). Therefore, exhaustion and depersonalization appear to be the two important dimensions when measuring burnout. Although the Burnout Measure (BM) and the Copenhagen Burnout Inventory (CBI) are reliable, valid, and available for use in the public domain, their one-dimensional exhaustion factor ignores the multifaceted nature of burnout (Schaufeli et al., 2020; Schaufeli & Enzmann, 1998). The Oldenburg Burnout Inventory (OLBI) and the new Burnout Assessment Tool (BAT) both measure the two dimensions of exhaustion and depersonalization, have been shown to be reliable and valid, and are also available for use in the public domain (Demerouti & Bakker, 2008; Demerouti et al., 2001; Schaufeli et al., 2020). The OLBI expands the understanding of exhaustion both physically and cognitively, and the BAT adds cognitive and emotional impairment and secondary symptoms as well. These two measures are viable alternatives for measuring burnout but lack the widespread use of the Maslach Burnout Inventory (MBI). With its three dimensions of exhaustion, depersonalization, and personal accomplishment, the MBI is still considered the standard in measuring burnout and has been used in approximately 90% of all research on the phenomenon (Schaufeli, 2021; Williamson et al., 2018). With the World Health Organization recently defining burnout as a workplace

syndrome resulting from unmanaged chronic stress characterized by exhaustion, mental distancing, or depersonalization, and reduced job-related efficacy, using the MBI to examine burnout would seem preferential since it measures each of the three dimensions outlined. As the research community is still discussing and defining the different dimensions of burnout and developing new tools to measure it, there is a need to explore cost-effective approaches for large-scale measurement. While the Maslach Burnout Inventory (MBI) is the most used tool, its high cost makes it necessary to consider innovative alternatives.

After analyzing the demographics of teachers in public, charter, and private schools and studying the historical development and conceptual framework of burnout, the final section of this literature review first examines the environmental factors that contribute to burnout in the teaching profession. Previous research has shown that environmental factors such as workload, control, community, and leadership are related to teacher well-being. After summarizing prior research on environmental factors, an extensive examination of previous research focused on teacher burnout, environmental factors, and comparisons of teachers working in different school types. The landscape of the United States K-12 education system is broad, with teachers typically working in either elementary or secondary schools. This study focused on the subset of teachers working in elementary schools to provide an analysis of the environmental factors contributing to burnout within the elementary school setting.

Understanding Environmental Factors and Teacher Burnout

Based on the World Health Organization's definition of burnout, the causes of teacher burnout are rooted in the chronic stress factors in the teacher's work environment. When studying environmental factors and burnout, Maslach and Leiter focused on the relationship in terms of the question, "How does burnout result from the interaction of the person and the job?"

(Maslach, 2017, p. 145). Teachers have numerous interactions each day with different stakeholders and environmental factors. In fact, teachers perceive their work environment as complex, dynamic, and multifaceted (Pyhältö et al., 2011), and their perceptions of their work environment are highly predictive of job satisfaction, retention, student achievement, and burnout (Ladd, 2011; Richards et al., 2018; Skaalvik & Skaalvik, 2020; Small & Buckman, 2021). Factors such as leadership, community, control, workload, and student apathy contribute to the complexity of a teacher's work environment. Each contributes to the overall day-to-day experience of teachers, and research has examined the link between each factor and teacher burnout.

Leadership

School leadership or administrative support is a key element in a teacher's work environment that has been cited as an important factor in teacher retention, stress, and burnout (Hakanen et al., 2006; Hughes et al., 2015; Ladd, 2011; Lambersky, 2016). House (1981) identified four overarching types of administrative support for teachers: emotional, instrumental, informational, and appraisal. Emotional support involves respect, trust, appreciation, and open communication, and instrumental support includes providing needed resources and materials that teachers need to perform their jobs. Improving a teacher's classroom practices through staff development is an example of informational support, while appraisal support centers around ongoing constructive feedback and clear guidelines regarding professional responsibilities. Ford et al. (2019) surveyed over 1,500 teachers in a large, urban Midwestern school district. Through multilevel path analysis, the study established interactions between teachers and administrators played a significant role in a strong sense of organizational commitment, and administrators who

created supportive work environments reduced burnout and enhanced commitment if the environment contributed to building collective teacher efficacy.

Community

According to Maslach and Leiter (2008), community encompasses the overall condition of social interactions between individuals and their colleagues, supervisors, and clients and the sense of community within the organization. A teacher's community includes all administrators, colleagues, students, and parents; therefore, a teacher engages in countless social interactions with various stakeholders on any given day. A toxic community can propel an individual toward burnout, and a strong community can insulate an individual from burnout (Ju et al., 2015; Kyriacou, 2001; Leiter & Maslach, 1999; Maslach & Leiter, 2022).

Research studies on teachers have found an inverse relationship between a strong community and burnout (Grayson & Alvarez, 2008; Pyhältö et al., 2011; Szabo & Jagodics, 2019). Using structural equation modeling, Skaalvik and Skaalvik's (2017b) research on senior teachers in Norway found study variables of supportive colleagues, supportive administration, and a collective culture loaded to a single supportive school climate variable, predicting lower burnout levels. This research was built on Skaalvik & Skaalvik's (2011) work of 2569 elementary and middle school teachers, which concluded that supervisory support, relationships with colleagues, and relationships with parents all significantly contributed to a teacher's sense of belonging. Their structural equation modeling analysis found no direct relationship between a teacher's sense of belonging and the motivation to leave, but instead, this relationship was mediated by job satisfaction and emotional exhaustion. Garwood et al. (2018) conducted a mixed-method study of American special education teachers and found that good working relationships between colleagues and administrators and strong relationships with students

helped reduce the symptoms of burnout and led to more work-life balance in teachers. Although teachers may or may not interact with a student's parents daily, a quantitative German study found that pressures perceived by teachers from a student's parents were positively related to burnout. Stoeber and Rennert (2008) found that parental expectations contributed to teacher stress and burnout. This study, along with Skaalvik and Skaalvik's (2011) later study, highlights the influence of the parent community in a teacher's work environment and its connection to a teacher's well-being. Research has emphasized the importance of a supportive and collaborative professional community, including administrators, colleagues, students, and parents, in reducing teacher burnout.

Workload

Workload refers to job demands that are characteristics of a position that require prolonged physical or mental effort associated with a physiological or psychological cost (Demerouti et al., 2001). Yuker (1984) defined teacher workload as the sum of time and effort dedicated to a teacher's professional responsibilities, including teaching, parent and student interactions, school and community service, and professional development. Work overload can occur when job demands are high and resources, such as time, are low, or the job demands exceed an individual's capabilities (Maslach & Leiter, 2008; 2022). A positive relationship between work overload and exhaustion has been shown in studies in various job fields, including education (Demerouti et al., 2001; Halbesleben & Demerouti, 2005; Klassen, 2010; Van Droogenbroeck et al., 2014). During the COVID-19 pandemic, teachers reported increased workloads and longer working hours in multiple research studies (Kaden, 2020; Marshall et al., 2022; Marshall, Smith, et al., 2023).

Control

Control at work means having the necessary decision-making power and flexibility to do one's job (Jimenez & Dunkl, 2017). In burnout research, role conflict, role ambiguity, and autonomy have fallen under the control at work umbrella (Leiter & Maslach, 1999). Role conflict occurs when an individual has conflicting demands, such as two contradictory tasks or values at work (Leiter & Maslach, 1999; Maslach & Leiter, 2008; Papastylianou et al., 2009). Role ambiguity refers to the lack of guidance and essential direction of a given job's position (Leiter & Maslach, 1999; Rizzo et al., 1970). Rizzo et al. (1970) stated that role conflict and ambiguity lead to stress, dissatisfaction, and ineffectiveness. Studies have shown role conflict and ambiguity linked to the three dimensions of teacher burnout (Dorman, 2003; Papastylianou et al., 2009; Tong et al., 2015). Autonomy refers to an organization giving employees the agency and flexibility to make necessary decisions when doing their jobs. Regarding teaching, autonomy may come as flexibility in how or when to teach a concept. Previous researchers found an inverse relationship between teacher autonomy and teacher burnout (Javadi, 2014; Skaalvik & Skaalvik, 2009).

Student Apathy

Student apathy is characterized by signs of disengagement, aloofness, indifference, or lack of motivation (Raffini, 1988). Student apathetic behaviors include avoiding challenges, giving up easily, declining grades, relying heavily on assistance, neglecting to finish tasks, and expressing disinterest in the classroom or in their studies (Eccles et al., 1993; Givvin et al., 2001; Walsh, 2006). Research has connected teacher burnout and student apathy, with a focus on student motivation or behavior (Friedman, 1995; Klassen, 2010; Madigan & Kim, 2021; Shen et al., 2015; Skaalvik & Skaalvik, 2011; 2020). When studying elementary and middle school

teachers, Covell et al. (2009) found that teachers reported high efficacy and lower depersonalization when they perceived greater student participation in their classrooms. In another study, Skaalvik and Skaalvik (2016) discovered a strong negative association between student motivation and high school teacher inefficacy ($\beta = -.31$), while their follow-up study (2017a), which included elementary and secondary teachers, found low student motivation weakly related to all three dimensions of burnout: emotional exhaustion ($\beta = .20$), depersonalization ($\beta = .24$), and inefficacy ($\beta = -.17$). Research has also demonstrated that poor student behavior is related to the three dimensions of teacher burnout (Grayson & Alvarez, 2008; Hastings & Bham, 2003; Huk et al., 2019; Klusmann et al., 2008). Huk et al. (2019) reported student inattentiveness was positively related to all three burnout dimensions in a sample of high school teachers: emotional exhaustion ($r = .24, p < 0.05$), depersonalization ($r = .36, p < 0.01$), and inefficacy ($r = .26, p < 0.05$), and student disrespect was correlated with exhaustion ($r = .39, p < 0.01$) and depersonalization ($r = .31, p < 0.01$).

School Type, Environmental Factors, and Teacher Burnout

Research indicates that work environments significantly impact teacher burnout, retention, and job satisfaction (Carver-Thomas & Darling-Hammond, 2019; Podolsky et al., 2019; Skaalvik & Skaalvik, 2009; 2020). Internationally, research has shown differences in teacher burnout across different school types while examining environmental factors (Al-Adwan & Al-Khayat, 2016; Buka & Bilgiç, 2010; Ferreira & Martinez, 2012; Kara, 2019; Shackleton et al., 2019; Sonmezer & Eryaman, 2008). Despite this topic's recognition in international research, there are few comparative studies in the United States examining working factors across public, charter, and private schools over the last ten years.

State-Specific Comparison Studies

Research by Small and Buckman (2021) examined the impact of school type on teacher job satisfaction among a population of public and private school teachers in Georgia. Utilizing multiple regression analysis of a sample of 128 teachers equally represented from both types of schools, the researchers discovered that private school teachers reported higher job satisfaction levels than their public school counterparts ($b = -.314, p < 0.05$). Factors such as professional discretion ($b = -.284, p < 0.05$) and curriculum control ($b = -.283, p < 0.05$) were significant contributors to teacher job satisfaction. Personal attributes, such as age, gender, and experience, and work environment characteristics, such as salary, student enrollment, and school location, were not significantly related to job satisfaction. Small and Buckman's regression model accounted for approximately 16% of the variance in job satisfaction related to school type.

Wei et al. (2014) compared public and charter school teachers in rural Texas to determine if teachers' perceptions of working conditions, instruction, job satisfaction, self-efficacy, and teacher evaluation varied based on school type. Using convenience sampling, 2,273 teachers from 16 charter schools and 44 traditional public schools completed an online survey. The study used propensity score matching to minimize the impact of confounding variables and enhance the validity of the results. While there was no significant difference in job satisfaction or self-efficacy between the two groups, charter school teachers reported greater student engagement, higher expectations of students, and a more supportive teaching environment than their public school counterparts. According to the researchers, the study's focus on rural Texas teachers and the potential differences in student populations in charter and traditional schools limited generalizations that could be made.

Bussell (2017) conducted a small study comparing teacher burnout between 30 charter school teachers and 32 public school teachers in Memphis, Tennessee. The study involved administering a demographic survey and the MBI-ES to the participants to analyze differences in burnout levels based on school models, gender, years of experience, and subjects taught. Data analysis was performed using ANOVAs and independent t-tests, leading Bussell to conclude that there were no statistically significant differences in the frequencies of burnout dimensions among any of the variables.

The comparison research on teacher environments and job satisfaction has provided valuable insights, although each study has limitations. Bussell (2017) compared burnout between charter and public school teachers, but the findings were limited to 62 teachers from a single city in Tennessee. Although Wei et al. (2014) found no significant differences in job satisfaction between charter and public school teachers in rural Texas, their study discovered that charter school teachers reported higher student engagement and more supportive work environments. Small and Buckman (2021) expanded the comparison to private versus public school teachers in Georgia, showing that private school teachers were more satisfied and reported greater control, with 16% of the variance in job satisfaction attributed to the type of school. These studies offer important perspectives, especially on job satisfaction, but their findings are limited by small and geographically specific samples, leaving broader questions about teacher experiences and environmental factors unanswered.

National Comparison Studies

According to Oberfield (2016), few national studies have compared teachers across different educational environments. When examining research over the past ten years, three studies have used data from the Schools and Staffing Survey (SASS) and the National Teacher

and Principal Survey (NTPS) to examine and compare teachers working in public and charter schools. Oberfield's (2016) study not only compared public and charter school teachers but also dove deeper into the management of charter schools, Education Management Organization (EMO) and non-EMO-run schools, and found differences within the charter school population. Using data from the 2020-2021 NTPS, Engle et al. (2024) investigated the relationship between teacher leadership, job satisfaction, burnout, and intent to leave among public school teachers in rural settings. Finally, Weiss et al. (2023) conducted a longitudinal study comparing charter and public school teachers from 2000 to 2018. They found differences between the two populations, though trends appeared to show that teachers in both settings were becoming more similar. Because each of these studies used data from the National Center of Educational Statistics' national surveys, findings from these studies are not limited to a specific geographical area or state.

Oberfield (2016), using data from the 2010-2011 SASS survey, expanded the comparison of teachers in traditional public schools and charter schools by looking at the two different management models of charter schools, EMO and non-EMO. EMO charter schools are private companies that manage and operate charter schools, often multiple schools within the state or throughout the country, and control curriculum and management decisions. In contrast, non-EMO charter schools are managed independently through parent, teacher, or community groups. Oberfield (2016) used teachers' responses from the SASS survey to determine their perceptions of red tape, management, autonomy, and accountability by school type, traditional or charter. Two different levels of control variables, teacher and school, were used in the analysis. Age, experience, gender, higher education, and subject taught were controlled at the teacher level, and school-level variables included location, number of students, percentage of students with

individualized education plans (IEPs), and grades taught. Oberfield began with a bivariate analysis to compare means and then performed a multivariate analysis. The multivariate analysis relied on ordered logistic regression because the SASS survey provided ordered survey responses for teachers. In general, TPS and charter school teachers reported similarly. No differences were found in teachers' perceptions of school leadership, job recognition, or fear of losing their jobs based on student performance on state assessments. The bivariate analysis found only two statistically significant results, and the multivariate analysis confirmed both. As a collective, charter school teachers ($M = 2.68$) report that duties and paperwork interfered less than TPS teachers ($M = 2.88$) ($p < .05$). When examining the results between the two types of charter schools, EMO-run charter school teachers reported less autonomy ($M = 3.15$) than their non-EMO-run counterparts ($M = 3.30$, $p < .05$). Further analysis of the autonomy variable found EMO-run school teachers were more likely to report paperwork interfered with their teaching and less control over the content, technique, grading, and homework compared to non-EMO-run schools. Oberfield's (2016) research highlighted both similarities and differences between TPS and charter schools, but more importantly, the possibility of differences between charter schools being dependent on organizational management. Finnigan (2007) believed the rise of EMO-run schools, the franchised version of charter schools, may lead to charter schools losing autonomy and becoming more similar to TPS because of the effort to replicate successful and established charter schools within the EMO-run network.

Although Engle et al. (2024) did not compare rural teachers to TPS or charter school teachers, this study used the 2020-2021 NTPS data to examine teacher burnout within a subpopulation of school teachers. Engle et al. (2024) explored types of teacher leadership and its association with job satisfaction, teacher burnout, and intent to leave. A total of 8,910 teachers

were included in the data analysis. Engle et al. (2024) performed an Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to develop the latent variables, followed by SEM to determine the structural effects between study variables. Using gender, race, highest degree of education, and school enrollment as control variables, three SEM models were developed. Based on the study's third model, higher levels of both types of teacher leadership (instructional and non-instructional) were associated with lower levels of teacher burnout $\beta = -0.190$, 95% CI [-0.195, -0.184] and $\beta = -0.221$, 95% CI [-0.227, -0.216] indicating rural teachers given leadership in either instructional or non-instructional capacities reported reduced burnout levels. Two questions from the NTPS determined a teacher burnout score. The third SEM model also indicated higher levels of both types of teacher leadership associated with higher job satisfaction. Additionally, teachers who reported lower burnout levels and high job satisfaction reported being less likely to leave or move from their current teaching positions.

Using data from the Schools and Staffing Survey (SASS) and the National Teachers and Principal Survey (NTPS), Weiss et al. (2023) conducted a longitudinal study of teachers working in charter and traditional public schools between 2000 and 2018. Data analysis revealed that traditional public school teachers (TPS) were more experienced, older, had a higher percentage of graduate degrees, and were more likely to be certified (all statistically significant at $p < .01$), though these differences appear to be narrowing over the study's period. For instance, TPS teachers held steady at a 90% certified rate in the study, while the percentage of certified charter school teachers increased from 47% in 2000 to almost 73% in 2018. Charter school teachers reported working longer hours, earning less, and teaching a smaller percentage of students with Individualized Education Programs (IEPs) than their TPS counterparts. Weiss et al. (2023) found no consistent trends in teachers' attitudes towards administration, colleagues, and students, but

charter school teachers consistently reported higher levels of parental support than TPS teachers, though this gap also appeared to be narrowing over time.

While each of these studies gives insight into groups of teachers, TPS, charter, and rural, on the national scale due to using data from the National Center for Educational Statistics (NCES), none of these studies include teachers working in private schools, and only one examined teacher burnout. Oberfield's (2016) research findings of differences in teacher autonomy between TPS and charter schools and differences within the two types of charter schools opened the door to examining charter school management further in research. Adding private schools into the comparison expands the understanding of teachers' perceptions across the three most predominant K-12 educational institutions in the United States. Interestingly, during the COVID-19 pandemic, a few studies included teachers from all three school types.

During and after the COVID-19 Pandemic

According to one poll of 1,000 United States teachers conducted in the spring of 2022, roughly one out of every six was required to quarantine because of COVID-19 (EdChoice, 2022). Qualitative and quantitative studies emerged after the COVID-19 pandemic, examining the experiences of teachers during this unprecedented disruption to education in modern times. Teachers faced fears of themselves or a family member contracting the COVID-19 virus, new demands, such as moving to remote and hybrid learning models, and balancing working from home and concurrently managing their own families' needs. In a joint research study, the Yale Center for Emotional Intelligence and the Collaborative for Social-Emotional and Academic Learning surveyed over 5,000 teachers to gauge the emotions of teachers during the COVID-19 pandemic. The study found that anxiety was the most frequent emotion, followed by fear, worry, feeling overwhelmed, and sadness (Brackett & Cipriano, 2020). In Reich et al.'s (2022)

qualitative study of public, charter, and private school teachers' experience teaching during the 2020 school year, three themes emerged: struggle to motivate students, burnout, and loss of their own efficacy, along with widening student disparities during remote learning.

Comparison Research

One year after the COVID-19 pandemic, Marshall et al. (2023) surveyed 798 teachers recruited via social media links to study teacher burnout, school types, level of autonomy, and administrative support. Most (87.1%) of the participants worked in traditional public schools, followed by 7% in charter schools and 5.9% in private schools, and 58.9% of the teachers reported working in elementary schools. Due to the significant differences in how states across America address the COVID-19 pandemic with policies and regulations, Marshall et al. group teachers according to their state of residence to explore the predictors of burnout and yielded a significant model $F(10,49) = 22.92, p < .001$. Teachers in all three types of schools reported similar levels of burnout, and no demographic variables were significant, though the model indicated that higher levels of teacher autonomy ($\beta = 1.088$) and administrative support ($\beta = .145$) were associated with reduced burnout. The study also examined potential differences in these variables between traditional public, charter, and private schools. One-way ANOVA tests revealed no significant variance in administrative support ($F(3,794) = 1.35, p > .05$) across the three school types. However, a significant difference in teacher autonomy ($F(3,794) = 11.89, p < .001, \omega^2 = .04$) was observed. Post hoc analysis indicated that teachers in charter and private schools reported higher autonomy levels than TPS teachers.

Gap in Research

Comparison studies have examined teachers within specific geographical areas and nationally. Some have used national data, while others have used social media to survey and

study teachers. Over the past ten years, comparison studies have focused on traditional public and charter school teachers, though only a limited number exist. A limited number of recent qualitative and quantitative studies, using social media for participant recruiting, have included private school teachers. Internationally, teacher burnout and school type research has shown an association between the two and various school environmental factors within each model (Al-Adwan & Al-Khayat, 2016; Buka & Bilgiç, 2010; Ferreira & Martinez, 2012; Kara, 2019; Shackleton et al., 2019; Sonmezer & Eryaman, 2008). A comparison of a nationally represented sample of teachers working in public, charter, and private schools and the level of burnout and an examination of school work environment factors was needed for further investigation.

CHAPTER 3: METHODOLOGY

Examining teacher burnout and the school environment is an imperative research endeavor because a teacher's well-being impacts student learning (Hargreaves et al., 2019; Klusmann et al., 2016; Oberle & Schonert-Reichl, 2016; Shen et al., 2015). Since students' success academically and developmentally is mainly dependent on and fostered by teachers, a high priority to understanding environmental factors of stress and burnout for teachers exists for researchers (McIntyre et al., 2017; Travers, 2017). This study aimed to understand the diversity in work environments of different school types, including public, charter, and private schools, and the relationship between teacher burnout. This rationale section provides a comprehensive justification for the research approach, data source, independent and dependent variables, methods of analysis, and contributions of this study.

Research Approach and Rationale

This study's overarching approach was quantitative and nonexperimental research. Quantitative research is characterized by collecting and analyzing data to answer research questions that are specific and measurable in an objective way (Creswell & Guetterman, 2018; Goertzen, 2017). Based on the research questions and objectives of the study, a quantitative approach best assessed the differences in burnout, school environment variables, and associations between working conditions and burnout across various school types. The study's independent variable, school type, was an attribute variable. Attribute independent variables are preexisting characteristics of individuals or their surroundings that remain constant throughout the study (Gliner et al., 2017). Gliner et al. (2017) classify studies with at least one attribute independent variable as non-experimental.

The primary purpose of this study was to compare teachers working in different school types. Therefore, the research approach was comparative. Comparative research is appropriate when two or more groups differ on the independent variable, and this study aimed to examine differences in one or more dependent variables and differences in one or more independent variables (Gliner et al., 2017).

Within the comparative research approach, a secondary data analysis was utilized. This type of data analysis is a method of research using data collected by another researcher or institution to re-analyze the data to answer the original research question or to answer new research questions (Glass, 1976; Hakim, 2000). Among the benefits of secondary data analysis is that researchers have access to large, high-quality data sets that are more representative of the general population (Smith, 2008). The secondary data set used for this study was the 2020-2021 National Teacher and Principal Survey (NTPS). The NTPS is a nationwide, large-scale survey of K-12 principals and teachers conducted by the National Center for Educational Statistics (NCES) every two to three years. Since 1987, the National Center for Education Statistics (NCES) has conducted this survey and its predecessor, the Schools and Staffing Survey (SASS), and it is the most extensive and comprehensive survey of United States teachers. The NCES used a purposeful multistage sampling procedure to ensure a nationally representative sample for the NTPS. The NTPS survey responses provided a valuable lens through which to explore teachers' perceptions because of the large and diverse sample of educators across the United States. The survey items related to stress and burnout provided a standardized framework for assessing and comparing teachers' experiences across different school types. Surveys, such as the NTPS, allow researchers to collect quantitative data about a population or sample's opinions, attitudes, behaviors, or specific characteristics using a questionnaire and analyze statistical data to uncover

patterns and test research questions (Creswell & Guetterman, 2018). The selection of secondary data from the NTPS was based on the desire to objectively examine burnout and school environment variables quantitatively and comprehensively in teachers in different elementary school settings throughout the United States. By considering this diverse group of educators, the research aimed to uncover insights that contribute to a nuanced understanding of the factors influencing teacher well-being and, by extension, the overall dynamics of the educational landscape.

The significance of this research was to inform policies and strategies to improve working conditions and support teacher well-being, which not only fosters a resilient and satisfied workforce but also strengthens the educational experience of our students.

Measures and Sampling

The measure for this study was the 2020-2021 National Teacher and Principal Survey (NTPS). Developed by the National Center for Education (NCES), the NTPS aims to collect data to offer an in-depth portrait of public and private K-12 schools in the United States, including staff. The NTPS consisted of six questionnaires: the Principal Questionnaire, the School Questionnaire, the Teacher Questionnaire, the Private School Principal Questionnaire, the Private School Questionnaire, and the Private School Teacher Questionnaire. Data from the School Questionnaire and the Private School Questionnaire, completed by the school administration, collects general information about each school, program, and service, as well as the necessary information for each teacher's classification of school type. The Teacher Questionnaire and the Private School Teacher Questionnaire, completed by teachers, collects general background information, professional experience, class organization, working

conditions, school climate, and teacher attitudes (*National Teacher and Principal Survey - Questionnaires*, n.d.).

The National Center for Education Statistics (NCES) conducts the National Teacher and Principal Survey (NTPS) every two to three years, featuring both a core set of questions and a rotating set that appears in alternating cycles. The 2020-2021 survey included questions on job satisfaction and burnout. While all surveys are accessible to the public on the NCES website, the data itself is not public. Accessing the data requires an application, approval process, and permission from the National Center for Education Statistics, a United States Department of Education department.

The NTPS 2020-2021 sample frame was created using data from the 2017-2018 and 2018-2019 Common Core of Data files and the 2017-2018 Private School Universal Survey, which are comprehensive U.S. Department of Education databases. Schools included in the sample frame had to offer instruction in at least one grade from 1 to 12 and employ at least one teacher in a building other than a private home. The schools were selected using a systematic probability proportionate to size method to ensure that the sample was nationally representative, comparing the number of full-time teachers to factors such as school level, school enrollment, and school model (public, private, or charter). The NTPS 2020-2021 sample comprised approximately 12,900 schools, including 9,900 public and 3,000 private schools (*National Teacher and Principal Survey - 2020–21 NTPS Methods and Procedures*, n.d.).

Participants

The study population for this research comprised of public, private, and charter school teachers who completed the 2020-2021 National Teacher and Principal Survey (NTPS), which collectively represents all types of educators within the United States educational system. The

focus of the study was to explore and analyze teachers' perceptions through their responses to questions related to stress, burnout, and work environment on the NTPS. This population was integral to the research questions, as the aim was to understand how teachers across different school types perceive their work environments and navigate the challenges associated with stress and burnout.

The NTPS 2020-2021 survey involved approximately 39,600 public school teachers and 4,400 private school teachers participated in the survey. The participants for this study ($n = 13,560$) were a subset of the original participants and intentionally selected from the NTPS 2020-2021 response pool of teachers who completed either the 2020-2021 Teacher Questionnaire or the 2020-2021 Private School Teacher Questionnaire based on specific criteria. To comply with the NCES data confidentiality standards, all reported raw data have been rounded to the nearest ten. The sample included teachers from all 50 states and the District of Columbia.

The teachers had to meet three main criteria based on their questionnaire responses to be included in this research study. First, teachers needed to identify themselves as full-time teachers. Next, the teachers were required to select that they were educating students in grades K-5. Lastly, they needed to have accompanying data from their respective school questionnaire to identify the type of school in which they worked. To determine if a public school teacher worked in a charter school and the classification of a private school as religious or non-religious, data from the School Questionnaire and the Private School Questionnaire surveys were merged through a control number with the teacher datasets. The original participant pool for full-time K-5 teachers was 17,270, with 15,880 public and 1390 private school teachers. Due to the lack of a school survey, 3470 public and 220 private school teachers were removed from the participant

pool, for these teachers' school types were unable to be determined and was critical for the research questions.

Measures and Constructs

Overview of the Variables

The study organized variables into three main categories: school type, burnout, and working conditions. Based on previous research, survey questions from the NTPS 2020-2021 were used to create categorical and latent construct variables (Boyle et al., 2023; Engle et al., 2024; Gimbert & Kapa, 2022; Mosley et al., 2022; Nguyen & Kremer, 2022; Ni, 2012; Oberfield, 2016). This section describes questions used for the study's variables, including construct variables and the justification for their use based on prior research.

School Type

Throughout this study, school type was an independent variable. The three main categories were public, charter, and private schools, with further distinctions within the charter school (EMO and non-EMO) and private school (religious and non-religious) categories. Data from the 2020-2021 School Questionnaire and the 2020-2021 Private School Questionnaire were utilized to identify each teacher's school type. These questionnaires are the initial surveys mailed to sample schools and completed by school administrators. The initial surveys collect general information about the school, such as the grade levels of students, type of school, programming, and staff.

Questions from the School Questionnaire determined whether a public school teacher's school was a public or charter school and identified its management structure. The specific question (1-8) asked, "Is this school a public CHARTER school?" Schools answering "No" were classified as public for the study. Those answering "Yes" were classified as charter schools. A

follow-up question to schools that answered “Yes” ascertained the type of charter school. The question (1-9) asked, “Which of the following best describes the governance structure of this public charter school?” Schools indicating that they were part of a non-profit or for-profit charter management organization managed by a central agency were designated as EMO-charter schools. The study classified schools that selected independent or stand-alone, part of a traditional public school system, or other as non-EMO charter schools. This classification procedure for charter schools followed the work of Oberfield (2016).

The classification of private school teachers as working in a religious or non-religious school relied on one question (1-23) from the Private School Questionnaire. The question states, “Does this school or program have a religious orientation or purpose?” If the school responded “Yes,” the classification for the study was religious, while “No” was designated as non-religious. The survey does follow up with an orientation or affiliation of the school question, but further classification was beyond the scope of this research.

Burnout

The dimensions of burnout, emotional exhaustion, depersonalization, and inefficacy, based on the WHO’s definition and the work of Maslach, are not explicitly addressed on the NTPS, but researchers have measured teacher burnout and exhaustion with questions from the NTPS (Boyle et al., 2023; Engle et al., 2024; Mosley et al., 2022; Nguyen et al., 2022). Following the research of Boyle (2021) and Mosley et al. (2022), Table 3 states the NTPS 2020-2021 survey questions used to create an overall teacher burnout construct. The NTPS asked teachers to rate their agreement with statements on a 1-4 Likert Scale, with 1 being strongly disagree and 4 being strongly agree.

Table 3*NTPS Questions Used for the Burnout Construct*

Number	Questions
T1741	The stress and disappointments involved in teaching at this school aren't really worth it.
T1744	If I could get a higher paying job I'd leave as soon as possible.
T1745	I think about transferring to another school.
T1746	I don't seem to have as much enthusiasm now as I did when I began teaching.
T1747	I think about staying home from school I'm just too tired to go.

Work Conditions

The study examined eight work conditions. The latent constructs were leadership, teaching community, classroom control, and teacher collective control. Latent constructs are theoretical, cannot be directly observed, and are inferred by observable indicators (Agresti, 2017). Ni's (2012) factor analysis of the NTPS survey questions and previous researchers' (Boyle et al., 2023; Gimbert & Kapa, 2022; Oberfield, 2016) use of questions in similar constructs justified the use of these questions to create the four constructs. The study measured recognition, student apathy, parent support, and workload using individual survey items for each variable. The two subcategories of workload, contractual and actual, were each measured with a quantitative response to the nearest hour from the teacher. Table 4 outlines the survey questions associated with their respective construct and variables. Working conditions were the dependent variable in Research Question 2.

Table 4*Working Conditions and Associated Survey Questions*

Working Condition	Survey Questions
Leadership	To what extent do you agree or disagree with each of the following statements? T1713: The school administration's behavior toward the staff is supportive and encouraging. T1719: My principal enforces school rules for student conduct and backs me up when I need it. T1722 The principal knows what kind of school he or she wants and has communicated it to the staff. T1743: I like the way things are run at this school.
Teaching Community	To what extent do you agree or disagree with each of the following statements? T1720 Rules for student behavior are consistently enforced by teachers in this school, even for students who are not in their classes. T1771 Most of my colleagues share my beliefs and values about what the central mission of the school should be. T1723 There is a great deal of cooperative effort among staff members. T1742 The teachers at this school like being here; I would describe us as a satisfied group.
Classroom Control	How much actual control do you have IN YOUR CLASSROOM at this school over the following areas of your planning and teaching? T1707 Selecting textbooks and other instructional materials T1708 Selecting content, topics, and skills to be taught T1709 Selecting teaching techniques T1710 Evaluating and grading students T1711 Discipling students T1712 Determining the amount of homework to be assigned
Teacher Collective Control	How much actual control do you think teachers have over school policy AT THIS SCHOOL in each of the following areas? T1700: Setting performance standards for students at this school. T1701 Establishing curriculum T1702 Determining the content of in-service professional development programs T1703 Evaluating teachers T1704 Hiring new full-time teachers

		T1705 Setting discipline policy T1706 Deciding how the school budget will be spent
	Contractual	T1600: How many hours does your contract require you to work during a typical FULL WEEK at THIS school.
Workload	Actual	T1602: Including hours spent during the school day, before and after school, and on the weekends, how many hours do you spend on ALL teaching and other school-related activities during a typical FULL WEEK at THIS school?
Parent Support		To what extent do you agree or disagree with each of the following statements? T1716 I receive a great deal of support from parents for the work I do.
Student Apathy		To what extent is each of the following a problem in THIS school? T1736: Student apathy
Recognition		To what extent do you agree or disagree with each of the following statements? T1724: In this school, staff members are recognized for a job well done.

Analytical Procedures

This study utilized a secure remote computing environment to conduct all analyses due to NCES requirements and the sensitivity of the dataset. In this remote environment, the first task was to merge four datasets to create a single dataset representing full-time K–5 teachers. Fortunately, the NTPS data is fully imputed, for missing data is imputed through Donor Respondent Imputation, also called Hot Deck, or the Central Tendency Method. Next, the study calculated and created its constructs (burnout, class control, teacher collective control, leadership, and teaching community). Descriptive statistics and assumption testing examined the data and constructs and revealed that all variables violated the normality assumptions. Consequently, the study opted for non-parametric methods for inferential analysis.

To ensure accurate analysis of the NTPS data, the study incorporated final and replicate weights in all statistical procedures, as required by the NCES guidelines. Each teacher receives

one final sample weight and 200 replicate weights attached to their data. The final sampling weight adjusts for different response rates by subgroup and unequal selection probabilities, allowing for generalization to the national teacher population. The provided replicate weights are used to compute accurate variances and standard errors that account for the NTPS's complex sampling design. Using the provided weights enhanced the statistical analyses' reliability and validity and followed the NCES's required guidelines.

The study used the statistical package R for all statistical analyses because it is the software available within the secure environment, and specific code was created to account for the complex sampling design to ensure the weights were correctly applied. According to the NTPS codebook, the selection of private schools is based on affiliation and region rather than state, unlike public schools. As a result, comparisons between public and private schools, principals, and teachers are only possible at the regional or national levels. A survey design needed to be created in R to account for the complex sampling structure and comparison restrictions of the NTPS by stratifying by REGION and clustering within schools (CNTLNUMS) to reflect the nested structure of teachers within schools. The NTPS utilizes Jackknife Replication to calculate variance. Therefore, when applying the weights, the survey design code needed to specify Jackknife Replication for accurate variance and standard error estimations.

Upon completion of all data analyses, an export request was prepared and submitted for approval. All results and the accompanying R code that produced the result must undergo review before being released to the researcher. Raw data files may not leave the secure environment. The following sections detail the dataset preparation, assumption testing, descriptive statistics, and inferential analyses conducted to address the study's three research questions.

Dataset Preparation

Merging and filtering four NTPS survey datasets created a single data set representing full-time teachers working in grades K-5. Initially, specific columns identified to establish the school type a teacher worked were selected from the School Questionnaire and the Private School Questionnaire. Joining the selected columns to the Teacher Questionnaire and Private Teacher Questionnaire datasets by the school control number (CNTLNUMS) created two new datasets with the essential information for school type classification. Further filtering removed teachers who did not work full-time, were not teaching K-5, and did not have school information linked to their school control number. Each dataset had two new columns created to identify the type of school. The school type column identified a school as public, charter, or private, and the specific school type column identified a school as public, EMO, non-EMO, religious, or non-religious. Although most of the Teacher and Private Teacher Questionnaires are the same, each contains unique questions that only pertain to schools in the public or private sector. Because of this, the removal of unique columns before merging into the final study dataset was necessary. These columns did not pertain to the research questions. The creation and calculation of the study's constructs occurred after the final merging of the public and private school teacher datasets. Assumption testing, demographics, and statistical analyses followed.

Assumption Testing

The study performed assumption testing to determine if parametric or non-parametric tests would be used to answer the research questions. According to Huck and Cormier (1996), four underlying assumptions must be considered when using inferential statistics such as t-tests and ANOVAs: the sample is a random subset of the population, independence of observation, normal distribution of the dependent variable, and equal variance in terms of the dependent

variable. For this study, the first two assumptions are met based on the procedures used by the NCES for the NTPS survey. To examine the normality of the dependent variables, an examination began with calculating the skewness and boxplots of each variable. Next, Levene's Test evaluated the homogeneity of variance among groups. Finally, the presence of outliers was identified through box plots since outliers have the potential to impact the results of the analyses significantly.

The assumption testing results determined that non-parametric tests were appropriate for this study. Each variable violated normality, and histograms of each variable based on school type confirmed skewness and box-plot calculations. Histograms for the study variables are presented in Appendix A. Levene's test results also violated the assumption of homogeneity between school types (public, charter, and private) for each variable.

Descriptive Statistics

Descriptive statistics provided an initial overview of the data. To understand the demographic characteristics of the study participants, descriptive statistics provided a summary that included teacher age, years of experience, gender, ethnicity, race, salary, and school type (public, charter [EMO and non-EMO], and private [religious and non-religious]). Next, the mean and standard deviation for factors comprising multiple questions (e.g., Burnout, Leadership, and Classroom Control) were derived unweighted and weighted. Cronbach's alpha was also calculated to ensure the internal consistency of each factor and provided a measure of its reliability. The means, standard deviations, and ranges for burnout and work conditions variables were reported. The analysis of the burnout and work condition variables provided a preliminary understanding of the data distribution and allowed for identifying potential outliers and issues related to normality.

Inferential Statistics

Inferential statistical techniques assessed if there were significant differences in burnout and work conditions (Workload, Classroom Control, Teacher Collective Control, Recognition, Leadership, Teaching Community, Parent Support, and Student Apathy) across school types. The skewness of each variable caused a violation of normality, so the study conducted non-parametric tests. The Wilcoxon Rank-Sum tests (the Mann-Whitney U) and Kruskal-Wallis test evaluated differences between study variables across school types (public, charter, and private) and further sub-categories within charter and private schools. Additionally, a Spearman's Rank Order Correlation test examined whether significant associations existed between work conditions and burnout among teachers in different school types. This approach aimed to determine if the strength of the relationships between burnout and work conditions varied across different school types and if the associations varied across different school types.

To determine if an analysis yielded statistically significant results, p -value thresholds were set at $p < 0.05$. Reported along with the p -values were effect sizes, measured with Spearman's ρ , to measure statistical relationships' strength and practical importance between study variables. Following Cohen's (1988) guidelines, correlations of 0.10, 0.30, and 0.50 were interpreted as small, medium, and large effect sizes, respectively.

Research Question 1

Research Question 1 required two statistical tests, which examined whether there were significant differences in burnout among teachers working in public, charter, and private elementary schools. A Kruskal-Wallis test was conducted to compare the differences in burnout across public, charter, and private school types. When statistical differences were discovered, Dunn's post hoc test identified pairwise differences between groups. For the comparisons within

the charter and private school types, such as examining burnout levels within specific types of charter (EMO vs. non-EMO) and private schools (religious vs. non-religious), the Wilcoxon Rank-Sum Test assessed differences between the two groups. The study conducted each test twice: first without weights and then using the R survey design code to apply the appropriate weights in the analysis. Conducting each analysis in this manner assessed the impact of the weighting on the results and ensured that the complex survey design code was applied correctly to the analysis.

Research Question 2

The analysis for Research Question 2 focused on determining whether there was a significant difference in school environment variables (Workload, Classroom Control, Teacher Collective Control, Recognition, Leadership, Teaching Community, Parent Support, and Student Apathy) among public, charter, and private school teachers. Like Research Question 1, a Kruskal-Wallis test was conducted for each school environment variable to compare the differences across public, charter, and private school types. When statistical differences were discovered, Dunn's post hoc test identified pairwise differences between groups. This research question required nine unweighted and nine weighted separate analyses. As stated before, conducting each analysis in this manner assessed the impact of the weighting on the results and ensured that the complex survey design code was applied correctly.

For the comparisons of school environment variables (Workload, Classroom Control, Teacher Collective Control, Recognition, Leadership, Teaching Community, Parent Support, and Student Apathy) within the specific types of charter (EMO vs. non-EMO) and private schools (religious vs. non-religious), the Wilcoxon Rank-Sum Test, unweighted and weighted, assessed differences between the two groups.

Research Question 3

In Research Question 3, the analysis examined whether significant associations existed between work conditions and burnout (Workload, Classroom Control, Teacher Collective Control, Recognition, Leadership, Teaching Community, Parent Support, Student Apathy, and Burnout) among teachers in different school types (public, charter, and private). The study selected a Spearman's Rank-Order Correlation over a Pearson correlation analysis to explore the relationships between the variables because of the violation of normality for all variables. The Spearman correlation matrix provided the opportunity to evaluate the strength and direction of associations among these variables within each school type and compare associations across school types. Finally, performing an unweighted and weighted Spearman correlation evaluated how weighting influenced the results and verified the accurate use of the complex survey design code.

Summary

This quantitative comparison study used secondary data from the 2020-2021 National Teacher and Principal Survey (NTPS). The NTPS comprehensively examines various aspects of the United States educational landscape, including teacher characteristics, burnout, and working conditions within schools, particularly emphasizing environmental factors such as resources, support, and school climate. Variables for this study were classified as school type, burnout, or work conditions. The latent variables were constructed based on previous researchers' work. Statistical analyses included the Wilcoxon Rank-Sum Test, the Kruskal-Wallis test, and the Spearman's Rank-Order Correlation to answer the three overarching research questions and sub-questions. This study hoped to expand the understanding of teacher burnout and working

conditions across public, charter, and private elementary schools in the United States, for a lack of comparative research exists.

CHAPTER 4: RESULTS

Chapter 4 presents the findings from the 2020-2021 National Teacher and Principal Survey (NTPS) data analysis, which examined the relationships between teacher burnout and work environment factors of full-time elementary teachers working in public, charter, and private schools in the United States. Descriptive and inferential statistical analyses were conducted to address each research question. To determine if parametric analyses would be appropriate for this study, assumption testing for normality and homogeneity was done. All variables had significant violations of normality; therefore, the study proceeded with non-parametric testing. Both unweighted and weighted data analyses were conducted to account for the complex survey design and included assumption testing, school type comparison, and correlation analyses, though due to requirements by the NCES, only the weighted analyses were presented. The study's three research questions organize the chapter. Descriptive statistics and assumption testing are presented first, followed by the results for each research question. The chapter concludes with a summary of the findings, which will be discussed in Chapter 5.

Descriptive Statistics

The sample for this study includes 13,560 K-5 elementary teachers, a subsample of the NTPS 2020-2021 surveyed teachers. Table 5 lists the number of teachers in each school type and subtype. The table complies with NTPS reporting requirements for numbers rounded to the nearest ten. Table 6 summarizes the sample's demographic characteristics with unweighted and weighted statistics. The sample of teachers was predominantly female, ranging from 87.63% to 90.01%, and most participants identified as White, with weighted percentages varying between 86.63% and 92.10%. It is important to note that both the Teacher and Private School Teacher

Questionnaires instruct teachers to select one or more racial identities they identify with. Based on the weighted analyses, the average age of teachers across all school types fell between 40 and 45 years. Regarding teaching experience, charter school teachers reported the lowest average number of years taught ($M = 9.93$ years, weighted), while public school teachers reported the highest average ($M = 14.43$ years, weighted). Public school teachers reported the highest average salary of the three school types ($M = \$59,822$, weighted), while private school teachers reported the lowest average ($M = \$40,377$, weighted).

Table 5

Unweighted Participant Breakdown by School Type and Subcategories

School Type	Subcategory	Number of Participants	Percentage
Public		10,720	79%
Charter	EMO	560	
	Non-EMO	1140	
Total Charter		1700	12.5%
Private	Religious	790	
	Non-Religious	350	
Total Private		1140	8.5%
Total		13560	100%

Table 6*Demographic Characteristics of Teachers by School Type (Unweighted and Weighted)*

Characteristic	School Type	Unweighted %	Weighted % (SE)
Gender			
Female	Public	88.82%	89.21% (0.35)
	Charter	87.58%	87.63% (0.96)
	Private	89.15%	90.01% (0.98)
Male	Public	11.18%	10.79% (0.35)
	Charter	12.42%	12.37% (0.96)
	Private	10.85%	9.99% (0.98)
Hispanic or Latino Origin			
	Public	7.70%	9.16% (0.49)
	Charter	15.24%	16.16% (1.82)
	Private	9.19%	9.14% (1.07)
Race			
White	Public	92.42%	92.10% (0.45)
	Charter	86.76%	86.63% (1.19)
	Private	90.29%	90.66% (0.96)
Black	Public	4.40%	5.47% (0.38)
	Charter	10.01%	10.36% (1.03)
	Private	6.04%	6.36% (0.94)
Asian	Public	3.04%	2.59% (0.21)
	Charter	3.17%	3.25% (0.57)
	Private	4.55%	4.07% (0.67)
Native Hawaiian/ Pacific Islander	Public	0.52%	0.35% (0.07)
	Charter	1.12%	1.02% (0.32)
	Private	0.35%	0.36% (0.22)
American Indian/ Alaska Native	Public	1.69%	1.42% (0.13)
	Charter	2.35%	2.40% (0.57)
	Private	1.75%	1.73% (0.39)
Age of Participants		<i>M (SD)</i>	<i>M (SE)</i>
	Public	43.36 (11.22)	43.22 (0.13)
	Charter	39.85 (11.07)	40.13 (0.45)
	Private	44.87 (13.04)	45.32 (0.48)
Years Taught		<i>M (SD)</i>	<i>M (SE)</i>
	Public	14.40 (9.24)	14.43 (0.10)
	Charter	9.60 (7.59)	9.93 (0.31)
	Private	13.39 (10.30)	13.53 (0.36)
Base Salary (Yearly)		<i>M (SD)</i>	<i>M (SE)</i>
	Public	\$58,883 (18,407)	\$59,822 (338.09)
	Charter	\$52,617 (14,154)	\$52,383 (572.45)
	Private	\$41,924 (16,117)	\$40,377 (566.59)

Constructs Reliability: Cronbach's Alpha

The study included five constructs: Burnout, Classroom Control, Teacher Collective Control, Leadership, and Teaching Community. The questions for each construct were selected based on prior research (Engle et al., 2024; Ni, 2012; Oberfield, 2016). Each construct's Cronbach's alpha was calculated to assess overall internal consistency for the entire sample, and separate Cronbach's alpha for each public, charter, and private subgroup was calculated to examine whether potential differences were present across the different school types. All overall constructs met the acceptable threshold of .70 (Morgan et al., 2020). Table 7 below presents the Cronbach's alpha values and their 95% confidence intervals.

Table 7

Reliability of Constructs Across School Types

Construct	Public (α)	Charter (α)	Private (α)	Overall (α)	95% CI (overall)
Burnout	0.79	0.80	0.78	0.79	[0.78, 0.79]
Leadership	0.85	0.87	0.83	0.85	[0.85, 0.86]
Classroom Control	0.76	0.80	0.69	0.77	[0.75, 0.77]
Collective Control	0.85	0.88	0.86	0.85	[0.85, 0.85]
Teacher Community	0.77	0.79	0.75	0.77	[0.76, 0.78]

Assumption Testing

The Kolmogorov-Smirnov test assessed the normality of each of the study variables unweighted. The results showed that none of the variables followed a normal distribution. Confirmation of the results was followed by creating histograms of each variable for each school type. Consideration was given to transforming the data to address issues of skewness, which could also have led to using parametric techniques to answer the research questions, but several factors influenced the decision not to transform the data. The desire to work with the original data and a preference for more straightforward analytical methods led to the decision not to transform the data. Additionally, the complex design of the NTPS introduced additional

challenges, as both final and replicate weights needed to be applied to all analyses. Based on the lack of normality of each variable, the study proceeded with non-parametric tests, which effectively handled violations of normality and led to a more straightforward approach to answering the research questions. Figure 2 displays the weighted histograms showing the distribution of the burnout construct over the three school types.

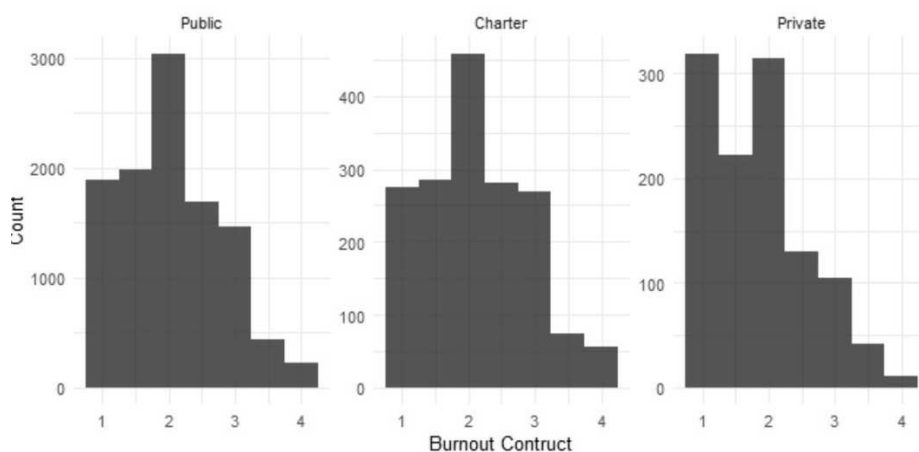


Figure 2

Weighted Histograms of the Burnout Construct

Results of Research Question 1: Burnout Across School Types

Teacher Burnout Across Public, Charter, and Private Schools

Research Question 1 asked, “Is there a significant difference in the level of burnout among teachers working in different elementary school types (public, charter, and private)?”

Table 8 presents the descriptive statistics for burnout across the school types. Based on previous research, the burnout construct was an average of five questions from the teacher’s questionnaire (Boyle et al., 2023; Mosley et al., 2022). The Likert scale for each question ranged from 1 (strongly disagree) to 4 (strongly agree). Higher scores indicate greater burnout.

Table 8*Weighted Descriptive Statistics for Burnout by School Type*

School Type	Mean	SE	Median	SE
Public	2.06	0.01	2.00	0.05
Charter (overall)	2.14	0.02	2.20	0.05
EMO	2.22	0.05	2.20	0.05
Non-EMO	2.10	0.03	2.00	0.05
Private (overall)	1.83	0.02	1.80	0.05
Religious	1.80	0.03	1.60	0.05
Non-Religious	1.91	0.04	1.80	0.05

The Kruskal-Wallis test was chosen to examine differences in burnout across school types. The results indicated a significant difference, both unweighted and weighted ($\chi^2 (2) = 102.89, p < .001$). Since the Kruskal-Wallis test was significant, unweighted and weighted post hoc pairwise comparisons were conducted using the Wilcoxon Rank Sum test. The survey weighted Wilcoxon Rank Sum test in R used a Kruskal-Wallis equivalent test. All unweighted and weighed pairwise comparisons were statistically significant ($p < .001$). Table 9 reports the weighted results.

Table 9*Kruskal-Wallis Weighted Pairwise Comparisons of Burnout by School Type*

Comparison	Test Statistic	df	p-value	Mean Rank Difference	Interpretation
Public vs. Charter	$t = 3.05$	198	$p = .002$	0.03	Public > Charter
Public vs. Private	$t = -8.78$	198	$p < .001$	-0.09	Public < Private
Charter vs. Private	$t = -9.71$	198	$p < .001$	-0.122	Charter < Private

The data analyses uncovered a significant difference in the level of burnout among teachers working in different elementary school types. Using the weighted Kruskal-Wallis pairwise comparisons test, the analyses found public elementary teachers reported significantly higher burnout scores than charter school elementary teachers ($p = 0.03$), while private

elementary teachers reported significantly higher burnout than both public ($\rho = -0.11$) and charter school teachers ($\rho = -0.20$). Weighted Spearman correlations, used to measure effect size, indicated weak associations despite significant differences.

Teacher Burnout Within Charter Schools and Private Schools

Sub-question 1 examined if there was a significant difference in burnout among teachers working in different types of charter schools (Education Management Organization [EMO] vs. non-EMO) and private schools (religious vs. non-religious).

Within Charter Schools (EMO vs. Non-EMO)

The survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) found a statistically significant difference between EMO and non-EMO charter school teachers ($t(198) = -2.12, p = .035, \text{Mean Rank} = -0.04$). The results suggested non-EMO teachers experienced high burnout scores, though the mean rank difference was small and the Spearman correlation effect size was $\rho = 0.00$. Examining weighted burnout medians, non-EMO teachers reported lower burnout ($\text{Mdn} = 2.00$) than EMO teachers ($\text{Mdn} = 2.20$). The results suggested discrepancies between the Wilcoxon Rank Sum Test results and the weighted median comparisons.

Within Private Schools (Religious vs. Non-Religious)

The survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) identified a statistically significant difference between religious and non-religious private school teachers ($t(198) = 2.17, p = .031, \text{Mean Rank} = 0.03$). Results indicated that religious school teachers reported lower levels of burnout, although the Spearman correlation, which was used to measure effect size, was $\rho = 0.00$. The weighted median burnout scores were consistent with the

Wilcoxon Rank Sum Test findings. Religious school teachers reported lower burnout ($Mdn = 1.60$) than non-religious school teachers ($Mdn = 1.80$).

Results of Research Question 2: Work Environment Factors Across School Types

Nine sub questions were formulated for analysis to address the second research question, which examines whether there is a significant difference in school environment variables—namely Workload, Classroom Control, Teacher Collective Control, Recognition, Leadership, Teaching Community, Parent Support, and Student Apathy—among teachers in different types of schools (public, charter, and private). Boxplots for each work environment variable are presented in Appendices 2-4 for each school type.

Workload (Contracted)

Across Public, Charter, and Private Schools

Contracted workload was assessed based on a teacher’s response to the question, “How many hours does your contract require you to work during a typical FULL WEEK at THIS school?” The question clarifies that it pertains to reporting base contract hours only, excluding stipends or additional pay for extra duties, and should be reported to the nearest whole hour. Table 10 provides the descriptive statistics for contracted workload across the three school types.

Table 10

Weighted Descriptive Statistics for Hours Contracted for Workload Variable by School Type

School Type	Mean	SE	Median	SE
Public	38.25	0.05	40	0.51
Charter (overall)	39.95	0.19	40	0.76
EMO	40.42	0.49	40	1.02
Non-EMO	39.73	0.19	40	0.76
Private (overall)	39.40	0.12	40	0.76
Religious	39.39	0.15	40	0.76
Non-Religious	39.44	0.27	40	1.27

The weighted Kruskal-Wallis test indicated a significant difference in contracted workload across the three school types ($\chi^2(2) = 323.79, p < .001$). Therefore, post hoc pairwise comparisons were needed to investigate differences among the school types. Table 11 provides the weighted Wilcoxon Rank Sum test results (using the Kruskal-Wallis equivalent) for the pairwise comparisons. The findings revealed significant differences in contracted workload across the school types. Public school teachers reported significantly higher contracted workloads compared to charter ($t = 15.67, p < .001$) and private ($t = 12.09, p < .001$) school teachers. Charter school teachers also reported significantly lower contracted workloads than private school teachers ($t = -3.52, p < .001$). Spearman correlations indicated a small effect size for the difference between public and charter schools ($\rho = 0.14$) and public and private schools ($\rho = 0.14$), while the difference between charter and private schools showed a negligible effect ($\rho = -0.08$).

Table 11

Kruskal-Wallis Weighted Pairwise Comparisons of Contracted Workload by School Type

Comparison	Test Statistic	df	p-value	Mean Rank Difference	Interpretation
Public vs. Charter	$t = 15.67$	198	$p < .001$	0.15	Public > Charter
Public vs. Private	$t = 12.09$	198	$p < .001$	0.11	Public > Private
Charter vs. Private	$t = -3.52$	198	$p < .001$	-0.04	Charter < Private

Within Charter Schools and Private Schools

Within Charter Schools (EMO vs. Non-EMO)

The survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) found a statistically significant difference in contractual workload between EMO and non-EMO charter school teachers ($t(198) = -2.36, p = .02, \text{Mean Rank} = -0.05$). Specifically, EMO charter

school teachers reported a slightly lower contractual workload than non-EMO charter school teachers, as shown by the mean rank difference of -0.05, although the effect size was $\rho = 0.00$.

Within Private Schools (Religious vs. Non-Religious)

The study found no statistical difference in contracted workload between religious and non-religious school teachers, $t(198) = 0.61, p = .54$.

Workload (Actual)

Across Public, Charter, and Private Schools

The actual workload for teachers was assessed based on a teacher's response to the question, "Including hours spent during the school day, before and after school, and on the weekends, how many hours do you spend on ALL teaching and other school-related activities during a typical FULL WEEK at THIS school?" The question clarifies that the reported hours should be greater than or equal to the reported number of contractual hours and should be rounded to the nearest whole hour. Table 12 summarizes the descriptive statistics for the actual workload across the three school types.

Table 12

Weighted Descriptive Statistics for Hours Actually Work by School Type

School Type	Mean	SE	Median	SE
Public	51.80	0.11	50	0.51
Charter (overall)	53.20	0.32	50	0.76
EMO	53.65	0.54	50	1.27
Non-EMO	52.98	0.39	50	1.01
Private (overall)	51.41	0.35	50	1.01
Religious	51.72	0.42	50	1.27
Non-Religious	50.44	0.55	50	1.27

The weighted Kruskal-Wallis test indicated a significant difference in actual workload across the three school types ($\chi^2(2) = 21.328, p < .001$). Therefore, post hoc pairwise comparisons were needed to investigate differences among the school types. Table 13 provides

the weighted Wilcoxon Rank Sum test results (using the Kruskal-Wallis equivalent) for the pairwise comparisons. The findings revealed significant differences in actual workload between charter and public school teachers and charter and private school teachers, with charter school teachers reporting a lower workload in both comparisons, though the effect sizes ($\rho = 0.03$ and $\rho = -0.09$, respectively) indicated minimal relationships. The analysis found no significant difference in actual workload between public and private school teachers ($p = .19$).

Table 13

Kruskal-Wallis Weighted Pairwise Comparisons of Actual Workload by School Type

Comparison	Test Statistic	df	p-value	Mean Rank Difference	Interpretation
Public vs. Charter	$t = 4.21$	198	$p < .001$	0.04	Public > Charter
Public vs. Private	$t = -1.31$	198	$p = .19$	-0.01	Public = Private
Charter vs. Private	$t = -4.04$	198	$p < .001$	-0.05	Charter < Private

Within Charter Schools and Private Schools

Within Charter Schools (EMO vs. Non-EMO)

The study found no statistical difference in actual workload between EMO and non-EMO charter school teachers, $t(198) = -1.33$, $p = .19$.

Within Private Schools (Religious vs. Non-Religious)

The study found no statistical difference in actual workload between religious and non-religious school teachers, $t(198) = -1.85$, $p = .07$.

Classroom Control

Across Public, Charter, and Private Schools

The Classroom Control construct consisted of six questions from the teacher's questionnaire. This study followed the work of previous researchers who used the same questions to measure a teacher's control within their classroom (Gimbert & Kapa, 2022; Ni,

2012; Oberfield, 2016). The Likert scale for each question ranged from 1 (no control) to 4 (a great deal of control). Higher scores indicate more classroom control. Table 14 presents the descriptive statistics for classroom control across the school types.

Table 14

Weighted Descriptive Statistics for Classroom Control by School Type

School Type	Mean	SE	Median	SE
Public	3.09	0.01	3.17	0.04
Charter (overall)	3.15	0.02	3.17	0.04
EMO	3.04	0.04	3.00	0.04
Non-EMO	3.20	0.03	3.33	0.04
Private (overall)	3.49	0.02	3.67	0.04
Religious	3.46	0.02	3.50	0.04
Non-Religious	3.60	0.03	3.83	0.04

An unweighted and weighted Kruskal-Wallis test showed a significant difference in classroom control across school types. Based on the weighted results ($\chi^2 (2) = 446.12, p < .001$), post hoc pairwise comparisons were conducted using the Wilcoxon Rank Sum test to explore differences among school types. The survey weighted Wilcoxon Rank Sum tests (using the Kruskal-Wallis equivalent) determined all pairwise comparisons were statistically significant ($p < .001$), and the weighted results are reported in Table 15. Public school teachers reported significantly higher classroom control than charter ($t = 3.01, p = .003$) and private school teachers ($t = 20.94, p < .001$), while charter school teachers reported higher classroom control than private school teachers ($t = 11.66, p < .001$). However, effect sizes ($\rho = 0.03, 0.23, \text{ and } 0.26$) suggest weak to moderate associations.

Table 15*Kruskal-Wallis Weighted Pairwise Comparisons of Classroom Control by School Type*

Comparison	Test Statistic	df	p-value	Mean Rank Difference	Interpretation
Public vs. Charter	$t = 3.01$	198	$p = .003$	0.03	Public > Charter
Public vs. Private	$t = 20.94$	198	$p < .001$	0.20	Public > Private
Charter vs. Private	$t = 11.66$	198	$p < .001$	0.15	Charter > Private

Within Charter Schools and Private Schools**Within Charter Schools (EMO vs. Non-EMO)**

The survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) found a statistically significant difference between EMO and non-EMO charter school teachers ($t(198) = 3.29, p = .001, \text{Mean Rank} = 0.07$), though the effect size was $\rho = 0.00$.

Within Private Schools (Religious vs. Non-Religious)

The survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) found a statistically significant difference between religious and non-religious private school teachers ($t(198) = 5.21, p < .001, \text{Mean Rank} = 0.11$). Despite the statistical significance, the Spearman correlation for this comparison was $\rho = 0.00$, indicating no meaningful effect size.

Teacher Collective Control***Across Public, Charter, and Private Schools***

The Teacher Collective Control construct included seven questions from the NTPS teacher's survey. Ni's (2012) factor analysis of the teacher questionnaire had these questions load as a single factor to measure teacher collective efficacy. The Likert scale for each question ranged from 1 (no influence) to 4 (a great deal of influence). Higher scores indicate more collective control in setting student performance standards, establishing curriculum, determining

professional development needs, and making budgetary decisions. Table 16 presents the descriptive statistics for teacher collective control across the school types.

Table 16

Weighted Descriptive Statistics for Teacher Collective Control by School Type

School Type	Mean	SE	Median	SE
Public	2.13	0.01	2.14	0.04
Charter (overall)	2.25	0.03	2.14	0.04
EMO	2.13	0.05	2.00	0.04
Non-EMO	2.30	0.05	2.29	0.07
Private (overall)	2.39	0.02	2.43	0.04
Religious	2.34	0.03	2.29	0.04
Non-Religious	2.57	0.05	2.57	0.04

An unweighted and weighted Kruskal-Wallis test showed a significant difference in teacher collective control across school types. Based on the weighted results ($\chi^2 (2) = 110.89, p < .001$), post hoc pairwise comparisons were conducted to explore differences among school types. The survey weighted Wilcoxon Rank Sum tests (using the Kruskal-Wallis equivalent) indicated that public school teachers had significantly higher teacher collective control than charter ($p = .001$) and private ($p < .001$) school teachers. Charter school teachers also demonstrated significantly higher collective control than private schools ($p < .001$). While the differences for each comparison were statistically significant, the effect sizes were small ($\rho = 0.04$ for Public > Charter, $\rho = 0.13$ for Public > Private, and $\rho = 0.09$ for Charter > Private). The weighted results are reported in Table 17.

Table 17

Kruskal-Wallis Weighted Pairwise Comparisons of Teacher Collective Control by School Type

Comparison	Test Statistic	df	p-value	Mean Rank Difference	
Public vs. Charter	$t = 3.25$	198	$p = .001$	0.05	Public > Charter
Public vs. Private	$t = 10.50$	198	$p < .001$	0.11	Public > Private
Charter vs. Private	$t = 3.73$	198	$p < .001$	0.06	Charter > Private

Within Charter Schools and Private Schools

Within Charter Schools (EMO vs. Non-EMO)

The survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) found a statistically significant difference between EMO and non-EMO charter school teachers ($t(198) = 2.33, p = .02, \text{Mean Rank} = 0.06$). Despite the statistical significance, the Spearman correlation for this comparison was $\rho = 0.00$.

Within Private Schools (Religious vs. Non-Religious)

The survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) found a statistically significant difference between religious and non-religious private school teachers ($t(198) = 4.60, p < .001, \text{Mean Rank} = 0.10$). Since the Spearman correlation for this comparison was $\rho = 0.00$, no meaningful effect size exists.

Recognition

Across Public, Charter, and Private Schools

Recognition was based on a teacher's response to the question, "In this school, staff members are recognized for a job well done." The Likert scale for this question ranged from 1 (strongly disagree) to 4 (strongly agree). Higher scores indicate more staff recognition. Table 18 presents the descriptive statistics for Recognition across the school types.

Table 18

Weighted Descriptive Statistics for Recognition by School Type

School Type	Mean	SE	Median	SE
Public	3.05	0.01	3.00	0.25
Charter (overall)	3.07	0.03	3.00	0.25
EMO	3.05	0.06	3.00	0.25
Non-EMO	3.08	0.04	3.00	0.25
Private (overall)	3.28	0.02	3.00	0.25
Religious	3.29	0.03	3.00	0.25
Non-Religious	3.22	0.05	3.00	0.25

An unweighted and weighted Kruskal-Wallis test showed a significant difference in recognition across school types. Based on the weighted results ($\chi^2 (2) = 61.72, p < .001$), post hoc pairwise comparisons were conducted to explore differences among school types. Table 19 presents the weighted Wilcoxon Rank Sum test (using the Kruskal-Wallis equivalent) results for the pairwise comparisons. The results indicated no significant difference between public and charter schools, but statistical significance was observed between public and private school teachers ($t = 7.84, p < .001$) and between charter and private school teachers ($t = 4.52, p < .001$). The Spearman rho values for these comparisons were $\rho = 0.09$ for public vs. private and $\rho = 0.11$ for charter vs. private, suggesting that while these differences were statistically significant, the effect sizes were small.

Table 19

Kruskal-Wallis Weighted Pairwise Comparisons of Recognition by School Type

Comparison	Test Statistic	df	p-value	Mean Rank Difference	Interpretation
Public vs. Charter	$t = 1.22$	198	$p = .224$	0.01	Public = Charter
Public vs. Private	$t = 7.84$	198	$p < .001$	0.07	Public > Private
Charter vs. Private	$t = 4.52$	198	$p < .001$	0.06	Charter > Private

Within Charter Schools and Private Schools

Within Charter Schools (EMO vs. Non-EMO)

The study found no statistical difference in recognition between EMO and non-EMO charter school teachers, $t(198) = 0.39, p = .70$.

Within Private Schools (Religious vs. Non-Religious)

The study found no statistical difference in recognition between religious and non-religious school teachers, $t(198) = -1.26, p = .21$.

Leadership

Across Public, Charter, and Private Schools

The leadership construct included four questions from the NTPS teacher's survey. Ni's (2012) factor analysis of the teacher questionnaire had these questions load as a single factor to measure teacher collective efficacy, and Gimbert and Kapa (2022) and Oberfield (2016) also used these four questions to measure a teacher's perception of their school's administration and management. The Likert scale for each question ranged from 1 (strongly disagree) to 4 (strongly agree). Higher scores indicate a supportive administration, clear directives from a teacher's principal, and enforcement of school rules for student conduct. Table 20 presents the descriptive statistics for leadership across the school types.

Table 20

Weighted Descriptive Statistics for Leadership by School Type

School Type	Mean	SE	Median	SE
Public	3.26	0.01	3.50	0.06
Charter (overall)	3.24	0.03	3.50	0.06
EMO	3.20	0.04	3.25	0.06
Non-EMO	3.26	0.04	3.50	0.06
Private (overall)	3.45	0.02	3.75	0.06
Religious	3.46	0.03	3.75	0.06
Non-Religious	3.39	0.03	3.50	0.06

An unweighted and weighted Kruskal-Wallis test showed a significant difference in leadership across school types. Based on the weighted results ($\chi^2 (2) = 72.71, p < .001$), post hoc pairwise comparisons were conducted to explore differences among school types. The survey weighted Wilcoxon Rank Sum tests (using the Kruskal-Wallis equivalent) found no statistically significant difference between public and charter school teachers' perceptions of their school's leadership ($p = .907$). However, public and charter school teachers reported significantly higher perceptions of leadership than private school teachers ($p < .001$ for

both comparisons). The Spearman's rho for these comparisons was $\rho = 0.10$ for public vs. private and $\rho = 0.14$ for charter vs. private, indicating that although the differences were statistically significant, the effect sizes were small. Table 21 reports the weighted pairwise comparison results.

Table 21

Kruskal-Wallis Weighted Pairwise Comparisons of Leadership by School Type

Comparison	Test Statistic	df	p-value	Mean Rank Difference	Interpretation
Public vs. Charter	$t = -0.11$	198	$p = .907$	0.00	Public = Charter
Public vs. Private	$t = 8.51$	198	$p < .001$	0.08	Public > Private
Charter vs. Private	$t = 5.28$	198	$p < .001$	0.08	Charter > Private

Within Charter Schools and Private Schools

Within Charter Schools (EMO vs. Non-EMO)

The study found no statistical difference in leadership between EMO and non-EMO charter school teachers, $t(198) = 1.15, p = .25$.

Within Private Schools (Religious vs. Non-Religious)

The survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) found a statistically significant difference in leadership between religious and non-religious private school teachers ($t(198) = -2.57, p = .01, \text{Mean Rank} = -0.05$) though the effect size was $\rho = 0.00$.

Teaching Community

Across Public, Charter, and Private Schools

The teaching community construct included four questions from the NTPS teacher's survey. Ni's (2012) factor analysis of the teacher questionnaire had these questions load as a single factor to measure a teacher's community, and Gimbert and Kapa (2022) used three of the

four to measure the same. The teaching community construct measured a teacher's perception of cooperation among staff, consistent enforcement of expectations for students in the school, and a shared sense of beliefs, values, and satisfaction as a collective group. The Likert scale for each question ranged from 1 (strongly disagree) to 4 (strongly agree). Higher scores reflect a stronger sense of community among teachers and their colleagues. Table 22 presents the descriptive statistics for the teaching community construct across the school types.

Table 22

Weighted Descriptive Statistics for the Teaching Community Construct by School Type

School Type	Mean	SE	Median	SE
Public	3.16	0.01	3.25	0.06
Charter (overall)	3.15	0.03	3.25	0.06
EMO	3.05	0.04	3.00	0.06
Non-EMO	3.19	0.04	3.25	0.06
Private (overall)	3.40	0.02	3.50	0.06
Religious	3.42	0.02	3.50	0.06
Non-Religious	3.36	0.03	3.50	0.06

An unweighted and weighted Kruskal-Wallis test showed a significant difference in teaching community across school types. Based on the weighted results ($\chi^2 (2) = 137.88, p < .001$), post hoc pairwise comparisons were conducted to explore differences among school types and the results are displayed in Table 23. The survey weighted Wilcoxon Rank Sum tests (using the Kruskal-Wallis equivalent) found no statistically significant difference between public and charter school teachers' perceptions of their school's teaching community ($p = .87$). However, significant differences were found between public and private school teachers ($p < .001, \rho = 0.14$) and charter and private school teachers ($p < .001, \rho = 0.20$). In both cases, public and charter school teachers showed higher mean ranks than private school teachers, with small to moderate effect sizes.

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Table 23*Kruskal-Wallis Weighted Pairwise Comparisons of Teaching Community by School Type*

Comparison	Test Statistic	df	p-value	Mean Rank Difference	Interpretation
Public vs. Charter	$t = 0.17$	198	$p = .86$	0.00	Public = Charter
Public vs. Private	$t = 11.70$	198	$p < .001$	0.12	Public > Private
Charter vs. Private	$t = 7.13$	198	$p < .001$	0.12	Charter > Private

Within Charter Schools and Private Schools**Within Charter Schools (EMO vs. Non-EMO)**

The survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) determined a statistically significant difference between EMO and non-EMO charter school teachers and the teaching community ($t(198) = 2.55, p = .01, \text{Mean Rank} = 0.07$) though the effect size was $\rho = 0.00$. The weighted median values for the teaching community construct were 3.25 for non-EMO teachers and 3.00 for EMO teachers.

Within Private Schools (Religious vs. Non-Religious)

Although the unweighted Wilcoxon Rank Sum test found a statistically significant difference ($p < .04$) between religious and non-religious school teachers, the survey-weighted Wilcoxon Rank Sum Test (using a Kruskal-Wallis equivalent) did not ($t(198) = -1.64, p = .10$). While the weighted medians ($Mdn = 3.50$) were identical for teaching community for the two types of private school teachers, the weighted means for religious and non-religious elementary teachers were 3.42 and 3.36, respectively.

Parent Support***Across Public, Charter, and Private Schools***

Parent support was measured by a teacher's response to the statement, "I receive a great deal of support from parents for the work I do." The Likert scale for this question ranged from 1

(strongly disagree) to 4 (strongly agree). Higher scores indicate that teachers felt more support from their parent community. Table 24 presents the descriptive statistics for parent support across the school types.

Table 24

Weighted Descriptive Statistics for Parent Support by School Type

School Type	Mean	SE	Median	SE
Public	2.75	0.01	3.00	0.25
Charter (overall)	2.75	0.03	3.00	0.25
EMO	2.67	0.05	3.00	0.25
Non-EMO	2.78	0.04	3.00	0.25
Private (overall)	3.30	0.02	3.00	0.25
Religious	3.31	0.02	3.00	0.25
Non-Religious	3.26	0.04	3.00	0.25

The weighted Kruskal-Wallis test indicated a significant difference in parent support across the three school types ($\chi^2(2) = 436.92, p < .001$). Therefore, post hoc pairwise comparisons were needed to investigate school type differences. Table 25 displays the weighted Wilcoxon Rank Sum test results (using the Kruskal-Wallis equivalent) for the pairwise comparisons. The findings revealed no significant difference between public and charter schools. However, public elementary school teachers exhibited statistically significant higher parent support ($t = 20.76, p < .001, \rho = 0.22$), and charter elementary school teachers exhibited significantly higher support ($t = 14.65, p < .001, \rho = 0.31$) compared to private school teachers. The findings are statistically significant, though the effect size for public versus private is small, and charter versus private is moderate.

Table 25*Kruskal-Wallis Weighted Pairwise Comparisons of Parent Support by School Type*

Comparison	Test Statistic	df	p-value	Mean Rank Difference	Interpretation
Public vs. Charter	$t = 0.25$	198	$p = .80$	0.00	Public = Charter
Public vs. Private	$t = 20.76$	198	$p < .001$	0.18	Public > Private
Charter vs. Private	$t = 14.65$	198	$p < .001$	0.17	Charter > Private

Within Charter Schools and Private Schools**Within Charter Schools (EMO vs. Non-EMO)**

The study found no statistical difference in parent support between EMO and non-EMO charter school teachers, $t(198) = 1.40$, $p = .16$.

Within Private Schools (Religious vs. Non-Religious)

The study found no statistical difference in parent support between religious and non-religious school teachers, $t(198) = -0.92$, $p = .36$.

Student Apathy***Across Public, Charter, and Private Schools***

Student apathy was assessed based on a teacher's response to the question, "To what extent is each of the following a problem in THIS school? Student apathy." The Likert scale for this question ranged from 1 (not a problem) to 4 (serious problem). Higher scores suggested that teachers viewed students in their community as more apathetic. Table 26 displays the descriptive statistics for student apathy across the school types.

Table 26*Weighted Descriptive Statistics for Student Apathy by School Type*

School Type	Mean	SE	Median	SE
Public	1.90	0.01	2.00	0.25
Charter (overall)	1.92	0.03	2.00	0.25
EMO	1.97	0.05	2.00	0.25
Non-EMO	1.88	0.04	2.00	0.25
Private (overall)	1.51	0.02	1.00	0.25
Religious	1.52	0.03	1.00	0.25
Non-Religious	1.48	0.04	1.00	0.25

The weighted Kruskal-Wallis test indicated a significant difference in student apathy across the three school types ($\chi^2(2) = 192.92, p < .001$). Therefore, post hoc pairwise comparisons were needed to investigate differences among the school types. Table 27 summarizes the weighted Wilcoxon Rank Sum test results (using the Kruskal-Wallis equivalent) for the pairwise comparisons. The findings revealed no significant difference in student apathy between public and charter schools. Both public school teachers ($t = -13.33, p < .001, \rho = -0.15$) and charter school teachers ($t = -11.35, p < .001, \rho = -0.24$) reported significantly lower student apathy compared to private school teachers. The results are statistically significant, with effect size for public versus private categorized as small, and the effect size for charter versus private categorized as moderate.

Table 27*Kruskal-Wallis Weighted Pairwise Comparisons of Student Apathy by School Type*

Comparison	Test Statistic	df	p-value	Mean Rank Difference	Interpretation
Public vs. Charter	$t = 0.62$	198	$p = .53$	0.01	Public = Charter
Public vs. Private	$t = -13.33$	198	$p < .001$	-0.13	Public < Private
Charter vs. Private	$t = -11.35$	198	$p < .001$	-0.14	Charter < Private

Within Charter Schools and Private Schools

Within Charter Schools (EMO vs. Non-EMO)

The study found no statistical difference in student apathy between EMO and non-EMO charter school teachers, $t(198) = -1.10, p = .27$.

Within Private Schools (Religious vs. Non-Religious)

The study found no statistical difference in student apathy between religious and non-religious school teachers, $t(198) = -1.06, p = .29$.

Results of Research Question 3: Associations Between Variables Across School Types

Research Question 3 examined if there were significant associations between work conditions and burnout (Workload, Classroom Control, Teacher Collective Control, Recognition, Leadership, Teaching Community, Parent Support, Student Apathy, and Burnout) among elementary teachers in different school types (public, charter, and private). The study conducted three Spearman's Rank Order Correlation Matrices to answer the research question. Due to the skewness observed in each variable, a non-parametric alternative like the Spearman Rank Order Test was appropriate. The complex sampling design of the NTPS created limitations when applying the final and replicated weights in R, resulting in a weighted correlation matrix without p -values associated with the results. According to the NTPS guidelines, all statistical reporting must be weighted. Therefore, the study calculated the Spearman's Rank Order Correlation Matrix for each school type without weighting to analyze the correlation coefficients (ρ) and p -values as reference points. It is important to note that the p -values were primarily significant at $p < .001$, which may be attributed to the large sample sizes used in the study.

Research Question 3 requires four sections to examine the findings. The first three sections separately explore the relationships of working conditions and burnout within public,

charter, and private schools. The section concludes with a comparison of correlations across the three school types. The study applied Cohen's (1988) criteria for interpreting effect size, and the following guidelines were used to evaluate the significance of the correlations: small ($\rho = 0.10$), medium ($\rho = 0.30$), and large ($\rho = 0.50$).

Correlation Between Working Conditions and Burnout in Public Schools

Table 28 displays the Spearman Rank-Order Correlation for the study variables related to elementary teachers in public schools. The correlation matrix showed significant positive relationships between the study variables. A large positive correlation was observed between leadership and teaching community ($\rho = 0.70$) and leadership and recognition ($\rho = 0.69$). Teaching community and recognition showed a moderate positive correlation ($\rho = 0.61$), and collective control demonstrated a moderate positive correlation with leadership ($\rho = 0.43$) and classroom control ($\rho = 0.42$).

Significant negative correlations emerged between study variables. Burnout exhibited a large negative correlation with leadership ($\rho = -0.47$) and teaching community ($\rho = -0.44$), Burnout and recognition ($\rho = -0.37$), collective control ($\rho = -0.31$), parent support ($\rho = -0.26$), and classroom control ($\rho = -0.26$) was observed to have moderate negative correlations. Student apathy showed moderate negative correlations with the teaching community ($\rho = -0.26$) and parent support ($\rho = -0.25$).

Table 28*Weighted Correlation Matrix Between Study Variables for Public School Teachers*

	Burnout	Leadership	Collective Control	Class Control	Teacher Community	Recognition	Student Apathy	Parent Support	Workload Contract	Workload Actual
Burnout	1.00	-0.47	-0.31	-0.26	-0.44	-0.37	0.21	-0.26	0.06	0.11
Leadership	-0.47	1.00	0.43	0.31	0.70	0.69	-0.22	0.26	0.02	-0.07
Collective Control	-0.31	0.43	1.00	0.42	0.38	0.38	-0.12	0.22	0.01	-0.07
Class Control	-0.26	0.31	0.42	1.00	0.27	0.26	-0.09	0.19	-0.01	-0.08
Teacher Community	-0.44	0.70	0.38	0.27	1.00	0.61	-0.26	0.31	0.01	-0.06
Recognition	-0.37	0.69	0.38	0.26	0.61	1.00	-0.16	0.27	-0.01	-0.08
Student Apathy	0.21	-0.22	-0.12	-0.09	-0.26	-0.16	1.00	-0.25	0.01	0.05
Parent Support	-0.26	0.26	0.22	0.19	0.31	0.27	-0.25	1.00	-0.01	-0.02
Workload Contract	0.06	0.02	0.01	-0.01	0.01	-0.01	0.01	-0.01	1.00	0.35
Workload Actual	0.11	-0.07	-0.07	-0.08	-0.06	-0.08	0.05	-0.02	0.35	1.00

Correlation Between Working Conditions and Burnout in Charter Schools

Several strong positive correlations were observed between work conditions among elementary charter school teachers. Leadership exhibited a particularly strong positive association with the teaching community ($\rho = 0.77$) and recognition ($\rho = 0.71$). The data analysis revealed a strong positive correlation between the teaching community and recognition ($\rho = 0.67$). Leadership also showed a strong positive correlation with collective control ($\rho = 0.52$). Furthermore, collective control demonstrated strong positive correlations with class control ($\rho = 0.49$) and teaching community ($\rho = 0.50$).

Significant negative correlations existed between study variables. Burnout among elementary charter school teachers showed the strongest negative correlations with leadership ($\rho = -0.57$). The study found strong negative correlations between burnout and the teaching

community ($\rho = -0.50$), recognition ($\rho = -0.44$), and collective control ($\rho = -0.36$). Additionally, student apathy showed a medium negative correlation with teaching community ($\rho = -0.25$), leadership ($\rho = -0.25$), and parent support ($\rho = -0.25$). Table 29 presents the correlation matrix for charter school elementary teachers and study variables.

Table 29

Weighted Correlation Matrix Between Study Variables for Charter School Teachers

	Burnout	Leadership	Collective Control	Class Control	Teacher Community	Recognition	Student Apathy	Parent Support	Workload Contract	Workload Actual
Burnout	1.00	-0.57	-0.36	-0.28	-0.50	-0.44	0.25	-0.28	0.11	0.12
Leadership	-0.57	1.00	0.52	0.37	0.77	0.71	-0.25	0.33	-0.11	-0.08
Collective Control	-0.36	0.52	1.00	0.49	0.50	0.47	-0.20	0.30	-0.13	-0.06
Class Control	-0.28	0.37	0.49	1.00	0.35	0.30	-0.10	0.25	-0.14	-0.09
Teacher Community	-0.50	0.77	0.50	0.35	1.00	0.67	-0.25	0.38	-0.10	-0.10
Recognition	-0.44	0.71	0.47	0.30	0.67	1.00	-0.20	0.30	-0.05	-0.07
Student Apathy	0.25	-0.25	-0.20	-0.10	-0.25	-0.20	1.00	-0.25	0.00	0.02
Parent Support	-0.28	0.33	0.30	0.25	0.38	0.30	-0.25	1.00	-0.09	-0.06
Workload Contract	0.11	-0.11	-0.13	-0.14	-0.10	-0.05	0.00	-0.09	1.00	0.30
Workload Actual	0.12	-0.08	-0.06	-0.09	-0.10	-0.07	0.02	-0.06	0.30	1.00

Correlation Between Working Conditions and Burnout in Private Schools

The correlation matrix in Table 30 shows several positive relationships among the study variables. Leadership and the teaching community exhibited a strong positive correlation ($\rho = 0.70$), while leadership and recognition were also highly correlated ($\rho = 0.64$). Moderate positive correlations were observed between teaching community and recognition ($\rho = 0.58$), collective control and classroom control ($\rho = 0.43$), and leadership and collective control ($\rho = 0.42$).

Additionally, parent support had moderate positive correlations with teaching community ($\rho = 0.34$) and leadership ($\rho = 0.31$).

Several variables showed negative correlations with burnout. Burnout had the strongest negative correlations with leadership ($\rho = -0.54$), followed by teaching community ($\rho = -0.49$) and recognition ($\rho = -0.41$). Moderate negative correlations were also observed between burnout and parent support ($\rho = -0.33$) and collective control ($\rho = -0.22$). Student apathy had a small positive correlation with burnout ($\rho = -0.21$).

Table 30

Weighted Correlation Matrix Between Study Variables for Private School Teachers

	Burnout	Leadership	Collective Control	Class Control	Teacher Community	Recognition	Student Apathy	Parent Support	Workload Contract	Workload Actual
Burnout	1.00	-0.54	-0.22	-0.17	-0.49	-0.41	0.21	-0.33	0.10	0.10
Leadership	-0.54	1.00	0.42	0.26	0.70	0.64	-0.20	0.31	0.01	-0.08
Collective Control	-0.22	0.42	1.00	0.43	0.38	0.32	-0.13	0.16	0.03	-0.06
Class Control	-0.17	0.26	0.43	1.00	0.24	0.19	-0.08	0.20	0.04	-0.02
Teacher Community	-0.49	0.70	0.38	0.24	1.00	0.58	-0.28	0.34	-0.01	-0.07
Recognition	-0.41	0.64	0.32	0.19	0.58	1.00	-0.17	0.30	-0.07	-0.10
Student Apathy	0.21	-0.20	-0.13	-0.08	-0.28	-0.17	1.00	-0.22	0.01	0.04
Parent Support	-0.33	0.31	0.16	0.20	0.34	0.30	-0.22	1.00	-0.02	-0.03
Workload Contract	0.10	0.01	0.03	0.04	-0.01	-0.07	0.01	-0.02	1.00	0.39
Workload Actual	0.10	-0.08	-0.06	-0.02	-0.07	-0.10	0.04	-0.03	0.39	1.00

Comparison Across School Types

Across all three school types, the study found similarities and differences in associations among study variables. Strong positive correlations were observed between leadership and the teaching community and between leadership and recognition, and the relationship between

student apathy and parent support remained consistently weak and negative across all three school types ($\rho = -0.25$). Burnout consistently exhibited strong negative correlations with leadership and the teaching community across public, charter, and private schools, though the strength of the relationships varied across school types. For instance, charter school teachers showed the strongest negative correlation between burnout and leadership ($\rho = -0.57$), followed by private ($\rho = -0.54$) and public ($\rho = -0.47$), and charter school teachers showed the strongest positive correlation between leadership and teaching community ($\rho = 0.77$). The strength of the correlation between collective control and burnout varied. Private schools had a much weaker negative correlation between burnout and collective control ($\rho = -0.22$) compared to public ($\rho = -0.31$) and charter ($\rho = -0.36$) school teachers. The findings highlight both common patterns and variations in the associations between work conditions and burnout across public, charter, and private school teachers.

Summary

Chapter 4 presented the results of the analyses for each of the study's three research questions. The final chapter interprets significant findings and how each relates to existing literature. A discussion on limitations, potential applications, and recommendations for further investigation will also be presented in the last chapter.

CHAPTER 5: DISCUSSION

The study examined the relationships between teacher burnout and work environment factors of full-time elementary teachers working in public, charter, and private schools in the United States using data from the 2020-2021 National Teacher and Principal Survey (NTPS). The subsample of participants from the NTPS included 13,560 K-5 teachers. The unweighted distribution of teachers for this study was 79% public, 12.5% charter, and 8.5% private. The study had three main research questions. The analysis for question one, examining burnout in the three school types, revealed significant differences in burnout levels. Private school teachers reported the highest burnout, followed by public and charter school teachers. Secondly, significant differences between public, charter, and private schools were found for all work condition variables (workload, classroom control, teacher collective control, recognition, leadership, teaching community, parent support, and student apathy), though the effect size varied from small to moderate with pairwise comparisons. All three school type teachers differed statistically across burnout, class control, teacher collective control, and contracted workload. Public and charter school teachers reported similar perceptions regarding leadership, teaching community, recognition, student apathy, and parent support while showing differences compared to private school teachers in each area. The study also found differences between EMO and non-EMO charter school teachers and religious and non-religious private school teachers regarding several work condition variables, though effect sizes imply the difference was trivial. The last research question examined the correlations between working conditions and burnout across the three school types. Regardless of school type, burnout consistently exhibited strong negative correlations with leadership, recognition, and the teaching community, and strong positive

correlations were observed between leadership and the teaching community and between leadership and recognition. Overall, each analysis revealed similarities and differences among full-time elementary school teachers working in public, charter, and private schools across the United States.

Interpretation of Results

Research Question 1

The results of this study provide evidence that burnout levels significantly differ among full-time teachers across public, charter, and private elementary schools. The weighted Kruskal-Wallis test indicated a statistically significant difference in burnout across the three school types ($\chi^2(2) = 102.89, p < .001$), and the post hoc analyses confirmed that each school type differed significantly from the others. Comparisons revealed that private school teachers reported the highest levels of burnout, followed by public school teachers. Charter school teachers reported experiencing the lowest levels of burnout. With the pairwise comparisons, which all yielded statistically significant differences, the effect sizes expanded the understanding of the differences found. For example, the trivial effect size between public and charter school teachers ($\rho = 0.03$), paired with a relatively small t -statistic ($t = 3.05$), suggests public and charter school teachers experience similar levels of burnout. The small effect size between public and private school teachers ($\rho = 0.11$) may initially lead to a conclusion that the two groups are also similar. However, given the statistically significant difference for both public and charter school teachers with private school teachers, there may be a distinct difference in burnout. The larger effect size ($\rho = 0.20$) between charter and private schools suggests a more meaningful difference in burnout between the two groups. Figure 3 provides a visual illustration of the study's findings of burnout across all three school types.

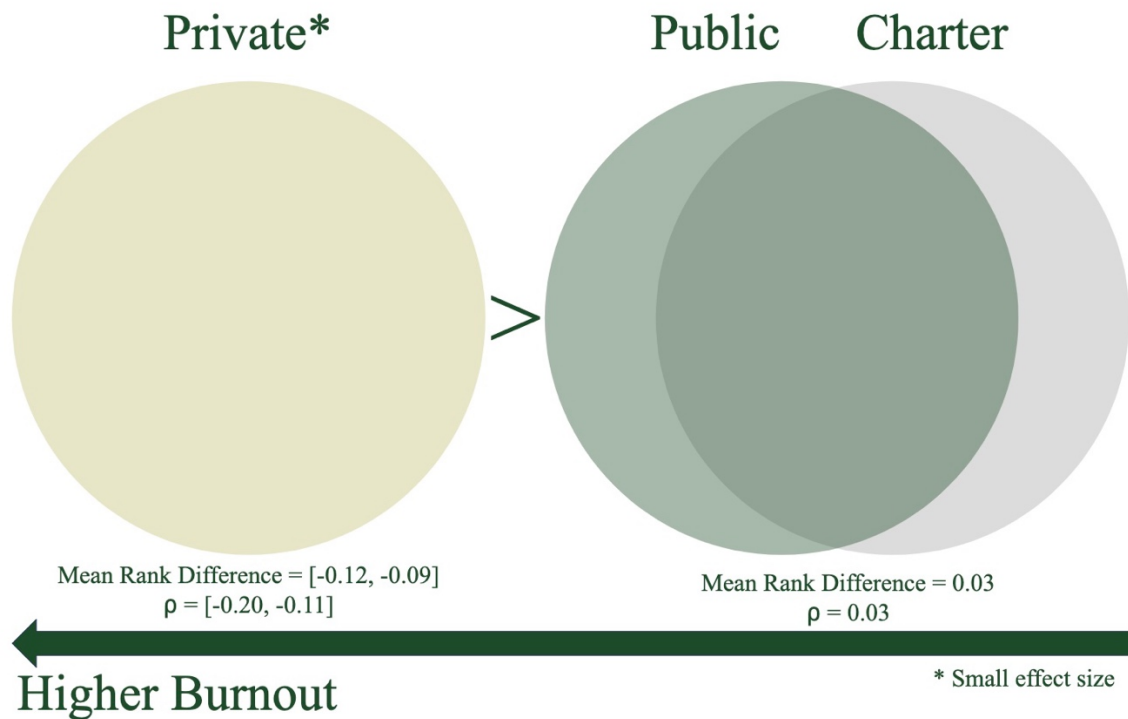


Figure 3

Burnout Across Public, Charter, and Private Elementary School Teachers

Previous research comparing burnout across public, charter, and private school teachers is limited. Over the past ten years, existing studies have primarily focused on job satisfaction rather than burnout in comparative research. For example, Small (2021) discovered that private school teachers reported higher job satisfaction when compared to public school teachers, though the study was limited to 128 teachers in Georgia. Marshal et al. (2023) surveyed 798 teachers via social media. They reported that teachers in all three school types were experiencing burnout during the COVID-19 pandemic but did not focus on a comparison of who reported more. In comparing traditional public and charter school teachers, Bussell's (2017) study reported no significant difference in burnout among 62 teachers in Tennessee. Given the limitations of small participant sampling, limited geographical regions, and lack of representative sampling techniques in the existing literature, this study offers an important contribution by using a

nationally representative dataset. The study's findings of burnout across school types suggest a statistically significant difference does exist, but broad generalizations cannot be made without further investigation.

Inspired by Oberfield's (2016) work, which not only compared traditional public school and charter school teachers and their working conditions but also examined the management of charter schools, this study also examined burnout within the different types of charter and private schools. Statistically significant differences were found between EMO and non-EMO charter school teachers in burnout, teaching community, class control, teacher collective control, and contracted workload, but the effect size for all was $\rho = 0.00$. This study found that elementary teachers in EMO schools reported more class control than their non-EMO counterparts, while Oberfield (2016), using the 2011-2012 Schools and Staffing Survey (SASS), found that the opposite was true. When examining private schools, statistically significant differences were found between religious and non-religious school teachers in burnout, leadership, and class control, but the effect size for all was also $\rho = 0.00$. This study appears to be the only one to examine differences within private schools in a nationally representative sample.

Overall, this study's findings suggest a statistically significant difference in burnout across public, charter, and private schools. Like Oberfield (2016), this study highlights the need to examine different organization models, not just broad school types. More research is needed to examine whether differences exist in and within public, charter, and private school types. This study, along with Ni (2012), Oberfield (2016), and Marshall et al. (2023), indicates that differences in burnout and working conditions quantifiably exist among school types.

Research Question 2

Question 2 compared burnout and work environment factors among elementary teachers in public, charter, and private school settings. The decision was made to focus on one level of teacher based on prior research identifying distinct differences in burnout and school level. (Nguyen & Kremer, 2022). Examining the nine key study variables, the findings revealed a high degree of similarity between public and charter school teachers. Specifically, the study observed no statistically significant differences between these two types of teachers regarding actual workload, recognition, leadership, teaching community, parent support, and student apathy. Analyses revealed statistically significant differences with small effect sizes in class control ($p = .03$) and teacher collective control ($p = .04$), with the exception of the contracted workload, which had an effect size of 0.14. The results suggest that while there may be differences, elementary teachers' experiences in public and charter schools are primarily similar across these factors. Figure 4 illustrates the similarities identified in this study between public and charter school elementary teachers, while also emphasizing the differences from their private school teaching counterparts.

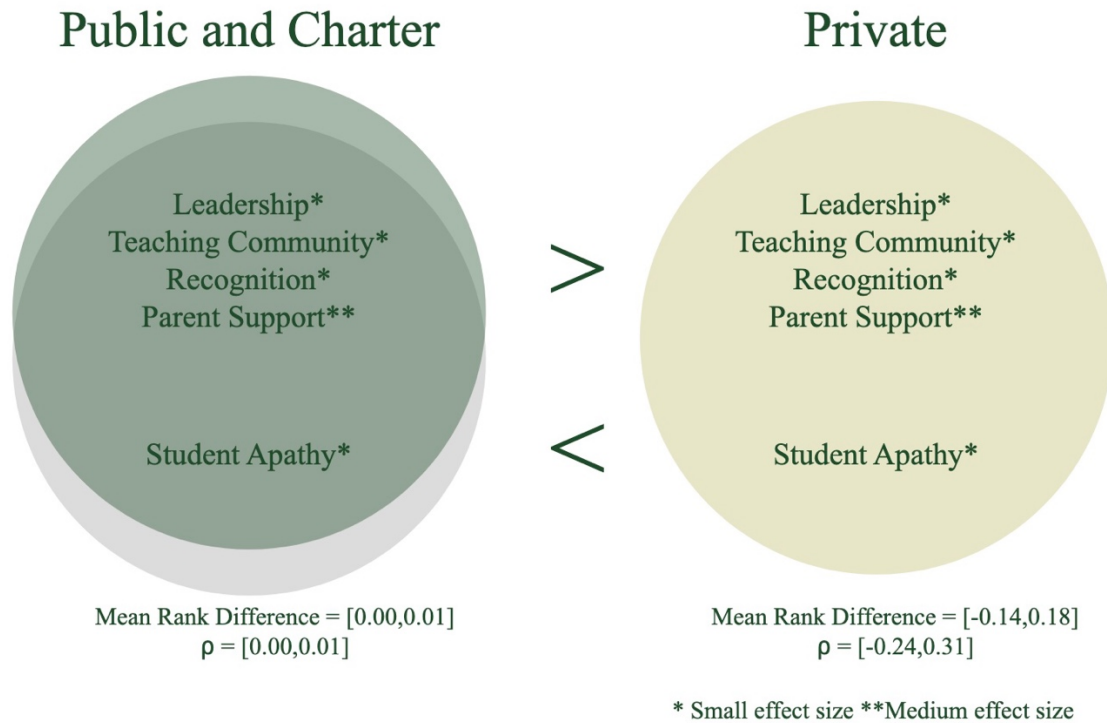


Figure 4

Similarities and Differences Between Public, Charter, and Private Elementary School Teachers

The study's findings both contrast and align with previous research that utilized earlier data and versions of the NTPS to compare public and charter school teachers, though the mentioned studies compared K-12 teachers and not a subpopulation. Ni's (2012) research of teachers based on the 2003-2004 School and Staffing Survey (SASS) reported that charter school teachers reported higher workloads and greater control over school policies than their public school counterparts, whereas the present study found public school teachers reported high actual workloads and similar teacher collective control perceptions over the two school types. Similarly, Oberfield (2016) suggested that charter schools experienced less bureaucratic red tape and more classroom control, while this study found that public school teachers reported slightly higher perceptions of classroom control. Weiss et al. (2023), in a longitudinal study of the 2000-

2001 SASS through the 2017-2018 NTPS, found that charter school teachers reported working longer hours, earning less, and experiencing more supportive parents than public school teachers. Charter elementary school teachers in the present study also reported earning less than their public school counterparts, but no statistically significant difference in parent support was found.

Unlike other studies, the present research expanded school types to include private school teachers. The analysis revealed moderate effect size differences in classroom control, teaching community, and student apathy. Specifically, private elementary school teachers reported the least amount of classroom control and rated their teaching community lower than public and charter school teachers, and private elementary school teachers perceived more student apathy than their colleagues in other school types. This finding contradicts Marshall et al. (2023) comparison study, which reported charter and private school teachers reporting higher control than their public school counterparts. Figures 5 and 6 present a visual summary of the outcomes related to research question two for classroom control and teacher collective control across all three school types.

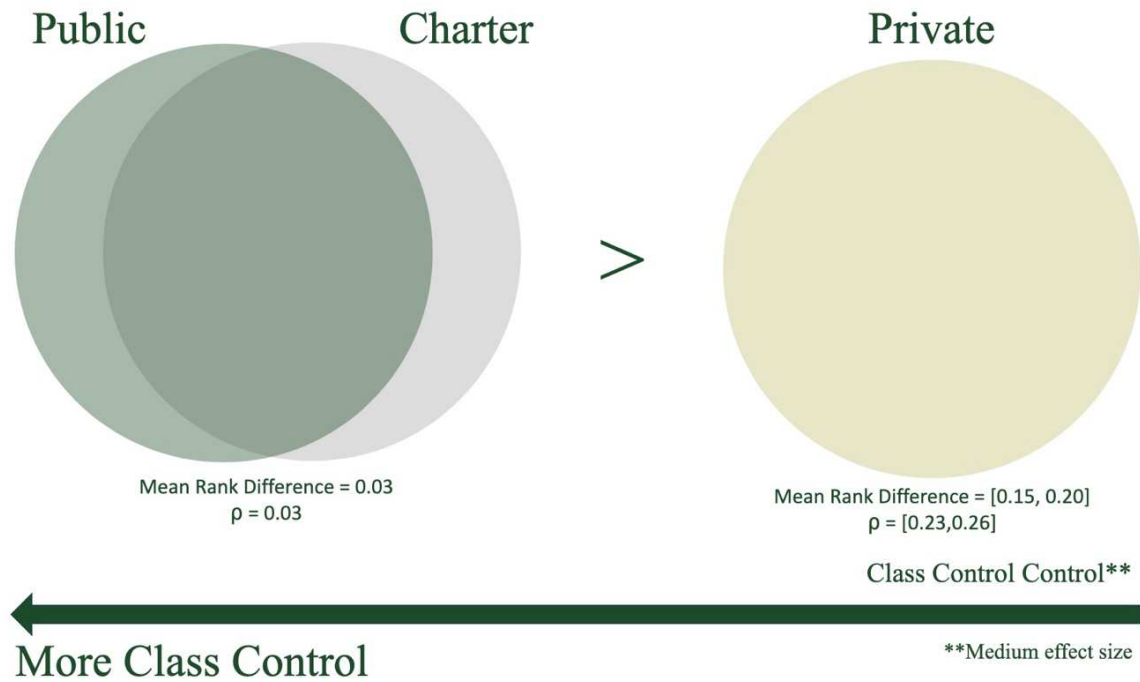


Figure 5

Classroom Control Across Public, Charter, and Private Elementary School Teachers

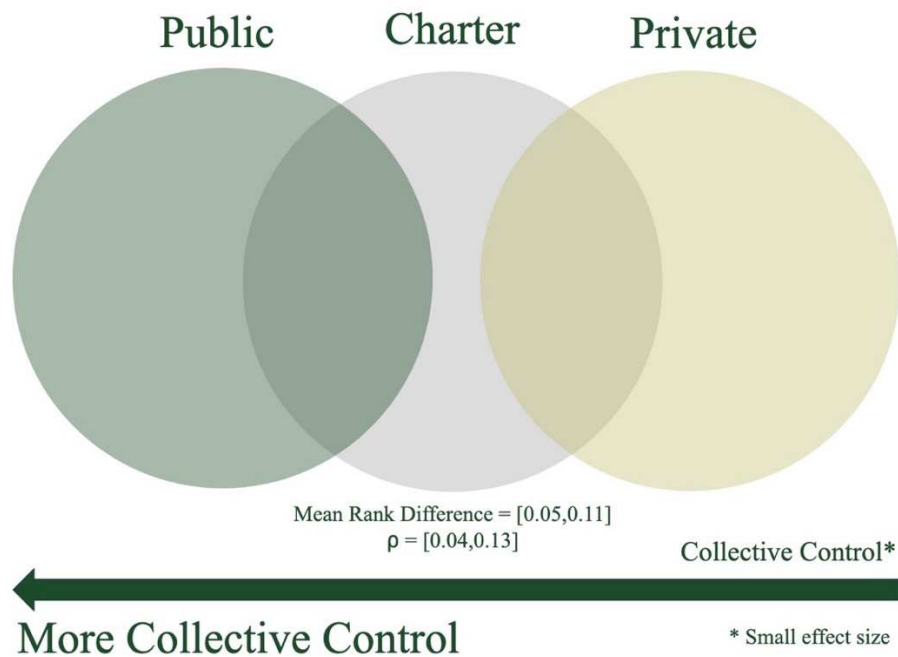


Figure 6

Teacher Collective Control Across Public, Charter, and Private Elementary School Teachers

Overall, work environment factors, such as classroom control, teaching community, and parent support, emerged as significant variables with moderate effect sizes when comparing all three school types. The study's findings suggest public and charter elementary school teachers perceive their work environment as more similar than different, and the work environment in private elementary schools may differ more substantially from public and charter schools.

Research Question 3

A weighted Spearman's correlation analysis was conducted separately for each school type to investigate the relationships between burnout and the various work environment variables in different school types. The study identified key environmental variables strongly associated in each matrix. The results reinforce three essential factors for a strong school environment regardless of school type.

The study uncovered strong correlations among leadership, teaching community, and recognition, as shown in Figure 7. Remarkably, the results were consistent regardless of school type, with the highest correlations observed in charter schools. Leadership was highly correlated with both teaching community (0.70 - 0.77) and recognition (0.64 - 0.71), while teaching community and recognition were also strongly correlated (0.58 - 0.67). Results indicate that these three factors in the work environment are closely interconnected across all school types and are strongest in elementary charter schools.

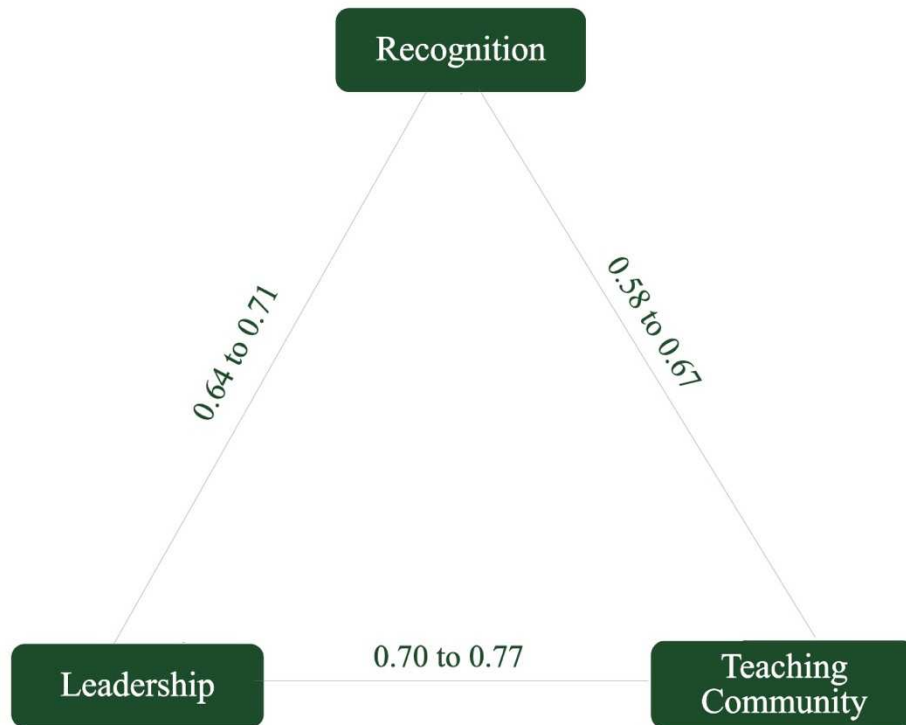


Figure 7

The Strongest Work Environment Factors Across All Three School Types

Burnout, as expected, was negatively correlated with leadership, teaching community, and recognition. The finding reinforces previous research, which states that strong leadership, a supportive teaching community, and greater recognition are protective factors against burnout (Hughes et al., 2015; Ladd, 2011; Maslach & Leiter, 2022; Richards et al., 2018; Skaalvik & Skaalvik, 2017b; 2020). Interestingly, the strongest correlations—both positive among work environment factors and negative with burnout—were found in charter schools. Figure 8 visually depicts the findings of the associations between burnout and leadership, teaching community, and recognition.

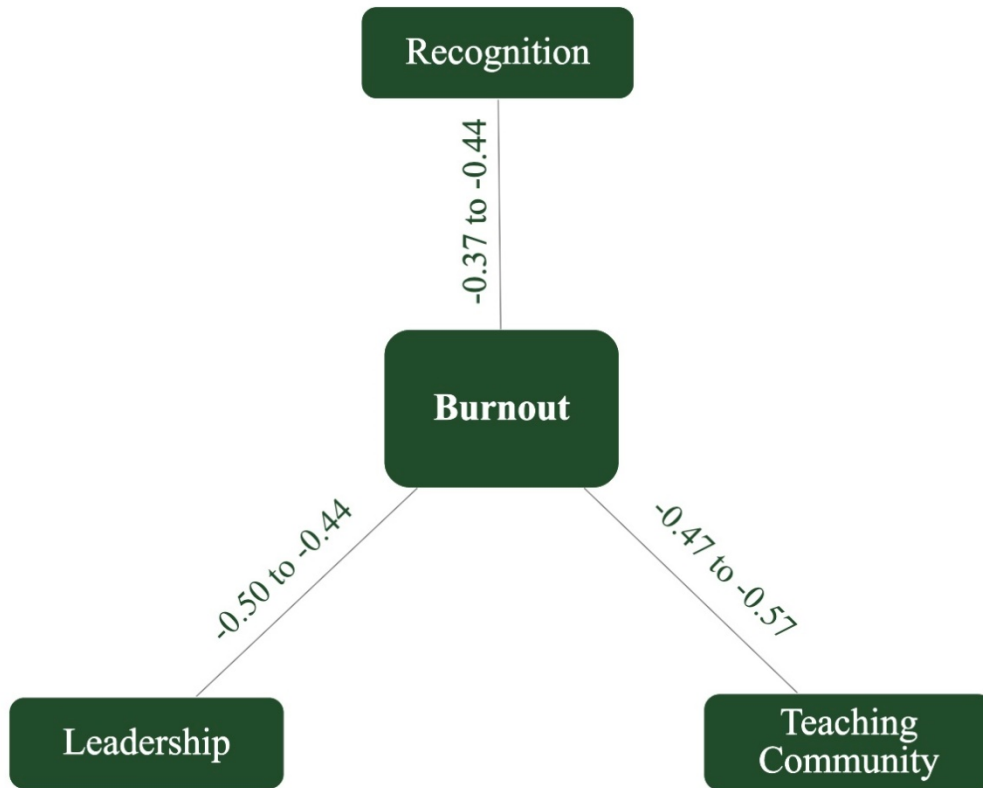


Figure 8

Strongest Work Environmental Factors Associated with Burnout Across All Three School Types

Interpreting these results through Maslach and Leiter’s Areas of Worklife framework, the aspects of leadership, teaching community, and recognition correspond with the social dimensions of their framework: capability, social, and moral (Leiter & Maslach, 1999). The NTPS 2020-2021 data was collected during the COVID-19 pandemic when many schools nationwide went into hybrid and remote learning. Social interactions within the school and in the general public were limited due to distancing protocols. It is worth considering whether these circumstances heightened teachers’ awareness of these social factors and their importance in their school’s environment.

Across all school types, leadership, teaching community, and recognition are key factors in a teacher’s work environment, regardless of school type. These findings support previous

research that shows strong leadership and administrative support are essential for reducing teacher stress and burnout, and studies have shown that a strong sense of community within a school can act as a protective factor against burnout. The findings of this study reinforce the importance of effective leadership, a collaborative teaching community, and recognition for each contributes to a positive work environment, helping to shield teachers from burnout. Figure 9 offers a graphical representation of the significant findings of research question 3 overall.

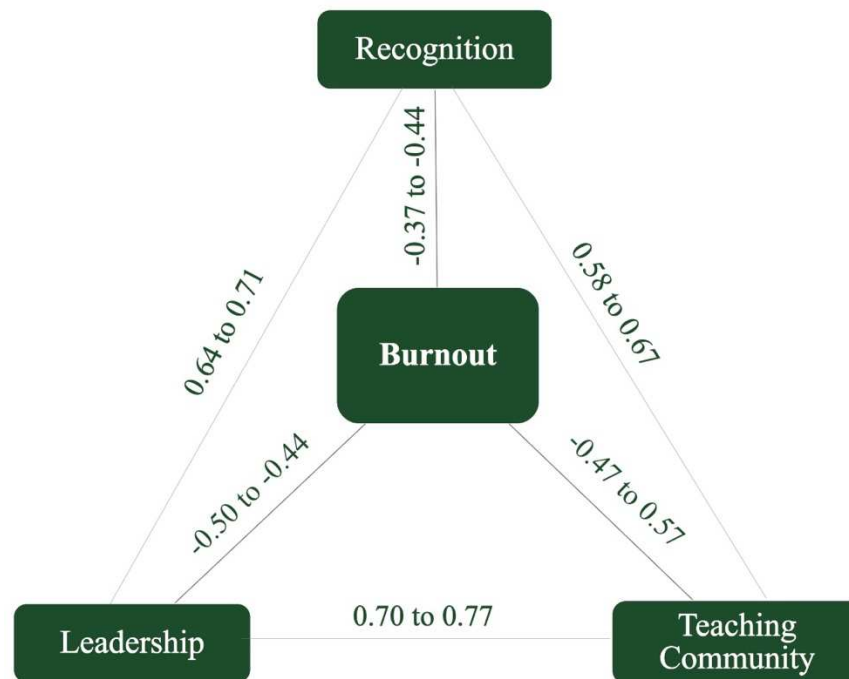


Figure 9
Significant Findings of Research Question 3 Across All School Types

Implications for Practice and Policy

The findings of this study provide educational leaders and policymakers with the opportunity to understand the interplay of three work environment factors—leadership, teaching community, and recognition—and their connection to teacher burnout and one another across the three main types of elementary schools in the United States. This study examines burnout across

different school types, the relationship of work environment factors within each type, and the associations among key factors in the school environment. It also highlights challenges and opportunities to enhance teacher well-being, affecting student outcomes.

The analysis of working conditions (workload, classroom control, collective control, recognition, leadership, teaching community, parent support, and student apathy) by school type revealed a noteworthy trend. Public and charter elementary school teachers shared statistically similar perceptions across several key factors, including leadership, recognition, teaching community, parent support, and student apathy. In contrast, private elementary school teachers reported distinctly different—and statistically significant—perceptions in these areas. Notably, private school teachers also reported the highest levels of burnout, with a moderate effect size. These findings suggest that private school administrators and governing boards must pay close attention to the social dimensions of the work environment to help mitigate burnout and sustain teacher effectiveness.

Further analysis using Spearman correlations identified three tightly interconnected work factors that deserve special attention from administrators and district leaders: leadership, teaching community, and recognition. These results align closely with Maslach and Leiter's (2022) Areas of Worklife framework, which underscores the importance of the social environment in shaping burnout risk and professional well-being. House's (1981) theory of organizational support further reinforces the value of leadership that provides employees emotional, instrumental, informational, and appraisal support. Leaders who create a culture of trust, feedback, professional development, and mutual respect will likely buffer staff from burnout and promote a thriving teaching community. Cultivating this kind of culture also

includes implementing programs such as mentorship initiatives, professional learning communities, and consistent teacher recognition systems, both formal and informal.

This study provides an understanding of what to prioritize, but it is just one part of the equation; the real challenge is implementation. To effectively address burnout, school leaders must cultivate meaningful connections within teams, across departments, and throughout the entire school. This begins with providing time for collaboration: common planning periods, grade-level meetings, and dedicated time for intentional teamwork help educators build trust and share solutions. Connection also comes from shared joy. Informal community-building practices—a faculty pickleball league, a weekly workout class, or monthly staff contests—can spark energy and belonging. Leadership matters here, too. A school leader who sends out anonymous staff surveys for feedback about their leadership or carries small cowbells to hand out when recognizing staff demonstrates a commitment to fostering positivity. Whether through a monthly Golden Apple award or a handwritten thank-you note, recognition helps individuals feel personally and professionally seen. Small-scale practices can lead to significant changes in the climate.

For policymakers, the message is straightforward: investing in school leadership, carving out time for teacher collaboration, and making space for meaningful recognition are not extras—they are essential. Burnout is not just about individual stress; it's a reflection of the systems and culture in which teachers work. When policies and funding support the conditions that help educators feel supported and connected, schools are better positioned to keep great teachers in the classroom and ensure students thrive.

Limitations

This study has several limitations that should be considered when reviewing the results. Data collection for the 2020-2021 NTPS occurred during the 2020–2021 school year, a time when the COVID-19 pandemic significantly disrupted education for all public, charter, and private school students, teachers, and administrators. The population of full-time elementary teacher for this study reported on the instruction at their school during the time of the survey. 56.7% of public school teachers (including those in charter schools) and 58.4% of private school teachers were teaching in a hybrid format. Fully in-person instruction was less common among surveyed teachers, reported by only 23% of public school teachers and 32.5% of private school teachers. Changes in instructional delivery, along with social distancing, health concerns, and other pandemic-related stressors, may have influenced teachers' experiences and perceptions in ways that do not accurately reflect typical school conditions and impacted how they responded to survey questions.

The study found that private elementary school teachers reported higher burnout than their counterparts in public and charter schools. It is important to consider the unique pressure that private schools and teachers face during this time. According to data from the Private School Universe Survey (PSS), private school enrollment in grades K-4 increased between 3 to 9 percent, depending on the grade level, between the fall of 2019 and fall of 2021 (National Center for Education Statistics [NCES], 2023c). During this same time, enrollment in public schools in grades K-7 decreased by 3 to 6 percent based on data collected by the NCES (2023c). Did the influx of students add extra stress to private elementary school teachers? The potential of these unique stresses could be reflected in the private teachers' survey results.

Another limitation involves data access and analytical constraints. All analyses took place in a restricted environment, requiring approvals before exporting results. R was the available software in the restricted environment, and using R for all the complex survey-weighted analyses added another layer of difficulty. The NCES requires specialized statistical techniques that account for the final and replicated sampling weights and the survey's NTPS sampling structure. This study complied with these techniques, but it is crucial to recognize the complexities of such analyses and acknowledge that the survey design can affect the results (Corder & Foreman, 2014).

Common survey-related issues must also be acknowledged. Self-reported data introduce the possibility of social desirability bias, extreme-response bias, and response-set bias. Another possible survey-related problem of the study lies in the fact that not all full-time teachers in grades K-5 could be included. This was due to the need for specific data from the companion School Questionnaire or Private School Questionnaire for each teacher to determine their school type, which some schools did not complete.

Despite these limitations, this research contributes valuable insights into teacher burnout and work conditions across different school types.

Future Research

The NTPS data offers researchers the opportunity to explore a plethora of research questions. This study focused on full-time K-5 teachers but could easily be expanded to different grade-level teachers, subject area teachers, include online and microschools, and specific regions in the United States. Also, the data set included the Principal Questionnaire and the Private School Principal Questionnaire; therefore, a comparison could be conducted between teachers and school administration.

Most importantly, future comparative research on teacher burnout, working conditions, and school type needs to be studied outside of the COVID-19 pandemic. The pandemic disrupted education for our K-12 students and teachers. Therefore, the results of this study must be examined through the lens of the time it was conducted. Longitudinal studies could also use the NTPS data to examine burnout and working conditions between school types to fully understand the phenomenon. Expanding research to include qualitative perspectives could also offer a deeper understanding of teacher burnout and working conditions among public, charter, and private schools.

Conclusion

Teachers work daily in dynamic environments. These dynamic environments are social environments where teachers interact with students, colleagues, administration, staff, and parents. The study desired to increase the academic understanding of teacher burnout, working conditions, and school type to better understand a teacher's complex environment. While this study has limitations, the hope was to provide insight into factors that can reduce teacher burnout and provide avenues for future researchers to explore the dynamic environment our teachers work in daily as they educate the next generation.

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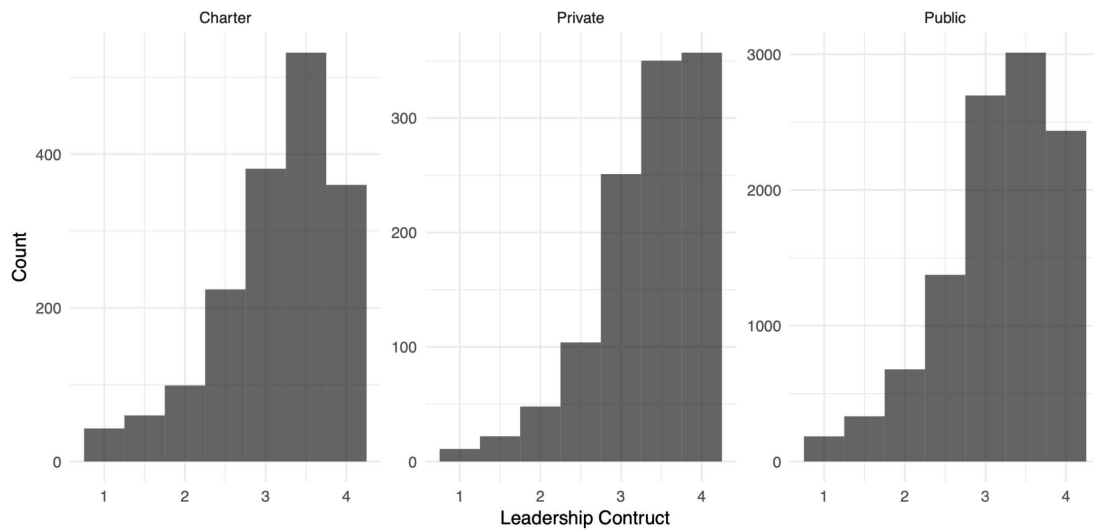
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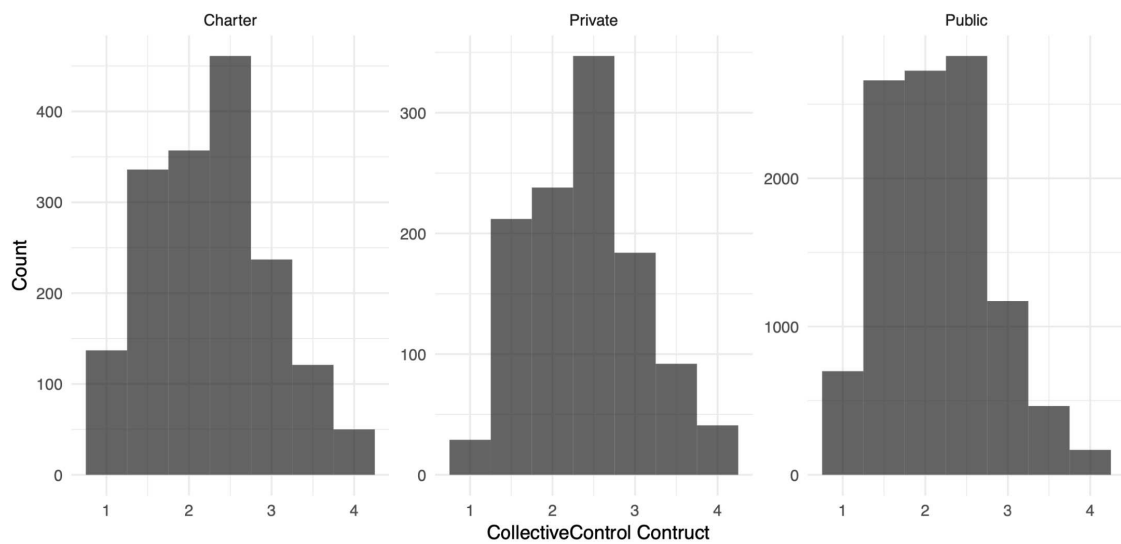
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Appendix A

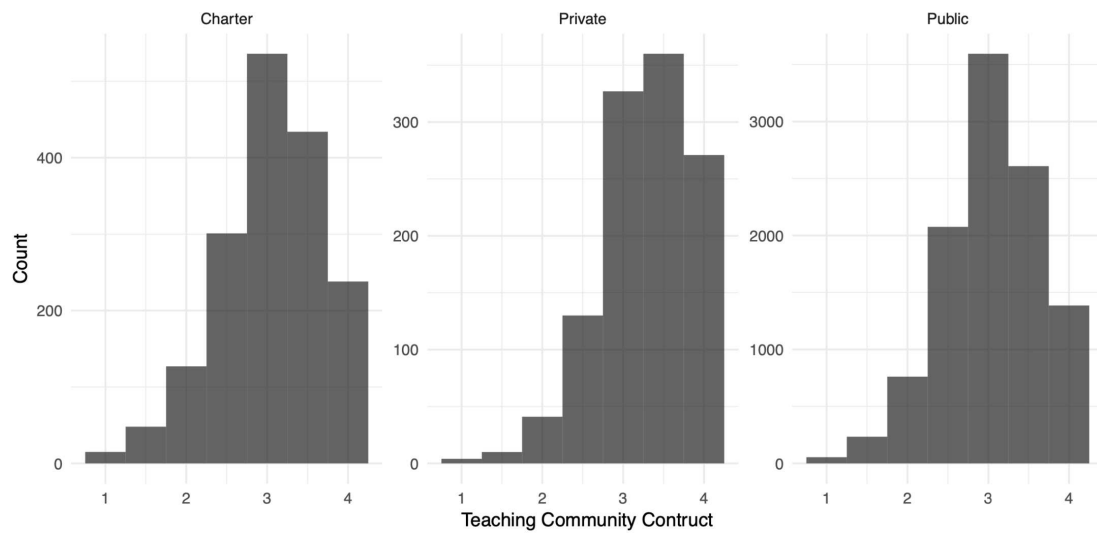
Weighted Histograms of Work Environment Variables Histogram of Leadership Construct by School Type



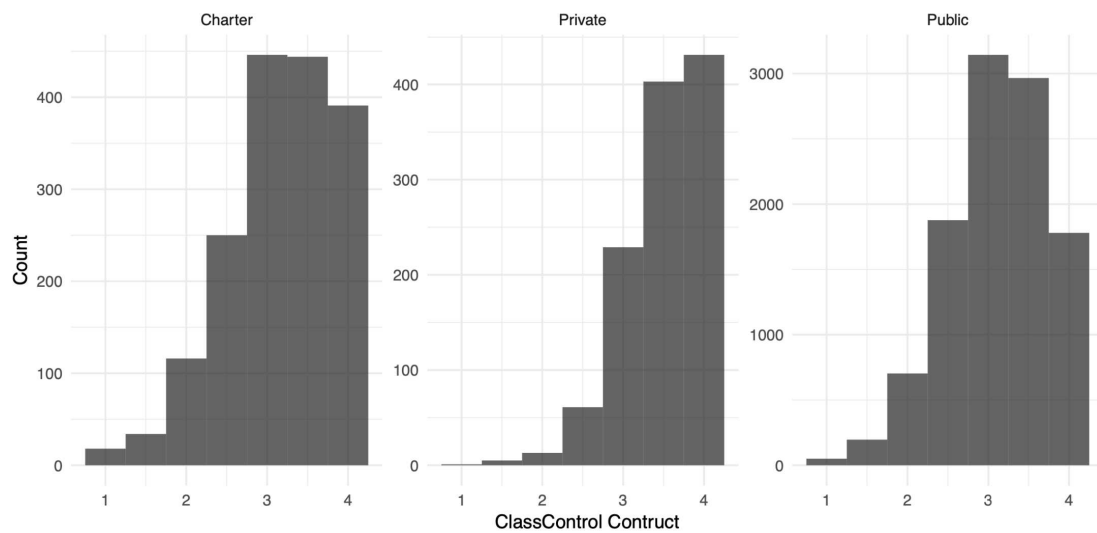
Histogram of Collective Control Construct by School Type



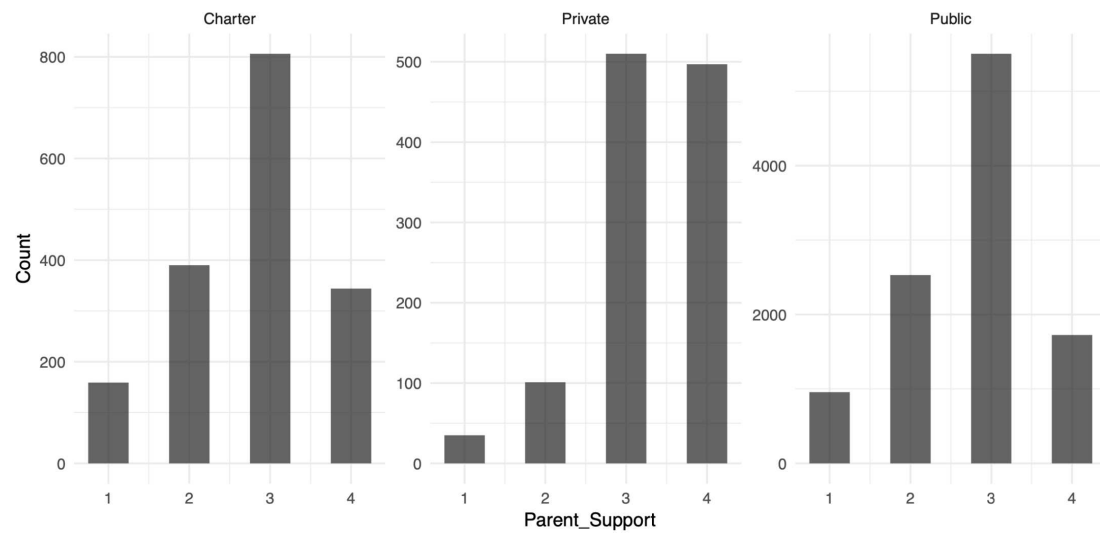
Histogram of Teaching Community Construct by School Type



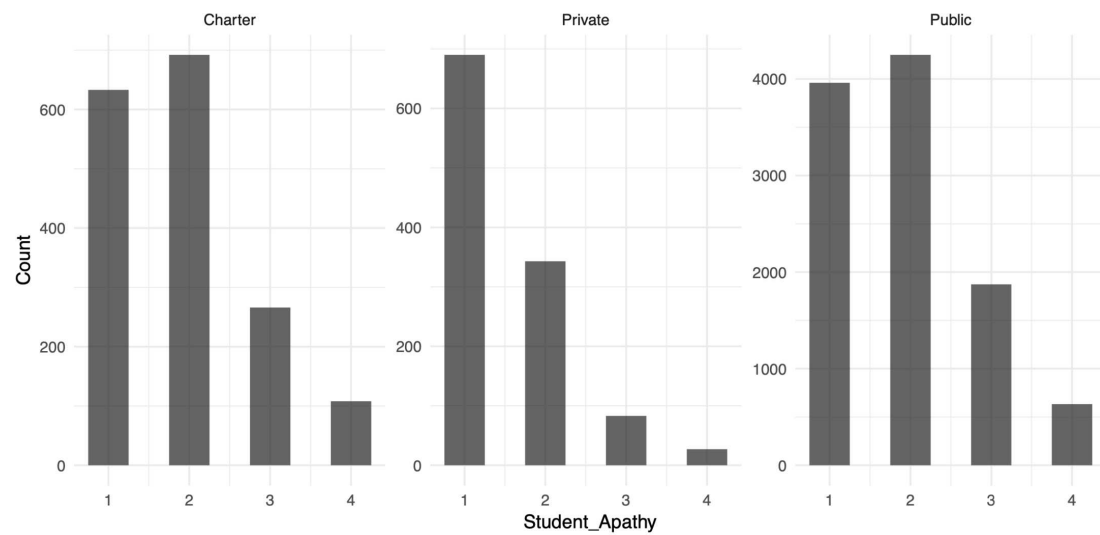
Histogram of Class Control Construct by School Type



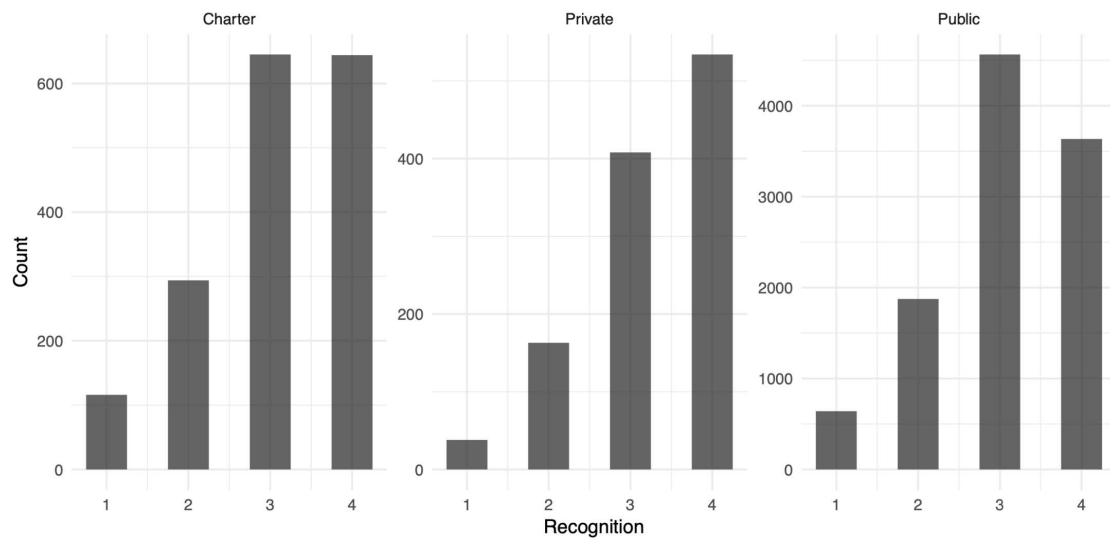
Histogram of Parent Support



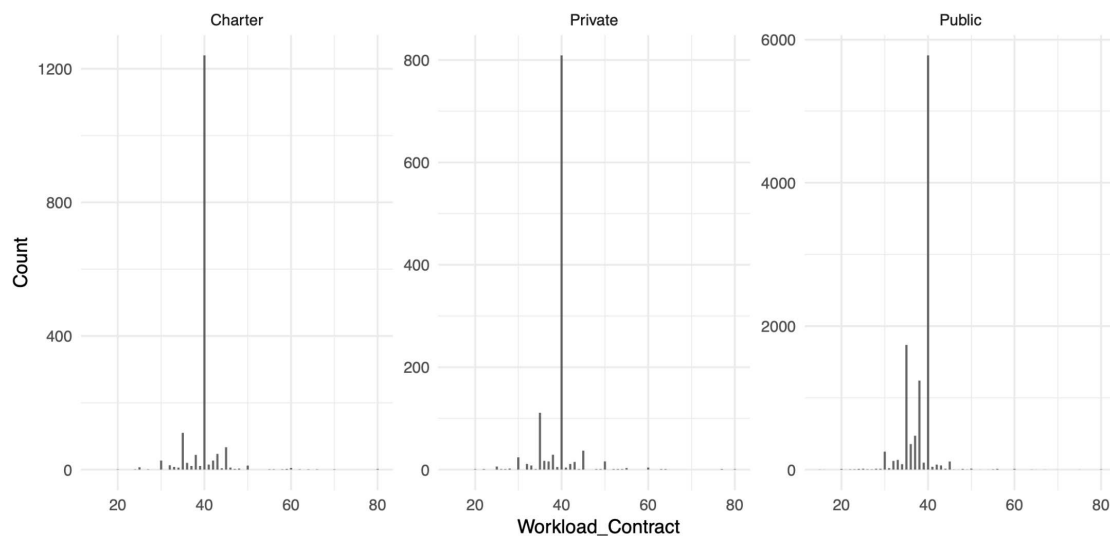
Histogram of Student Apathy



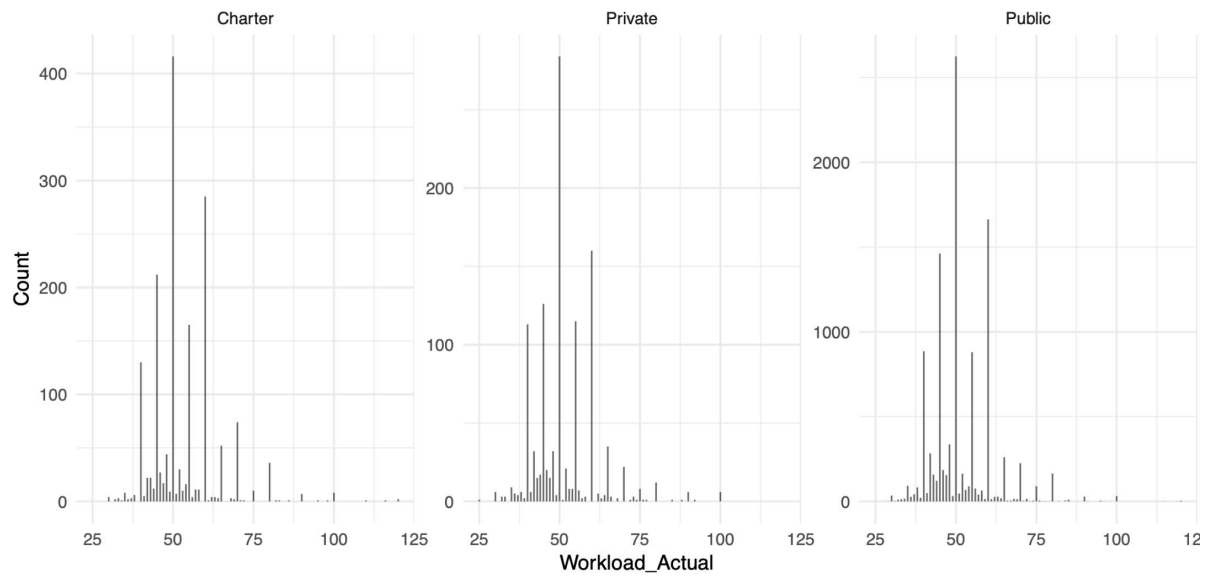
Histogram of Recognition



Histogram of Workload Contracted

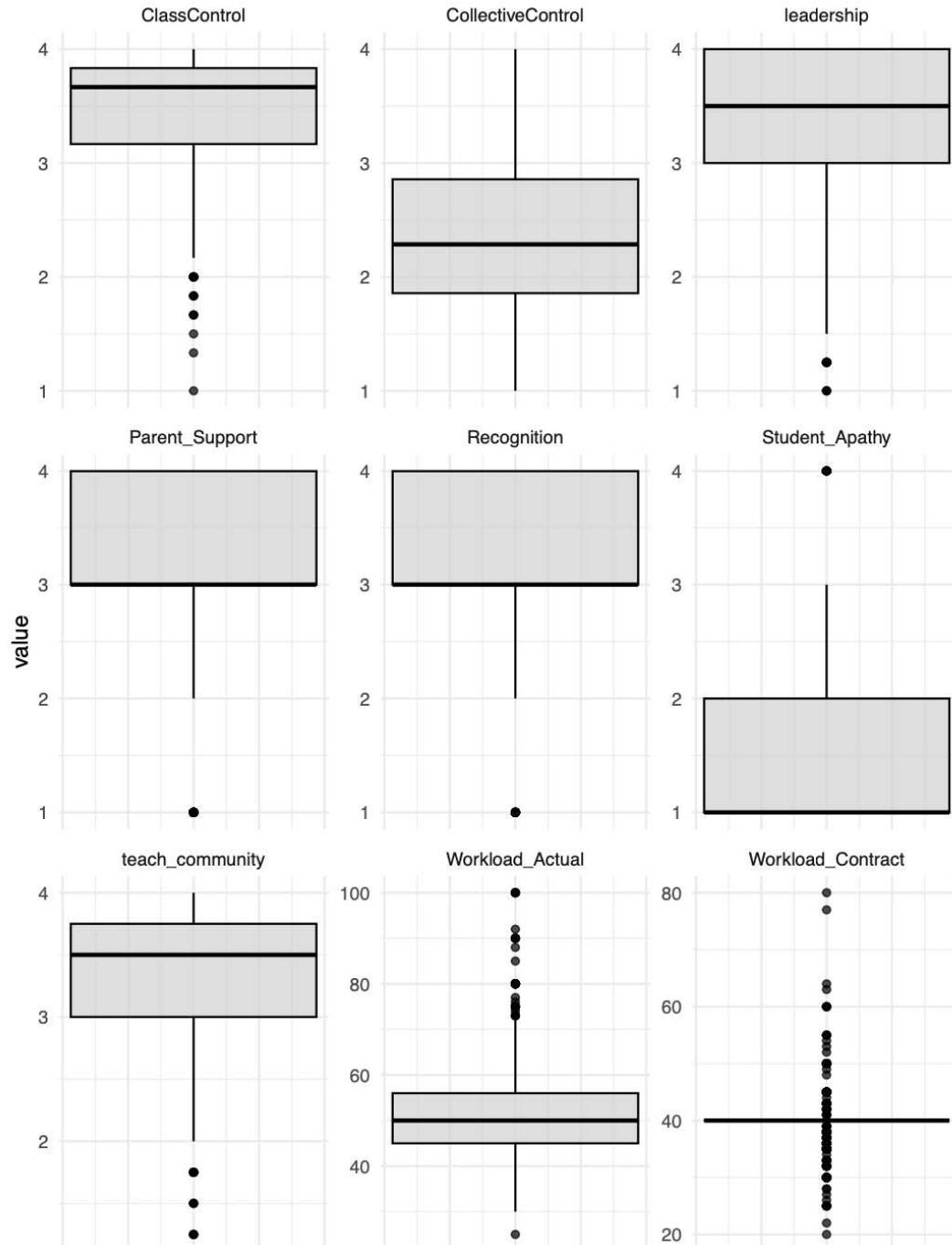


Histogram of Workload Actual



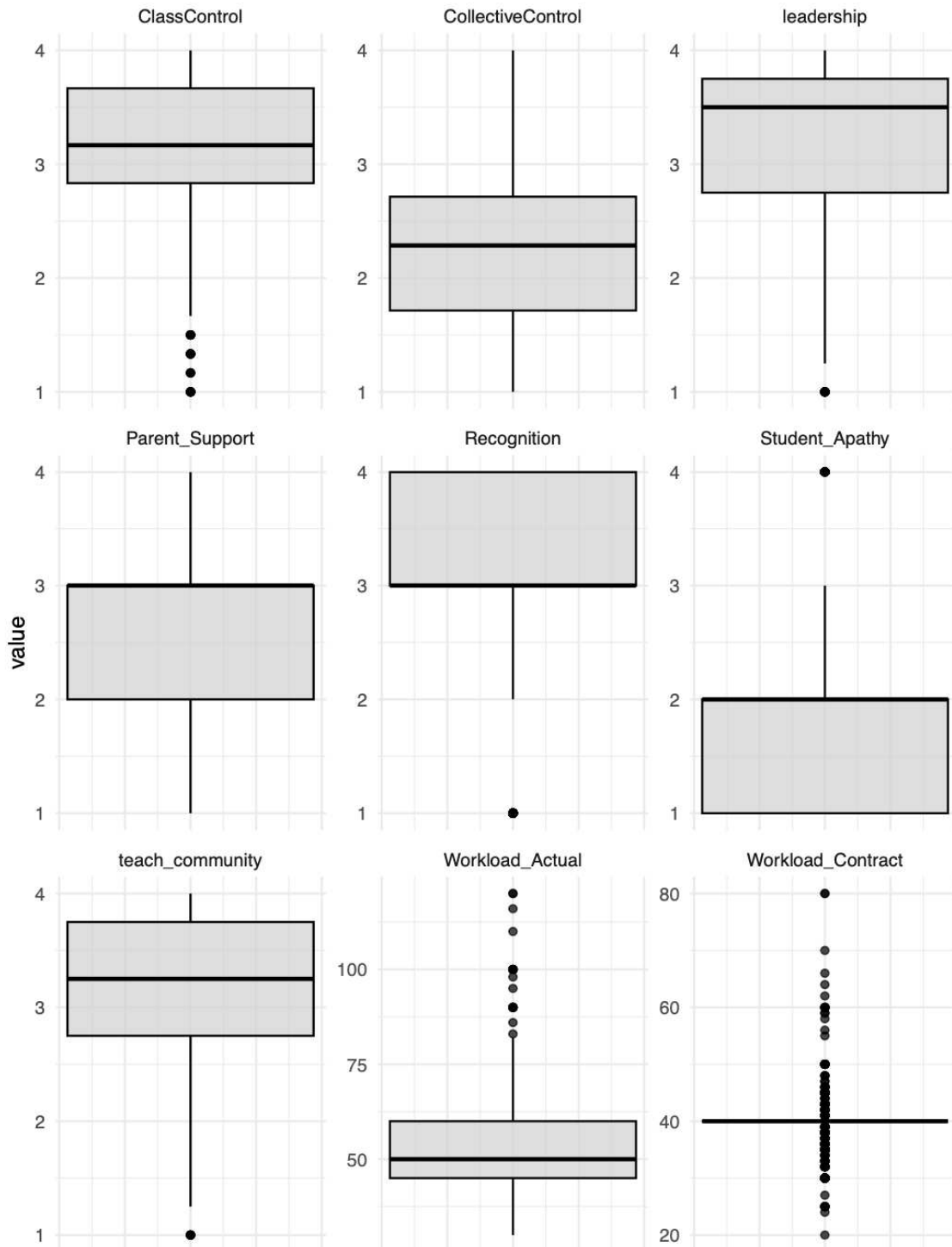
Appendix B

Weighted Boxplots for All Working Conditions in Public Schools



Appendix C

Weighted Boxplots for All Working Conditions in Charter Schools



Appendix D

Weighted Boxplots for All Working Conditions in Private Schools

