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TRUST IS CONTAGIOUS: THE ROLE OF TRUST IN SCHOOL RELATIONSHIPS
AND TEACHER RETENTION RATES

A dissertation submitted in partial fulfillment
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ABSTRACT

TRUST IS CONTAGIOUS: THE ROLE OF TRUST IN SCHOOL RELATIONSHIPS AND TEACHER RETENTION RATES

Tara Gleason

The purpose of this quantitative study is to examine the relationship between teachers' trust in different relationships within a school culture and how that level of trust can impact teacher retention rates within an institution. This study utilized pre-existing New York City Department of Education (NYCDOE) data, and 981 schools will comprise the final sample from the 1531 public schools that currently make up the NYCDOE public school system (this is not including charter schools). Descriptive, correlation, and regression statistical analyses were conducted to examine the influence of various school demographics on trust levels (the percentage of economically disadvantaged students, student population size, borough, and grades serviced). Simple, multiple, and hierarchical regression analyses were used to determine whether teachers' trust in school leaders and/or their fellow teachers influence teacher retention rates in schools. This study addressed the detrimental impact of teacher attrition rates on the education system as a whole, as well as the more current research emphasizing the importance of analyzing the role of trust as an influential factor in teachers' decisions to remain in the profession or not.

DEDICATION

For about two years, my younger brother has been competing with me to create the “longest” book. When he found out that my book would be just shy of his recent masterpiece’s 163 pages, he concluded that he was a doctor ipso facto since his book was longer than mine. It didn’t matter that it was a picture book. I don’t mind letting him think that because there have been many memories I have missed with him while being so busy pursuing this dream of mine. So, if he wants to be a doctor with me, I don’t mind in the least. He’s been the boy with the most patience and the biggest heart without even realizing it. The countless nights he spent staying up late with me so that I wouldn’t feel alone with my nagging doubts made the difference.

Time with him wasn’t the only sacrifice I’ve made on this journey. I owe a debt of gratitude that I will never be able to pay back to my fiancé, John. John has spent most of our relationship watching from the sidelines as I pursued this goal. It has never been easy for him to watch me go after a dream that left me anxious, stressed, and up most nights. After a long day of work, he’d come home, make dinner, and gave me the space and caffeine I needed to keep going steadily for four years. Four years of missing date nights, watching me work on “vacations,” and losing sight of each other momentarily as I sought to achieve this dream he probably will never understand. No questions asked and only a momentous outpouring of support and love. Without him as my silent, sacrificing guardian, I doubt I would have found the strength and self-confidence to believe I could have finished this. To John, the love of my life, I thank you from the bottom of my heart for sacrificing for me so that I could pursue everything I wanted.

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Introduction

Every day in New York City, people are surrounded by beautiful advertisements, photos of famous individuals, and bright lights that tend to astound and overwhelm at the same time. If one looks closely enough, some of the posters and banners that line the walls of the subway cars ask for specific people in particular: “Teachers wanted!”; “You can make a difference!”; “Jump start your teaching career for those that need you most.” These calls for teachers are uplifting and inviting, an inspiring “call to arms” for an honorable vocation formatted into an 11 x 8 frame.

And rightly so, the job of a teacher is an inspiring but arduous one. Teachers are the solid foundation that the education system depends on to help students achieve their highest potential. As A. P. J. Abdul Kalam (n.d) describes it, “Teaching is a very noble profession that shapes the character, caliber, and future of an individual. If the people remember me as a good teacher, that will be the biggest honour for me.” This quote reflects a driving focus for many teachers, spending day in and day out striving to ensure all their students’ instructional needs while juggling the other various responsibilities that come with the territory of helping others achieve their dreams. With a goal like this, who would say no to those posters’ rallying call for future, potential teachers?

Problem Statement

Ingersoll’s (2001) findings within his seminal research tell a different tale. Ingersoll’s study revealed that as many as 46% of new teachers leave the profession within five years. This phenomenon is called the “revolving door,” and its continual spinning has revealed a different side of the teacher experience that is not displayed in those posters mentioned earlier (Ingersoll, 2001). Other researchers depict the various

challenges teachers have to contend with in their daily roles and responsibilities.

According to Goldring, Taie, Riddles, and Owens (2014):

About 51 percent of public school teachers who left teaching in 2012-2013 reported that the manageability of their workload was better in their current position than in teaching. Additionally, 53 percent of public school leavers reported that their general work conditions were better in their current position than in teaching. (p. 3)

Holme, Jabbar, German, and Dinning (2018) reveal that many schools that are characterized by high-poverty and as predominately non-White students have significantly higher annual teacher turnover rates. At the macro level, schools need to adhere to the various reforms in educational policy (*No Child Left Behind 2001, Race to the Top 2015, and Every Student Succeeds 2015*), which revolve around rigorous standardized assessments, the need for increased student achievement, and educator accountability, making the picture of teacher attrition complete (Allen, Grigsby, & Peters, 2015; Grissom, Nicholson-Crotty, & Harrington, 2014; Ingersoll, 2001; Johnson, Kraft, & Papay, 2012; Wright, Shields, Black, Banerjee, & Waxman, 2018).

All of these facets ingrained in teachers' organizational or school culture is the primary contributor to their perceptions, beliefs, attitudes, and levels of satisfaction. For instance, Simon and Johnson (2015) emphasize that "the working conditions found to be most important to teachers and the most salient predictors of their satisfaction and predicted retention are social in nature—school leadership, collegial relationships, and elements of school culture" (p. 3). The research, while emphasizing these different areas of the school culture that influence teachers' career decisions, have also discovered that

the social relationships, dynamics, and interactions that teachers have are more impactful than many other factors that have been cited as contributing to teacher attrition rates in the past (Akin, 2015; Barkley, Lee, & Eadens, 2014; Cancio, Albrecht, & Johns, 2013; Eskew, 2016; Ingersoll, 2001; Kelchtermans, 2017; Louis & Murphy, 2017). Notably, more and more research has sought to determine how these core relationships and their soundness (or lack thereof) can make the difference in whether a teacher remains in his or her profession or not.

The relationship that has been identified as being the most influential on teachers' satisfaction and desire to remain is the teacher-to-school leader. Ideally, administrators are the models of competence and leadership that teachers look to in order to fulfill their own responsibilities and serve their students' needs to the best of their abilities (Bryk & Schneider, 2002; Tschannen-Moran & Gareis, 2015). A school leader's support (or lack thereof) has been designated as one of the most impactful organizational culture facets that influences teacher retention rates (Ashworth, 2018; Cancio et al., 2013; Eskew, 2016; Ingersoll, 2001; Ladd, 2011; Learning Policy Institute, 2017). Teachers need to believe that school leaders are leaders of their word, and their conception of vision will be one that leads all members of the school culture to success (Tschannen-Moran, 2009; Tschannen-Moran, 2014; Tschannen-Moran & Gareis, 2015). This, in turn, impacts teachers' collegial relationships and trust, as well (Tarter, Bliss, & Hoy, 1989; Tschannen-Moran & Gareis, 2015).

Ultimately, as Kelchtermans (2017) posits, teacher attrition “disrupts essential educational processes and threatens their [teachers] valued continuity” (p. 964). The entire school community is devastated by the aftermath of teachers leaving, particularly

in schools that need the attentive staffing the most, and the effects do not stop at the microlevel (Ashworth, 2018; Holme, Jabbar, German, & Dinning, 2018; Johnson et al., 2012; Simon & Johnson, 2015). As Amos (2014) phrases it:

The monetary cost of teacher attrition pales in comparison to the loss of human potential associated with hard-to-staff schools that disproportionately serve low-income students and students of color. In these schools, poor learning climates and low achievement often result in students—and teachers—leaving in droves.

(para. 1)

Some researchers feel that the building of trust in school relationships could be a possible solution to educators' woes. With school leaders, the research reveals that the benefits can be endless if administrators work actively to build trust within their institutions (Balyer, 2016; Bryk & Schneider, 2002; Eskew, 2016; Louis & Murphy, 2017; Tater & Hoy, 1988; Tschannen-Moran, 2014; Wahlstrom, 2008). Tschannen-Moran and Gareis (2015) reveal that "high levels of trust between subordinates and leaders is associated with greater confidence in the accuracy of information coming from the leader, a greater desire to interact with the leader, and greater satisfaction in communication with the leader overall" (p. 69). When trust is solid between teachers and school leaders, there is a strong collective sense of efficacy, confidence, success, and collaboration (Eskew, 2016; Tschannen-Moran, 2014).

Regarding teacher-to-teacher trust, the literature may be mum about the influence of collegial trust, but what it is clear about is how influential a breach of trust is on the entirety of the school culture. As Akin (2015) reveals:

organizational trust, which can be defined as the belief of the employees that they will not be affected negatively by the actions of both the organization and one another, is affected by almost all the negative perceptions of the employees toward the organization. (p. 176)

In other words, if a loss of trust occurs between two individuals within a school culture, it does not just affect those two individuals, respectively. A breach of trust spreads throughout a school like wildfire, impacting all within its wake, and not in a positive way. Thus, the impact of trust in developing a positive and conducive school environment is one that is not contested within the research.

Purpose of the Study

The purpose of this quantitative study was to determine the relationship between teachers' trust of their school leaders and fellow teachers on teacher retention rates in New York City Department of Education (NYCDOE) schools. The level of trust teachers have in both relationship types were measured by the Teacher-School Leader and Teacher-Teacher trust ratings on the NYC School Survey for 2016-2017. Teacher retention rates for 2017-2018 were provided by the RPSG research division of the NYCDOE.

Theoretical/Conceptual Framework

Trust can be seen as the foundation and core of the relationships that develop within schools (Balyer, 2016; Bryk & Schneider, 2002; Kars & Inandi, 2018; Maele & Houtte, 2014; Tschannen-Moran, 2014; Tschannen-Moran & Gareis, 2015). Being able to understand how this trust develops involves understanding why humans participate in certain social interactions and relationships, and what influences those actions. The

theoretical framework that sheds light on this is Albert Bandura's social cognitive learning theory (1971, 1986). Bandura's theory is based on the conception that individuals learn best through their experiences and interactions. At the onset of a person's life, personal events (cognitive, affective, and biological) shape how the individual views and interacts with the world. However, when new environmental factors come from others and enter an individual's sphere of influence, these factors can cause the individual to alter or modify their pre-conceived perceptions. This action of seeing and acknowledging other factors is called observation. Through observation, individuals vicariously learn new behaviors from others. The individual self-reflects on their previous knowledge and either disregards this new behavior or embodies it based on their observation of the consequences or success the other person experienced (Schunk, 2016). Notably, observed behaviors are judged against the immediate positive or negative effects that occur, and individuals are more likely to follow through on behaviors that have been met with positivity.

In the case of educators, teachers observe the actions and behaviors of their peers and school leaders to better understand their role, responsibilities, and place within the school culture. Teachers view school leaders as models of "prestige" (Schunk, 2016, p. 132) and competence (Tschannen-Moran & Gareis, 2015), or members deserving of respect and admiration, and thus, enter into a vulnerable relationship where they expect that school leaders will be champions of their efforts and keep their trust safe (Walker, Kutsyuruba, & Noonan, 2011).

However, when a breach of trust occurs, teachers' conception of their school culture and relationship with the party who injured them (whether a school leader or

colleague) becomes devastated (Tschannen-Moran, 2014; Walker et al., 2011). From then on, they are in a state of self-reflection and reluctance, modifying their previous behaviors to be in a constant state of self-preservation (Walker et al., 2011). As such, teachers are utilizing exorbitant amounts of energy to combat these negative perceptions instead of focusing on the ones who need their attention and energy the most: the students (Walker et al., 2011).

Ultimately, Bandura's conception assists with analyzing the dynamics, interactions, and relationships within a school culture. It can also provide some insight as to why teachers may have certain attitudes or perceptions that cause them to leave the profession altogether. Using the social cognitive learning theory as the theoretical lens to analyze the social relationships within different NYC public schools assisted with a better understanding of the scope of the influence of trust and the teacher attrition phenomenon.

Significance/Importance of the Study

One aspect of the research on trust that seems to have not been thoroughly dissected is the role trust has on influencing teacher attrition rates. As aforementioned, school culture plays a pivotal role in teachers' satisfaction in their careers and the desire to remain in the profession. However, trust is rarely associated with teacher attrition. It is discussed with topics such as school leader support (Cancio et al., 2013; Kars & Inandi, 2018; Wahlstrom, 2008), school efficacy and student achievement (Allen et al., 2015; Guin, 2004; Range, 2013), and teacher burnout (Eskew, 2016; Maele & Houtte, 2014; Tschannen-Moran & Gareis, 2015). All of which have been acknowledged as impacting teacher attrition rates. This is a clear indication of the need for future research to focus on the role of trust within school cultures to determine if it is a viable predictor of teacher

attrition rates. This relationship and its potential effects must be addressed to hopefully find a concrete solution to provide to educational policy and school-level administrative leaders for a decades-old problem.

Seeking to fill this gap has several potential benefits on education. Namely, this study aimed to examine the association of these two phenomena within New York City public schools, which is the largest public school system in the United States. Utilizing such a large and diverse population assists with the potential transferability of the conclusions of the study to other school systems across the United States. More specifically, the findings of this study revealed the impact of the dynamics of NYCDOE teachers' relationships with their school leaders and colleagues. The results of the study determined the importance of developing and maintaining healthy, trusting relationships with all members of schools in the NYCDOE and beyond. Furthermore, these conclusions can assist with informing the school, district, and national level educational policy initiatives and professional development programs that may help with decreasing teacher attrition rates, particularly in schools that are impacted the most.

Research Questions

1. To what degree is a school's location (borough), grade configuration, the percent of economically disadvantaged students, and the size of a school's student population, associated with the level of trust teachers have in their school leaders?
2. To what degree is a school's location (borough), grade configuration, percent of economically disadvantaged students, and the size of a school's student population, associated with the level of trust teachers have in their fellow teachers?

3. To what extent is teachers' trust of school leaders related to teacher retention rates?
4. To what extent is teachers' trust of their fellow teachers related to teacher retention rates?

Design and Methods

Research Design and Data Analysis

This quantitative study determined the specific school culture and demographic variables that impact trust score ratings within NYCDOE public schools, and the relationship between teacher trust ratings (teacher-school leader and teacher-teacher) on the 2016-2017 NYC School survey and teacher retention percentages for the 2017-2018 school year. The first two research questions were analyzed using correlation, simple, and multiple linear regressions with the following predictors: school location (borough), grades configuration, percentage of economically disadvantaged students, and the size of the student population. The third and fourth research questions were analyzed with simple and multiple hierarchical regressions using the teacher ratings for trust on the NYC School Survey and the Department of Education's data on teacher retention rates.

Definition of Terms

Teacher retention: The rate of teachers that remain in the same school from one year to the next (Lochmiller, Sugimoto, & Muller, 2016).

Teacher attrition/turnover: Teachers who leave the occupation of teaching altogether (Ingersoll, 2001).

Trust: The willingness to make oneself vulnerable to someone else in the belief that your interests or something you care about will not be harmed (Tschannen-Moran, 2014).

Grade configuration/cluster: A group of grades serviced in a school (i.e., K-5, 6-8, 9-12).

Borough: a town or district that is distinct from a city.

CHAPTER 2

Introduction

Since their early beginnings, schools have been given the task of developing safe and conducive learning environments for students. The pursuit of student achievement and excellence has been at the forefront of educational reform and policy for almost just as long. All educators are entrusted with the responsibility of providing enriching learning experiences with instructional practice that has been designated as effective and rigorous (Grissom et al., 2014; Hancock & Scherff, 2010; Holme et al., 2018; Schlechty & Vance, 1981; Tschannen-Moran & Gareis, 2015). This overarching vision has its heart in the right place. Students have been designated the sole focus when it comes to the vision and purpose of education. Yet, to ensure that students and their experiences in schools revolve around these notions, they need stability, structure, and consistency (Guin, 2004; Holme et al. 2018; Park, Henkin, & Egley, 2005; Simon & Johnson, 2015). This goal is where teachers and their impact are heavily relied upon. Yet, the research literature does not paint a picture of consistency and stability. On the contrary, teacher attrition, retention, or turnover rates appear to be the stable phenomenon that occurs in educational institutions that aim for the education of the whole child.

Theoretical Framework

The forefront of current school-based research has emphasized the desire for educators to ensure that their school's organizational culture, and the many relationships within it, are effective, collaborative, and working toward a collective vision that involves the success of all individuals within the institution (Holme et al., 2018; Louis & Murphy, 2017; Simon & Johnson, 2015). This conducive environment is not established

merely because the individuals will it to be so; it is a long, arduous process that involves the efforts of all parties. In each school, there is a diverse number of personalities, perspectives, and skills that each respective member of the school culture brings to the institution. Trying to ensure that all of these various facets work in tandem is no easy feat (Tschannen-Moran & Gareis, 2015). Yet, in schools where it is truly effective, there is one essential ingredient that ensures that these various factors do not clash: trust. As Kars and Inandi (2018) reveal:

In organization where the feeling of trust is dominant, there is an open and participative environment, the members adopt their responsibilities, productivity and organizational commitment is high, the culture of reconciliation is prevalent, and the inclination to work in groups, job satisfaction and levels of taking part in the decision making process increase. (p. 147)

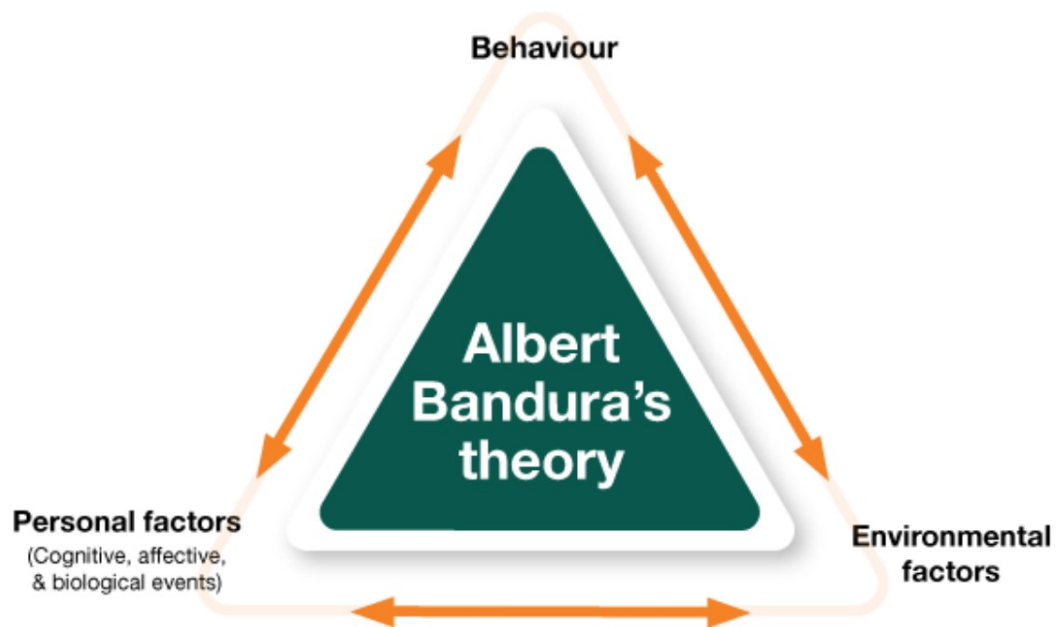
Trust and its place within the literature will be covered in greater depth within this review of the literature. Still, it is important to understand the theoretical roots of the concept to better conceive the various actions, decisions, interactions, and relationships that make up schools.

The social cognitive (learning) theory provides the interpretative lens through which to better understand the pivotal role trust has within the school setting and in all of its significant relationships. The premise of the theory is that all individuals learn through the interactions they participate in within their immediate social environment (Bandura, 1971; Schunk, 2016). As Bandura (1971) states, “in the social learning view, man is neither driven by inner forces nor buffeted helplessly by environmental influences. Rather, psychological function is best understood in terms of a continuous reciprocal

interaction between behavior and its controlling conditions” (p. 2). This concept is depicted in Figure 1, which highlights how humans are influenced by the juxtaposition and interaction of several different facets within their inter- and intra-related environments.

Figure 1

Bandura’s Internal Principle of Social Cognitive Learning Theory (Taydon Nabavi, 2012)



Typically, an individual would learn from others in the form of observation of their personal experiences, or through vicarious learning. If the observer notices that the particular behaviors they are observing are being rewarded, then it motivates them to participate in that same behavior. If, on the other hand, the observed individual is punished or negative ramifications occur as a result of an action or behavior, then the observer has two choices. On the one hand, they can steer clear of taking that same action

and facing those same potential negative consequences. Or, on the other, they can learn from the failure or negativity of that experience, adjust their behavior for future interactions if needed, and move on (Bandura, 1971). This level of “informative feedback” is called enactive learning, and it involves extensive self-regulation and the individual’s participation in reciprocal interactions that serve a need, end goal, or vision. Any behaviors that do not ensure this success are discarded (Bandura, 1971; Schunk, 2016).

While the individual’s ability to self-regulate and modify behavior according to what is observed is a crucial component of this theory, the specific niche that provides the framework for this study is the individual that is being observed. In most interactions, the observer is invested in learning from another individual because they view them as a model to follow (Bandura, 1971). Bandura terms it as someone who has been designated by the observer as one who has gained distinction or “prestige” and is held in high regard (Schunk, 2016, p. 132). In a school, the principal or school leader would be traditionally considered that model. Since teachers regularly associate with school leaders and principals, teachers are more likely to repeatedly observe and learn appropriate school behavior from the interactions within these relationships (Bandura, 1971).

School leaders shoulder many responsibilities and wear many “hats” in their daily activities, decisions, and interactions. One of their most important functions is navigating the various degrees of trust and its dynamics among all school members. It is crucial that the school leader is aware of the power trust can have over the various relationships within the organizational culture, as well as how it can be both fragile and contagious. Trust, as with any other aspect of the school culture, needs extensive nurturing in order to

be maintained, and the school leader is responsible for developing the specific conditions through which trust will flourish and thrive. As such, school leaders are responsible for modeling and setting a tone of trust within their schools (Tschannen-Moran, 2014).

Teachers are hyper-aware of their school leaders and are always observing them, despite the notion that the opposite is actually going on. While school leaders must formally observe their teachers based on evaluative criteria, teachers observe school leaders for the values they should embody, how to build effective relationships with their colleagues, students, and parents, and how to navigate the different expectations of their position. As such, the school leaders' leadership style, actions, decisions, and reputation can impact the development and maintenance of trust. As Tschannen-Moran (2014) reveals, "in the early stages of trust development, the reputation of a school leader plays an important role, but such personal factors as disposition to trust, values, attitudes, moods, and emotions also influence the relationship" (p. 69).

Another factor that influences teachers' views and trust in a school leader is an administrator's perceived competence. According to Bandura (1971), individuals deem others as competent based on established norms or standards (symbols that denote competence) and their own experiences with modeled actions involving success and failure. Ultimately, school leaders that exhibit competence, success, and trustworthy behaviors are more likely to be perceived by their teachers as worthy of their trust. In turn, teachers will be motivated to embody the same traits to other relationships and interactions within the school culture.

But, school leaders are not the only ones that teachers observe and model their actions after. The other teachers (colleagues or peers) that educators work alongside can

be just as influential when it comes to an educator's practice, the effective navigation of the school system, and willingness to build trusting relationships. Teachers who report they have productive, collegial relationships are more likely to remain in their schools, and potentially within the profession (Johnson et al., 2012). Schools that offer mentorship programs or other collaborative opportunities for teachers are more likely to have lower rates of turnover than those that do not (Amos, 2014; Ashworth, 2018; Simon & Johnson, 2015; Swift & Hwang, 2013). What is essential to note here is that, even if a school leader exhibits a desire to enable and facilitate collegial relationships, the successful establishment of that relationship between teachers is dependent on the effort given by those teachers to ensure its development. If there is no willingness to give effort, the trusting relationship will not be established (Tschannen-Moran & Gareis, 2015).

But teachers working collaboratively with their colleagues is not solely based on the basic credentials individuals use when they determine their "friends." Teachers use the same criteria for their colleagues that they use when they judge their school leaders. Teachers that they designate as not trustworthy, who demonstrate incompetence, or who do not work toward achieving the collective vision of the school do not become a part of their "circle of trust."

Conclusively, the relationships within school institutions and their respective dynamics impact all school members' abilities to be successful. Understanding how school relationships originate is essential for effectively analyzing the impact of trust within these relationships. The social cognitive theory is a critical lens through which to understand how these relationships are formed, maintained, or become disintegrated. Ultimately, trust is the means through which these relationships remain whole, effective,

and conducive. Therefore, trust is considered a significant component through which to analyze the various social relationships that potentially impact numerous phenomena that occur within school institutions, particularly teacher attrition or retention.

Review of Related Literature

This section presents the literature on the culminating history of the causes of teacher attrition that have been studied thus far. Additionally, after discussion of these various causes of teacher attrition, this review of literature pinpoints the theme of teacher trust and how that has become the forefront in conversation concerning its impact on schools and how it potentially connects to teacher attrition rates. The research findings within this review were organized into two core themes: teacher attrition and trust. Each respective theme has several designated subsections that convey the various studies, researchers, and nuances of the multifaceted nature of the evolution of teacher attrition. Despite the robustness of this body of literature, at the conclusion of this section is a discussion of the distinctive gaps that need further exploration to have a fully comprehensive grasp on these two phenomena, how they are interrelated, and how they will be explored within this study.

Teacher Attrition.

Teacher attrition (or teacher turnover or retention) has a multifaceted designation. Most define it as teachers who decide to leave the teaching profession (Borman & Dowling, 2008; Chapman & Hutcheson, 1982; Cochran-Smith, McQuillan, Mitchell, Gahlsdorff, Barnatt, D'Souza, Jong, Shakman, Lam, & Gleeson, 2012; Guin, 2004; Hancock & Scherff, 2010; Holme, et al., 2018; Ingersoll, 2001; Kelchtermans, 2017; Ladd, 2011; Schlechty, & Vance, 1981; Simon & Johnson, 2015) as it is the most

impactful definition and, as will be outlined, it implies the most detrimental effect of all the meanings of this term. Other factors that contribute to teacher attrition are teachers who transfer laterally to positions in other schools (also known as migration) or those that retire from the profession (Cancio et al., 2013; Holme et al., 2018; Ingersoll, 2001; Kelchtermans, 2017). Yet, as both of these factors are neither too heavily studied within the research literature nor are they as devastating in impact on the fundamental inner workings of the school culture and its relevant stakeholders, the initial definition will be the frame of reference through which to examine this concept in this study.

The crucial thing to know first about teacher attrition is that it is not a “new” problem. For instance, the National Commission on Teaching and America’s Future designated that teacher attrition was a “national crisis” in 2003 (cited in Cochran-Smith et al., 2012, p. 21). Nearly two decades later and the same terminology is being used, and, more importantly, there does not seem to be an end in sight. For example, in more recent literature, according to Amos (2014, para. 1), “roughly half a million U.S. teachers either move or leave the profession each year—attrition that costs the United States up to \$2.2 billion annually.” While teacher attrition does impact the world at an international level, teacher attrition admittedly is more of a national United States-based dilemma (Ashworth, 2018). Notably, teacher attrition is generally present in schools where there is a high level of beginning teachers, high-poverty schools and districts (Ashworth, 2018; Guin, 2004; Holme et al., 2018; Ingersoll, 2001; Johnson, et al., 2012; Simon & Johnson, 2015), and schools with low accountability ratings (Holme et al., 2018). It is noted within the literature that these particular districts and schools can lose up to one-half of their staff in a single year, and this pattern has been continuing over the course of multiple

years (Holme et al., 2018). More recently, the U.S. Bureau of Labor Statistics has shed additional facts about teacher turnover. The report projected that approximately 270,000 teachers are expected to potentially leave the profession from the years 2016 to 2026 (Torpey, 2018).

Admittedly, teacher attrition is a phenomenon that cannot be avoided altogether. The research even dictates that some attrition is uncontrollable and, oftentimes, necessary to ensure that a school's culture and environment continue to evolve toward achieving its desired vision and reach the highest caliber of student achievement and excellence (Holme et al. 2018; Ingersoll, 2001). However, it cannot be denied that teacher attrition is a costly phenomenon, both fiscally and socially. As Guin (2004) outlines, "...on average in urban districts individual schools spend \$70,000 annual on costs associated with turnover" (p. 6). Furthermore, "the Alliance for Excellent Education concluded that a conservative national estimate the cost of replacing the cost of replacing just the public-school teachers who have dropped out of the teaching profession is \$23,292,500 in 2005" (Shakrani, 2008). Even with these statistics, the true cost of teacher attrition is higher and much more substantial. Admittedly, the majority of the research literature emphasizes the causes of attrition (which will be focused on in later sections), not necessarily its impact (Guin, 2004). Yet, the effects' influence and presence within educational institutions cannot (and should not) be ignored or cast aside for other more substantial aspects of the literature.

What is perhaps more daunting is that since the number of students attending school is ever increasing, so too will the overall teacher attrition rate (Torpey, 2018). This fact, in turn, will contribute to an increasing teacher shortage, which will ensure a further

slew of school-based problems that are intangible in nature but are just as devastating (Guin, 2004; Ingersoll, 2001; Simon & Johnson, 2015). For one, a shortage of teachers means that administrative efforts are more focused on finding additional teachers to supervise and occupy classrooms, not necessarily on implementing a thorough vetting process. Ultimately, students, particularly minority and low-income students, are more likely to be taught by beginner or inexperienced teachers due to this teacher shortage gap, which ensures a shortage in quality instruction (Guin, 2004; Holme et al., 2018; Ronfeldt, Loeb, & Wyckoff, 2013; Simon & Johnson, 2015). This loss causes a strain on veteran teachers, as they will need to assist with covering for or mentoring those beginning teachers (Guin, 2004). Ultimately, in all aspects of this phenomenon, teachers are the “linchpins” (Guin, 2004) that keep all aspects of the organizational culture and educational institution working efficiently (Eskew, 2016). Regardless of the cause, context, or circumstances, teacher turnover causes disruption within an organization that needs all of its cogs working effectively and seamlessly.

Typically, educational institutions strive to achieve a singular vision and ensure that all members of the school culture and stakeholders are working in harmony. However, teacher attrition impacts this foundation and shifts the focus from vision and student success to staffing and organizational synchrony (Guin, 2004; Johnson et al., 2012). This shift in priorities develops frustration, exhaustion, and the erosion of efficient relationships and performance among all within a school (Holme et al., 2018; Ingersoll, 2001; Johnson et al. 2012; Simon & Johnson, 2015). With this incessant “revolving door” (Ingersoll, 2001) of teachers leaving the profession, it is apparent that other factors within

a school's sphere of efficiency and excellence are threatened and suffer for it (Guin, 2004).

Since the effects of teacher attrition are so extensive, research efforts have focused on determining the various factors that are the root of the cause. Researchers have focused on specific causes over time, and it is important to note that the specific causes of attrition from the past decade are not the same as those that are at the forefront in action research currently. This review presents the heavily researched causes of teacher attrition, as well as the gaps within present literature that inform the core of this study.

Causes of Teacher Attrition.

As aforementioned, teacher attrition is detrimental to a school's potential harmonious inner workings. As such, the research literature has spent decades identifying the exact cause of teacher attrition. The premise of doing so typically has revolved around the hope of informing educational policy officials, administrative and school leaders, as well as teachers, to enact and influence actionable steps toward reform of this issue at both the micro- (school culture) and macro- (educational policy) levels. This section will delve into the seminal and current literature that has been the catalyst for the extensive study of this particular issue.

Teacher Characteristics.

Teacher attrition has been a conversation since the very beginnings of school institutions, so when exactly it was designated as a critical issue is difficult to determine. However, it is evident within the literature that the specific causes that have been attributed to this issue have come in periodic, patterned waves. The first "wave" occurred between the 1960s-2000s, and it focused on the notion that a teacher's characteristics

determine the decision for staying in the teaching profession. There is a plethora of teacher “characteristics” that educators bring to a school that are the focus of this wave of research. A teacher’s demographics, location, amount of schooling, examination scores, field/subject of expertise, and years of teaching (Adams, 1996; Ingersoll, 2001; Stinebrickner, 1998) are the different attributes that researchers during this time designated as impacting a teacher’s decision to stay in the profession or not. Even though later decades include teacher characteristics as a factor within the majority of studies revolving around teacher retention (Allen et al., 2015; Hancock & Scherff; Ingersoll, 2001; Johnson et al., 2012), this specific time designated that teacher characteristics were the sole cause of teacher shortages and turnover.

Schlechty and Vance (1981) were interested in determining how the link between academic ability and teacher competence could be used to define the specific demographics of teachers that are most likely to leave the profession. The study’s sample involved examining the “career histories of teachers who scored high or low on existing measures of academic ability” (Schlechty & Vance, 1981, p. 107). The researchers decided to examine data on 32,131 certified regular classroom teachers from North Carolina who entered the field from 1973-1980. The instrument they examined was the National Teaching Examination (NTE). The variables were “race, sex, the National Teaching Examination (NTE) common score, the year of entry into teaching, and whether the teacher was employed in North Carolina in the years following the entry year” (Schlechty & Vance, 1981, p. 107). The statistical analyses involved predominately descriptive statistics such as determining the “percentages of distribution by race and sex, mean NTE scores for each group, the annual retention rate, and the cumulative retention

rate” (Schlechty & Vance, 1981, p. 109). After distinguishing the grouped differences between males/females and blacks/whites regarding teacher retention, the researchers were interested to see if these differences correlated to the teachers’ measured academic ability on the NTE (Schlechty & Vance, 1981).

Schlechty and Vance (1981)’s findings revealed that there was a strong negative correlation between measured academic ability and retention for the teachers in this study and during those specified years. As the researchers posit, “most impressive is the fact that, each year subsequent to entry (and this is true for all white groups and subgroups), those in the higher-ability ranges leave teaching in greater proportionate numbers than those in the lower-ability ranges” (1981, p. 111). Schlechty and Vance (1981) emphasized that these results could be for a number of reasons. For one, those teachers who scored high on their NTE’s (which were predominantly white males and females in this study), were more likely to leave the teaching profession than those who did not. One of the aspects of the study that perhaps had the most significant limitation revealed some of the most insightful statistics for this study. As the researchers outlined, “the years 1976, 1977, and 1978, which contain the largest proportion of persons not required to take the NTE, also contain the largest portion of blacks,” joining the teaching profession in North Carolina schools (p. 107).

Furthermore, the researchers determined that “more than 80% of the black population scored below the median for the total group. This suggests that the black segment of our total population does not perform particularly well on tests measuring academic ability” (Schlechty & Vance, 1981, p. 109). Finally, the black population (both genders) within this study demonstrated the least amount of teacher turnover rates when

compared to their white counterparts, signifying that the groups within the study who performed the lowest on the NTE (or did not have to take the NTE at all) tended to stay in the profession.

Despite some of the limitations of this study, such as focusing solely on North Carolina teachers as well as the specific time period (which at this point is most definitely outdated and not wholly reflective of current trends), it may be able to be used to speak to some demographics not included in the research. One thing that is currently supported with different aspects of recent research literature is the idea of minority status as a predictor of teacher attrition (Ashworth, 2018; Grissom & Loeb, 2011; Holme et al., 2018; Hancock & Scherff, 2010; Ingersoll, 2001; Ronfeldt et al., 2013). Novice, minority teachers and principals are more likely to be placed in struggling or underachieving schools, which have a higher rate of turnover than other educational institutions (Simon & Johnson, 2015), thus indicating a vital link back to Schlechy and Vance's (1981) points about teachers' demographics being a key feature in attribution statistics.

While there were definitely some further limitations in terms of the reliability and validity of the instrument used (there was no analysis of how efficient a tool the NTE was) and the analyses conducted (there were no statistics listed as to how significant these variables, or p-values, were after the correlation analysis was conducted), this study sets the tone of how previous literature viewed the teacher attrition phenomenon: solely based on teacher characteristics and their competence.

In an additional study, Chapman and Hutchenson (1982) focused on studying teachers' vocational choices (i.e., the decision to stay in teaching or not) as based on teachers' personal feelings about "vocation satisfaction, stability, and achievement" (p.

94), or in other words their personalities and how it interacts in their work environment. The researchers examined data from three universities and aimed to investigate, “the differences in skills, abilities, and values between individuals who started as teachers and subsequently changed careers and those who started in and remained in teaching” (Chapman & Hutchenson, 1982, p. 94). The researchers focused on 690 individuals “who indicated that their first employment after receiving their degree was elementary or high school teaching” (Chapman & Hutchenson, 1982, p. 96). The subjects were studied underneath their respective grade designations (elementary/high school) and further divided into two groups: TEACH and NONTEACH. TEACH is identified as those individuals who remained in teaching, and NONTEACH is those who changed careers.

Each individual in the study was given the Alumni Questionnaire, which “collects information on graduates’ current employment, their satisfaction with that employment, and their ratings on their educational experience” (Chapman & Hutchenson, 1982, p. 97). In the questionnaire, individuals “were asked to rate the degree to which they possess each of 16 specific skills and abilities and the degree of importance they attached to each of 11 possible criteria for judging their success in their profession” (Chapman & Hutchenson, 1982, p. 97). The differences in responses between the two respective groups (TEACH and NONTEACH) were then computed with a discriminant function analysis.

Overall, the researchers found that teachers who stayed in the profession and those who left differed significantly in terms of how they rated their skills and abilities. Even though the study has several fundamental limitations (such as individuals being dropped from certain analyses because they did not provide ratings for specific skills or

items and the fact that the reliability and validity of all aspects of the study are not discussed), this study provided critical insights for conducting future research on teacher turnover in other areas.

For example, a key point emphasized by the researchers was, “NONTTEACH respondents were more positive about their ability to cooperate with a team. This idea is consistent with the observation made earlier that teachers tend to work alone, cut off from other colleagues” (Chapman & Hutchenson, 1982, p. 104). This sole point indicates a possible correlation between teachers’ perceptions of their school culture and how those nuanced organizational factors contribute to teachers’ decisions to remain in education. This study could have contributed to the next wave of teacher attrition research that focused on moving away from solely looking at teachers’ characteristics.

This point leads to the seminal work within teacher attrition research, Ingersoll’s (2001) “Teacher turnover and teacher shortages: An organizational analysis.” This research laid the foundation for other causes of teacher attrition to be identified and extensively studied, and Ingersoll has been one of the most influential voices to examine the impact and influence of this phenomenon. As he outlines within his study, for two decades prior, “most of this empirical research has sought to explain teacher turnover as a function of the characteristics of individual teachers. Researchers have rarely focused on explaining teacher turnover as a function of schools” (pp. 502–503). Ingersoll designated that the prior research had two important limitations: 1) it did not delve into how a school’s characteristics could impact teachers and 2) it did not come from “large-scale or representative data” (p. 203), or data that could truly determine the true extent of the effects of this phenomenon. Ingersoll (2001) sought to examine teacher attrition from an

organizational perspective. This notion of looking at this issue in this way caused teacher attrition to move toward being a casualty of an ineffective organization as opposed to a byproduct of a teacher's countenance, experience, or attribution. Ingersoll's (2001) study aimed to examine specific workplace characteristics and how they each influenced teacher turnover rates. They are: the level of administrative support (particularly with new employees), the degree of conflict within an organization, and the amount of input teachers are allowed to contribute to decision making within a school.

In order to look at the extent of the influence of each of these organizational characteristics, this study looked at the Schools and Staffing Survey (SASS) and the Teacher Followup Survey (TSF) data for the U.S. Department of Education's National Center for Education Statistics (NCES), which provides "the largest and most comprehensive data source availability on the staffing, occupational, and organizational aspects of elementary and secondary schools, and was specifically designed to remedy the lack of nationally representative data on these (attrition) issues" (Ingersoll, 2001, p. 507). The three SASS cycles studied are 1987-1988, 1990-1991, and 1993-1994. All of the cycles included questionnaires for administrators and randomly sampled teachers. After 12 months, the same schools questioned initially were provided a secondary questionnaire for those teachers who had been identified as having left the profession. The secondary questionnaire group comprised the TFS (Ingersoll, 2001). This focused on the 1991-1992 TFS sample, which included 6,733 elementary and secondary teachers.

To examine the teachers' survey responses, Ingersoll (2001) utilized three statistical analyses. The first included descriptive statistics that established the "overall magnitude of annual teacher turnover and its role in teacher demand and school staffing

problems” (p. 509). The second was a multi-level regression that determined the “likelihood of individual teachers moving from or leaving their teaching jobs” and how it related to the aforementioned organizational characteristics (Ingersoll, 2001, p. 509). To ensure the validity of this analysis, the researcher ensured control for the variable “individual teacher characteristics,” which was the previous research focus of past literature (Ingersoll, 2001). The final analysis was an additional regression analysis that focused on looking more in-depth at the reasons teachers had for leaving the profession.

The results of each of these analyses produced several enlightening and impactful results that changed the future of examining teacher attrition. For one, the notion that teachers mostly leave the profession for retirement and migration or transfer to other schools was determined not the case in this study. As Ingersoll (2001) states:

...although teacher retirements have increased in recent years, they account for only a small portion of the total turnover. For example, from 1994 to 1995 there were about 50,000 retirees, accounting for only 24% of the 213,000 leavers and only 12% of the total turnover of 418,000. (p. 514)

Ingersoll emphasizes that even though retirement and migration lead to the same effect (namely that teachers leave and need to be replaced), other crucial effects occur due to these and other reasons for leaving the profession. Regarding specific school characteristics, school size was deemed a statistically significant factor for predicting teacher turnover in the multiple level regression analysis across all schools in the study. Ingersoll (2001) found that schools that are smaller tend to experience higher rates of teacher turnover. Additionally, public and urban-based schools are more likely to experience higher levels of teacher turnover than private and rural ones. Finally, special

education, math, and science teachers were more likely to leave teaching than teachers in other subject areas or designations (Ingersoll, 2001). It was also noted that schools with higher determined rates of administrative support had lower levels of teacher turnover, lower levels of student discipline issues or conflicts revealed lower levels of teacher turnover, and higher levels of opportunities for teachers to be involved in the decision-making process also led to lower levels of teacher turnover (Ingersoll, 2001).

For the third analysis (where former teachers revealed their specific reasons for leaving the profession in the TSF), Ingersoll's (2001) findings were the following:

Forty-two percent of all departures report as reasons job satisfaction or the desire to pursue a better job, another career, or to improve career opportunities in or out of education....dissatisfaction underlying attrition is most often reported as being due to low salaries, lack of support from the school administration, lack of student motivation, and student discipline problems. These findings from the self-report data are highly consistent with the results in the prior regression models, lending confidence to both stages of the analysis. (p. 522)

Not only does Ingersoll's trifecta of statistical analyses indicate that these components of the organizational culture are influential in this teacher turnover issue, but he also coined the term the "revolving door" (Ingersoll, 2001, p. 514), or the idea that there is a constant, steady flow of teachers coming and going in the profession. This term is one of the most commonly referenced descriptions of the teacher attrition phenomenon in the literature to date. Ultimately, Ingersoll's study revealed that teacher attrition is a much more far-reaching and widely influential issue, ingrained in the very nuances of the school's organizational culture rather than just solely based on individual teacher characteristics.

This seminal work established the transition in the phenomenon's discourse to other factors. Moving forward and building off of this study is the conversation revolving around how student demographics and characteristics play a role in influencing teachers' decisions to remain in the profession.

Student Demographics.

As the research literature moved to look deeper into the influence of school characteristics and factors as potential contributors to teacher attrition, a new key area of focus came to light. In several studies, student demographics are more likely to influence a teacher's decision to leave the profession (Hancock & Scherff, 2010; Ingersoll, 2001; Johnson et al., 2012). Interestingly, the initial discussions of teacher attrition did not involve conversations revolving around students, since teachers and students spend the most time together throughout the school year. Every decision that teachers (and schools) make revolve around the instructional and personal needs of the students they teach. As such, the degree to which teachers can assist their students in being successful and the concrete evidence of their students' success (standardized assessments, report cards, graduation rates, etc.) directly reflects on a teachers' effectiveness and competence.

As Hancock and Scherff (2010) outline, "teachers are generally considered directly responsible for student achievement, and thus, are often implicated in issues related to school failure" (p. 328). The public is all too quick to blame teachers when it comes to achievement gaps (Hancock & Scherff, 2010). Educational policy has responded throughout the decades with implementing various educational reforms and policies that, while done in the noble name of ensuring student achievement, tend to lay the pressure heavy and thick on those who are at the forefront of the struggle: teachers.

This topic will be further analyzed in an upcoming section, but the key takeaway here is that this pressure on teachers has not abated. So long as an environment of high student achievement and accountability on teachers continues to be the highlight of education institutions' visions, the stress and strife teachers are receiving as aftermath will continue to be a factor in their career decisions (Hancock & Scherff, 2010; Ingersoll, 2001).

Due to the intense and fragile nature between teacher and student, dissecting which student characteristics/demographics impact teacher retention rates is justified within the research literature. Several student characteristics/demographics have been shown to be especially impactful within this phenomenon. Ingersoll (2001) points out that schools that have lower instances of discipline problems tend to have lower rates of teacher attrition. Holme et al. (2018) stress that higher turnover rates are present in schools designated as high-poverty and non-White. Johnson, Kraft, and Papay (2012) highlight schools with a large presence of minority students as linked to high attrition rates. Johnson et al. (2012) continue to state teachers are less satisfied working at, and more likely to report that they plan to leave, schools with high percentages of low-income and minority students. For example, "53% of teachers in the lowest poverty schools strongly agreed that their school is a good place to work, compared with just 32% of teachers in the highest poverty schools" (11).

Guin's (2004) study examined the characteristics of elementary schools that have high rates of teacher turnover and the various impacts that chronic instances of teacher attrition have on those schools. This study's research points out that in most cases, teachers will leave schools with low achieving or low socioeconomic status students in favor of the opportunity to work in schools with higher-achieving or high socioeconomic

status students (Guin, 2004). The student demographic factor appears to be influential to a teacher's decision to leave a school or not. While this example is not reflective of a teacher leaving the profession *altogether*, it does indicate that it is a factor that causes teachers to make decisions that disrupt the organizational culture of a school, which is similar in effect to previously discussed instances of teacher attrition.

In this mixed-methods study, Guin (2004) sought a purposive sample of 15 schools within a large, urban district for the sample. The researcher utilized the state-mandated staffing form. This form provides information on the staff that is in school starting in October of each year. The researcher also utilized data from the Staff Climate Survey for the 2000-2003 school years, and principals and teachers willing to participate were interviewed to discuss their perspectives on teacher turnover (Guin, 2004).

Using these data collection methods, Guin (2004) sought to “explore the relationship between teacher turnover rates and other quantifiable characteristics of elementary schools within the district, correlations between teacher turnover rates and student demographics and achievement were examined” (p. 6-7). In the first portion of the data analysis, the researcher used correlation-based statistics, and the findings led to some important insights, particularly regarding the impact of student demographics on teacher turnover rates. Guin (2004) determined a significant and positive correlation between teacher turnover rates and the percentage of minority students within a school. Guin (2004) followed up her statistical findings with interviewing teachers and principals.

This study provides a critical glimpse into how the dynamic relationship between students and teachers becomes even more interesting when analyzing how student

characteristics and demographics correlate to teacher turnover rates. Furthermore, the study emphasizes a different side of the student/teacher relationship dynamic. Not only do students' instructional needs factor into teachers' daily musings, but some teachers' career-based decisions revolve around student demographics and characteristics, as well. Additionally, teacher shortages and high rates of attrition impact specific student populations the most, ensuring a vicious, continuous cycle of detriment for both members within the school culture.

Teacher Perceptions.

While perhaps one of the more seemingly apparent avenues to explore for research, examining teachers' perceptions on what causes them to leave the profession and/or the factors that contribute to wanting to leave is a more recent byproduct of the earlier trends examined in the research. As aforementioned, teacher attrition was commonly studied as a distant phenomenon that only examined surface value concepts (teacher characteristics and student characteristics). Then, the research evolved into working to understand the perceptions, motivations, frustrations, and thought processes of teachers. As Bogler (2001) defines it, "the term teacher's occupation perception refers mainly to the intrinsic and extrinsic dimensions of the teachers' occupation" (p. 667). The intrinsic effects can be a number of different components including, but not limited to, a teacher's self-efficacy or autonomy, self-esteem, professional conception and development, and career status. The extrinsic factors typically involve the teacher's physical working space (i.e., the school) and the concrete benefits teachers receive (i.e., salary) (Bogler, 2001). By either taking more in-depth quantitative (such as questionnaires and surveys) or qualitative (observations and interviews) routes,

researchers began identifying the reasons behind teacher attrition directly from the source.

Teachers, like all individuals, have many perceptions when it comes to their work, their workplace, and the people they work with. As has been noted, their relationships with their students are an important, if not pivotal, dynamic that cannot be ignored and is vital for ensuring both members' success. Yet, Johnson et al. (2012) state that “in fact, teachers’ satisfaction with their school and the probability that they intend to transfer from their school appears to be far more sensitive to the conditions of work at school than to the demographic makeup of the student body” (p. 22). These work conditions include the dynamic between teacher and school leader (Bogler, 2001; Tater & Hoy, 1988; Tschannen-Moran, 2009; Tschannen-Moran & Gareis, 2015;), the relationship between a teacher and his or her colleagues (Bogler, 2001) and the structure of the organizational culture such as the availability of resources (Allen et al., 2015; Cancio et al., 2013; Eskew, 2016; Ladd 2011; Tater & Hoy, 1988; Tschannen-Moran & Gareis, 2015), workplace conditions (Ladd, 2011), salary (Ingersoll, 2001), scheduling, and student assignments (Guin, 2004). The definite establishment of these various factors can lead to a bevy of benefits. According to Bogler (2001), satisfied teachers are more likely to demonstrate higher autonomy or self-efficacy, admit to having higher levels of support from their colleagues and/or school leader, reveal they have adequate resources, and state that they are afforded opportunities for professional growth and promotion.

On the other hand, teachers who leave the profession have an assortment of reasons for their dissatisfaction. While many of these concepts will be addressed more fully in other sections of this literature review, it is crucial to understand that a teacher’s

perception of each of these work conditions has been cited as a potential cause of teacher turnover rates. Ultimately, this admittance work conditions having an influence makes the conversation at this point (and in the future examination on this topic) less clear cut and more complicated. While this appears daunting, including these concepts makes the term “teacher attrition” a problem that can have concrete, actionable solutions, as opposed to determined merely by teacher and student characteristics, which in most cases are inherent and unchangeable components.

School Culture.

One key perception that is becoming more heavily studied with teacher attrition is a teacher’s overall workplace satisfaction. Workplace satisfaction, as defined by Ladd (2011) is “the physical features of the workplace, the organizational structure, and the sociological, political, psychological, and educational features of the work environment” (p. 237). At its basic level, a teacher who is satisfied with their job and gets along with their colleagues is more likely to stay in a school versus one who is not (Eskew, 2016; Johnson et al. 2012; Ladd, 2011). Arguably, this conversation can lead back to the student demographic factor. If a large number of a teacher's students are “economically and educationally disadvantaged” (Ladd, 2011, p. 236), their achievement directly (and sometimes intensely) reflects on the efficacy and efficiency of the teacher. At times, particularly when students are unsuccessful, it can cause teachers to feel inadequate, frustrated, and discouraged from continuing to be a teacher (Ladd, 2011). If teachers' characteristics (which is another aforementioned factor in the research) are also combined within this dynamic, this adds more insight into the reason why the individual teacher may be feeling this way.

Typically, first-year, novice teachers, or most inexperienced tend to get more challenging students (Johnson et al., 2012; Ladd, 2011). The anxieties and challenges that these teachers face, in a general sense, are now exacerbated by the demographics of the students they teach. Additionally, if teachers do not have the professional knowledge or resources to combat some of these challenges that students unconsciously pose, teachers' frustrations evolve into other issues such as burnout (Bogler, 2001; Eskew, 2016) and, ultimately, attrition. Yet, as indicated in the research, student demographics and/or behavior are not the sole perception driving teachers' frame of reference and dispositions. As Ingersoll (2001) posited, a teacher's support from a school leader and their ability to make instructional decisions are essential. However, some of the research argues that other components, such as the relationship and interactions with colleagues and the implementation (and pressures) of educational initiatives and reform, can be just as impactful.

Before moving into those individual subsections, looking at how more current research has tackled the influence of working conditions in a holistic sense is important for understanding where the literature went after Ingersoll's (2001) seminal piece. For instance, Johnson et al. (2012) focused their study on the various working conditions that impact teachers' professional satisfaction, which, in turn, impact the goal that teachers strive to achieve: high student achievement. Johnson et al. (2012) posited that "meaningful analysis of teachers' working conditions must recognize the full range and interdependence of factors that define a teacher's workplace, from the concrete and transactional (e.g., pay, workload, contractual responsibilities) to the social and

transformative (e.g., interactions with colleagues and administrators, organizational culture)” (p. 6).

These researchers looked at the results of the Massachusetts Teaching, Learning and Leading Survey (MassTeLLs), which consists of 87 multiple choice Likert-scale questions that outline information about how educators view different teaching and learning conditions within the schools they teach, basic demographic information, teachers’ job satisfaction, and teachers’ career intentions (Johnson et al., 2012). This specific sample included 25,135 teachers from a range of Massachusetts schools that serve grades K-12. Once the sample was obtained, the researchers looked for three primary outcomes from the results of the survey: teacher satisfaction, teacher intentions, and student achievement growth and conducted a traditional item analysis. The researchers arrived at nine different elements that were dominant within the survey items that impact a teachers’ job satisfaction: colleagues, community support, facilities, governance, principal, professional expertise, resources, school culture, and time. Then, the researchers attributed standard regression models that described the relationship between each outcome and both the overall conditions of work and each element, respectively (Johnson et al., 2012).

By controlling for the variable student demographics, the researchers' results revealed how impactful the factors within a teachers’ immediate work context are in determining if they stay in the profession. Furthermore, they argued that the work context is more influential than any other factor. As Johnson et al. (2012) reveal, “we find that the work environment measure alone explains nearly 29% of the variation in satisfaction. By contrast, our rich set of student, teacher, and school characteristics explains only 6%

of the variation” (p. 18). While the researchers found that the transactional elements of teachers’ work context showed statistical significance to teachers’ desire to stay or leave the profession, the findings indicated that the social factors were more influential.

While this literature review will look more in-depth at the role of more nuanced aspects of social relationships within the work culture (i.e., the impact of trust in collegial and school leadership), it is crucial to develop this foundational knowledge that the workplace or school culture has such as the definitive impact on teachers and their career decisions. As mentioned previously, this particular notion moves the research away from teacher attrition being an individual-based phenomenon and into a social, interactive issue that impacts all aspects of the school institution, not just those individuals that are a part of the statistic.

Colleagues.

As such, a component of the school culture that will be crucial for this study is the relationships and interactions teachers have with their colleagues. The research literature stresses the importance of a shared vision and goals, collaboration, support, and respect amongst teachers in school institutions (Grissom et al. 2014; Johnson et al., 2012; Simon & Johnson, 2015) These findings have led to an increase in the implementation of collaboration-based initiatives in schools such as professional learning communities (Tschannen-Moran, 2009), action research teams, and shared prep or working periods. Allensworth, Ponisciak, and Mazzeo (2009) found that the presence of trusting, positive, working relationships are the most influential to a school's harmonious efficacy. Additionally, the research indicates that the establishment of opportunities for teachers to support and learn from each other—such as in the form of mentorships, inter-observations,

and common planning times—has led to an increase in job satisfaction and teacher retention (Simon & Johnson, 2015; Tschannen-Moran, 2009). When schools are geared toward providing opportunities for teachers to work together, the benefits are endless.

Despite the research literature emphasizing the importance of effective and productive professional learning communities amongst colleagues in schools, there is very minimal research on how the relationship between teacher-to-teacher can impact teacher retention rates (Ladd, 2011). Several studies discuss the importance of effective teacher-to-teacher relationships in terms of building the overall efficacy of the school culture (Simon & Johnson, 2015; Tschannen-Moran, 2009). Since the efficacy of organizational culture has been found to contribute to teacher attrition rates, it should not be that much of a leap to state that this relationship is also a key factor in turnover statistics. Yet, without the concrete data, they are merely assumptions. This study aimed to fill this gap by determining the extent of influence teacher-to-teacher relationships (namely trust) have on teacher attrition rates. Despite this, there is one relationship within the work culture that saturates the current research with concrete empirical data, and that is teachers' perceptions of their school leader and how that impacts teacher attrition rates.

School Leaders.

School leaders are responsible for developing a conducive and collaborative environment within their schools to ensure success for all of its members and stakeholders. In 2001, Bogler sought to determine the true extent of school leaders' influence (particularly their leadership style and administrative decisions) on teachers' perceptions of their job satisfaction. Bogler (2001) cited two specific types of leadership styles as having an exceptionally dominant presence within schools: transactional and

transformational. Typically, transformative leadership bonds all members of the school culture, particularly the school leaders and teachers, toward collaborative instructional decisions that are embodied under one collective vision that ensures the effective performance of the entire institution. On the other hand, transactional leadership results in a stable environment, but not one that ensures the relationships between members of the school culture are exceptionally strong. The focus of transactions between school leaders and teachers is to build a strictly routinized and “give and take” type of relationship, where the benefits lie with the school leader and the presence of power they exude (Bogler, 2001).

Bogler (2001)’s central hypothesis was that the more involved teachers are in instructional processes and decisions with their school leader, the more likely they will experience higher levels of job satisfaction. The study took a sample of 745 teachers’ responses to a questionnaire on the effects of teachers’ job satisfaction on teachers’ perceptions of their principals’ leadership style, their principals’ decision-making strategy, and their occupation. The researcher conducted a path analysis. This analysis revealed that teachers’ occupation perceptions strongly influence their own job satisfaction ($\beta = .51, p < .0001$), and principals’ transformative leadership influences these occupational perceptions ($\beta = .33, p < .0001$).

This direct and indirect effect school leaders have on their teachers is critical for administrators to take notice of and understand. As with any relationship, the extent of influence that school leaders have on teachers is paramount for better understanding not only positive behaviors (i.e., efficacy leads to student success), but negative ones as well (i.e., burnout and attrition).

As Kelchtermans (2017) contends:

These professional core relations are not only important for teachers' self-esteem, job motivation, job satisfaction, and eventually also for their career decisions...They actually operate as *double-edged swords*: they are at the same time the most important sources for positive job experiences (and the satisfaction and the high self-esteem they provide) as well as of their opposite (disappointment, self-doubt, low or negative self-esteem, increased stress and even burnout). (p. 968)

Ultimately, the school leader sets the tone for the school's orientation toward success. As Tschannen-Moran (2009) emphasizes school leaders should be more concerned about building a "professional orientation" or climate within their school cultures. By engaging in decisions that include teacher coaching and collaboration, underperforming teachers can be aligned with the goals of the school and work with others to improve. By focusing on identifying teachers that need more support and resources, the other "faulty" aspects of the school culture can improve toward a more productive flow of efficiency and success (Tschannen-Moran, 2009). Sometimes, however, the school institution's standards and professional orientation do not necessarily always come from the school leader's decisions. Ultimately, the established standard for educational policy is the one that ends up being the most influential to school leaders' decisions and teachers' behaviors within a school institution. Depending on the policy, it can be a benefit to the betterment of the school or a hindrance to all.

To conclude, regardless of the facet of school culture that the teacher designates as the catalyst for prompting their decision to leave their career behind, the important

thing to note from this literature review is that it is ultimately up to the teacher's perception of the circumstances surrounding these relationships within their immediate organizational context, not necessarily the decisions or actions themselves. Basic nature teaches us that people all view the same situation in different ways and react according to their individual perspective. The motivation comes from within the teachers themselves based on their knowledge of the circumstances, situations, and experiences that occur in their immediate work context. As Kelchtermans (2017) emphasizes, "qualified teachers who decide not to stay in teaching may do so because they don't feel there is enough of a fit between themselves, their personal professional goals, and ambitions on the one hand, and the ambitions and goals of the school or the wider educational system on the other" (p. 964).

In other words, to truly tackle the concerns revolving around teacher attrition, looking at it from a top-down perspective, or something that can be fixed solely through the organizational culture, is not the answer. While the contributing factor may come from the organizational culture, it is the individual perception that is ultimately contributing to teachers' decisions. As such, even the aspect of the organizational culture that is connected to the perception is fixed, the teacher may still hold onto those negative feelings or recall what they were despite the problem being resolved. Thus, a more intensive and social-based remedy will need to be implemented to ensure that the issue is truly rectified both foundationally and relationally. This next section delves further into the intra- and interpersonal relationships of the school culture and the essential ingredient that either makes or breaks them.

Trust

Throughout the decades of research revolving around teacher attrition, multiple definitions and facets have been mentioned and developed. Several have been mentioned in this literature review alone, but this barely touches the surface of the massive amount of discourse that has circulated around this phenomenon. The facets that influenced teacher attrition, as is determined by the more recent aspects of the research, are examples of relationships and interactions that have lent themselves to a buildup of frustration and helplessness for teachers. The core foundation of the development of relationships is based on both parties (whether human or establishment) being willing to collaborate together to ensure the success of a school. In these relationships, teachers are the force that connects all components of this framework. Essentially, there is a level of acknowledgment or belief that the other party can be relied upon to complete their responsibility or part of the task in this overall vision or goal (Tschannen-Moran, 2009). This is considered trust. Trust and its influence in schools have become a more prevalent topic of conversation and influence within the school/organizational culture spectrum of educational research. Trust, just like teacher attrition, influences every aspect of a school and all the individuals and stakeholders within it.

Definitions of Trust.

Also, like teacher attrition, trust is very multifaceted in terms of how it is defined within the research. For this study, the definition that is used to describe how trust is discussed within this study is the one established by Tschannen-Moran and Gareis (2015): “Trust can be defined as a willingness to make oneself vulnerable to someone else in the belief that your interests or something that you care about will not be harmed”

(p. 67). But, it is beneficial to examine the different conceptions of trust to garner a better understanding of the term and its development within the realm of educational research. For instance, Bryk and Schneider (2002) define trust in schools as relational, or “the social exchanges of schooling as organized around a distinct set of role relationships: teachers with students, teachers with other teachers, teachers with parents and with their school principal” (p. 20). Some researchers go even further to focus on the specific characteristics that trustworthy individuals embody, such as “benevolence, competence, honesty, openness, reliability, respect, care, wisdom, and educational ideals” (Walker et al., 2011, p. 472).

Others examine trust more with a negative undertone. For example, Bottery (2003) emphasizes that trust is “calculative” and deals with “risk and uncertainty” (p. 250). Similar to Tschannen-Moran and Gareis’ (2015) focus on “vulnerability,” trust involves the different individuals within the interaction or relationship to understand there is a potential that they may lose or be betrayed by the other. While it is not the focal point of the relationship at first, it is typically the part that those who have had their trust broken remember the most.

Others look at trust within the specific context in which it lies. Trust can be viewed as a sole facet of a relationship between one individual and another. In another sense, it could be a component within the collective vision or belief system comprising a school. As Tarter, Bliss, and Hoy (1989) situate, “trust can be viewed in relation to a variety of reference points—a student, a colleague, the principal, or the school organization” (p. 295). It may be beneficial to look at this with an example. For instance, trust could be a shaky concept between a principal and teacher, but it may be the

foundational glue between the colleagues that work with a specific grade cluster, which connects back to the idea of whether the latter relationship may have a stronger influence on trust levels than the former. Since the teacher in question has more interactions and support from that grade cluster and can trust that this will remain so, the negative altercations or lack of trust that he or she has for the school leader may not be able to trump the positive perceptions the teacher has developed for his or her colleagues. The influence of trust on a teacher and those perceptions truly depends on the weight of the positive and negative effects that trust (or the lack thereof) can have on the teacher, the relationships, and the professional decisions. As Kars and Inandi (2018) reveal, there are essentially three core trusts found within a school culture: principal trust, trust in colleagues, and trust in students. For this study, principal and collegial trust were the focus, but, as will be divulged in the next section, when trust is nurtured, respected, and enriched, all members within the school culture reap the benefits. As Tschannen-Moran and Gareis (2015) report, “when principals, teachers, students, and parents trust each other and work cooperatively, a climate of success is more likely” (p. 68).

Positive Impact of Trust.

Most of the research on trust has focused on the relationship between the school leader and teacher and the potential trust that solidifies it. Teachers enter this type of relationship with the school leader with the hope that their trust will be protected (Tschannen-Moran & Gareis, 2015; Walker et al., 2011). There are many ways that school leaders can nurture and protect the trust proffered by their teachers.

For one, the specific leadership characteristics that a school leader embodies has been revealed to be a key factor in developing trusting and positive relationships. As

aforementioned, some of these traits are benevolence, competence, honesty, openness, reliability, wisdom, and educational ideas (Tschannen-Moran & Gareis, 2015; Walker et al., 2011). Leadership styles have been found not only to influence teachers' job satisfaction (Bogler, 2001) but have also assisted with developing trusting relationships. The leadership style that has been predominantly found to ensure this is transformational leadership. Through transformational leadership, school leaders seek to support and empower their teachers (Ladd, 2011), unite them under a collective vision, include them in making instructional decisions, and build an environment that encourages self-efficacy, innovation, and student success and well-being. Ultimately, a school leader's direction and leadership have been the foundation that sparks and maintains trust amongst all members of the school culture. Teachers who trust their principal view their school leader as someone who cares, is supportive, egalitarian, consistent, reliable, and is willing to delegate control and decision making to others (Ingersoll, 2001; Tschannen-Moran & Gareis, 2015).

For instance, Tschannen-Moran is one of the seminal researchers who has developed the foundation of the discussion on trust and its impact on school culture. In their study, Tschannen-Moran and Gareis (2015) aimed to determine whether leadership behaviors exhibited by school leaders impact the level of trust in a faculty. The sample utilized within the study included 3,215 teachers, and the faculty members were each given a survey to complete during the spring of the 2010-2011 academic year. With the finished survey, the researchers examined three different subscales. The researchers examined the faculty's trust in their principal by analyzing the Faculty Trust in Principal subscale. Within this six-point Likert scale, the scale consists of eight questions that ask teachers

their perceptions on their school leader's benevolence, honesty, openness, competence, and reliability. Additionally, the faculty perceptions of the collegial leadership of the principal were analyzed through the Organizational Climate Index subscale. Both subscales were assessed for their reliability and had an α coefficient of 0.98. Finally, the perceptions of the teachers on the leadership of their principals were assessed with a six-item subscale with a five-point Likert scale. (Tschannen-Moran & Gareis, 2015). After initial descriptive statistics were outlined, the researchers conducted a correlational and regression analysis on the leadership behaviors and teacher perceptions determined in each of the subscales. The study concluded that the leadership behaviors principals exhibit are strongly related to the trust faculty members have for their school leaders ($r = 0.92, p < 0.01$) (Tschannen-Moran & Gareis, 2015).

Other studies have found similar findings beyond the U.S. in different parts of the world. Kars and Inandi (2018) wanted to answer the following questions: 1) "Is there a significant relationship between the teachers' perceptions about school principals' leadership behaviors and their organizational trust levels?; 2) At what level do the teachers' perceptions about their principals' leadership behaviors predict their organizational trust levels?" (pp. 149–150). The sample in the study consisted of 7,233 teachers who were working at 252 primary and secondary schools in Mersin, Turkey. Each of the teachers was given questions from the following scales to answer: The Principal Behaviors Scale (Kurt & Terzi, 2005) and the Omnibus Trust Scale (Hoy & Tschannen-Moran, 2003). The Principal Behaviors Scale involves "29 items and 3 sub-dimensions that are democratic-participative principal behaviors (9 items), autocratic behaviors (9 items), and laissez-faire principal behaviors (11 items)" (p. 151). The

Omnibus Trust Scale measures teachers' perceptions of organizational trust. For the participants' answers on both scales, the researchers conducted a correlation analysis to determine if there was a significant relationship between teachers' perceptions of their principals' leadership behaviors and the school's organizational trust. Additionally, a multiple linear regression was also completed to see if teachers' perceptions of principal leadership behaviors predict the overall level of organizational trust (Kars & Inandi, 2018).

Several central findings were discovered through these statistical analyses. Autocratic and laissez-faire principal behaviors have a negative relationship (or impact) on trust, and there is a positive and significant relationship between democratic principal behaviors on all aspects of organizational trust (Kars & Inandi, 2018). Ultimately, when principals exhibit or increase democratic-like behaviors, the likelihood of principals' teachers trusting them increases exponentially.

In another study, Bayler (2016) conducted one of the few qualitative studies focused on the area of trust in schools. The researcher in this study conducted semi-structured interviews with 20 teachers from various townships in Istanbul, Turkey in 2015-2016 to understand the teachers' beliefs and perceptions regarding trust in their school leaders. Bayler utilized three data organization procedures (category definition, exemplification, and codification regulation) to examine the teachers' statements regarding their trust of their school administrators, their trust of the administrative decisions and implementations, and their trust of the school leader's personality (Bayler, 2016). The themes found within the data revealed that, in general, the teachers in the sample did not trust their principals. The teachers viewed the principals in this study as

incompetent, inexperienced, and unfair. The behaviors that the teachers desired from their school leaders within the study were competence, respect, and being willing to include them in making school-level decisions (Bayler, 2016). While Bayler's research may not reflect all teachers' experiences and perceptions due to the limited size of the sample and location where the study took place, it does bring into sharp perspective that the positive nature of trust is just as eminent as the adverse effects. Trust is like a tightrope that all parties within the school culture have to tread carefully if they are going to navigate it safely. One slip and the effects can be devastating.

The Fragile Nature of Trust.

The effects of a lack of trust are similar to that of the negative effects of high teacher attrition rates. A breach in trust can be overwhelmingly detrimental and infectious within a school culture, and to all that work within it. Since it has been designated in this review that school culture is a social interaction of inter-and intrapersonal relationships, and each of these relationships depends on the other to ensure efficacy and the collective achievement of a singular goal or vision, a breach in trust may not just impact the two individuals involved. On the contrary, a solitary instance of a breach in trust can impair the perceptions, behaviors, and actions of all members within the school culture (Akin, 2017; Walker et al., 2011). This can be for a number of reasons. For one, the collaborative nature present in some schools can be essential in building morale and motivation. However, when it comes to action and news of a negative nature, it spreads like wildfire. Teachers tell other teachers and, depending on their perceptions, and if the violation lies with the school leader, it may be especially detrimental to the reputation of the school leader. According to Walker et al. (2011), betrayal comes in two forms:

“damage to the civic order or damage to one’s sense of identity” (p. 474). In either form, the school leader is the embodiment of model prestige and competence in a school (Schunk, 2016). If recognized as a purveyor of breaking trust, a notable flaw would replace the school leader’s elite status (Schunk, 2016). In other words, a noxious domino effect would trickle its way down to the teacher ranks. That vision of competence is now shattered, and whether or not the teachers were the ones the incident happened to or they were just told about it in passing, the teachers never look at the school leader the same, even if healing and reparations are made. In turn, the teachers’ perceptions inadvertently (or perhaps even consciously) will make its way to the atmosphere that students learn in, and the overall climate of the school takes a turn for the worse.

The research literature provides glimpses into malfunctioning school climates devastated by the negative aspects of trust. Maele and Houtte (2014) explore how teacher trust can lead to teacher burnout. They argue that “unsatisfactory relationships with principals, colleagues, or students may yield stress in teaching, lower job satisfaction, lower efficacy, and lower commitment to students” (Maele & Houtte, 2014, p. 97). Due to this, the researchers designed this study to explore whether teacher trust predicted teacher burnout. For this study, they utilized the variables exhaustion, depersonalization, and reduced personal accomplishments and developed a study that measured all three. The researchers collected 673 teachers’ in 58 schools in Flanders, Belgium answers on a questionnaire containing these variables, and once obtained, the researchers used “an exploratory factor analysis with varimax rotation” on the questionnaire items (Maele & Houtte, 2014, p. 100). While the findings admitted that teacher burnout is more of an individualistic malady as opposed to a collective phenomenon, the researchers did

determine that emotional exhaustion was related strongly to a teacher's trust in the school leader ($p < 0.01$).

As can be surmised from this and the teacher attrition section outlining the school leaders' impact on teachers' perceptions and trust, school leaders' actions, decisions, and behaviors have been at the forefront of scrutiny when it comes to trying to improve organizational cultures. Yet, it cannot be denied that colleagues are an essential component of this dialogue and building organizational trust, despite not being spotlighted exclusively within the literature (Swift & Hwang, 2013). Just like the concept of trust in general, the notion of organizational and collegial trust is only either combined or exclusively caused by the perception of trust within a school leader and that leader's influence on collegial trust. Due to the limited to the non-existent presence of teacher-to-teacher trust in the research, it is an endeavor of this study to determine the extent of this dynamic's influence on teachers and their desire to remain in the profession.

Trust and Teacher Attrition.

Having the foundation of the bevy of factors that contribute to teacher attrition will assist with understanding the core focus of this study. These factors have either been extensively studied (i.e., school leadership, student demographics, school culture, and teacher demographics) or in a limited sense (i.e., education policy/reform and collegial relationships). Ultimately, these factors can be considered an interwoven framework of determinants that influence a teacher's decision to leave the profession or not. Each of these factors develops relationships (teacher-to-school leader, teacher-to-student, teacher-to-teacher, and teacher-to-educational policy), and the perceptions of these relationships could arguably develop due to the establishment of one factor: trust.

Yet, there is not much studied on trust as a primary cause of teacher attrition. Even though trust is typically examined within studies that analyze the different organizational relationships within their school culture, and these have been cited as factors that influence teacher attrition throughout the literature, the connection between the two (i.e., trust as a direct cause of teacher attrition) is not a readily married concept. Some of these concepts range from a teacher's perception of a school leader's efficacy and competence (Bayler, 2016), a principal's leadership style (Kars & Inandi, 2018; Tschannen-Moran & Gareis, 2015), the level of administrative support given to teachers (Cancio et al. 2013; Range, 2013), and the collective, collegial trust that embodies a school culture (Tater & Hoy, 1988; Walker et al., 2011). the research being quite mum on whether trust between these core relationships leads to teacher attrition, some researchers argue there is a connection. Bryk and Schneider (2002) posit that "such 'intangible costs' of turnover are often linked to the concept of trust," and, essentially, it makes more sense as teacher attrition begins to be viewed as a social issue in the research. Kars and Inandi (2018) support that trust is the core of all of the important social decisions and interactions that occur within a school:

In general, as the trust in the principal and organization increases, participation in the decision-making process, job satisfaction, performance, organizational commitment, perceptions about organizational success and justice, information sharing, search of consensus, willingness to try more for the well-being of the organization, and productivity increase, while conflicts and intention to leave the job decrease. (p. 148)

Since a teacher's perceptions or desires to remain in their careers are influenced by these many dynamics, social interactions, and formulated relationships that they interact with daily, and trust is the glue that holds or breaks these connections, it can be asserted that the concept of trust is one that can be added to the list of factors that influence teacher attrition and it is the stance that this study will be taking directly.

Conclusion

Although there have been a resounding number of factors that have been identified as contributing to teacher attrition within the research literature, it cannot be denied that the current conversation about this phenomenon has evolved away from mere statistical purveyance (i.e., the common characteristics among teachers who leave the profession) to investment in the voices directly affected by it. The evolution of researchers' approach on the issue has evolved to methods that provide teachers a means through which to tell their stories and perceptions. Ultimately, this entire phenomenon is based upon the teacher's decision to leave the profession altogether. While the causes and factors are essential for understanding what impacts this decision, the daunting nature of the teacher attrition statistic is based upon an individual's perceptions, perspectives, relationships, and interactions within the teachers' organizational culture.

And this decision is not one made on a whim nor due to one solitary instance of negativity. Based on the research, it is repeated instances of one particular factor or a compilation of a plethora of components that are interwoven and destructive to the teachers' perceived success (i.e., a breach of trust with a school leader, multiple years of low student achievement, consistent lack of resources and support, etc.) (Brown III, 2015; Tschannen-Moran, 2014). Regardless of the cause, this move toward analyzing the causes

of teacher attrition from the actual statistic has been a crucial component in potentially informing school reform efforts and working toward a change that rectifies this issue.

Yet, despite the saturation of research on this issue, there has been no tangible proof that this “revolving door” is moving toward ceasing (Ingersoll, 2001). Teacher shortages in high-need schools and attrition rates are still incredibly high in urbanized areas and among specific teacher demographics. Even with the wealth of information provided by seminal and ambitious research, national, and local surveys are still reporting ever-increasing rates of attrition. This leads to how my research expands and contributes to the preexisting literature. While it is acknowledged that teachers’ perceptions of their relationships and interactions with their colleagues and school leaders are a factor that contributes to teacher attrition rates, and the presence of trust in a school amongst all school members is an essential component of overall success (Bryk & Schneider, 2002; Tschannen-Moran, 2014), the two core ideas of trust and teacher attrition are rarely discussed in tandem within the research. Trust is studied as an isolated concept in examining other phenomena (i.e., teacher trust with students to ensure high achievement, teachers’ trust of school leaders to build a supportive, collaborative school culture, etc.) but never as a direct correlation or predictor of teacher attrition. The most significant connection the research has breached is that lack of trust can lead to high burnout amongst teachers and school leaders (Maele & Houtte, 2014), which, as aforementioned, is linked to impacting teacher attrition rates. However, this does not demonstrate a clear-cut relationship between trust and teacher attrition. It seems strange that it is not an established reality as trust is a core prerequisite of having a solid relationship with others and being successful in personal and professional endeavors. Thus, my research focused

on the presence of trust in NYC public schools and how its impact on colleagues and school leader relationships inform teachers' decisions to remain in the profession or not. This research provides these additional insights through which to continue examining this troubling phenomenon and reveals how all members of the school culture (at all levels) can work toward building effective, trusting relationships. This, in turn, ensures the positive development and success of all members that enter a school's doors.

CHAPTER 3

Introduction

The purpose of this quantitative research study was to examine the role trust plays in the interactions and relationships within public school cultures and teacher attrition rates in the NYC Department of Education. In the sections that follow, the research questions that drove the study, the design and structure through which the data was analyzed, the specific sample and population, the instruments and their reliability and validity, the procedures, and the research ethical considerations are explained.

Methods and Procedures

Research Questions.

1. To what degree is a school's location (borough), grade configuration, the percent of economically disadvantaged students, and the size of a school's student population, associated with the level of trust teachers have in their school leaders?
2. To what degree is a school's location (borough), grade configuration, percent of economically disadvantaged students, and the size of a school's student population, associated with the level of trust teachers have in their fellow teachers?
3. To what extent is teachers' trust of school leaders related to teacher retention rates?
4. To what extent is teachers' trust of their fellow teachers related to teacher retention rates?

Research Design and Data Analysis.

This study was designed to identify the level of trust teachers have for their school leaders and their fellow teachers to determine the extent trust has on teacher retention rates. This study was based on publicly accessible data provided by the NYCDOE and did not involve formal treatment or intervention. The design of this study was grounded in the understanding of the social cognitive learning theory, as developed by Albert Bandura. Namely, teachers' actions within the school culture are informed by their observations of the actions and beliefs of others. As such, teachers extend their trust and enter a state of vulnerability toward those individuals that they work with that they have deemed as models of competence (Bandura, 1986). I argue that a breach of this trust, or the presence of low levels of trust in general, can contribute to a school's teacher retention rates. As has been divulged within the review of literature, the analysis of the organizational school culture and its dynamics have been identified more frequently as impacting teacher retention rates. Since trust is the core foundation between all of these relationships, the correlation between both phenomena is arguable. The independent variables of this study [school location (borough), grade configuration, percent of students that are economically disadvantaged (based on the Economic Need Index in the School Quality Guide), size of a school's student population (based on the School Quality Guide)] are used to examine each variables' effect on the dependent variables of teacher school level trust (in principals and colleagues) and school-level teacher retention rates.

Different statistical techniques were employed for each of the research questions. For the first question, a correlation, simple, and multiple linear regression were utilized. This was motivated by the fact that this study used several potential predictors (categorical) to explain a quantitatively measured criterion, continuous variable (trust

rates for teacher-school leader and teacher-teacher from the NYC School Survey)
(Meyers, Gamst, & Guarino, 2017). As Meyers, Gamst, & Guarino (2017) contend:

Most researchers believe that using more than one predictor or potentially explanatory variable can paint a more complete picture of how the world works than is permitted by simple linear regression because behavioral scientists generally believe that behavior, attitudes, feelings, and so forth are determined by multiple variables rather than just one. (p. 3763)

Since a school's environment has been designated as a critical contributor that influences teachers' perceptions, beliefs, and attitudes, determining the effect specific environmental variables have on the level of trust teachers have in their various relationships in schools was the primary purpose of utilizing the multiple linear regression statistical technique in this study.

For the third and fourth research questions, simple and multiple hierarchical regressions determine if teacher trust rates could predict and teacher retention rates in the NYC public schools within this sample. These analyses were used to control for the other school culture and demographic variables to determine the true extent of trust's influence. As Creswell & Creswell (2018) indicate, survey designs help researchers answer three types of questions: descriptive questions, questions about the relationships between variables, and questions about predictive relationships between variables over time. Since the primary interest with these two research questions was to discover the relationship between these two phenomena, and the primary instrument in this study was a survey, the use of these analyses was justified. For both analyses, SPSS statistical software was used.

Sample.

The final sample of this study was 981 NYCDOE public schools out of the 1531 listed on the Department of Education's "Find a School" website. Ultimately, the decision to analyze the NYCDOE public school system within this study was due largely to the fact that it is the largest public school system in the nation and services a wide breadth of diverse populations. As such, a sample pooled from such a large and varied population is considered representative and assisted with justifying the potential conclusions and implications of this study.

Instruments.

Annually, the NYCDOE invites all key stakeholders within its public schools (i.e., students, teachers, and parents) to complete a school survey. The NYC School Survey was designed to ensure that schools are following the DOE's Framework for Great Schools ("Framework for Great Schools"). The responses provided on these surveys are meant to allow education leaders and policymakers to review the progress of its schools. It can allow for those schools that are making tremendous progress (i.e., designated as effective) and have conducive learning environments the opportunity to be highlighted for their efforts. More importantly, those schools that are struggling can be identified, and interventions can be established and implemented in hopes of reforming the substandard performance. Also, these results can be utilized by students and parents when they are researching schools to apply to when students reach various grade milestones (i.e., middle school and high school). Ultimately, these results contribute to and help to compile schools' Quality Snapshots ("School Quality Snapshot"), where several statistics are available for the respective schools, such as the specific school

demographics and characteristics, information on the school's students' achievement levels, and the efficacy of the school's teachers and school leader(s). Within the survey itself, the core components are questions on student achievement, levels of trust, the efficacy of school leaders, the collaboration of teachers, and a supportive (school) environment. Ultimately, the NYC School Survey was of paramount interest for this study.

The NYCDOE developed the NYC School Survey to “collect important information about each school’s ability to support student success” (“The NYC School Survey”) and is a key component of the DOE’s Framework for Great Schools, which informs the School Quality Guide and Snapshot. Ultimately, it is meant (in conjunction with the Framework) to be a resource to school administrators to help with reflecting and improving their schools and related programs. Traditionally, the survey was first given out using a paper copy but is now distributed in an online format. In terms of the survey’s administration, teachers are provided a unique postcard that contains a seven-digit code. During a specifically assigned time frame, teachers use the code to access the online survey. Through the code, teachers can take the survey and maintain their anonymity. Four different sub-surveys are taken by different members that comprise the school culture: administrators, teachers, parents, and students. Students and parents have the option to still complete printed versions of the survey, but teachers only have the option to complete it online.

For this study, the teachers' designated portion of the survey was analyzed. In the 2016-2017 survey, the teacher sub survey had 138 questions to answer, using a 4-point Likert-based scale (“Strong Agree,” “Agree,” “Disagree,” “Strongly Disagree”). For this

study, the “Effective School Leadership” category was focused on, which included the “Teacher-Principal Trust” (9 questions) and “Teacher-Teacher Trust” (5 questions) subsections. To see the specific questions, refer to Appendix A.

Overall, the NYC School Survey has several components that ensure that the instrument's distribution and results are confidential and maintain their integrity. For example, the NYC School Survey Ethics Reference Guide (“NYC School Survey”) outlines the steps on how the administration of the survey remains voluntary, its distribution ethical, and subjects’ confidentiality maintained. Using these standards helps ensure the reliability and validity of the instrument, and is imperative for analyzing the instrument's overall integrity for interpreting teacher, administrator, and school success.

Other research also outlines the validity and reliability of this instrument. The Research Alliance for NYC Schools has done some significant work over the last decade to ensure that the survey is a valid and reliable instrument for assessing schools (Nathanson, Cole, Kemple, Lent, McCormick, & Segertiz, 2013a; Nathanson, McCormick, & Kemple, 2013b). Partnering with the Department of Education, this research team was sought after to review and enhance the NYC School Survey, ultimately providing suggestions for revisions that would make the instrument reliable for its overall purposes in future school year assessments. The Research Alliance’s focus on its 2013 report was the school surveys administered from 2008-2010, as that was when a consistent presence in educational administration became apparent.

Ultimately, due to the “high stakes nature of the survey,” it was determined that “establishing the reliability and validity of the measures” was critical (Nathanson et al., 2013b, p. 4). Throughout this report, Nathanson, Cole, and Kemple (2013b) designate

several aspects where the survey is considered reliable and valid. For instance, the overall response rates are a key category cited in the report. As stated, “robust response rates for students and teachers demonstrate widespread participation, a key strength of the NYC School Survey...These high response rates offer confidence that survey results reflect the opinions of the broader population” (Nathanson et al., 2013b, p. 4; Nathanson et al., 2013a). Since the goal of the survey is to provide insight into the nature of and perspectives present within schools, having this component be consistent and reliable is crucial. Additionally, the four reporting categories (Academic Expectations, Communication, Engagement, and Safety & Respect) provides statistically reliable indicators. This means that each measure within the survey are highly correlated with one another and can be utilized as a means of interpreting the categories individually, as well as in tandem to provide information about the individual school culture itself (Nathanson et al., 2013a; Nathanson et al., 2013b).

One aspect of the survey that the authors cited as potentially problematic is that the four categories, while reliable indicators to analyze a single school institution, were not as reliable for distinguishing between other schools. As Nathanson, McCormack, and Kemple (2013) emphasize, “In other words, the survey provides more information about differences between individuals within a school, and less information about how that school differs from other schools” (p. 5). As this may pose a problematic interpretative error, it is imperative to express how this limitation does not pose an issue for this current study. While a secondary goal of the NYC Survey is to use the results for each school as a means to compare to other institutions, these results are factored into other components of the Quality Schools Snapshot. As such, the various information that compiles that

instrument triangulates and supports the data obtained in the NYC School Survey to distinguish relatable factors among different schools. The only component being taken from that section in the current study is the response rate on the NYC School Survey, which as aforementioned, has been a consistently reliable factor to consider for the efficacy of this instrument.

Based on these preliminary findings in their 2013 report, the Research Alliance for New York City Schools discusses how they recently redesigned and improved the NYC School Survey in their 2018 report. As Merrill and Lafayette (2018) report, the original 2013 report caused a complete revamping of the NYC School Survey, and the new survey's first year was the 2014-2015 school year (which also explains why it is very difficult to access 2013 survey results and response rates in the NYCDOE's School Quality Guide). In this new survey, suggested changes were implemented, such as expanding the survey to include additional categories. This study was also the first report to assess the reliability and validity of each element within the survey. Since this study focused on the Teacher-Principal Trust and Teacher-Teacher Trust components of the "Effective Leadership" element of the measure, a potential limitation is that utilizing only a portion of an instrument can impact the overall reliability and validity of its whole. However, as Merrill and Lafayette (2018) explain, all components of the survey were individually assessed concerning their reliability and validity, as well as collectively. So, the specific component in question (and its questions) had high reliability as designated by the Cronbach alpha level, which was above .70. This specific measure also had high amounts of within-school agreement, which indicates that these questions provide a consistent and reliable method to interpret within-school interactions, relationships, and

phenomena. In terms of validity, all measures were designated to have face, content, and concurrent validity. All key stakeholders (district personnel and teachers) interviewed about the survey indicated that they believed the questions covered within the instrument were appropriate for what they aimed to find out about the school culture. Additionally, all measures had positive correlations to student academic achievement, which is the ultimate goal of all educational endeavors (Merrill & Lafayette, 2018). Thus, all aspects of the NYC School Survey, and particularly the component that was examined in this study, can be deemed as a reliable and valid measure.

Regarding the teacher retention data, the New York State Department data website (Data.nysed.gov) provides counties, BOCES, district, and school-level student and educator based data that is publicly accessible for all schools in New York State. Currently, teacher attrition data is only publicly available up to the 2012-2013 school year. As such, a formal data request was submitted to the DOE's Research & Policy Support Group (RPSG) to access the 2017-2018 teacher retention data.

Procedures for Collecting Data.

As the primary and only researcher for this study, I was responsible for each step of the data collection process. First, I compiled a master Google Sheets spreadsheet of the 1531 NYC public schools available on the "Find a School" NYCDOE website and recorded each school's demographic and environmental factors according to the independent variables designated for this study. All schools were assigned a general numerical code to maintain confidentiality within the discussion and findings of the study. In the spreadsheet, the categorical variables were assigned numerical codes according to their respective levels and transformed into individual variables via the

dummy coding process. For each borough, five codes were assigned: 1–Manhattan, 2–Queens, 3–Brooklyn, 4–Bronx, 5–Staten Island. For grade configuration, three numerical codes were assigned: 1– K-5, 2– 6-8, 3– 9-12. Any schools that had an overlap in grades from elementary and secondary schools (i.e., K-6, 8-12, or K-12) were not included for consideration in the study. The remaining variables (the percentage of economically disadvantaged students and the size of a school’s student population) maintained their respective numerical values as found within the NYC School Survey or School Snapshot and were listed on the spreadsheet as well.

Additionally, since categorical based variables are challenging to interpret in regressions, borough and grade configuration variables were further broken down into individual variables. So, instead of keeping borough as the variable, all five boroughs (i.e., Manhattan, Queens, Brooklyn, Bronx, and Staten Island) were broken down individually and assigned their own dummy variable coding. Furthermore, to better understand the extent of the variable percentage of economically disadvantaged students within schools and associated with other variables, this variable was broken down to individual ranges based on current NYC poverty levels in schools.

After all the information for each variable was paired with its associated school, the list of schools was examined further according to their response rate to the NYC School Survey revealed in their School Quality Snapshot. Schools that did not have over a 70% response rate were also removed from the study. The reasoning behind using this percentage is based on the recommendations from core research institutions in the field. Typically, as the Rand Institute emphasizes, a 60% response rate is normally a respective gauge for social sciences and education-based research (Schonlau, Fricker, & Elliot,

2002). Yet, according to the Research Alliance for New York City Schools, a 70% response rate is a more viable and realistic number for optimal interpretation of survey results. As the report states, “...for the teacher survey, a large majority of schools across all grade levels achieved the 70 percent response rate” (para. 6). In this case, analyzing the majority threshold percentage across the entirety of the population provides a cut-off point that is, while not free from limitations, useful for analyzing the respective sample utilized within this study (“Understanding School Survey Response Rates”). Then, the 2016-2017 NYC School Survey Trust Scores for the Teacher-Principal Trust and Teacher-Teacher Trust component and each school’s respective teacher retention rate for the beginning of the 2017-2018 school year was added to the spreadsheet.

So, out of the 1531 New York City public schools that were considered for this study, 981 schools were used. This was due to 530 schools not meeting the grade configuration criteria (i.e., exclusively serving K-5, 6-8, or 9-12 schools) or the NYC School Survey designated response rate of 70%. It is important to note that this only accounts for 1511 public schools. The remaining “missing” schools may have been due to several reasons. The primary most likely reason is that the specific schools may have existed in later school years (i.e., 2017-2018 and on) and would not have been included in this study, as the 2016-2017 NYC School Survey trust ratings for each school were used.

Regarding the teacher retention data, according to the “Doing Research in New York City Public Schools” webpage on the NYC Department of Education InfoHub website, DOE specific IRBs are only required when the request is for student-level data or if the researcher desires to collect real-time data within DOE public schools. Since this study involved purveying already existing teacher data, this involved submitting a data

request to the DOE Data Request Committee. As per the website: “If your research does not involve human subjects, and instead exclusively relies on the use of DOE administrative data, you do not need to submit a proposal to the IRB” (Doing Research in New York City Public Schools). Once my request was submitted, it took three months for the data request to be approved.

Research Ethics

While my study focused specifically on pre-existing data and did not involve reaching out to participants of the NYC School Survey and asking their consent to use the obtained information, there were several steps that I needed to take to ensure I was conducting my research in an ethical manner. Regardless of the fact that I obtained my sample of schools from the large public database of the DOE, I also assigned each school a numerical identifying number as opposed to using the school’s name to maintain a level of anonymity.

CHAPTER 4

Introduction

The purpose of this study was twofold: 1) to determine the school culture and demographic factors within a school and their impact on the level of trust teachers have with their respective school leaders and colleagues; 2) to determine the impact of teachers' trust (in each relationship) on teacher retention rates. To determine these associations, descriptive, correlation, and regression analyses were conducted in SPSS. In this chapter, the analyses are presented to answer the research questions of this study.

Research Questions

1. To what degree is a school's location (borough), grade configuration, the percent of economically disadvantaged students, and the size of a school's student population, associated with the level of trust teachers have in their school leaders?
2. To what degree is a school's location (borough), grade configuration, percent of economically disadvantaged students, and the size of a school's student population, associated with the level of trust teachers have in their fellow teachers?
3. To what extent is teachers' trust of school leaders related to teacher retention rates?
4. To what extent is teachers' trust of their fellow teachers related to teacher retention rates?

This chapter will begin with the descriptive/frequency-based statistics of the different schools within this study. Following this will be the various statistical analyses that correspond to each respective research question. Correlations, simple, and multiple

regressions were utilized to determine how the five school culture independent variables (borough, grade configuration, percentage of economically disadvantaged students, student population, teacher principal/trust score) associated to the scores within two covariates (teacher trust of colleagues and teacher trust of school leaders). Simple regressions and multiple hierarchical regressions were used to determine the extent that trust between teachers and their school leaders and trust between teachers and their colleagues relates to school-level teacher retention rates.

Results/Findings

In this section, the frequency and cross-tab statistics regarding the number of schools analyzed from each respective borough and grade cluster is provided.

Table 1

School Institutions by Borough

Borough	Frequency
Manhattan	181
Queens	199
Brooklyn	316
Bronx	232
Staten Island	53
Total	981

Table 2

School Institutions by Grade Cluster (N = 981)

Grade Cluster	Frequency
K-5	489
6-8	214
9-12	278
Total	981

Table 3

Economically Disadvantaged Schools (N = 981)

Percentage*	Frequency
High	748
Medium	172
Low	60
Total	981

*High = 99 - 50.1%; Medium = 25.1 - 50.0%; Low = 3.0 - 25.0%

Table 4

Percent Economically Disadvantaged By Borough (N= 981)

	Borough				
Range	Manhattan	Queens	Brooklyn	Bronx	Staten Island
High	128	113	274	218	15
Medium	30	71	34	12	25
Low	23	15	7	2	13
Total	181	199	316	232	53

Table 5

Percent Economically Disadvantaged by Grade Cluster (N = 981)

	Grade Cluster		
Range	K-5	6-8	9-12
High	341	168	240
Medium	101	36	35
Low	47	10	3
Total	489	214	278

Table 6

Teacher Retention By Percent Range

Percentage	Frequency
100-90	460
89-80	355
79-70	111
69-60	44
59-50	7
49-40	1
39-30*	3

*Lowest teacher retention percentage in data is 36%

Table 7

Teacher Retention by Borough

Percentage	Borough					Total
	Manhattan	Queens	Brooklyn	Bronx	Staten Island	
100-90	71	119	134	89	47	460
89-80	84	57	122	86	6	355
79-70	14	15	44	38	0	111
69-60	11	7	11	15	0	44
59-50	1	0	4	2	0	7
49-40	0	0	1	0	0	1
39-30	0	1	0	2	0	3
Total	181	199	316	232	53	981

Table 8

Teacher Retention by Grade Cluster

Percentage	Grade Cluster			Total
	K-5	6-8	9-12	
100-90	268	88	240	460
89-80	174	78	103	355
79-70	34	34	43	111
69-60	9	10	25	44
59-50	3	2	2	7
49-40	1	0	0	1
39-30	0	2	1	3
Total	489	214	278	981

Table 9

Teacher Retention Percentage by Economically Disadvantaged Range

Percentage	EcoRanges			Total
	High	Medium	Low	
100-90	299	117	44	460
89-80	291	48	16	355
79-70	106	5	0	111
69-60	42	2	0	44
59-50	7	0	0	7
49-40	1	0	0	1
39-30	3	0	0	3
Total	749	172	60	981

Some notable initial findings are the specific borough that had the highest presence within this data was Brooklyn. Brooklyn is geographically the biggest borough in New York City and has the largest overall population. Also, the number of K-5 schools within this study are almost double the amount of the 6-8 and 9-12 grade clusters. This may be the case for several reasons. For one, at a data-specific level, the K-5 cluster needed to account also for those schools that service PreK within schools. If the K-5

criterion was *strictly* adhered to (like it is with the 6-8 and 9-12 clusters) majority of the elementary schools would not have been included in the study and would have directly skewed the possible results and interpretations. Therefore, it should be noted that PreK is also factored when discussing the K-5 cluster. Also, at a school level, the large number of elementary schools in this study may be because, in more recent years, there has been an influx of elementary schools participating in the Pre-K for all mandate (2014).

Alternatively, this may also be because middle school and high schools tend to be much bigger than elementary schools, housing a larger average population of students. For instance, in the data set for this study, the high school with the highest student population had a total of 5682 students. The elementary school with the highest student population was 1995 (which compared to the other elementary schools in the data set, this amount is atypical). Furthermore, middle school and high schools sometimes are combined into one location and that respective school may service both clusters, which means they were removed from consideration in the study.

Since the NYC public school system is considered one of the largest and most diverse populations in the country, examining the level of economically disadvantaged students throughout the system was crucial. It not only confirmed the diversity claims, but it also connects back directly to the research literature that drives this study. Minority and low socioeconomic status are designated as key demographics that affect teacher retention/attrition rates in schools. New York City schools have high levels of impoverished and low socioeconomic students receiving Title 1 services. The ranges utilized in Tables 3-5 are based on the NCES 2020 report examining the ranges of poverty present in NYC public schools. On the whole, 75% of students are eligible for

free or reduced-price lunch (FRPL), which is one of the key factors the NYCDOE uses to designate the economically disadvantaged student percentage.

Within the cross-tab analyses conducted and displayed in Tables 3-5, there are several critical, initial findings. In Table 3, it is noted that out of the sample of 981 schools, there are 749 schools designated as having a high level of economically disadvantaged students. Looking further in terms of specific boroughs, Table 4 highlights the percent of economically disadvantaged schools within each key location in NYC. Brooklyn and the Bronx have the most schools at the high range (Brooklyn = 274 and the Bronx = 218), and Staten Island has the lowest (15). In Table 5, a cross-tab analysis reveals the levels of economically disadvantaged students in each grade cluster in this current study. Elementary schools (K-5) have the most schools at the high-range with 341. While middle and high schools were not near the same level as elementary schools, most of them were at the high range for the data in this current study. For instance, out of the 278 high schools in the study, 240 are at the high range. This information indicates that the percent of economically disadvantaged students is a significant variable that comprises most of the schools in the NYCDOE and may have a key role within the statistical analyses in this study.

For instance, since this current study is interested in looking at the different school culture and demographic variables that influence trust levels (and ultimately teacher retention rates), further cross-tab analyses in Tables 6-9 were conducted to see initial relationships between school culture and demographic variables on teacher retention, as to solidify this current study's foundation on the empirical literature.

Table 6 examines the different ranges of teacher retention in the schools within the study. The highest percent present in the sample was 100% retention, and the lowest was 36% retention. The schools included in this study fell predominately between the 100-90 percent range (460 schools) and the 89-80 percent range (355), indicating that most of the sample has high levels of teacher retention. Table 7 broke down these initial findings even further to examine the relationship between teacher retention rates and where the different schools are located. Even though this cross-tab analysis confirms that most schools are in these higher-level ranges in terms of retention, an interesting note is the boroughs that have schools in the lower retention ranges. For the 79-70 percent retention range, Brooklyn and the Bronx have a more substantial presence than the other boroughs (44 for Brooklyn and 38 for the Bronx). For the 69-60 range, Manhattan and Brooklyn both have 11 schools, and the Bronx has 15. So, while the majority of the sample has high levels of retention overall, those specific boroughs that have schools with lower retention rates were important to keep in mind in analyzing other statistical findings.

Table 8 examines the relationship between grade cluster and retention. As with the boroughs, perhaps the most insightful information is not that elementary and high schools have the most schools in the sample within the 100-90 range (K-5 = 268 and 9-12 = 240), but the fact that each grad configuration has a presence in those lower ranged intervals. In the 79-70 range, K-5 and 6-8 both have 34, and 9-12 has 43. In the 69-60 range, K-5 has 9, 6-8 has 10, and 9-12 has 25. Table 9 analyzes the relationship between teacher retention rates and the percentage of economically disadvantaged students in schools. The majority of the sample lingers in the 100-70/High range, revealing the

relationship between economically disadvantaged students and teacher retention is not as seemingly clear cut as the other school culture demographic variables.

Ultimately, these schools reveal the possibility that some school culture variables and demographics may have a negative relationship with teacher retention. In other words, as the more schools appear within a certain borough and grade cluster, or have a higher percentage of economically disadvantaged students, the more likely that the teacher retention rate may decrease. Alternatively, the fact that most of the schools, with these school culture and demographic variables considered, are in the higher range of retention, there may be other variables that could reveal more in-depth insights into the cause of teacher retention rates (such as teacher trust). This notion is explored in the statistical analyses that follow.

Research Question 1

Prior to conducting the multiple regression analysis, initial means, standard deviations, and Pearson correlations among the five school culture and demographic variables were conducted to determine if there was a statistically significant association between these variables and teacher-to-principal trust. Table 10 shows the Pearson correlations among the dependent and predictor variables, and several significant correlations were found.

Table 10

Means, Standard Deviations, and Intercorrelations for Teacher-Principal Trust and School Culture/Demographic Variables (N = 981)

Variable	M	SD	Borough	Grade	EcoDis Percent	Student Pop	Teacher Teacher
TeacherPrincipal	3.75	1.08	-.028	-.004	-.150**	-.018	.653**
Borough	2.77	1.15	--	-.057	.208**	.040	-.100**
Grade	1.78	0.85	-.057	--	.108**	.081*	-.018
EcoDisPercent	64.83	21.29	.208**	.108**	--	-.241**	-.204**
StudentPop	596.94	502.71	.040	.081*	-.241**	--	-.051
TeacherTeacher	3.59	1.04	-.100**	-.018	-.204**	-.051	--

**Correlation is significant at the 0.01 level.

*Correlation is significant at the 0.05 level.

While some of these correlations do not necessarily inform the results of this study, they do speak to the empirical literature that established the foundational need for this study. For instance, one of the key correlations to note is the fact that the percent of economically disadvantaged students in a school is associated with four different variables: the location (borough), grade serviced at the school, and the school's total student population. Arguably, it could be rationalized that the specific location of the school could determine how many students within the school are economically disadvantaged. Borough had a positive correlation ($r = .208$, $p = .000$), which indicates that the specific borough a school is located in could indicate the increased likelihood that the students within the school may be economically disadvantaged. Additionally, the

specific grade also has a positive correlation ($r = .108$, $p = .001$). So, a specific grade cluster may service more or less economically disadvantaged students than the others. For instance, since K-5 makes up the highest number of schools within the data (and the public school system), it is possible that elementary grades predominately service this percentage of students. Ultimately, since the literature indicates that the economic and minority status of students can impact several factors within the school culture, looking at these higher-level variables can assist with making deeper connections in interpreting the phenomenon that defined this study

Looking at how the specific school demographics associate to levels of trust (specifically regarding teachers' trust of principals), when combined with other school culture variables, the percent of economically disadvantaged students had a significant negative correlation to the trust between teachers and their respective school leaders ($r = -.150$, $p = .000$). Essentially, negative correlations indicate that as one variable increases, the other variable decreases. So, if there is a large population of economically disadvantaged students within a school institution, there is more likely to be a lower level of trust between teachers and school leaders. Alternatively, if there are high levels of trust among teachers and the school leaders, then it is more likely that the school has a low population of economically disadvantaged students.

Finally, and perhaps most importantly, a strong, positive correlation was found between teacher to principal trust and teacher-to-teacher trust ($r = .653$, $p = .000$) in Table 10. Positive correlations indicate that as one variable increases, the other variable will increase as well. So, as the level of teachers' trust in principals/school leaders increases, so too should the trust between colleagues. This directly supports several findings within

previous studies where the presence of trust within schools has a significant influence on the relationships within the school culture

As mentioned in Chapter 3, it should be noted some variables-due to the nature of interpreting categorical variables in certain statistical analyses such as regressions-needed dummy variables coded for them to be able to understand how they potentially and individually impact teacher trust scores. For instance, the general categorical variable “borough” needed to be separately coded for each of the respective boroughs. This is to indicate that just like the trust levels are not the same from school to school, it would not be the same from borough to borough.

Since the percent of economically disadvantaged students had a statistically significant correlation to the level of trust teachers have in their school leaders, an individual simple linear regression was conducted. The summary of the simple linear regression analysis is displayed in Table 11.

Table 11

Simple Linear Regression Analysis Summary for Percentage of Economically Disadvantaged Students on Predicting Teacher-Principal Trust (N = 981)

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
EcoDisPercent	-.008	.002	-.150	-4.74	.000*

Note. $R^2 = .150$; $F(1, 979) = 22.470$, $p < .001$.

As displayed above, when factoring the percentage of economically disadvantaged students as the sole predictor variable, the results are statistically significant, $F(1, 979) = 22.47$, $p < .001$. The adjusted R^2 was .150, which indicates a 15% variance. According to Cohen’s (1988) guidelines, this is a medium effect. The

regression coefficient associated with the percentage of economically disadvantaged students [$\beta = -.150, p < .01$] suggests that with each additional unit of this variable, the percentage of teacher-principal trust decreases by approximately 0.08 units. When simple linear regressions were conducted utilizing the other school culture variables, statistically significant results were not found.

Additionally, since the Bronx was a borough that was found to be highly associated with teacher-principal trust, a separate simple linear regression between these two variables and is examined in Table 12.

Table 12

Simple Linear Regression Analysis Summary for Borough on Predicting Teacher-Principal Trust (N = 981)

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Manhattan	-.008	.002	-.150	-4.74	.000*
Queens	-.035	.098	-.013	-.361	.718
StatenIsland	.138	.161	.029	.856	.392
Bronx	-.297	.094	-.116	-3.17	.002*
Brooklyn (reference group)	--	--	--	--	--

Note. $R^2 = .117$; $F(4, 976) = 3.37, p < .001$.

As displayed above, when factoring boroughs as the predictor variables, the results are statistically significant concerning the Bronx and Manhattan, $F(4, 976) = 3.37, p < .001$. The adjusted R^2 was .117, which indicates an 11% variance. According to Cohen's (1988) guidelines, this is a small effect. Thus, the regression coefficient

associated with the borough Manhattan [$\beta = -.150$, $p < .01$] suggests that with each additional unit of this variable, the percentage of teacher-principal trust decreases by approximately 0.08 units. The regression coefficient associated with the Bronx [$\beta = -.116$, $p < .01$] suggests that with each additional unit of this variable, the percentage of teacher-principal trust decreases by approximately 0.30 units. Other linear regressions were conducted utilizing grade configuration, but statistically significant results were not found in those analyses.

Due to these initial findings within the simple linear regressions, a multiple regression analysis was conducted to determine and confirm the extent to which there was a relationship between the school demographic/culture predictors and teacher-to-principal trust. As mentioned previously, since categorical variables are not easily interpreted in regression analysis without specific coding systems, the variables utilized in these analyses will vary from the correlations. For example, instead of listing “borough” as the main variable, the individual boroughs are specified as their own variables via dummy coding methods. The summary of this analysis is in Table 13.

Table 13

Simultaneous Regression Analysis Summary for Borough, Grade Configuration, Percentage of Economically Disadvantaged Students, Student Population, and Teacher-Teacher Trust on Predicting Teacher-Principal Trust (N = 981)

Variable	<i>B</i>	<i>SE B</i>	β
Manhattan	-.208	.079	-.074**
Queens	-.012	.079	-.004
Brooklyn (reference group)	--	--	--
Bronx	-.081	.073	-.032
StatenIsland	.015	.129	.003
TeacherTeacher K-5 (reference group)	.679 --	.026 --	.654** --
6-8	.134	.068	.051*
9-12	.029	.063	-.032
Student Pop	7.37	.000	.000
EcoDisPercent	-.001	.002	-.013

Note. $R^2 = .659$; $F(9, 971) = 82.64$, $p < .001$.

This simultaneous multiple regression was conducted to investigate the best prediction of teacher-principal trust scores for schools on the 2016-2017 NYC School Survey. In this analysis, the borough Manhattan, the 6-8 grade cluster, and teachers' trust in other teachers was statistically significant, $F(9, 971) = 82.64$, $p < .001$. The adjusted R^2 was .659. This indicates that 66% of the variance in teacher to principal trust is explained

by the model. According to Cohen's (1988) guidelines, this is a large effect. So, the regression coefficient associated with the borough Manhattan [$\beta = -.074$, $p < .01$] suggests that with each additional unit of this variable, the percentage of teacher-principal trust decreases by approximately .21 units. For the regression coefficient associated with the 6-8 grade cluster [$\beta = .051$, $p < .05$] suggests that with each additional unit of this variable, the percentage of teacher-principal trust increases by .13 units. For the regression coefficient associated with teacher-teacher trust [$\beta = .654$, $p < .01$] suggests that with each additional unit of this variable, the percentage of teacher-principal trust increases by approximately 0.68 units. Ultimately, this analysis reveals that NYC public schools located in Manhattan and the level of teacher-to-teacher trust within a school are valid predictors of the level of trust teachers have toward their school leaders within those schools.

Research Question 2

Since the initial correlations between the school culture variables and teacher-principal and teacher-teacher trust were examined in Table 10, these can be used as a reference for this secondary research question. In the correlation analysis, borough, percent of economically disadvantaged students, and teacher-principal trust were found to be statistically significant associations that potentially impact teacher-to-teacher trust levels within schools.

As with research question #1, simple linear regressions were conducted with the school culture variables to see if statistical significance could be found when factoring the specific variables separately, as displayed in Table 14.

Table 14

Simple Linear Regression Analysis Summary for Borough on Predicting Teacher-Teacher Trust (N = 981)

Variable	<i>B</i>	<i>SE B</i>	β
Manhattan	.172	.097	.064
Queens	-.046	.094	-.018
StatenIsland	.161	.154	.035
Bronx	-.314	.090	-.127**
Brooklyn (reference group)	--	--	--

Note. $R^2 = .162$; $F(4, 976) = 6.57$, $p < .001$.

**Correlation is significant at the 0.01 level.

Regarding borough, when all five boroughs were examined without the other school culture variables, the Bronx was considered a statistically significant predictor of teacher-teacher trust, $F(4, 976) = 6.57$, $p < .001$. The adjusted R^2 was .162, which indicates a 16% variance. According to Cohen's (1988) guidelines, this is a medium effect. For the regression coefficient associated with the Bronx [$\beta = -.127$, $p < .01$] suggests that with each additional unit of this variable, the percentage of teacher-teacher trust decreases by approximately 0.31 units. Simple linear regressions were conducted utilizing the other school culture variables, but statistically significant results were not found with these follow-up analyses.

Mirroring the analyses for research question #1, a simultaneous multiple regression was conducted to investigate the best prediction of teacher-teacher trust scores

for schools on the 2016-2017 NYC School Survey, and the results are displayed in Table 15.

Table 15

Simultaneous Regression Analysis Summary for Borough, Grade Configuration, Percentage of Economically Disadvantaged Students, Student Population, and Teacher-Principal Trust on Predicting Teacher-Teacher Trust (N = 981)

Variable	<i>B</i>	<i>SE B</i>	β
Manhattan	.159	.075	.059*
Queens	-.107	.075	-.041
Brooklyn (reference group)	--	--	--
Bronx	-.069	.070	-.028
StatenIsland	-.061	.122	-.013
TeacherPrincipal K-5 (reference group)	.610 --	.023 --	.633** --
6-8	-.111	.064	-.044
9-12	.005	.060	.002
Student Pop	.000	.000	-.057*
EcoDisPercent	-.006	.001	-.122**

Note. $R^2 = .659$; $F(9, 971) = 82.64$, $p < .001$.

In this analysis, a few variables revealed statistically significant results: the borough Manhattan, the total student population, the percentage of economically disadvantaged students, and teacher-principal trust, $F(9, 971) = 82.64$, $p < .005$. The adjusted R^2 was .659. This indicates that 65% of the variance in teacher-to-teacher trust is explained by

the model. According to Cohen's (1988) guidelines, this is a large effect. Thus, the regression coefficient associated with the borough Manhattan ($\beta = .059$, $p < .01$), suggests that with each additional unit of this variable, teacher-teacher trust increases by approximately 0.16 units. The regression coefficient associated with the total student population ($\beta = -.057$, $p < .01$), suggests that with each additional unit of this variable, teacher-teacher trust decreases by approximately 0.00 units. The regression coefficient associated with the percentage of economically disadvantaged students ($\beta = -.122$, $p < .01$), suggests that with each additional unit of this variable, teacher-teacher trust decreases by approximately 0.01 units. Finally, the regression coefficient associated with teacher-principal trust ($\beta = .633$, $p < .01$), suggests that with each additional unit of this variable, teacher-teacher trust decreases by approximately 0.61 units. Ultimately, this analysis reveals that several variables could impact the teacher-teacher trust levels in a school institute. Namely, the two variables that are more likely to impact these scores are the percentage of economically disadvantaged students and teacher to principal trust levels.

In this series of analyses, several variables were found to be associated with teacher-teacher trust. In the multiple regression, the borough Manhattan, the total student population, the percentage of economically disadvantaged students, and teacher-principal trust showed significant positive relationships. This indicates that schools that have these demographics or school culture variables could impact the level of trust teachers have with their colleagues.

Research Question 3

The second phase of this study aimed to determine whether school institutions trust scores on the NYC School Survey (2016-2017) related to the percentage of teachers retained in the 2017-2018 school year. Prior to conducting a hierarchical multiple regression, since certain school culture and demographic variables significantly associated with teacher trust relationships within school institutions, it was in the interest of the current study to determine the potential extent that these variables could be related to the percentage of teacher retention rates in these schools. As has been emphasized in the empirical literature, teacher retention/attrition rates are caused by a multitude of variables and factors. Thus, looking at key variables individually and collectively can provide a more in-depth picture of the scope of the effect of each variable.

Since borough was deemed to have a relationship with the trust relationships in the previous research questions, a simple linear regression was conducted to determine its level of association with teacher retention rates. The results are displayed in Table 16.

Table 16

*Simple Linear Regression Analysis Summary for Borough on Predicting Teacher**Retention (N = 981)*

Variable	<i>B</i>	<i>SE B</i>	β
Manhattan	-.553	.819	-.024
Queens	2.68	.795	.120**
StatenIsland	7.25	1.30	.182**
Bronx	-1.36	.759	-.064
Brooklyn (reference group)	--	--	--

Note. $R^2 = .236$; $F(4, 976) = 14.44$, $p < .001$.

While Manhattan and the Bronx (and Brooklyn since it is the reference group) were considered statistically significant in the correlation analyses, in this analysis, they were not designated as statistically significant predictors of teacher retention. However, Queens and Staten Island were identified as statistically significant predictors of teacher retention here, $F(4, 976) = 14.44$, $p < .001$. The adjusted R^2 was .236, which indicates a 23% variance. According to Cohen's (1988) guidelines, this is a medium effect. In other words, one unit of a school in Queens is most likely to increase the rate of teacher retention by approximately 2.7 units, and one unit of a school in Staten Island is most likely to increase the rate of teacher retention by 7.3 units. This could indicate that if a school is located in Staten Island, it is more likely to have higher levels of teacher retention than schools in other boroughs. This directly connects back to Table 7, where Staten Island had schools only in the high-level retention ranges.

Similarly to borough, a simple linear regression was conducted to determine if grade configurations could potentially predict teacher retention at the school level. The results of this analysis are displayed in Table 17.

Table 17

Simple Linear Regression Analysis Summary for Grade Configuration on Predicting Teacher Retention (N = 981)

Variable	<i>B</i>	<i>SE B</i>	β
6-8	-3.25	.722	-.148**
9-12	2.68	.795	.120**
K-5 (reference group)	--	--	--

Note. $R^2 = .219$; $F(2, 978) = 24.57$, $p < .001$.

In this analysis, both 6-8 and 9-12 (and K-5 as it is the reference group for the regression) were considered statistically significant in the correlation analyses, $F(2, 978) = 24.57$, $p < .001$. The adjusted R^2 was .219, which indicates a 22% variance. According to Cohen's (1988) guidelines, this is a medium effect. According to this analysis, schools that service grades 6-8 have a negative association to teacher retention rates, which means that for every one unit (or middle school), the percentage of teacher retention decreases 3.3 units. Schools that service grades 9-12 has a positive association with teacher retention rates, which means that for every one unit (or high school), the percentage of teacher retention increases 2.7 units. This finding confirms that grade configurations may be a good factor to review when analyzing teacher retention percentages within schools and that high schools may represent lower teacher retention rates than other school types. This is also

confirmed in Table 8 as high schools also have schools that are present within the lower retention ranges.

Finally, a simple linear regression was conducted to see if it would be appropriate to interpret teacher-principal scores as a potential predictor of the level of teacher retention in schools. The results are in Table 18.

Table 18

Simple Linear Regression Analysis Summary for Teacher-Principal Trust Scores on Predicting Teacher Retention (N = 981)

Variable	B	SE B	β
TeacherPrincipal	2.88	.249	.347**

Note. $R^2 = .347$; $F(1, 979) = 134.31$, $p < .001$.

When considering teacher-principal trust scores on the 2016-2017 NYC School Survey, this variable was considered a statistically significant predictor of the percentage of teachers retained during the 2017-2018 school year, $F(1, 979) = 134.31$, $p < .001$. The adjusted R^2 was .347, which indicates a 35% variance. According to Cohen's (1988) guidelines, this is a large effect. In other words, a one unit increase in teacher-principal trust score is associated with a 2.9 unit increase in teacher retention.

Since the goal of this study was to determine the exclusive influence of trust on teacher retention, a hierarchical multiple regression was conducted with two models to evaluate the prediction of school teacher retention rates from the school culture and demographic variables and teacher-principal trust. The model summary can be found in Table 19. The school culture and demographic variables were considered covariates, and they were placed in Model 1 as controls to allow for the potential variance present for the

percentage of teacher retention to be related solely to and exclusively interpreted by teacher-principal trust. As such, Model 2 incorporates these variables, as well as the teacher-principal trust variable.

Table 19

Model Summary of Multiple Hierarchical Regression for RQ3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.42 ^a	.175	.167	8.23	.175	22.84	9	971	0.00
2	.53 ^b	.277	.269	7.71	.102	137.08	1	970	0.00

a Predictors: (Constant), Total Student Population, Sixth_Eight, StatenIsland, Percentages of Students Economically Disadvantaged, Nine_Twelth, Manhattan, Queens, Bronx

b Predictors: (Constant), Total Student Population, Sixth_Eight, StatenIsland, Percentages of Students Economically Disadvantaged, Nine_Twelth, Manhattan, Queens, Bronx, Teacher to Principal Trust Scores

c Dependent Variable: Percent Teacher Retention

Model		<i>B</i>	<i>SE B</i>	β
1	K-5	--	--	--
	6-8	-2.92	.677	-.134**
	9-12	-3.99	.633	-.200**
	Manhattan	1.05	8.26	.046
	Queens	1.91	8.26	.085
	Brooklyn	1.48	8.25	.077
	Staten Island	4.77	8.32	.120
	Bronx	1.81	8.26	.085
	EcoDisPercent	-.096	.015	-.226**
	StudentPop	.003	.001	.184**
	(Constant)	91.09**	8.30	--
2	K-5	--	--	--
	6-8	-3.19	.634	-.146**
	9-12	-4.14	.593	-.207**
	Manhattan	1.29	7.74	.056
	Queens	2.08	7.73	.117
	Brooklyn	1.26	7.73	.093
	Bronx	4.58	7.73	.103
	StatenIsland	4.68	7.79	.117
	EcoDisPercent	-.074	.014	-.175**
	StudentPop	.004	.001	.204**
	TeacherPrincipal	2.69	.230	.325**
	(Constant)	79.34**	7.84	--

a Dependent variable: Percent Teacher Retention

* Sig. = <0.05

** Sig. = <0.01

There were significant relationships between some covariates and the dependent variable in Model 1 ($R^2 = 0.42$, $p = .000$). These were the percentage of economically disadvantaged students, the total student population, the 6-8 grade cluster, and the 9-12 grade cluster. This R^2 value suggests that the culmination of all the school culture and demographic variables account for 42% of the variation in teacher retention rates, which means that 58% of the variation in teacher retention rates cannot be explained by these variables alone.

Model 2 had significant predictors and accounted for 53% of the variance in the percent of teacher retention ($R^2 = 0.53$, $p = .000$). This means that 47% of the variation in teacher retention rates cannot be explained by the school culture/demographic variables and teacher-principal trust levels alone. Controlling for all the school culture and demographic variables, the regression coefficient associated with the percentage of economically disadvantaged students ($\beta = -.175$, $p < .01$) suggests that with each additional unit of this variable, the percent of teacher retention decreases by approximately .07 units. The regression coefficient associated with the total student population ($\beta = .204$, $p < .01$) suggests that with each additional unit of this variable, the percent of teacher retention increases by approximately .004 units. The regression coefficient associated with schools that service the 6-8 grades cluster [$\beta = -.146$, $p < .01$] suggests that with each additional unit of this variable, the percentage of teacher retention decreases by approximately 3.2 units. The regression coefficient associated with schools that service the 9-12 grade cluster ($\beta = -.207$, $p < .01$) suggests that with each additional unit of this variable, the percent of teacher retention decreases by approximately 4.1 units. Finally, the regression coefficient ($\beta = .325$, $p < .01$) associated with teacher-

principal trust suggests that each additional unit of teacher-principal trust, the percent of teacher retention increases by approximately 2.7 units.

To conclude, both simple and hierarchical multiple regressions determined that teacher-principal trust in schools has a positive association and effect on teacher retention rates. In other words, as the level of trust between teachers and their school leaders increases, so too will the percentage of teachers that want to remain in the school. It should be noted that the only other similar positive relationship was the total student population within a school. So, the larger the student population in a school, the higher the teacher retention rate. The other school culture and demographic variables that were identified as statistically significant were negatively associated with the percentage of teacher retention. This indicates that the higher the percentage of economically disadvantaged students, or if the school is a middle (6-8) or high (9-12) school, the likelihood that the teacher retention rates will be lower or decrease.

Research Question 4

As with research question 3, a simple linear regression analysis was conducted to see if it would be appropriate to interpret teacher-teacher trust scores as a potential predictor of the level of teacher retention in schools. The results are in Table 20.

Table 20

Simple Linear Regression Analysis Summary for Teacher-Teacher Trust Scores on Predicting Teacher Retention (N = 981)

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
TeacherTeacher	2.04	.267	.237	7.64	.000*

Note. $R^2 = .237$; $F(1, 979) = 58.50$, $p < .001$.

When considering teacher-teacher trust scores on the 2016-2017 NYC School Survey, this variable was considered a statistically significant predictor of the percentage of teachers retained during the 2017-2018 school year, $F(1, 979) = 58.50$, $p < .001$. The adjusted R^2 was .237, which indicates a 24% variance. According to Cohen's (1988) guidelines, this is a medium effect. Thus, for every one unit of teacher-teacher trust, there is an increase in the percentage of teacher retention by 2.0 units. This reveals that if there are high levels of trust among colleagues in schools, then the overall retention rate within that school will be high as well.

As with teacher-principal trust in research question 3, a hierarchical multiple regression was conducted with two models to evaluate the prediction of school teacher retention rates from the school culture/demographic variables and teacher-teacher trust. The model summary can be found in Table 21. The school culture and demographic variables were considered covariates, and they were placed in Model 1 as controls to allow for the potential variance present for the percentage of teacher retention to be related solely to and exclusively interpreted by teacher-teacher trust. As such, Model 2 incorporates these variables, as well as teacher-teacher trust.

Table 21

Model Summary of Multiple Hierarchical Regression for RQ4

Model	R	Change Statistics							
		R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.42 ^a	.175	.167	8.23	.175	22.84	9	971	0.00
2	.47 ^b	.216	.208	8.02	.041	50.95	1	970	0.00

a Predictors: (Constant), Total Student Population, Sixth_Eight, StatenIsland, Percentages of Students Economically Disadvantaged, Nine_Twelth, Manhattan, Queens, Bronx

b Predictors: (Constant), Total Student Population, Sixth_Eight, StatenIsland, Percentages of Students Economically Disadvantaged, Nine_Twelth, Manhattan, Queens, Bronx, Teacher to Teacher Trust Scores

c Dependent Variable: Percent Teacher Retention

Model		<i>B</i>	<i>SE B</i>	β
1	K-5	--	--	--
	6-8	-2.92**	.677	-.134**
	9-12	-3.99**	.633	-.200**
	Manhattan	1.05	8.26	.046
	Queens	1.91	8.26	.085
	Brooklyn	1.48	8.25	.077
	Staten Island	4.77	8.32	.120
	Bronx	1.81	8.26	.085
	EcoDisPercent	-.096**	.015	-.226**
	StudentPop	.003**	.001	.184**
	(Constant)	91.09**	8.30	--
2	K-5	--	--	--
	6-8	-2.83	.660	-.130**
	9-12	-4.06**	.618	-.203**
	Manhattan	.806	8.06	.035
	Queens	2.11	8.05	.094
	Brooklyn	1.26	7.73	.093
	Bronx	2.02	8.05	.095
	StatenIsland	4.78	8.11	.120
	EcoDisPercent	-.076**	.015	-.180**
	StudentPop	.004**	.001	.204**
	TeacherTeacher	1.80**	.253	.210**
	(Constant)	83.10*	8.17	--

a Dependent variable: Percent Teacher Retention

* Sig. = <0.05

** Sig. = <0.01

As with research question 3, there were significant relationships between some covariates and the dependent variable in Model 1 ($R^2 = 0.42$, $p = .00$). These were the

percentage of economically disadvantaged students, the total student population, the 6-8 grade cluster, and the 9-12 grade cluster. This R^2 value suggests that the culmination of all the school culture and demographic variables account for 42% of the variation in teacher retention rates, which means that 58% of the variation in teacher retention rates cannot be explained by these variables alone.

Model 2 had significant predictors and accounted for 47% of the variance in the percent of teacher retention ($R^2 = 0.53$, $p = .000$). This means that 53% of the variation in teacher retention rates cannot be explained by the school culture and demographic variables and teacher-teacher trust rates alone. Controlling for all the school culture and demographic variables, the regression coefficient associated with the percentage of economically disadvantaged students ($\beta = -.180$, $p < .01$), suggests that with each additional unit of this variable, the percent of teacher retention decreases by approximately 0.08 units. The regression coefficient associated with the total student population ($\beta = .204$, $p < .01$) suggests that with each additional unit of this variable, the percent of teacher retention increases by approximately .004 units. The regression coefficient associated with schools that service the 6-8 grade cluster [$\beta = -.130$, $p < .01$] suggests that with each additional unit of this variable, the percentage of teacher retention decreases by approximately 2.8 units. The regression coefficient associated with schools that service the 9-12 grade cluster ($\beta = -.203$, $p < .01$), suggests that with each additional unit of these variables, the percent of teacher retention decreases by approximately 4.1 units. Finally, the regression coefficient ($\beta = .210$, $p < .01$) associated with teacher-teacher trust suggests that with each additional unit of this variable, the percent of teacher retention increases by approximately 1.8 units.

In summation, both simple and hierarchical multiple regressions determined that teacher-teacher trust in schools has a positive association and effect on teacher retention rates. In other words, as the level of trust between teachers and their colleagues increases, so too will the percentage of teachers that want to remain in a school. It should be noted that the only other similar positive relationship was the total student population within a school. So, the larger the student population in a school, the higher the teacher retention rate. The other school culture and demographic variables that were identified as statistically significant and negatively associated with the percentage of teacher retention. This indicates that the higher the percentage of economically disadvantaged students, or if the school is a middle (6-8) or high (9-12) school, the likelihood that the teacher retention rates will be lower or decrease. On a final important note, when comparing each trust relationships' effects in both hierarchical multiple regressions, it was determined, once all of the school culture and demographic variables were controlled, that teacher-principal trust had a higher level of relation to teacher retention rates than teacher-teacher trust (i.e., 2.7 versus 1.8 units). So, while both relationships have positive and significant associations when examining trust at the school level, higher scrutiny should be placed on examining the teacher and school leader dynamic.

Conclusion

This chapter examined the results of several correlations and regression analyses revolving around the specific school culture and demographic variables that impact teacher trust levels in various school relationships (i.e., school leader and colleagues), and the impact of this trust on teacher retention percentages in NYC public schools.

In regard to those variables that influence trust, the most prominent finding was the statistically significant negative correlation between trust (for both types) and the percentage of economically disadvantaged students present within a school. While this is not necessarily “new” information, it confirms the empirical research in a new light. Minority status and the level of students' economic status in schools have been a key factor within decades of research on teacher attrition. To have it confirmed regarding impacting trust specifically, and coinciding that with the knowledge that both teacher-principal trust and teacher-teacher trust are positively correlated with each other, school leaders and teachers can better identify both internal and external characteristics that may be detrimentally (or positively) impacting their relationships and day-to-day productivity, at least in New York City public schools.

In regard to the question as to whether or not trust scores on the 2016-2017 NYC School Survey could impact the retention levels in the 2017-2018 school year, the conclusion is that the specific level of trust that teachers have toward their school leaders and colleagues has statistical significance and could potentially predict teacher retention levels. In other words, teachers' trust in both relationships can influence whether teachers remain in their school assignment year to year. Additional findings that should be potentially explored further is whether trust plays an important role in maintaining retention in schools within specific boroughs of New York City or grade configurations. In this study, it was designated that individual boroughs and grades could be influential in teacher retention levels as well.

Chapter 5 will discuss the implications of the findings within this study and their relationship to the research literature. The discussion will also review implications for future practice and studies, as well as the limitations of this study.

CHAPTER 5

Discussion

The purpose of this quantitative study was to examine the extent to which school culture influences teachers' trust within their relationships in school institutions, and the extent that trust impacts teacher retention rates at the school level. This chapter begins with a discussion of the major findings of this study as related to Bandura's social cognitive learning theory (1971), as presented in Chapter 2. The discussion will also include connections between the major findings of the present study to those revealed in prior empirical research. This chapter will conclude with an examination of the limitations of the present study and recommendations for future practice and research.

Implications of Findings

As indicated within the prior research, many variables have been designated as influential to trust in school cultures and impacting teacher attrition rates within schools. Some of these variables were confirmed in this study and will be discussed individually within this discussion. However, it is essential to note that the primary focus of this study was to determine if there was a potential association between teachers' perceptions of trust on the 2016-2017 NYC School Survey, and the teacher retention rates recorded for that following school year (2017-2018), which has not been directly studied previously in the research literature. The statistical analyses of this current study revealed several important findings.

Regarding which school culture and demographic variables were associated with the levels of trust in teachers' relationships in a school, the percent of economically disadvantaged students had the strongest association with each type of trust. This finding

indicates that this variable should be closely examined in school settings where the improvement of trust is being considered and/or modeled after.

In regard to teacher retention, simple and multiple hierarchical regressions revealed that both types of trust relationships could impact teacher retention rates. Other key school culture and demographic variables examined in this study, such as school location (borough) and grade configuration, were deemed statistically significant predictors of the level of teacher retention within schools.

These findings mirror, confirm, and expand the research literature on both the trust and teacher attrition phenomena, as well as connect directly to the theoretical framework that provides the foundation of this current study. Each core statistical analysis will be further clarified and analyzed under these previous studies, perspectives, and interpretative lens to better connect the critical research that has come before to the work that still needs to be done for the future for these two phenomena.

Trust is Contagious

Bandura's social cognitive learning theory (1971) emphasizes the role social interaction has on how individuals learn in their immediate environment. Thus, teachers learn from the various interactions and relationships that they have within school institutions, particularly with their school leaders and colleagues. From these interactions, they develop enough context to determine whether they can trust either party in these core relationships. However, since teachers typically view school leaders as "models of competence" and their colleagues as members of specialized expertise and deserving of respect, a breach of trust may be devastating to these relationships. Also, as was found in

this current study, these breaches of trust may not merely impact these relationships separately but at the same time.

Additionally, Bandura emphasizes that an individual's prior life experiences and established environment can impact the behaviors, actions, and interactions that evolve in other contexts and relationships. Thus, the school culture variables that were examined in this study reveal how this environmental context that teachers work in could impact their perceptions, behaviors, and interactions in other relationships. To determine the full extent of the association and relationships between these various factors, several correlation and regression analyses were conducted within the study.

Ultimately, it is clear that the solidification of trust or a breach of trust in one relationship can either strengthen or weaken the other relationship to the point of influencing the decision of remaining or leaving the professional altogether (i.e., teacher retention/attrition rates). The culmination and consideration of other variables (particularly school culture or demographic ones) can positively or negatively impact the presence of this trust within these core relationships. Thus, these results reveal trust as a sort of "contagion" or pervasive influencer on all core relationships within a school culture. It is, therefore, something that is learned, observed, and acted upon, as emphasized in Bandura's theory.

Relationship to Prior Research

The major findings of the current study support and extend prior research studies that focus on both the trust and teacher attrition phenomena.

Influence of Student Characteristics on Teachers

As aforementioned in the previous section, the initial correlation analyses between the school culture variables and teacher-teacher and teacher-principal trust scores, the percentage of economically disadvantaged students variable was found to have a negative relationship to both trust types. This confirms the findings in prior research that have stressed that the presence of minority or low socioeconomic status of students can potentially impact teachers' workplace satisfaction, which in turn has led to increased teacher attrition rates (Ashworth, 2018; Guin, 2004; Grissom & Loeb, 2011; Holme et al., 2018; Hancock & Scherff, 2010; Ingersoll, 2001; Johnson et al., 2012; Ronfeldt et al., 2013; Simon & Johnson, 2015). A study that directly connected to these results is Guin's (2004) study. In this study, Guin examined the characteristics of elementary schools that have high rates of turnover and discovered that the percentage of students designated being as low economic status in the schools was a factor. This current study also extends Guin's research by incorporating middle school (6-8) and high school (9-12) grades into consideration. It also utilizes a more recently developed survey method used in a large urban district. In Guin's study, the Staff Climate Survey for the 2000-2003 school years was interpreted; in this study, the 2016-2017 NYC School Survey trust component was analyzed.

Finally, in both Guin's and the current study, it has been determined that students' characteristics (namely the percentage of economically disadvantaged students) impact various components and core relationships within a school. It is important to keep this factor in mind as trust, and its impact are examined in future research and policy

initiatives, as without factoring this percentage into the equation, the foundation of this problem may not be fully understood or resolved.

Influence of Teachers' Perceptions on School Leaders and Work

Environment

The current study's methodology and instrumentation were modeled after the work of Ingersoll (2001). Ingersoll's study (2001) sought to fill two crucial gaps in the empirical research: 1) the lack of interpretation of how school characteristics could impact teachers and 2) the lack of studies that dealt with large scale or representative data. In response, Ingersoll (2001) utilized "the largest and most comprehensive data source available on the staffing, occupational, and organizational aspects of elementary and secondary schools," which was the Schools and Staffing Survey (SASS) and the Teacher Follow up School (TSF) questionnaire from the U.S. Department of Education's National Center for Education Statistics (NCES) for three different school year cycles (1987-1988, 1990-1991, and 1993-1994) (p. 507)

While the NYC School Survey has not been utilized as long as the surveys analyzed in Ingersoll's work (it was first implemented in 2005), and is not as broad in scope, it has been deemed a reliable and valid measure (see Chapter 3) for surveying the entire New York City public school system, which is the largest and most diverse urban public school system in the United States. Thus, this current study helps extend and fill in one of the gaps Ingersoll identified within his own study as this survey covers a large population of teachers and covers a comprehensive number of topics that analyze teachers' perceptions of their work conditions.

Since there has been a lack of studies focusing on the NYC School Survey (other than to determine its reliability and validity), this current study also offers a way to give the survey presence within the literature.

Additionally, Ingersoll (2001) utilized descriptive statistics and multiple level regressions to determine the workplace conditions that impact teacher attrition rates. In this current study, similar analyses were conducted to examine the impact of the workplace conditions mentioned in the trust questions of the NYC School Survey (see appendices). These questions cover both types of trust relationships as well as asks teachers to rate different workplace conditions (i.e., the availability of resources, administrative support, school leader competence, opportunities for professional development, and a climate of collaboration and respect). These conditions have been cited in other studies as directly related to influencing teacher attrition rates (Allen et al., 2015; Bogler, 2001; Cancio et al., 2013; Eskew, 2016; Ladd, 2011; Johnson et al., 2012; Tater & Hoy, 1988; Tschannen-Moran, 2009; Tshannen-Moran & Gareis, 2015).

The key way that this current study expands the prior research is it confirms that trust is an additional school culture variable that should be included in this discussion. In this study, the correlation analysis revealed that teacher-principal trust and teacher-teacher trust have a positive relationship. In the multiple regression analyses, both relationships were considered statistically significant as predictors of impacting either relationship as well as teacher retention rates. In other words, as the perceptions of the level of trust in one relationship increases or decreases, the same will occur with the other. This “contagious” trend as aforementioned ensures that school leaders need to be conscious of the nature of trust in various relationships within their institutions, and

researchers need to be cognizant that it is a variable that could be impacting examinations of school cultures and teacher attrition levels in future studies.

Location, Location, Location

While the location of New York City public schools was not the focal point of the goals of this study, several boroughs were found to have a negative relationship on the level of trust teachers have toward school principals, and were considered statistically significant predictors of teacher retention rates as discussed in the previous section. This was also discussed extensively in Chapter 4 within the initial cross-tab analyses, where it was determined that certain boroughs (the Bronx and Brooklyn) have higher levels of economically disadvantaged students than others. Furthermore, in Chapter 2, some studies have also hinted at the notion that the location a teacher is in could be a potential factor that influences their overall work satisfaction and school attrition levels (Guin, 2004; Ingersoll, 2001; Schlechty & Vance, 1981). In Ingersoll's study (2001), he determined that public and urban-based schools are more likely to experience teacher turnover than private and rural ones. This current study builds off of these two points by delving deeper into the notion that, within an urban public school's boundary structure, even more insights can be developed as to how it impacts teachers' trust in school relationships and teacher retention rates.

Influence of Grade Level on Teacher Retention

Examining whether or not the different grade configurations play a role within developing trust in schools or influencing teacher retention levels was based on several studies found in the empirical literature. Most studies focused their efforts on determining specific subject areas where teachers face high levels of attrition (Ingersoll, 2001), but

others focused on grade level. Guin's study (2004) examined the characteristics of elementary schools that have high rates of teacher turnover, Champan & Hutchenson (1982) focused on looking at elementary or high school teachers' level of job satisfaction, and Ingersoll (2001) focused his study on elementary and secondary schools to determine the factors in schools' organizational cultures that contributed to teacher attrition. This current study extends the results of those studies by considering grade level as a potential direct link to teacher retention. In one of the multiple regression analyses, all three grade configurations were determined to be statistically significant in predicting teacher retention. These results indicate that the specific grades serviced within a school could be used to predict teacher retention rates.

Influence of Teacher-Teacher Dynamic on Teacher Retention

As expressed in Chapter 2, the teacher-teacher trust dynamic is not readily studied within the empirical literature, at least to the extent that the teacher-school leader relationship is. Along with determining the extent trust has on teacher retention/attrition levels, this current study aimed to assess the impact of this particular relationship on teachers' perceptions of their workplace culture. In a simple linear regression analysis, the teacher-teacher trust scores on the 2016-2017 NYC School survey was determined a positive statistically significant predictor of the percentage of teacher retention in schools during the 2017-2018 year. These results reveal that an increase in the level of trust teachers have toward their colleagues will increase the percentage of teacher retention in schools, which tremendously expands the current research literature. This was a pivotal gap found through the examination of the empirical research, as the majority of studies have traditionally examined specific variables such as school leader support (Cancio et

al., 2013; Kars & Inandi, 2018; Wahlstrom, 2008), school efficacy and student achievement (Allen et al., 2015; Guin, 2004; Range, 2013), and teacher burnout (Eskew, 2016; Maele & Houtte, 2014; Tschannen-Moran & Gareis, 2015). Trust has never been a part of the equation. In this study, it is at the forefront and has designated its need to be analyzed further.

Trust Makes Teachers Want to Stay

Ultimately, Bandura (1971) and prior research emphasize the impact of teacher workplace satisfaction on the overall school culture (Bogler, 2001; Ingersoll, 2001; Johnson et al., 2012; Kars & Inandi, 2018; Kelchtermans, 2017; Maele & Houtte, 2014) and teacher attrition rates (Ingersoll, 2001; Simon & Johnson, 2015; Tschannen-Moran, 2009). However, as revealed in Chapter 2, a significant gap within the empirical research is the notion that trust could be considered a direct link to understanding teachers' desire to remain in their school placements. In both of the regressions conducted, teacher-principal trust and teacher-teacher trust scores on the NYC School Survey were found to be statistically significant predictors of the percentage of teachers retained during the 2017-2018 school year. These results signify that the higher the level of trust teachers perceive in their key relationships, the more likely they will remain in a school. Thus, trust is a crucial contributor to why teachers want to remain in schools.

Limitations

While this quantitative research design provided the specific, measurable scores of teachers' trust that were captured on the NYC School Survey, it does not go into the specifics as to why teachers answered the way they did. For example, if a teacher ranked their answer to whether they feel supported by their school leaders as low, we do not

know what it is the school leader did that made them feel unsupported. Additional steps that could be taken to provide additional credibility and reliability of these results is to pursue a mixed-methods study that involves qualitative components. Interviewing teachers in schools that exhibit high and low levels of trust can help provide a deeper understanding of the influence that trust has in the interactions teachers have within schools as well as its overall impact on teacher attrition/retention. In addition to this limitation, there were also several threats to the statistical conclusions and internal and external validity, which are discussed below.

Threats to Statistical Conclusion

The current study met the criteria for statistical power using an alpha level of .50 and a statistical power level of .80. However, only some findings met the large effect size (Pearson's $r = .50$) criteria. This reveals that some results in the correlation and regression analyses may not indicate strong relationships between particular variables, specifically those within a school's culture. This could be due to the overrepresentation of specific boroughs or grade clusters over others within the data due to the specific data collecting criteria designated at the onset of the study (i.e., the specific grade cluster configurations and the 70% response rate for the survey). For example, Manhattan schools represented only 181 of the total 981 schools examined in this study, while Brooklyn comprised 316.

Additionally, as aforementioned, there were 489 elementary schools versus the 214 middle and 278 high schools. So, while a total of 981 public schools is considered a large sample size (which would generally indicate a large statistical power), it is essential to point out that this underrepresentation of certain variables may have led to the lower overall effect size in the individual analyses pertaining to those variables. Despite this, it

should still be noted that the central findings of this current study (i.e., whether teacher-principal trust impacts teacher-teacher trust, and whether each respective trust relationship impacts teacher retention levels) did meet Cohen's guidelines for large effect size, which makes these findings particularly compelling and informative to future research.

Another aspect of the study to consider is that the NYC School Survey is an online survey that teachers complete. Because it was online, participants were able to complete the survey in any location that they choose, which could indicate random irrelevancies in the participants' setting. Variation of an environment is something that could threaten the potential conclusions made in this current study, as it can increase the level of variance and result in the researcher not being able to reject a false null hypothesis.

Threats to Internal Validity

Due to this current study being based upon preexisting data, the threats to the internal and external validity are potentially much lower than one that is based upon an experimental design. However, there are some factors to consider that may have potentially impacted the results of this current study.

In the study's final sample, only 981 out of 1531 schools were designated. This was due to the grade configuration and survey response rate criteria established at the onset of the study. This criteria systematically weeded out schools that did not meet the parameters. While this helped with the organization and efficient analysis of my sample, those schools that were removed, if included, could have potentially led to different results altogether and impacts the conclusion validity of this study.

As this study examines the results of a survey taken in 2017, the transfer of these results to inform about the school populations that exist now in 2020 threatens the conclusions of this study. For example, can it be accurately stated that teachers' trust in their colleagues is a valid predictor of teacher retention rates for this current school year with the current COVID-19 pandemic preventing existing NYC public schools from interacting in a physical school setting? This an extreme example, but this interaction of history or the passage of time can impact the validity of the results of this current study.

An additional factor to consider is the idea of participants' attitude and motivation toward taking the NYC School Survey. From personal experience as a NYCDOE public school teacher, my former middle school would receive an incentive from school leaders if every teacher completed the NYC School Survey. Now, it would be inaccurate to state this occurs in every public school. But it is a possibility that could potentially threaten the results of this study. Also, can it be trusted that teachers are responding to how they actually feel or how they feel they should answer? This mindset dynamic, or the Hawthorn effect, can skew the interpretation of data in experimental and survey design studies. The fortunate aspect here is that the researcher could not impact the results of the study since this data is preexisting. But that does not mean that participants' attitudes and mindsets may not have already been altered or impacted by different variables altogether at the time the survey was completed.

Threats to External Validity

While it is noted that the NYCDOE public school system is the largest in the nation and one of the most diverse, one of the considerations that need to be considered for this current study is whether the results generalized from this study's sample (981

schools) can be applied to the overall population (1531). Also, could the results found for this public school system be transferred and applied to other large, urban public systems across the nation? The world? It is important to note that, while statistically significant findings were identified for teacher trust and retention levels in NYC public schools within this current study, trust and attrition are definitively unique phenomena that can be interpreted differently within other settings, populations, and combined with other factors.

Recommendations for Future Practice

This study began with the notion that teacher attrition is not a “new” problem. But countless decades of empirical research on this topic has hinted that teacher attrition might be an unsolvable one. Despite this daunting notion, the results of this study aimed to inform changes at the school level as opposed to just the policymaking level, to more effectively analyze the individuals that are directly influenced by teachers’ decisions to leave: the teachers. Ultimately, there needs to be a closer understanding of those intimate factors that contribute to this underlying issue. In this current study, it was determined that the level of trust that teachers have toward their school leaders and colleagues strongly influences the decisions teachers make each year whether to stay or to go. Therefore, the issue of teacher attrition and its impact can no longer be treated as an isolated concept, but must also factor the residual effects that it has on various aspects and relationships of a school culture. Therefore, it should be a critical focus of all educational leaders to pinpoint the unique factors that impact those institutions, districts, or states that experience high levels of teacher turnover rates.

A factor that is prevalent within this study, and notable in schools around the nation, is the influence economically disadvantaged students have on teachers perceptions and teacher retention rates. In NYC public schools, low socioeconomic students receive Title I services. Title 1 “provides financial assistance to local educational agencies for children from low-income families to help ensure that all children meet challenging state academic standards” (“Fast Facts”, n.d). According to the National Center for Education Statistics, in 2015, urban cities had the highest Title 1 allocation per formula-eligible child at \$1,466 (“Fast Facts”, n.d). Additionally, those that were designated in the “highest poverty quarter” received more funds than other designations. Some NYC public schools are in this poverty quarter range, having 72.8% of the total student population experiencing poverty (“School Diversity in NYC”, n.d.). In terms of specific student demographics, 40.1% of students are Hispanic and 71.1% of Hispanic students attend a school where more than 75% of students experience poverty. For students of color, there are 25.5% total students within the system and 67.8% that attend a school where more than 75% of students experience poverty (“School Diversity in NYC”, n.d.). These statistics are essential for school leaders to be aware of and how they may influence other areas of the school dynamic.

For instance, to expand upon and connect back to teacher perceptions, schools that service higher populations of Title I students will often experience increased standardized assessment pressure, which notably negatively impacts both students and teachers (Heilig & Darling-Hammond, 2008; Laughter, 2016; Lomax, West, Harmon, Viator, & Madaus, 1995; Madaus & Clark, 2001). In Laughter’s study (2016), she reveals through one of the teachers’ she interviewed revealed that, “only five years into the

teaching profession, a widespread fixation on standardized testing pushed Francis out of the classroom altogether.” Despite the teacher’s drive to connect to her diverse, minority students, the pressures of standardized testing trumped any opportunity to build the greater sense of collective community that she desired. This anecdote and the empirical research reveal that the expectations for both students and teachers in this type of environment are overwhelming and fuel a sense of constricted hopelessness.

In order to improve this overall situation for teachers and their relationship with students, supports and changes for economically disadvantaged students are warranted and necessary. For instance, allowing teachers the ability to make instructional decisions that would benefit the diverse student population present in their classroom (as with the suggestion for developing a social justice curriculum within Laughter’s study (2016)), not only affords an opportunity to build a better rapport with students and build overall student motivation and engagement, but it also bridges the trust between teachers and their school principal. Moving away from the stifling pressure of testing accountability and looking at the teacher-student relationship as an ever evolving dynamic that needs to be nurtured and accepted for its diversity and uniqueness is essential for building the foundations needed to decrease teacher attrition rates and

The other key factor is the role of the school principal. School leaders need to consider their daily actions and decisions, their leadership styles, their inclusion tactics, their overall competence, the influence of external factors such as testing pressure on each school member, and their understanding of their teachers’ relationships with other members of the school culture to get a better grasp on the reality of how to keep the most vulnerable population wanting to come back to their assignments. Teachers need to

consider their perceptions of their daily interactions and relationships with their students and colleagues to better convey to school leaders what support they need.

Professional development has always been the go-to avenue when it comes educating teachers in need-to know instructional practices and quickly assimilating important educational reform updates, and it certainly has its place here with educating the school culture on trust. Professional development on trust and its effects can help educators better understand what trust means and what it looks like in a school setting. Since the empirical literature has made note that trust can have a myriad of definitions and is overall multifaceted in nature, these professional development sessions should involve educators establishing a uniform standard for interpreting trust in school-level relationships, and steps to solve instances where trust is lost, will ensure that individuals are not only working toward individual success but collective success as well. Just like involving students with making the classroom rules helps teach students ownership, accountability, and responsibility (Nast, n.d), involving teachers' in establishing a collective vision for the school, that involves being unified under trust can lead to a plethora of benefits.

Through this initial discussion of trust, several practices can be implemented that would work toward cultivating and maintain trust and avoiding distrustful scenarios. For instance, designating spaces for conflict-resolution and analyzing instances of breaches of trust is essential for ensuring that trust maintains a positive presence within school institutions. Giving teachers the time and space to feel supported and allow for the opportunity to offer their confidential feelings and perspectives without being concerned that what they say will be used to negatively affect them is important. This could mean

providing and implementing guidance support systems specifically for teachers and school leaders that may involve an outside mediator, if needed. For instance, it is common practice for school leaders to begin and end the year with check-ins with their teachers. This initial meeting designs the goals that school leaders have for their teachers for the year and the end of the year focuses on their lesson evaluations and discussion of whether those goals have been met. To evolve these meetings even further, school leaders could discuss goals that teachers have for their leaders. Developing a clear cut criteria for assessing teacher and school leader competence that both parties have mutually agreed upon and indicated that they would follow can help with the development of a collective trust environment (Deutsch, Coleman, & Marcus, 2006). If that trust is breached, or one of the parties does not keep to their side of the “agreement,” a mediated follow up discussion in the sanctioned designated space can occur.

To assist with nurturing and maintaining collegial trust opportunities, the development of moments for collaboration are imperative. These can include common planning periods and grade/subject team meetings, but it can also go further with the development of professional learning communities (POC). POCs are groups that participate in collaborative inquiry or action research (Dufour & Eaker, 2009a; Dufour & Eaker, 2009b; Hord, 2009). The group itself may designate a specific instructional practice or reform that they are interested in exploring and piloting for their specific school. The group designates an outline of actionable steps and timeline through which to complete these steps by. The aspect of note for these is the idea that all educators are engaged and working toward a collaborative goal. As Hord (2009) emphasizes “they [teachers] assume a focus on a shared purpose, mutual regard and caring, and an

insistence on integrity and truthfulness” (p. 41). Some may feel that the implementation of professional learning communities may threaten the level of authority school leaders have over staff members (Dufour & Eaker, 2009a). But, in reality, this provides a way of delegating some of the many responsibilities that school leader are asked to tackle and encourage instructional autonomy and responsibility on teachers who have traditionally have had little say (Dufour & Eaker, 2009a; Dufour & Eaker, 2009b; Vescio, Ross, & Adams, 2008). Finally, by implementing professional learning communities with the sole focus of improving instructional practice and the overall school culture, the student population will also be positively affected (Vescio et al., 2008). Having these different interventions and structures in place for all key members of the school culture can ensure all variables that can detrimentally impact these members are potentially resolved in real-time.

Recommendations for Future Research

This current study breaches the gaps within prior research as to whether the level of trust in school relationships is an indicator of teacher retention or attrition levels in schools. This development lends itself to some areas to consider for future research. A significant component of teachers’ designated efficacy comes from student achievement levels and performance. It may be interesting to see how students’ achievement in different subject areas can impact the trust between different subject-area teachers, their colleagues, and their school leaders, mainly because this study was not able to determine either variables’ influence (student achievement or teacher subject area expertise) on trust and retention. Other variables that would be interesting to examine would be school leader gender, school leader race, teacher gender, teacher race, total teacher population,

teacher grade level assignment, principal expertise, teacher expertise, student race, and school type (private, public, charter, etc.). Additionally, examining other public school systems (domestically and internationally), specifically from a location lens would be interesting to explore in future research due to the amount of influence location and their respective trust instruments (if any) would offer another way to validate the results of this current study.

Another aspect to consider, since using past survey results to interpret the modern-day classroom is one of the limitations of this current study, it would be interesting to utilize other instruments that have been analyzed in other studies examining trust in school institutions, such as Hoy and Tschannen-Moran (2003) Omnibus Trust Scale, in real-time. This can add an alternative complexity to the findings of this current study as well as provide for a more modern-day, relevant interpretation.

Finally, in this current study, collective trust is determined from the scores on the NYC School Survey, not the individual actions or decisions from members of the school culture that could be nurturing or hindering trust's development. As aforementioned, since this is a quantitative study, the true complexity of the nature of trust is hard to define with just a series of 14 questions on a survey. In general, there is an overall lack of qualitative data when it comes to studying trust and teacher retention, so a poignant next step in the research would be to conduct a qualitative or mixed-methods study to further confirm or bring into light new findings and interpretations about both phenomena.

Conclusion

Regardless of whether teacher turnover is referred to as the “teacher exodus” (Johnson et al., 2012), a “revolving door” (Ingersoll, 2001), or some other trendy

nickname to express its detrimental and daunting nature, this issue has gone virtually dismissed for decades as a mere casualty of the fact that schools exist. Due to the findings of this study, it is clear that the issue of teacher attrition and its impact can no longer be treated in isolation or be solely linked to superficial school-level variables and characteristics as the only plausible means of a solution. It must be studied as a phenomenon that alters human nature, decisions, relationships, interactions, and experiences.

The only factor that combats or complements the complex nature of teacher attrition is that of trust. Trust, with its myriad of interpretations and effects, posits a potential solution to this decades-old problem. As such, it should be a critical focus of all educational leaders to pinpoint those unique aspects of trust that are either nurturing or hindering collaborative success within school institutions. By doing so, they can determine corrective measures and actions that would ensure this issue is solved once and for all. Imagine if the necessary steps are taken to begin this massive reform, perhaps these issues (and maybe even others) may no longer be, thankfully, a focal point of future empirical research.

Appendix

Teacher-Teacher Trust Questions

- 4c. Teachers in this school trust each other.
- 4d. It's OK in this school to discuss feelings, worries, and frustrations with other teachers.
- 4e. Teachers respect other teachers who take the lead in school improvement efforts.
- 4f. I feel respected by other teachers at this school.
- 4g. Teachers at this school respect those colleagues who have a specific expertise.

Teacher-Principal Trust Questions

- 5a. I feel respected by the principal/school leader at this school.
- 5b. The principal/school leader at this school is an effective manager who makes the school run smoothly.
- 5c. The principal/school leader has confidence in the expertise of the teachers at this school.
- 5d. I trust the principal/school leader at his or her word (to do what he or she says that he or she will do.)
- 5e. At this school, its OK to discuss feelings, worries, and frustrations with the principal/school leader.
- 5f. The principal/school leader takes a personal interest in the professional development of teachers.
- 5g. The principal/school leader looks out for the personal welfare of the staff members.
- 5h. The principal/school leader places the needs of children ahead of personal interests.
- 5i. The principal and assistant principals function as a cohesive unit.

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