2020

TEACHER TRUST IN THE PRINCIPAL: DOES IT IMPACT ACHIEVEMENT FOR STUDENTS WITH DISABILITIES AND ENGLISH LANGUAGE LEARNERS?

William Fahey

TEACHER TRUST IN THE PRINCIPAL: DOES IT IMPACT ACHIEVEMENT FOR STUDENTS WITH DISABILITIES AND ENGLISH LANGUAGE LEARNERS?

A dissertation proposal submitted in partial fulfillment

of the requirements for the degree of

DOCTOR OF EDUCATION

to the faculty of the

DEPARTMENT OF ADMINISTRATIVE AND INSTRUCTIONAL LEADERSHIP

of

THE SCHOOL OF EDUCATION

at

ST. JOHN'S UNIVERSITY

New York

by

William J. Fahey

Date Submitted: November 19, 2019 Date Approved: January 31, 2020

William J. Fahey

Dr. Rene S. Parmar

ABSTRACT

TEACHER TRUST IN THE PRINCIPAL: DOES IT IMPACT ACHIEVEMENT FOR STUDENTS WITH DISABILITIES AND ENGLISH LANGUAGE LEARNERS?

William J. Fahey

School improvement continues to remain a focus across the nation as evidenced in the U.S. Department of Education Performance Plan (2017) and the Every Student Succeed Act (ESSA). Achievement gaps continue to exist for certain populations, specifically Students with Disabilities (SWDs) and English Language Learners (ELLs). Building on the school improvement research of Bryk, Bender-Sebring, Allensworth and Luppescu (2010) and the relational trust research of Hoy and Tschannen-Moran (1998, 1999, 2003), this research study examined the relationship between teacher-principal trust items on the NYC School Survey and student achievement on state assessments over a four-year period for four student sub-groups: All Students, SWDs, Current ELLs, and Ever ELLs (also known as Former ELLs). The study sample included public schools located in Queens County, New York. This county was selected due to its diverse ethnic and socio-economic population, increasing the generalizability to other urban school districts. For inclusion in this study, schools had to have test results on the Grade 3-8 ELA and Mathematics assessments plus survey results from the NYC School Survey for all years of this study. After excluding schools without NYS Grade 3-8 test data for all years of this study and the elimination of secondary (6-12) and high schools (9-12), 237 schools remained. All NYS Test Data and School Survey data were obtained from public files on

the NYC Department of Education website. Survey items were aligned to the principal trust behaviors as defined in The Five Facets of Trust (Tschannen-Moran, 2014). For each year of this longitudinal study, a correlation analysis was conducted to determine the relationship between the nine teacher-principal trust survey items and student achievement (proficiency percentage) on state assessments. Following, a series of regressions were performed to determine the predictability of the collective and individual survey items on student achievement. Survey items were aligned with the Facets of Trust to determine the facet(s) or principal behavior(s) with the most significant relationship and predictability for each sub-group. This information will be used to inform the leadership development of principals that improve student-school outcomes and narrow the achievement gap.

DEDICATION

In loving memory of my mother,

Catherine R. Fahey

I want to thank my family and extended family for always providing encouragement and understanding. A special thank you to my dad and mom, for their unconditional love, support, and the gifts of faith and prayer. To Danny, Debbie, Annmarie, Anthony, Kristen, Nicholas and Hellen for their patience and understanding throughout my doctoral journey and for always being there for me in times of joy and sorrow. To Melinda and Dolores for being my friends through life. To Dr. Philip A. Composto for his kindness, support, and flexibility throughout my doctoral journey. To Kathy for getting me through difficult days with laughter and wisdom. A special thank you to my godparents, Aunt Peggy and Uncle Tom and my Confirmation sponsor and his wife, Uncle Tom and Aunt Marie for always being there and treating me like their own child.

Last, but certainly not least, I pray for those who have gone before me and whom I carry in my heart each day: My mother Catherine, grandmother Christine, Aunt Rose, Paul, Tommy, and Aunt Susie. Each of these individuals has served as a source of inspiration.

ACKNOWLEDGEMENTS

This research study would not have been possible without the support, guidance, assistance, encouragement, and inspiration of many people.

I sincerely appreciate all my professors at St. John's University, Jamaica, New York for sharing their knowledge and engaging our cohort in assignments that supported our learning and prepared us for the work required to complete the dissertation process. To Dr. Rene Parmar for sharing her knowledge, keeping me focused and mentoring me through my dissertation. Most importantly, I have appreciated her support and admired her commitment to scholarship.

I would also like to acknowledge my fellow District 30 Cohort members: Tanicia, Nancy, Naomi, Suzan, Crystal, and Jasmin for their friendship and support.

TABLE OF CONTENTS

DEDICATION……...……..……..ii

ACKNOWLEDGEMENTS ……..……..…….....iii

LIST OF TABLES……..…….....vi

CHAPTER 1: INTRODUCTION……..1

Purpose.……..……..4

Significance of the Study…….5

Research Questions……..6

Theoretical/Conceptual Framework…….……6

Definition of Trust Within the School Context ……...8

CHAPTER 2: Review of Related Research…….10

The School Improvement Model (Bryk et al) ……...10

The Relational Trust Model (Tschannen-Moran et al)……..18

The Faculty Trust as an Individual Feature and Collective Feature……..21

Trust and Administrative Structures……..26

Need For the Present Study……29

CHAPTER 3: Method……..30

Hypotheses…….. ……..30

Research Design and Data Analysis……..31

Sample……32

Instruments…….34

Validity and Reliability of State Assessment……...……..36

Validity and Reliability of the NYC School Survey……..37

Procedures…….....41

CHAPTER 4: Results and Findings……43

Hypothesis 1: All Enrolled Students…….44

Linear Regression for ELA Scores (All Students)…….45

Correlation for Math Scores (All Students)……...47

Linear Regression for Math Scores (All Students)……..……..…49
Hypothesis 2: Students with Disabilities………………………………...51
Linear Regression for ELA Scores (SWD)………………………52
Correlation for Math Scores (SWDs)…………………………....53
Linear Regression for Math Scores (SWD)……………….……..55
Hypothesis 3: Students Who Are Current ELLS………………..….........57
Correlation for ELA Scores (Current ELLs) …………...……….57
Linear Regression for ELA Scores (Current ELLS)……………..58
Correlation for Math Scores (ELLS)……………………………60
Linear Regression for Math Scores (Current ELLS)…………….61
Hypothesis 4: Ever-ELLS Subgroup………,,.…………...63
Correlation for ELA Scores (Ever-ELLS).……… ……………...63
Linear Regression for ELA Scores (Ever-ELLS)………………..65
Correlation for Math Scores (Ever-ELLS).……… ……………..66
Linear Regression for Math Scores (Ever-ELLS)……………….68
CHAPTER 5: Summary/Discussion…………………………………………….…...69
Limitations……………………………………………………..............73
Implications to Practice………………………………………………..74
Implications for Future Research……………………………………...75
APPENDIX 1 Framework for Great Schools…………….…………………………..76
APPENDIX 2 Five Facets of Trust………………………………………….........77
APPENDIX 3 Demographics of Schools in this Study, By Year, 2015-2018…............78
REFERENCES ………………………………………………………………..........102

LIST OF TABLES

Table 1.1 Five Facets of Trust as Defined by Tschannen-Moran (2014)……9

Table 2.1 Mintzberg's Five Organizational Structures (Lunenburg, 2012) ……..27

Table 3.1 Queens School District Demographic Composition for schools included in this study……..……..33

Table 4.1 Correlation Among the Nine Trust Items and NYS ELA Scores by Year – All Students ……..…….45

Table 4.2 Linear Regression Coefficients for ELA Score Predictors by Year– All Students ……...47

Table 4.3 Correlation Among the Nine Trust Survey Items and NYS Math Scores – All Students.……...48

Table 4.4 Linear Regression Coefficients for Math Score Predictors – All Students…….....50

Table 4.5 Correlation Among Nine Trust Survey Items and NYS ELA Scores– SWDs…….……...…..…….....51

Table 4.6 Linear Regression Coefficients for ELA Score Predictors by Year– SWDs…….53

Table 4.7 Correlation Among the Nine Trust Survey Items and NYS Math Scores by Year–SWDs……...……..……..…….....54

Table 4.8 Linear Regression Coefficients for Math Score Predictors – SWDs..…...56

Table 4.9 Correlation Among the Nine Trust Survey Items and NYS ELA Scores by Year– Current ELLs……..…….58

Table 4.10 Linear Regression Coefficients for ELA Score Predictors–Current ELLs…….....60

Table 4.11 Correlation Among the Nine Trust Survey Items and NYS Math Scores – Current ELLs……..…...61

Table 4.12 Linear Regression Coefficients for Math Score Predictors by Year–Current ELLs ……63

Table 4.13 Correlation Among the Nine Trust Survey Items and NYS ELA Scores – Ever-ELLs……..……64

Table 4.14 Linear Regression Coefficients for ELA Score Predictors–Ever ELLs……...66

Table 4.15 Correlation Among the Nine Trust Survey Items and NYS Math Scores– Ever-ELLs……...……...67

Table 4.16 Linear Regression Coefficients for Math Score Predictors–Ever ELLs……...68

CHAPTER 1

INTRODUCTION

The U.S. Department of Education Performance Plan (2017) has priorities that are currently in place to outline steps toward making a high quality education a reality for the nation. Specifically, education goal number two states "Improve the elementary and secondary education system's ability to consistently deliver excellent instruction aligned with rigorous academic standards while providing effective support systems to close achievement and opportunity gaps, and ensure all students graduate high school college-and-career ready" (U.S. Department of Education, 2017, p. 24). Objective 2.2 specifically addresses the need to have effective teachers and strong leaders, while Objective 2.3 addresses school climate and community. Objective 2.4 speaks to the need to turn around schools and close achievement gaps. As part of the explanation and analysis of progress under this goal, the U.S. Department of Education recognizes that school and classroom climate are an "essential pre-condition to scalable improvements in the academic achievement, social emotional wellbeing, and college and career readiness of American public school students" (U.S. Department of Education, 2017 p. 34). School climate has been determined to have a positive or negative impact on the learning environment that influences student learning. When school leaders cultivate a positive school climate, these environments possess high levels of trust that are associated with high student achievement (Friedberg, 1998; Goddard, Tschannen-Moran, and Hoy, 2001; Tschannen-Moran, 2014).

This proposed research study intends to build upon the research from the Chicago Consortium on School Research outlined in "Organizing Schools for Improvement:

Lessons from Chicago" by Bryk et al. (2010). As a result of studying successful schools, the authors identified Relational Trust as a key lever for leaders to use across their school communities around five organizational features that they identified as Leadership as the Driver for Engagement Change, Strong Parent-School Community Ties, School Learning Climate, Professional Capacity and Instructional Guidance. Their research posited that for all elements to function effectively, an overall environment of trust must exist. They asserted that if there is a breakdown in even just one element, it negatively impacts all others.

Extending their research, Bryk and Schneider (2003), conducted a longitudinal study of 400 Chicago elementary schools. This qualitative research study sought to understand social trust in terms of the factors that shape it and the benefit(s) it produced. They noted that in a relationship each party maintains an understanding of obligations, in terms of their own and that of the other person (Bryk & Schneider, 2003). Within such interactions the involved parties are continuously discerning the intentions of the other parties' actions which involve one's own interests, self-esteem, moral obligations for the education of children, the history of previous interactions, general reputation of the other and/or commonalities of race, gender, age, religion or upbringing. Overall the discernments involve four specific considerations: respect, personal regard, competence in core role responsibilities, and personal integrity. The research study showed the significance that relational trust played in building effective school communities. Benefits included generation of school-wide resources and collective decision making that led to greater buy-in and a reduced sense of risk linked to change that ultimately increased the likelihood of diffusion of reform initiatives across the school. Additionally,

relational trust also supports the moral imperative of school improvement. When individuals have a moral purpose in doing what is right for students, it leads to action of those individuals to make changes to reform and improve student learning that ultimately impacts their achievement.

In 2014 New York City, the largest school district in the nation, adopted and adapted the elements defined by Bryk et al. (2003) under what was termed the Framework for Great Schools. New York City continues to use the Framework for Great Schools as the guiding structure for school improvement. It is important to note that at the heart of Chicago's Consortium's work, and that of the work from New York City, was a focus on increased student achievement. Another equally important note is that trust is an overarching element that surrounds the five organizational elements: supportive environment, rigorous instruction, collaborative teachers, effective school leadership, and strong family-community ties. The illustration of the Framework is in Exhibit 1.

This proposed study will examine the relational trust between teachers and their principals and the relationship between trust and the achievement outcomes of English Language Learners (ELLs) and Students with Disabilities (SWDs). These two sub-groups continue to have significant achievement gaps when compared to their non-classified peers, specifically on Grade 3-8 state exam scores in English Language Arts (ELA) and Mathematics.

In this proposed study, the sample of teacher respondents will be obtained from a population of large urban public schools located in the northern part of one county in the northeastern United States. Included will be all public schools in the northern part of one

county that administered the state exam. This proposed study will use a quantitative approach to analyze the significance and strength of the relationship between teacher-principal trust and student sub-group achievement. Student achievement information will be extracted from state reports, aggregated as the school level proficiency percentages from the Grade 3-8 state English Language Arts and Mathematics exams. The principal-teacher trust information will be extracted from the Teacher-Principal Trust section of the 2018 School Survey administered by the school district's central office. All survey items were aligned to the Five Facets of Trust (Tschannen-Moran, 2014) as displayed in Table 2.1 on page 16.

Purpose

The primary purpose of this proposed research study is to identify the facet of trust between the principal and teachers that has the greatest impact on student achievement and organizational growth and success, specifically for sub-groups of students at risk for school failure due to background characteristics of special education needs and low English language proficiency. This topic was chosen because of the emphasis on equity and excellence for closing the achievement gap outlined in the Every Student Succeed Act (ESSA). The research of Bryk et al. (2010) identified elements that drive school improvement: Rigorous Instruction, Supportive Environment, Collaborative Teachers, Effective School Leadership, Strong Family-Community Ties and a sixth element, called "Trust" that works to enable the others. Bryk et al. (2010) posited that the elements work in tandem with trust and correlate to student achievement. Their research asserted that all elements are interconnected and that a weakness in even one element, limits student

growth. Trust was identified as an overarching element that supports and impacts all other elements of the framework (Bryk et al., 2010).

Significance of the Study

The focus on school accountability at the federal level heightened in 1989 when former President H.W. Bush met with state governors. At that time, 45 states published report cards on schools, with twenty-seven states rating schools or identifying low performing schools. Since then, there has been increased federal accountability placed on schools. In 1994, the Clinton Administration implemented Goals 2000: Educate America Act. This act was primarily associated with increased standards for students. In 2002, this was followed by the implementation of the No Child Left Behind Act (NCLB) that focused primarily on school level accountability. This law required states to test students in reading and mathematics in grades three through eight and at a minimum, one high school grade. NCLB required states to define what it meant to be proficient on state assessments and evaluate schools in aggregate and by sub-group, with the progress of students advancing toward the ultimate goal of 100% proficiency by 2014. In 2009, the Obama Administration signed into law the American Recovery and Reinvestment Act of 2009 (ARRA). This act laid the foundation for education reform and supported investments in innovative strategies to advance student and school outcomes. In 2015, President Obama reauthorized the 50 year-old Elementary and Secondary Education Act (ESEA) and renamed it the Every Student Succeed Act. This is the nation's education law and commitment to ensure schools provide equal opportunities for all students and success for schools. ESSA requires, for the first time, that all students in America be taught to high academic standards and measured by annual assessments given in each

state. These assessments maintain an expectation of accountability and action intended to effect positive change in the nation's lowest performing schools, where groups of students are not making progress, and where graduation rates are consistently low.

Research Questions

(1) How does the construct of "**trust"** between teachers and principals affect student achievement?

(2) What is the component of **"trust"** between teachers and principals that has the greatest impact on student sub-group achievement, specifically Grades 3-8 English Language Arts (ELA) and Mathematics state assessments?

Theoretical/Conceptual Framework

In 1935, Kurt Koffa, a founder of Gestalt psychology, stated that groups were dynamic wholes with varied levels of interdependence among its individuals. This was followed by Lewin (1947) who proposed that the essence of a group is the interdependence among members' goals. Morton Deutsch, a student of Lewin extended this notion into studying cooperation and competition theory.

In 1956, Morton Deutsch, a social psychologist, joined Bell Telephone Laboratories, where he conducted social psychological research to understand personality development, social life, interpersonal bargaining and small group processes. Essential to this work was his quest to understand and find a definition for trust. In this journey to define trust, he examined social psychology texts of the time and discovered that trust did not appear to be contained in indexes or defined in the literature. This prompted Deutsch to conduct experimental research on the concept of trust which he then reported in a research article entitled, Trust and suspicion (Deutsch, 1958). In this research, he began

to establish a definition of trust using dictionary definitions that included such terms as: confidence, assured reliance and assured anticipation. Their use varied from reference to weather, to schedules, animals and human beings. He noted that one element contained in the varied usage of the word, contained the commonality of expectation or predictability. Not satisfied trust was solely predictable, he examined trust in varied contexts.

In Deutsch's (1958) research study where he conducted laboratory experiments with participants unknown to each other, he examined the behaviors of participants as they engaged in mixed-motive games in an attempt to determine the conditions and concepts the comprise trust. From this experiment, Deutsch found that trust was inferred by one player to another when one player made a move that was associated with an impending loss if the cooperative behavior was violated by their opponent, rather than a probable gain if both players worked cooperatively. This indicated that in order for trust to be extended there must be a sense of vulnerability between one individual to another. As a result, he determined that trust was comprised of predictability, motivational relevance and a sense of vulnerability.

Building upon this Deutsch research of human interaction, Dale E. Zand, a professor at NYU Steinhardt Business School, examined this concept of "trust". Zand (1971), concluded that an individual's actions that increased one's vulnerability to another was when one person was dependent upon the actions of the other person, particularly if the penalty one suffered was greater than the benefit one gained if the other person did not abuse the vulnerability or cooperated with the other person.

Researchers who look at schools as organizations, use this social and human psychology research as the foundation for their definitions of trust and its related aspects. The more current school-related research of Hoy and Tschannen-Moran (Tschannen-Moran and Hoy (1998), Bryk and Schneider (2002), and Bryk et al. (2010) that will be used to present the basic concepts and definition of trust that is commonly used in educational research and will be the foundation for this proposed research study. Tschannen-Moran and Hoy's (1998) research on the conceptual and empirical analysis of trust in schools and their subsequent multidisciplinary analysis of the nature, meaning, and measurement of trust helped to identify and more clearly define what is meant by "trust".

Definition of Trust Within the School Context

Five Facets of Trust

The work of Hoy and Tschannen-Moran (1998) helped to further clarify the meaning of trust and their subsequent work, Hoy and Tschannen-Moran (1999), helped to unpack the elements, referred to as facets of trust. This theoretical framework expands to the more current research work of Hoy and Miskel (1996) to understand organizational behavior in schools by understanding the school as a social system. Hoy and Miskel (1996) explain four internal process elements of social systems: individual, structure, cultural and political. This brings us full circle and back to the Tschannen-Moran's Five Facets of Trust outlined and defined in Table 2.1 (Tschannen-Moran, 2014. p.39) below and indicated and attached in Exhibit 2.

Table 1.1

Five Facets of Trust as Defined by Tschannen-Moran (2014), p. 39.

Five Facets of Trust	Definition
Benevolence	Caring, extending goodwill demonstrating positive intentions, supporting teachers, expressing appreciation for faculty and staff efforts, being fair, guarding confidential information
Honesty	Showing integrity, telling the truth, keeping promises, honoring agreements, being authentic, accepting responsibility, avoiding manipulation, being real, being true to oneself
Openness	Maintaining open communication, sharing important information, delegating, sharing decision making, sharing power
Reliability	Being consistent, being dependable, showing commitment, expressing dedication, exercising diligence
Competence	Buffering teachers from outside disruptions, handling difficult situations, setting standards, pressing for results, working hard, setting an example, problem-solving, resolving conflict, being flexible

Research from schools in a variety of settings confirms that all of these factors are important aspects of trust relationships in schools (Forsyth et al., 2011; Tschannen-Moran and Hoy, 2000; Van Maele et al., 2014).

CHAPTER 2

REVIEW OF RELATED RESEARCH

The School Improvement Model (Bryk et al)

Bryk and Schneider (2002) identified four dimensions or criteria on which they based their measure of relational trust. The four dimensions include: respect, competence, personal regard for others, and integrity. To further strengthen this proposed research study, other quantitative studies related to trust were examined. For example, in the longitudinal research conducted by Bryk et al. (2010), the study revealed that when schools were given strong supports in School Leadership alone, reading scores increased 32% and when there were strong professional relationships (which included trust) focused on curricular alignment, it resulted in a 48% increase in reading and 44% in math scores.

In the research of Whalstrom and Seashore-Louis (2008) they sought to examine the factors that are frequently present in principal-teacher interactions and teacher-teacher relationships to determine how those factors impact teachers' instructional practices. In examining how teachers perceived principal leadership in their roles of professional communities they examined the factors of trust, efficacy, and shared responsibility. They used a survey containing five items related to the factor entitled, *Principal-Teacher Trust,* and five items related to the factor entitled, *Shared Leadership Among Principal and Others*. Data for this study were from a teacher survey developed for the national research project, Learning from Leadership. In total, 4,165 surveys were completed that reflected responses from teachers in a sample of 138 K-12 schools in 39 districts from across the United States, representing a 67% response rate. Teachers responded to a six-

point Likert scale for each survey item. Principal leadership behavior examined two variables that included trust and sharing of leadership. Principal Trust examined teachers' trust in the principal using five survey items that included:

a- I discuss instructional issues with my principal(s).

b- School's principal(s) develop an atmosphere of caring and trust

c- School's principal(s) gives you individual support to help you improve your teaching practices.

d- School's principal(s) models a high level of professional practice.

e- School's principal(s) encourages collaborative work among staff.

Shared leadership included six survey items:

a- The department chairs/grade level team leaders influence how money is spent in this school.

b- Teachers have an effective role in school-wide decision making

c- Teachers have significant input into plans for professional development and growth.

d- School principal(s) ensures wide participation in decisions about school improvement.

e- How much direct influence do students have on school decisions?

f- How much direct influence do school teams have on school decisions?

Using a conceptual framework that utilized the above components of effective schools, a stepwise Linear regression was used to determine the effects of the three instructional practices (DV): Standard Contemporary Practice, Focused Instruction, or Flexible Grouping Practices. The first step of the analysis included the two leadership behavior

variables of Principal Trust and Shared Leadership. The second step included the four teacher professional relationship variables of Reflective Dialog, Collective Responsibility, Deprivatized Practice and Shared Norms. The third step analyzed the moderating variables of individual characteristics that included: race, gender, years of teaching, and individual efficacy/competence. To evaluate the school level (elementary, middle or high school) affects the influence of leadership on teacher practices, separate analyses were conducted by performing nine additional regressions. The researchers' findings indicate that the effects of principal leadership on instruction are relatively weak for two instructional practices Standard Contemporary Practice and Flexible Grouping Practices. Conversely, with the Focused Instruction practice that emphasizes rapid pacing and focus, student discovery and teacher-guided instruction findings indicate a correlation to teacher-principal relationships. The two leadership variables showed standardized coefficients over .2 and achieved an R^2 of .14. When the teacher-teacher variables were added it increased the R^2 to .20. Shared Norms exhibited a large standardized regression coefficient (ß = .29). The Deprivatized Practice variable was the only variable that was not significant (p = .297). When individual characteristics were added to Focused Instruction the R^2 increased to .40, with a strong correlation to Efficacy/Competence (ß = .48). The addition of the individual variables also reduced the importance of Reflective Dialogue among teachers to be insignificant (p = .262), however the leadership variables of Collective Sense of Responsibility and Shared Norms remained significant (p = .000) for both. Principal-teacher trust revealed a stronger relation to instruction in middle schools (p = .01) and shared-leadership was more important in relation to instruction in high schools (p = .00). The overall research

indicated that teachers' trust in the principal becomes less important when shared leadership and professional community are present. Self-efficacy was a strong predictor of Focused Instruction, with less value for other measures of instructional behavior. Individual characteristics of teacher gender and years of experience indicated that they have a clear impact on instructional practice, although there did not appear to be any pattern that indicated the level of the principal (elementary or secondary) had influence on teacher instructional practices.

Overall, this research revealed that mutual trust and influence among adults schools, whether leaders or peers, will improve instructional practices and improve student learning. However, trust was only significant in the Focused Instruction practice. The researchers, Wahlstrom and Seashore-Louis, contend that this may be due to the complex nature of trust. They posited that "trust in the principal by the teacher is often a diffuse element of the school's environment; the principal may be perceived as caring about and supportive of good instruction but may still not have much to say about the deliberate strategic choices that teachers make when designing or changing classroom practices. In other words, trust in the principal's instructional support may reflect a passive rather than an active form of leadership" (Wahlstrom and Seashore-Louis, 2008 p. 482). They posited, "Teachers still have Ultimate control over how they spend time with their students. Understanding how leaders may influence those private choices will be the key to linking effective leadership with quality instruction." In conclusion, they stated that more information is needed about the specific things that principals do to share leadership and create trust and point to the work by Tschannen-Moran (2004b).

In this work, Tschannen-Moran (2004b, p. 198) implied that trust among teachers may be more significant to stimulating changes in teaching practices than does having a trusting relationship with the principal, although a trusted leader is a foundation for creating other forms of trust that allow the school to allocate resources more effectively and be successful.

In the research study conducted by Goddard et al. (2009), these researchers sought to expand the connection between trust and academic achievement by testing the relationship and analyzed whether the links between academic achievement, socioeconomic status (SES), and racial composition are mediated by the levels of trust teachers report in students and parents. In this study, schools were systematically randomly selected and stratified by location, prior achievement, SES and size to ensure representation of all traditional public elementary schools across the state of Michigan. Teachers responded to surveys measuring the level of trust in their school. A path analysis was conducted at the school level to model variation in trust and the proportion of students passing the state mathematics and reading assessments. Of the 1,659 traditional public schools, 150 sample schools were divided into 15 replicates or samples of the entire state, with 10 schools in each to allow for uncertainty in school response rates. A total of 130 schools, 13 of the 15 replicates were contacted with 80 schools that completed the surveys; representing a response of 62%. Two schools were eliminated from the sample because of insufficient survey responses associated with those schools. In the remaining schools, weights were created to adjust for non-responses at the school level. The weights were calculated as the inverses of the estimated response propensities from a logistic regression that used stratification variables as controls. Two of the 78

schools had excessively large weights that were trimmed down to the next highest school weight to avoid negligible effects on point estimates for survey variables. Using these weights, the measure of trust and all quantitative analyses were performed. A 14 item scale was used to measure trust that used the conceptual framework of Bryk and Schneider (2002) and Baier (1986) that was a subset of items used by Goddard et al. (2001). Teachers responded to each survey item that used a five-point Likert-type scale (1 = strongly disagree, 5 = strongly agree). Approximately half the teachers from each school responded to a survey containing 14 trust items, while the other half responded to a different survey. Data on school SES, geographic location, size and achievement were obtained from the Michigan state department of education. School level achievement was measured as the proportion of students who passed the state mandated fourth grade mathematics and reading assessments, with the results from one year prior that served as a control to achievement, representing previous levels of achievement in the sampled schools. All variables used in the analyses were standardized (M = 0, SD = 1). Path analysis was used because the conceptual framework model involved several structural relationships. In addition, the path analysis provided the ability to estimate the indirect effects of school disadvantage on academic achievement through trust. Since data was cross-sectional, the existence of any relationship would not indicate the causal direction. The statistical controls for school context and prior achievement minimized the possibility that any relationship between trust and current achievement would be a product of prior achievement. Four linear regression models were used, two to predict trust and two to predict student achievement in reading and mathematics. In the regressions to predict trust, one controlled for reading and the other for mathematics. In

the two regressions to predict student achievement, the two variables included: measures of school context and school size. The measures of school context included two proportional variables representing demographic characteristics of the student body using the percentage of students receiving subsidized lunch and racial composition, and the proportion of students passing mathematics and reading assessments in the prior year. The factor analysis that was conducted on the 14 trust items in the survey instrument produced a single factor with an eigenvalue of 9.210 explaining 68.05% of the total item variance and had a strong Cronbach's aloha value of .960. A hierarchical linear model was used to produce an intra-class correlation coefficient for the measure of trust that indicated that 47% of the variance in trust was correlated with school membership ($X^2 = 554.76$, $df = 77$, $p < .001$). In contrast, mathematics and reading achievement had between-school variance components of 14.3% and 12.3%, respectively. These results indicate that the proportion of variance in trust associated with school membership is approximately three to four times greater than academic achievement measures used to determine school effectiveness under NCLB. All of the independent variables for predicting trust were significantly associated with the level of trust in schools as identified by the specific effect sizes detected in terms of standard deviations for math and reading, respectively. Trust was significantly associated with school size (-.22 SDs and -.20 SDs), the proportion of students receiving subsidized lunch (-.51 SDs and -.50 SDs), the proportion of students of color enrolled (-.36 SDs and -.38 SDs) and prior mathematics achievement (.20 SDs) and reading achievement (-.14 SD), explaining between 71% and 77% of the total variance in trust. Furthermore, the results revealed a strong, positive, statistically significant relationship between trust and school

achievement in reading and showed that several dimensions of school context were significantly associated with trust.

In the second regression for path analysis, variables were included in stages, allowing the isolation of the impact that individual variables had in the regression. The inclusion of variables was done based on theory. The first stage included school-level controls for school size, prior achievement, and the proportion of students receiving subsidized lunch. Since the correlation between SES and students of color was .573, these were entered as separate models to protect against multicollinearity and obfuscating that they related to mathematics and reading achievement prior to the consideration of the influence of trust. As reported by the researchers, but not evident in research results, in the first model, SES was significantly and negatively related with mathematics and reading achievement, however, when the proportion of students of color were added in the second stage, the SES factor was marginally significant. In the third and final stage of the analysis, trust as a predictor of achievement was added. After controlling for the measures of school context, faculty trust significantly and positively predicted mathematics achievement (.39 SDs) and was a moderate predictor of reading achievement (.28 SDs) based on the fourth grade results. School-level prior achievement was positively correlated with achievement in mathematics (.43 SDs) and reading (.47 SDs). These results provide evidence that trust is related to achievement in schools. Additionally, when the effect of trust was estimated in their Model 3, SES and the proportion of students of color were no longer statistically significant predictors of student achievement. The negative relationship between school disadvantage and achievement in mathematics and reading appears to have been mediated by the level of

trust in schools, an indirect effect. After controlling for trust racial and economic disadvantage, although not directly related to mathematics and reading achievement they directly associated with trust which strongly predicted achievement. The indirect relationship indicates that achievement was lower in disadvantaged schools and those schools had lower levels of trust, positioning trust as a mediator of the relationship between school disadvantage and academic achievement. Overall, these results show that trust is strongly and negatively associated with racial composition, SES disadvantage and school size. Even after accounting for the influence of these and other aspects of school context, trust was a strong independent predictor of academic achievement. (Goddard et al., 2009)

The Relational Trust Model (Tschannen-Moran et al)

In the 1980s, trust began to be explored as a critical ingredient to effective schools. Hoy and Kupersmith (1985) noted that there was not a clear or comprehensive operational definition of trust in the context of school settings. As a result, they developed a new measure of faculty trust that encompassed three referents: faculty trust in the principal, in colleagues and in the school organization. Through this research, the authors found that the three referents of principal behavior and faculty collegiality correlated to effectiveness and faculty trust in colleagues. When a regression analysis was done it indicated that trust in colleagues had a significant relationship, indicating that trust was a more significant factor in contributing to organizational effectiveness.

In a research study conducted by Tschannen-Moran (2004), the sample was comprised of principals and teachers from 66 middle schools from urban, suburban and rural areas of Virginia to ensure a diverse sample of schools were represented. Surveys

were administered to teachers during routine faculty meetings scheduled at each of the schools, using the twenty-six item Faculty Trust Scales (FTS), with three subscales: Faculty Trust in the Principal (8 items), Faculty Trust in Colleagues (8 items) and Faculty Trust in Clients (10 items related to students and parents). The reliabilities of the three subscales ranged from .90 to .9, with Factor analytic studies of the FTS that supported the construct validity of the measures. The twenty item Principal Trust Scales (PTS) were administered to principals during the same scheduled meeting time. The PTS measured principal trust using three subscales that included Principal trust in teachers, Principal Trust in students and Principal trust in parents. Both the FTS and the PTS survey scales used a six-point Likert scale that ranged from "strongly disagree" to "strongly agree". The reliabilities of the three subscales ranged from .86 to .87. Student achievement data included eighth grade students English and Math results. Results of a correlational analysis showed that faculty trust in students and parents is strongly related to student achievement in both English (r = .78) and Math (r= .74). Faculty trust in colleagues was moderately related to student English achievement (r = .61 and Math achievement (r = .57). Faculty Trust in the Principal was unrelated to English or Math student achievement (r = .14 and .18, respectively). As a result of this research, Tscahnnen-Moran asserts that the asymmetrical relationships of trust among school constituents and student achievement provoke intriguing questions, particularly concerning the role of the principal in fostering the kinds of trust relationships that facilitate student learning, since in this study faculty trust in the principal was unrelated to student achievement and recommends further exploration of how trust relationships in schools relate to student outcomes Faculty Trust in Clients (r = -.75).

In the research of Tarter, Bliss and Hoy (1989), they surveyed 72 secondary schools in New Jersey and used Hoy and Kupersmith's (1985) trust scales to measure faculty trust in the principal and teacher-teacher trust. The results of this study revealed that there was a correlation between school climate and teacher trust in the principal and colleagues.

According to the work of City et al. (2009), relational trust requires that individuals engage in repeated interaction with consistent norms, processes, expectations and protocols. They further asserted that, "Relational trust does not develop spontaneously in organization… as in schools, the culture works against sustained collaborative work. Trust has to grow out of patterns of practice over time in which people learn that they can depend on each other to behave in predictable ways in high stakes activities." This work is important and confirms the idea that building trust takes time.

In a related study, Tschannen-Moran and Gareis (2015) found that faculty trust in the principal was related to perceptions of collegial and instructional leadership and to factors of school climate, including teacher professionalism, academic press and community engagement. Student achievement was correlated with trust, principal leadership behaviors and school climate. The researchers found that individually collegial and instructional leadership, principal behaviors and school climate made significant contributions to explaining the variance in student achievement and collectively explained 75% of the variance in student achievement. According to the researchers, it suggests that when principals are trustworthy, they set a tone that influences how teachers relate to one another, to students, and the community; all of

which were individually and collectively related to student achievement. The findings from this study reveal the increasing responsibilities of school leadership, specifically fostering trust as a professional responsibility of school leaders. It revealed that trust has both interpersonal and task-oriented dimensions, therefore principals must be prepared to engage collegially with teaches in ways that are consistent in terms of honesty, openness, and benevolence, while also demonstrating instructional leadership that includes decision making based on knowledge and competency with administering academic programs.

The Faculty Trust: As an Individual Feature and Collective Feature

Trust may not only be a feature of an individual teacher, but also a collective feature of teachers that instruct in the same school, faculty trust. In a research study conducted by Van Maele and Van Houtte (2009) in Flanders, Belgium, these researchers sought to explore the extent to which teachers from the same school share a level of trust and examined basic characteristics of the school that included: organizational value culture, size and group compositions. In this study, data was gathered using anonymous surveys obtained from 2,104 teachers in 84 secondary schools in Flanders during the 2004-2005 school year. The sample was obtained using multistage sampling. In the first stage, proportional to postal size postal codes were selected with size defined as the number of schools within the postal code, based on data from the Flemish Education Department. From 240 postal codes, 48 postal codes were selected. In the second stage, all regular secondary schools within these municipalities were asked to participate. The response rate was 31%, equating to 85 schools, representative of the Flemish school population. Principals from the 85 schools completed written questionnaire surveys that provided basic characteristics of their schools. Survey questionnaires for individual teachers'

responses were conducted using the scales developed by Hoy and Tschannen-Moran. In total, 4,260 survey questionnaires were distributed in the schools, which was an overestimation of the actual number of teachers, since some teachers taught both third and fifth-year students (9^{th} and 11^{th} grade US equivalent). In the end, 2,104 questionnaires were returned, yielding a response rate of 49.5%. However, 20% of the teachers in the sample teach both third and fifth grades, it was estimated that only 80% of the distributed questionnaires were distributable, yielding a more likely response rate of about 60%. Although this response rate was not high, the researchers still reached 32% of the whole teacher population in the sample schools. Included in the analyses at the school level, were only those schools where at least five faculty responded. As a result, information from 2,091 teachers across 80 schools was included in the analyses and results. To conceptualize faculty trust, teacher trust was examined using 29 items, with a five-point scale, derived from the trust scales developed by Hoy and Tschannen-Moran (1999). The five point scales measure a general willingness to risk vulnerability in each of the Five Facets of Trust. Survey items were translated to Dutch to measure individual teacher's trust, rather than the measure of the trust of all teachers. A factor analysis with varimax rotation was conducted on all the trust items to determine if individual teachers made a distinction among trust in students, parents, colleagues, and principal (referent groups). Based on a factor analysis on the trust items, four factors with an eigenvalue higher than 1 were identified. Items regarding trust in the principal loaded .71 or higher, whereas trust in colleagues items loaded .70 or higher. For trust in parents, items loaded at a minimum of .48. Seven items measuring trust in students loaded at .44 and three items loaded below .40. The three items did not load higher than .11 on the other three

factors, the researchers chose not to remove them from the composed scale. To better understand the existence of faculty trust, a group feature, an index of mean rater reliability based on the intra-class correlation coefficient (ICC) from a one-way analysis of variance was employed. Findings from this study revealed that faculty trust existed within Flemish secondary schools is legitimate because when the individual measures of the four trust dimensions at the school level were calculated and the mean per school were aggregated, the ICC > .72. This signified that teachers' trust in students, parents, colleagues and the principal was shared at the school level. The means for teacher trust in the four referent groups differed significantly from school to school ($p < .001$), which indicated that between schools each dimension of faculty trust varies in its magnitude. A correlational analysis was conducted to determine the level of interrelatedness of the dimensions of faculty trust. Results indicated that the dimensions of faculty trust were significantly and positively associated with each other, with the exception of faculty trust in parents and the principal. Faculty trust in parents and trust in students were strongly related ($r = .78$, $p < .001$).

Fullan (2003) asserted that in schools, the principal's behaviors and actions are critical in developing relational trust that fosters a culture of trust and that when such behaviors/actions are grounded in moral purpose, it results in constructing a culture that results in the school community working with synergy, both inside and outside the school, to accomplish the work to improve outcomes. Fullan also makes a point that the moral imperative of the principal requires courage and capacity for establishing a culture of disciplined inquiry and action of all individuals within the school community. This proposed research study will be confined to look solely at teacher trust in principals as

perceived by teachers in individual schools (n=169) within the northern part of one county in a large urban school district. Fullan (2003) asserted that since school leaders are in authority and have the ultimate decision making power that their words and actions serve as the role model for new governing values based on the relational trust they have in their school communities. In most school systems, the superintendent of schools is governed by their board of education.

Contradictory Research

In a replication of a research study, Romero and Mitchell (2018), posited "Trust is a key component of successful schools. Although scholars agree that trust is multifaceted, there is less agreement about the number and nature of these factors." In this replication of a research study, they refute claims made by Adams and Miskell (2016) that their Teacher Trust of District Administration Scale provided that trust is a single factor that cannot be unpacked, and that the Romero and Mitchell's three factor theory of trust is invalid. This theory asserts that trust involves discernment of benevolence, competency and integrity. Through their research study, Romero and Mitchell analyzed data provided by Adams and Miskell that was used in the October 2016 issue of Educational Administration Quarterly. Upon review of this article, Romero and Mitchell noted problems in the article at three levels. The first level problem was in the correlation matrix for the data used in the study. Upon taking the data that included 10 item responses from 606 teachers in 72 schools that comprise the Teacher Trust of District Administration Scale, they were unable to reproduce the published model parameters and fit statistics. In the second level problem, even after correcting the reported statistics, they found the methods used to be misaligned with the conclusions

reported. In addition, they reduced the 10 item survey instrument to a 5 item survey instrument, without assessing the reliability of the adjusted survey measurement instrument. In addition, some items were found to be ambiguous. Some educators reported that some of the items included more than one construct or different constructs, whereby affecting the validity of the measurement instrument. At the third level, Romero and Mitchell disagreed with the idea that the model of trust could consist of five facets that were reported in the conclusions to be independent measures of trust components that combine into a single factor and that the sub-factors cannot be modeled. In the published article, a five facet, single-factor model is not aligned with theory. Romero and Mitchell present an alternative second-order model of trust with the three first-order factors that include benevolence, competence and integrity. In their findings, they asserted, that consistent with theory, trust is more appropriately modeled as a multifactor construct in order to have generated more effective implications for actionable research and practice. Such effective implications include the ability to make more specific judgments that will allow for greater ease in diagnosing problems and prescribing interventions necessary for developing, maintain or repairing trust in schools. Romero and Mitchell conclude by asserting that even putting aside mistakes made by Adams and Miskell (2016) their analysis exhibited confirmation bias and ignored counter prevailing evidence at the conclusion of the research. Romero and Mitchell now recognize the tensions between theoretical development of valid constructs and analytical testing of how well constructs fit data sets. Data collected to measure organizational trust parameters revealed that trust is not best modeled as a single factor structure. Trust contains “facets” which are not factors. They see this as an opportunity for instrument

development, making the search for consistent and reliable factor structures a high priority for future work.

Trust and Administrative Structures

In the school district being used in my study, the organizational hierarchy is slightly different from other school systems. In most school systems, the Superintendent is usually the position at the top of the hierarchical structure; however, in the large urban school district being used in this study, the Chancellor is at the top-level, followed by community and high school superintendents. Below this top level are the principals of each building within each district, and beneath the principals are the teaching and support staff. In this hierarchical structure, the ultimate decision making power is not necessarily individual school leaders. Different from corporations, schools are organizations with a mission of service. As such, they are accountable to the government for funding and to parents, as consumers, in the education and care of their children. Therefore, schools require a different organizational hierarchy model than corporations to ensure their ultimate success, student achievement.

Mintzberg (1992), a management theorist, suggested that organizations are differentiated along three basic dimensions. First, the key part of the organization that plays the major role in defining its success or failure. Second, the prime coordinating mechanism which is the major method used to coordinate activities. Third, is the type of decentralization used which includes the extent to which the organization involves subordinates in the decision making process. Using the three basic dimensions, Mintzberg (1992) suggested that the strategy adopted by the organization, and the degree to which it practices the strategy result in five organizational structures: simple, machine

bureaucracy, professional bureaucracy, divisionalized form, and adhocracy described in

Table 2.1

Mintzberg's Five Organizational Structures (Lunenburg, 2012, p. 4)

Mintzberg's Five Organizational Structures

Structural Configuration	Prime Coordinating Mechanism	Key Part of Organization	Type of Decentralization
Simple Structure	Direct Supervision	Strategic Apex (Top Down Management & Direct Supervision)	Vertical and Horizontal centralization
Machine Bureaucracy	Standardization of Work Process	Operating Core	Limited horizontal decentralization
Professional Bureaucracy (Autonomy given to professionals)	Standardization of Skills	Technostructure (Top management is small; few middle managers and generally small technostructure	Vertical and Horizontal decentralization
Divisional Form	Standardization of Outputs	Middle Line	Limited vertical decentralization
Adhocracy	Mutual Adjustment	Support Staff	Selective decentralization

In the early 1900s, Fredrick Taylor's scientific management was applied and implemented in American schools. Today, there continue to be elements of this model that is often evident in many schools, particularly large schools and school districts. This hierarchical model was originally intended to maximize efficiency and productivity through the standardization of labor. In this structure, decision-making is at the top to achieve the organization's goals and follows a type-down management style consistent with the organizational structure of machine bureaucracy. (Callahan, R., 1962)

Leadership theories for schools have emphasized the values of trust and collaboration as necessary to meet the educational goals of the district. "The principal must be able to identify a capable corps of teachers who can act as an academic team or

council to the principal and who have an understanding of content standards and appropriate assessments of progress" (Cross & Rice, 2000, p. 62). School personnel will not be accurate or truthful in their feedback unless they have sufficient trust in their leader with regard to how the information will be received and acted upon.

Even though decisions that affect students can be made at all hierarchical levels in schools, the final decision-making power usually lies in the top administrative levels of organizational hierarchy. In an article by Kelly (2000) on using vision to improve organizational communication, she posits that within organizations there are barriers, such as organizational hierarchy that result in positional status differences between its members affecting organizational communication, that can affect the trust between members. Established levels of trust are important in the relationship between principals and teachers. When trust in school leaders and teachers is compromised, there is an erosion in the relationship between the two parties which impacts school culture and ultimately impacts student learning and outcomes.

Leadership plays an important role in the process of student learning (Blase & Anderson, 1995), and that school principals possess power over teachers that is both formal and informal. Fullan and Quinn (2016) posited that it is important for school leaders to develop a shared moral purpose and a common understanding to attain that purpose, focused on learning and grounded in the belief that all children can learn, regardless of background or circumstance. It is educators that recognize the challenges of educating disadvantaged students that take action to do something positive within their control or influence by continually seeking to improve their own teaching practices. Teachers who are most successful in narrowing or closing the achievement gap believe in

the potential of each child, do not tolerate or make excuses for underachievement, build on children's prior knowledge, make lessons interesting, challenging and relevant, model appropriate behavior and provide frequent, specific, accurate and timely feedback to students. In order for teachers to be most successful school leaders need to act with moral purpose by taking a whole school, strategic approach to addressing the achievement gap between student sub-groups including offering support to teachers and enriched experiences for students (Grigg, 2016a, 2016b). Overall, trust in the principal is considered to, directly and indirectly, benefit both individual and organizational performance in schools. When there is trust among constituents it allows a collective focus on what is important (Forsyth et al., 2011).

Need for the Present Study

The above literature review reveals that while many theoretical frameworks have been forwarded regarding the role of trust as a factor in student achievement, the relationship has not been directly examined. The present study aims to investigate the relationship using student outcome data from high-stakes assessments. Further, the study will examine outcomes for subgroups that have been identified as demonstrating lower school performance than age/grade peers due to mitigating factors, i.e. students with disabilities and students who are English learners. To date, no specific studies have associated trust in school leadership with achievement of the target groups.

CHAPTER 3

METHOD

This research study investigated the relationship between trust, as perceived by teachers, and student achievement. Trust was examined using the nine Teacher-Principal Trust items contained on the results on the NYC School Survey for each school year between from 2015 through 2018. For the sample schools, the positive response percentage for each of the nine trust items was calculated by taking the sum of the Agree and Strongly Agree percentages. The percentage of Positive Responses for each survey item was then correlated to the proficiency rates on the school's Grades 3-8 English Language Arts (ELA) and Mathematics assessments for the corresponding years for four subgroups: All Students, SWDs, Current ELLs, and Ever ELLs (also known as Former ELLs). Each question was aligned to the Five Facets of Trust (Benevolence, Openness, Competence, Honesty, Reliability) based on each definition in Table 1 on page 9. This chapter describes the methodology and procedures used to test the following three hypotheses:

Hypotheses

Hypothesis 1: There is no significant relationship between the overall scores and each facet of teacher-principal trust determined from nine survey items on the NYC School Survey and the percent of students who score at or above proficiency on each of two state assessments: English Language Arts (ELA) and Mathematics.

Hypothesis 2: There is no significant relationship between the overall scores and each facet of principal-teacher trust determined from the nine survey items on the NYC School Survey and the percent of Students with Disabilities (SWDs) who

score at or above proficiency on each of the state ELA and Mathematics assessments.

Hypothesis 3: There is no significant relationship between the overall scores and each facet of principal-teacher trust determined from the nine survey items on the NYC School Survey and the percent of Current English Language Learners (Current ELLs) who score at or above proficiency on state ELA and Mathematics assessments.

Hypothesis 4: There is no significant relationship between the overall scores and each facet of principal-teacher trust determined from the nine survey items on the NYC School Survey and the percent of Ever-ELLs who score at or above proficiency on state ELA and Mathematics assessments.

Research Design and Data Analysis

This study used a non-experimental quantitative approach to analyze the significance and strength of the relationship between teacher-principal trust and student achievement based on NYS proficiency percentages for ELA, Mathematics assessments for each of the four sub-groups: All Students, Students with Disabilities, Current English Language Learners, and Ever-ELLs for each year over a period of four years, from 2015 through 2018. For each school, the mean of the combined ELA and Math assessments for each sub-group was calculated by taking the sum of the proficiency percentages for ELA and Math and dividing by four, representing the four year period (2015-18) of this longitudinal study. This provided the 2015-2018 mean NYS proficiency percentage for the combined ELA and Math assessments. The same mathematical calculation was done

to calculate the mean of the positive responses for each question on the NYC School Survey that provided each survey question's 2015-2018 mean positive response.

Correlational analyses were employed to examine the relationships between the nine teacher-principal survey items on the School Survey and proficiency percentages on the two NYS assessments, individually and the mean for the four year period. Linear regression analyses were conducted to determine the strength and predictability of the independent variables identified as the percentage of positive teacher-principal responses for each of the nine survey item(s). These positive response percentages for each of the nine items were then regressed against each of the proficiency percentages on the two state exams (ELA and Mathematics) for All Students, SWDs, Current ELLs, and Ever-ELLs.

Sample

The sample for this research study, was selected from one borough from the New York City School district. The NYS Education Department considers NYC one school district; however, within NYC, schools are broken into sub-districts. In Queens, there are seven sub-districts that include Districts 24, 25, 26, 27, 28, 29 and 30. Table 3.1 illustrates each sub-district included in this research study, the number of schools in each school type (Elementary, K-8 and Middle). Queens County was selected due to the diverse ethnic and socio-economic diversity of the borough. Since this is a longitudinal study, schools were eliminated from the study if they did not have All Student Grade 3-8 NYS ELA and Mathematics assessment data and NYC School Survey data for all four years. As a result, new schools and/or schools that closed in any of the four years were excluded. Schools classified as K-2 schools were automatically excluded as these

schools do not administer Grade 3-8 assessments. Grade 6-12 schools were also excluded since test data was only available for Grades 6-8 and survey data included teachers in grades 9-12 that had not yet taught students whose Gr, 6-8 state test scores were included. In total, there were 237 schools included in this study: 153 Elementary Schools, 33 K-8 Schools and 51 Middle Schools. All schools included had Grade 3-8 NYS Assessment data in ELA and/or Mathematics and survey data from the NYC School Survey for the entire four-year period, 2015 through 2018. The list of schools included in this study is contained in Exhibit 3.

Table 3.1

Queens School District Composition for schools included in this study

Sub-District	School Type	Number of Schools
24	Elementary	24
	K-8	6
	Middle	7
25	Elementary	22
	K-8	3
	Middle	8
26	Elementary	19
	K-8	2
	Middle	5
27	Elementary	25
	K-8	11
	Middle	9
28	Elementary	25
	K-8	0
	Middle	7
29	Elementary	20
	K-8	7
	Middle	7
30	Elementary	20
	K-8	4
	Middle	8

Queens	Elementary	153
	K- 8	33
	6-8	51

The list of schools within each sub-district ais included by school district: District 24, District 25, District 26, District 27, District 28, District 29 and District 30. These districts represent all community school districts in the borough of Queens serving students in grades Pre-K through eight. Each school is represented with the number of students and the corresponding percentage of students classified in the sub-group categories of All Students, Students with disabilities (SWDs), Current English language learners (ELLs), and Ever ELLs. It is important to note that a student with a disability that is also an English language learner, will be counted separately in each sub-group category.

Instruments

A) State Assessments

To measure student achievement, the test results from the Grade 3-8 New York State English Language Arts and Mathematics assessments will be used. Individual student test results are reported based on the level of proficiency the student scored on each exam based on a four-point scale ranging from Level 1 through Level 4. Below is each level with their corresponding meanings.

LEVELS	MEANING
1	Not Meeting Standards
2	Approaching Standards
3	Meets Standards
4	Exceeds Standards

Test results for schools will be calculated by taking the number of students that meet or exceed standards, divided by the total number of students tested to determine the percentage of students that meet or exceed grade level standards which are also referred to as each school's proficiency percentage. The achievement information will be extracted for each school according to school district (District 24-20, K-8 or Middle). The school level proficiency percentages for all students and the two ELL and SWD sub-groups will be extracted and used as the student achievement data for the focus of this prosed research study.

B) New York City School Survey

The principal-teacher trust information will be extracted from the Teacher-Principal Trust section of the 2018 School Survey administered by the school district's central office.

For this research study, two existing instruments were used: 2018 School Survey and 2018 State Assessments (Grades 3-8 English Language Arts, Grades 3-8 Mathematics. Below is information that describes each instrument in further detail, including the validity and reliability of these instruments.

Validity and Reliability of State Assessments

To measure student achievement for schools, the proficiency percentage was calculated for each of the three assessments by taking the sum of the students that performed at Level 3 plus Level 4. State assessments were developed and used to measure the extent to which students achieved State Learning Standards in specific content areas. These exams were developed according to national and professional standards for educational testing. Since the implementation of the Common Core Learning Standards (CCLS), exams now measure the extent to which students have achieved the CCLS in the specific content areas.

In the state of jurisdiction, the process for ensuring validity for assessments begins with the review of standards and designing test specifications. Following, test items are developed, edited and reviewed with input from educators. Items are then field tested and reviewed according to detailed rubrics. Using field test results, test specifications and statistics, different test forms are created. Subsequent to this work, content specialists conduct a final review. Cut scores, conversion charts, scoring keys and rating guides are created. Tests are administered to students under secure and consistent conditions. Once exams are administered and scored, statewide stakeholders and statisticians evaluate overall scores and determine if cut scores need to be adjusted. Final recommendations are then made to the Commissioner of Education regarding the cut-scores. Once a decision is reached by the Commissioner, a conversion chart is developed and posted on the State Education Department (NYSED) website. (NYSED, 2018).

Validity and Reliability of the NYC School Survey

The School Survey is administered annually to teachers, parents and students in the entire district, covering all counties within its jurisdiction, however, student surveys are only administered to students in grades 6-12. In 2014, the Research Alliance for NYC Schools engaged in a re-design of the NYC School Survey. The focus of the re-design was to more closely align the items contained in the survey with the six elements of the Framework of Great Schools. The Research Alliance's analysis (Brohawn, 2013) was based on the first administration of the new school survey that was administered in the 2014-15 school year. As a result of this analysis, several changes were included in future surveys, beginning with the 2015-16 School Survey. The reliability of the survey assesses the extent to which the survey produced consistent results using Cronbach's alpha using the industry standard of an alpha of .70 or higher as the threshold for sufficient reliability. Since the survey was designed to measure school-level characteristics of individuals' perspectives, the Alliance assessed how well the survey measures are capturing a common school-wide characteristic. The statistic of Intra-Class Correlation Coefficient (ICC), with a scale from 0 to 1, was used to determine if characteristics were school-wide by calculating the amount of agreement between individuals within schools. Higher levels of agreement indicated a greater likelihood of that characteristic being a school-level characteristic. For the NYC School Survey high within-school agreement was considered high when the ICC was above .20, low if less than .10 and moderate if between .10 and .20. To determine the level of precision the NYC School Survey has in predicting other outcomes by examining the level of within-

school agreement and the number of surveys per school. Higher levels of within-school agreement and higher number of surveys in each school indicate greater precision.

The survey instrument was assessed for both construct validity and criterion validity. The construct validity was determined through face validity and content validity. Face validity involved focus groups of stakeholders (teachers, parents, students, and district employees) read survey items and state if they believed it represented the concept of that measure. Content validity was determined when survey items addressed components of the measure using relevant literature. For some measures with limited or no documentation, interviews were conducted with NYC Department of Education officials to determine the components of measures. Measures that had a clear basis in literature and/or clear definition from NYCDOE staff, were determined to have content validity, measures that did not had uncertain content validity. Criterion validity was assessed to determine if a measure had concurrent validity and predictive validity. A measure that positively correlated to another at the same point in time was determined to be conceptually similar, indicating concurrent validity. The Research Alliance calculated the correlation between the school-level average for each measure, across each respondent group, against the school's averages for NYS ELA assessment scores, Mathematics assessment scores, and graduation rates. The Research Alliance had not assessed predictive validity for the new survey in terms of predicting future levels of student achievement and likelihood of school improvement; however, they intend to do so in their next steps of analyses.

For the validity and reliability of the Trust portion of the survey, the Trust element consisted of five measures: Parent-Teacher Trust, Parent-Principal Trust,

Student-Teacher Trust, Teacher-Teacher Trust, and Teacher-Principal Trust encompassing parents, students, and teachers. The Research Alliance's assessment indicated all measures had high reliability with alphas above .70. The within-school agreement varied, with measures reported by teachers (teacher-Teacher Trust and Teacher-Principal Trust) had higher degrees of within-school agreement than student or parent measures. The Teacher-Principal Trust measure had a high level of with-school agreement, while the Parent-Principal Trust measure had the lowest level among all the measures of the Trust element. All measures had face and content validity. NYCDOE staff thought questions covered the suitable topics for the measures. All measures were determined to have concurrent validity and positive correlations with student achievement. The Alliance proposed and the NYCDOE agreed to remove some items from the Trust element to make the survey shorter beginning with the 2015-16 survey. The Alliance's preliminary analysis of the results of the 2016-16 survey indicated that the changes improved the measures within the Trust element. IN addition, based on feedback from the student focus groups, it was suggested that a Student-Principal Trust measure be added, which was not done (Brohawn, 2013).

The NYC School Surveys for the school years ending in 2015 through 2018 all align to the Framework for Great Schools that include six elements: Rigorous Instruction, Collaborative Teachers, Supportive Environment, Effective School Leadership, Strong-Family Community Ties, and Trust. For the purposes of this proposed research study, the element of Trust is being examined, specifically the measure of Teacher-Principal Trust. The NYC School Surveys for 2015 through 2018 each

contained nine items pertaining to this measure of teachers' perceived trust in their principal. The nine items are:

1) T Q1 - I feel respected by the principal/school leader at this school.
2) T Q2 - The principal/school leader at this school is an effective manager who makes the school run smoothly.
3) T Q3- The principal/school leader has confidence in the expertise of the teachers at this school.
4) T Q4 - I trust the principal/school leader at his or her word (to do what he or she says that he or she will do).
5) T Q5 - At this school, it's OK to discuss feelings, worries, and frustrations with the principal/school leader.
6) T Q6 - The principal/school leader takes a personal interest in the professional development of teachers.
7) T Q7 - The principal/school leader looks out for the personal welfare of the staff members.
8) T Q8 - The principal/school leader places the needs of children ahead of personal interests.
9) T Q9 - The principal and assistant principals function as a cohesive unit.

For the year 2015 principal-teacher trust items were located in two sections of the survey in sections sixteen and seventeen. Between questions 2 and 3 there was one additional item. Between 3 and 4, there were two additional items. Between 5 and 6, there were two additional items. Between items 6 and 7 there was one additional item. Between items 7 and 8 there were two additional items. Teachers were asked to respond to items along a six-point Likert scale ranging from Strongly Agree, Agree and Somewhat Agree, Somewhat Disagree, Disagree to Strongly Disagree. For the School Surveys from 2016 through 2018 the items appeared sequentially in one section of the school survey, although in 2015 items were located in section six, while both 2017 and 2018 appeared in section five. School Surveys for the years 2016 through 2018, asked teachers to respond using a four point Likert Scale ranging from Strongly Disagree, Disagree, Agree to Strongly Agree.

Procedures

The achievement results were obtained from the publicly released NYS assessment results available from the school district's website, available for each sub-district and school. Test results for schools were calculated by taking the number of students that meet (Level 3) or exceed standards (Level 4), divided by the total number of students tested to determine the percentage of students that meet or exceed grade level standards which is also referred to as each school's proficiency percentage. The achievement information was extracted for each school. The school level proficiency percentages (Level 3 + Level 4) for the All Student, SWD, Current ELL, and Ever-ELL sub-groups were extracted and used as the student achievement data for the focus of this research study. The proficiency percentages for each school were calculated by taking the sum of the number of students that score level three (meeting standards) and the number of students that score level four (exceeding standards) and dividing by the total number of students that were tested.

The School Survey results were obtained from the publicly available NYC School Survey Archives located at: https://infohub.nyced.org/reports-and-policies/school-quality/nyc-school-survey/survey-archives. For each survey year from 2015 through 2018, each school's teacher response for each of the nine teacher-principal trust survey items was obtained. The Agree and Strongly Agree percentages were added together and the sum labeled as the Positive Response for the respective survey items or each school's Agree and Strongly Agree for each survey year from 2015 through 2018.

The data for each Survey year were then matched to the corresponding NYS Test results for each year (2015-2018). Results were analyzed using the SPSS software to run

multiple linear regressions using each of the nine teacher-principal trust items as the independent variables to the proficiency percentages on the dependent variables of NYS ELA and Mathematics exams, individually and combined, to determine the relationship between each of these results. Once this was completed an Analysis of Variances (ANOVAs) was conducted to determine the strength and predictability that each item from the survey instrument had in predicting student achievement for each of the four student sub-groups: All Students, Students with Disabilities (SWDs) and Current English Language Learners (ELLs) and Ever-ELLs (also known as Former ELLs). The data collected is illustrated in tables and included the analysis included in the Results chapter (Chapter 4).

CHAPTER 4

RESULTS AND FINDINGS

The hypotheses in this study were tested using data from 237 urban schools with diverse ethnic and socioeconomic student populations. All schools included in this research had Grade 3-8 NYS Assessment data in ELA and Mathematics and NYC School Survey data for all four years of this longitudinal study spanning the years 2015 through 2018.

The following Hypotheses were investigated:

Hypothesis 1: There is no significant relationship between each facet of teacher-principal trust determined from nine survey items on the NYC School Survey and student achievement on each of two state assessments: English Language Arts (ELA) and Mathematics.

Hypothesis 2: There is no significant relationship between each facet of principal-teacher trust determined from the nine survey items on the NYC School Survey and the student achievement of Students with Disabilities on state ELA and Mathematics assessments.

Hypothesis 3: There is no significant relationship between each facet of principal-teacher trust determined from the nine survey items on the NYC School Survey and the student achievement of English Language Learners on state ELA and Mathematics assessments.

Hypothesis 4: There is no significant relationship between the overall scores and each facet of principal-teacher trust determined from the nine survey items on the NYC School Survey and the percent of Ever-ELLs who score at or above proficiency on state ELA and Mathematics assessments.

Hypothesis 1: All Enrolled Students

***Correlation for ELA Scores (All Students*)**

A Pearson correlation was computed to assess the relationship between the nine teacher-principal trust items from the NYC School Survey and student achievement (Test Score proficiency percentage of levels 3 + 4) on the NYS ELA exam for the All Student sub-group, by year for the period 2015 through 2018. Table 4.1 summarizes the results.

As reported in Table 4.1, there was statistical significance ($p < .05$) for survey items, Q1, Q2, Q3, Q4, Q5, Q6, Q7 and Q9, with Q1, Q2, Q3, and Q7 showing significance at the .01 level for all four years. These survey items encompass all Five Facets of Trust: Benevolence, Competence, Openness, Honesty, Reliability. Survey item, Q8 connected to the facet, Reliability, showed significance ($p < .05$), except in 2018 where ($p > .05$).

Across the four year period, 2015 through 2018, overall results indicate a weak, but significant positive relationship (with $r = .119$ to $.284$, $n = 237$, $p < .05$,) between Test Scores (DV) on the NYS ELA exam and the nine principal-teacher trust survey items (IVs).

Table 4.1

Correlation Among the Nine Trust Survey Items and NYS ELA Scores by Year – All Students

Survey Item	Facet of Trust	2015 (n = 237) r	p	2016 (n = 237) r	p	2017 (n = 237) r	p	2018 (n =237) r	p
Q 1	Benevolence	.181	.005**	.169	.009**	.239	.000**	.177	.006**
Q 2	Competence	.215	.001**	.228	.000**	.284	.000**	.241	.000**
Q 3	Benevolence	.229	.000**	.172	.008**	.283	.000**	.224	.001**
Q 4	Honesty	.159	.014*	.198	.002**	.251	.000**	.192	.003**
Q 5	Openness	.168	.010*	.163	.012*	.223	.001**	.167	.010*
Q 6	Benevolence	.157	.016*	.141	.030*	.260	.000**	.147	.024*
Q 7	Benevolence	.213	.001**	.203	.002**	.243	.000**	.185	.004**
Q 8	Reliability	.185	.004**	.128	.049*	.245	.000**	.119	.067
Q 9	Reliability	.208	.001**	.181	.005**	.166	.011*	.147	.023*

**significant at the .01 level

* significant at the .05 level

Linear Regression for ELA Scores (All Students)

A series of linear regressions were calculated to predict ELA scores for the All Student sub-group based on the positive response (sum of the percentage of Agree and Strongly Agree) on nine teacher-principal trust survey items.

In 2015, results revealed that a statistically significant association was found ($F(9,227) = 3.207$, $p = .001$, with an R^2 of .113) between ELA scores for the All Student

sub-group and the collective survey trust items. Individual survey items revealed statistical significance for survey items' responses, Q2, (ß = .320, p = .029), Q3 (ß = .423, p =.014) and Q4 (ß = -.574, p =.008). These items connect to the Facets of Trust: Competence (Q2), Benevolence (Q3), and Honesty (Q4).

In 2016, the association between ELA scores for the All Student sub-group was statistically significant (F (9,227) = 2.642, p = .006, with an R^2 of .095) in predicting ELA Scores based on the collective survey items' responses. Significance was noted for individual trust items, Q2 (ß = .452, p = .009), Q7 (ß = .423, p = .032) and Q8 (ß = -.397, p = .039). These survey items connect to the Facets of Trust: Competence (Q2), Benevolence (Q7), and Reliability (Q8).

In 2017, a statistically significant regression equation (F (9,227) = 2.845, p = .003 with an R^2 of .101) was found between the collective survey items and ELA achievement for the All Student sub-group. Individual survey items did not reveal any statistical significance (p > .05) with ELA student achievement for the All Students sub-group.

In 2018, the relationship was statistically significant (F (9,227) = 2.82 p = .003, with an R^2 = .103) for the collective survey trust items. Only one individual trust item showed significance, Q2 (ß = .528, p = .012), relating to the Facet of Trust, Competence.

Based on these results, the null hypothesis was rejected since a significant relationship existed between the principal-teacher trust survey items and ELA achievement for the All Student sub-group in the years, 2015 through 2018.

Table 4.2

Linear Regression Coefficients for ELA Score Predictors by Year – All Students

ELA Scores – All Students			
Year	R^2	F	p
2015	.113	3.207	.001**
2016	.095	2.642	.006**
2017	.101	2.845	.003**
2018	.103	2.892	.003**

**significant at the .01 level

* significant at the .05 level

Correlation for Math Scores (All Students)

Table 4.3 illustrates the correlation coefficients between the nine teacher-principal trust items from the NYC School Survey and Mathematics achievement (proficiency percentage of levels 3 + 4) for the All Student sub-group.

As reported in Table 4.3 there was statistical significance ($p < .05$) for survey items, Q1 through Q6. There was no statistical significance ($p > .05$) for survey items, Q 8 in 2016 and 2018 and Q9 in 2018. Survey items Q2, Q3, Q4 was statistically significant ($p < .01$) across all four years. These items connected to Facets of Trust: Competence (Q2), Benevolence (Q3), and Honesty (Q4).

Overall, across the four year period, 2015 through 2018, correlation coefficients indicated a weak, but statistically significant positive relationship (with $r < .119$ to .250, $n = 237$, $p < .05$,) between student achievement (Test Scores) on the NYS Mathematics exam (DV) and principal-teacher trust survey items (IVs), except as noted above for survey items, Q8 and Q9, where the relationship was statistically insignificant ($p > .05$) in 2016 and 2018.

Table 4.3

Correlation Among the Nine Trust Survey Items and NYS Math Scores by Year – All Students

Survey		2015 (n = 237)		2016 (n = 237)		2017 (n = 237)		2018 (n =237)	
Item	Facet of Trust	r	p	r	p	r	p	r	p
Q 1	Benevolence	.184	.004**	.184	.005**	.217	.001**	.162	.013*
Q 2	Competence	.224	.001**	.230	.000**	.250	.000**	.213	.001**
Q 3	Benevolence	.247	.000**	.184	.005**	.250	.000**	.208	.001**
Q 4	Honesty	.172	.008**	.201	.002**	.205	.002**	.170	.009**
Q 5	Openness	.183	.005**	.160	.013*	.203	.002**	.151	.020*
Q 6	Benevolence	.177	.006**	.132	.043*	.234	.000**	.139	.033*
Q 7	Benevolence	.233	.000**	.207	.001**	.221	.001**	.164	.012*
Q 8	Reliability	.200	.002**	.119	.067	.198	.002**	.110	.092
Q 9	Reliability	.223	.001**	.186	.004**	.130	.046*	.124	.056

**significant at the .01 level

* significant at the .05 level

Linear Regression for Math Scores (All Students)

Table 4.4 provides the summary results from the linear regressions that were conducted to determine the predictability of the survey trust item responses (sum of the percentage of Agree and Strongly Agree, by year) on nine teacher-principal trust survey items and the corresponding ELA Scores for the All Student sub-group, for the period 2015 through 2018.

In 2015, results revealed that the relationship between the collective principal-teacher trust survey items and student achievement in Math showed statistical significance ($F(9,227) = 3.666$, $p = .000$, with an R^2 of .127). Significance was noted for individual survey items Q3 and Q4, (ß = .627, p = .004) and (ß = -.688, p = .011) respectively. These items connect to the Facets of Trust: Competence (Q2), Benevolence (Q3), and Honesty (Q4).

In 2016, the association was statistically significant ($F(9,227) = 3.050$, $p = .002$, with an R^2 of .108). Similar to the statistical significance observed in ELA for this same year, statistical significance was noted for the same individual trust items, Q2, Q7 and Q8, Q2 (ß = .559, p = .009) Q7 (ß = .515 (p = .034) and Q8 (ß = -.582, p = .014). These items connect to the Facets of Trust: Competence (Q2), Benevolence (Q7), and Reliability (Q8).

In 2017, the relationship was statistically significant ($F(9,227) = 2.521$, $p = .009$ with an R^2 of .091). Only one individual survey item, Q2 (Competence) indicated statistical significance with Math achievement for the All Students sub-group (ß = .502, p = .048).

In 2018, the relationship was statistically significant (F (9,227) = 2.294, p = .018, with an R^2 = .083). Only one individual trust item showed statistical significance, Q2 (ß = .528, p = .040), relating to the Facet of Trust: Competence.

Overall, the regression shows statistically significant (p < .01) associations between the survey items and Math achievement for 2015, 2016 and 2017 and statistically significant (p < .05) associations between the same dependent and independent variables for 2018. Based on these results, the null hypothesis was rejected, as statistically significant relationships existed in the principal-teacher trust survey items predicting Math Scores for the All Students sub-group in the years, 2015 through 2018.

Table 4.4

Linear Regression Coefficients for Math Score Predictors by Year – All Students

	Math Scores – All Students		
Year	R^2	F	p
2015	.127	3.666	.000**
2016	.108	3.050	.002**
2017	.091	2.521	.009**
2018	.083	2.294	.018*

**significant at the .01 level

* significant at the .05 level

Hypothesis 2: Students with Disabilities

Correlation for ELA Scores (SWDs)

Table 4.5 illustrates the summary of the correlation coefficients between the nine teacher-principal trust items from the NYC School Survey and ELA Scores (proficiency percentage of levels 3 + 4) for the SWD sub-group. In 2015, there was statistical significance ($p < .05$) for two survey items, Q2 (Competence) and Q5 (Openness), and ELA Scores for the SWD sub-group. For the years, 2016, 2017 and 2018, correlations of survey items to ELA Scores, was statistically insignificant ($p > .05$).

Table 4.5

Correlation Among the Nine Trust Survey Items and NYS ELA Scores by Year – SWDs

		2015		**2016**		**2017**		**2018**	
Survey		(n = 237)		(n = 235)		(n = 236)		(n =235)	
Item	Facet of Trust	r	p	r	p	r	p	r	p
Q 1	Benevolence	.096	.139	.066	.316	.060	.359	.030	.653
Q 2	Competence	.136	.036*	.069	.295	.074	.257	.085	.196
Q 3	Benevolence	.120	.065	.063	.336	.092	.158	.080	.224
Q 4	Honesty	.097	.136	.071	.278	.075	.249	.026	.695
Q 5	Openness	.132	.042	.039	.555	.057	.386	.045	.489
Q 6	Benevolence	.072	.271	.058	.379	.083	.203	.058	.373
Q 7	Benevolence	.157	.016*	.099	.132	.083	.205	.036	.585
Q 8	Reliability	.113	.083	.042	.520	.072	.270	.009	.897
Q 9	Reliability	.118	.071	.107	.103	.076	.246	.043	.509

**significant at the .01 level

* significant at the .05 level

Linear Regression for ELA Scores (SWDs)

Table 4.6 summarizes the regression coefficient results of the relationship of the collective teacher-principal trust survey items predicting ELA Scores on the state assessment for students with disabilities (SWDs). Results revealed the following:

In 2015, the association between the collective teacher-principal trust survey items predicting ELA Scores (proficiency levels 3 +4) for students with disabilities (SWDs) revealed statistical significance ($F(9,227) = 2.152$, $p = .026$, with an $R^2 = .079$).

The regression coefficients showed that collective trust survey items predicting ELA Scores for SWDs was statistically insignificant ($F(9,225) = .905$, $p = .521$, $R^2 = .035$). Additionally, the association between individual survey items predicting ELA Scores for the SWDs sub-group was also statistically insignificant ($p > .05$) for all nine items.

Regression coefficient results for 2017 indicated that the association was statistically insignificant ($F(9, 226) = .522$, $p = .858$, $R^2 = .020$) between the collective survey items predicting ELA Scores for the SWD sub-group. In addition, individual survey items was also statistically insignificant ($p > .05$) in predicting ELA achievement for the SWDs sub-group for all nine survey items.

In summarizing the regression analysis over the four-year period, 2015 through 2018, the association of the nine trust items to ELA achievement for SWDs indicated that there was significance ($p < .05$) in 2015 and explained 7.9% of the variance. Across the other three years, 2016 through 2018, the results indicated no statistical significance ($p > .05$) in surely items predicting ELA achievement for the SWDs sub-group.

Based on these results the null hypothesis was rejected, since significance was noted in one of the four years of this longitudinal study.

Table 4.6

Linear Regression Coefficients for ELA Score Predictors by Year - SWDs

	ELA Scores - SWDs		
Year	R^2	F	p
2015	.079	2.152	.026*
2016	.035	0.905	.521
2017	.020	0.522	.858
2018	.050	1.323	.226

**significant at the .01 level

* significant at the .05 level

Correlation for Math Scores (SWDs)

Table 4.7 summarizes the correlations of the relationship between the teacher-principal trust survey items and Math Scores on the state assessment for the students with disabilities (SWDs) sub-group.

As reported in Table 4.7, the results for 2015 indicated statistical significance ($p < .05$) between survey items and Math Scores for eight trust items, Q2 Q3, Q4, Q5, Q6, Q7, Q 8 and Q9. These items connected to all Five Facets of Trust. Statistical significance ($p < .01$) was at the .01 level for Q2, Q3, Q7 and Q9., representing facets Competence (Q2), Benevolence (Q3, Q7), and Reliability (Q9)

In 2016, the relationship between the survey items and Math Scores was statistically insignificant ($p > .05$) for the SWDs sub-group. In 2017, one survey item, Q6 (Benevolence) revealed statistical significance ($p < .05$), while all other items were statistically insignificant ($p > .05$).

In 2018 there was a statistically significant relationship ($p < .01$) for survey items, Q2 and Q3 and statistically significant ($< .05$) for survey items, Q1, Q4, Q5, Q6, Q7, connected to Facets of Trust: Benevolence (Q1, Q6, Q7), Honesty (Q4), Openness (Q5),

Overall, this indicates that in 2015, 2017 and 2018 there is a significant relationship between teacher-principal trust survey items and Math Scores for the SWD sub-group.

Table 4.7

Correlation Among the Nine Trust Survey Items and NYS Math Scores by Year – SWDs

Survey Item	Facet of Trust	2015 (n = 237) r	p	2016 (n = 235) r	p	2017 (n = 236) r	p	2018 (n =235) r	p
Q 1	Benevolence	.119	.067	.096	.144	.094	.150	.130	.047*
Q 2	Competence	.185	.004**	.089	.174	.099	.130	.170	.009**
Q 3	Benevolence	.172	.008**	.079	.227	.110	.092	.170	.009**
Q 4	Honesty	.136	.036*	.077	.241	.064	.327	.140	.033*
Q 5	Openness	.163	.012*	.053	.419	.109	.095	.136	.037*
Q 6	Benevolence	.136	.037*	.077	.237	.129	.048*	.163	.013*
Q 7	Benevolence	.189	.004**	.122	.061	.114	.079	.142	.029*
Q 8	Reliability	.152	.020*	.055	.402.	.083	.205	.097	.137
Q 9	Reliability	.180	.005**	.116	.076	.081	.217	.104	.110

**significant at the .01 level

* significant at the .05 level

Linear Regression for Math Scores (SWDs)

Table 4.8, displays the regression coefficients of the association with teacher-principal trust survey items predicting Math Scores on the state assessment for the students with disabilities (SWDs) sub-group. Results revealed the following:

In 2015, the association between the collective teacher-principal trust survey items and Math Scores (proficiency levels 3 +4) for the students with disabilities (SWDs) sub-group indicated statistical significance ($F(9,227) = 2.819$, $p = .004$, with an R^2 of .101).

The association between the 2016 collective survey items predicting Math Scores revealed that the relationship was statistically insignificant ($F(9,225) = 1.469$, $p = .160$ with an R^2 of .056) for the SWD sub-group. However, one survey item, Q7, connected to Benevolence, revealed statistical significance (ß = .410, $p = .012$) in being a predictor of Math achievement for the SWD sub-group.

Regression results for 2017 was statistically significant ($F(9, 226) = 1.275$, $p = .251$, with an R^2 of .048) in the collective survey items being a predictor of Math Scores for the SWD sub-group. One survey item, Q4 (Honesty), revealed statistical significance (ß = -.569, $p = .018$) in being a predictor of Math Scores for the SWD sub-group.

In 2018, results were statistically insignificant ($F(9,225) = 1.614$, with an R^2 of .061) in the collective survey items being a predictor of Math Scores for the SWD sub-

group. Additionally, all individual trust items were also statistically insignificant ($p > .05$).

In summarizing the regression results over the four-year period, 2015 through 2018, the association of the collective trust items in predicting Math Scores for the SWD sub-group indicated that there was statistical significance ($p < .01$) in only 2015, while the other three years were statistically insignificant ($p > .05$). When analyzing the coefficient results for individual questions, there was statistical significance ($ß = .410$, $p = .012$) detected for one survey item in 2016, Q7 (Benevolence), and one survey item in 2017, Q4 (Honesty).

Based on these results, the null hypothesis was rejected, as there was statistical significance in two years (2015 and 2016) of this longitudinal study.

Table 4.8

Linear Regression Coefficients for Math Score Predictors by Year - SWDs

	Math Scores - SWDs		
Year	R^2	F	p
2015	.101	2.819	.004 .
2016	.056	1.469	.160
2017	.048	1.275	.251
2018	.061	1.614	.112

**significant at the .01 level

* significant at the .05 level

Hypothesis 3: Students Who are Current ELLs

Correlation for ELA Scores (Current ELLs)

Table 4.9 summarizes the Pearson correlations between the teacher-principal trust survey items and ELA Scores on the state assessment for the Current English Language Learners (ELLs) sub-group.

As reported in Table 4.9, in 2015 there is a weak, positive statistically significant ($r < .220$, $p < .01$) relationship between survey trust items and ELA Scores for the Current ELLs sub-group on two survey items, Q3 and Q9, connected to Facets of Trust: Benevolence (Q3), and Reliability (Q9). There was statistical significance ($r < .182$, $p < .05$) for Q1, Q2, Q6 and Q7, connected to facets, Competence (Q2), and Benevolence (Q1, Q6, Q7).

In 2017, there was a weak, statistically significant relationship ($r < .192$, $p < .05$) between five survey items, Q2, Q3, Q5, Q6 and Q9, with Q6 ($p = .006$) and ELA Scores for the Current ELLs sub-group.

Correlations revealed that there were no statistically significant correlations in 2016 ($r < .319$, $p > .05$) and 2018 ($r < .391$, $p > .05$) between the nine trust survey items and ELA Scores for the current ELLs sub-group.

Overall, this indicates that for the year 2015 and 2017 there are significant correlations ($p < .05$) between one or more individual teacher-principal trust survey items and ELA Scores for the Current ELLs sub-group.

Table 4.9

Correlation Among the Nine Trust Survey Items and NYS ELA Scores by Year - Current ELLs

Survey Item	Facet of Trust	2015 (n = 197) r	p	2016 (n = 202) r	p	2017 (n = 202) r	p	2018 (n =201) r	p
Q 1	Benevolence	.181	.011*	.169	.009**	.143	.042*	.081	.252
Q 2	Competence	.182	.010*	.101	.151	.162	.021*	.062	.382
Q 3	Benevolence	.220	.002**	.064	.364	.142	.044*	.074	.295
Q 4	Honesty	.136	.057	.106	.134	.157	.026*	.101	.153
Q 5	Openness	.130	.068	.106	.134	.156	.027*	.081	.256
Q 6	Benevolence	.154	.031*	.047	.507	.192	.006**	.076	.285
Q 7	Benevolence	.179	.012*	.073	.301	.133	.058	.069	.334
Q 8	Reliability	.139	.052	.023	.741	.094	.184	.061	.391
Q 9	Reliability	.185	.009**	.132	.061	.145	.040*	(.003)	.962

**significant at the .01 level

* significant at the .05 level

Linear Regression for ELA Scores (Current ELLs)

Table 4.10, summarizes the regression coefficients results of teacher-principal trust survey items predicting ELA Scores on the state assessment for the Current English Language Learners (ELLs) sub-group. Results revealed the following:

In 2015, there is a statistically significant relationship ($F(9,187) = 2.474$, $p = .011$, with an R^2 of .106) between collective survey items predicting student achievement

for Current ELLs. Two individual survey items, Q3 and Q4, were statistically significant, Q3 (ß = .469, p = .014) and Q4 (ß = -510, p = .032).

In 2016, there was no statistical significance (F (9,192) = 1.572, p =.126 with an R^2 of .262) with the collective survey items predicting ELA Scores for Current ELLs sub-group.

As reported in Table 4.10, in 2017, there was no statistical significance (F (9,192) = 1.588, p = .121 with an R^2 of .069 in the collective survey items predicting ELA Scores for the Current ELLs sub-group. One survey item, Q8 was statistically significant (ß = -.254, p = .033) in predicting ELA scores for the Current ELLs sub-group.

In 2018, there was no statistical significance (F (9,191) = .716, p = .694, with an R^2 of .033) in the collective survey items predicting ELA scores for the Current ELLs sub-group. Furthermore, coefficients of individual survey items did not reveal any statistical significance (p >.05) in predicting ELA Scores for Current ELLs.

Over the four-year period, 2015 through 2018, there was statistical significance in collective and individual survey items being predictors of ELA Scores for the Current ELLs sub-group for two years (2015 and 2017). Based on these results, the null hypothesis is rejected as significance was detected.

Table 4.10

Linear Regression Coefficients for ELA Score Predictors by Year – Current ELLs

	ELA Scores – Current ELLs		
Year	R^2	F	p
2015	.106	2.474	.011*
2016	.069	1.572	.126
2017	.069	1.588	.121
2018	.033	0.716	.694

**significant at the .01 level

* significant at the .05 level

Correlation for Math Scores (Current ELLs)

Table 4.11 summarizes the Pearson correlations of the relationship between the teacher-principal trust survey items and Math Scores on the state assessment for the Current English Language Learners (ELLs) sub-group.

As reported in Table 4.11, in 2015 there is a weak, positive statistically significant ($r < .174$, $p < .05$) relationship between six of the principal-teacher trust survey items (Q2, Q3, Q5, Q6, Q7, Q9) and Math Scores for the Current ELLs sub-group. These items connect to the Facets of Trust: Honesty (Q2), Benevolence (Q3, Q6, Q7), Openness (Q5), and Reliability (Q9).

In 2016, 2017 and 2018, the relationship between each of the nine trust survey items and Math Scores for the Current ELLs sub-group statistically insignificant ($r < .166$, $p > .05$).

Table 4.11

Correlation Among the Nine Trust Survey Items and NYS Math Scores by Year – Current ELLs

Survey Item	Facet of Trust	2015 (n = 205) r	p	2016 (n = 204) r	p	2017 (n = 206) r	p	2018 (n =204) r	p
Q 1	Benevolence	.134	.055	.093	.184	.091	.196	.098	.164
Q 2	Competence	.166	.017*	.131	.061	.103	.140	.100	.156
Q 3	Benevolence	.174	.013*	.097	.166	.124	.077	.129	.067
Q 4	Honesty	.128	.067	.113	.109	.085	.222	.097	.165
Q 5	Openness	.150	.032*	.093	.185	.101	.151	.117	.096
Q 6	Benevolence	.162	.020*	.086	.219	.132	.058	.101	.150
Q 7	Benevolence	.165	.018*	.093	.186	.109	.118	.078	.270
Q 8	Reliability	.137	.050	.010	.892	.043	.539	.051	.469
Q 9	Reliability	.172	.014*	.166	.018*	.104	.138	.054	.439

**significant at the .01 level

* significant at the .05 level

Linear Regression for Math Scores (Current ELLs)

Table 4.12, summarizes the coefficient results from the regression of teacher-principal trust survey items to Math Scores for Current English Language Learners (ELLs). Results revealed the following:

In 2015, the association with the collective survey items predicting student Math Scores for the Current ELLs sub-group was statistically insignificant (F (9,185) = 1.475, p = .160, with an R^2 of .064).

As reported in Table 4.12, in 2016, there was statistical significance (F (9,194) = 2.093, p = .032 with an R^2 of .088 in the collective survey items predicting Math Scores for the Current ELLs sub-group. One survey item, Q8 (Reliability) was statistically significant (ß = -717, p = .001) in predicting Math Scores for the Current ELLs sub-group.

In 2015, 2017 and 2018, there was no statistical significance (F(9,195) = 1.475), p = .160 with an R^2 of .064), (F (9,196) = 1.204, p = .294 with an R^2 of .052), (F(9,191) = .716, p = .694 with an R^2 of .033) in the collective survey items be reliable predictor of Math Scores for the Current ELLs sub-group.

In summary, during the four-year period (2015 – 2018) of this longitudinal study, there was statistical significance in one year, 2015, in survey items predicting Math Scores for the Current ELLs sub-group. Based on these results, the null hypothesis was rejected as there was a statistical significance detected between the two variables.

Table 4.12

Linear Regression Coefficients for Math Score Predictors by Year – Current ELLs

	Math Scores – Current ELLs		
Year	R^2	F	p
2015	.064	1.475	.160 .
2016	.088	2.093	.032*
2017	.052	1.204	.294
2018	.045	1.009	.434

**significant at the .01 level

* significant at the .05 level

Hypothesis 4: Ever-ELLs sub-group

Correlation for ELA Scores (Ever-ELLs)

Table 4.13 summarizes the Pearson correlations between the teacher-principal trust survey items and ELA Scores on the state assessment for the Ever-ELLs sub-group.

As reported in Table 4.13, in 2015 there is a statistically significant ($r < .224$, $p < .05$) relationship between six trust survey items and ELA Scores for the Ever-ELLs sub-group.

In 2016, there was statistical significance ($r < .163$, $p < .05$) between five survey items, Q2, Q3, Q5, Q7 and Q9 and ELA Scores for the Ever-ELLs sub-group.

In the following year, 2017, there was statistical significance ($r < .174$, $p < .05$) between three trust survey items, Q2, Q3, Q5, and ELA Scores for the Ever-ELLs sub-

group. These items connect to Facets of Trust: Competence (Q2) and Benevolence (Q3, Q6).

In 2018, there was statistical significance (r =.153, p = .030) for one survey item, Q2 indicating a relationship between the two variables for the Ever-ELLs subgroup.

Overall, this indicates that across all four years significant correlations ($p < .05$) did exist for one or more survey items. Survey item, Q2, was the only item that showed significance across all four years, while survey items, Q4 and Q7, did not reveal any significance with ELA Scores for the Ever-ELLs sub-group across all four years.

Table 4.13

Correlation Among the Nine Trust Survey Items and NYS ELA Scores by Year – Ever-ELLs

		2015		**2016**		**2017**		**2018**	
Survey		(n = 196)		(n = 202)		(n = 202)		(n =201)	
Item	Facet of Trust	r	p	r	p	r	p	r	p
Q 1	Benevolence	.181	.011*	.135	.056	.136	.053	.072	.310
Q 2	Competence	.183	.010*	.163	.021*	.158	.024*	.153	.030*
Q 3	Benevolence	.224	.002**	.142	.044*	.174	.013*	.122	.085
Q 4	Honesty	.135	.058	.128	.070	.143	.043*	.120	.090
Q 5	Openness	.131	.068	.151	.032*	.101	.151	.069	.329
Q 6	Benevolence	.156	.029*	.088	.211	.157	.026*	.072	.310
Q 7	Benevolence	.182	.011*	.147	.036*	.120	.088	.066	.348
8	Reliability	.139	.052	.042	.557	.105	.137	.048	.495
Q 9	Reliability	.185	.009**	.148	.035*	.105	.137	.017	.811

**significant at the .01 level

* significant at the .05 level

Linear Regression for ELA Scores (Ever-ELLs)

Table 4.14, summarizes the coefficient results from the regression of teacher-principal trust survey items to ELA Scores for the Ever-ELLs sub-group. Results revealed the following:

In 2015, there was statistical significance ($F(9,186) = 2.605$, $p = .007$, with an R^2 of .112) in collective survey items predicting ELA Scores for the Ever-ELLs sub-group. Individually, survey items, Q3 and Q4, indicated a significance ($ß = .500$, $p = .009$) and ($ß = -.528$, $p = .026$) in predicting ELA scores for the Ever-ELLs sub-group.

In 2016, there was statistical significance ($F(9,192) = 2.645$, $p = .007$, with an R^2 of .110) in collective survey items predicting ELA Scores for the Ever-ELLs sub-group. Individually, survey items, Q2 and Q8, indicated statistical significance ($ß = .529$, $p = .008$) and ($ß = -.599$, $p = .002$) in predicting ELA scores for the Ever-ELLs sub-group.

In 2017 and 2018, there was no statistical significance ($F(9,192) = 1.368$, $p = .205$) between the collective survey items predicting ELA Scores for the Ever-ELLs sub-group. Similarly, individual survey items did not reveal any statistical significance ($p > .05$) between the two variables for the Ever-ELLs sub-group.

In summary, statistical significance was detected in two of the four years on collective survey items and individual survey items. Based on these results, the null hypothesis was rejected since statistical significance was detected in select survey items identified above in predicting ELA Scores for the Ever-ELLs sub-group.

Table 4.14

Linear Regression Coefficients for ELA Score Predictors by Year – Ever-ELLs

	ELA Scores – Ever-ELLs			
Year	R^2	F	p	
2015	.112	2.605	.007**	.
2016	.110	2.645	.007**	
2017	.060	1.368	.205	
2018	.083	1.929	.050	

**significant at the .01 level

* significant at the .05 level

Correlation for Math Scores (Ever-ELLs)

Table 4.15 summarizes the Pearson correlations between the teacher-principal trust survey items and Math achievement scores on the state assessment for the Ever-ELLs sub-group.

In 2015 there is a weak, positive statistically significant ($r < .309$, $p < .01$) relationship between survey items and Math achievement for Ever-ELLs sub-group on all nine survey items, connected to all Five Facets of Trust.

In 2016, there was statistical significance ($r < .190$, $p < .05$) between six survey items, Q1, Q2, Q3, Q4, Q5, Q7, and Math Scores for the Ever- ELLs sub-group. Survey item, Q2, had the greatest correlation as it was significant at the .01 level ($p = .007$).

These six items connect to the Facets of Trust: Benevolence (Q1, Q3, Q7), Competence (Q2), Honesty (Q4), and Openness (Q5).

In 2017, there was statistical significance ($r < .165$, $p < .05$) between six survey items, Q1, Q2, Q3, Q4, Q6, Q7, and Math Scores for the Ever- ELLs sub-group. Survey item, Q3, had the most significant ($p = .007$) relationship. These six items connect to the facets: Benevolence (Q1, Q3, Q6, Q7), Competence (Q2), and Honesty (Q4).

In the 2017 data, there statistical significance ($r < .177$, $p < .05$) between three trust survey items, (Q2, Q3, Q4), and Math Scores for Ever-ELLs. These survey items connect to Facets of Trust: Competence (Q2), Benevolence (Q3), and Honesty (Q4).

Table 4.15

Correlation Among the Nine Trust Survey Items and NYS Math Scores by Year – Ever-ELLs

		2015		**2016**		**2017**		**2018**	
Survey		(n = 205)		(n = 204)		(n = 206)		(n =204)	
Item	Facet of Trust	r	p	r	p	r	p	r	p
Q 1	Benevolence	.134	.055	.093	.184	.091	.196	.098	.164
Q 2	Competence	.166	.017*	.131	.061	.103	.140	.100	.156
Q 3	Benevolence	.174	.013*	.097	.166	.124	.077	.129	.067
Q 4	Honesty	.128	.067	.113	.109	.085	.222	.097	.165
Q 5	Openness	.150	.032*	.093	.185	.101	.151	.117	.096
Q 6	Benevolence	.162	.020*	.086	.219	.132	.058	.101	.150
Q 7	Benevolence	.165	.018*	.093	.186	.109	.118	.078	.270
Q 8	Reliability	.137	.050	.010	.892	.043	.539	.051	.469
Q 9	Reliability	.172	.014*	.166	.018*	.104	.138	.054	.439

**significant at the .01 level

* significant at the .05 level

Linear Regression for Math Scores (Ever-ELLs)

Table 4.16

Linear Regression Coefficients for Math Score Predictors, by Year – Ever-ELLs

	Math Scores – Ever-ELLs		
Year	R^2	F	p
2015	.155	3.983	.000**
2016	.110	2.653	.006**
2017	.101	2.458	.011*
2018	.067	1.521	.143

**significant at the .01 level

* significant at the .05 level

CHAPTER 5

SUMMARY / DISCUSSION

The first hypothesis in this study was rejected based on the statistical significance found between the nine teacher-principal trust survey items and achievement in ELA and Math for the All Student sub-group for the years 2015 through 2018. Of particular importance, were survey items, Q2 and Q3,that indicated the strongest relationship ($p < .01$) with ELA and Math achievement for all four years of this longitudinal study. These survey items (Q2 and Q3) relate to the Facets of Trust Competence and Benevolence, respectively, that indicate these are the qualities that appear to have the most significant relationship for increasing achievement for the All Student sub-group.

The second hypothesis in this study was also rejected based on the statistical significance found between the nine teacher-principal trust survey items and ELA and Math achievement for the SWD sub-group, however there was only statistical significance ($p < .05$) found between the relationship of three survey items and ELA achievement for one year, 2015. There was also statistical significance ($p < .05$) between eight of the nine survey items and Math achievement in 2015, one survey item and Math achievement in 2017 and seven survey items and Math achievement in 2018. The regression analysis indicated that overall, survey items had a low percentage of predictability in determining ELA achievement with 7.9% in 2015, 3.5% in 2016, 2.0% in 2017 and 5.0% in 2018. The predictability for Math achievement was slightly higher, but still low at 10.1% in 2015, 5.6% in 2016, 4.8% in 2017 and 6.1% in 2018. This indicates that in 2015, survey items were more significant predictors of ELA and Math achievement ($p < .05$) for the SWD sub-group. Specifically, survey items, Q2

(Competence) and Q6 (Benevolence) showed the greatest significance (ß = .168, p = .044) and (ß = -.186, p = .048) in predicting ELA achievement, and survey items Q1 (Benevolence) and Q2 (Competence) showed the greatest significance (ß = -.516, p = .016) and (ß = .297, p = .032) in predicting Math achievement.

The third hypothesis in this study was also rejected since a there was statistical significance ($p < .05$) found between six survey items and ELA achievement in 2015 and five survey items and ELA achievement in 2017 for the Current ELLs sub-group. In addition, there was statistical significance ($p < .05$) between seven survey items and Math achievement in 2015 for the Current ELLs sub-group. Regression results indicated that in 2015, there was statistical significance between survey items Q3 (ß = .469, p = .014) and Q4 (ß = -.510, p = .032) and ELA achievement. In 2017, there was statistical significance (ß = -.254, p = .033) between survey item, Q8, predicting ELA achievement

The fourth hypothesis in this study was also rejected since there was statistical found between six survey items (Q1, Q2, Q3, Q6, Q7, Q9) and ELA achievement in 2015, five survey items (Q2, Q3, Q5, Q7, Q9) in 2016, three survey items (Q2, Q3, Q6) in 2017 and one survey item (Q2) in 2018 for the Ever-ELLs sub-group. There was statistical significance ($p < .01$) for all nine survey items and Math achievement in 2015, significance ($p < .05$) between six survey items (Q1, Q2, Q3, Q4, Q5, Q7) and Math achievement in 2016 and six survey items (Q1, Q2, Q3, Q4, , Q6, Q7) and Math achievement in 2017 and three survey items (Q2, Q3, Q4) and Math achievement in 2018. Regression results indicated that in 2015 there was statistical significance between survey items, Q3 (ß = .500, p = .009) and Q4 (ß = -.528, p = .026) in predicting ELA achievement for Ever-ELLs. Similarly, there was statistical significance in Q3 (ß = .727,

p = .001) and Q4 (ß = -.706, p = .014) predicating Math scores. In 2016 there was statistical significance between survey items Q2 (ß = .529, p = .008) and Q8 (ß = -.599, p = .002) predicting ELA scores for Ever-ELLs. Interestingly, the same survey items, Q 2 (ß = .622, p = .021) and Q8 (ß = -.865, p = .001) indicated statistical significance in predicting Math Scores. In 2017, there was statistical significance with survey item, Q8 (ß = -.875, p = .003) being a strong predictor of Math achievement for the Ever-ELLs sub-group. In 2018, there was statistical significance in survey items Q2 (ß = .457, p = .031) and Q9 (ß = -.207, p = .030) predicting ELA Scores for the Ever-ELLs sub-group.

Overall, these results indicate that there is a relationship between teacher-principal trust survey items and student achievement, particularly for the All Student and Ever-ELLs sub-groups. For the SWD and Current ELLs sub-group, although there was a correlation between survey items and Test Scores for a particular year or years, there were not significant correlations across all four years, limiting the ability to effectively use survey items to predict test scores for these two sub-groups that were the primary focus of this research study.

These findings indicate that teacher-principal trust has a relationship and that the facets of trust are predictors of student achievement, specifically for the All Student sub-group, and is consistent with the school improvement research of Tschannen-Moran (1998), Bryk et al. (2010), Whalstom and Seashore-Louis (2008) and Goodard et al. (2009) that indicated teacher-principal trust factors (facets) were predictors of academic achievement in ELA and Math. The facets with the most significant results ($p < .01$) across all four years were Benevolence, Competence, and Honesty. The findings for the special population sub-groups, SWDs, Current ELLs, and Ever-ELLs (also known as

former ELLs), indicated that facets of teacher-principal trust were not consistently significant across all four years of this longitudinal study, making it difficult for survey items (facets) to be a reliable predictor of student achievement in subsequent years. These findings are supported by the relational trust research of Tschannn-Moran (2004) that found that faculty trust in the principal was unrelated to English and Math achievement for eighth grade students, although Tschannen-Moran's (2004) research did not specifically examine the achievement of the SWD and ELL populations. Tshannen-Moran's (2004) findings did reveal that faculty trust in students and parents strongly correlated to student achievement and faculty trust in colleagues indicated a moderate relationship to student achievement.

It is important to note that although significance for the special populations was not observed across all four years, in the years where significance was observed, select the survey item, Q2, 3 and/or 7) linked to the facets of Competence, Benevolence, and Honesty were significant ($p < .05$) with ELA and/or Math achievement in one or more years. This connects with findings for the All Student sub-group that show that these survey items connected to those specific facets of trust have significance in impacting students' ELA and Math achievement, indicating that they are important qualities of principal behaviors that should be developed and strengthened.

Based on the recurring significance of the relationship of survey item 2, connected to the facet of Competence, it appears that teachers want the principal to be an effective manager that makes the school run smoothly. This finding is further supported in a meta-analysis of 51 empirical literature research studies conducted by Liebowitz and Porter (2019). In their research they used a framework for examining the relationship

between principal behaviors and student, teacher and school outcomes. Their findings revealed that previous literature may overstate the effects of principals' time and skill spent on instructional leadership behaviors and their impact on student achievement. In their findings, Liebowitz and Porter (2019) concluded that an exclusive focus on diverting time or skill development for other non-instructional tasks on toward instructional tasks may be imprudent.

Limitations

The current known limitations of this study include the following:

First, this study only examined the relationship of the perception of teachers, using the nine teacher-principal trust survey items on the School Survey with each of two state assessments, English Language Arts and Mathematics. Second, the survey items were closed-ended and may not fully capture the full perceptions of teachers. Third, the wording of survey items can be interpreted by individuals in different ways due to the vagueness of wording the NYC School Survey. Fourth, responses from teachers in grades Pre-K through grade 2 were included in positive response percentages, however, student achievement data was not included since state assessments for ELA and Mathematics are only administered to students in Grades 3 through 8.

Another major limitation of this study is that the NYC School Survey has been modified since the last Technical Manual was produced in 2013. The modifications made to the survey could have impacted the validity and reliability of the NYC School Survey data. The technical manual written in 2013 focused on the consistency of responses over three years. At that time, they sought to reduce the size of the survey by

eliminating redundant items as determined by those with a Cronbach alpha of greater than .70.

The inconsistencies found in correlation and regression results between years covered in this longitudinal study (2015–2018) may have been related to changes made in the placement of survey items from different sections of the survey. In the years 2015 and 2016 questions were located in different sections of the survey, while in 2017 and 2018 questions were in sequential order and placed in one section of the survey.

Implications to Practice

Based on the findings of this study, the implications to practice include the following:

First, the regression models for the All Student sub-group can use NYC Survey Scores to predict the proficiency percentages (percent of students performing at Level 3 and Level 4) on the NYS ELA and Mathematics assessments. Second, the findings from this study can be used to inform leadership development programs to include a greater focus on the leadership behaviors related to the high leverage facets of Competence, Benevolence, and Honesty that appeared to have the most significant relationship for the All Student sub-group and also showed as being significant in select years for the other sub-groups. Third, provide additional support to principals on working with their staff to unpack the skills of what it means to be an effective manager and instruction leader in their school community. Fourth, engage leaders in implementing team building activities with staff to build relational trust. Fifth, in schools with low levels of trust, implement the 360 Degree Feedback Process (Lepsinger & Lucia, 2009) where principals evaluate themselves and others who interact with the principal on a daily basis, such as teachers, parents and students evaluates the principal in the same areas. A comparison is done between each

area of the principals' self-perceived performance and the staff-perceived performance rating. The benefits of 360 degree feedback is that it increases self-awareness, clarifies behaviors, provides principal with perceived expectations and improves relational trust by creating a sense of vulnerability, a necessary feature of trust. .

Implications for Future Research

Consideration should be given to conducting this study using the sample population that includes all boroughs in NYC to test the same hypotheses. Results from a larger sample will add to the generalizability of findings.

Further consideration should be given to conducting additional research to examine principal-teacher trust using the twenty-six item Omnibus T-Scale survey, developed by Hoy and Tschannen-Moran (2003), to further evaluate the facets of trust specifically with teachers of students with disabilities (SWDs) and Current English Language Learners (ELLs). In addition, since trust and its' associated facets are relational, and relationships take time to develop, additional research should be done to examine the length of time principals and teachers are in their schools. Since research findings did not consistently reveal significant relationships across all years of this study between teacher-principal trust and student achievement for special populations (SWDs and ELLs), an examination of the relationship between principal certification (SWD, ELL, or other certification) and student achievement for these special populations should also be considered to extend research on this topic.

APPENDICES

APPENDIX 1

FRAMEWORK FOR GREAT SCHOOLS

Adapted by NYC Department of Education based on work of Bryk, Bender-Sebring, Allensworth, Easton and Luppescu (2010)

APPENDIX 2

FIVE FACETS OF TRUST
Tschannen-Moran, 2014. p.39

Five Facets of Trust	Definition
Benevolence	Caring, extending goodwill demonstrating positive intentions, supporting teachers, expressing appreciation for faculty and staff efforts, being fair, guarding confidential information
Honesty	Showing integrity, telling the truth, keeping promises, honoring agreements, being authentic, accepting responsibility, avoiding manipulation, being real, being true to oneself
Openness	Maintaining open communication, sharing important information, delegating, sharing decision making, sharing power
Reliability	Being consistent, being dependable, showing commitment, expressing dedication, exercising diligence
Competence	Buffering teachers from outside disruptions, handling difficult situations, setting standards, pressing for results, working hard, setting an example, problem solving, resolving conflict, being flexible

APPENDIX 3

Demographic of Schools in this Study by Year, 2015- 2018

DBN		Year	Total Enrollment	Total Grade 3-8 Enrollment	# Students with Disabilities	% Students with Disabilities	# English Language Learners	% English Language Learners
24Q005	M	2014-15	1789	1788	264	14.8%	314	17.6%
24Q005	M	2015-16	1825	1824	268	14.7%	289	15.8%
24Q005	M	2016-17	1836	1836	294	16.0%	297	16.2%
24Q005	M	2017-18	1798	1798	302	16.8%	298	16.6%
24Q007	E	2014-15	1044	261	137	13.1%	633	60.6%
24Q007	E	2015-16	1017	259	128	12.6%	585	57.5%
24Q007	E	2016-17	1042	244	111	10.7%	579	55.6%
24Q007	E	2017-18	993	224	112	11.3%	471	47.4%
24Q012	E	2014-15	1274	639	143	11.2%	363	28.5%
24Q012	E	2015-16	1281	661	146	11.4%	363	28.3%
24Q012	E	2016-17	1248	628	179	14.3%	385	30.8%
24Q012	E	2017-18	1219	607	183	15.0%	357	29.3%
24Q013	E	2014-15	1615	779	197	12.2%	564	34.9%
24Q013	E	2015-16	1632	787	233	14.3%	507	31.1%
24Q013	E	2016-17	1606	801	217	13.5%	544	33.9%
24Q013	E	2017-18	1597	829	224	14.0%	499	31.2%
24Q014	E	2014-15	1770	922	272	15.4%	484	27.3%
24Q014	E	2015-16	1768	935	285	16.1%	484	27.4%
24Q014	E	2016-17	1784	990	300	16.8%	519	29.1%
24Q014	E	2017-18	1691	925	299	17.7%	526	31.1%
24Q016	E	2014-15	1716	1009	262	15.3%	746	43.5%
24Q016	E	2015-16	1707	1015	311	18.2%	711	41.7%
24Q016	E	2016-17	1660	994	324	19.5%	782	47.1%
24Q016	E	2017-18	1574	946	311	19.8%	734	46.6%
24Q019	E	2014-15	2017	908	415	20.6%	1219	60.4%
24Q019	E	2015-16	1996	927	446	22.3%	1152	57.7%
24Q019	E	2016-17	1950	940	444	22.8%	1168	59.9%
24Q019	E	2017-18	1891	938	419	22.2%	1081	57.2%
24Q049	K-8	2014-15	1131	793	157	13.9%	71	6.3%
24Q049	K-8	2015-16	1102	781	160	14.5%	74	6.7%
24Q049	K-8	2016-17	1131	811	182	16.1%	75	6.6%
24Q049	K-8	2017-18	1160	798	199	17.2%	75	6.5%

24Q058	E	2014-15	988	554	180	18.2%	137	13.9%
24Q058	E	2015-16	1029	556	196	19.0%	143	13.9%
24Q058	E	2016-17	1039	564	194	18.7%	155	14.9%
24Q058	E	2017-18	1027	563	178	17.3%	134	13.0%
24Q061	M	2014-15	2278	2278	423	18.6%	582	25.5%
24Q061	M	2015-16	2158	2158	437	20.3%	601	27.8%
24Q061	M	2016-17	2175	2175	412	18.9%	666	30.6%
24Q061	M	2017-18	2238	2238	465	20.8%	704	31.5%
24Q068	E	2014-15	739	340	126	17.1%	148	20.0%
24Q068	E	2015-16	757	358	142	18.8%	146	19.3%
24Q068	E	2016-17	681	346	138	20.3%	114	16.7%
24Q068	E	2017-18	646	325	143	22.1%	102	15.8%
24Q071	E	2014-15	874	452	146	16.7%	124	14.2%
24Q071	E	2015-16	891	425	154	17.3%	130	14.6%
24Q071	E	2016-17	841	429	156	18.5%	136	16.2%
24Q071	E	2017-18	752	370	144	19.1%	113	15.0%
24Q073	M	2014-15	1902	1902	323	17.0%	265	13.9%
24Q073	M	2015-16	1975	1975	330	16.7%	288	14.6%
24Q073	M	2016-17	2050	2050	381	18.6%	340	16.6%
24Q073	M	2017-18	1971	1971	383	19.4%	284	14.4%
24Q077	M	2014-15	1085	1085	265	24.4%	234	21.6%
24Q077	M	2015-16	1008	1008	273	27.1%	226	22.4%
24Q077	M	2016-17	1020	1020	282	27.6%	224	22.0%
24Q077	M	2017-18	1012	1012	288	28.5%	217	21.4%
24Q081	E	2014-15	950	539	258	27.2%	175	18.4%
24Q081	E	2015-16	861	486	232	26.9%	187	21.7%
24Q081	E	2016-17	757	398	203	26.8%	183	24.2%
24Q081	E	2017-18	682	346	184	27.0%	182	26.7%
24Q087	K-8	2014-15	563	337	149	26.5%	36	6.4%
24Q087	K-8	2015-16	593	347	153	25.8%	45	7.6%
24Q087	K-8	2016-17	592	360	152	25.7%	42	7.1%
24Q087	K-8	2017-18	606	391	141	23.3%	52	8.6%
24Q088	E	2014-15	1097	517	181	16.5%	227	20.7%
24Q088	E	2015-16	1069	511	161	15.1%	174	16.3%
24Q088	E	2016-17	1033	513	174	16.8%	171	16.6%
24Q088	E	2017-18	941	494	169	18.0%	123	13.1%
24Q089	E	2014-15	1974	983	291	14.7%	790	40.0%
24Q089	E	2015-16	2007	1028	335	16.7%	824	41.1%
24Q089	E	2016-17	1995	1035	319	16.0%	894	44.8%
24Q089	E	2017-18	1961	1036	310	15.8%	913	46.6%
24Q091	E	2014-15	848	403	184	21.7%	67	7.9%

24Q091	E	2015-16	811	375	183	22.6%	80	9.9%
24Q091	E	2016-17	765	350	172	22.5%	90	11.8%
24Q091	E	2017-18	750	314	163	21.7%	89	11.9%
24Q093	M	2014-15	1185	1185	213	18.0%	179	15.1%
24Q093	M	2015-16	1150	1150	239	20.8%	176	15.3%
24Q093	M	2016-17	1103	1103	242	21.9%	182	16.5%
24Q093	M	2017-18	1099	1099	240	21.8%	168	15.3%
24Q102	K-8	2014-15	1301	830	165	12.7%	183	14.1%
24Q102	K-8	2015-16	1314	861	177	13.5%	167	12.7%
24Q102	K-8	2016-17	1318	869	165	12.5%	186	14.1%
24Q102	K-8	2017-18	1326	894	179	13.5%	191	14.4%
24Q113	K-8	2014-15	957	675	124	13.0%	32	3.3%
24Q113	K-8	2015-16	948	665	138	14.6%	41	4.3%
24Q113	K-8	2016-17	926	654	144	15.6%	41	4.4%
24Q113	K-8	2017-18	896	630	138	15.4%	46	5.1%
24Q119	K-8	2014-15	1090	789	118	10.8%	41	3.8%
24Q119	K-8	2015-16	1190	862	115	9.7%	51	4.3%
24Q119	K-8	2016-17	1237	920	112	9.1%	48	3.9%
24Q119	K-8	2017-18	1277	955	111	8.7%	46	3.6%
24Q125	M	2014-15	1540	1540	244	15.8%	256	16.6%
24Q125	M	2015-16	1498	1498	264	17.6%	218	14.6%
24Q125	M	2016-17	1508	1508	254	16.8%	249	16.5%
24Q125	M	2017-18	1504	1504	243	16.2%	258	17.2%
24Q128	K-8	2014-15	927	615	112	12.1%	35	3.8%
24Q128	K-8	2015-16	948	644	125	13.2%	37	3.9%
24Q128	K-8	2016-17	974	675	139	14.3%	38	3.9%
24Q128	K-8	2017-18	969	684	138	14.2%	39	4.0%
24Q143	E	2014-15	1797	936	291	16.2%	799	44.5%
24Q143	E	2015-16	1719	940	335	19.5%	822	47.8%
24Q143	E	2016-17	1709	965	364	21.3%	887	51.9%
24Q143	E	2017-18	1484	821	344	23.2%	809	54.5%
24Q153	E	2014-15	1418	781	213	15.0%	130	9.2%
24Q153	E	2015-16	1334	760	220	16.5%	133	10.0%
24Q153	E	2016-17	1269	717	224	17.7%	129	10.2%
24Q153	E	2017-18	1204	661	216	17.9%	117	9.7%
24Q199	E	2014-15	1068	544	174	16.3%	423	39.6%
24Q199	E	2015-16	1046	571	173	16.5%	389	37.2%
24Q199	E	2016-17	976	565	177	18.1%	375	38.4%
24Q199	E	2017-18	898	489	162	18.0%	293	32.6%
24Q229	E	2014-15	1409	665	281	19.9%	108	7.7%
24Q229	E	2015-16	1451	673	317	21.8%	123	8.5%

24Q229	E	2016-17	1460	686	319	21.8%	110	7.5%
24Q229	E	2017-18	1469	711	319	21.7%	125	8.5%
24Q239	E	2014-15	648	338	147	22.7%	196	30.2%
24Q239	E	2015-16	615	311	155	25.2%	168	27.3%
24Q239	E	2016-17	584	288	146	25.0%	160	27.4%
24Q239	E	2017-18	564	272	141	25.0%	134	23.8%
24Q290	E	2014-15	431	157	46	10.7%	32	7.4%
24Q290	E	2015-16	552	218	63	11.4%	42	7.6%
24Q290	E	2016-17	546	220	48	8.8%	40	7.3%
24Q290	E	2017-18	542	224	58	10.7%	50	9.2%
24Q305	E	2014-15	398	82	82	20.6%	92	23.1%
24Q305	E	2015-16	484	155	110	22.7%	109	22.5%
24Q305	E	2016-17	617	272	145	23.5%	152	24.6%
24Q305	E	2017-18	614	266	160	26.1%	131	21.3%
24Q307	E	2014-15	984	535	178	18.1%	348	35.4%
24Q307	E	2015-16	993	511	198	19.9%	396	39.9%
24Q307	E	2016-17	961	491	209	21.7%	404	42.0%
24Q307	E	2017-18	934	460	213	22.8%	362	38.8%
24Q311	M	2014-15	212	212	30	14.2%	46	21.7%
24Q311	M	2015-16	305	305	44	14.4%	56	18.4%
24Q311	M	2016-17	537	537	86	16.0%	116	21.6%
24Q311	M	2017-18	733	733	140	19.1%	175	23.9%
24Q330	E	2014-15	572	184	103	18.0%	168	29.4%
24Q330	E	2015-16	644	288	119	18.5%	172	26.7%
24Q330	E	2016-17	572	309	112	19.6%	161	28.1%
24Q330	E	2017-18	590	376	123	20.8%	161	27.3%
25Q020	E	2014-15	1406	690	137	9.7%	519	36.9%
25Q020	E	2015-16	1382	702	172	12.4%	423	30.6%
25Q020	E	2016-17	1366	654	192	14.1%	484	35.4%
25Q020	E	2017-18	1314	596	171	13.0%	454	34.6%
25Q021	E	2014-15	1357	644	169	12.5%	217	16.0%
25Q021	E	2015-16	1367	662	171	12.5%	256	18.7%
25Q021	E	2016-17	1406	686	175	12.4%	307	21.8%
25Q021	E	2017-18	1425	724	171	12.0%	338	23.7%
25Q022	E	2014-15	816	363	103	12.6%	389	47.7%
25Q022	E	2015-16	853	407	120	14.1%	385	45.1%
25Q022	E	2016-17	892	418	108	12.1%	453	50.8%
25Q022	E	2017-18	921	432	108	11.7%	464	50.4%
25Q024	E	2014-15	976	527	108	11.1%	377	38.6%
25Q024	E	2015-16	1029	578	124	12.1%	414	40.2%
25Q024	E	2016-17	990	556	118	11.9%	417	42.1%

25Q024	E	2017-18	992	573	128	12.9%	390	39.3%
25Q025	M	2014-15	799	799	120	15.0%	63	7.9%
25Q025	M	2015-16	856	856	142	16.6%	86	10.0%
25Q025	M	2016-17	957	957	160	16.7%	125	13.1%
25Q025	M	2017-18	1028	1028	155	15.1%	134	13.0%
25Q029	E	2014-15	808	370	136	16.8%	214	26.5%
25Q029	E	2015-16	769	363	130	16.9%	198	25.7%
25Q029	E	2016-17	717	345	130	18.1%	207	28.9%
25Q029	E	2017-18	728	357	131	18.0%	206	28.3%
25Q032	E	2014-15	948	468	101	10.7%	108	11.4%
25Q032	E	2015-16	964	483	107	11.1%	120	12.4%
25Q032	E	2016-17	974	454	110	11.3%	152	15.6%
25Q032	E	2017-18	980	451	105	10.7%	176	18.0%
25Q242	E	2014-15	402	77	63	15.7%	146	36.3%
25Q242	E	2015-16	381	71	64	16.8%	106	27.8%
25Q242	E	2016-17	388	72	57	14.7%	118	30.4%
25Q242	E	2017-18	392	64	50	12.8%	126	32.1%
25Q244	E	2014-15	440	73	49	11.1%	260	59.1%
25Q244	E	2015-16	452	70	42	9.3%	253	56.0%
25Q244	E	2016-17	461	86	51	11.1%	272	59.0%
25Q244	E	2017-18	456	86	52	11.4%	252	55.3%
25Q079	E	2014-15	1017	472	126	12.4%	71	7.0%
25Q079	E	2015-16	1065	519	144	13.5%	75	7.0%
25Q079	E	2016-17	1095	552	140	12.8%	103	9.4%
25Q079	E	2017-18	1136	577	146	12.9%	105	9.2%
25Q107	E	2014-15	966	435	181	18.7%	185	19.2%
25Q107	E	2015-16	989	463	186	18.8%	199	20.1%
25Q107	E	2016-17	963	462	169	17.5%	244	25.3%
25Q107	E	2017-18	970	440	164	16.9%	243	25.1%
25Q120	E	2014-15	1035	477	104	10.0%	410	39.6%
25Q120	E	2015-16	1056	509	116	11.0%	410	38.8%
25Q120	E	2016-17	1077	545	106	9.8%	467	43.4%
25Q120	E	2017-18	1034	509	132	12.8%	430	41.6%
25Q129	E	2014-15	1104	475	166	15.0%	177	16.0%
25Q129	E	2015-16	1130	543	181	16.0%	156	13.8%
25Q129	E	2016-17	1146	549	173	15.1%	194	16.9%
25Q129	E	2017-18	1094	569	182	16.6%	214	19.6%
25Q130	E	2014-15	373	64	58	15.5%	55	14.7%
25Q130	E	2015-16	374	53	60	16.0%	47	12.6%
25Q130	E	2016-17	357	67	61	17.1%	58	16.2%
25Q130	E	2017-18	397	132	62	15.6%	56	14.1%

25Q154	E	2014-15	739	355	91	12.3%	188	25.4%
25Q154	E	2015-16	736	355	93	12.6%	174	23.6%
25Q154	E	2016-17	706	333	104	14.7%	179	25.4%
25Q154	E	2017-18	673	329	113	16.8%	143	21.2%
25Q163	E	2014-15	631	283	92	14.6%	255	40.4%
25Q163	E	2015-16	643	293	89	13.8%	289	44.9%
25Q163	E	2016-17	681	314	94	13.8%	324	47.6%
25Q163	E	2017-18	804	340	108	13.4%	351	43.7%
25Q164	K-8	2014-15	641	401	99	15.4%	87	13.6%
25Q164	K-8	2015-16	663	411	103	15.5%	67	10.1%
25Q164	K-8	2016-17	695	452	116	16.7%	88	12.7%
25Q164	K-8	2017-18	693	467	110	15.9%	108	15.6%
25Q165	E	2014-15	737	294	162	22.0%	99	13.4%
25Q165	E	2015-16	749	346	172	23.0%	74	9.9%
25Q165	E	2016-17	758	367	176	23.2%	83	10.9%
25Q165	E	2017-18	767	367	177	23.1%	97	12.6%
25Q169	E	2014-15	398	167	84	21.1%	21	5.3%
25Q169	E	2015-16	423	188	84	19.9%	17	4.0%
25Q169	E	2016-17	439	209	80	18.2%	25	5.7%
25Q169	E	2017-18	445	208	80	18.0%	29	6.5%
25Q184	E	2014-15	516	249	82	15.9%	37	7.2%
25Q184	E	2015-16	521	252	85	16.3%	43	8.3%
25Q184	E	2016-17	516	245	90	17.4%	46	8.9%
25Q184	E	2017-18	514	248	92	17.9%	49	9.5%
25Q185	M	2014-15	1523	1523	220	14.4%	136	8.9%
25Q185	M	2015-16	1538	1538	215	14.0%	152	9.9%
25Q185	M	2016-17	1508	1508	206	13.7%	180	11.9%
25Q185	M	2017-18	1521	1521	215	14.1%	190	12.5%
25Q189	M	2014-15	692	692	129	18.6%	193	27.9%
25Q189	M	2015-16	701	701	119	17.0%	169	24.1%
25Q189	M	2016-17	722	722	129	17.9%	174	24.1%
25Q189	M	2017-18	771	771	133	17.3%	206	26.7%
25Q193	E	2014-15	534	188	70	13.1%	63	11.8%
25Q193	E	2015-16	550	231	79	14.4%	52	9.5%
25Q193	E	2016-17	571	264	80	14.0%	65	11.4%
25Q193	E	2017-18	587	271	85	14.5%	56	9.5%
25Q194	M	2014-15	1079	1079	174	16.1%	77	7.1%
25Q194	M	2015-16	1108	1108	183	16.5%	72	6.5%
25Q194	M	2016-17	1185	1185	196	16.5%	90	7.6%
25Q194	M	2017-18	1241	1241	207	16.7%	112	9.0%
25Q200	K-8	2014-15	472	303	84	17.8%	35	7.4%

25Q200	K-8	2015-16	488	297	81	16.6%	30	6.1%
25Q200	K-8	2016-17	485	303	86	17.7%	38	7.8%
25Q200	K-8	2017-18	522	339	90	17.2%	27	5.2%
25Q201	E	2014-15	500	224	103	20.6%	51	10.2%
25Q201	E	2015-16	511	210	117	22.9%	45	8.8%
25Q201	E	2016-17	522	226	109	20.9%	48	9.2%
25Q201	E	2017-18	482	210	117	24.3%	31	6.4%
25Q209	E	2014-15	618	335	109	17.6%	40	6.5%
25Q209	E	2015-16	580	309	90	15.5%	25	4.3%
25Q209	E	2016-17	620	299	85	13.7%	42	6.8%
25Q209	E	2017-18	580	256	76	13.1%	55	9.5%
25Q214	E	2014-15	538	227	77	14.3%	94	17.5%
25Q214	E	2015-16	564	311	75	13.3%	81	14.4%
25Q214	E	2016-17	551	338	76	13.8%	84	15.2%
25Q214	E	2017-18	529	345	74	14.0%	82	15.5%
25Q219	K-8	2014-15	649	412	143	22.0%	103	15.9%
25Q219	K-8	2015-16	679	455	159	23.4%	99	14.6%
25Q219	K-8	2016-17	672	440	168	25.0%	113	16.8%
25Q219	K-8	2017-18	642	445	184	28.7%	117	18.2%
25Q237	M	2014-15	1184	1184	154	13.0%	234	19.8%
25Q237	M	2015-16	1240	1240	171	13.8%	234	18.9%
25Q237	M	2016-17	1339	1339	175	13.1%	270	20.2%
25Q237	M	2017-18	1368	1368	175	12.8%	298	21.8%
25Q250	M	2014-15	380	380	96	25.3%	67	17.6%
25Q250	M	2015-16	379	379	88	23.2%	68	17.9%
25Q250	M	2016-17	398	398	82	20.6%	61	15.3%
25Q250	M	2017-18	399	399	77	19.3%	63	15.8%
25Q294	M	2014-15	369	369	64	17.3%	12	3.3%
25Q294	M	2015-16	367	367	64	17.4%	7	1.9%
25Q294	M	2016-17	369	369	74	20.1%	7	1.9%
25Q294	M	2017-18	375	375	90	24.0%	6	1.6%
25Q499	K-8	2014-15	504	339	54	10.7%	25	5.0%
25Q499	K-8	2015-16	485	327	51	10.5%	20	4.1%
25Q499	K-8	2016-17	479	325	50	10.4%	24	5.0%
25Q499	K-8	2017-18	506	341	52	10.3%	32	6.3%
26Q018	E	2014-15	636	283	65	10.2%	50	7.9%
26Q018	E	2015-16	658	319	65	9.9%	49	7.4%
26Q018	E	2016-17	649	364	83	12.8%	77	11.9%
26Q018	E	2017-18	617	364	83	13.5%	83	13.5%
26Q026	E	2014-15	677	304	136	20.1%	66	9.7%
26Q026	E	2015-16	676	304	136	20.1%	67	9.9%

26Q026	E	2016-17	699	339	125	17.9%	71	10.2%
26Q026	E	2017-18	709	347	128	18.1%	76	10.7%
26Q031	E	2014-15	561	250	77	13.7%	75	13.4%
26Q031	E	2015-16	544	252	79	14.5%	49	9.0%
26Q031	E	2016-17	556	261	87	15.6%	77	13.8%
26Q031	E	2017-18	551	260	97	17.6%	70	12.7%
26Q041	E	2014-15	533	272	82	15.4%	35	6.6%
26Q041	E	2015-16	521	279	84	16.1%	26	5.0%
26Q041	E	2016-17	510	285	88	17.3%	37	7.3%
26Q041	E	2017-18	486	254	89	18.3%	29	6.0%
26Q046	E	2014-15	603	315	175	29.0%	63	10.4%
26Q046	E	2015-16	613	324	166	27.1%	50	8.2%
26Q046	E	2016-17	598	318	148	24.7%	61	10.2%
26Q046	E	2017-18	556	300	145	26.1%	58	10.4%
26Q067	M	2014-15	887	887	72	8.1%	35	3.9%
26Q067	M	2015-16	907	907	61	6.7%	22	2.4%
26Q067	M	2016-17	881	881	66	7.5%	24	2.7%
26Q067	M	2017-18	894	894	77	8.6%	35	3.9%
26Q074	M	2014-15	1047	1047	147	14.0%	47	4.5%
26Q074	M	2015-16	1122	1122	150	13.4%	46	4.1%
26Q074	M	2016-17	1131	1131	151	13.4%	72	6.4%
26Q074	M	2017-18	1160	1160	151	13.0%	89	7.7%
26Q094	E	2014-15	381	205	55	14.4%	26	6.8%
26Q094	E	2015-16	366	195	58	15.8%	27	7.4%
26Q094	E	2016-17	365	186	57	15.6%	36	9.9%
26Q094	E	2017-18	328	170	51	15.5%	30	9.1%
26Q098	E	2014-15	200	94	22	11.0%	8	4.0%
26Q098	E	2015-16	205	94	26	12.7%	4	2.0%
26Q098	E	2016-17	229	103	34	14.8%	5	2.2%
26Q098	E	2017-18	289	128	49	17.0%	5	1.7%
26Q115	E	2014-15	666	264	71	10.7%	22	3.3%
26Q115	E	2015-16	699	311	77	11.0%	49	7.0%
26Q115	E	2016-17	720	325	74	10.3%	41	5.7%
26Q115	E	2017-18	753	350	86	11.4%	35	4.6%
26Q133	E	2014-15	480	199	97	20.2%	31	6.5%
26Q133	E	2015-16	485	197	101	20.8%	35	7.2%
26Q133	E	2016-17	527	198	101	19.2%	33	6.3%
26Q133	E	2017-18	553	224	99	17.9%	45	8.1%
26Q158	M	2014-15	1039	1039	115	11.1%	74	7.1%
26Q158	M	2015-16	1072	1072	134	12.5%	68	6.3%
26Q158	M	2016-17	1082	1082	129	11.9%	78	7.2%

26Q158	M	2017-18	1059	1059	137	12.9%	80	7.6%
26Q159	E	2014-15	655	309	86	13.1%	98	15.0%
26Q159	E	2015-16	660	326	87	13.2%	90	13.6%
26Q159	E	2016-17	673	340	79	11.7%	102	15.2%
26Q159	E	2017-18	678	330	97	14.3%	110	16.2%
26Q162	E	2014-15	715	374	91	12.7%	86	12.0%
26Q162	E	2015-16	688	377	98	14.2%	79	11.5%
26Q162	E	2016-17	702	364	101	14.4%	96	13.7%
26Q162	E	2017-18	680	370	105	15.4%	114	16.8%
26Q172	M	2014-15	959	959	163	17.0%	36	3.8%
26Q172	M	2015-16	988	988	165	16.7%	40	4.0%
26Q172	M	2016-17	993	993	155	15.6%	50	5.0%
26Q172	M	2017-18	978	978	158	16.2%	49	5.0%
26Q173	E	2014-15	964	470	129	13.4%	115	11.9%
26Q173	E	2015-16	951	483	139	14.6%	90	9.5%
26Q173	E	2016-17	945	487	140	14.8%	93	9.8%
26Q173	E	2017-18	948	465	142	15.0%	98	10.3%
26Q178	K-8	2014-15	524	349	55	10.5%	28	5.3%
26Q178	K-8	2015-16	564	367	79	14.0%	24	4.3%
26Q178	K-8	2016-17	534	344	71	13.3%	24	4.5%
26Q178	K-8	2017-18	566	354	92	16.3%	31	5.5%
26Q186	E	2014-15	391	177	107	27.4%	3	0.8%
26Q186	E	2015-16	385	164	97	25.2%	5	1.3%
26Q186	E	2016-17	396	192	110	27.8%	10	2.5%
26Q186	E	2017-18	383	178	111	29.0%	7	1.8%
26Q188	E	2014-15	692	283	68	9.8%	21	3.0%
26Q188	E	2015-16	724	316	67	9.3%	20	2.8%
26Q188	E	2016-17	716	333	57	8.0%	21	2.9%
26Q188	E	2017-18	734	340	73	9.9%	21	2.9%
26Q191	E	2014-15	407	184	49	12.0%	46	11.3%
26Q191	E	2015-16	392	178	47	12.0%	46	11.7%
26Q191	E	2016-17	403	186	53	13.2%	48	11.9%
26Q191	E	2017-18	396	174	51	12.9%	49	12.4%
26Q203	E	2014-15	912	404	100	11.0%	89	9.8%
26Q203	E	2015-16	924	423	104	11.3%	102	11.0%
26Q203	E	2016-17	919	423	100	10.9%	112	12.2%
26Q203	E	2017-18	938	459	92	9.8%	123	13.1%
26Q205	E	2014-15	321	142	55	17.1%	18	5.6%
26Q205	E	2015-16	311	136	54	17.4%	14	4.5%
26Q205	E	2016-17	323	140	61	18.9%	18	5.6%
26Q205	E	2017-18	325	149	59	18.2%	16	4.9%

26Q213	E	2014-15	453	185	44	9.7%	46	10.2%
26Q213	E	2015-16	453	184	48	10.6%	44	9.7%
26Q213	E	2016-17	464	185	58	12.5%	53	11.4%
26Q213	E	2017-18	467	189	56	12.0%	58	12.4%
26Q216	M	2014-15	1381	1381	135	9.8%	133	9.6%
26Q216	M	2015-16	1398	1398	131	9.4%	117	8.4%
26Q216	M	2016-17	1428	1428	165	11.6%	107	7.5%
26Q216	M	2017-18	1464	1464	168	11.5%	93	6.4%
26Q221	E	2014-15	641	315	92	14.4%	47	7.3%
26Q221	E	2015-16	632	314	88	13.9%	33	5.2%
26Q221	E	2016-17	632	318	80	12.7%	41	6.5%
26Q221	E	2017-18	628	311	82	13.1%	43	6.8%
26Q266	K-8	2014-15	689	456	111	16.1%	21	3.0%
26Q266	K-8	2015-16	663	425	112	16.9%	21	3.2%
26Q266	K-8	2016-17	662	433	127	19.2%	21	3.2%
26Q266	K-8	2017-18	649	446	152	23.4%	20	3.1%
27Q042	K-8	2014-15	684	434	161	23.5%	31	4.5%
27Q042	K-8	2015-16	701	437	199	28.4%	29	4.1%
27Q042	K-8	2016-17	719	442	195	27.1%	29	4.0%
27Q042	K-8	2017-18	658	399	178	27.1%	23	3.5%
27Q043	K-8	2014-15	994	605	225	22.6%	82	8.2%
27Q043	K-8	2015-16	981	591	233	23.8%	84	8.6%
27Q043	K-8	2016-17	924	571	217	23.5%	72	7.8%
27Q043	K-8	2017-18	901	544	197	21.9%	80	8.9%
27Q045	E	2014-15	390	195	68	17.4%	21	5.4%
27Q045	E	2015-16	391	190	78	19.9%	31	7.9%
27Q045	E	2016-17	355	178	80	22.5%	35	9.9%
27Q045	E	2017-18	325	141	69	21.2%	33	10.2%
27Q047	K-8	2014-15	217	119	56	25.8%	3	1.4%
27Q047	K-8	2015-16	220	123	53	24.1%	3	1.4%
27Q047	K-8	2016-17	214	114	58	27.1%	4	1.9%
27Q047	K-8	2017-18	216	126	58	26.9%	3	1.4%
27Q053	M	2014-15	356	356	113	31.7%	58	16.3%
27Q053	M	2015-16	317	317	117	36.9%	48	15.1%
27Q053	M	2016-17	314	314	116	36.9%	55	17.5%
27Q053	M	2017-18	267	267	88	33.0%	55	20.6%
27Q056	E	2014-15	413	308	70	16.9%	52	12.6%
27Q056	E	2015-16	407	299	74	18.2%	81	19.9%
27Q056	E	2016-17	390	282	76	19.5%	100	25.6%
27Q056	E	2017-18	387	292	78	20.2%	100	25.8%
27Q060	E	2014-15	1232	562	185	15.0%	179	14.5%

27Q060	E	2015-16	1233	580	195	15.8%	144	11.7%
27Q060	E	2016-17	1234	635	196	15.9%	193	15.6%
27Q060	E	2017-18	1176	595	197	16.8%	214	18.2%
27Q062	E	2014-15	927	441	100	10.8%	145	15.6%
27Q062	E	2015-16	947	446	102	10.8%	151	15.9%
27Q062	E	2016-17	934	458	106	11.3%	135	14.5%
27Q062	E	2017-18	944	444	112	11.9%	149	15.8%
27Q063	E	2014-15	1360	679	200	14.7%	162	11.9%
27Q063	E	2015-16	1377	719	220	16.0%	170	12.3%
27Q063	E	2016-17	1323	685	205	15.5%	165	12.5%
27Q063	E	2017-18	1227	635	208	17.0%	174	14.2%
27Q064	E	2014-15	657	333	77	11.7%	111	16.9%
27Q064	E	2015-16	664	341	66	9.9%	115	17.3%
27Q064	E	2016-17	655	351	69	10.5%	121	18.5%
27Q064	E	2017-18	616	324	74	12.0%	127	20.6%
27Q065	E	2014-15	505	254	83	16.4%	44	8.7%
27Q065	E	2015-16	495	254	83	16.8%	43	8.7%
27Q065	E	2016-17	461	244	82	17.8%	43	9.3%
27Q065	E	2017-18	456	238	98	21.5%	49	10.7%
27Q066	E	2014-15	547	260	142	26.0%	103	18.8%
27Q066	E	2015-16	544	265	149	27.4%	113	20.8%
27Q066	E	2016-17	522	253	138	26.4%	126	24.1%
27Q066	E	2017-18	494	251	136	27.5%	134	27.1%
27Q090	E	2014-15	856	384	163	19.0%	143	16.7%
27Q090	E	2015-16	851	400	157	18.4%	132	15.5%
27Q090	E	2016-17	855	418	151	17.7%	168	19.6%
27Q090	E	2017-18	850	421	149	17.5%	185	21.8%
27Q096	E	2014-15	307	128	23	7.5%	31	10.1%
27Q096	E	2015-16	309	128	31	10.0%	32	10.4%
27Q096	E	2016-17	311	132	34	10.9%	39	12.5%
27Q096	E	2017-18	306	138	32	10.5%	42	13.7%
27Q097	E	2014-15	716	328	107	14.9%	136	19.0%
27Q097	E	2015-16	741	340	128	17.3%	148	20.0%
27Q097	E	2016-17	747	367	141	18.9%	163	21.8%
27Q097	E	2017-18	720	336	126	17.5%	167	23.2%
27Q100	E	2014-15	930	470	205	22.0%	76	8.2%
27Q100	E	2015-16	966	454	168	17.4%	53	5.5%
27Q100	E	2016-17	974	465	175	18.0%	76	7.8%
27Q100	E	2017-18	957	435	190	19.9%	71	7.4%
27Q104	E	2014-15	703	294	147	20.9%	73	10.4%
27Q104	E	2015-16	722	295	149	20.6%	75	10.4%

27Q104	E	2016-17	730	301	161	22.1%	87	11.9%
27Q104	E	2017-18	689	311	146	21.2%	94	13.6%
27Q105	K-8	2014-15	851	505	199	23.4%	40	4.7%
27Q105	K-8	2015-16	890	532	233	26.2%	39	4.4%
27Q105	K-8	2016-17	834	519	233	27.9%	37	4.4%
27Q105	K-8	2017-18	815	532	258	31.7%	42	5.2%
27Q106	E	2014-15	210	94	66	31.4%	9	4.3%
27Q106	E	2015-16	218	96	74	33.9%	12	5.5%
27Q106	E	2016-17	219	90	73	33.3%	21	9.6%
27Q106	E	2017-18	211	99	69	32.7%	23	10.9%
27Q108	E	2014-15	1456	643	222	15.2%	78	5.4%
27Q108	E	2015-16	1446	707	216	14.9%	87	6.0%
27Q108	E	2016-17	1490	766	219	14.7%	140	9.4%
27Q108	E	2017-18	1471	786	240	16.3%	141	9.6%
27Q114	K-8	2014-15	653	391	146	22.4%	2	0.3%
27Q114	K-8	2015-16	640	392	155	24.2%	3	0.5%
27Q114	K-8	2016-17	663	371	146	22.0%	3	0.5%
27Q114	K-8	2017-18	669	377	156	23.3%	3	0.4%
27Q123	E	2014-15	688	303	125	18.2%	34	4.9%
27Q123	E	2015-16	698	315	146	20.9%	30	4.3%
27Q123	E	2016-17	703	307	147	20.9%	42	6.0%
27Q123	E	2017-18	688	334	141	20.5%	44	6.4%
27Q124	K-8	2014-15	1331	952	174	13.1%	64	4.8%
27Q124	K-8	2015-16	1289	942	168	13.0%	70	5.4%
27Q124	K-8	2016-17	1262	922	160	12.7%	95	7.5%
27Q124	K-8	2017-18	1229	889	152	12.4%	88	7.2%
27Q137	M	2014-15	1905	1905	259	13.6%	166	8.7%
27Q137	M	2015-16	1887	1887	264	14.0%	165	8.7%
27Q137	M	2016-17	1930	1930	290	15.0%	175	9.1%
27Q137	M	2017-18	1890	1890	303	16.0%	184	9.7%
27Q146	K-8	2014-15	693	430	146	21.1%	14	2.0%
27Q146	K-8	2015-16	704	440	152	21.6%	14	2.0%
27Q146	K-8	2016-17	708	456	163	23.0%	21	3.0%
27Q146	K-8	2017-18	678	463	153	22.6%	13	1.9%
27Q155	E	2014-15	571	250	81	14.2%	27	4.7%
27Q155	E	2015-16	566	245	69	12.2%	37	6.5%
27Q155	E	2016-17	538	243	69	12.8%	43	8.0%
27Q155	E	2017-18	520	236	72	13.8%	37	7.1%
27Q183	K-8	2014-15	602	366	177	29.4%	23	3.8%
27Q183	K-8	2015-16	586	387	191	32.6%	25	4.3%
27Q183	K-8	2016-17	575	385	185	32.2%	33	5.7%

27Q183	K-8	2017-18	525	337	187	35.6%	31	5.9%
27Q197	E	2014-15	548	217	120	21.9%	100	18.2%
27Q197	E	2015-16	567	214	129	22.8%	102	18.0%
27Q197	E	2016-17	526	221	133	25.3%	100	19.0%
27Q197	E	2017-18	498	255	122	24.5%	106	21.3%
27Q202	M	2014-15	1057	1057	168	15.9%	95	9.0%
27Q202	M	2015-16	1065	1065	173	16.2%	84	7.9%
27Q202	M	2016-17	1093	1093	182	16.7%	85	7.8%
27Q202	M	2017-18	1097	1097	166	15.1%	86	7.8%
27Q207	K-8	2014-15	738	472	149	20.2%	1	0.1%
27Q207	K-8	2015-16	721	450	143	19.8%	1	0.1%
27Q207	K-8	2016-17	712	442	140	19.7%	2	0.3%
27Q207	K-8	2017-18	680	420	136	20.0%	4	0.6%
27Q210	M	2014-15	1901	1901	321	16.9%	266	14.0%
27Q210	M	2015-16	1863	1863	329	17.7%	244	13.1%
27Q210	M	2016-17	1868	1868	309	16.5%	276	14.8%
27Q210	M	2017-18	1880	1880	313	16.6%	300	16.0%
27Q223	E	2014-15	625	284	142	22.7%	19	3.0%
27Q223	E	2015-16	606	272	127	21.0%	27	4.5%
27Q223	E	2016-17	595	286	136	22.9%	29	4.9%
27Q223	E	2017-18	559	274	126	22.5%	31	5.5%
27Q226	M	2014-15	1042	1042	194	18.6%	57	5.5%
27Q226	M	2015-16	928	928	189	20.4%	54	5.8%
27Q226	M	2016-17	917	917	192	20.9%	55	6.0%
27Q226	M	2017-18	916	916	191	20.9%	58	6.3%
27Q232	K-8	2014-15	1085	729	170	15.7%	38	3.5%
27Q232	K-8	2015-16	1049	727	188	17.9%	34	3.2%
27Q232	K-8	2016-17	1037	729	203	19.6%	30	2.9%
27Q232	K-8	2017-18	970	684	190	19.6%	44	4.5%
27Q253	E	2014-15	530	224	102	19.2%	158	29.8%
27Q253	E	2015-16	564	264	115	20.4%	154	27.3%
27Q253	E	2016-17	600	293	134	22.3%	174	29.0%
27Q253	E	2017-18	562	278	137	24.4%	174	31.0%
27Q254	E	2014-15	661	313	91	13.8%	58	8.8%
27Q254	E	2015-16	674	322	86	12.8%	70	10.4%
27Q254	E	2016-17	657	322	95	14.5%	80	12.2%
27Q254	E	2017-18	648	315	92	14.2%	91	14.0%
27Q273	E	2014-15	306	104	50	16.3%	30	9.8%
27Q273	E	2015-16	364	177	58	15.9%	40	11.0%
27Q273	E	2016-17	365	182	69	18.9%	42	11.5%
27Q273	E	2017-18	340	164	65	19.1%	44	12.9%

27Q282	M	2014-15	263	263	22	8.4%	14	5.3%
27Q282	M	2015-16	260	260	28	10.8%	19	7.3%
27Q282	M	2016-17	259	259	39	15.1%	18	6.9%
27Q282	M	2017-18	264	264	43	16.3%	17	6.4%
27Q297	M	2014-15	255	255	57	22.4%	8	3.1%
27Q297	M	2015-16	347	347	73	21.0%	15	4.3%
27Q297	M	2016-17	402	402	84	20.9%	20	5.0%
27Q297	M	2017-18	366	366	75	20.5%	16	4.4%
27Q306	E	2014-15	480	227	90	18.8%	68	14.2%
27Q306	E	2015-16	466	226	92	19.7%	59	12.7%
27Q306	E	2016-17	454	219	86	18.9%	81	17.8%
27Q306	E	2017-18	417	202	80	19.2%	64	15.3%
27Q317	E	2014-15	459	203	91	19.8%	46	10.0%
27Q317	E	2015-16	489	226	97	19.8%	48	9.8%
27Q317	E	2016-17	491	219	98	20.0%	56	11.4%
27Q317	E	2017-18	503	226	101	20.1%	59	11.7%
27Q318	M	2014-15	190	190	76	40.0%	12	6.3%
27Q318	M	2015-16	223	223	77	34.5%	19	8.5%
27Q318	M	2016-17	230	230	72	31.3%	21	9.1%
27Q318	M	2017-18	228	228	62	27.2%	14	6.1%
27Q319	M	2014-15	328	328	91	27.7%	50	15.2%
27Q319	M	2015-16	307	307	72	23.5%	57	18.6%
27Q319	M	2016-17	314	314	64	20.4%	49	15.6%
27Q319	M	2017-18	359	359	79	22.0%	61	17.0%
27Q333	K-8	2014-15	534	275	31	5.8%	0	0.0%
27Q333	K-8	2015-16	524	264	37	7.1%	0	0.0%
27Q333	K-8	2016-17	478	229	33	6.9%	1	0.2%
27Q333	K-8	2017-18	428	230	31	7.2%	1	0.2%
27Q362	E	2014-15	435	134	76	17.5%	103	23.7%
27Q362	E	2015-16	542	235	111	20.5%	107	19.7%
27Q362	E	2016-17	559	255	105	18.8%	115	20.6%
27Q362	E	2017-18	554	250	98	17.7%	116	20.9%
28Q008	M	2014-15	486	486	121	24.9%	58	11.9%
28Q008	M	2015-16	370	370	102	27.6%	48	13.0%
28Q008	M	2016-17	357	357	85	23.8%	57	16.0%
28Q008	M	2017-18	339	339	68	20.1%	43	12.7%
28Q040	E	2014-15	573	280	128	22.3%	36	6.3%
28Q040	E	2015-16	538	277	137	25.5%	28	5.2%
28Q040	E	2016-17	498	286	140	28.1%	23	4.6%
28Q040	E	2017-18	458	254	127	27.7%	22	4.8%
28Q048	E	2014-15	569	232	157	27.6%	37	6.5%

28Q048	E	2015-16	603	258	158	26.2%	40	6.6%
28Q048	E	2016-17	628	290	179	28.5%	58	9.2%
28Q048	E	2017-18	601	289	156	26.0%	75	12.5%
28Q050	E	2014-15	787	356	147	18.7%	122	15.5%
28Q050	E	2015-16	801	348	165	20.6%	113	14.1%
28Q050	E	2016-17	811	370	158	19.5%	134	16.5%
28Q050	E	2017-18	797	367	149	18.7%	114	14.3%
28Q054	E	2014-15	597	271	92	15.4%	144	24.1%
28Q054	E	2015-16	586	270	94	16.0%	151	25.8%
28Q054	E	2016-17	577	279	86	14.9%	168	29.1%
28Q054	E	2017-18	565	303	94	16.6%	147	26.0%
28Q055	E	2014-15	496	220	83	16.7%	31	6.3%
28Q055	E	2015-16	529	245	95	18.0%	54	10.2%
28Q055	E	2016-17	522	243	87	16.7%	65	12.5%
28Q055	E	2017-18	513	228	95	18.5%	74	14.4%
28Q072	M	2014-15	760	760	174	22.9%	30	3.9%
28Q072	M	2015-16	605	605	160	26.4%	36	6.0%
28Q072	M	2016-17	442	442	122	27.6%	28	6.3%
28Q072	M	2017-18	375	375	108	28.8%	26	6.9%
28Q080	E	2014-15	594	286	143	24.1%	11	1.9%
28Q080	E	2015-16	551	260	132	24.0%	12	2.2%
28Q080	E	2016-17	525	254	125	23.8%	16	3.0%
28Q080	E	2017-18	523	279	126	24.1%	16	3.1%
28Q082	E	2014-15	657	330	101	15.4%	181	27.5%
28Q082	E	2015-16	643	311	98	15.2%	191	29.7%
28Q082	E	2016-17	646	314	107	16.6%	214	33.1%
28Q082	E	2017-18	656	339	115	17.5%	224	34.1%
28Q086	E	2014-15	942	336	149	15.8%	288	30.6%
28Q086	E	2015-16	934	395	174	18.6%	296	31.7%
28Q086	E	2016-17	1016	523	190	18.7%	314	30.9%
28Q086	E	2017-18	944	515	166	17.6%	284	30.1%
28Q099	E	2014-15	850	462	157	18.5%	96	11.3%
28Q099	E	2015-16	836	473	173	20.7%	89	10.6%
28Q099	E	2016-17	810	470	168	20.7%	96	11.9%
28Q099	E	2017-18	785	449	170	21.7%	100	12.7%
28Q101	E	2014-15	613	310	63	10.3%	29	4.7%
28Q101	E	2015-16	633	299	73	11.5%	29	4.6%
28Q101	E	2016-17	668	313	84	12.6%	36	5.4%
28Q101	E	2017-18	654	299	98	15.0%	35	5.4%
28Q117	E	2014-15	1071	478	165	15.4%	120	11.2%
28Q117	E	2015-16	1081	496	194	17.9%	99	9.2%

28Q117	E	2016-17	1051	480	183	17.4%	102	9.7%
28Q117	E	2017-18	1016	490	182	17.9%	111	10.9%
28Q121	E	2014-15	888	399	107	12.0%	35	3.9%
28Q121	E	2015-16	949	426	124	13.1%	36	3.8%
28Q121	E	2016-17	939	455	119	12.7%	44	4.7%
28Q121	E	2017-18	928	503	120	12.9%	35	3.8%
28Q139	E	2014-15	847	451	146	17.2%	152	17.9%
28Q139	E	2015-16	821	442	143	17.4%	130	15.8%
28Q139	E	2016-17	773	407	138	17.9%	132	17.1%
28Q139	E	2017-18	750	385	133	17.7%	134	17.9%
28Q140	E	2014-15	550	266	109	19.8%	11	2.0%
28Q140	E	2015-16	521	266	95	18.2%	19	3.6%
28Q140	E	2016-17	452	212	79	17.5%	19	4.2%
28Q140	E	2017-18	473	221	98	20.7%	29	6.1%
28Q144	E	2014-15	818	340	100	12.2%	42	5.1%
28Q144	E	2015-16	869	379	107	12.3%	45	5.2%
28Q144	E	2016-17	895	397	111	12.4%	40	4.5%
28Q144	E	2017-18	893	385	121	13.5%	40	4.5%
28Q157	M	2014-15	1529	1456	233	15.2%	166	10.9%
28Q157	M	2015-16	1608	1509	237	14.7%	150	9.3%
28Q157	M	2016-17	1572	1525	238	15.1%	146	9.3%
28Q157	M	2017-18	1636	1603	237	14.5%	157	9.6%
28Q160	E	2014-15	676	310	142	21.0%	26	3.8%
28Q160	E	2015-16	699	319	149	21.3%	29	4.1%
28Q160	E	2016-17	676	329	144	21.3%	44	6.5%
28Q160	E	2017-18	659	306	135	20.5%	56	8.5%
28Q161	E	2014-15	679	308	99	14.6%	81	11.9%
28Q161	E	2015-16	703	328	97	13.8%	80	11.4%
28Q161	E	2016-17	740	369	96	13.0%	98	13.2%
28Q161	E	2017-18	708	342	97	13.7%	98	13.8%
28Q174	E	2014-15	686	323	80	11.7%	69	10.1%
28Q174	E	2015-16	704	320	80	11.4%	67	9.5%
28Q174	E	2016-17	674	307	68	10.1%	81	12.0%
28Q174	E	2017-18	673	324	68	10.1%	80	11.9%
28Q175	E	2014-15	759	340	85	11.2%	63	8.3%
28Q175	E	2015-16	766	326	103	13.4%	64	8.4%
28Q175	E	2016-17	786	336	110	14.0%	67	8.5%
28Q175	E	2017-18	808	357	116	14.4%	78	9.7%
28Q182	E	2014-15	937	514	148	15.8%	285	30.4%
28Q182	E	2015-16	897	483	149	16.6%	302	33.7%
28Q182	E	2016-17	796	407	122	15.3%	276	34.7%

28Q182	E	2017-18	760	395	129	17.0%	273	35.9%
28Q190	M	2014-15	1038	1037	157	15.1%	100	9.6%
28Q190	M	2015-16	1057	1056	131	12.4%	86	8.1%
28Q190	M	2016-17	1036	1036	130	12.5%	91	8.8%
28Q190	M	2017-18	1055	1055	135	12.8%	100	9.5%
28Q196	E	2014-15	799	384	99	12.4%	45	5.6%
28Q196	E	2015-16	901	436	106	11.8%	57	6.3%
28Q196	E	2016-17	959	445	128	13.3%	57	5.9%
28Q196	E	2017-18	993	437	118	11.9%	54	5.4%
28Q206	E	2014-15	602	275	61	10.1%	136	22.6%
28Q206	E	2015-16	589	283	57	9.7%	142	24.1%
28Q206	E	2016-17	602	286	68	11.3%	159	26.4%
28Q206	E	2017-18	610	287	79	13.0%	177	29.0%
28Q217	M	2014-15	1606	1606	255	15.9%	282	17.6%
28Q217	M	2015-16	1572	1572	243	15.5%	285	18.1%
28Q217	M	2016-17	1644	1644	273	16.6%	314	19.1%
28Q217	M	2017-18	1630	1630	261	16.0%	270	16.6%
28Q220	E	2014-15	711	352	105	14.8%	127	17.9%
28Q220	E	2015-16	693	338	105	15.2%	112	16.2%
28Q220	E	2016-17	707	332	92	13.0%	127	18.0%
28Q220	E	2017-18	706	333	79	11.2%	150	21.2%
28Q287	M	2014-15	237	237	61	25.7%	18	7.6%
28Q287	M	2015-16	322	322	80	24.8%	24	7.5%
28Q287	M	2016-17	372	372	95	25.5%	36	9.7%
28Q287	M	2017-18	365	365	96	26.3%	46	12.6%
28Q303	E	2014-15	209	42	19	9.1%	1	0.5%
28Q303	E	2015-16	196	30	21	10.7%	2	1.0%
28Q303	E	2016-17	208	39	30	14.4%	1	0.5%
28Q303	E	2017-18	207	36	28	13.5%	1	0.5%
28Q332	M	2014-15	91	91	21	23.1%	2	2.2%
28Q332	M	2015-16	202	202	48	23.8%	5	2.5%
28Q332	M	2016-17	329	329	83	25.2%	9	2.7%
28Q332	M	2017-18	309	309	77	24.9%	12	3.9%
28Q354	E	2014-15	569	244	117	20.6%	21	3.7%
28Q354	E	2015-16	630	283	134	21.3%	21	3.3%
28Q354	E	2016-17	642	311	126	19.6%	26	4.0%
28Q354	E	2017-18	616	316	117	19.0%	21	3.4%
29Q015	E	2014-15	424	212	61	14.4%	5	1.2%
29Q015	E	2015-16	468	223	63	13.5%	8	1.7%
29Q015	E	2016-17	465	220	51	11.0%	13	2.8%
29Q015	E	2017-18	433	201	71	16.4%	14	3.2%

29Q033	E	2014-15	1048	523	132	12.6%	134	12.8%
29Q033	E	2015-16	1053	522	123	11.7%	159	15.1%
29Q033	E	2016-17	989	491	124	12.5%	174	17.6%
29Q033	E	2017-18	974	481	133	13.7%	177	18.2%
29Q034	E	2014-15	557	271	91	16.3%	59	10.6%
29Q034	E	2015-16	570	277	89	15.6%	55	9.6%
29Q034	E	2016-17	569	276	85	14.9%	67	11.8%
29Q034	E	2017-18	580	276	97	16.7%	62	10.7%
29Q035	E	2014-15	659	323	99	15.0%	92	14.0%
29Q035	E	2015-16	654	318	112	17.1%	92	14.1%
29Q035	E	2016-17	680	323	97	14.3%	96	14.1%
29Q035	E	2017-18	706	334	102	14.4%	98	13.9%
29Q036	E	2014-15	493	248	115	23.3%	14	2.8%
29Q036	E	2015-16	487	261	99	20.3%	17	3.5%
29Q036	E	2016-17	466	260	97	20.8%	24	5.2%
29Q036	E	2017-18	449	242	98	21.8%	29	6.5%
29Q037	E	2014-15	558	260	112	20.1%	29	5.2%
29Q037	E	2015-16	547	258	112	20.5%	19	3.5%
29Q037	E	2016-17	508	247	103	20.3%	20	3.9%
29Q037	E	2017-18	445	223	96	21.6%	18	4.0%
29Q038	E	2014-15	195	113	43	22.1%	5	2.6%
29Q038	E	2015-16	218	109	44	20.2%	4	1.8%
29Q038	E	2016-17	223	113	40	17.9%	10	4.5%
29Q038	E	2017-18	270	124	47	17.4%	14	5.2%
29Q052	E	2014-15	511	216	100	19.6%	19	3.7%
29Q052	E	2015-16	509	245	112	22.0%	23	4.5%
29Q052	E	2016-17	475	216	98	20.6%	33	6.9%
29Q052	E	2017-18	462	212	102	22.1%	35	7.6%
29Q059	M	2014-15	503	503	94	18.7%	15	3.0%
29Q059	M	2015-16	548	548	107	19.5%	12	2.2%
29Q059	M	2016-17	573	573	136	23.7%	10	1.7%
29Q059	M	2017-18	586	586	116	19.8%	15	2.6%
29Q095	E	2014-15	1501	751	163	10.9%	421	28.0%
29Q095	E	2015-16	1517	775	157	10.3%	362	23.9%
29Q095	E	2016-17	1508	796	158	10.5%	371	24.6%
29Q095	E	2017-18	1490	788	175	11.7%	331	22.2%
29Q109	M	2014-15	968	968	125	12.9%	72	7.4%
29Q109	M	2015-16	964	964	143	14.8%	92	9.5%
29Q109	M	2016-17	1039	1039	164	15.8%	105	10.1%
29Q109	M	2017-18	1108	1108	159	14.4%	87	7.9%
29Q116	K-8	2014-15	762	408	152	19.9%	80	10.5%

29Q116	K-8	2015-16	756	430	165	21.8%	87	11.5%
29Q116	K-8	2016-17	766	450	188	24.5%	96	12.5%
29Q116	K-8	2017-18	792	460	195	24.6%	126	15.9%
29Q118	E	2014-15	554	270	99	17.9%	26	4.7%
29Q118	E	2015-16	530	251	102	19.2%	22	4.2%
29Q118	E	2016-17	510	256	104	20.4%	30	5.9%
29Q118	E	2017-18	448	214	98	21.9%	40	8.9%
29Q131	E	2014-15	831	422	83	10.0%	182	21.9%
29Q131	E	2015-16	829	437	97	11.7%	170	20.5%
29Q131	E	2016-17	871	480	100	11.5%	175	20.1%
29Q131	E	2017-18	812	449	84	10.3%	141	17.4%
29Q132	E	2014-15	353	130	70	19.8%	4	1.1%
29Q132	E	2015-16	381	165	87	22.8%	1	0.3%
29Q132	E	2016-17	386	172	80	20.7%	10	2.6%
29Q132	E	2017-18	391	161	88	22.5%	18	4.6%
29Q134	E	2014-15	459	209	101	22.0%	48	10.5%
29Q134	E	2015-16	436	210	91	20.9%	42	9.6%
29Q134	E	2016-17	416	212	92	22.1%	43	10.3%
29Q134	E	2017-18	382	183	76	19.9%	42	11.0%
29Q135	E	2014-15	1021	491	142	13.9%	106	10.4%
29Q135	E	2015-16	1012	474	146	14.4%	110	10.9%
29Q135	E	2016-17	1011	485	161	15.9%	120	11.9%
29Q135	E	2017-18	989	457	167	16.9%	131	13.2%
29Q136	E	2014-15	591	255	109	18.4%	13	2.2%
29Q136	E	2015-16	624	281	113	18.1%	17	2.7%
29Q136	E	2016-17	648	324	101	15.6%	31	4.8%
29Q136	E	2017-18	618	306	95	15.4%	37	6.0%
29Q138	K-8	2014-15	825	546	136	16.5%	36	4.4%
29Q138	K-8	2015-16	790	541	142	18.0%	35	4.4%
29Q138	K-8	2016-17	777	540	141	18.1%	42	5.4%
29Q138	K-8	2017-18	763	520	141	18.5%	39	5.1%
29Q147	K-8	2014-15	695	461	108	15.5%	29	4.2%
29Q147	K-8	2015-16	630	441	113	17.9%	21	3.3%
29Q147	K-8	2016-17	606	433	124	20.5%	26	4.3%
29Q147	K-8	2017-18	593	420	113	19.1%	31	5.2%
29Q156	E	2014-15	378	219	73	19.3%	15	4.0%
29Q156	E	2015-16	293	138	40	13.7%	12	4.1%
29Q156	E	2016-17	287	134	35	12.2%	18	6.3%
29Q156	E	2017-18	260	129	33	12.7%	10	3.8%
29Q176	E	2014-15	741	378	86	11.6%	12	1.6%
29Q176	E	2015-16	732	403	86	11.7%	10	1.4%

29Q176	E	2016-17	737	402	74	10.0%	11	1.5%
29Q176	E	2017-18	716	354	71	9.9%	6	0.8%
29Q181	E	2014-15	417	169	69	16.5%	13	3.1%
29Q181	E	2015-16	389	161	88	22.6%	11	2.8%
29Q181	E	2016-17	334	148	82	24.6%	11	3.3%
29Q181	E	2017-18	326	156	92	28.2%	11	3.4%
29Q192	M	2014-15	511	511	111	21.7%	26	5.1%
29Q192	M	2015-16	508	508	101	19.9%	23	4.5%
29Q192	M	2016-17	507	507	100	19.7%	37	7.3%
29Q192	M	2017-18	486	486	106	21.8%	41	8.4%
29Q195	E	2014-15	656	313	117	17.8%	14	2.1%
29Q195	E	2015-16	613	297	111	18.1%	10	1.6%
29Q195	E	2016-17	579	292	94	16.2%	11	1.9%
29Q195	E	2017-18	564	262	97	17.2%	12	2.1%
29Q208	K-8	2014-15	703	502	131	18.6%	8	1.1%
29Q208	K-8	2015-16	727	516	136	18.7%	5	0.7%
29Q208	K-8	2016-17	739	531	141	19.1%	7	0.9%
29Q208	K-8	2017-18	707	515	136	19.2%	3	0.4%
29Q238	M	2014-15	1565	1564	229	14.6%	223	14.2%
29Q238	M	2015-16	1498	1498	235	15.7%	231	15.4%
29Q238	M	2016-17	1511	1511	207	13.7%	248	16.4%
29Q238	M	2017-18	1404	1404	186	13.2%	234	16.7%
29Q251	E	2014-15	346	70	61	17.6%	0	0.0%
29Q251	E	2015-16	325	120	68	20.9%	0	0.0%
29Q251	E	2016-17	354	170	83	23.4%	0	0.0%
29Q251	E	2017-18	339	172	77	22.7%	2	0.6%
29Q268	K-8	2014-15	590	362	85	14.4%	29	4.9%
29Q268	K-8	2015-16	580	367	85	14.7%	45	7.8%
29Q268	K-8	2016-17	604	387	93	15.4%	85	14.1%
29Q268	K-8	2017-18	632	404	89	14.1%	104	16.5%
29Q270	K-8	2014-15	678	451	113	16.7%	2	0.3%
29Q270	K-8	2015-16	678	477	106	15.6%	1	0.1%
29Q270	K-8	2016-17	706	509	110	15.6%	3	0.4%
29Q270	K-8	2017-18	753	579	124	16.5%	3	0.4%
29Q289	M	2014-15	148	148	28	18.9%	3	2.0%
29Q289	M	2015-16	240	240	44	18.3%	4	1.7%
29Q289	M	2016-17	232	232	40	17.2%	3	1.3%
29Q289	M	2017-18	204	204	40	19.6%	5	2.5%
29Q295	K-8	2014-15	540	351	89	16.5%	49	9.1%
29Q295	K-8	2015-16	548	379	92	16.8%	61	11.1%
29Q295	K-8	2016-17	532	375	97	18.2%	55	10.3%

29Q295	K-8	2017-18	496	332	87	17.5%	47	9.5%
29Q355	M	2014-15	444	444	98	22.1%	8	1.8%
29Q355	M	2015-16	395	395	100	25.3%	9	2.3%
29Q355	M	2016-17	341	341	90	26.4%	12	3.5%
29Q355	M	2017-18	305	305	79	25.9%	14	4.6%
29Q356	M	2014-15	429	429	90	21.0%	15	3.5%
29Q356	M	2015-16	377	377	85	22.5%	11	2.9%
29Q356	M	2016-17	314	314	74	23.6%	19	6.1%
29Q356	M	2017-18	302	302	82	27.2%	17	5.6%
30Q002	E	2014-15	653	330	93	14.2%	121	18.5%
30Q002	E	2015-16	593	306	101	17.0%	97	16.4%
30Q002	E	2016-17	592	326	108	18.2%	97	16.4%
30Q002	E	2017-18	568	305	107	18.8%	96	16.9%
30Q010	M	2014-15	862	862	143	16.6%	81	9.4%
30Q010	M	2015-16	790	790	129	16.3%	91	11.5%
30Q010	M	2016-17	754	754	129	17.1%	106	14.1%
30Q010	M	2017-18	741	741	133	17.9%	121	16.3%
30Q011	E	2014-15	1275	752	219	17.2%	318	24.9%
30Q011	E	2015-16	1178	722	222	18.8%	299	25.4%
30Q011	E	2016-17	1122	700	220	19.6%	293	26.1%
30Q011	E	2017-18	1027	665	211	20.5%	255	24.8%
30Q017	E	2014-15	531	233	125	23.5%	127	23.9%
30Q017	E	2015-16	562	246	118	21.0%	127	22.6%
30Q017	E	2016-17	573	240	110	19.2%	136	23.7%
30Q017	E	2017-18	547	238	108	19.7%	133	24.3%
30Q069	E	2014-15	1159	654	104	9.0%	238	20.5%
30Q069	E	2015-16	1087	588	105	9.7%	189	17.4%
30Q069	E	2016-17	1035	536	105	10.1%	200	19.3%
30Q069	E	2017-18	1033	541	114	11.0%	222	21.5%
30Q070	E	2014-15	1029	451	133	12.9%	234	22.7%
30Q070	E	2015-16	999	438	137	13.7%	202	20.2%
30Q070	E	2016-17	931	390	124	13.3%	208	22.3%
30Q070	E	2017-18	880	381	111	12.6%	192	21.8%
30Q076	E	2014-15	556	229	209	37.6%	82	14.7%
30Q076	E	2015-16	557	226	204	36.6%	67	12.0%
30Q076	E	2016-17	508	206	177	34.8%	85	16.7%
30Q076	E	2017-18	457	198	157	34.4%	63	13.8%
30Q078	K-8	2014-15	475	201	49	10.3%	34	7.2%
30Q078	K-8	2015-16	583	256	65	11.1%	27	4.6%
30Q078	K-8	2016-17	648	295	71	11.0%	33	5.1%
30Q078	K-8	2017-18	706	338	89	12.6%	32	4.5%

30Q084	E	2014-15	368	165	58	15.8%	40	10.9%
30Q084	E	2015-16	346	140	56	16.2%	37	10.7%
30Q084	E	2016-17	283	116	54	19.1%	33	11.7%
30Q084	E	2017-18	272	112	49	18.0%	23	8.5%
30Q085	E	2014-15	580	237	62	10.7%	63	10.9%
30Q085	E	2015-16	593	263	73	12.3%	52	8.8%
30Q085	E	2016-17	605	266	73	12.1%	70	11.6%
30Q085	E	2017-18	657	290	91	13.9%	81	12.3%
30Q092	E	2014-15	904	416	164	18.1%	340	37.6%
30Q092	E	2015-16	854	407	166	19.4%	284	33.3%
30Q092	E	2016-17	930	436	183	19.7%	257	27.6%
30Q092	E	2017-18	928	424	191	20.6%	256	27.6%
30Q111	K-8	2014-15	332	217	91	27.4%	63	19.0%
30Q111	K-8	2015-16	285	190	93	32.6%	53	18.6%
30Q111	K-8	2016-17	284	162	92	32.4%	50	17.6%
30Q111	K-8	2017-18	316	162	97	30.7%	45	14.2%
30Q112	E	2014-15	538	216	81	15.1%	88	16.4%
30Q112	E	2015-16	524	233	72	13.7%	76	14.5%
30Q112	E	2016-17	510	222	64	12.5%	91	17.8%
30Q112	E	2017-18	485	222	68	14.0%	81	16.7%
30Q122	K-8	2014-15	1369	790	158	11.5%	77	5.6%
30Q122	K-8	2015-16	1385	810	144	10.4%	70	5.1%
30Q122	K-8	2016-17	1366	791	148	10.8%	87	6.4%
30Q122	K-8	2017-18	1361	823	130	9.6%	108	7.9%
30Q126	M	2014-15	565	565	113	20.0%	79	14.0%
30Q126	M	2015-16	581	581	112	19.3%	70	12.0%
30Q126	M	2016-17	625	625	127	20.3%	77	12.3%
30Q126	M	2017-18	658	658	131	19.9%	55	8.4%
30Q127	K-8	2014-15	1421	898	209	14.7%	486	34.2%
30Q127	K-8	2015-16	1335	914	208	15.6%	420	31.5%
30Q127	K-8	2016-17	1262	864	200	15.8%	373	29.6%
30Q127	K-8	2017-18	1299	888	219	16.9%	374	28.8%
30Q141	M	2014-15	1197	1197	156	13.0%	85	7.1%
30Q141	M	2015-16	1161	1161	162	14.0%	65	5.6%
30Q141	M	2016-17	1120	1120	150	13.4%	67	6.0%
30Q141	M	2017-18	1107	1107	145	13.1%	67	6.1%
30Q145	M	2014-15	2064	2064	360	17.4%	492	23.8%
30Q145	M	2015-16	1925	1925	327	17.0%	395	20.5%
30Q145	M	2016-17	1865	1865	311	16.7%	395	21.2%
30Q145	M	2017-18	1699	1699	258	15.2%	369	21.7%
30Q148	E	2014-15	1042	467	153	14.7%	312	29.9%

30Q148	E	2015-16	1030	498	159	15.4%	300	29.1%
30Q148	E	2016-17	980	465	156	15.9%	302	30.8%
30Q148	E	2017-18	919	442	153	16.6%	294	32.0%
30Q149	E	2014-15	1237	762	157	12.7%	418	33.8%
30Q149	E	2015-16	1177	741	143	12.1%	359	30.5%
30Q149	E	2016-17	1102	687	158	14.3%	352	31.9%
30Q149	E	2017-18	1054	644	177	16.8%	386	36.6%
30Q150	E	2014-15	1219	610	138	11.3%	173	14.2%
30Q150	E	2015-16	1147	609	135	11.8%	152	13.3%
30Q150	E	2016-17	1138	597	137	12.0%	171	15.0%
30Q150	E	2017-18	1081	571	140	13.0%	184	17.0%
30Q151	E	2014-15	439	163	92	21.0%	61	13.9%
30Q151	E	2015-16	432	175	98	22.7%	48	11.1%
30Q151	E	2016-17	419	182	93	22.2%	46	11.0%
30Q151	E	2017-18	381	185	104	27.3%	42	11.0%
30Q152	E	2014-15	1385	643	178	12.9%	384	27.7%
30Q152	E	2015-16	1257	630	150	11.9%	374	29.8%
30Q152	E	2016-17	1205	629	145	12.0%	400	33.2%
30Q152	E	2017-18	1104	587	124	11.2%	351	31.8%
30Q166	E	2014-15	1255	580	145	11.6%	232	18.5%
30Q166	E	2015-16	1180	606	119	10.1%	204	17.3%
30Q166	E	2016-17	1159	627	115	9.9%	188	16.2%
30Q166	E	2017-18	1075	564	120	11.2%	168	15.6%
30Q171	E	2014-15	558	234	111	19.9%	119	21.3%
30Q171	E	2015-16	521	236	136	26.1%	100	19.2%
30Q171	E	2016-17	484	246	109	22.5%	102	21.1%
30Q171	E	2017-18	503	240	112	22.3%	99	19.7%
30Q204	M	2014-15	590	590	130	22.0%	81	13.7%
30Q204	M	2015-16	495	495	138	27.9%	72	14.5%
30Q204	M	2016-17	495	495	139	28.1%	72	14.5%
30Q204	M	2017-18	484	484	131	27.1%	85	17.6%
30Q212	E	2014-15	788	378	115	14.6%	98	12.4%
30Q212	E	2015-16	806	404	126	15.6%	114	14.1%
30Q212	E	2016-17	814	410	132	16.2%	113	13.9%
30Q212	E	2017-18	784	374	128	16.3%	119	15.2%
30Q227	M	2014-15	1642	1642	230	14.0%	81	4.9%
30Q227	M	2015-16	1572	1572	230	14.6%	80	5.1%
30Q227	M	2016-17	1578	1578	225	14.3%	61	3.9%
30Q227	M	2017-18	1586	1586	229	14.4%	63	4.0%
30Q230	M	2014-15	1078	1078	124	11.5%	116	10.8%
30Q230	M	2015-16	1198	1198	144	12.0%	131	10.9%

30Q230	M	2016-17	1307	1307	165	12.6%	173	13.2%
30Q230	M	2017-18	1296	1296	170	13.1%	195	15.0%
30Q234	E	2014-15	624	291	94	15.1%	151	24.2%
30Q234	E	2015-16	600	293	105	17.5%	135	22.5%
30Q234	E	2016-17	558	269	93	16.7%	104	18.6%
30Q234	E	2017-18	522	265	92	17.6%	89	17.0%
30Q280	E	2014-15	575	230	93	16.2%	253	44.0%
30Q280	E	2015-16	706	361	106	15.0%	276	39.1%
30Q280	E	2016-17	723	375	107	14.8%	285	39.4%
30Q280	E	2017-18	688	355	90	13.1%	246	35.8%
30Q291	M	2014-15	227	227	53	23.3%	18	7.9%
30Q291	M	2015-16	374	374	84	22.5%	26	7.0%
30Q291	M	2016-17	410	410	95	23.2%	22	5.4%
30Q291	M	2017-18	421	421	102	24.2%	17	4.0%

REFERENCES

Adams, C.M., & Miskell, R.C. (2016). Teacher trust in district administration: A promising line of inquiry. *Education Administration Quarterly, 45*, 4-33.

Baier, A. (1986), "Trust and antitrust", *Ethics, 96*, 231-260.

Blase, J. & Anderson. G. L. (1995). *The micropolitics of educational leadership: From control to empowerment.* New York, London: Teachers College Press.

Brohawn, K. (2013). Assessing the Assessment: NYC's School Survey. https://www.expandedschools.org/blog/assessing-assessment-nycs-school-survey#sthash.LVDjeRBd.dpbs

Bryk, A.S., Sebring, P.B., Allensworth, E., Luppescu, S., Easton, J. O. (2010). *Organizing schools for improvement: Lessons from Chicago*. Chicago, IL: University of Chicago Press.

Bryk, A.S, & Schneider B. (2003). Trust in schools: A core resource for school reform. *Educational Leadership 60* (6), pp. 40-45.

Bryk A.S. & Schneider, B. (2002). *Trust in Schools*. New York: Russell Sage.

Burke, C. S., Sims, D. E. Lazzara, E. H., & Salas, E. (2007). Trust in leadership: A multilevel review and integration. *The Leadership Quarterly, 18,* 606-632.

Callahan, R. E. (1962). *Education and the Cult of Efficiency.* Chicago, IL: The University of Chicago Press.

City, E.A., Elmore, R.F., Fiarman S.E., & Teitel, L. (2009). *Instructional rounds: A network approach to improving teaching and learning.* Cambridge, MA: Harvard Educational Press.

Cross, C. R., & Rice, R. C. (2000). The role of the principal as instructional leader in a standards-driven system. *NASSP Bulletin, 84(*620), 61-65.

Deutsch, M. (1958). Trust and suspicion. *Journal of Conflict Resolution, 2*, 265-79.

Forsyth, P. B., Adams, C. M., & Hoy, W. K. (2011). *Collective trust: Why schools can't improve without it*. New York, NY: Teachers College Press.

Freiberg, H.J. (1998). Measuring school climate: Let me count the ways. *Educational Leadership*, 56(1), 22-26.

Fullan, M. (2003). *The moral imperative of school leadership.* Thousand Oaks, CA: Corwin Press.

Fullan, M., & Quinn, J. (2016). *Coherence: The Right Drivers n Action for Schools, Districts, and Systems.* Thousand Oaks, CA: Corwin, a Sage Company.

Goddard, R.D., Salloum, S.J., & Berebitsky, D. (2009). Trust as a mediator of the relationship between poverty, racial composition, and academic achievement. *Educational Administration Quarterly. 45*(2), 292-311.

Goddard, R.D., Tschannen-Moran, M., & Hoy, W.K. (2001). A multilevel examination of the distribution and effects of teacher trust in students and parents in urban elementary schools. *Elementary School Journal, 102*(1), 3-17.

Grigg, R. (2016a). *What does it mean to teach with moral purpose?* Teachwire https://www.teachwire.net/news/what-does-it-mean-to-teach-with-moral-purpose

Grigg, R. (2016b). *Big Ideas in education*. London, England: Crown House Publishing Limted.

Hoy, W. K. (2018). *Faculty Trust: The Omnibus T-Scale.* Retrieved from URL: http://www.waynekhoy.com/faculty-trust/

Hoy, W. K., & Miskel, C. G. (1996). *Educational administration: Theory, research, and practice, Fifth Edition.* New York, NY: McGraw-Hill Inc.

Hoy W, K. (1990). Organizational Climate and culture: A conceptual analysis of the school workplace. *Journal of Educational & Psychological Consultation, 1*(2), 149-168.

Hoy, W.K., & Kupersmith, W.J. (1985). The meaning and measure of faculty trust. *Educational Psychological Research, 5,* 1-10.

Hoy, W. K., Hoy, W. & Tschannen-Moran, M. (1999). Five Faces of Trust: An empirical confirmation in urban elementary schools. *Journal of School Leadership, 9,* 184-208.

Hoy, W. K., Hoy, W. & Tschannen-Moran, M. (1998). Teacher efficacy: It's meaning and measure. *Review of Educational Research, 68,* 202-248.

Hoy, W. K., & Tschannen-Moran, M. (2003). The conceptualization and measurement of faculty trust in schools: The Omnibus T-Scale from Hoy & C. Miskel (Eds.) *Studies in leading and organizing schools* (pp. 181-207). Greenwich, CT: Information Age.

Kelly, D. (2000). Using vision to improve organizational communication. *Leadership & Organization Development Journal*, *21*(2), 92-101.

Lepsinger, R., & Lucia, A. D. (2009). *The art and science of 360 degree feedback.* San Francisco, CA: Jossey-Bass a Wiley Brand.

Lewin, K. (1947). Frontiers in group dynamics: Concept, method and reality in social science. *Human Relations 1*(1), 5-41.

Liebowitz, D.D, & Porter, L. (2019). The effect of principal behaviors on student, teacher, and school outcomes: A systematic review and meta-analysis of the empirical literature. *Review of Educational Research, 89*(5), 785-827.

Lunenburg, F. C. (2012). Organizational structure: Mintzberg's framework. *International Journal of Scholarly, Academic, Intellectual Diversity, 14* (1), 1-8

Mintzberg, H. (1992). *Structure in fives: Designing effective organizations.* Upper Saddle River, NJ: Prentice Hall.

Nathanson, L., Segeritz, M., Cole, R., Lent, J., McCormick, M., and Kemple, J. J. (2013). *New York City School Survey 208-2010: Assessing the reliability and validity of a progress report measure.* New York, NY: NYU Steinhardt.

NYSED Information and Reporting Web-Site (2018). English Language Arts and Mathematics assessment results. http://www.p12.nysed.gov/irs/ela-math/

Romero, L.S. & Mitchell, D.E. (2018). Toward understanding trust: A response to Adams and Miskell. *Educational Administration Quarterly, 54*(1), 152-170.

Tarter, C. J., Bliss, J. R., & Hoy, W. K. (1989). School characteristics and faculty trust in secondary schools. *Educational Administration Quarterly, 25*, 294-308.

Tschannen-Moran, M & Gareis, C.R. (2015). Faculty trust in the principal: An essential ingredient in high performing schools. *Journal of Educational Administration, 53*, 66-92.

Tschannen-Moran, M. (2014). *Trust matters:Leadership for successful schools, second edition.* San Francisco, CA: Jossey-Bass a Wiley Brand.

Tschannen-Moran, M. & Hoy, W.K. (2000). A multidisciplinary analysis of the nature, meaning and measurement of trust. *Review of Educational Research, 70*(4), 547-593.

Tschannen-Moran (2004). *What's trust got to do with it? The role of faculty and principal trust in fostering student achievement*. Paper presented at the University Council for Educational Administration in Kansas City, MO in November, 2004.

Tschannen-Moran (2004b). *Trust matters: Leadership for successful schools.* San Francisco, CA: Jossey-Bass.

Tschannen-Moran, M. & Hoy, W. (1998). Trust in schools: a conceptual and empirical analysis. *Journal of Educational Administration, 36*(4), 334-352.

U. S. Department of Education (2017). *Performance Plan Summary: Strategic Plan for fiscal years 2012-2018*. Washington, DC: US Department of Education.

Van Maele, D., Forsyth, P.B., & Van Houtte, M. (Eds). (2014). *Trust relationships and school life: The influence of trust on learning teaching, leading and bridging.* Dordrecht, Netherlands: Springer. DOI 10.1007/978-94-017-8014-8

Van Maele, D., & Van Houtte, M. (2009). Faculty Trust and Organizational School Characteristics. *Educational Administration Quarterly, 45*(4), 556-589.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wahlstrom, K.l, Seashore-Louis, K. (2008). How teachers experience principal leadership: The roles of professional community, trust, efficacy, and shared responsibility. *Educational Administration Quarterly, 44* (4), 458-495.

Zand, D.E. (1971). Trust and managerial problem solving, *Administrative Science Quarterly, 17*, 229-39.

VITA

Name:	William J. Fahey
Current Professional Occupation:	Deputy Community Superintendent - District 30, NYC Department of Education
Baccalaureate Degree:	Bachelor of Science in Education, St. John's University, Jamaica NY Major: Elementary Education (N-6) and Special Education (Pre-K through 12)
Date Graduated:	May, 1982
Other Degrees and Certificates:	Master of Science, St. John's University, Jamaica NY Major: Special Education
Date Graduated:	September, 2000
Jamaica NY	Professional Diploma, St. John's University, Major: Administration and Supervision
Date Graduated:	June, 2001