2014

An Analysis of the Link Between Teacher Perception of Leadership and Teacher Retention in American Overseas Schools in the NESA Region

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An Analysis of the Link Between Teacher Perception of Leadership and Teacher Retention in American Overseas Schools in the NESA Region

by

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A Dissertation

Presented to the Graduate and Research Committee

of Lehigh University

in Candidacy for the Degree of

Doctor of Education

in

Educational Leadership

Lehigh University

December 2013

Approved and recommended for acceptance as a dissertation in partial fulfillment of the requirements for the degree of Doctor of Education.

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ACKNOWLEDGEMENTS

I literally thank God for the blessing of such wonderful supporters in this endeavor. Dr. George White, Dr. Laura Roberts, Dr. Steve Mancuso, Dr. Timothy Hansen, Mr. David Chojnacki, and my wife, Diana Weston, provided the most critical support. Dr. White's insights helped beat this study into shape to become a useful, doable undertaking. Though this particular piece of wisdom represented a tiny fraction of a percent of the time and effort Dr. White provided, his strong urging to keep the 10% and 90% groupings in the research design proved to be critical to the ultimate success of the study. Without that aspect, this study would have made for quite boring reading.

Dr. Roberts was the steadily buoyant force keeping my nose above the water these last four years. She let me blaze my own trail, but provided the support and enlightenment I needed to keep moving in a positive, productive direction. Her guidance helped me continually expand my competence and confidence in creating and evaluating the study's design, carrying out the data analysis, and clarifying the outcomes.

Dr. Mancuso provided not only the foundation upon which this study was built, but a critical yet supportive eye in helping this become a truly meaningful study. To start with, without his pioneering research, the study would never have existed. His willingness to share his data and insights strongly shaped my understanding of the research context and the significance of the body of teacher retention research.

Dr. Hansen and Mr. Chojnacki provided critical support in promoting this study within the NESA region. I am convinced that their strong, timely efforts more than doubled the number of teachers and schools participating in the study - greatly

enhancing the statistical power of the data analysis and the generalizability of the outcomes.

Finally, and most critically, Diana's support through this long journey has been nothing short of amazing. While I focused on work and research, she did far more than her part in keeping our family and our lives moving forward. She worked and sacrificed every bit as much as I did, putting a shoulder into anything our family needed to make this work and encouraging me all along the journey. I am one lucky guy.

DEDICATION

To Diana – the love of my life.

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ABSTRACT

This study examined the relationship between the leadership behaviors of school administrators and the retention of U.S.-hired teachers in American Overseas Schools in the Near East and South Asia (NESA) region. The study included a separate analysis of the leadership-retention connection for the subgroup of teachers considered by their principals to be the 10% most effective teachers, and the other 90% of the teacher population.

Previous research in U.S. school settings has found teacher quality to be the strongest organizational variable predicting student achievement, and found teacher turnover to predict a range of negative outcomes for students, including lower academic achievement (Connors-Krikorian, 2005; Griffith, 2004; Ingersoll, 2001; Ronfeldt, Loeb, & Wyckoff, 2011). Research conducted in U.S. schools found teacher retention to be predicted by school principal leadership, but not school head leadership (Grissom, 2010; Scholastic and the Bill and Melinda Gates Foundation, 2010). However, research in overseas American schools found school head leadership, not school principal leadership to predict teacher retention (Mancuso, 2010, Desroches, 2013).

In April 2013, teachers in 41 NESA schools were sent a link to an online survey which included 45 questions from the Multi-factor Leadership Questionnaire (MLQ) rating a range of transformational, transactional and laissez-faire leadership behaviors of their principal and school head. The survey also included a demographic section gathering an array of teacher, organizational, and school characteristics. From an estimated total population of 2500 teachers, 200 teachers fully completed the online survey, including 59 teachers considered to be among the top 10% most effective teachers, and 141 from the rest of the teaching population.

A quantitative analysis of the responses was conducted, including a series of logistic regressions to determine the strength of associations between leadership behaviors and teacher retention. Additional logistic regressions were conducted using demographic characteristics as covariates in an effort to account for potential alternative explanations for any leadership-retention associations found.

The responses of the 10% most effective teachers and the other 90% were analyzed separately. For the 90% group, neither principal nor school head leadership behaviors were found to be statistically significant predictors of teacher retention, though teacher satisfaction with their teaching assignment did predict retention. For the top 10% most effective teachers, however, school head transformational leadership emerged as a strong predictor of retention.

The strength of school head transformational leadership as a predictor of retention of the most effective teachers informs the practice of school leaders. Both the study's methodology separating the most effective teachers, and the finding of a different response to leadership between this group and the rest of the teacher population, represent potentially useful contributions to existing teacher retention research.

CHAPTER 1

Introduction and Literature Review

Each fall, over a hundred thousand children enter the halls of hundreds of American overseas schools (AOS) around the globe (U.S. Department of State, 2012). Critical to the success of these students in the year ahead are the teachers who stand before them to serve, guide, and inspire them. Studies have consistently identified teacher quality as the single most powerful determinant of students' success in school (Leithwood, Seashore-Lewis, Anderson, & Wahlstrom, 2004; Rivkin, Hanushek, & Kain, 2005; Rowan, Correnti, & Miller, 2002; Wright, Horn, & Sanders, 1997). If teacher effectiveness determines student success and therefore ultimately school success, then every school leader needs a clear understanding of the levers under their control that directly influence retention of effective teachers. It is the job of researchers to expand the knowledge base and disseminate the findings for effective leadership action, and this study was designed to do just that.

Effective Teachers Make a Difference

While the question of what makes one teacher more effective than another remains largely unanswered, research clearly shows dramatic differences in student achievement gains from one teacher to the next (Chetty, R., Friedman, J., & Rockoff, J., 2011; Goldhaber, 2002; Nye, Konstantopoulos, & Hedges, 2004). Studies have noted, for example, that in a single school year, students who receive the most effective instruction can surpass those who receive ineffective instruction by one or more years of academic growth (Alliance for Excellent Education, 2008; Rivkin et al., 2005).

Hanushek (2005) found that a costly 10-student reduction in class size had less effect than improving a teacher's instructional effectiveness by one standard deviation.

Such short-term improvements in student performance brought about by exposure to the most effective teaching have been strongly linked to substantial and pervasive long-term impacts on important quality-of-life indicators. As evidence, recent long-term studies conducted by the National Bureau of Educational Research (Chetty et al., 2011) found that even decades later:

> Students assigned to high value-added teachers are more likely to attend college, attend higher-ranked colleges, earn higher salaries, live in higher SES neighborhoods, and save more for retirement. They are also less likely to have children as teenagers. (p. 2)

Even among teachers in the same school, Rockoff (2004) along with Aaronson Barrow, and Sander (2007) found the differences in teacher effectiveness to be dramatic, and the effects on students significant. Moreover, the difference between having a series of very good teachers versus very bad teachers can be enormous (Sanders & Rivers, 1996).

Much of the research on teacher effectiveness has utilized so-called "value-added" measurement of student academic gain. This methodology measures teacher effectiveness in terms of a student's improvement in relation to the mean in a given year. Consider, for example, three students scoring at the 50th percentile on an end-of-year assessment. If the three had tested at the 20th, 50th, and 80th percentile the previous year, then one (testing previously at the 80th percentile) showed virtually zero growth. The one remaining at the 50th percentile showed one year's growth. The third (testing previously

at the 20th percentile) made perhaps two year's growth—enough to eliminate the gap between their performance and the mean student performance.

Value-added methods then allow the measurement of teacher effectiveness not in terms of the class's academic standing, but its growth over a period of time. The Wright et al. (1997) longitudinal study utilizing statewide value-added data from the Tennessee Value-Added Assessment System (TVAS) found that "teacher effects are dominant factors affecting student academic gain, and classroom variables of heterogeneity among students and class sizes have relatively little influence on academic gain. Thus, a major conclusion was that teachers make a difference" (p. 57).

Clearly, effective teachers are the linchpins of effective education, and the most important school-related factor in student achievement. Where there are effective schools and successful learners, there are effective teachers (Ripley, 2010; Snipes & Horwitz, 2007; Stronge, 2010).

Of particular interest for this study was the small group of the most effective teachers—those whose classrooms are associated with the greatest student achievement gains. In a study of 10,000 Australian primary school teachers, Leigh (2010) found that students of the thousand most effective teachers (as measured by student academic growth) exhibited twice the rate of growth of students of the thousand least effective teachers. As Leigh has noted, "This implies that a teacher at the 90th percentile can achieve in half a year what a teacher at the 10th percentile can achieve in a full year," (p. 13).

Likewise, using statewide data from the TVAS, Nye et al. (2004) found remarkably higher academic growth in students whose teachers were found to be in the

top 10% of teacher effectiveness (as defined by student academic growth). In a single academic year, students in these classrooms exhibited growth of +.33 standard deviation (SD) greater than the mean in reading, and +.46 SD in mathematics. These differentials are very large indeed—a .50 SD increase in student test scores represents a full academic year's learning (Stronge, 2010).

With such profound differentials in teacher effectiveness, the lesson for schools and administrators is clear: If you want to make a difference for your students, do what you need to do in order to attract and retain the most effective teachers.

Identifying the Most Effective Teachers

Recent research, as noted below, has provided evidence that principals can reliably predict which teachers will most successfully help their students achieve significant academic improvement, as measured by standardized tests. These studies have utilized value-added methods to determine an objective measure of teacher effectiveness and compare value-added results with teacher assessments done by evaluators, typically school principals.

The premise of value-added methodology is that the students of the most effective teachers raise their level of academic achievement more than expected; students of the least effective teachers will raise their level of performance less than expected. Using historical testing results, testing agencies can determine empirically how much growth to expect a student to achieve over a given time period. For example, testing agencies estimate the typical one-year growth of a fourth grade student performing initially at the 10th percentile on a math assessment by looking at the test scores of these same students one year later in fifth grade.

One of the first studies comparing value-added outcomes with subjective teacher assessments was Malinowski's (2004) study of students of over two hundred teachers of grades four to eight mathematics, English, and science in the Cincinnati public schools. Malinowski correlated the value-added ratings of teachers with the evaluation ratings of these teachers given by their principals and found positive correlations for teachers of each subject in each grade.

Perhaps the most powerful testament to the validity of principals' assessments of teachers was Jacob and Lefgren's (2008) examination of students of 201 grade 2-6 teachers in a Midwestern American school system. The researchers obtained predicted performance ratings from the teachers' principals and compared these ratings with the actual student performance gains (as measured by Stanford Achievement Test math and reading scores). They found that

> Principals are quite good at identifying those teachers who produce the largest and smallest standardized achievement gains in their schools (i.e., the top and bottom 10%–20%), but have far less ability to distinguish between teachers in the middle of this distribution (i.e., the middle 60–80%). (p. 103)

Similarly, Rockoff and Speroni (2011) examined the predictive power of teachers' previous value-added performance with evaluator ratings of over three thousand New York City grade 4-8 mathematics and English teachers. They found the supervisor evaluations to have "substantial power, comparable and complementary to objective (value-added) measures of teacher effectiveness" (p. 687). Reminiscent of Jacob and Lefgren's (2008) findings on the efficacy of principal evaluations of teachers, they found that "most of the (predictive) power is in the tails of the subjective evaluation

distribution" (p. 694). That is, evaluators are most reliably able to identify which teachers would be in the top (and bottom) 10-20% of the distribution of effectiveness, as measured by student academic gains.

More recently, a study of over four thousand math and reading teachers in Chicago (Sartain, Stoelinga, & Brown, 2011) found there to be "a strong relationship between (principal) classroom observation ratings and (student) test score growth" (p. 10). Similar to the Jacob and Rockoff (2008) studies, the authors noted, "Students showed the greatest growth in test scores in classrooms where teachers received the highest ratings, and students showed the least growth in test scores in classrooms where teachers received the lowest ratings" (Sartain et al., 2011, p. 2).

Given the power of effective teaching and principals' ability to accurately identify teachers making the greatest impact on student academic growth, then the task at hand for school leaders is to do what they need to do in order to retain their most effective teachers. Administrators can only be effective in this role if they clearly understand how their actions influence the retention of teachers making the most impact on academic growth. This study was designed to help provide such clarity.

The Costs of Teacher Turnover

With effective teachers playing such a central role in successful schools, it is not surprising that teacher turnover is associated with ineffectiveness and low performance in schools (Connors-Krikorian, 2005; Griffith, 2004; Ingersoll, 2001). In the U.S., the inability of low-performing schools to retain effective teachers has been a critical factor in poor and minority students' unsuccessful school experience. Teacher turnover causes sobering financial and labor costs to the school, as well as a range of immediate and long-

term social and emotional costs for the school community. Turnover disrupts and inhibits the development of school culture and community, curricular continuity and coherence, organizational improvement, and professional development initiatives (Odland & Ruzicka, 2009), all of which have a negative impact on student learning (Connors-Krikorian, 2005).

The bottom line is that teacher turnover has been linked with diminished learning performance. Not only has increased teacher turnover been associated with diminished student achievement for students of the replacement teachers, the academic performance even of students of teachers who stay at a school has been found to be inhibited when high turnover exists in a school (Ronfeldt, Loeb, & Wyckoff, 2011). As Ronfeldt and colleagues noted, "Across models and measures, there is a consistent pattern – (even) students of stayers perform significantly worse when turnover is greater" (p. 20). Why this performance drop occurs has not yet been definitively established, but Ronfeldt et al. (2011) suggested three possible causes: diminished teacher collaboration, loss of institutional knowledge, and the loss of the professional development investment that occurs when a teacher departs.

While research indicates that the costs of teacher turnover in U.S. schools are high, the stakes are even higher in AOS (Hardman, 2001). Quality learning and student personal and social development is best achieved through trusting, respectful, caring relationships between students and teachers; establishing such relationships is seriously undermined by teacher turnover. Due to the nature of AOS, the communities they define, and the unique needs of the students they serve, Hardman (2001) has asserted the importance of teachers and students forming strong relationships is magnified, with the

effects of teacher turnover even more acutely felt in overseas schools than in U.S. schools.

Contrast that need with the reality of the overseas teaching contracts. Overseas-hired teachers in AOSs typically sign on for an initial two-year term of service, followed by annual one-year contract extensions. The bulk of overseas-hired teacher recruiting occurs in February each year, so schools typically offer teachers one-year contract extensions for the upcoming year in November or December, asking teachers to sign the contract extension by December or January. The uncertainty of knowing that the current school year may be any teacher's last at the school hampers schools' long-term planning and inhibits the formation of close student-teacher bonds.

The AOS Teaching Experience

Teaching at an AOS is best understood as a lifestyle rather than simply a source of employment. In U.S. school settings, teachers commonly leave at the end of their workday and only rarely come across students or their families outside of the school setting. This is not so in AOSs. Largely, these schools form the basis of a social enclave consisting of the school staff, students, and their families (Hardman, 2001). The campus is often a multipurpose facility offering recreational events in the evening and on weekends for community members. AOS teachers tend to live adjacent to or in many cases actually on campus, so their professional and personal lives are intertwined in a way that is rarely replicated in U.S. settings. It is typical for overseas teachers' circles of friends to be directly connected to the school. Their tennis partner, their son's soccer coach, and the person next to them in church are likely to be a parent of one of their students—perhaps a half-degree of separation.

In addition, a teacher's ability to form strong human relationships is often more important for AOS students than for stateside children. Expatriate students' close relatives may be thousands of miles away and seen perhaps once a year, if at all. These children's social worlds consist largely of their family and their school community. Because it is common for expatriate children to move to new countries and continents multiple times in their school careers, many bring with them a strong need for consistency and continuity. These children may also have a particular need for teachers willing to reach out to them personally. The kind of emotional connectedness these children need is difficult to maintain in a school where teachers routinely leave after completing an initial two-year contract.

Impact of Turnover on Curricular Delivery

In addition to the relationship costs noted above, a two-year stay is also a recipe for haphazard curricular delivery. The first and last years of a teacher's service are often their least productive, least satisfying years (Dinham & Scott, 1998). No matter how much teaching experience a new teacher brings, the first year in a school in many ways resembles the experience of a beginning teacher. With so many new priorities, demands, and planning needs, it is a year of "survival and discovery" (Huberman, 1989, p. 33), and that teacher is likely to be less effective than in previous or subsequent school years.

The other year, Huberman (1989) noted as less productive is a teacher's last year, in which "disengagement" often occurs. For many overseas teachers moving to another school, securing a new position elsewhere will be that final year's highest priority. Once they have signed on with a new school, their energies tend to be focused there as well. Thus, a two-year tenure in a school is almost certain to produce substandard performance

in the classroom (Reid, 2010) and diminished emotional connectedness and support for students.

Similarly, a two-year teacher lacking a long-term commitment or focus may be less likely to play an effective role in faculty leadership, teamwork, or collegiality. High staff turnover undermines staff unity, curricular coherence, shared understanding of effective professional practice, and ultimately student achievement. Unfortunately, these effects of turnover can also beget further turnover, as teachers tend to leave in search of more effective schools with a strong faculty commitment to the school (Falch & Rønning, 2007; Guin, 2004).

Because teachers are free agents when it comes to contract renewal time, AOS leaders must understand the kinds of conditions and incentives that induce teachers to extend their contract and their commitment to their students and their school. While zero turnover is not necessarily optimal, maintaining a low level of teacher turnover is in every school's best interest, with particular emphasis on keeping the most effective teachers.

Additional Costs of Teacher Turnover

Beyond the social, emotional, and professional costs of turnover, more easily quantifiable costs are the time and money involved in replacing departing teachers. Estimates of the monetary costs of teacher turnover in U.S. schools have varied widely, but recent studies have noted a dollar value of between $10,000 and $20,000 per teacher (Alliance for Excellent Education, 2005). Overseas schools have the same kinds of direct and indirect costs accounted for in U.S. studies. In addition, due largely to time and distance issues, the costs associated with identifying, hiring, and relocating a new teacher to an overseas school can be far greater than those of stateside schools. Obtaining visas

and work permits, shipping personal effects, and securing satisfactory accommodations for new staff results in significantly higher monetary and time investments on the part of school staff and school leadership attention than would be typical in a U.S. setting. Most AOS school heads spend at least the month of February on the recruiting circuit, with a great deal of additional time invested before and after that trip in email communications with candidates and newly hired teachers.

Another factor compounding the impact of teacher turnover is the tendency of AOSs to hire teaching couples whenever possible: one unhappy teacher can result in the departure of both teachers. The high stakes are further compounded by the fact that many AOSs face overseas-hire staff turnover rates substantially higher than stateside schools—as much as 60% in some schools (Desroches, 2013; Farber & Sutherland, 2006; Mancuso, 2010).

Understanding Why Teachers Stay or Leave

Given the powerful influence of effective teachers and the substantial negative effects of teacher turnover, it is imperative for policy makers and practitioners in AOSs to understand why teachers choose to stay or leave their current posts and to act on this understanding to strengthen teacher retention in their schools. For overseas school administrators, the most critical question they face each year is "How can we attract and retain our most effective teaching staff?"

This critical decision is a complex one, with teachers weighing the pros and cons of leaving against those of extending their commitment with their current school. The alchemy of this annual decision has been the subject of scores of studies of teacher turnover in the U.S. over the last 40 years. Some light has also been shed recently on

AOS teacher retention in particular (Desroches, 2013; Mancuso, 2010; Mancuso, Roberts, & White, 2010a, 2010b; Mancuso, Roberts, & Barber, 2010; Mancuso, Roberts, & Yoshida 2010; Mancuso, Roberts, White, Yoshida, & Weston, 2011; Odland & Ruzicka, 2009).

In deciding whether to extend a contract, each teacher weighs a set of personal and professional pros and cons. These considerations include not only pecuniary factors such as salary and benefits, but also nonmonetary factors, such as working conditions; relationships with students, parents, fellow teachers, and administrators; satisfaction with their teaching situation; administrative support; involvement in school decision-making; and family considerations (Ingersoll, 2001; Macdonald, 1999; Mancuso, 2010). Their level of satisfaction with these factors in their current job is weighed against the prospect of obtaining a new job with better overall conditions, factoring in the risks involved, such as failing to obtain a new job or obtaining one with less desirable overall conditions.

Even within a teaching couple, the factors considered most important for one person may be strikingly different from those of the partner. Research has identified, however, significant key tipping points in this decision-making process. Studies have repeatedly indicated that teachers who decide to stay at a school tend to cite a slightly different set of influential factors than teachers who decide to leave (Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J., 2005; Grissmer & Kirby, 1997; Johnson, 2006; Snipes & Horowitz, 2005). One critical factor cited repeatedly in U.S. and international studies, both by stayers and leavers, however, is school leadership (Boyd, 2010; Boyd, 2009; Grissom, 2011; Ingersoll, 2001; Mancuso, 2010; Tillman, 2008). In study after study in the U.S., teachers have consistently cited school leadership, particularly school principal

leadership, as a key factor in deciding to stay or leave. Very limited teacher turnover research has been conducted in the AOS setting (Desroches, 2013; Mancuso, 2010; Mancuso, Roberts, & Barber, 2010; Mancuso, Roberts, & White, 2010a; 2010b; Mancuso, Roberts, & Yoshida, 2010; Mancuso et al., 2011; Odland & Ruzicka, 2009). But two such studies have shown school leadership to be closely associated with teacher turnover in Near East South Asia (NESA) schools (Mancuso, 2010) and in the East Asia Region Council of Schools (EARCOS) (Mancuso, Roberts & Yoshida, 2010).

Research Context

The balance of this chapter provides a context for the study, beginning with a broad picture of teacher turnover research in the U.S. over the past 40-plus years. Overall conclusions of key studies will provide a context for interpreting the limited body of research specific to AOSs. This section is followed by another section describing leadership theory, with an emphasis on transformational leadership. Finally, teacher turnover research specific to AOSs will be examined, with a particular focus on Mancuso's 2010 research.

Teacher Turnover in U.S. Schools: Research Findings

Over the past 40 years, numerous studies of teacher retention and turnover have been carried out in U.S. school systems (Chapman, 1984; Dove, 2004; Grissom, 2011; Guarino, 2006; Hanushek, Kain & Rivkin, 2004; Ingersoll, 2001; Johnson & Birkeland, 2004; Berg, & Donaldson, 2005; Stinebrickner, 1998), typically in public school settings. An important turning point in teacher retention research was the introduction of a pair of recurring national studies sponsored by the U.S. Department of Education, the National Center for Educational Statistics' (NCES), Schools and Staffing Survey (SASS), and

Teacher Follow-up Survey (TFS). These nationwide surveys of tens of thousands of American teachers were introduced in the 1987–1988 school year for the SASS, and the 1988–1989 school year for the TFS. The paired surveys have been administered every four years since then, most recently in the 2007-2008 and 2008-2009 school years, respectively. The SASS and TFS have provided a rich source of data for a variety of more nuanced research efforts and serve as a basis for comparison for nearly all studies of teacher turnover in the past 20 years.

Prior to these studies, it was difficult for researchers to answer such basic questions as: How many teachers join or quit teaching each year? How many move from school to school? How do attrition rates differ by personal characteristics or subject taught? And how long do new teachers stay in the profession after entry?

In addition to the SASS studies, an increasingly sophisticated array of research studies has identified a number of recurring themes and patterns. Key findings have included the discovery of a high turnover rate in the first five years of teachers' careers, due both to attrition (leaving the profession) and movement from one school to another (Ingersoll, 2001). The attrition rate for new teachers in the U.S. is very high—nearly 50% leave the profession during the first five years of teaching (Woods & Weasmer, 2002).

A particularly troubling aspect of this research has been the consistent finding that more academically talented teachers (as measured by SAT scores and the selectivity of their alma maters) tend to be lured away from teaching into more challenging and lucrative careers (Lankford, Loeb, & Wyckoff, 2002; Murnane, Singer, Willett, Kemple, & Olsen, 1991; Ballou & Podgursky, 2004; Shen, 1997; Stinebrickner, 1998). This brain drain is a manifestation of the reality that people with the most options tend to exercise

them more than those who have fewer options or no options. In order to keep these talented teachers in our schools and in the profession, administrators need to make an intentional, concerted effort to understand what will encourage these teachers to stay.

The SASS and TFS studies have consistently indicated annual turnover rates in the broader U.S. teaching population to be around 15%, split roughly between teachers leaving the profession and teachers moving to other schools (Ingersoll, 2001; Luekens, Lyter, Fox & Chandler, 2004). These studies have also consistently shown a U-shaped curve, wherein the attrition rates are highest at the two ends of the experience spectrum: teachers with the least and most years of teaching experience.

Attrition in the first five years in the profession is very high, low through the middle years (the next 20 to 30 years), then climbs again as retirement age approaches (Boe, Cook, & Sunderland, 2008; Boyd, Lankford, Loeb, Ronfeldt, & Wyckoff, 2010; Connors-Krikorian, 2005; Harris & Adams, 2007; Grissmer & Kirby, 1997; Guarino, 2006; Luekens et al., 2004; Murnane et al., 1991; Shen, 1997). Mancuso's study (2010) on the other hand, revealed a markedly different pattern among AOS teachers; increased years of teaching experience were associated with higher rates of turnover. Moreover, Mancuso (2010) found that the attrition rate for middle-aged teachers (ages 37-47) was higher than for those younger (under 37) or older (older than 47), exactly the opposite of what U.S.-school studies have consistently found.

A number of studies have been conducted with the aim of identifying predictors of high or low teacher turnover. Three broad classes have been found to be significant predictors of turnover: (1) a teacher's personal characteristics, such as age, years of experience, gender, ethnicity, and educational background (Borman & Dowling, 2008;

Guarino, 2006; Johnson, 2006), (2) school characteristics such as school size and behavioral climate (Borman & Dowling, 2008; Guarino, 2006; Ingersoll, 2001; Johnson et al., 2005; Kelly, 2004), and (3) organizational conditions within the school, including leadership factors and satisfaction with salary (Boyd et al., 2010; Ingersoll, 2001; Mancuso, 2010).

Johnson and Birkeland (2003) tracked the first three years of the careers of 50 teachers. They found that when new teachers moved to other schools, it was not money or status that explained where they moved next. Almost invariably, early-career teachers moved toward teaching situations that would allow them to be a more successful teacher. This meant, for example, young teachers in tough inner-city schools moved to more affluent suburban schools—schools with fewer discipline issues, and a more college-bound student body—even when it meant taking a pay cut to do so.

Viewed through the framework of Maslow's hierarchy of needs (Maslow, 1943), Johnson and Birkeland's findings seem predictable. If we view new teachers as being not yet at the *self-actualized* level (Maslow, 1943), but in the level below named *self-esteem* (seeking "confidence, achievement and the respect of others"), then desire of new teachers to move toward success is not surprising. They seek to prove their worth as teachers to themselves and others, and other considerations become secondary when considering staying in a school or leaving.

Ingersoll's (2001) influential study using SASS and TFS data sets showed that while the teachers' personal characteristics (e.g., gender, years of experience, or highest degree obtained) and the characteristics of their school (e.g., size, grade levels served, or public vs. private) were somewhat predictive of teacher retention behavior, organizational

conditions (including salary, administrative effectiveness and support for teachers, student discipline, teacher autonomy, and faculty involvement in decision-making) were the most significant predictors of teacher turnover.

Variations in school organizational conditions have consistently been found to be highly predictive of teacher turnover and retention (Ladd, 2011). Higher retention has been associated with strong administrative support for teachers, higher student achievement, fewer student discipline problems, higher salaries, increased professional development opportunities, increased teacher involvement in school-level decision making, a collaborative work environment, and a sense of autonomy in teachers' professional work (Guarino, 2006; Ingersoll, 2001; Weiss, 1999). Conversely, low retention has been associated with dissatisfaction with salary and benefits, difficult relations with colleagues, adverse working conditions, low student achievement, student discipline issues, scarcity of resources, large class size, small school size, and private school status (Boyd et al., 2009; Guarino, 2006; Ingersoll, 2001).

While all these factors have been connected to teacher turnover to a significant degree, the most persistently noted factors have been low salaries, dissatisfaction with school leadership in terms of communication, supervision, and involvement in building-level decision making (Odland & Ruzicka, 2009). Multiple studies have reached the same conclusion: teachers satisfied with their school's leadership tend to stay (Grissom, 2010; Mancuso, Roberts & Barber, 2010); teachers dissatisfied with their school's leadership tend to move to other schools.

While satisfaction with salary has consistently been identified as a predictor of teacher retention (Borman & Dowling, 2008; Guarino, 2006; Marvel, Lyter, Peltola,

Strizek, Morton, & Rowland, 2007; McGrath & Princiotta, 2005), working conditions have regularly been reported to be associated with retention more often than salary (Hanushek et al., 2004; Ingersoll, 2001; Lankford et al., 2002; Scafidi, Sjoquist, & Stinebrickner, 2007; Scholastic and Bill & Melinda Gates Foundation, 2010).

Recent research on enhancing teacher retention has focused on a factor more affordable and more powerful than raising salaries—school leader effectiveness. Most recently, Grissom (2010) found that this single factor, above all others, was by far the best predictor of teacher retention in disadvantaged stateside schools. In fact, applying an extensive set of control variables with SASS and TFS data, Grissom found that principal effectiveness had a greater impact on teacher retention than all other factors combined. His analysis indicated that even in the most disadvantaged schools where teachers faced a host of challenges associated with high turnover, if teachers perceived their principal to be effective, turnover was low. In fact, the turnover rates were nearly as low as in schools facing none of these challenges. This finding has broad implications for U.S. schools and for AOSs as well. It also reinforces the relevance of the study's focus on school leadership.

The most recent large study of the working conditions of American teachers, *Primary Sources: America's Teachers on America's Schools,* was conducted in 2009 by Scholastic and the Bill and Melinda Gates Foundation (2010). This national survey of 40 thousand K-12 teachers is the largest survey of American teachers to date (Sawchuk, 2010), and its findings further reinforced the primacy of school leadership in teachers' decisions to stay in their school. Teachers report that the quality of school leadership, teacher involvement in decision-making, and opportunities to collaborate with their peers

are the most powerful factors associated with teachers' decisions to remain in their current school.

The Gates (2010) study noted eight factors predicting teacher retention, in order of strength of association:

1. supportive leadership
2. time for teacher collaboration
3. quality curriculum and teaching resources
4. safe, clean building conditions
5. professional development opportunities
6. salary
7. collegial working environment
8. career advancement opportunities

The report has noted, "Higher salaries, while important, are not as critical to retaining effective teachers as other, non-monetary rewards" (p. 41). The study has noted, "Supportive leadership is the standout, top-ranked item contributing to teacher retention" (Scholastic and Bill & Melinda Gates Foundation, 2010, p. 39). If this is true in the U.S., is it also true in American overseas schools?

Research on Teacher Retention in American Overseas Schools

While the body of teacher retention research has steadily grown over the past four decades, just 10 publications to this point have focused on teacher turnover in AOSs, with half of those emanating from Mancuso's single study (Desroches, 2013; Farber & Sutherland, 2006; Hardman, 2001; Mancuso, 2010; Mancuso, Roberts, & Barber, 2010; Mancuso, Roberts, & White, 2010a, 2010b; Mancuso, Roberts, & Yoshida, 2010; Mancuso, Roberts, White, Yoshida & Weston, 2011; Odland & Ruzicka, 2009). Each of

these papers has reinforced the connection between leadership and teacher turnover in AOSs.

Farber and Sutherland (2006) surveyed 18 U.S.-hired teachers from 18 AOSs to discern the level of turnover, average length of stay, and the main reasons why teachers leave these schools. Because the sample size for the study was so limited, it is difficult to draw valid conclusions, but the authors did note some interesting anecdotal findings. Respondents indicated that in their schools, an average of 23.6% of teachers leave each year, with a low of 10% at one school and a high of 60% at another. Because there was only one estimate produced for each school, it is difficult to compute a reliability check on these estimates. The average length of stay was just over four years, with school stays ranging from one-and-a-half years to seven years.

The wide variation in schools' turnover rates reinforced the common perception among AOS teachers that the quality of education and working conditions can be markedly different from school to school. Mancuso's (2010) later study of AOS teachers in the Near East South Asian (NESA) region found a lower average turnover rate (17%), but a similarly wide variation from school to school (SD = 14%).

Farber and Sutherland (2006) noted that teachers' decisions to leave were most often due to dissatisfaction with salary and benefits, along with a perceived lack of support from their school's administration. Odland and Ruzicka (2008) sought to understand why teachers chose to leave their school in search of a position in a different AOS. Studying job-seeking teachers working in the European Council of International Schools (ECIS), they found the three most commonly cited reasons for wanting to leave their current school were directly related to the school's administrative practices: faculty-

administration communication, support from the administration, and a lack of teacher involvement in school decision making.

Hardman (2001) surveyed a varied but small (n = 30) group of AOS teachers from schools in South America, the Middle East, Africa and Asia, finding that across all regions, teachers noted four key motivators for staying in their current school: a positive working climate; job challenge; financial incentives; and opportunities for ongoing professional development. Hardman also noted that teachers who stayed tended to report a sense of mission – that in doing their work, they were providing an important service for their students (Hardman, 2001, p. 28).

Mancuso and his colleagues' research substantially expanded the research base related to AOS teacher turnover (Mancuso, 2010; Mancuso, Roberts, & Barber, 2010; Mancuso, Roberts, & White, 2010a, 2010b; Mancuso, Roberts, & Yoshida, 2010; Mancuso et al., 2011). In survey responses from 248 teachers in the NESA region and over 700 in the East Asia Regional Council of Overseas Schools (EARCOS), teachers choosing to renew their contracts cited satisfaction with salary and benefits first, followed by administrative support and teaching assignments as the most important reasons for staying. Conversely, the most often cited reasons for teachers choosing not to renew their contracts were lack of support from administration, followed by dissatisfaction with teaching assignments, and dissatisfaction with salary and benefits.

A notable finding of Mancuso's (2010) NESA study was that teachers' perceptions of their school head's leadership was a significant predictor of teacher retention, while no relationship was found between principal leadership and teacher retention. This finding had not been previously noted in any other study in the literature

in either U.S. or overseas studies, but was later echoed in Deroches' (2013) study of AOS teacher retention in the South American region. Conversely, research in the U.S. has consistently cited principal leadership, not superintendent leadership (the superintendent in the U.S. holds a role parallel to the school head in an AOS), as being associated with teacher retention (Boyd et al., 2009; Grissom, 2010; Hirsh & Emerick, 2006; Ingersoll, 2001; Luekens et al., 2004).

Mancuso (2010) found that teachers tended to stay when they felt they worked with a supportive school head who (a) solicited input on important school decisions, (b) gave teachers autonomy, (c) communicated the school's vision, (d) recognized teachers' efforts, (e) enforced school rules, and (f) let teachers know what was expected of them.

Though it relates to school heads, this finding closely paralleled Griffith's (2004) description of principals as "transformational leaders" when they have "clear and well-articulated goals; delegated tasks to others; encouraged staff to participate in decision-making; incorporated others in problem-solving; treated staff fairly and equitably; and provided staff support in difficult situations" (p. 333). Griffith and other researchers also found that teacher turnover to be lower where the leader is perceived to be transformational (Griffith, 2004; Hallinger, 2003; Leithwood & Jantzi, 2005).

Desroches (2013) used the same survey that Mancuso used in the NESA region to study teacher retention in AOS's in South America. He surveyed overseas-hired teachers in 44 member schools of the Association of American Schools in South America (AASSA). Desroches also found parallels with Mancuso's NESA study, notably including the finding that transformational leadership behaviors of the school heads, but not school principals, to be associated with teacher retention. The effect size of this

finding was relatively small, however, with an odds ratio of only 1.17 for school head leadership – about a 17% increase in the odds of a teacher staying for a one-unit average change in the school head leadership score.

These findings raise several questions in relation to American overseas schools: Whose leadership is more strongly linked to teachers' decisions to stay or leave—the principal's or the school head's? What leadership behaviors and attributes most powerfully predict which teachers will stay, and are they the same factors weighed by those who leave? Do the responses of teachers perceived as "most effective" reveal different patterns of response? These issues underlie the four research questions propelling this study.

Transformational Leadership

James MacGregor Burns (1978) ushered in the modern era of leadership theory in 1978 with the introduction of what he called "transforming" leadership in his book *Leadership*. While Burns' research and theory was originally based on his analysis of political leaders, his findings have been found to generalize across a wide variety of disciplines and fields, including business, governance, military, religious institutions and education. Burns contrasted "transforming" leadership with "transactional" leadership. While the latter was based on give-and-take relationships between individuals, often with competing interests, transforming leadership was defined as a process whereby "leaders and followers inspire each other to advance to a higher level of morale and motivation." Such leaders induce "followers to act for certain goals that represent the values and motivations – the wants and needs, the aspirations and expectations – of both leaders and followers" (Burns, 1978, p. 19).

According to Burns, such leadership not only creates significant positive change in the lives of people and organizations, it takes people's values, expectations, and aspirations to higher levels. Burns viewed transactional and transformational leadership as distinct and mutually exclusive, seeing transactional leaders as strategic and competitive, whereas transformational leaders are collaborative, visionary, inspirational moral leaders. While modern theorists now believe the two are not necessarily mutually exclusive, Burns' theories laid the groundwork upon which modern leadership theory is built.

Bernard Bass extended Burns' work by explaining the psychological mechanisms underlying transformational and transactional leadership, and renamed Burns' "transforming" leadership as "transformational." Bass sought to more formally define and measure transformational leadership and believed it was best defined and measured according to the level of trust, admiration, loyalty, and respect the leader inspires in followers. According to Bass, a transformational leader transforms and motivates followers through his or her transformational leadership characteristics: "idealized influence," "intellectual stimulation," "inspirational motivation," and "individual consideration" (Bass, 1990).

Idealized influence is the degree to which the leader embodies and inspires a higher level of moral and ethical behavior and earns the respect, admiration, and trust of others. Followers gain a sense of pride in their contribution and in the organization's success.

Intellectual stimulation is the degree to which a leader stimulates creativity and innovation in others, challenging them to question assumptions, think independently, take

risks, and take on meaningful leadership roles in the pursuit of common goals (Bass & Avolio, 2004, p. 96).

Inspirational motivation is the degree to which a leader helps "motivate those around them by providing meaning and challenge" (Bass & Avolio, 2004, p. 95) in their work. The leader articulates an inspiring vision and holds high expectations for themselves, others, and the organization, communicating an infectious optimism about the achievement of meaningful, challenging goals.

Individualized consideration is the degree to which a leader attends to individual followers' needs for achievement and growth, facilitating their advancement to higher levels of performance and achievement (Bass & Avolio, 2004, p. 96).

Bass worked with Bruce Avolio to develop an instrument to measure what he calls the "full range of leadership performance" including various aspects of transformational leadership, as well as transactional leadership and passive-avoidant leadership. Passive-avoidant leadership reflects a leader either taking no action to address a problem or a reactive response that is too late to be effective.

Burns viewed transformational and transactional leadership as mutually exclusive. Bass, however, maintained that all leaders demonstrate qualities of both, and that leadership behaviors run the length of a spectrum, from one end being the four transformational leadership characteristics, to transactional leadership (i.e., contingent reward and active management by exception) and to passive/avoidant leadership (i.e., passive management-by-exception leadership and laissez-faire leadership) on the other end.

Bass and Avolio's Multifactor Leadership Questionnaire (MLQ) is the most widely used instrument to measure transformational leadership (Bass & Avolio, 2004), as it includes multiple measures and separate scales for each of "the four I's": idealized influence, intellectual stimulation, inspirational motivation, and individual consideration as well as scales for transactional and passive-avoidant leadership. The MLQ will be more fully described in the survey instruments section of the methodology chapter.

School leaders' transformational leadership qualities have been investigated in a variety of settings in relation to a number of outcomes. Bogler (2001) found that where school leaders were transformational, teachers exhibited a measurably higher level of satisfaction. Lucas and Valentine (2002) found that principals' transformational leadership behaviors were mirrored in leadership relationships throughout the building and influenced overall school culture. Griffith (2004) found principals' transformational leadership to be associated indirectly with teacher turnover. That is, transformational leadership was directly associated with teacher job satisfaction, and that teacher job satisfaction was associated with teacher turnover.

Statement of the Problem

The needs, demands, pressures, and accountabilities facing today's teachers make their work more challenging than ever. There is evidence (Mancuso, 2010) that AOS teachers make career decisions differently than their U.S. counterparts due to the unique nature of each international school and the relative isolation from institutional, professional, and union supports typically available to teachers and administrators in the U.S. In addition, because not all teachers would have an interest or willingness to leave their country of origin to live and work, there may well be differences in the population

of teachers in AOSs and the broader population of U.S. teachers upon which most of the teacher retention research is focused. Since little research has been done on the AOS teacher population, the stakeholders in these overseas schools do not know whether the concerns, values, and decisions of these teachers parallel those of their teaching cohorts in the U.S.

Leadership and management decisions in all these overseas schools are being made without the benefit of direct research on their potential impact on staff retention decisions. Lacking relevant research, administrators will tend to make assumptions based on their previous experiences, and informed only by whatever knowledge they may have of research on U.S. teacher turnover. This study aims to add to the small but relevant research base for such decision making and to point the way for future research related to leadership and teacher turnover in AOSs.

Finally, there is little research available on how or whether school leadership behaviors and attributes may be associated with the decisions of the most effective teachers to stay at or leave a school. Any outcomes of the study that identify specific leadership behaviors more strongly associated with retention of the most effective teachers would be of tremendous value to AOS and U.S. school administrators and schools.

Purposes of the Study

The primary purpose of this investigation is to better understand the association between school leadership practices and teacher retention in AOSs. The study seeks to determine whether teachers' perceptions of the leadership behaviors of their principal and their school head will predict a teacher's likelihood of extending their service beyond the

end of their current contract. The study will seek to identify the existence of and mechanism through which principals' and school heads' leadership practices may be associated with teachers' leave-stay decisions. The study also sought to determine whether school head leadership or school principal leadership is more closely related to teacher retention. In examining leadership practices, the full range of leadership behaviors and attributes will be considered, including transformational, transactional, and passive-avoidant leadership.

Finally, this study will seek to determine whether the stay-leave decisions of the special subset of the AOS teaching population considered by the school's principal to be among the school's top 10% *most effective teachers* are associated with different leadership factors than the rest of the teacher population.

Research Questions

In analyzing the responses of the most effective teachers in the NESA region:

Question 1. Is teacher retention behavior better explained by the transformational leadership behaviors and attributes of the school head or those of the school principal?

Question 2. Is teacher retention behavior better explained by the transactional leadership behaviors of the school head or those of the school principal?

Question 3. Is teacher retention behavior better explained by the passive-avoidant leadership behaviors of the school head or those of the school principal?

Question 4. Considering all the variables in Questions 1, 2, and 3 that explained a significant proportion of variability in teacher retention, what combined model best explains retention of the most effective teachers?

In analyzing the responses of the rest of the overseas-hired teacher population in the NESA region:

Question 5. Is teacher retention behavior better explained by the transformational leadership behaviors and attributes of the school head or those of the school principal?

Question 6. Is teacher retention behavior better explained by the transactional leadership behaviors of the school head or those of the school principal?

Question 7. Is teacher retention behavior better explained by the passive-avoidant leadership behaviors of the school head or those of the school principal?

Question 8. Considering all the variables in Questions 5, 6, and 7 that explained a significant proportion of variability in teacher retention, what combined model best explains retention of the rest of the teacher population?

While numerous studies have shown associations between school leaders' practices and teacher retention in the broad teacher population, this study's inclusion of a focus on the most effective teachers adds a dimension not yet explored in teacher retention research. Should unique patterns of association emerge between the responses of these "most effective" teachers and the rest of the teaching population, it will provide a footing for continuing research in a potentially rich vein. Even a finding of no difference between the groups would provide a useful reference for future teacher retention research. Ultimately, investigating these questions holds the promise of helping school leaders leverage their power to retain their school's most valuable assets—their most effective teachers.

Significance of the Study

Like most other researchers studying teacher retention, Mancuso (2010) sought input from a random representative sample of the overseas-hired teacher population, with no attempt to differentiate responses of the most effective teachers from the rest of the respondents. A distinguishing feature of this study is a focus on the most effective teachers, as identified by the principals.

Keeping the most effective teachers is the primary job of school administrators, yet the research base for informing overseas American school leadership practices associated with retaining the most effective teachers is very limited. If, in fact, a different set of administrative behaviors and characteristics are associated with the retention of the most effective teachers than with the rest of the teaching population, then principals, school heads, and school boards need to know what these are. Quality research in this area can play a critical role in helping them and their schools successfully retain their most effective teachers.

Any progress in identifying leadership factors associated with retaining teachers in general, and the most effective teachers, in particular, will not only inform the practice of AOS administrators, but may also be instructive to administrators in other contexts. Such findings may well represent a starting point for further research in contexts beyond AOSs and have the potential to inform administrative practices in any educational setting.

As noted previously, while this study parallels research done in the U.S. at elementary, middle, and high school levels, AOS teachers have received scant attention from researchers. The current study will expand this narrow research base. Overseas school heads and principals will find the research of interest because their school's

success is a direct function of their success in hiring and retaining an effective teaching staff.

Similarly, this research can inform school boards and parent stakeholders as they set human resource policies, evaluate administrator effectiveness, and decide whether to hire or renew the contracts of school heads and principals. In addition, the findings are relevant for currently serving overseas teachers as well as potential applicants for these positions as they weigh the merits of staying in a current school or evaluating options for moving to a new school. Ultimately, to the extent that this research helps AOS schools retain their best teachers, it will improve the cohesiveness of school communities and the effectiveness of schools in supporting their students' personal and academic development.

Since little research has been undertaken in the AOS realm, this study will serve as a benchmark for further studies. New research might focus on larger or smaller sets of teachers or on other variables associated with overseas school leadership, transformational leadership, or teacher retention. In addition, the study findings will serve as a baseline for comparison for future researchers wishing to study trends in overseas school leadership and/or retention over time.

In addition, since the body of research on AOS has not included a focus on transformational leadership, this study will open up a line of inquiry with potential application in all AOS settings.

Finally, whether the results confirm or contradict parallel studies in the U.S. or other school systems around the world, they serve as a reference point to validate or

contrast with previous findings. The findings are relevant for studies of teacher retention and school leadership.

Definition of Terms

American overseas schools – AOSs are American style schools located outside of the United States that are sponsored by the U.S. State Department's Office of Overseas Schools. All the schools in the study are accredited through U.S. accrediting agencies, with most schools accredited through the Middle States Association of Colleges and Schools. Though most students enrolled in these schools are not American citizens (Gilles, 2001), they provide an American-style education, following American curricula, hire predominantly U.S. and Canadian teachers, and employ U.S. standardized testing.

Most effective teachers – For the purposes of this study, "the most effective teachers" are the 10% of teachers deemed by their principal to have the most powerful positive impact on their students' academic achievement. For example, in a 95-teacher school, the top 10% would be 9.5 teachers; the principal would round up to select the top 10 most effective teachers.

Overseas-hired teacher – Certified teacher with an overseas-hired contract. Most overseas-hired teachers are American or Canadian citizens with teaching credentials that the school recruits, hires, and relocates at the school's expense from North America or other international schools around the world. AOSs also typically hire local resident teachers on "local-hired contracts" working the same jobs as their overseas-hired cohorts, albeit typically at a lower level of salary and benefits. Locally hired staff members are typically host-country nationals or North American spouses of host-country nationals. These locally hired teachers would not be part of the surveyed population in the study.

Teaching contract – Contracts for overseas-hired teachers are typically initial two-year commitments, and are typically subject to U.S. and local law. In most schools, they are renewed annually after the initial two-year contract, with schools offering contract renewals mid-year, the second year, and annually thereafter.

Teacher retention – For the purposes of the study, teacher retention is the choice of overseas-hired teachers during the 2012–2013 school year to make a contractual commitment to return to the same school to teach the following (2013–2014) academic year.

Teacher turnover – For the purposes of the study, teacher turnover is the choice of overseas-hired teachers not to extend their service at a school beyond the end of the current (2012–2013) academic year.

Stayer – An overseas-hired teacher who would have completed a contractual commitment (i.e., not in the first year of a two-year contract) and has chosen to extend the contract for the subsequent school year.

Leaver – An overseas-hired teacher who will be leaving a school at the end of the current academic year. (This excludes those who are retiring.)

Leadership behaviors – Behaviors of school leaders, as measured by teacher responses to the MLQ, are associated with various effectiveness measures for school leadership. These include behaviors associated with transformational leadership, such as their concern for individual staff members, charisma, confidence, efficacy, and ability to inspire others to think critically and creatively. These leadership behaviors also include transactional leadership behaviors, such as clarifying important tasks and processes, rewarding those who achieve important organizational goals, along with identifying and

addressing mistakes and shortcomings. They also include passive-avoidant leadership behaviors such as being reactive and delaying or avoiding making urgent and important decisions.

Transformational leadership – a leader's ability to raise the level of motivation, morale, and ethical conduct of associates in an organization in a way that increases the organization's performance beyond the level they originally thought possible (Bass & Avolio, 2004, p. 25).

Leadership attributes – The perception of teachers that the leader possesses a range of attributes such as a sense of power, confidence, respectability, and self-sacrifice, and that the teacher feels pride in being associated with this leader. These attributes are reflected in the MLQ as the *idealized influence attributes*.

Transactional leadership – leadership characterized by a give-and-take interaction between a leader and those led. When best implemented, the leader sets clear objectives for subordinates and uses rewards and punishments to bring about achievement of these objectives (Bass & Avolio, 2004, p. 20).

Contingent rewards leadership – transactional leadership that focuses on creating clarity of ends and means, defining specific work objectives, and assigning rewards and consequences for achieving or not achieving predetermined objectives. In the MLQ, two scales make up the transactional leadership section: *contingent reward* and *active management by exception* (Bass & Avolio, 2004, p. 26).

Active management-by-exception leadership – transactional leadership focusing on errors, error awareness, and error management (Bass & Avolio, 2004, p. 52).

Passive-Avoidant leadership – leadership behaviors that are either late or non-

responsive when correction is necessary. The two MLQ passive-avoidant leadership scales are *passive management by exception* and *laissez-faire* leadership (Bass & Avolio, 2004, p. 52).

Passive management by exception - leadership characterized by reactively identifying errors and deviations from standards and bringing these mistakes to the attention of stakeholders (Bass & Avolio, 2004, p. 38).

Laissez-faire leadership – non-authoritarian leadership style whereby the leader provides the least possible overt influence on subordinates by avoiding and delaying involvement in important decision making (Bass & Avolio, 2004, p. 97).

Organizational conditions – Such conditions include: staff involvement in decision making, support from the administration, working relationships with students, fellow teachers, administrators and the school board, student behavior and discipline, leadership practices and characteristics, salary and benefits, satisfaction with current teaching and teaching load, professional development opportunities, opportunity for professional advancement, and the competence of colleagues and the administration.

School characteristics – Characteristics such as size of school, student-to-teacher ratio, student population characteristics, grade levels served, and accreditation status.

Teacher characteristics – Characteristics such as age, gender, ethnicity, marital status, years of teaching experience, years of teaching overseas, years teaching in the current school, and highest degree attained.

Control predictors – Also referred to as "third variables," are teacher, school, and organizational characteristics (e.g., teacher age, school size, or satisfaction with salary and benefits) that represent alternative plausible influences on teacher retention

besides leadership. They are included in this study's data analysis section in an attempt to eliminate other possible explanations for correlations found between school leadership and teacher retention.

Head of school/School head – in an AOS, this position is equivalent to the role of the district superintendent with fiduciary, curricular, management, and leadership responsibilities, reporting directly to the school board or school owners.

Principal – a school employee hired as and given the title of principal. Principals are typically charged with the managing and leading a school division, under the direction of the school head. Typically, AOS schools have separate elementary, middle and high schools, with separate principals at each level.

CHAPTER 2

Methodology

Purposes of the Study

The primary purpose of this study was to determine whether overseas-hired teacher perceptions of a particular set of school leadership behaviors and attributes, as measured by the MLQ, are predictive of teacher retention in AOS in the NESA region. In addition, the study sought to determine whether teacher retention was more closely associated with the leadership of the school principal or school head. Lastly, the study divided the teaching population in two, separately analyzing leadership-retention associations for the teachers considered the most effective and the rest of the teaching population.

This study was an extension of the large body of research seeking to identify factors associated with teacher retention and turnover in U.S. schools and the small set of similar research efforts focused on AOS. It was also an extension of the body of teacher turnover research in the U.S. investigating the influence of school leadership.

Research Questions

This study was constructed around two sets of four questions examining the retention behaviors of overseas-hired teachers in the NESA region. The first set sought to determine how powerfully retention behaviors of the most effective teachers are predicted by teacher perceptions of school head and principal transformational, transactional, and passive-avoidant leadership.

The second set of questions asks the same questions in relation to the 90% of teachers not identified by principals to be part of the most effective teacher population. The eight questions are as follows.

In analyzing the responses of the most effective overseas-hired teachers in the NESA region:

Question 1. Is teacher retention behavior better explained by the transformational leadership behaviors and attributes of the school head or those of the school principal?

Question 2. Is teacher retention behavior better explained by the transactional leadership behaviors of the school head or those of the school principal?

Question 3. Is teacher retention behavior better explained by the passive-avoidant leadership behaviors of the school head or those of the school principal?

Question 4. Considering all the variables in Questions 1, 2, and 3 that explained a significant proportion of variability in teacher retention, what combined model best explains retention of the most effective teachers?

In analyzing the responses of the rest of the overseas-hired teacher population in the NESA region:

Question 5. Is teacher retention behavior better explained by the transformational leadership behaviors and attributes of the school head or those of the school principal?

Question 6. Is teacher retention behavior better explained by the transactional leadership behaviors of the school head or those of the school principal?

Question 7. Is teacher retention behavior better explained by the passive-avoidant leadership behaviors of the school head or those of the school principal?

Question 8. Considering all the variables in Questions 5, 6, and 7 that explained a significant proportion of variability in teacher retention, what combined model best explains retention of the rest of the teacher population?

Populations of the Study

The approximately 2,500 overseas-hired teachers in the 41 NESA regular member schools can be subdivided into three groups—two of which constitute the target populations for the study. The first group, not part of the study, was the group of teachers in their first year with their current school. Since overseas-hired teachers are initially signed on a two-year contract, their first year is not a decision-making year in terms of renewing their contract, and are thus not of interest for this study. Based on Mancuso's estimate of 15% annual turnover of overseas-hired staff, this group of first-year teachers constitutes approximately 375 of the region's estimated 2,500 overseas-hired teachers.

The other estimated 2,100 overseas-hired teachers are the teachers in a decision-making year. This larger group can be subdivided into the two populations of interest for the study. The 10% of this group that principals deem to be the school's most effective teachers was the first population of interest—approximately 210 teachers. The second population was the other 90% of these teachers—approximately 1,900 teachers.

The 2,500-teacher estimate of the total overseas-hired staff in the 41 NESA regular member schools was derived by tallying the number of overseas-hired teachers listed for each school in the 2012-2013 International Schools Services (ISS) Directory of Overseas Schools.

Sampling

This study employed a census sampling method. The intention was for every teacher in the two target populations to receive and complete a survey. The accessible populations were, therefore, the entire theoretical populations. While this study's research design was structured to maximize the probability of achieving a random sample, the voluntary and anonymous nature of respondent participation introduced some potential for bias in the sample.

As outlined in the letter to principals (Appendix E), principals were asked to send letters to teachers soliciting survey participation (Appendix F) to the two teacher populations. The letter for the most effective teachers was sent by principals to their teachers who they believe were the most effective 10% of their teaching staff (rounded to the nearest teacher). The principal letter also asked principals to forward the other teacher letter to the other 90% of their staff not deemed "most effective teachers." The embedded hyperlinks in the two letters are distinct but not readily distinguishable, allowing data to be collected separately for the two groups.

If a teacher worked part-time in two buildings (thus, under two principals), principals were instructed to send letters only to teachers for whom they are the main evaluator. This procedure was intended to avoid teachers receiving two invitations and possibly two different letters, if one of the two principals considered the teacher to be one of the most effective teachers and the other did not.

Referencing Kraemer and Thiemann (1987), a minimum required sample size for each population of 192 surveys was determined by using an a priori power analysis with the standard alpha level of .05, a power level of .80 (i.e., beta of .20), and a critical effect

size of .20. Though the actual sample sizes of 59 and 141 for the two groups of teachers fell below the 192 threshold, computer simulation studies have found empirically that a sample size of 30 is adequate to conduct valid inferential statistical analysis, thought at a lower power level. To determine the actual power level, a post-hoc power analysis was conducted. See Chapter 3 for the details and results of those power calculations.

Survey Instruments

The three-part survey for this study consisted of the following sections: (a) threshold questions to confirm the respondent was in fact part of the target population, (b) the 36-item MLQ, and (c) a demographics section. The MLQ items provide a set of data on teacher perceptions of school heads' and school principals' leadership behaviors and attributes. The demographics section maintains teacher and school anonymity, while gathering a set of data on the teacher and their school (e.g., the teacher age, years of experience, years at the current school, educational background, school size, and grades served by the school).

Multifactor Leadership Questionnaire

Bass and Avolio (2004) developed the MLQ based on Burns' (1978) work developing the construct of transformational leadership. The MLQ does more than measure aspects of transformational leadership; it addresses the full continuum of leadership styles, from the most potent forms of transformational leadership to the least potent laissez-faire leadership. Each MLQ item and scale has been validated repeatedly over the past 25 years in a variety of research contexts, including educational, religious, governmental, military, health care, manufacturing, as well as non-profit organizations (Bass & Avolio, 2004).

The short form of the MLQ (Appendix A) utilized in this study includes 36 items that identify and measure nine key sets of leadership behaviors that research has shown to be associated with organizational success. Through confirmatory factor analysis, each of these 36 items has been found to load on one of the nine leadership scales of the MLQ. Five of those scales represent the five leadership components of transformational leadership (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration), with four highly intercorrelated survey items for each scale (see Appendix B for grouping of items by subscale).

Similarly, analysis of responses found the three components of transactional leadership (contingent reward, active management by exception, and passive management by exception) as well as a scale for laissez-faire leadership can be assessed by analyzing teacher responses to four highly correlated survey items each. Cronbach's alpha coefficients for the scales include intellectual stimulation (.78), individualized consideration (.78), contingent reward (.74), active management by exception (.63), and passive management by exception (.84) (Bass & Avolio, 2004, p. 58). Reliability coefficients for idealized influence, inspirational motivation, transactional leadership and laissez-faire leadership were computed using the data collected in the study, and all were found to exceed the criterion for acceptable reliability of a Cronbach's alpha of .70.

Data Gathering

In mid-March 2013, an email was sent to all the principals at each of the 41 regular member AOS schools in the NESA region (Appendix E), asking them to forward a message with a link to an online survey (Appendices A and C) to two distinct sets of their overseas-hired teachers. The email messages to school heads, principals, and teachers

(Appendices D, E, and F) included instructions and a brief description of the survey as well as assurance of individual and organizational confidentiality—no school or individual would be known or identified by the researcher.

The survey consisted of three sections: (a) three threshold questions verifying that the respondent was indeed part of the target population, (b) the 36-item MLQ, and (c) 29 personal and school demographic questions designed to provide control factors for use in the data analysis.

As part of the demographics section, an item was included with the purpose of gauging the school's desirability as a long-term posting: *"*When you originally signed the contract to come to this school, approximately how many years did you picture yourself staying?" Stayer teachers were also asked, "After this school year, how many years do you now picture yourself continuing to work for this school?" These questions allowed the researcher the ability to group teachers according to whether their stay at their current school would be shorter, the same as, or longer than they had originally intended. The rationale for including this variable is discussed in the methodological enhancements portion of the data analysis section.

I prepared six letters for use in distributing the survey to teachers (2), principals (3), and school heads (1). Teachers in their first year at a school did not receive a letter because they were not part of the two teacher populations utilized in the study. In case any first-year teachers inadvertently received the link to the survey from their principal, the threshold questions at the beginning of the survey shunted these teachers from participation in the survey.

Separate letters (Appendix F) were distributed by principals to the two teacher populations—one to the 10% most effective teachers and the other to the teaching population not deemed "most effective." These two letters are identical except for the specific Internet destination they are sent to when they click on the hyperlink to the online survey, which was indistinguishable from the other link. The surveys for the two teacher populations are identical in every way—the separate links simply serve to allow the researcher to group responses into the two teacher populations.

The process for identifying the top 10% most effective teachers was quite straightforward, as described in the letter to principals. The letter defines this group of teachers as

> the 10% of your teaching staff you see making the greatest academic impact (as opposed to the best all-around or most popular teachers). If, for example, you have 46 teachers, 10% is 4.6, so round to the nearest teacher and send Letter B to 5 teachers. Round up for the half-teachers, so if you have 65 teachers, you'd round 6.5 up to 7; if you have 64, round down from 6.4, sending it to 6 teachers. These teachers can be at any grade level or teaching discipline. No individual teacher should receive both emails; they should either receive Letter A or Letter B.

The three letters to principals (Appendix E) include a cover letter emailed to principals introducing the study and explaining the principal's instructions for distributing the teacher surveys. The other two principal letters are follow-up letters sent a week and two weeks following the initial email, to remind and encourage principals to distribute the teacher letters and to encourage their teachers to participate.

The letter to school heads (Appendix D) was sent the same day as the initial principal letter to simply inform school heads of the study and survey, and to solicit their support in encouraging their principals and teachers to participate. The school head letter and the two follow-up letters were intended to help maximize survey response, thus enhancing the conclusion validity and external validity of the results.

Pilot Study

In February 2013, approximately six weeks prior to the March 2013 distribution of the survey, a pilot survey was sent to the elementary, middle school, and high school principals of a cooperating NESA member school for distribution to their teaching staffs. The survey and communications, as well the user's experience replicated the intended products to the extent possible, including the request to distribute different letters to the school's "highly effective" teachers and to the rest of the teaching staff.

After completing the pilot survey, teachers were asked to complete a pilot study teacher feedback form (Appendix H), noting the time required to complete the survey, as well as providing feedback on the structure, clarity, and ease of use of the instrument. Responses were used to address problems, ambiguities, or weaknesses in the survey prior to its final distribution. All feedback was considered for potential modifications, and any particular feedback suggested by 10% of the respondent teachers resulted in modification.

The three principals participating in the pilot study were asked to complete a Pilot Study Principal Feedback form (Appendix I) on the ease of use of the survey from their perspective, as well as any concerns or suggestions for modification of the communications and instructions. All feedback was considered and modifications were made for any suggestion provided by at least two of the three principals.

In addition, the letters to school heads and principals were shared with three school heads and three principals at AOSs. Feedback was gathered and used to strengthen and clarify the contents.

Data Analysis

Research Question 1 was addressed by conducting a logistic regression with most effective teachers survey responses regarding principals' and school heads' average scores of transformational leadership scales from the MLQ as predictor (independent) variables and the teachers' actual stay/leave decision as the outcome (dependent) variable. While the MLQ has developed five subscales of transformational leadership, this study's data analysis has grouped all aspects of transformational leadership into a single score—the average of each teacher's ratings of the 20 survey questions related to transformational leadership.

Similarly, Questions 2 and 3 were addressed by conducting logistic regressions on survey responses regarding transactional leadership and passive-avoidant leadership. Transactional leadership was represented by a single score, the average score of all eight questions related to contingent rewards and active management by exception. Passive-avoidant leadership was represented by a single score—the average of the responses to the eight questions related to passive management-by-exception leadership and laissez-faire leadership.

Question 4 was addressed using logistic regression of retention regressed on the predictor variables found to be significant predictors of teacher retention in the analysis of Questions 1, 2, and 3. Each of the three questions has two possible significant predictors: the behaviors of the school head and the behaviors of the principal. Question

4, then, could involve a maximum of six predictor variables.

Questions 5 through 8 employed the same analysis methodology used in Questions 1 through 4, but used the survey responses of the rest of the teaching population.

In order to improve statistical precision, the study utilized a set of control predictors to clarify the relationship between teacher turnover and teachers' perceptions of school administrators' leadership. These covariates are included in the models to eliminate extraneous variation, allowing the researcher to isolate the shared variance between the question predictors (the leadership scores) and the outcome variable (the stay/leave decision). These variables include standard predictors of school effects common to teacher retention studies in the U.S. and include both teacher characteristics and organizational characteristics. Teacher characteristics specifically consist of age, gender, years of experience, highest degree attained, tenure in current position, current teaching assignment, and proximity to retirement. School characteristics entered into the models as control predictors are school grade levels, for-profit vs. non-profit status, and school size.

Methodological Enhancements

This study attempts to enhance methodology by introducing a new element intended to strengthen the statistical analysis: a design that allows for the separate analysis of responses of the *most effective teachers*. A description of this enhancement follows, as well as a brief section noting some parallels and distinctions in relation to the Mancuso studies.

Separate Analysis of the Most Effective Teachers

The study explored new theories in teacher retention research by seeking to identify differences in response patterns between the general teaching population and the fraction of the population considered most effective. To identify this group, principals were asked to forward a different link to an identical survey to approximately 10% of their teachers they consider most effective in impacting student learning. The responses of teachers identified as most effective were grouped for analysis separately from the rest of the respondents. It was expected that the response patterns of the most effective teachers might be distinct from the rest of the teacher population. Understanding teachers' perceptions provides important guidance to administrators in prioritizing and shaping their teacher retention strategies.

The study's employment of the MLQ represents a significant enhancement over the ITMS used in Mancuso's studies. Mancuso's work cast a wide net in seeking to identify factors influencing teacher turnover, and the ITMS items related to leadership were few and relatively simple. This limited the researcher's ability to gain useful insights into the influence of more than a few basic leadership behaviors and attributes. The depth and range of leadership perceptions revealed by the 36 leadership-related items on the MLQ, however, allow for a richer, more sophisticated analysis of teachers' perceptions of school leaders.

Some Parallels to and Distinctions from the Mancuso Study

In relation to Mancuso's (2010) NESA schools teacher turnover study, this study has narrowed the focus to leadership and incorporates important methodological adaptations designed to strengthen the validity of results. For his study, Mancuso

developed and validated the International Teacher Mobility Survey (ITMS), which was modeled after and closely paralleled the SASS and TFS. In the fall of 2008, Mancuso conducted his 2008 study by sending a link to an online survey to the heads of the 41 NESA regular member schools. The school heads then forwarded the link to a randomly chosen set of 10% (or a minimum of 13 for small schools) of their overseas-hired teachers. More than five hundred of the over three thousand teachers in these 41 schools were sent the link to the survey, and 248 responded.

Part one of Mancuso's survey contained questions as to whether the individual had chosen to stay on beyond the completion of his or her current contract or to leave. In part two of the survey, teachers responded to questions about how they perceived their living and working conditions along with their jobs. They were also asked about their overall level of satisfaction. Part three of the ITMS survey collected demographic information about the teacher and the school.

The structure of the study was similar to the Mancuso study in that it was a survey of overseas-hired teachers in AOS schools in the NESA region, soliciting their perceptions of factors that may influence their decision to extend their stay at their current school. The focus of this study was narrowed, however, to the focus on the influence of leadership, rather than the broad array of factors associated with higher or lower teacher turnover. In addition, the study design enhanced internal validity by asking that the survey be distributed to *all* overseas-hired teachers, rather than only a sample of each school's overseas-hired teachers. This was done to strengthen both the conclusion validity and external validity of findings by (1) increasing the proportion of the population responding and by (2) eliminating any nonrandom sampling influences that

may have been introduced in Mancuso's study when school heads distributed the survey to only a small fraction of their school's teachers.

CHAPTER 3

Results

The goals of this research were to determine whether the leadership behaviors of school heads and school principals in American overseas schools in the NESA region were associated with teacher retention in those schools. The research was driven by the belief that certain leadership behaviors influence teachers to stay. Of particular interest in this study was the potential to discern the association between leadership and teacher retention contrasting the most effective teachers and the broader population of teachers.

This chapter begins with a description of the population and the respondents for each of two subgroups of teachers. The balance of the chapter is the description of the results of the data analysis.

As indicated in Table 1, of the total estimated population of 2,500 teachers, 364 teachers responded to the online survey. Of those 364, 93 were shunted from completing the survey by a set of three initial threshold questions designed to eliminate respondents who were not actually part of the target population. As such, 271 eligible respondents responded to the survey.

Table 1
Survey Respondent Subsample Sizes

Respondents	Total	Top 10%	Other 90%
Estimated population	2,500	250	2,250
Accessed the survey	364(14.5%)	122(48.8%)	242(10.7%)
Responded to some survey questions beyond the threshold questions	271(10.8%)	88(35.2%)	183(8.1%)
Completed the survey	200(8%)	59(23.6%)	141(6.3%)
Power Level (with alpha of .05 in two-tailed test)		80% (δ .35)	80% (δ .23)

For the purposes of statistical analysis, a survey response was considered complete if the respondent answered at least 65 of the 69 survey questions. Exactly 200 of the 271 respondents provided complete surveys. Over a quarter of the 271 (n = 67) chose to respond only to the leadership questions pertaining to one of the leaders: either just the principal (n = 63) or just the school head (n = 4). Four other respondents answered only a fraction of the questions, and their responses were not included in the statistical analysis. Why these 67 did not respond is unclear, as the survey did not include a mechanism for these respondents to explain why they only responded in relation to one leader. Perhaps the 63 responding only to the principal items had little contact with the superintendent, and could therefore not confidently comment on the school head's behavior. Or, possibly these 63 were afraid to give negative feedback about their school head.

The 200 responses that were fully complete were used for this study's statistical analysis. Of those 200, 59 were from the teachers considered by their principals to be among the 10% most effective teachers in their school, and 141 were from the other 90% of the teaching population. Table 1 shows that these response totals correspond to response rates of 23.6% for the top 10% teachers, and 8.0% for the other 90%. Why the response rate is so much higher for the top 10% group is subject to conjecture. To the extent that these top 10% may be the people who most often get things done, a higher response rate does not seem surprising.

Separate logistic regression analyses were conducted on the survey response data sets from the most effective teachers and from the rest of the teaching population. These

analyses were undertaken to identify linkages between any of the leadership behavior scales of the MLQ and teacher retention.

As noted in Table 1, the statistical analysis was conducted with a power level of 80%, with a two-tailed alpha of .05. This corresponds to a likelihood of Type I error of 5% or less, and a likelihood of Type II error of 20% or less. At this power and alpha level, post-hoc delta values of .35 and .23 (Erdfelder, 2009) were found for the two populations. Thus, there was an 80% chance of detecting an effect size of at least .35 (Erdfelder, 2009) for the "most effective" group, and .23 for the larger group. Larger sample sizes would have yielded smaller effect sizes, also called delta (δ) , allowing the statistical analysis to detect more subtle effects.

In considering how representative the sample was of the overall teacher population, precise data on the population's characteristics were not available. However, Mancuso's 2010 study, with a response of 248 overseas-hired teachers serves as a reference point. If both samples were reasonably representative of the population, then they should be reasonably similar to each other. A comparison of the two samples follows.

The average age of respondents for this study was 41.5; the Mancuso study's average was 42.5. The average total of years of teaching experience in the current study was 17.18 years (SD = 9.17) compared to 16.63 years (SD = 9.08) in Mancuso's study. In addition, the average total years teaching overseas in the current study was 11.4 years (SD = 8.24) compared to 9.82 years (SD = 7.08) in Mancuso's study. In sum, the samples for this study and for the Mancuso study were comparable regarding teachers' age and experience.

The school size metrics for the two studies were difficult to compare because the method of measurement differed. In this study, school size was a categorical variable, and teachers were asked to choose their school's size from a list of enrollment ranges. The median range chosen was an enrollment of 201–500 students. Mancuso's average school size was 920, but that was for a school system, not an individual school. The 41 NESA school systems had an overall enrollment of 47,000, so an average of about 1,150 students. This study's school sizes ranged from less than 50 to more than 1,000. The Mancuso study's range of school size was 20 to 2,500. The comparison of the two studies on school size was inconclusive.

Satisfaction with salary and benefits was an important variable in both this study and the Mancuso study. Respondent teachers in the current study noted high satisfaction with salary and benefits, with an average rating of 3.38 out of four. Most of the teachers in this study (86.4%) said they were satisfied with their salary and benefits, while 79.4% of the Mancuso respondents were satisfied. These percentages suggest the samples for the two studies were comparable on this variable.

Approximately 83% of respondents to this study intended to continue teaching at the school (i.e., 17% turnover). The two groups in the sample did not significantly differ in their retention rates—87% of the top 10% teachers were stayers, and 82% of the rest of teachers were stayers. Approximately 77% of the respondents to Mancuso's study intended to stay (23% turnover). Thus, the two samples appear similar concerning retention.

The study's percentages of respondents whose highest degrees included a bachelor's, master's, or doctor's degree were 22%, 77%, and 1%, respectively. For the

Mancuso study, those percentages were 36%, 60%, and 4%. About 96% of this study's respondents received their highest degree in North America. Mancuso's study did not include that data, but he did note that most teachers were credentialed in the U.S. and Canada. Thus, with regard to educational background, the current sample appears similar to the sample in Mancuso's study.

One area of difference between the samples of the two studies was the gender ratios. This study's respondents were 62% female and 38% male, while Mancuso's included a significantly more balanced ratio, with 52% female and 48% male. For the top 10% group, the respondents were 36% male, and 64% female; the other 90% were 39% male, 61% female. The chi-square for the test of gender differences on teacher quality was not significant (X^2 = .18[1], p = n.s.). Because no definitive source of information regarding the actual gender makeup of the population has been identified, whether the sample from the Mancuso study or this study's sample better represent the gender makeup of the population is unknown. If females were more highly represented in the sample than the population, the outcomes are more generalizable to females than to males.

The respondents to this study represent 23 schools among 14 of the 41 full-member school systems (34%) in the NESA region. Mancuso's study included participation by teachers in 20 of the 41 (49%) school systems.

Approximately 81% of the respondents to this study were from non-profit schools. According to the ISS Directory, the overall percentage of teachers in non-profit schools was approximately 84%. The Mancuso study did not collect equivalent data.

Mancuso concluded that his study's sample was a good representation of the total population. Overall, the metrics related to characteristics of respondents to this study appear similar to parallel metrics in the Mancuso study with the exception of gender. Assuming the population has not substantially changed since 2009, this study's sample seems to be a fairly good representation of the overall population.

Results of the Statistical Analysis

Tables 2, 3, 4, and 5 lay out the statistical results at the heart of this study, answering all eight research questions. The balance of this chapter describes and interprets the results these tables display. Tables 2 and 4 present the results of the analyses for sample of teachers from the 10% most effective teachers, and Tables 3 and 5 present the results for sample of teachers from the rest of the teaching population. Tables 2 and 3 show the results of the statistical analysis done without considering any of the control variables collected in the survey (e.g., teacher age, gender, or satisfaction with teaching assignment). Tables 4 and 5 repeat the analysis, including those control variables in the data analysis.

In the data analysis, a total of 28 statistical models were tested in an attempt to determine correlations between a series of leadership and demographic variables and teacher retention. Models 1 through 4 related only to the top 10%. Models 5 through 8 related to the other 90% of the teachers. Models 9 through 18 tested for correlations between a series of control predictors and retention for the top 10% most effective teachers. Models 19 through 28 examined the correlations between control predictors and retention for the other 90% of the teachers.

For each of the 28 models, versions A and B represent two levels of analysis on the same sets of data, with "A" models showing the results before eliminating any statistical outliers. The "B" models represent the results after conducting a sensitivity analysis, which identifies outlier responses and allows outlier responses to be removed from the data set. This identification process was carried out by calculating a Cook's *D* coefficient for each respondent. A high Cook's *D* coefficient indicates that a response was exerting a disproportionate effect on the data analysis of their group—either the movers or stayers group. The version B analysis for each model was then carried out with those outlier responses removed from the calculation.

The tables display the results in terms of odds ratios of the logits (Exponents [B] or Exp*B*) of the relationship between the teachers' responses and their likelihood of continuing to teach at the school the following year. An Exp*B* of greater than one indicates that the higher the average score on a scale is, the more likely teachers are to continue to teach at a school. An Exp*B* of 2.0, for example, indicates that an increase of one point on the five-point survey scale would be linked to a doubling of the odds of a teacher staying on at that school. Likewise, an Exp*B* of five indicates that a one-point increase on a scale score is linked to the odds being five times higher that a teacher will stay at that school.

Analysis of Responses of the Most Effective 10% of Teachers

Table 2 shows the odds ratios of the logits (Exp*B*) for the most effective teachers' responses without taking into account any influence of control variables. Table 4 shows the Exp*B* for the same data set, but factors in the influence of control variables. Tables 3

and 5 show the results of a similar analysis using the data set from sample of teachers representing the other 90% of the teaching population.

Table 2 displays the results of the statistical analysis of Models 1A, 2A, and 3A. These results were based on using the subsample consisting of 59 respondents in the most effective teacher group. Models 1A and 1B sought to answer Research Question 1: was *teacher retention behavior better explained by the transformational leadership behaviors and attributes of the school head or those of the school principal?*

The results in Table 2 demonstrate that after conducting a sensitivity analysis, school head transformational leadership was strongly and positively associated with teacher retention, while principal transformational leadership was not. In general, a larger proportion of teachers giving high leadership ratings to their school heads intended to continue teaching at their school the following year than those teachers who reported low school ratings. That was not true for principal transformational leadership behaviors, however.

Table 2 shows that for Model 1A, the Exp*B* for principal transformational leadership was 1.17, but was not statistically significant. Since Model 1B's result of an Exp*B* of .60 was below 1.0, it actually indicates that after removing outlier responses, increasing teacher perception of principal transformational leadership was associated with lower teacher retention. Again, however, this .60 result was not found to be statistically significant, so the analysis revealed no clear association.

The most important results shown in this table are those indicating a significant relationship between school head transformational leadership and retention. Model 1A notes an Exp*B* for school head transformational leadership of 1.62. If this result were to

have been found to be statistically significant, it would have indicated that a one-point increase in school head transformational leadership scores (on a scale of 0 to 4) corresponds to an increased ratio of teachers staying by a factor of 1.62 to 1.00. However, the ExpB for model 1A was not found to be statistically significant.

A sensitivity analysis was then conducted for Model 1B, and four respondents were found to be exerting a disproportionate influence on the data. That is, they each had unusually high Cook's *D* coefficients. When these four responses were removed from the data set, the effect of school head transformational leadership emerged as a significant predictor of retention, with an Exp*B* for school head leadership of 7.91 at the .05 level of significance.

Table 2
Exponents B and Significance Levels for Models 1A Through 4B, Predicting Retention of the 10% Most Effective Teachers

Leadership Factor	1A	1B	2A	2B	3A	3B	4A	4B
Transformational Leadership (P)	1.17	0.60						
Transformational Leadership (SH)	1.62	7.91* (.05)						
Transactional Leadership (CR-P)			0.91	2.78				
Transactional Leadership (CR-SH)			1.17	0.36				
Transactional Leadership (ME-P)			1.29	1.54				
Transactional Leadership (ME-SH)			0.44	0.25				
Passive-Avoidant Leadership (PA-P)					0.97	0.53		
Passive-Avoidant Leadership (PA-P)					0.60	1.01		
Omnibus Model (P)							N/A	N/A
Omnibus Model (SH)							N/A	N/A

*p<.05 +p<.10 P: Principal; SH: School Head; CR: Contingent Reward ; ME: Management-by-Exception; PA: Passive-Avoidant

This indicates that teachers who rated their school head high on transformational leadership were much more likely to stay at the school another year. A one-point increase in the school head transformational leadership score was linked to more than a seven-fold increase in the odds of a teacher staying. This was a very large effect.

Logistic regressions were also carried out for Models 2A and 2B, as well as 3A and 3B. These regressions determined the strength of the relationship between teacher retention and principal and school head transactional leadership, and passive-avoidant leadership behaviors. As noted in Table 2, none of the correlations were found to be statistically significant.

Models 4A and 4B were built into the analysis plan in order to answer Research Question 4. The data analysis plan for these models was to combine all the significant findings from Models 1A through 3B as rivals in order to see which model best describes the connection between leadership and teacher retention. In this case, since only one model produced a significant finding, there were no rival hypotheses to the finding of school head transformational leadership in Model 1B. Thus, there was no need to conduct to compute a separate analysis.

Therefore, the best overall model to describe the relationship between leadership and retention of teachers in the top 10% most effective group was Model 1B, which shows the strong link between school head transformational leadership and teacher retention.

Response Analysis of the Rest of the Teachers

Table 3 displays the results of the logistic regressions for the sample of teachers from the teaching population not considered by principals to be the top 10% of their

teaching staff. The analysis of these data of 141 responses paralleled the procedure for evaluating the 59 responses of the most effective teachers described earlier, and the results were also similar. Again, no significant relationship was found between principal transformational leadership and teacher retention. School head transformational leadership, however, was found to be a significant predictor of teacher retention, both before and after a sensitivity analysis was conducted.

Model 5A found an Exp*B* for school head transformational leadership of 1.91 at the .02 level of significance, Model 5B, which removed outlier responses, produced an Exp*B* of 2.81 at a .003 level of significance. This 2.81 result indicates that before

Table 3
Exponent B and Significance Levels for Models 5A Through 8B, Predicting Retention Among Teachers Not Considered Most Effective

Type of Leadership	5A	5B	6A	6B	7A	7B	8A	8B
Transformational Leadership (P)	0.84	0.74						
Transformational Leadership (SH)	1.91* (.018)	2.81** (.003)						
Transactional Leadership (CR-P)			1.23	0.96				
Transactional Leadership (CR-SH)			1.24	1.40				
Transactional Leadership (ME-P)			0.52+ (.07)	0.44* (.04)				
Transactional Leadership (ME-SH)			1.55	1.57				
Passive-Avoidant Leadership (PA-P)					0.79	0.59		
Passive-Avoidant Leadership (PA-P)					0.67	0.79		
Transformational Leadership (SH)							1.67* (.03)	3.41** (.0005)
Transactional Leadership (ME-P)							0.68	0.66

**p<.01 *p<.05 +p<.10

accounting for the affects of the control factors, a one-point increase in school head transformational leadership predicted to a nearly tripling of the odds of a teacher in this sample being retained.

As indicated in Table 3, principal transactional leadership (management-by-exception) was found to be significantly related to teacher retention, once outlier responses were removed from consideration. Before the sensitivity analysis, the Exp*B* for this variable was found to be .52, but the significance was only at the $p < .07$. After conducting the sensitivity analysis, however, the resulting Exp*B* of .44 was found to be significant at the $p < .05$ level. Since this Exp*B* was less than 1, it meant that an increase in a principal's transformational leadership was actually associated with lower teacher retention level. The .44 Exp*B* means that the odds of a teacher staying was more than cut in half for each one-point increase in teachers' transactional leadership ratings of their principals.

Since the analysis of the responses found two leadership variables to be significantly related to teacher retention, a statistical analysis combining those two variables into a single omnibus model was conducted to determine which variable was more strongly linked to retention: school head transformational leadership or principal transactional leadership (management by exception). The results of that analysis are shown in Table 3 under Model 8. When school head transformational leadership was taken into account, it turned out that the effect of principal transactional leadership (management by exception) dropped below the level of significance. As indicated by the 1.67 Exp*B* at the $p < .03$ level, however, school head transformational leadership did remain significantly, positively associated with teacher retention. Once the sensitivity

analysis was conducted, Model 8B showed that school head transformational leadership strongly predicted teacher retention, with an Exp*B* of 3.41 at the $p < .0005$ level of significance.

The fact that the principal transactional leadership variable was determined to be no longer statistically significantly associated with retention once school head leadership was considered indicates that school head transformational leadership scores have an association with principal transactional leadership scores. In fact, a test of the correlation showed that there was a significant, but *inverse* correlation between the two variables ($r = -.15$, $p < .03$). This suggests that the school heads who were perceived to be transformational leaders tended to be paired with principal leaders with lower transactional leadership scores. School heads with low transformational scores tended to be paired with principals with higher transactional scores. Pursuing this line of inquiry was beyond the scope of this study, but may well merit consideration for future leadership studies and will be noted as such in Chapter 4.

To summarize the findings of the first 18 analytical models, the analysis of the data indicated that for the top 10% most effective teachers, the only school leadership variable statistically significantly associated with teacher retention was school head transformational leadership. The initial analysis of the responses from the other 90% of the teachers found both school head transformational leadership and principal management by exception were associated with teacher retention. These findings, however, were based on analyses of two separate models. When those two variables were paired in a single model, only school head transformational leadership was found to be significantly associated with teacher retention. Thus, the data indicate that school

head transformational leadership was a stronger predictor of retention than was principal management by exception for this group of teachers. The data also indicated that transactional and laissez-faire leadership was not associated with teacher retention.

Incorporating Control Variables into the Model

The impetus for engaging in this line of research was the theory that transformational leadership, makes a positive difference in teachers' decisions to stay at a school. The results presented in Tables 2 and 3 establish that a statistically significant connection between school leadership and retention was found. In addition to leadership variables, a number of alternative variables have been noted in previous teacher retention research to have at least some statistically significant relationship with teacher retention. These include teacher demographic variables (Borman & Dowling, 2008; Ingersoll, 2001; Inman & Marlow, 2004), school characteristics variables (Ingersol, 2001), and organizational characteristics variables (Borman & Dowling, 2008; Guarino et al., 2006; Ingersoll, 2001b; McGrath & Princiotta, 2005).

This study's research design incorporated a set of nine such alternative variables in the data gathering in order to test them as potential alternative explanations for the correlation between leadership and retention. For example, it is hypothetically possible that the variable of teacher satisfaction with salary was actually the driver of high ratings for both school head transformational leadership ratings and teacher retention. If so, when salary and benefits satisfaction was entered into the model, the leadership-retention correlation would have disappeared, indicating that leadership was in fact not the driver of teacher retention.

The table shows the results of the logistic regression for each of these "third variables" (Campbell & Stanley, 1963) in the analysis. The analysis plan was for any hypothetical third variable having a statistically significant association with teacher turnover to be entered into an omnibus model along with any statistically significant leadership variables. If after entering these third variables or rival hypothesis variables into the analysis, a significant relationship still exists between leadership and retention, it does not prove the connection to be causal. To the extent, however, that it eliminates a number of plausible alternative explanations, it strengthens the internal validity of the study design, which found the leadership-retention relationship.

To test for potential significant relationships, a statistical analysis was performed on the survey data for each of these third variables, along with retention. Models 9 through 18 in Table 4 show the results of the analyses of these variables for the 10% most effective teacher sample. Models 19 through 28 in Table 5 show the outcomes for the sample from the rest of the teaching population. The following two sections describe the outcomes of the analyses shown in Tables 4 and 5.

The nine control variables tested were (1) teacher age, (2) teacher's gender, (3) teacher's years of teaching experience, (4) teacher's highest degree, (5) teacher's years teaching in current assignment, (6) teacher's satisfaction with current assignment, (7) teacher's satisfaction with salary and benefits, (8) school's status—non-profit or for-profit, and (9) school enrollment. School head transformational leadership was included as a 10th variable in the analyses.

Table 4 shows the results of the analysis for the 10% most effective teachers, and Table 5 shows the results for the other 90% of teachers. Sensitivity analyses were

conducted for each model that included the school head transformational leadership variable, as indicated by the presence of Columns 18B (Table 4) and 28B (Table 5).

Table 4
Exponent B and Significance Levels for Models 9 Through 18B, Predicting Retention Among Teachers Considered Most Effective

Control Variable	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18A	Model 18B
Age	0.92										
Gender		0.15+ (.07)								0.17	0.00
Teaching Experience			0.96								
Highest Degree				0.42							
Yrs. In Position					0.96						
Assignment Satisfaction						0.68					
Salary/Benefits Satisfaction							0.65				
For-Profit vs. Non-Profit Sch.								0.73			
School Enrollment									2.18		
Transformational Leadership (SH)										1.85	2.86*

M=0; F=1; move =0, stay = 1 **p<.01 *p<.05 +p<.10

Analysis Including Third Variable Explanations for the Most Effective Teachers

As shown in Table 4, none of the nine third variables were found to be correlated with teacher retention at $p < .05$ level for the most effective 10% of teachers.

One variable was found to be significant at $p < .07$ with male teachers tending to stay more than female teachers do. With this variable entered into the model and before conducting a sensitivity analysis, school head transformational leadership was not statistically significantly related to teacher turnover. After performing the sensitivity analysis, however, school head transformational leadership again emerged as significantly related with an Exp*B* of 2.86 at the .036 level of significance. While not as robust an effect as the 7.81 generated before taking control variables into account, this is

still a very strong relationship, indicating that a one-point increase on the school head transformational leadership scale is associated with a nearly tripling of the odds of a teacher staying at a school. In conclusion, these findings show that the school head transformational leadership/retention link cannot be explained away by any of the third variables that were examined. This increases the probability that the link is, in fact, causal.

Analysis of Control Variables and the School Head Transformational Leadership Variable for the Rest of the Teachers

Table 5 shows the results of tests that examined the impact of control variables on the link between school head transformational leadership and retention for the rest of the teachers in the sample. Seven control variables were found to have no statistically significant relation to teacher retention: age, gender, teaching experience, highest degree, years in current position, school profit or non-profit status, and school enrollment size. Two control factors were found to have a significant relationship with teacher retention. Satisfaction with current teaching assignment had an Exp*B* of 1.86 at $p < .01$, and satisfaction with salary and benefits had an Exp*B* of 1.65 with $p < .03$.

The final statistical analysis was then conducted combining the data for satisfaction with teaching assignment, satisfaction with salary and benefits, and school head transformational leadership ratings. The results are listed under Model 28.
As noted in Table 3, prior to entering control variables into the model, the logistic regression had found a statistically significant Exp*B* of 3.41 at $p < .001$ for school head transformational leadership. As shown under Model 28A, however, with the two control variables entered into the model, only satisfaction with teaching assignment, with Exp*B* of 1.83 at $p < .05$ emerged as significantly correlated with retention. Satisfaction with

salary and benefits along with school head transformational leadership were no longer significant predictors of retention.

Table 5
Exponent B and Significance Levels for Models 19 Through 28B, Predicting Retention Among Teachers Not Considered Most Effective

Control Variables	Model 19	Model 20	Model 21	Model 22	Model 23	Model 24	Model 25	Model 26	Model 27	Model 28A	Model 28B
Age	1.08										
Gender		1.43									
Teaching Experience			1.04								
Highest Degree				1.07							
Yrs. In Position					0.99						
Assignment Satisfaction						1.86** (.008)				1.83* (.042)	2.07* (.047)
Salary/Benefits Satisfaction							1.65* (.022)			1.34	1.53
For-Profit vs. Non-Profit Sch.								0.81			
School Enrollment									0.86		
Transformational Leadership (SH)										1.36	1.74+ (.083)

**p<.01 *p<.05 +p<.10

Finally, a sensitivity analysis was conducted on Model 28, and the results are listed in Table 5 under Model 28B. The final analysis also found that only satisfaction with teaching assignment was a statistically significant predictor of teacher retention at a level of $p < .05$. The Exp*B* for satisfaction with teaching assignment was 2.07, meaning a one-point increase in the five-point scale of satisfaction with teaching assignment corresponded to a doubling of the odds of retention. The correlation between school head transformational leadership and teacher retention had an Exp*B* of 1.74, but only at the $p < .09$ level.

Summary of Findings: Answering the Study's Research Questions

The purpose of conducting the survey and the statistical analysis was to answer the eight research questions put forth in this study. The first four questions related to the 10% "most effective" teachers; Questions 5 through 8 referred to the rest of the teaching population.

Questions 1 and 5 asked whether teacher retention could be better explained by principal transformational leadership or school head transformational leadership. The data analysis indicated that for the most effective teacher sample, school head transformational leadership better explained it. Similarly, for the rest of the teachers, school head transformational leadership was found to be a better explanation of teacher retention.

Questions 2 and 6 asked whether teacher retention could be better explained by the transactional leadership behaviors of the school head or the principal. The data analysis did not find either group's transactional leadership behaviors to predict teacher retention.

Similarly, Questions 3 and 7 asked whether teacher retention could be better explained by the passive-avoidant behaviors of the school head or the principal. The data analysis did not find either principals' or school heads' passive-avoidant leadership behaviors to be significant predictors of teacher retention.

Finally, Questions 4 and 8 asked what combined model best explains retention for the two groups of teachers. For the sample of most effective teachers, school head transformational leadership best predicted teacher retention. With a statistically

significant Exp*B* of 2.86, the effect was quite powerful. The most effective teachers were much more likely to stay when they saw their school head as a transformational leader.

For the sample of teachers not in the most effective group, satisfaction with their teaching assignment was the only variable that predicted teacher retention at a statistically significant level. With an Exp*B* of over 2.0, it was a reasonably powerful predictor of retention. School head transformational leadership had and Exp*B* of 1.74, but not quite strongly enough to be statistically significant at the $p < .05$ level.

CHAPTER 4

DISCUSSION AND IMPLICATIONS

Effective teachers are essential for effective schools. The key finding emerging from this study is the discovery of a very strong link between school head behaviors and the retention of the school's most effective teachers. This chapter lays out the notable findings of this study, its strengths and limitations, and the meaning of the findings and methodology within the context of the relevant research, then outlines recommendations for practice and further research.

Notable Findings

Five notable findings emerged from the data analysis of this study. The five are listed below, and the significance and meanings of these findings are outlined in the subsequent Discussion section.

The first and most notable finding was that retention of teachers identified by their principals as the top 10% most effective teachers in their schools was strongly associated with school head transformational leadership. A robust effect size of 2.86 was found to be statistically significant despite sample size limitations. Even after accounting for the effects of a series of eight control variables, each of which had been shown in previous research settings to correlate with teacher retention. Each of these eight covariates represented potential alternative explanations for the leadership-retention connection. Eliminating these alternative explanations increased confidence in the theory that leadership makes a difference in retention.

Second, for the teachers not identified as most effective by their principals (i.e., the remaining 90% of a principal's teaching staff) satisfaction with teaching assignment

was the only school or teacher factor found to be related to teacher retention at a statistically significant level. No such connection was found for the respondents from the top 10% most effective group.

Third, while the leadership-retention connection for the most effective teacher group is noteworthy, the fact that there was no similar connection for the larger group of teachers may be of equal interest. If these leadership behaviors were actually the cause of the retention effect, these same behaviors did not seem to have had the same effect on the larger group of teachers.

Fourth, echoing the findings of Mancuso (2010) and Desroches (2013), while school head transformational leadership was found to be a statistically significant predictor of teacher retention, the transformational leadership behaviors of school principals did not predict retention for either of the two groups of teachers. This is counter to the numerous studies on schools in America that have found a positive principal leadership-teacher retention connection (Gates Foundation, 2011; Grissom, 2010).

Finally, none of the forms of transactional or passive-avoidant leadership for either principals or school heads were found to be significantly related to retention of either teacher group.

Strengths and Limitations of the Study

The level of depth and sophistication the MLQ brought to the measurement of leadership represented a significant methodological advancement in relation to previous AOS teacher retention research. Having such a focused, well-validated tool for

measuring leadership provided both stronger construct validity and a greater depth of understanding of the leadership-retention relationship.

Effective study design also limited both Type I and Type II error. The possibility of Type I error of the school head leadership-retention connection was determined to be very small, at $p < .0005$, even with a sample size that necessitated a large effect size in order to be considered significant.

The sample sizes of 59 out of 250 and 141 out of 2,250 were sufficient to provide high power. In addition, subdividing the teacher population revealed a finding that may have otherwise gone undetected—the leadership-retention connection for the top 10% group. This was an instance where the research design reduced Type II error.

This study's systematic employment of logistic regression models involving competing explanations for the leadership-retention connection helped further bolster internal validity of the design. In addition, similar findings in the Mancuso (2010) and Desroches (2013) studies strengthen the conclusion validity of this study's finding: a strong link between school head transformational leadership and teacher retention.

This study's findings are most generalizable to teachers employed on overseas-hired contracts in NESA full-member schools in the school year 2012–2013. Generalizations based on the responses of the 59 top 10% teachers are most generalizable to the estimated population of 250. Results from the 141 subgroup sample are most generalizable to the 2,250 teachers in the rest of the overall teacher population. To a lesser extent, the results may be generalizable to these populations in previous and subsequent years. They are also generalizable to a lesser extent to teacher populations in other AOS regions throughout the world.

Discussion

The professional literature on teacher retention in the U.S. suffers no shortage of reports and journal articles with titles referring to retaining "high quality teachers." Rare is such a report, however, based on actual research that differentiated teacher quality in any meaningful way. Researchers attempting such differentiation have tended to use relatively blunt sorting tools. Some researchers used predictors of quality, such as teachers' level of education (Hanushek, Rivkin, Rothstein & Podgursky, 2004). Others defined and identified high quality teachers according to their students' "value-added" scores, but then failed to follow that up with survey instruments targeting this population (Hanushek et al., 2004). In general, research on high quality teachers seems to be like the weather—everyone is talking about it, but no one is doing much about it.

In this study, we sought to bridge that surprising gap in the research, and the results served as a foundation for further research in that direction. Specifically, two outcomes set this study apart from all previous teacher retention research. The first was the discovery that retention of the teachers identified by their principals as the top 10% most effective teachers in their schools is strongly associated with school head transformational leadership (and not other leadership or control factors). The second is that the retention of the other 90% is associated with their satisfaction with their teaching assignment (and not other leadership or control factors). Further, the mere ability to show a difference in retention patterns between these two groups is notable. While the presence of this difference may not seem particularly surprising, this study is the first to actually demonstrate that difference.

The finding of a strong leadership-retention connection for school heads reinforces some of the previous research findings (Desroches, 2013; Mancuso, 2010), while running counter to others, including the 2010 research in AOSs in the EARCOS region (Mancuso, Roberts, & White, 2010) that found teacher retention to be associated with transformational leadership of principals but not with transformational leadership of school heads. Why and how this difference exists is not yet well understood. One suggestion has been investigated; perhaps in smaller schools, the school head functions more like a principal, and the principal more like an assistant principal. However, further analysis of the EARCOS study using school size as a covariate did not bear this out (L. Roberts, personal correspondence, October 27, 2013). It may well be that Type II error is masking a significant relationship between principal transformational leadership and teacher retention. In any case, with the school head leadership-retention finding persisting in three studies in two regions (Desroches, 2013; Mancuso, 2010), the likelihood of this connection being an aberration is further diminished by this study's outcomes.

In order to keep their most effective teachers, schools and school heads can and should intentionally target their efforts, resources, and support to match the priorities of this group of teachers. In that regard, the priority this study points to is for school heads to provide transformational leadership in their schools.

The fact that principal transformational leadership did not seem to make a difference for the retention of either of the two groups of teachers indicates that it may be less important for principals to be transformational leaders than it is for school heads. Alternatively, it could simply be a case of Type II error. If there is very little variability

in levels of transformational leadership between principals (e.g., if all the principals had relatively high ratings), a difference in retention rates based on transformational leadership would be difficult to detect in a statistical analysis. An investigation of this possibility is part of the recommendations for further research.

Finally, the results of this study fit into a generalized theory of teacher retention. Consider for the moment that these twin findings were causal and there is no Type II error (i.e., school leadership impacts retention for the top 10%, but not for the 90%), and that teaching assignment impacts retention for the other 90%, but not the 10%. How might that be consistent with previous findings and understandings of teacher retention? One approach to further interpretation is to view these findings through the lens of Maslow's hierarchy of needs theory.

As noted in Chapter 1, Johnson and Birkeland (2003) found that the pursuit of money or status did not predict new teachers' career decisions, but rather the pursuit of a sense of success. Through Maslow's lens, we may view these teachers as being at the self-esteem level—seeking confidence, achievement, and self-esteem. The two significant findings of this study are also consistent with Maslow's hierarchy of needs (Maslow, 1943).

This study found that for the 90% of NESA teachers not considered the most effective teachers, satisfaction with their teaching assignment was the best predictor of retention. Applying Maslow's lens to this study, we may also consider these teachers to be at the esteem level. For them, a teaching assignment that allows them to be successful is their chief priority, and a bad fit is good cause to leave a school.

The top 10% teachers, on the other hand, may be beyond the esteem level and functioning at the self-actualized level. Maslow's model indicates that such individuals seek opportunities to exercise their creativity, spontaneity, and problem-solving skills (Maslow, 1943). These highly effective, highly competent teachers may be less concerned about having a teaching assignment that is a perfect fit of previous skills and experience. In fact, they may experience an imperfect fit as a better opportunity to forward their sense of self-actualization through exercising their creativity, spontaneity, and problem-solving skills. Having a school leader who will challenge them to grow and stretch their capabilities, and support them in facing those challenges may be more important to them in order to be fulfilled in their work–and to choose to continue their work in their current school. The outcomes of this study are consistent with such a conclusion.

Recommendations for Practice

This study's findings were consistent with the hypothesis that school head transformational leadership increases teacher retention for the most effective teachers. If transformational leadership is in fact resulting in greater retention of highly effective teachers, it has important ramifications for the daily practice of leadership in schools, as well as the selection, retention, training, and professional development of school leaders. School heads should intentionally and consciously seek to employ transformational leadership practices, and school boards should reward and support quality leadership in support of retaining quality teachers.

From their first interactions in recruiting newly hired teachers, school heads' behaviors impact their teachers' perceptions of their work; the success of the school

retaining the most effective teachers depends on those perceptions. A school head who is aware of the importance of these interactions and the importance of their role as a truly transformational leader is best positioned to provide the kind of leadership their school needs in order to keep the most effective teachers—particularly retention of the most effective teachers.

All school heads should ask themselves whether they truly provide transformational leadership to their school, and school boards should be setting up accountability measures that are focused on these behaviors. Boards should make that question central in the school head evaluation process, and should ask for and seek out evidence upon which to make a judgment. This study's survey questions defined transformational leadership operationally by asking teachers to rate leaders based on 20 transformational leadership behaviors – four questions each from the five sub-categories (see Appendix B for the list of questions). These questions provide a useful reference for considering how school boards and school heads might reflect on the practice of transformational leadership in their schools.

For example, school boards should see a leader who constantly puts the needs of students, teachers, and the school ahead of personal self-interests. They should see a leader who consistently acts in ways that engender respect and confidence in their leadership, and maintains a reputation for high integrity. School heads should carry a coherent, compelling vision for the school that the school staff believes in and shares. They should demonstrate leadership that reinforces a collective sense of purpose and promotes leadership from many individuals and groups within the school community. School boards should see a thoughtful, optimistic approach to challenges and decision

making that takes into account the myriad perspectives of the school's stakeholders. They should also see an ability and a willingness to seek out feedback to truly listen to others. The school head should demonstrate and model the ability to simultaneously hold a big-picture view of the school's mission and a genuine concern for individuals and their needs. Finally, school boards should see leadership practice that communicates high personal and professional expectations both of the school head and of others in the system.

In considering the outcomes of this study, school heads and boards should bear in mind that teachers' decisions to stay or leave are not predicated strictly on reality, but on perception. If a school head cares about teachers as individuals, but those teachers do not know it, then that caring will not help the school keep good teachers. It is through actions that people feel the influence of leadership and perceive whether it is transformational.

In addition, school heads are wise to differentiate approaches to retaining teachers in ways that take advantage of this study's findings. The current study's results indicate that a school having difficulty retaining highly effective teachers is wise to seek feedback from these teachers. School heads should be proactive by talking with these teachers one-on-one, finding out their perceptions of leadership practices, and asking what would make a difference for them in terms of their decision to stay or leave. This study's outcomes also indicate that a school with high turnover in general is wise to prioritize ensuring that teachers are satisfied with their teaching assignments.

School boards should evaluate their own performance in allowing, supporting, and encouraging the school head to act in ways that reflect transformational leadership. Does the board support the school head in making politically difficult decisions,

supporting the school head's ability to speak in a forthright manner? Does the board make decisions in a transparent and ethical fashion at all times, putting the needs of children first, and balancing the needs of the institution as a whole with the varied needs of individual teachers and students? Such actions support teacher perceptions of school head transformational leadership and bolster the school's ability to retain its most valuable asset—an effective teaching staff.

Finally, administrative licensing and training institutions as well as professional associations should pay heed to the findings of this study and evaluate their success in supporting and stimulating the development of school administrators' transformational leadership. Schools and school administrators depend on these institutions for guidance and support. Promoting transformational leadership practices may represent their most effective avenue for adding quality to the field of education.

Recommendations for Further Research

While this study answers some important questions, it also calls for answers to a broad array of questions. These questions range in scope from the narrowest bounds of the existing study to a broad range of other settings, including other professions. This section proposes nine potential research questions to pursue, beginning with work most similar to this study, and moving outward to a broader scope.

1. Based on the strong correlation between transformational leadership and retention of highly effective teachers, there is a strong need to determine which components of transformation leadership (idealized influence, inspirational motivation, intellectual stimulation, or individual consideration) are most strongly associated with teacher

retention. A more detailed analysis of the data from this study, along with a study that expands the pool of most effective teachers is warranted.

2. As noted earlier, U.S. studies have consistently found a strong link between principal leadership and teacher retention. In light of this study's failure to detect such a link, further investigation is in order to determine whether such a failure is due to Type II error, or if it truly reflects a fundamental distinction between the perspectives and priorities of AOS teachers in NESA and those of teachers in the U.S.

The school-heads-not-principals mystery may be solved by including one additional demographic item in the survey: the researcher should ask, "When you were hired, were you hired by your current school head, your current principal, both, or neither?" AOS school heads are typically much more involved in teacher hiring than in U.S. settings, while AOS principals are typically much less involved in hiring than U.S. principals, if they are involved at all. The hiring process is almost invariably an emotional experience for the teachers, and if a sense of personal connection and loyalty is established in that process, it could have lasting effects.

In addition, beyond the personal bonding potential, when a superintendent hires a teacher, the head's reputation for hiring and keeping successful teachers is on the line. As such, school heads feel more of a personal stake in seeing the teachers they hire succeed, and may be more likely to maintain personal involvement with individual teachers.

If a data analysis taking this variable into account were to reveal a pattern consistent with this hypothesis, it would not only solve a mystery; it would open up an interesting line of research inquiry applicable not only to AOS settings, but to U.S.

schools, and indeed beyond the realm of education.

In addition, a larger sample size would have enhanced this study's statistical power, and future studies should seek to maximize the number of survey responses. Repeating the study in other AOS regions or in larger systems or spheres in the U.S. or other countries can provide a larger sample size, significantly improving the ability to identify statistically significant predictors of teacher retention.

3. As noted earlier, the limited survey response and small sample size decreased the power of the statistical analysis, increasing the potential for Type II error in relation to finding an association between principal leadership and teacher retention. Given the well-established connection found in U.S. research, seeking such a connection was an important objective of this study. Unfortunately, 63 survey responses in this study had to be eliminated from the statistical analysis because teachers responded to the survey answering all demographic questions as well as all the leadership questions for the school principals, but did not answer them in relation to the school heads. Given the total useable return of 200 responses, their exclusion represents a substantial loss of important data. These responses should be analyzed separately with particular attention to any patterns that may associate the principal leadership ratings with teacher retention.

4. The failure to find a significant association between principal transformational leadership and teacher retention may be due to a lack of variation in teachers' perceptions of principals' levels of transformational leadership. For example, if all the principals demonstrated high (or low) levels of transformational leadership, then detecting an association with teacher retention would be difficult. The data should be further analyzed to determine if such a pattern exists within the data.

5. The data gathered in this study should also be reanalyzed using a more nuanced retention variable that accounts for school desirability. Within the ranks of teaching corps of overseas American schools, there is a common notion of some schools being more desirable teaching posts than others. Teachers early in their overseas careers tend to start out working at less desirable schools, then work their way from these stepping-stone schools up to highly desirable schools where they may hope to serve for many years. The data analysis for this study ignored that important reality by simply coding teacher retention as "1" or "0," depending on whether a teacher planned to stay or leave the school at the end of the school year. A data analysis incorporating "school desirability" into the retention variable may reveal different patterns of associations between leadership and retention and may reduce Type II error.

Survey respondents were asked how long they plan to stay at their school, and how long they thought they would stay when they originally signed on with the school. If a teacher changes their timeline and decides to stay longer than originally envisioned, it may be an indication of effective school leadership. Conversely, a teacher deciding to leave earlier than they had planned may be a reflection of poor school leadership. This hypothesis can be tested with the data available from the current study.

Rather than simply using retention at a school, using the ratio of the current anticipated length of stay to the initial anticipated length of stay may provide a more valid dependent variable for use in interpreting data—potentially providing more sensitivity to leadership effects. To the extent such an approach may yield useful information, it holds the potential for enhancing the study of teacher retention in particular. If it yields useful information, it may also represent an additional methodological tool for employee

retention studies beyond the realm of education.

Changing the retention variable—to "1" for a teacher staying longer than originally envisioned and "0" for a teacher intending a shorter stay than originally intended—has the potential to better show the impact of leadership on teacher retention.

6. Jacob and Lefgren's (2008) research found that principals are able to not only reliably identify the most effective teachers; they can correctly identify the least effective teachers as well. Extending this study's model to include this group as a third subsample for statistical analysis will improve the design in two important ways. First, this is a very important group for school administrators to understand. Hanushek (2009) argued that removing the least effective teachers may have a greater impact on school improvement than retaining the most effective teachers. If so, then good leadership may be equally judged by its ability to remove ineffective teachers as its ability to retain effective teachers. Research providing clarity in how low-performing teachers make decisions to stay or leave a school will help inform administrative practice.

The other tangible benefit of isolating the responses of the least effective teachers from the rest of the population is to help provide clarity in analyzing the responses of the more effective teachers—the ones administrators and schools seek to retain. In relation to teachers schools seek to retain, high retention may be considered to be a reflection of quality leadership. To the extent, however, that more effective leadership decreases the retention of these lowest-performing teachers, mixing their responses in with the rest of the teaching population muddies the waters of data analysis substantially. A research design isolating their responses represents a substantial methodological improvement—one with the potential to reveal larger effect sizes, thus decreasing the potential for Type

II error.

7. Further investigation is warranted to better understand the finding that teaching assignment is strongly associated with the retention of the 90% population. This finding was based on one item in the demographics section of the survey simply asking teachers to note their level of "satisfaction with teaching assignment." Qualitative and quantitative approaches could be employed to develop a more nuanced understanding of (a) what constitutes a satisfying teaching assignment and (b) what, if any, teacher demographic covariates that may be associated with this variable being important to teachers.

8. Repeating this survey in the NESA region in the future will reveal any trends in the depth and quality of transformational leadership practiced among school heads and school principals, as well as changes in teacher retention patterns and strengths of associations between retention predictors and teacher retention.

Since differences were found between the response patterns of the most effective teachers and the rest of the population, replicating methodology should be further pursued in other educational and non-educational settings. Doing so will reveal whether the findings of this study are generalizable to other settings and may reveal additional predictors of retention this study was unable to identify.

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APPENDIX A: Multifactor Leadership Questionnaire (5X) Short

Rate each item on a 0 to 4 scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

The person I am rating:

1. Provides me with assistance in exchange for my efforts
2. Re-examines critical assumptions to question whether they are appropriate
3. Fails to interfere until problems become serious
4. Focuses attention on irregularities, mistakes, exceptions and deviations from standards
5. Avoids getting involved when important issues arise
6. Talks about his/her most important values and beliefs
7. Is absent when needed
8. Seeks differing perspectives when solving problems
9. Talks optimistically about the future
10. Instills pride in me for being associated with him/her
11. Discusses in specific terms who is responsible for achieving performance targets
12. Waits for things to go wrong before taking action
13. Talks enthusiastically about what needs to be accomplished
14. Specifies the importance of having a strong sense of purpose
15. Spends time teaching and coaching
16. Makes clear what one can expect to receive when performance goals are achieved
17. Shows that he/she is a firm believer in "If it ain't broke, don't fix it."
18. Goes beyond self-interest for the good of the group
19. Treats me as an individual rather than just as a member of the group
20. Demonstrates that problems must become chronic before taking action
21. Acts in ways that builds my respect
22. Concentrates his/her full attention on dealing with mistakes, complaints and failures
23. Considers the moral and ethical consequences of decisions
24. Keeps track of all mistakes
25. Displays a sense of power and confidence
26. Articulates a compelling vision of the future
27. Directs my attention toward failure to meet standards
28. Avoids making decisions
29. Considers me as having different needs, abilities and aspirations from others
30. Gets me to look at problems from many different angles
31. Helps me to develop my strengths
32. Suggests new ways of looking at how to complete assignments
33. Delays responding to urgent questions
34. Emphasizes the importance of having a collective sense of mission
35. Expresses satisfaction when I meet expectations
36. Expresses confidence that goals will be achieved

APPENDIX B:
Multifactor Leadership Questionnaire Item Groupings by Subscale

This appendix shows the MLQ items comprising each of the nine leadership scales. The number to the left of the item is the item's number as it is listed on the MLQ.

TRANSFORMATIONAL LEADERSHIP CHARACTERISTICS

Idealized Influence Attributes items

10. Instills pride in me for being associated with him/her
18. Goes beyond self-interest for the good of the group
21. Acts in ways that build my respect
25. Displays a sense of power and confidence

Idealized Influence Behavior items

6. Talks about his/her most important values and beliefs
14. Specifies the importance of having a strong sense of purpose
23. Considers the moral and ethical consequences of decisions
34. Emphasizes the importance of having a collective sense of mission

Inspirational Motivation items

9. Talks optimistically about the future
13. Talks enthusiastically about what needs to be accomplished
26. Articulates a compelling vision of the future
36. Expresses confidence that goals will be achieved

Intellectual Stimulation items

2. Re-examines critical assumptions to question whether they are appropriate
8. Seeks differing perspectives when solving problems
30. Gets me to look at problems from many different angles
32. Suggests new ways of looking at how to complete assignments

Individual Consideration items

29. Considers me as having different needs, abilities and aspirations from others
31. Helps me to develop my strengths
15. Spends time teaching and coaching
19. Treats me as an individual rather than just a member of the group

TRANSACTIONAL LEADERSHIP CHARACTERISTICS

Contingent Reward items

1. Provides me with assistance in exchange for my efforts
11. Discusses in specific terms who is responsible for achieve performance targets
16. Makes clear what one can expect to receive when performance goals are achieved
35. Expresses satisfaction when I meet expectations

Management-by-Exception (Active)

4. Focuses attention on irregularities, mistakes, exception and deviations from standards
22. Concentrates his/her full attention on dealing with mistakes, complaints and failures
24. Keeps track of all mistakes
27. Directs my attention toward failures to meet standards

PASSIVE-AVOIDANT LEADERSHIP CHARACTERISTICS

Management-by-Exception (Passive)

3. Fails to interfere until problems become serious
12. Waits for things to go wrong before taking action
17. Shows that he/she is a firm believer in "If it ain't broke, don't fix it."
20. Demonstrates that problems must become chronic before taking action

Laissez-faire Leadership items

5. Avoids getting involved when important issues arise
7. Is absent when needed
28. Avoids making decisions
33. Delays responding to urgent questions

APPENDIX C: Research Question Data Analysis Outline

Question 1	Is teacher retention behavior better explained by the transformational leadership behaviors and attributes of the school head, or those of the school principal?
Variable(s):	Outcome variable: teacher intention to stay or leave (dichotomous variable coded 1 = staying; 0 = leaving) Predictor variables: the mean of all the transformational leadership scale scores from the most effective teachers' survey responses to the MLQ (separate scale scores for evaluations of principals versus school heads)
Data Source:	NESA Overseas-hired Teacher Survey and MLQ
Data Collection	Survey of all overseas-hired teachers in the 41 NESA "regular member schools" (via the Internet with support of NESA)
Analysis:	Logistic regression of retention regressed on the transformational leadership scores from survey responses to the MLQ for both principals and school heads.

Question 2	Is teacher retention behavior better explained by the transactional leadership behaviors of the school head, or those of the school principal?
Variable(s):	Outcome variable: teacher intention to stay or leave (dichotomous variable coded 1 = staying; 0 = leaving) Predictor variables: the mean of both transactional leadership scale scores from the most effective teachers' survey responses to the MLQ (separate scale scores for evaluations of principals versus school heads)
Data Source:	NESA Overseas-hired Teacher Survey and MLQ
Data Collection	Survey of all overseas-hired teachers in the 41 NESA "regular member schools" (via the Internet with support of NESA)
Analysis:	Logistic regression of retention regressed on the transactional leadership scores from survey responses to the MLQ for both principals and school heads.

Question 3	Is teacher retention behavior better explained by the passive-avoidant leadership behaviors of the school head, or those of the school principal?
Variable(s):	Outcome variable: teacher intention to stay or leave (dichotomous variable coded 1 = staying; 0 = leaving)

	Predictor variables: the mean of both passive-avoidant leadership scale scores as described in the MLQ (separate scale scores for evaluations of principals versus school heads)
Data Source:	NESA Overseas-hired Teacher Survey and MLQ
Data Collection	Survey of all overseas-hired teachers in the 41 NESA "regular member schools" (via the Internet with support of NESA)
Analysis:	Logistic regression of retention regressed on the passive-avoidant leadership scores from the most effective teachers' survey responses to the MLQ for both principals and school heads.

Question 4	Considering all the variables in Questions 1, 2, 3 and 4 that explained a significant proportion of variability in teacher retention, what combined model best explains retention of the most effective teachers?
Variable(s):	Outcome variable: teacher intention to stay or leave (dichotomous variable coded 1 = staying; 0 = leaving) Predictor variables: are all the school head and school principal variables that the analyses of Research Questions 1, 2 and 3 have determined to be significant predictors of teacher retention.
Data Source:	NESA Overseas-hired Teacher Survey and MLQ
Data Collection	Survey of all overseas-hired teachers in the 41 NESA "regular member schools" (via the Internet with support of NESA)
Analysis:	Logistic regression of retention regressed on the predictor variables found to be significant predictors of teacher retention in the analysis of questions 1, 2 and 3.

Question 5	Is teacher retention behavior better explained by the transformational leadership behaviors and attributes of the school head, or those of the school principal?
Variable(s):	Outcome variable: teacher intention to stay or leave (dichotomous variable coded 1 = staying; 0 = leaving) Predictor variables: the mean of all the transformational leadership scale scores as described in the MLQ (separate scale scores for evaluations of principals versus school heads)
Data Source:	NESA Overseas-hired Teacher Survey and MLQ
Data Collection	Survey of all overseas-hired teachers in the 41 NESA "regular member schools" (via the Internet with support of NESA)
Analysis:	Logistic regression of retention regressed on the transformational

	leadership scores from the rest of the teaching population's survey responses to the MLQ for both principals and school heads.

Question 6	Is teacher retention behavior better explained by the transformational leadership behaviors of the school head, or those of the school principal?
Variable(s):	Outcome variable: teacher intention to stay or leave (dichotomous variable coded 1 = staying; 0 = leaving) Predictor variables: the mean of both the transactional leadership scale scores as described in the MLQ (separate scale scores for evaluations of principals versus school heads)
Data Source:	NESA Overseas-hired Teacher Survey and MLQ
Data Collection	Survey of all overseas-hired teachers in the 41 NESA "regular member schools" (via the Internet with support of NESA)
Analysis:	Logistic regression of retention regressed on the transactional leadership scores from the rest of the teaching population's survey responses to the MLQ for both principals and school heads.

Question 7	Is teacher retention behavior better explained by the passive-avoidant leadership behaviors of the school head, or those of the school principal?
Variable(s):	Outcome variable: teacher intention to stay or leave (dichotomous variable coded 1 = staying; 0 = leaving) Predictor variables: the mean of all the passive-avoidant leadership scale scores as described in the MLQ (separate scale scores for evaluations of principals versus school heads)
Data Source:	NESA Overseas-hired Teacher Survey and MLQ
Data Collection	Survey of all overseas-hired teachers in the 41 NESA "regular member schools" (via the Internet with support of NESA)
Analysis:	Logistic regression of retention regressed on the passive-avoidant leadership scores from the rest of the teaching population's survey responses to the MLQ for both principals and school heads.

Question 8	Considering all the variables in Questions 5, 6 and 7 that explained a significant proportion of variability in teacher retention, what combined model best explains retention of the rest of the teacher population?
Variable(s):	Outcome variable: teacher intention to stay or leave (dichotomous

	variable coded 1 = staying; 0 = leaving) Predictor variables: are all the school head and school principal variables that the analyses of Research Questions 5, 6 and 7 have determined to be significant predictors of teacher retention.
Data Source:	NESA Overseas-hired Teacher Survey and MLQ
Data Collection	Survey of all overseas-hired teachers in the 41 NESA "regular member schools" (via the Internet with support of NESA)
Analysis:	Logistic regression of retention regressed on the predictor variables found to be significant predictors of teacher retention in the analysis of questions 5, 6 and 7.

Appendix D
Letter to School Heads

Dave Weston
daw304@lehigh.edu

March 15, 2013

Dear Fellow NESA School Leader,

My name is Dave Weston, and I am the Principal of Ras Tanura Elementary School in Ras Tanura, Saudi Arabia – part of the Saudi Aramco Schools system. As a candidate in the Educational Leadership doctoral program at Lehigh University, I am conducting a research study investigating the factors associated with turnover and retention of overseas-hired teachers in NESA member schools. If you attended the school head business meeting at this year's NESA Fall Leadership Conference in Dubai, you may recall my plans to send out a survey in mid-March designed to illicit feedback from overseas-hired staff members regarding factors associated with turnover and retention.

This morning, I sent an email (attached) to all the principals of the 41 NESA regular-member schools, so your school's principals should have received it already. Your part in this effort is simply to cheerlead a bit. If you will just ask your principals if they received my email, and encourage them to forward it to their teachers, I would appreciate it. If you happen to have an opportunity to encourage teachers to participate as well, either formally or informally, I would appreciate that as well. I know how busy teachers are as report card time looms, so a gentle nudge from you may make a difference for such busy people.

If you have a principal who did not receive it, please send me their name and email address right away and I will forward the survey to them promptly.

My best hope is that through this research, you as the leader of your school, will benefit by gaining clarity in understanding what for many schools is an ongoing challenge – how to retain your most effective teachers.

I assure you that the strictest confidentiality will be maintained throughout this study. My handling of the data will be consistent with the Federal Policy for the Protection of Human Subjects (Federal Register, 1991), and the Ethical Principles in the Conduct of Research with Human Participants (APA, 1982). There are no distinguishing data in the survey that would connect a survey response to the teacher or their school, and their participation is totally voluntary. Please keep this page for your information regarding informed consent and reference.

If you have any questions about this study, please contact me right away at daw204@lehigh.edu. You may also contact my advisor, Dr. George White (gpw1@lehigh.edu) at Lehigh University. Problems that may result from participation in this study may be reported to Troy Boni, Officer of Research and Sponsored Programs, Lehigh University (tdb308@lehigh.edu).

I appreciate the support that David Chojnacki and the good people in the NESA office have provided this research effort, and I sincerely thank you for your support.

Appreciatively,

Dave Weston

Appendix E
Cover Letter and Follow-up Letters to Principals

Dave Weston, Principal, Ras Tanura Elementary School
Doctoral Candidate, Lehigh University
dave.weston-nesa@outlook.com

April 22, 2013

Dear Fellow NESA Principal,

I am conducting a Lehigh University research study investigating the factors associated with turnover and retention of overseas-hired teachers in NESA member schools. I am writing to you to ask for your support in helping your teachers access and participate in a special survey. Your teachers will be able to complete the online survey in less than 10 minutes, and the window for participation in this survey is the three weeks from now until May 12.

This effort represents a rare opportunity for us to better understand what we can do to hold onto quality teachers - particularly those teachers who make the most difference for our students academically. I am asking every NESA regular-member school to participate, as only through wide participation can we gain the kind of clarity and validity that will make the outcomes genuinely useful for us.

The survey I am asking teachers to respond to is only for your teachers on **overseas-hire** contract status. It is intended only for teachers in a decision-making year contractually, so for example, I would ask you not to forward the survey to teachers in the first year of a 2-year contract. Teachers hired on local-hired contract status would also not participate.

I anticipate your part in this effort will take you 15 minutes, most of which will be reading this email and the attached teacher letter, then creating the distribution lists for two emails you'll send to two separate groups of your overseas-hired teachers. I am asking you to copy (and modify as appropriate) the note below into an email and send it to each of your staff members who qualify.

In addition, there is one twist that only you can help me with. There's a fair body of research evidence that we as principals have an excellent grasp of the obvious – off the top of our head, we can very accurately identify the top 10% (and bottom 10%) of our teachers who will produce the **greatest academic gains** (We're apparently not particularly good, by the way, at sorting out those in between.). I am asking you to create a second email to send to the most obvious standouts - the 10% of your teaching staff you see making the greatest **academic** impact (as opposed to, say, the best all-around or most popular teachers). If, for example, you have 46 teachers, 10% is 4.6, so round to the nearest teacher and send the second note to 5 teachers. Round up for the half-teachers, so if you have 65 teachers, you'd round 6.5 up to 7; if you have 64, round down from 6.4, sending it to 6 teachers.

These most-effective teachers may be at any grade level or academic discipline – from precalculus to preschool, PE to poetry. No individual teacher should receive both emails; they should either receive either the first note or the second. In sending these two emails, please maintain confidentiality by using the BCC field (rather than TO: or CC:) to distribute the emails. To ensure the responses reflect truly independent thought, in the letter to teachers, I have explained that their responses will be completely confidential and I have asked them not to discuss their participation in the survey with each other.

If you have teachers who report to two principals, I would ask you to send the survey only to those teachers that you are currently the evaluator for - this will avoid teachers receiving duplicate emails.

It is absolutely critical, by the way, that the two notes not be switched between your two groups; the group receiving the first note must be the large (90%) group of your eligible staff, and the small group of select teachers must get the second note.

In case you're wondering, the two notes are identical, with the exception of the destination of the embedded hyperlinks teachers click to access the survey. This difference allows their responses to be sorted into two groups while maintaining strict confidentiality. The surveys they participate in are identical as well, so as long as the emails you send look the same and you remember to use the BCC field to distribute the emails, all teachers will have exactly the same user experience. There will be no way for me or anyone else, including the teachers in the school to know which teacher received which survey.

I assure you that the strictest confidentiality will be maintained throughout this study. My handling of the data will be consistent with the Federal Policy for the Protection of Human Subjects (Federal Register, 1991), and the Ethical Principles in the Conduct of Research with Human Participants (APA, 1982). There are no distinguishing data in the survey that would identify you or your school, and your participation and your teachers' participation is totally voluntary. Once a teacher submits a survey, no one will ever know what school or person the survey came from, including me. Data will only be reported in aggregate form. Please retain this email for your information regarding informed consent and reference.

If you have any questions about this study, please contact me right away at dave.weston-nesa@outlook.com. You may also contact my advisor, Dr. George White (gpw1@lehigh.edu) at Lehigh University. Problems that may result from participation in this study may be reported to Troy Boni, Officer of Research and Sponsored Programs, Lehigh University (tdb308@lehigh.edu).

Here is a sample note with a link included that can be cut & pasted into an email for the 90% of the overseas-hired teachers:

Teachers,

I'm forwarding a link to you that lets you access a 10-minute NESA teacher survey that I would encourage you to respond to. The link below takes you to the letter describing the survey and your participation.

https://www.surveymonkey.com/s/6Z3IKVNJMQYXCFTJGK

Please take a few minutes to participate in the survey.

Thanks.

Here's a sample note with the link for the "highly effective" group:

Teachers,

I'm forwarding a link to you that lets you access a 10-minute NESA teacher survey that I would encourage you to respond to. The link below takes you to the letter describing the survey and your part.

https://www.surveymonkey.com/s/6Z3lKVNJMQYXCFTJGK

Please take a few minutes to participate in the survey.

Thanks.

For your reference only, I have attached a copy of the introductory letter to teachers. Please DO NOT send this to teachers. I'm just giving you a chance to peek at the first page teachers come to when they click the link to the teacher survey so you have a better sense of what you're asking teachers to do.

I appreciate the support that David Chojnacki and the good people in the NESA office have provided this research effort. I also appreciate the support and encouragement I've received from fellow principals around the region, and I look forward to the opportunity to share the results with you.

If you have questions, please let me know.

Best regards,

Dave Weston
dave.weston-nesa@outlook.com

Dave Weston
dave.weston-nesa@outlook.com

April 30, 2013

Dear Fellow NESA Principal,

Just a quick follow-up on last week's email. Thank you to all of you who supported this effort – the volume of response has been excellent, and the volume of the two groupings has been.

The volume of response has been excellent, so now we are in a good position to simplify the process in a simple-minded effort to broaden participation.

those teachers who haven't yet responded but intend to, responding to the survey is on a back burner. For many teachers, a gentle reminder from you at this point will help move responding up in their priority list.

If you could just send a quick follow-up email to your two groups by taking the previous email from your SENT mail folder and sending it again (using the BCC field again) with a brief note of encouragement, I would appreciate it.

If you didn't receive the email or if it got buried in your inbox, it's not too late to send out the initial email – there are still more than two weeks for teachers to respond.

I appreciate all the support and encouragement I've received in this effort. If you have any questions, please don't hesitate to let me know.

I sincerely thank you for your participation.

Appreciatively,

Dave Weston

Dave Weston
daw304@lehigh.edu

SUBJECT: NESA Survey window closes Sunday

May 11, 2013

Dear Fellow NESA Principal,

Thank you again for your getting your teachers on board – judging by the response from teachers entering the drawing for the Amazon.com $50 certificates, we've had a good response from your teachers.

Tomorrow's the last day of the survey window, and I'd appreciate it if you could shoot your teachers one last note today to remind them. If it shakes out even one person who intended to do it but hasn't gotten around to it, it'll help!

If you have any questions, please don't hesitate to let me know.

Thank you again for your support!

Sincerely,

Dave Weston

Appendix F
Cover Letter to Teachers

Dave Weston, Doctoral Candidate, Lehigh University
Principal, Ras Tanura Elementary School, Saudi Aramco Schools
daveweston-nesa@outlook.com

April 22, 2013

Dear NESA Colleague,

I am writing to ask for your assistance by participating in this 10-minute survey of NESA overseas-hired teachers. The survey seeks to determine what factors were important to you this year as you considered whether to extend your current contract. To enter the survey, you will click NEXT at the bottom of this note; it is imperative to this study that you complete the survey on your own without discussion with others.

$50 Amazon gift certificates

While you will not receive any compensation for participating in this study, $50 Amazon.com gift certificates will be awarded to 30 participants as a gesture of appreciation. The process of qualifying to receive a gift certificate is a completely separate exercise from the survey response whereby you send an email to an account set up for the sole purpose of awarding the certificates – instructions are provided at the end of the survey. The 30 certificate recipients will be randomly selected by our NESA Director, David Chojnacki on May 13, the day after the close of the window for completing the survey.

I assure you that the strictest confidentiality will be maintained throughout this study. My handling of the data will be consistent with the Federal Policy for the Protection of Human Subjects (Federal Register, 1991), and the Ethical Principles in the Conduct of Research with Human Participants (APA, 1982). There are no distinguishing data in the survey that would identify you or your school, and your participation is totally voluntary. Please keep this page for your information regarding informed consent and reference.

If you have any questions about this study, please contact me at daveweston-nesa@outlook.com. You may also contact my advisor, Dr. George White (gpw1@lehigh.edu) at Lehigh University. Problems that may result from participation in this study may be reported to Troy Boni, Officer of Research and Sponsored Programs, Lehigh University (tdb308@lehigh.edu).

To participate, click NEXT below to enter the survey and complete it. By returning this survey, you are implying your consent to use the data in the manner described. Please complete the survey by Sunday, May 12, 2013 to qualify for the $50 coupons.

Thank you for your participation.

Dave Weston

To enter the online survey click I AGREE TO PARTICIPATE.

Appendix G
Cover Letter to Pilot Study Teacher Participants

Dave Weston
daw304@lehigh.edu

February 12, 2013

Dear Teachers,

My name is Dave Weston, and I am writing to ask for your assistance by participating in a brief web-based survey. I am the Principal of Ras Tanura Elementary School in Ras Tanura, Saudi Arabia, and as a candidate for a doctorate in Educational Leadership at Lehigh University, I am conducting a research study investigating what influences teacher turnover and retention of overseas-hired teachers in NESA schools. My hope is that through this research, all stakeholders in NESA schools will better understand what makes a difference for teachers as your consider whether or not to extend your current contract. Ultimately, I hope this research will help make our schools better places to work.

This coming March, I will be sending out surveys to over 1000 NESA teachers, and before I do, I am asking you to help pilot the instrument and to give me feedback on your experience as you took it. At the bottom of this note, you will find a link to take you to the survey. I anticipate it will take you 15 minutes to complete, and at the end, there will be an opportunity for you to provide some feedback

It is imperative to this study that you complete the survey on your own without discussion with other teachers. I assure you that the strictest confidentiality will be maintained throughout this study. My handling of the data will be consistent with the Federal Policy for the Protection of Human Subjects (Federal Register, 1991), and the Ethical Principles in the Conduct of Research with Human Participants (APA, 1982). There are no distinguishing data in the survey that would identify you, and your participation is totally voluntary. In addition, the data you provide on the survey will not be reported or published in any format. The purpose of the data is to ensure that the results from the future study will be appropriate to answer the research questions posed in the study. Please save this page for your reference regarding informed consent and reference.

As an incentive to participants in this survey, you will be asked at the conclusion of the feedback form to register for a drawing of a $100 gift certificate from Amazon.com. Registration for the drawing is a completely separate exercise from the survey response, so your drawing registration will not be connected to your survey responses in any way. To register for the drawing, complete the survey, then send me the address noted at the bottom of the feedback questions. The prizewinner will be randomly selected by your Principal, Steve Mancuso and awarded once the surveys have been submitted.

If you have any questions about this study, please contact me at daw204@lehigh.edu. You may also contact my advisor, Dr. George White (gpw1@lehigh.edu) at Lehigh University. Problems that may result from participation in this study may be reported to Troy Boni, Officer of Research and Sponsored Programs, Lehigh University (tdb308@lehigh.edu).

To participate, click “I agree to participate” below to enter the survey and complete it..

I sincerely thank you for your participation.

David A. Weston

To enter the online survey click I AGREE TO PARTCIPATE.

APPENDIX H – Pilot Study Teacher Feedback Form

Now that you have completed the pilot survey, I would appreciate some feedback to help improve the survey.

1. Approximately how long did it take you to complete the survey?

   _____ Number of Minutes

2. Identify any questions you found confusing, ambiguous or unclear.

   a. If you have suggestions for rewording any particular items, please list them here:

3. Provide any comments you may have on the ease of use of the format:

4. Provide any comments you may have on the clarity of the instructions:

5. Provide any comments to improve the clarity and usefulness of the cover letter:

Thank you very much for your feedback on the survey instrument. To enter the drawing for the $100 Amazon.com certificate, please email your name by Thursday, February 14 to nesasurveygoodies@outlook.com.

APPENDIX I – Pilot Study Principal Feedback Form

Now that you have helped distribute the pilot survey to your teachers, I would appreciate some feedback to help improve the instructions and my communications with Principals.

1. Provide any comments you may have on the clarity of the instructions to Principals:

2. Please describe any difficulties you or teachers experienced, or confusion about your instructions for distributing the survey.

3. Any other questions or comments that may help me strengthen, simplify and/or streamline the process?

4. Did you experience any difficulties?

5. Approximately how many minutes of your time did the whole process take, not including responding to this form?

APPENDIX J
Threshold Questions and Demographics Items of Teacher Survey

Threshold Questions

1. Are you currently working as a teacher at an American overseas school or international school?
2. Have you been working at this school for more than one year?
3. Do you currently hold an "overseas-hired" or "sponsored-hire" or equivalent contract?

Teacher variables:

4. Age
5. Gender
6. Total number of years of teaching experience including this year
7. Total number of years of overseas experience including this year
8. Number of years teaching in this school including this year
9. Highest degree attained
10. Country of certification. (US/Canada; Australia/New Zealand; UK; Host Country; other)
11. Will this be your last year working at this school?

    11a: (For stayers) How many more years do you picture yourself continuing to teach here after this school year?

School variables:

12. Is this school a non-profit or for-profit school?
13. Your supervising Principal serves grades levels ___ through ___.
14. What is the approximate total enrollment your Principal serves?
15. When you signed the contract to come to this school, approximately how many years did you picture yourself serving here?
16. Approximate number of years your principal has been principal at your school.
17. Does your Principal plan to continue working for your school next school year?

Organizational satisfaction variables

4: Strongly agree 3: Somewhat agree 2: Somewhat disagree 1: Strongly disagree

I am satisfied with:

18. the salary and benefits package
19. the sense of personal safety and security I feel here
20. the lifestyle and culture afforded by the host country
21. the social relationships I have with colleagues
22. the working relationships and collaboration with colleagues
23. my ability to make a difference in the lives of my students
24. the level of parent support in this school

25. my workload
26. my teaching assignment
27. workplace conditions (e.g., facilities, classroom resources, school safety)
28. the level of autonomy over my classroom
29. the level of teacher involvement in important school decisions
30. my sense of job security
31. my living situation (and my family's living situation) experience here

VITA

Dave Weston

19510 178th Avenue East
Orting, WA 98360
360-893-2453
westondave@outlook.com

Degrees and Certifications

- **Bachelor of Science**, Civil Engineering, Washington State U. (1981)
- **Washington State Certification:** Science Teaching (K-12) (1983)
- **Master of Arts**, Educational Leadership, Eastern Washington U. (1991)

Professional Experience

Ras Tanura Elementary School, Saudi Aramco Schools (2001-2013)
Assistant Principal, K – 9 (2001-2010)
Principal, Preschool – 5 (2010-2013)

Singapore American School (1999-2001)
Deputy Principal: Intermediate School (Gr 3-5)

Karachi American School (1996-1999)
Principal: Elementary School (Preschool – Gr 5)

Grant Elementary School, E. Wenatchee, WA (1993-1996)
Principal: (Gr KG – 5)

Dallesport Elementary & Lyle Primary Schools, Lyle, WA (1991-1993)
Principal: (Gr KG – 5)

Karachi American School (1996-1999)
Elementary Science Specialist (Grades 1-5)

U.S. Peace Corps, Kalamdladla, Swaziland, Africa (1984-1986)
Science and Mathematics Teacher: (Grades 8-10)

Soap Lake High School, Soap Lake, WA (1983-1984)
Mathematics and Science Teacher: (Gr 9-12)

Boeing Commercial Aircraft Corporation, Renton, WA (1981-1982)
Mechanical Systems and Hydraulics Engineer: Boeing 757