

**A Study of the Impact of Salary Supplements on Teacher Turnover in North Carolina
School Districts**

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ABSTRACT

LILLIE COX: A Study of the Impact of Salary Supplements on Teacher Turnover in North Carolina School Districts (Under the direction of Dr. Fenwick English)

The purpose of this study was to examine the effects of locally competitive salary supplements and the turnover rate in all North Carolina school districts and to discuss exit survey data in one North Carolina school district.

The research analyzed the effects of changes in locally competitive salary supplements and the turnover rate in all North Carolina school districts over a period of three years. The study also used exit survey data from one specific school district. When compared to the district's salary data, a description of the findings in the individual school district provided information regarding the reasons teachers are leaving on a state-wide level and provided insight into the reasons teachers provided for their leaving one North Carolina school district. The study used the conceptual framework of Herzberg's Motivation-Hygiene Theory (also known as the Two-Factor Theory) as a basis for understanding the data regarding local salary supplements and teacher turnover rates over several years.

Correlations were run between teacher turnover rates and both salary supplement amounts and salary supplement changes. The researcher found only one indicator of significance for both salary supplement amount and salary supplement changes. Using a multiple regression analysis, the researcher used location as the central independent variable with salary supplement amounts and supplement changes added to the equation. Two regions in North Carolina showed a statistically significant relationship between teacher turnover and salary supplements. Using

exit survey data from one local school district, the researcher calculated the percentages for the three main reasons listed on the survey for teachers leaving their jobs. The researcher correlated these reasons to Herzberg's Motivation - Hygiene Theory. This resulted in salary as a hygiene factor receiving the highest percentage, followed by more opportunities for advancement as a reason teachers left their positions. Possible reasons for the findings, rival hypotheses, implications for administrators and policy makers, and recommendations for future research are discussed in the final chapter.

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CHAPTER ONE

INTRODUCTION

It is generally recognized that the quality of a student's education is largely a matter of the effectiveness of the teachers any student encounters in his or her formal education. Often student test scores are used as measures of teacher quality; however, characteristics of "teacher quality," such as experience and years of schooling, are only weakly linked with student achievement. They are not reliable proxies for effective teaching" (Hanushek & Rivkin, 2007, p. 70). Additional research is needed to determine which teachers improve students' academic improvement and under which conditions. Many factors of teacher quality exist, including the teacher's academic background, scores on standardized tests, such as the SAT and ACT, teacher certification status, and years of experience. This study focused on teacher turnover as a factor affecting years of experience and, therefore, teacher effectiveness. If teachers are constantly entering and leaving the profession, teacher longevity, experience, professionalism, and expertise are ultimately affected. Moreover, teacher effectiveness cannot be adequately measured if there are no longitudinal data due to teacher turnover. "Research has clearly revealed that teacher effectiveness is not only key to student achievement, but its impact on student learning is cumulative" (Dwyer, 2007, p. 3); therefore, the stability of the teacher workforce is essential to continuous student achievement.

A focus on recruitment and retention efforts is essential to most school districts to meet the goal of obtaining and keeping teachers. There are many factors involved in securing teachers in local school systems, including "student enrollment, class size policies, curriculum

requirements, the district's fiscal capacity, district priorities, and the wage level of effective teachers (Murnane & Steele, 2007, p.17). This study aimed to analyze the effects of changes in salary supplements and the turnover rate in all North Carolina school districts over a period of three years. The study also utilized exit survey data from one school district for one year and, when compared to salary and turnover data from the entire state over three years, provided more insight into the reasons teachers are leaving on a state-wide level. Assuming that teachers will remain in jobs where they find satisfaction through a number of factors, the study was based on the theoretical foundations of Herzberg's Motivation-Hygiene theory. "Studies by Cooper (1973) and Stutebeck (1974) have shown job satisfaction to be significantly correlated with student perceptions of teaching effectiveness" (Moxley, 1977). They hypothesize that if teachers find satisfaction through either hygiene factors, motivator factors, or both, they will remain in their current positions and less turnover will occur.

Statement of Problem

Currently, the issue of teacher turnover has moved from a new and hot topic to a daily reality as "schools and districts must struggle to maintain standards for teaching quality while continuously recruiting bright new teachers and seeking to retain their most effective existing teachers" (Guarino, Santibanez, Daley, 2006, p.173). Recruiting is no longer a spring sport; it is a year-round event as teachers enter and leave the classroom at various times for various reasons. Districts have restructured and reorganized their human resources and recruitment offices to meet the challenge of keeping "highly qualified teachers," as defined by No Child Left Behind Act, in classrooms year-round. The competition is fierce, and any advantage a local school district has will help in retaining a quality teaching work force.

The increase in teacher turnover is based on several factors. Some teachers leave for financial reasons, yet many leave for intrinsic reasons that are directly related to working conditions and the culture at the school level. Fowler and Mittapalli (2006) found that “retirement and job dissatisfaction were among the leading reasons for teachers to leave their professions altogether. Low pay and fewer benefits were not reasons for attrition” (p. 4). In a study of teachers in Florida, researchers found that the following factors rank highest when a teacher decides to leave or to stay: administrative support, financial incentives, paperwork, family responsibilities, and the joy of teaching (Kersaint, Lewis, Potter, and Meiseis, 2007).

In addition to the effect on the classroom, teacher turnover is costing the nation an estimated \$7.3 billion annually, according to a study recently released by the national Commission on Teaching and America’s Future (NCTAF, 2006). Federal legislation such as the No Child Left Behind Act (Public Law 107-110) requires more accountability in schools for test scores, teacher qualifications, teacher recruitment, training, and, ultimately, retention. These areas have become top priorities for local school districts. As the accountability for schools and school districts has increased, the pressure on classroom teachers has increased as well. For example, “teachers have been evaluated for years, usually in their classrooms; however, more accurate and easily available teacher information . . . has led to evaluating teachers by focusing on specific qualifications and characteristics rather than on classroom behavior” (Goe, 2007, p. 7). Therefore, teachers increasingly feel less independence and control. Professions outside of education are attractive to teachers who may be disenchanted with their current work situations, especially as “the circumstances of their jobs may matter even more than their salaries” (Viadero, 2008).

Even if teachers are satisfied in their jobs, the labor market theory must be considered. In the recent Quality Counts Report (2008), 16 other professions with similar skill demands were

found to out-earn teachers by a notable margin of approximately 88 cents to every dollar earned by comparable workers (Swanson, 2008). However, education is well known as a stable marketplace for its employees, and this may again impact the number of teachers willing to sacrifice stability for the more immediate and more lucrative opportunities on the job market.

One promising approach to this challenge has been that of providing specific monetary incentives to attract and retain quality teachers. Many studies find that “teacher pay reduces the probability that teachers leave the profession, particularly once differences in alternative earnings opportunities are taken into consideration” (Hanushek, Kain & Rivkin, 2001, p. 2). Financial incentives are important to some teachers. For example, Hirsch (2006) found that salary and benefits were ranked first among teachers who left the profession and second among teachers who remained in their current position, and among those who moved to another teaching position. Teachers have proven to be aware of their earning potential as studies “found that higher salaries were associated with lower teacher attrition and that teachers were responsive to salaries outside their districts and their profession (Guarino, Santibanez & Daley, 2006, p. 194).

The study added to this emerging knowledge base regarding the impact of salary changes across North Carolina and examined the reasons teachers left one school district in particular in the state. The results of this study are beneficial for school districts as they continue to address the need to provide highly effective teachers and retain those teachers in all of our classrooms.

Research Questions

In this study, the researcher examined the effects of locally competitive salary supplements and the turnover rate in all North Carolina school districts along with exit survey data in one North Carolina school district to answer the following research questions:

1. What effects do changes in local salary supplements have on teacher turnover in all North Carolina school districts?
2. What effect does location have on teacher turnover, given salary supplements?
3. What are the most significant reasons teachers give for leaving one local school district in North Carolina?
4. Are the findings in the local district data consistent with the findings in the state-wide salary supplement data regarding reasons for teacher turnover?

Importance of the Study

Often, turnover is attributed to retirements or people simply leaving education for another profession; however, the people who leave schools and migrate to other schools or districts also leave a void in their wake; the effect on school and district-level recruitment is the same. A replacement must be found. Furthermore, the effect on the students and culture of the school and district may be harmful regardless of where the teachers go. “It’s not that we have too few teachers entering our schools; it’s that too many are leaving,” states Thomas Carroll, Executive Director of the National Commission on Teaching and America’s Future (Blair, 2003). This study aimed to analyze the effects of changes in salary supplements and the turnover rate in one selected North Carolina school system as it compares to salary changes in all North Carolina school districts from 2005-2007.

The researcher used the conceptual framework of Herzberg's Motivation-Hygiene Theory (also known as the Two-Factor Theory) as a basis for understanding the data regarding local salary supplements and teacher turnover rates over several years (Herzberg, F., Mausner, B., & Snyderman, B., 1959). Herzberg's Motivation - Hygiene Theory finds that the factors causing job satisfaction (motivation factors) are different from the factors causing job dissatisfaction (hygiene factors). Herzberg found that employee salary is a hygiene factor, in that it may lead to dissatisfaction toward a job; however, it does not lead to job satisfaction. Satisfiers or motivating factors are more intrinsic in nature and include recognition, advancement, responsibility, achievement, and the nature of the work itself.

Data collected by North Carolina public school districts regarding teacher turnover were used along with data regarding local salary supplements for each school district in North Carolina. The research examined how local increases and decreases in salary supplements affected the teacher turnover rate and what the impact was on school systems, in terms of teacher turnover rates from year to year. The school districts in North Carolina are grouped by geographically into 8 distinct regions. This study compares teacher turnover rates and salary supplements within each of the eight regions so that distance will not be a factor. Figure 1.1 and Table 1.1 show the eight regions and list the school districts in each region.

Figure 1.1. North Carolina School Districts Shown by Geographic Region



Table 1.1. North Carolina School Districts Divided by Geographic Region.

Region #	School Districts
1	Beaufort, Bertie, Camden, Edenton/Chowan, Currituck, Dare, Gates, Hertford, Hyde, Martin, Pasquotank, Perquimans, Pitt, Tyrrell, Washington
2	Brunswick, Carteret, Craven, Duplin, Greene, Jones, Lenoir, New Hanover, Onslow, Pamlico, Pender, Sampson, Wayne
3	Durham, Edgecombe, Franklin, Granville, Halifax, Roanoke Rapids City, Weldon City, Johnston, Nash, Northampton, Vance, Wake, Warren, Wilson
4	Bladen, Columbus, Whiteville City, Cumberland, Harnett, Hoke, Lee, Montgomery, Moore, Richmond, Robeson, Scotland
5	Alamance, Caswell, Chatham, Davidson, Lexington City, Thomasville City, Forsyth, Guilford, Orange, Chapel Hill, Person, Randolph, Asheboro City, Rockingham, Stokes
6	Anson, Cabarrus, Kannapolis City, Cleveland, Clinton City, Gaston, Lincoln, Mecklenburg, Stanly, Union
7	Alexander, Alleghany, Ashe, Avery, Burke, Caldwell, Catawba, Hickory City, Newton-Conover, Davie, Iredell, Mooresville City, Rowan, Surry, Elkin City, Mt. Airy City, Watauga, Wilkes, Yadkin, Yancey
8	Asheville City, Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania

The study also uses exit survey data from one specific school district that asks teachers who just left the district their reasons for leaving. These data can be compared to the state-wide salary data and may provide more insight into the reasons teachers are leaving. This portion of the study is descriptive in nature.

Using Herzberg's Motivation-Hygiene theory as a theoretical framework, the researcher was able to analyze the possible intrinsic and extrinsic reasons for teacher turnover when the survey data is compared to the state-wide salary information. The data collected may provide the foundation for future studies. In this sense, the study was primarily investigative in that it is focused on understanding relationships between a complex set of variables, as opposed to generating statistical comparisons from a known set of variables.

Assumptions of the Study

The study is based on the following assumptions:

1. The actual reasons teachers leave their positions are complex and multifaceted, but the data they report are accurate, insofar as they chose to reveal all of the reasons they left a position.
2. A common reporting format may provide consistency, but not necessarily accuracy.
3. The local supplement information only includes yearly salary supplements. It does not include other financial incentives if they were offered to teachers (such as signing bonuses, incentives for teaching in hard-to-fill subject areas such as math and science, and incentives for teaching in high-poverty schools.)
4. Financial incentives are but only one type of incentive offered to recruit and retain teachers; they nonetheless are an important contributing factor in a teacher's decision to leave or stay in any one system when combined with other non-material rewards.

5. Herzberg's theory is relevant and applicable in the public education environment.
7. Teachers completing the survey received no tangible incentive to promote candor in their responses.

Limitations of the Study

Because the data utilized in this study have already been gathered, the researcher was limited to some extent by what was included and excluded in that data source. The following are the limitations of the study:

1. Characteristics of teachers: The data do not include demographic information on the teachers, including age, years of service, race, gender, or educational background. This means that the researcher was limited to make findings without giving consideration to these factors.
2. Characteristics of school districts: The study did not include geographic, demographic, or economic information regarding the school districts. The district's location relative to other districts is considered as the districts are grouped by region. This means that the researcher was limited to information only based on state and local salary information.
3. Absence of additional incentive information: There are many incentives teachers may find important in their decisions to leave or stay. This study only examined the impact of local salary supplements.
4. Conceptual framework: Herzberg's theory is limited in its approach to job satisfaction in that it focuses on the content-context dichotomy. Any conclusions drawn from this proposed study were limited to the characteristics described by Herzberg as motivating factors or hygiene factors.
5. Limited survey data: The study utilized survey data from only one school system. It was a convenience sample in that the participants were selected "because they are willing and available

to be studied. The researcher cannot say with confidence that the individuals are representative of the population” (Creswell, 2005, p. 149). Since the purpose of the study was to explore relationships between variables, school district practices were not compared as to their effectiveness; that is, a statistical sample was not appropriate.

6. Secondary data sources: The data for the study were from a secondary source where “in designing secondary analyses, analyzing the results, and drawing conclusions, researchers face a number of potential problems” (Kiecolt & Nathan, 1985, p. 47). The data used in this study were based upon survey results from each local school district in North Carolina and was reported to the NC Department of Public Instruction for reporting purposes regarding teacher turnover.

7. Exit survey response rate: The exit surveys were mailed to all certified employees who left the district after the previous school year. They were mailed back voluntarily and anonymously with postage pre-paid.

8. Exit survey: The exit survey was developed by a local school district for its own data collection purposes. The survey was not designed around Herzberg’s Motivation – Hygiene Theory. The exit survey only targets “leavers,” or teachers who have exited the school district. Data were not gathered from “movers” or teachers who moved to a different school within the district.

Definition of Terms

For the purposes of this study, the following definitions for key terms and concepts apply:

Average Base Salary: The average base salary is determined by the Department of Public Instruction and is delegated to the local school districts based on an average number of students per teacher and district poverty levels.

Motivation – Hygiene Theory: Hygiene factors include supervision, salary, work environment, district and individual school policies, and relationship with boss and/or peers. Hygiene factors lead to job dissatisfaction. Motivation factors lead to job satisfaction and include achievement, the work itself, recognition, responsibility, advancement, and personal/professional growth.

Leavers: Teachers who leave their school district. These teachers may move to another profession or they may move to another state to teach.

Movers: Teachers who move to other schools within a district.

Local Salary Supplement: Each school district in North Carolina is governed by a local school board that determines the local salary supplement for certified teachers. This decision is based largely on the amount of local funding provided by each Board of County Commissioners. The County Commissioners are fiscally responsible for setting the local tax rate and allotting money to the school district, along with other public agencies.

No Child Left Behind Act of 2001 (NCLB): The reauthorization of the Elementary and Secondary Authorization Act of 1965. The law requires that every child be taught by a “highly qualified” teacher and provides sanctions for schools receiving Title I funding if they do not meet student achievement standards for two or more consecutive years. The goal is that every child be proficient in reading and mathematics and the core courses in high school by the 2013-14 school year and is measured by state mandated tests.

Stayers: Teachers who remain in their current school district.

Teacher Turnover Rate: The percentage of teachers who left their current school district during or at the end of a school year.

Research Design

The research focused on North Carolina school districts' local salary supplement information and teacher turnover rates for three consecutive years (2004 – 2007). The researcher used data from the annual Teacher Turnover Report, which are generated by the NC Department of Public Instruction. This report is produced by the Human Resources Division and is prepared annually for the State Board of Education. School districts are asked to complete a survey on an annual basis. The survey asks each school district to report the total number of teachers employed from July 1st to June 30th of the previous school year. It asks them to provide the number of teachers leaving the system, the number of teachers with tenure leaving the system, and the reasons given by teachers for leaving. This study used data from this report from the 2004-2005 school year through the 2006-2007, a three-year data source.

A multiple regression approach was used, with the dependent variable being teacher turnover and the independent variable being location with teacher salary supplements added to the equation. Multiple regression is a statistical procedure that will examine the combined relationship of multiple independent variables (salary, location, etc.) with a single dependent variable (teacher turnover rates) (Creswell, 2005, p.335-336).

The study also used exit survey data that were distributed by mail to all teachers who left one local school district in North Carolina during the 2006-2007 school year. The exit survey data asked teachers why they left their schools by providing a list of reasons to check. Teachers anonymously and voluntarily returned the surveys via mail to the school district. The researcher calculated percentages of teachers who indicated each reason. A sample of the survey is included in the Appendix.

The descriptive analysis of the local exit survey gave detailed information from a subset of teachers. These local data provided a comparison to the state-wide local salary supplement

data and related it to Herzberg's Motivation-Hygiene theory. Salaries were included as hygiene factors in that they contribute to job dissatisfaction and are considered being first-level factors. Second-level factors include responsibility, potential for growth, recognition, and achievement (Herzberg, F., Mausner, B., & Snyderman, B. (1959), p. 49). Second-level factors were reported by the teachers in the survey data.

Benefits of the Study

This study benefited local and state administrators and policy makers because it examined both the micro and macro reasons for teacher turnover. On a large, state-wide scale the study compared changes in teacher salary supplement over a three year period and compared those changes to teacher turnover rates in all school districts in North Carolina. Additionally, this evaluation of the data provides policy makers and educational leaders some of the information needed to determine whether salary supplement changes affect teacher turnover when competing with local districts for teachers. The information also provides information about salary trends across North Carolina over the past few years.

On a smaller scale, the exit survey data from one school district provided actual individual reasons that teachers left their positions. When compared to each other, the local data and state-wide data provides educators and policy makers with some insight as to how salary (hygiene factors) and opportunities for growth, relationships with peers and administrators (motivating factors) affect teacher turnover.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

A growing body of research suggests that experienced teachers have a stronger influence on student achievement; however, teacher turnover prevents teachers from gaining experience, disrupts the culture of the school, and causes resources to be focused on recruitment rather than improvement of current teachers. This section begins with a discussion of Herzberg's Motivation - Hygiene Theory or Two Factor Theory and then moves to a discussion of the relationships between teacher turnover and student achievement. The section concludes with a description of efforts to decrease teacher turnover, focusing on both retention and recruitment efforts.

For a definition of teacher turnover, the literature will focus on both teachers who leave the profession and those who transfer from one school or district to another. In both situations, schools and students are left with a void; however, most current research is focused on teachers who leave the profession altogether.

Historical Background

Effective teaching has been of concern in this country as early as 1825, when James G. Carter of Massachusetts pushed an effort to develop a training program for teachers in the public schools. (Pulliam & Van Patten, 2003). The Oswego Movement, started by Edward Sheldon, secretary of the Board of Education in Oswego, New York in 1853, changed the focus from content to pedagogy. This movement "focused on teacher education that focused on new

principles, better psychology, creative methods, and an effort to understand how children learn” (Pulliam, et al, p. 137). By the 1870s, teachers were beginning to meet over the summer months for summer institutes focused on pedagogy and content specifics. An interest in teaching as a profession blossomed and teachers were filling our classrooms with training and preparation for the first time.

By the mid 1900s, the focus of our educational system turned to results. The Coleman Report (entitled Equality of Educational Opportunity) was written and focused the country on student demographics. By focusing on per-pupil expenditures as they relate to student achievement and other outcomes, the Coleman Report found that student background was more significant to student outcomes than school resources (Coleman, et al., 1966). Teacher ranks, however, continued to increase rapidly over the 20th century, and the National Educators Association and the American Federation of Teachers gained enough members to affect educational policies. Therefore, salaries began to rise significantly between 1979 and 1989. “Average earnings in entry-level positions for all college graduates increased by only 3.5 percent over the same period [as compared to teacher salary increases of 13 percent]” (Ballou & Podursky, 1997, p. 4). In fact, these organizations became so vocal and focused on salary increases that their public reputation suffered as their power grew. Fighting for wages and working conditions, instead of higher standards and curriculum reform, was harmful to these groups in the public arena. The truth was, that teacher salaries, though increasing, were still not competitive with other comparable professions, and teacher quality started to wane (Pulliam, et al, 2003).

With the publication of *A Nation at Risk* in 1983, the performance of the American educational system was questioned on an international level, and a sense of urgency was born. The complex investigation into what constitutes a quality education and the definition of an

effective teacher has since been the focus of school reform and restructuring efforts and the subject of immediate educational research that has produced hundreds of studies. Additional studies produced evidence that those with lower standardized test scores were more likely to enter the teaching profession; therefore, alternative programs for obtaining teacher licensure emerged to fill vacancies. By 1984, the National Council on the Accreditation of Teacher Education (NCATE) procedure and protocol were adopted by higher education to ensure that the teacher preparation programs met a minimum standard (Pulliam, et al, 2003, p. 265). The Carnegie Forum on Education and the Economy (1986) urged that “it will do little good to raise the standards for entry into the profession of teaching and greatly improve the professional preparation of teachers if nothing is done to make teaching a more attractive career.”

Working conditions for teachers have changed dramatically over the decades. Today, the No Child Left Behind (NCLB) legislation (2002) requires specific teaching credentials and certifications in an effort to improve student achievement and performance on standardized tests. The assumption is that teachers with approved credentials will be more effective. Thus, teacher preparation programs, recruitment efforts, evaluation systems, professional development and retention measures have all followed suit in an effort not only to meet NCLB standards, but also to also raise the role of teacher to a professional level. While more attention is being paid to teacher credentials, NCLB fails to focus on individual classrooms and ranks entire schools as failing or achieving. In fact, Hanushek, Kain, O’Brien, and Rivkin (2005) have found a greater variance in teacher impact within school buildings than between schools themselves. Thus, the teacher directly impacts students and is important to individual student achievement.

More importantly, studies of job satisfaction are important to understand not only how to recruit and retain the best teachers, but also to improve teacher job performance. Job satisfaction for teachers can include various components such as administrative support, access to resources

and materials, mentoring by veteran teachers, induction programs, planning time, professional development opportunities, and time for family. First studied during the 1930s by the Hawthorne studies (Owens, 2001), job satisfaction has evolved over time into several theories. Mathis (1999) describes four theories. The fulfillment theory is based on how much the job fulfills one's own needs. The equity theory is based on a comparison between how much effort and rewards one worker receives as compared to another. The discrepancy theory looks at whether workers are receiving what they expected as compared to what they are actually receiving. Finally, situational theory states that there are several factors of the job that may affect job satisfaction including tasks, the organization itself, and the employee himself.

Relationship Between Herzberg's Theory and Teacher Turnover

Herzberg's Motivation-Hygiene Theory (also known as Herzberg's Two-Factor Theory) finds that the factors causing job satisfaction (motivation factors) are different from the factors causing job dissatisfaction (hygiene factors). Herzberg found that employee salary is a hygiene factor in that it may lead to dissatisfaction toward a job; however, it does not lead to job satisfaction. Satisfiers or motivating factors are more intrinsic in nature and include recognition, advancement, responsibility, achievement, and the nature of the work itself (Herzberg, Mausner, & Snyderman, 1959). He finds that there is "probably some relationship between job attitudes and output or productivity (Herzberg et al., 1959, p.6). Therefore, job satisfaction is important to the teaching profession as efforts to retain teachers and improve student achievement have become more prevalent.

Herzberg's theory can, in many ways, be seen as a framework that addresses the challenge of creating desirable working conditions for teachers so that they may produce positive results for students. If teacher turnover is greater in schools with lower-performing students,

perhaps job satisfaction is playing a role in teacher performance and, therefore, student achievement. It is to everyone's benefit for a worker to be satisfied in his/her job. A review of both motivation and job design theories is important to understanding Herzberg's Motivation-Hygiene Theory. Motivation theories are focused on the actions of the individual and can be categorized into two schools of thought: content and process theories. Process theories focus on a conscious decision by the individual whether or not to take action. Content theories are focused on the individual needs that are internal and drive a person to take action. (Barnet & Simmering, 2006). Job design theories are focused on the environmental elements that affect a persons' actions.

Overview of Theories

Process Theories

Major process theories are based on a person's own will and decision-making process as an individual taking independent action. These motivation theories include expectancy theory, equity theory, goal-setting theory, and reinforcement theory (Barnet & Simmering, 2006).

Vroom finds that motivation is a combination of expected results, the need for satisfaction, and expectations from an employer. (Frase, 2001). Vroom's expectancy theory recognizes the fact that workers are consciously weighing the amount of effort they exert to the level of performance it will produce, the rewards it will reap, and whether the outcomes will be attractive or unattractive. The theory suggests that workers are always weighing the amount of effort they will input against the rewards of the outcome and; therefore, make adjustments accordingly. "Thus, managers should attempt, to the extent possible, to ensure that their employees believe that increased effort will improve performance and that performance will lead to valued rewards (Barnet and Simmering, 2006). In the case of monetary rewards, Belfield and

Heywood (2008) described workers who intended to work longer hours or perform additional tasks to be more likely to receive performance related pay. They go on to admit that performance is difficult to measure in some professions such as education because it takes a team effort of teachers combined with counselors, coaches, administrators, and specialists, to name a few. As a conclusion to their study with teachers, Belfield and Heywood, “failed to find that job satisfaction is generally higher for those receiving performance pay” (p. 251). In the case of performance pay, Vroom’s theory suggests that teachers would be adjusting their efforts based on several outcomes such as amount of pay, what their colleagues are to be paid, and as well as feelings of satisfaction in doing the job.

Equity theory, goal setting theory, and reinforcement theory have important implications for managers or supervisors as well. Equity theory is based on the premise that workers are always comparing themselves and their situation to that of their co-workers. This theory is based on the fact that workers will try to reduce the amount of inequity. Workers neither want to be over nor under rewarded as compared to their peers. Goal setting theory provides the idea that clear, challenging, yet obtainable goals are important for workers. These goals provide a sense of direction and accomplishment. Workers must be committed to the goals and have a sense of self-efficacy. “If individuals have a high degree of self-efficacy, they are likely to respond more positively to specific and challenging goals than if they have a low degree of self-efficacy” (Barnet & Simmering, 2006). Finally, the behaviorist, Skinner, is most associated with reinforcement theory. Reinforcement theory provides that behavior that is not rewarded or behavior that is punished is not likely to be repeated. Therefore, the decisions managers make, have an immediate impact on their workers’ behaviors.

Job design theories attempt to provide an understanding of what characteristics of the job itself motivate workers to perform better. Hackman and Oldham (1980) believed in their job

design theory that job satisfaction is the result of good performance, not the cause. Their model of job design has three levels: feeling of meaningfulness, feeling of responsibility, and knowledge of results. These feelings all occur after the job is completed. When combined with the five job characteristics (skill variety, task identity, task significance, autonomy, and feedback), a person is motivated to perform effectively. This phenomenon also occurs in the classroom. “Appreciation of intrinsic merits of the teaching profession helps teachers remain in teaching; and, finally, empowering teachers and giving them more influence over school and teaching policies are also associated with teacher retention” (Shen, 1997). Shen’s research further supports Hackman and Oldham by stating that “empowering teachers is one of the ways to get them to stay.” Effective working conditions are supportive working conditions and findings “in general show that administrative support and teacher autonomy play a large part in shaping teachers’ attitudes toward teaching” (Certo & Fox, 2002). However, the study by Certo & Fox listed the hierarchy of teacher-perceived reasons that colleagues leave as (1) salary and benefits, (2) external employment opportunities, and (3) building level administration issues. Thus, we have the beginning of a dichotomy of reasons that teachers may leave their jobs. Is it because of internal reasons or external reasons? Interestingly, what teachers perceive as reasons their colleagues are leaving may not be the real reasons teachers leave.

Content Theories

Major motivation theories focused on content include the job characteristics model derived from Maslow’s need/fulfillment theory of motivation, Herzberg’s Motivation-Hygiene theory, and McClelland. Content theories have a basic understanding that human motivation is the basis for satisfaction. These theories focus on the fact that individual needs drive motivation

and provide further insight into Herzberg's Motivation-Hygiene Theory. The content of the work itself will either encourage or discourage worker motivation.

Maslow's hierarchy of needs is a continuum that begins with physiological needs and ends with self-actualization of the individual. Maslow's *A Theory of Human Motivation* (1943) states that there are at least five basic needs. These are physiological, safety, love, esteem, and self-actualization. The physiological need implies that a person's physical needs, such as warmth and hunger, must be met first or they will dominate the thinking and motivations of the individual. Secondly, a person must feel safe and free from danger. Thirdly, the person needs to have a feeling of belongingness be associated with affectionate relationships. Fourthly, people need self-respect, achievement and confidence. Finally, "what a man can be, he must be" (Ott, 1996, p.50). Maslow's final need of self-actualization means that man desires to do what he is suited to do. "These basic goals are related to each other, being arranged in a hierarchy of prepotency." (Ott, 1996, p. 55). Maslow finds that when one need is met, a different need emerges to dominate a person's attention, therefore moving needs up and down the hierarchy. He also finds that the average person is either partially satisfied or unsatisfied with each of these needs at any given time.

In 1962, Lyman Porter developed and utilized a scale purported to measure the magnitude, importance, and degree of need satisfaction of managers in relation to Maslow's hierarchy of needs. (Moxley, 1977). In the study, almost two thousand American Management Association members completed a need fulfillment questionnaire. The findings were that need fulfillment deficiencies progressively increased from the top to the bottom of the management hierarchy for three of the five categories: esteem, autonomy, and self-actualization. This study used Maslow's hierarchy to show how the needs of leaders are focused on the categories most associated with their roles and not on lower-order categories such as safety or physical comfort.

In 1969, Clayton Aldefer took Maslow's hierarchy of needs and categorized them into three basic areas of existence which include: (1) safety and physiological needs, (2) relatedness which includes internal self-esteem and belongingness needs, and (3) growth which includes external esteem needs and self-actualization. (Alderfer, 1972). Aldefer agreed with Maslow in that the existence needs must be met first, but believed that the other needs could fluctuate greatly along a continuum. Movement toward growth and self-actualization would improve satisfaction and movement back toward existence needs would mean dissatisfaction or frustration. Aldefer and Porter both focused on how Maslow's hierarchy of needs was internalized by individuals.

Douglas McGregor's 1957 X and Y theory is one of opposites and begins to focus on how external factors influence the perceived needs of individuals. Theory X states that individuals must be externally motivated to work while Theory Y provides that people have a natural need to work and external forces only provide opportunities. "This suggests that understanding individuals' internal motivations is necessary to know what external motivators would be most effective in creating or reinforcing desired behaviors" (DeSanto, 2005).

David McClelland's theory of needs includes the need for achievement, the need for affiliation, and the need for power. His theory provides even more flexibility than Aldefer's study. McClelland's theory states that everyone has a particular level of these needs (McClelland, 1976). He describes those with a greater need for achievement as people who intentionally place themselves in situations where the need will be met. They set goals for themselves that are challenging, yet attainable at the same time. "Management scholars were especially interested in this theory since it suggested who should be hired or promoted" (Mueller, 2001).

Herzberg's Theory

Herzberg published *The Motivation to Work* in 1959 which chronicled his study involving interviews with 200 engineers and accountants. His interviews asked people to describe “any kind of story you like – either a time when you felt exceptionally good or a time when you felt exceptionally bad about your job” (1959, p. 35). Over twelve more investigations were completed when Herzberg developed the Two Factor or Motivation - Hygiene Theory. Herzberg used the “critical incident” method in which the researcher coded each incident as it was reported by the employee as falling into a particular category. “A significant advantage of the critical incident method for the study of faculty lies in its capacity to deduce from respondents qualitative dimensions of both satisfaction and dissatisfaction which may not have been previously identified” (Bess, 1981). The following categories were used by Herzberg (1959): achievement, recognition, work itself, responsibility, advancement, salary, possibility of growth, interpersonal relations with subordinates, status, interpersonal relations with supervisors, interpersonal relations with peers, supervision-technical, company policy and administration, working conditions, personal life, and job security. The results of Herzberg’s study can be seen in Table 2.1.

Table 2.1. Percentage of Each Factor Appearing in Herzberg's Study as Satisfying or Dissatisfying (1959).

Factor	Satisfying	Dissatisfying
Achievement	41*	7
Recognition	33*	18
Work Itself	26*	14
Responsibility	23*	6
Advancement	20*	11
Salary	15	17
Possibility of Growth	6	8
Interpersonal relations, subordinates	6	3
Status	4	4
Interpersonal relations, superior	4	15*
Interpersonal relations, peers	3	8*
Supervision-Technical	3	20*
Company Policy and Administration	3	31*
Working Conditions	1	11*
Personal Life	1	6*
Job Security	1	1

Percentages total more than 100% since more than one factor can appear in a given answer.

*Significant at the .01 level

Herzberg's research creates two sets of factors. One set is called satisfiers, also known as motivators, and contribute to job satisfaction if present, but do not distract if not present. "Job satisfaction and dissatisfaction are a function of the perceived relationship between what one wants from one's job and what one perceives it as offering or entailing" (Locke, 1968). Satisfiers include achievement, recognition, the work itself, growth, advancement, and responsibility. Motivators may or may not be present; however, workers will be more satisfied if they are present in the working conditions.

The other category is called dissatisfiers, also known as hygiene factors, and lead to dissatisfaction if not present; however, they do not lead to satisfaction or motivation if present. Hygiene factors are described as lower level factors because they must be present first before satisfaction can be achieved. Dissatisfiers include policies, relationship with boss, working conditions, salary, and relationships with peers. Table 2.2 depicts Herzberg's Motivation - Hygiene Theory.

Herzberg argued that meeting the lower-level needs (hygiene factors) of individuals would not motivate them to exert effort, but would only prevent them from being dissatisfied. "The opposite of job satisfaction is not job dissatisfaction but, rather no job satisfaction; and similarly, the opposite of job dissatisfaction is not job satisfaction, but no job dissatisfaction" (Herzberg, 1987) (as cited in Smerek and Peterson, 2007). Sergiovanni (1967) studied the job satisfaction factors of teachers and found considerable support for Herzberg's theory. Sergiovanni's findings mirrored Herzberg in that the teachers found the work itself to be rewarding and a positive factor and the conditions of the work to be dissatisfying. In a replication of Herzberg's research methodology, Sergiovanni supported Herzberg in his findings that teachers "find their greatest satisfaction from reaching and affecting students, followed by their experiencing recognition for a job well done." (as cited in Frase, 1989). Therefore, a study of

needs theories is important to understand how job satisfaction leads to successful outcomes in our schools.

Table 2.2. Herzberg's Two Factor Theory / Motivation Hygiene Theory

Factors Affecting Job Attitudes

Leading to Dissatisfaction Hygiene Factors	Leading to Satisfaction Motivators
<ul style="list-style-type: none">○ Company policy○ Supervision○ Relationship with boss○ Working conditions○ Salary○ Relationship with peers	<ul style="list-style-type: none">○ Achievement○ Recognition○ Work itself○ Responsibility○ Advancement○ Growth

Critics of Herzberg

Critics of Herzberg contend that job satisfaction is not necessarily related to motivation. Ewen (1964) (as cited in Smerek et al., 2007) criticized Herzberg because he only interviewed subjects from one occupational field and only measured the topic of job attitudes. He felt that Herzberg's results were method bound in that unless the researcher is duplicating the Herzberg study, the results will not support Herzberg's theory. In a study by Moxley (1977), the researcher interviewed faculty members teaching in higher education using the same instrument used by Herzberg. The researcher also followed up with the same faculty members with a two question questionnaire with open-ended questions asking respondents to indicate factors of satisfaction

and dissatisfaction. The results for each of the methods were different. The “work itself” factor produced both dissatisfaction and satisfaction results. “This reflects Thorngate’s (1976) postulate that it is impossible for a theory of social behavior to be simultaneously general, accurate and simple” (Smerek, et al., 2007). Likewise, Locke (1968) describes the measure of job satisfaction as requiring an “interactive approach” stating that “the causes of job satisfaction are not in the job or solely in man but lie in the relationship between them.” The simplicity of Herzberg’s theory has served as a criticism of his work.

Vroom (1964) argued that the results of the interviews conducted by Herzberg were due to people wanting to contribute external factors (hygiene factors) to their unhappiness and internal factors (motivators) to their happiness. He reasoned that people were answering the questions to make themselves look good by blaming external factors on unhappiness and contributing internal factors to their happiness. Process theorists, such as Vroom, argued that happy workers do not necessarily produce more or put forth more effort. The measurement of output from individual to individual is too varied, and what makes one person satisfied may dissatisfy another. “The use in applied settings has proved difficult because of problems associated with measuring need levels and attempting to alter personality patterns that have developed in childhood, and the significance of the environment has been neglected” (Mueller, 2001). Likewise, Locke (1968) accuses Herzberg of ignoring individual values in his model. Locke states that depending on what a person values, it will lead to either job satisfaction or dissatisfaction regardless of the category in which it falls, either a hygiene factor or motivator. Locke (1968) examined several studies and found that “nearly all the studies designed to test Herzberg’s theory which have not used his method (which has serious flaws) have failed to support the theory (e.g., Ewen, et al., 1966; Friedlander, 1964; Graen & Hulin, 1968; Hulin & Smith, 1967; Lindsay et al., 1967; Wernimont, 1966).”

Bellott and Tutor (1990) challenged Herzberg's theory and found that teachers described salary as a motivating factor, rather than a hygiene factor, as they made decisions regarding whether to stay in their current jobs or leave for a less desirable profession, but for a higher salary.

Likewise, Gawal, (1997) also challenged Herzberg's theory hypothesizing that teachers might respond differently than workers in the business profession due to the nature of their jobs. This study of teachers in the Tennessee Career Ladder Program found that teachers did not match the behavior of people working in business fields in Herzberg's original research. The Tennessee Career Ladder Program provided teachers with salary increases if they chose to participate. While achievement was the highest ranking motivating factor for teachers, salary was the primary reason teachers chose to participate in the program. The study found that teachers were as motivated by hygiene factors as they were by motivator factors. However, in support of Herzberg, the study found that hygiene factors alone do not motivate teachers.

Herzberg's Theory in Education

Many efforts to recruit and retain teachers include strategies that are extrinsic in nature, that modify the conditions of work: financial incentives, salary increases, policy changes, human resource efficiency, and support programs for new teachers. These strategies affect the working conditions for teachers, but they do not motivate teachers intrinsically. In other words, extrinsic strategies are preventative in nature and are necessary for good working conditions such as Herzberg's hygiene factors. However, intrinsic factors are necessary for job satisfaction and top performance such as Herzberg's motivator factors. Thus, the complexity of teacher job satisfaction is born. "There is good reason to believe that faculty are both dissatisfied and satisfied simultaneously, as the Herzberg model would predict" (Bess, 1981).

It is important to note that the job experiences of teachers are different from those of the 200 engineers originally interviewed by Herzberg. A teachers' understanding and interpretation of "interpersonal relations with subordinates" would be the relationship with students while with an engineer it may be a more professional and less personal one. Several studies have been conducted in the area of education which support and substantiate Herzberg's theory.

The study by Caldwell (1992) attempted to test both Herzberg's theory and Sergiovanni's study by asking 200 elementary teachers to respond to a survey about their perceptions of job satisfaction and found that achievement, responsibility, and recognition were the dominant factors in job satisfaction. The study also aimed to reduce the criticisms of Herzberg by not using the critical-incident method to prove that Herzberg's findings are still valid even when a different method of measurement is used.

Feistritzer (1986) found that teachers ranked the "opportunity to use their minds and abilities" as first in importance, the "chance to work with young people" as second, and "appreciation for a job well done" as third in studies about teacher job satisfaction (Frase, 1989). In support of the studies by Frase, Shen (1997) found that an "appreciation of intrinsic merits of the teaching profession helps teachers remain in teaching." These results are supportive of Herzberg, in that they rank motivator factors such as the work itself and professional growth as most important to their job satisfaction.

A recent study by Basset-Jones and Lloyd (2005) put Herzberg's theory to the test by examining which motivators encouraged employees to contribute new ideas to the organization. The results were supportive of Herzberg in that the majority of employees who contributed new ideas did so because of internal motivator factors. Very few of them contributed ideas in order to gain financial incentives.

In a study of higher education non-academic employees, Smerek and Peterson (2007) found that the work itself had the most positive correlation to job satisfaction of any of Herzberg's factors. This study surveyed non-academic employees in the areas of facilities and human resources to determine which factors caused job satisfaction. Additional factors, including individual demographics and union status, were also included. Of the motivators, "three variables have positive and significant coefficients: the work itself, opportunity for advancement, and responsibility" (Smereck & Peterson, 2007).

While studying Herzberg's theory and its implications for retaining male teachers, motivating factors were statistically more effective in retaining male teachers in their current positions in a study by Freeman (2005). However, in the same study, hygiene factors were more important to male teachers' decisions to remain in their positions in urban schools rather than rural schools. This study showed how both motivator and hygiene factors play a part in creating job satisfaction.

In a study of teachers in low socio-economic schools, Bereket (2008) found that teachers were motivated by the work itself using Herzberg's theory. This study of teachers in Santa Clara County, California searched to find the degree to which there were differences between teachers in high- or low-socioeconomic schools in their motivations to stay or to leave. The study also found that a teachers' relationship with their principal had a large influence on whether or not a teacher decided to stay or leave as well.

Using Herzberg's theory, Turner (2007) explored the influences of school, teacher, and student characteristics on middle school teachers' job satisfaction in four school districts in North Carolina. The researcher used the results of the North Carolina Teacher Working Conditions Survey to examine middle school teachers' perceptions of their work environments. The findings were that there was no statistically significant relationship between job satisfaction

and teacher turnover; however, there was a relationship between job satisfaction and school academic achievement in math and reading. This study showed that teacher job satisfaction does affect student achievement. This study also found that the opinions of individual teachers are important. What one teacher may value may not be the same as what another teacher may value. Therefore, Herzberg's theory may not provide all of the information needed to supervisors to adjust working conditions for individual teachers. However, overall, Herzberg's theory of job satisfaction has implications for decreasing teacher turnover, thus improving teacher effectiveness and, in turn, increasing student achievement.

Relationship between Teacher Turnover and Student Achievement

It can generally be said that teacher effectiveness is measured by improved student achievement. When measuring student achievement against teacher credentials, experience, subject-matter preparation, and even scores on standardized tests such as the ACT and SAT, research shows a mixed analysis of the data. To clarify, teacher quality is different from teacher effectiveness. Some differentiate teacher quality and teacher effectiveness by concluding that "teacher effectiveness is determined by student test scores, while qualifications, characteristics and practices can all be used as determinants of teacher quality, independently of student achievement" (Goe, 2007, p.8).

Additionally, factors such as who enters the teaching profession and who teaches the most successful students have a direct impact on these measures. These factors have been researched as to their implications on student achievement. One matter of ultimate concern is teacher turnover. Once in the profession, why do teachers leave, who leaves, and what impact does this have on student achievement?

Professional educators have asserted for years that the teacher has the greatest impact on student achievement above economic status, student ability, and other factors. Sanders and Rivers (1996) showed that the variance in student learning can be attributed to the teacher after students' own qualities have been studied. Their value-added calculations directly link student academic growth each year to the effectiveness of the teacher. A study by Gordon, Kane and Staiger, (2006) (as cited in Haycock and Crawford, 2008) found that students taught by teachers in the highest 25% of effectiveness gained an average of five percentile points relative to their peers, where students taught by teachers in the lowest quartile lost five percentile points. "The same study suggested that if all black students were assigned to four highly effective teachers in a row, this would be sufficient to close the average black-white achievement gap." Likewise, Sanders and Rivers (1996) contend that one ineffective teacher can cause setbacks for students that likely last for the next four years.

Students in high turnover schools are more likely to encounter inexperienced teachers assuming the replacements are less experienced. However, some turnover is necessary. In the study by Boyd, Grossman, Lankford, Loeb, and Wyckoff (2008), elementary teachers and middle school math teachers who left their positions prior to their second year had lower student achievement results than those who remained for their second year of teaching. Other studies of teachers such as certification status and teacher credentials or academic prowess do not show a significant impact on student achievement. Additionally, studies have found that university graduates with the highest levels of measured ability tend not to go into teaching or leave teaching within the first few years. (Guarino, Santibanez, Daley, 2006; Feng, L. 2005). Therefore, the best and brightest people are not entering the profession. Kane, Rockoff, and Staiger (2006) also found "little difference in the average academic achievement impacts of certified, uncertified and alternatively certified teachers." Contrary to these findings, Darling-Hammond's

(1999) review of state policies in comparison to student achievement states that “certification status and degree in the field to be taught are very significantly and positively correlated with student outcomes.”

Teacher experience has proven to be the most reliable indicator of a teacher’s effectiveness (Kane, Rockoff, & Staiger, 2006; Hanushek, Kain, O’Brien, Rivkin, 2005; Darling-Hammond, Sykes, 2003). Hanushek and Rivkin (2007), however, also suggest that teacher experience may not be a cause of higher student achievement simply because more experienced teachers may already teach the higher-achieving students. Therefore, “higher student achievement ‘causes’ teacher experience in the sense that schools with easier-to-educate students attract experienced teachers” (Hanushek & Rivkin, 2007, p.79).

Hanushek, Kain and Rivkin (2001) found that the characteristics of students, particularly student achievement, are strongly related to teacher mobility. Their study discovered that student race and ability were the most prevalent reasons for teachers to leave the profession or transfer to another school or district. *Education Week* reported in *Quality Counts 2003*, that “for states to end the ‘achievement gap’ between minority and nonminority students and those from rich and poor families, they must first end the ‘teacher gap’: the dearth of well-qualified teachers for those who need them most” (Olson, 2003). Attracting high-quality teachers to low-performing schools will be difficult as these schools are already behind. In a study of the effects of National Board Certified Teachers (NBCTs), Koppich (2006) found that teachers in high poverty or low-performing schools are more likely to lack a major or minor in the subjects they are teaching than are teachers in low poverty or higher-performing schools. Koppich’s study found as well that NBCTs are more likely to be found at higher-performing schools.

Other studies suggest that additional factors, such as location or student demographics, may in turn have an impact on the style of leadership and, therefore, teacher turnover. Hanushek

and Rivkin (2007) studied turnover in urban and suburban districts finding that “working conditions in urban and suburban districts differ substantially, with urban teachers reporting far less administrator and parental support, worse materials, and greater student problems. Difficult working conditions may drive much of the difference in turnover of teachers and the transfer of teachers across schools.”

Monk’s (2007) study of rural and urban schools found that most urban schools are smaller and those teachers “report more satisfaction with their work environments and feel they have greater autonomy and more direct influence over school policy.” He suggests a subcategory of policies for hard-to-staff rural schools rather than a blanket set of policies for all. “In particular, the focus should be directly on such indicators as low teacher qualification, teaching in fields far removed from the area of training, difficulty in hiring, high turnover, and lack of diversity among teachers in the school.” (Monk, 2007). Another alternative suggested by Monk is to reorganize the district into larger units that are more heterogeneous in nature to attract more teachers. Policy-makers should pay special attention to schools with diverse populations of students who are from low-income families. “Their situation is exacerbated by teacher attrition, which not only disrupts the teaching and learning process but also weakens the bond between teacher and student” (Shen, 1997). “On average, schools serving high percentages of poor and minority children have teachers that are less experienced, have fewer professional credentials, and come from less-selective colleges than those serving more affluent and white students” (Hardy, 2009).

In addition to the impact on student achievement, Guin (2004) interviewed teachers about the impact of teacher turnover on student instruction. Many teachers found that a lack of consistency in staff meant that many teachers who planned in the Spring were not present to carry it out in the Fall. Also, students had no sense of continuity with instruction because

teachers were not present for the same professional development opportunities. “The continual loss of teachers also had a negative impact on the momentum of instruction at the school” (Guin, 2004). The continuity of a coherent curriculum and instructional practices is also more difficult to maintain with a constantly revolving teaching staff. Moreover, “it stands to reason that student learning should be enhanced by the efforts of teachers who are more knowledgeable in their field and are skillful at teaching it to others” (Darling-Hammond, 1999, p. 39). According to William Hussar at the National Center for Education Statistics, “the nation will need to recruit an additional 2.8 million [teachers] over the next eight years owing to baby-boomer retirement, growing student enrollment, and staff turnover – which is especially rapid among new teachers” (Wallis, 2008).

When faced with a shortage of teachers, Murnane and Steele (2007) found that districts “often respond to a shortage of effective teachers at the prevailing wage not by leaving teaching positions vacant, but by filling them with ineffective teachers.” Knowing that schools must have teachers in place, standards are lowered to fill positions as student enrollment has increased. The National Center for Education Statistics estimated in 2005 that 48.7 million students were enrolled in public schools, as cited in Murnane and Steele (2007). That is an eight percent increase over 1995.

However, not all turnover is bad. When studying teacher movement within New York City schools as compared to student achievement using value added scores, Boyd, et al, (2008) found that first-year teachers who are producing less student achievement are, in fact, choosing to leave their schools. Therefore, “it may benefit students for some teachers to leave, particularly those teachers who are ineffective in improving student achievement” (Boyd, et al, 2008); however, second and third year teachers with low student scores tend to remain in the profession. Also, the teachers who decide to transfer between schools tend to move to higher performing

schools. This study also found that more than half of the teachers who leave following their first year transfer to another school within New York City and a third quit teaching altogether.

Studying schools in one Texas district, Hanushek, Kain, O'Brien and Rivkin (2005) found that those teachers leaving their schools and the profession altogether had lower student achievement scores. In another study, Hanushek and Rivkin (2007) also found that teachers who leave teaching were significantly less effective than those who stay.

A small amount of turnover is healthy as it “allows the school to have a great combination of new teachers and veteran teacher who share similar beliefs, and who continually change and grow together.” (Guin, 2004) As mentioned in Chapter Two, effective teachers are essential to improved student achievement. Ineffective teachers need to leave (Boyd, et al, 2008); so some turnover is helpful for student achievement.

Efforts to Decrease Teacher Turnover

The challenge remains as to how to recruit and retain high quality teachers. Several factors contribute to teacher attrition; however, not all of these factors can be controlled. In an effort to influence teacher attrition, school districts and states have created new policies, procedures, and philosophies in the form of support and incentives. Supportive measures work to ensure that the teaching profession is desirable and easy to maneuver. Areas of support include improved policies, human resource planning, mentoring and induction programs, and strong school-based leadership. Incentives for teachers include improved salaries, although some might consider salaries to be support, merit pay or performance-based pay, signing bonuses, and non-financial incentives such as guaranteed planning time or reduced class sizes or teaching load.

Some support programs can be costly, and fiscal resources spent to replace teachers instead of supporting existing classrooms are extensive. The National Commission on Teaching

America's Future (NCTAF) conducted a pilot study of five school districts to quantify the real costs of teacher turnover (Barnes, Crowe, & Schaefer, 2008). The key findings were that the costs of turnover are substantial at an average cost of \$17,872 per leaver. Low-performing students and high-poverty students suffered more teacher turnover. Turnover costs can be recouped by an up-front investment in teacher retention at an average cost of \$6000 per teacher. Unfortunately, districts' data systems are not designed to monitor or aggregate teacher turnover data efficiently. The study also found more than simply fiscal implications. "These costs do not include what may in fact be the largest cost of teacher turnover: lost teaching quality and effectiveness. Numerous studies have shown that teacher effectiveness improves with experience during the early years of their career. New teachers struggle, but, as they gain more knowledge and experience, they are able to raise student achievement. With the high rate of new teacher turnover, our education system is losing half of all teachers before they reach their peak effectiveness" (NCTAF, 2008).

Ingersoll (2001) (as cited in Elfers, Plecky, & Knapp, 2006) describes turnover as an indicator of organizational health. Turnover makes a larger impact on smaller organizations such as a school buildings or individual classrooms. Guin (2004) describes "the intangible costs in schools with high teacher turnover [which] may include a decrease in employee morale or an increased strain on working relationships." Teacher turnover may erode trust, morale, and lead to a breakdown of the team of faculty working toward a common goal. "It disrupts the team-based organizational structure and functioning of a school" (Guin, 2004).

Human Resource Planning

There are several policy implications to the findings about teachers leaving the profession. Darling-Hammond (1999) found that district policies have an influence on teacher qualifications that include hiring standards and accreditation. The certification process can sometimes create a challenge for prospective teachers. One study of school budgetary practices found that increased spending at the central office level without increasing teacher salaries improved the chances that teachers will leave (Gritz & Theobald, 1994).

There have been some changes in the way human resource departments function to manage the constant ebb and flow of teachers. School districts have been forced to restructure how they interview, hire, and recruit teachers due to the sheer number of annual vacancies. While the ability to manage large quantities of applicants and new hires has improved, many human resource offices struggle to provide efficient, timely, and quality service to the applicants. In fact, “according to a 2003 study from The New Teacher Project, 31 percent to 60 percent of applicants for four urban districts withdrew from the hiring process because they were fed up with waiting for offers” (Levin & Quinn, 2003). Technology has assisted the hiring process by providing online applications, application screening, automating the process of contacting candidates, and tracking their progression through the hiring process. Timing is also essential for securing the best candidates. Hiring practices have shifted to the early spring rather than summer. The competition to hire the best teachers first is fierce and is often a matter of creating a strong relationship by offering teaching contracts months before school starts. Many local Chambers of Commerce have partnered with school districts to ease the relocation process and help find jobs for a spouse. Several adjustments can be made “by upgrading human resource offices, moving hiring decisions to the school, and offering training in hiring practices for principals and teachers. Districts can increase the probability that schools will achieve a good match between

their program and needs and what a new teacher has to offer (Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004, p. 16).

Interviews with teachers in rural Virginia counties showed that Herzberg's motivator and hygiene factors may not be the same for all teachers (Lyons, 2008). This study showed that interpersonal relations were classified as motivators instead satisfiers. Teachers found that a positive relationship with their supervisor was a motivating reason to remain in their jobs or to accept a position at a particular school. This study also aimed to determine which recruitment strategies were most effective in these rural districts. The results were inconclusive in that some teachers were satisfied with their jobs and found one set of recruitment strategies to be effective, while others were dissatisfied in their jobs and found the same set of recruitment strategies to be effective. Ultimately, recruitment is only as effective and as necessary as the efforts to decrease turnover.

Support Programs for Teachers

Teaching is a very lonely job. While the classrooms are full of students and the days are busy, teachers are often working in isolation and are making hundreds of instructional and individualized decisions about students without any discussion with or input from other adults. For beginning teachers, this can seem overwhelming. Ingersoll found that "especially for hard-to-staff schools, the largest exodus is by newer teachers who are dissatisfied with working conditions or have had insufficient preparation for what they face in classrooms." (as cited in Darling-Hammond, 2003).

In an effort to better prepare teachers for this experience, induction and mentoring programs have been developed to provide support and guidance. Induction programs provide guidance and assistance on the basics of teaching, which include time management, lesson

planning, student behavior management, and communication skills. Ingersoll and Kralik (2004) reviewed existing studies of induction programs and found that “the assistance for new teachers and, in particular, mentoring programs have a positive impact on teachers and their retention.” Likewise, in a study of the 1999 Schools and Staffing Survey (SASS), Smith and Ingersoll (2004) determined that beginning teachers who were involved in some type of induction program were less likely to leave teaching or move to other schools after their first year. While Rockoff’s (2008) findings were consistent with those of Smith and Ingersoll (2004) regarding teacher induction, he also discovered that student achievement also increased with teachers as hours of mentoring increased. Further research by the New Teacher Center has shown that “first- and second-year teachers in the induction program were as effective as fourth-year teachers who had not previously been in the program” (Maciejewski, 2007, p.1).

Because of the low numbers of experienced teachers in low-income schools, new teachers are particularly at risk of leaving because “teachers ultimately need to have broad, substantive support from a range of experienced colleagues, rather than simply an assigned individual, who in the end may fail to deliver what the new teacher needs” (Johnson et al, 2004, p. 16). Providing mentors in buildings with high turnover is a challenge because of the general lack of experience in these school buildings. There simply are not enough experienced teachers to mentor new teachers in some schools.

Building-level Leadership

The relationships created in school buildings are powerful and also impact teacher retention. The principal sets the tone in the building and has primary influence over how the organization functions. Factors such as collegiality, stability of teaching assignment, class assignments, time for planning, and allocation of resources are all related to working conditions

and are directly influenced by school-level administrators. In fact, studies find that dissatisfaction with school conditions is a primary motivator for teacher turnover, with poor administrative support at the top of the list of factors. “Administrators should be concerned about the impact of faculty attitudes on their performance and the subsequent affect on students” (Satterlee, 1988). Monitoring teacher attitudes and perceptions is important for administrators. Feldman and Arnold (1983) (as cited in Satterlee, 1988) agree that job satisfaction surveys are important to fulfill organizational purposes: (1) to assess sources of potential problems in the organization, (2) to discover the causes of indirect productivity problems such as turnover, (3) to assess the impact of organizational change on employee attitudes, (4) to stimulate better communication between administrators and teachers, (5) to provide accurate information about sentiments, and (6) to act as an indicator concerning the effectiveness of reward systems. Administrators can then act on the results of survey data to make the work environment a positive place.

Ingersoll (2001) finds that improvements in student discipline, increased support from the administration, and improved input from faculty members are all factors that decrease teacher turnover. In a study of veteran elementary teachers, positive collegial relationships were listed as a primary reason for enjoyment in the job (Cockburn, 1998). Lincoln and Kalleberg (1990) (as cited in Mueller, 2001) found in a study of U.S. and Japanese workers that “organizational structures that facilitate participation, integration, individual mobility, and legitimacy result in more satisfied and committed employees.” These findings indicate that the leadership style and practices of the principal are important to teachers.

For teachers entering the profession as a second career, their expectations of the school working environment may be different from those who enter the profession on a traditional track because “career changes are more likely to hold particular expectations about professional interactions within the workplace” (Easley, 2006, p.247). The decisions of school-based

administrators have a significant and immediate impact on teachers, and teacher turnover data is often a sign of school health and administrator aptitude and competence. “Academic leadership can attend to the core job dimensions of department and institutional life from a more balanced perspective” (Bess, 1981).

Feedback on performance is also important to teachers. A “lack of accountability for school performance, staffing practices that strip school systems of incentives to take teacher evaluation seriously, teacher union ambivalence, and public education’s practice of using teacher credentials as a proxy for teacher quality – have produced superficial and capricious teacher evaluation systems that often don’t even directly address the quality of instruction, much less measure students’ learning” (Toch, 2008). According to Toch, models that improve teaching include explicit standards for teaching excellence, multiple measures which may include observations, instructional portfolios, lesson plans, and teacher interviews, and teamwork. Some school districts are relying on teacher evaluations by a team of experts who then combine their information for a final analysis. Teachers are more likely to trust evaluators with the same credentials and teaching backgrounds and more data gives more accurate and less subjective results. “At a time when research is increasingly pointing to working conditions as being more important than higher pay in keeping good teachers in the classroom, the teachers in the comprehensive evaluation programs say that the combination of extensive evaluations and coaching they receive makes their working conditions more professional, and thus more attractive” (Toch, 2009).

“Giving schools greater authority over teacher hiring and firing would provide them with additional incentives to evaluate teachers carefully” (Toch, 2009). Those closest to the classroom have the most incentive to improve teacher effectiveness. “Unless those who make personnel decisions have a strong incentive, they are unlikely to make difficult, high-stakes choices

regarding teacher pay, promotion, and employment” (Hanushek, et al., 2007). Teachers at Quaker Valley High in Pennsylvania were empowered by their principal and superintendent to find solutions to students’ problems. The high school decided that it would restructure the curriculum and teaching practices to operate as a highly gifted program for all students. When teachers were given the opportunity to have a voice and be creative problem solvers, many were apprehensive to this change in leadership structure. However, this school increased student achievement and graduation rates by focusing on the decision making process and the rules of leadership in the school (Conlon, 2008).

In a study of non-academic employees at a university, Smerek, et al. (2007) found that supervisors must focus on being effective and supportive. “Supervisor training to improve communication, management, and decision making is a significant lever to impact job satisfaction” (Smerek, et al. 2007). This study also included the factors of unionized and non-union workers. Members of unions were the most unsatisfied in their jobs. In fact, in the area of *effectiveness of senior management*, union workers showed the largest difference than non-union members of all other factors studied. Unions provide administrators with an additional set of external factors for consideration as well.

Teachers often cite strong school leadership as reasons to stay. When teachers were asked about the reasons for recent stability in teaching staff, their “resounding explanation was school leadership” in a study by Guin (2004). These teachers felt that trust in their principal was a major factor contributing in low teacher turnover. Teachers will have a stronger tie to their principal than any other administrator in a school district. Leadership was “making a difference in how teachers feel they are valued in the school.” (Guin, 2004).

Financial Incentives

Pay structures for teachers have typically been based on years of performance and level of education. Opportunities for career advancement in the area of teaching are far and few between; therefore, top-performing teachers often resort to careers in administration to gain career status and significant salary increases. Ideally, teacher leaders would receive additional compensation for professional duties such as mentoring, developing job-embedded workshops for their peers, aligning and monitoring curriculum, and serving on teacher leadership teams.

Certo and Fox (2002) list the top 10 reasons teachers left their positions as (1) salary and benefits, (2) other employment opportunities, (3) building level administration visibility in classrooms, (4) administrators listening to teachers' needs, (5) professional development, (6) resources/supplies, (7) administrators understanding special needs children, (8) teacher placement practices, (9) district level administration visibility, (10) last minute meetings / paperwork. Other than professional development, these are highly centered on hygiene factors. The actual reasons that teachers gave for staying in their local school district included (1) a commitment to the profession, (2) quality administration, and (3) an appreciation for relationships with their colleagues. (Certo & Fox, 2002) This supports Herzberg's theory by showing that both the presence of hygiene factors and the addition of motivator factors are significant to teachers as they make decisions to leave or to stay.

Performance-based pay or merit pay structures have been more widely tested in recent years to recruit and retain teachers. These plans provide for a portion of teacher salaries based on student achievement. Many attempts at merit pay have failed because of subjective evaluations, unpredictable funding, poor morale, staff dissension and competition, changes in leadership, and teacher union opposition (Murnane & Cohen, 1986; Robinson, 1984) (as cited in Morice & James, 2003). Merit pay may benefit current teachers and encourage teacher retention; however,

the likelihood that new teachers would consider merit pay an incentive is unlikely. A few recent attempts at merit pay are declaring success, including the Ladue School District in suburban St. Louis, Missouri, which celebrated the 50th anniversary of its teacher evaluation and salary program in 2003. Administrators in Ladue “attribute the longevity of the incentive pay program to the role of the teacher committee that designs, revises, and monitors the program (Morice & James, 2003). The Ladue School District boasts a low teacher turnover rate of 4.86 percent on average since 1993 and also provide tuition reimbursement, a 12:1 student teacher ratio, and a high per-pupil expenditure of close to \$11,000.

Recently, North Carolina offered a bonus of \$1800 for math, science, and special education teachers willing to teach in low-income or low-performing schools from 2001-2004; however, researchers showed that this incentive was implemented so weakly across the state that it showed little benefit to teachers or schools. Surveys of administrators found the rules governing this program to be too complex, the late start of the program during the school year to be a hindrance, and that \$1800 was not enough money to entice teachers. (David, 2008)

A two-year-old pilot program in Texas has also shown promise. Teachers receive between \$3000 - \$10000 in merit pay based on two factors: student performance and teacher collaboration. Teacher collaboration includes teacher initiatives, sharing lesson plans, participation in professional development, and service as a mentor (Honawar & Keller, 2008). This model can be defined as differentiated pay or a salary associated with other duties and assignments and not pure performance-pay, according to English (1984). Interestingly enough, Honawar reports that recent studies of performance pay programs across the nation show mixed results. The most academic growth was from programs that only consider student achievement as a factor for receiving a bonus. This is “a model some educators actually warn against because it can force teachers to teach to the test” (Honawar, 2008).

Performance pay is another option to provide teachers with incentive to stay and motivate to perform well. Performance pay for excellent teacher evaluations “become mutually reinforcing, rather than mutually exclusive” (Toch, 2009). Honawar also reports that there are some “unintended consequences” of performance-pay programs, such as one in North Carolina that paid \$1500 bonuses to teachers in schools that show test score gains above a certain threshold. Some schools with large numbers of minority students were unlikely to receive bonuses, thus creating a greater percentage of teacher turnover. Teachers moved to schools with student populations with a greater likelihood of academic success. This model has an element of market-sensitive pay that, according to English (1984), is based on the market demand for teachers in particular subject areas or schools.

Efforts to recruit teachers to under-performing schools are difficult. One-time or performance financial incentives are one option. A study by the Center for American Progress of K-12 public teachers in the 2003-2004 school year showed that 11% of teachers from high poverty schools did not teach in the same school the following year compared to 6% of teachers from low-poverty schools. “That’s one reason why offering money may be even more important to retaining teachers in hard-to-staff schools than in recruiting them” (Hardy, 2009). However, Koppich et al. (2006) warns that monetary incentives may have unintended consequences when they run out. Once teachers are no longer eligible for financial rewards, because of years of service, changes in teaching assignments, or schools moving out of the low-performing category under No Child Left Behind legislation, they may choose to leave or recruitment efforts may be dismal. In a study of urban and suburban districts in Washington state, Elfers et al (2006) discovered that teacher retention is indeed related to student poverty, and that within some districts it is also related to measures of student learning. “Within-district variation, coupled with the variation among schools in poverty rates and student demographics, highlights the

importance of understanding the specific context of an individual district and its schools when analyzing retention and mobility of teachers” (Elfers, et al, 2006).

Salary Influences on Teachers

Non-competitive salaries for teachers have long been discussed as a mark against the profession. Several researchers have found that the labor market theory especially applies to the teaching profession. Furthermore, research has found that teacher salaries are most important to new teachers as they shop around for the best financial opportunities. Shen (2001) discusses the human capital theory that “individuals make systematic assessment of benefits and costs of entering and staying in the profession” (p.1). On the contrary, salaries have not proven to be a deciding factor for veteran teachers who have established good relationships with their peers and the school community. These teachers have already made a significant investment in the profession, typically earn higher salaries, are older, and are less likely to move and change their career or lifestyle for a modest improvement in salary. Theobald and Gritz (1996) discovered that, when average teacher salaries are high in a specific district, beginning teachers are more likely to move to that different district. A more recent study by Imazeki (2004) found similar patterns in beginning teachers and associated their decisions with competing salaries in surrounding districts. Once in the profession, teachers may shop around for the best salaries for the first few years. After gaining a few years of experience, they are leaving teaching for other reasons. In a study of teacher turnover in Alabama, leavers ranked salary and benefits first as factors relevant when considering staying in their current position (Hirsch, 2006). For those who stayed in their position, salary was not as important.

Hanushek, Kain, and Rivkin (2001) conclude that pay increases of 20, 30, or even 50 percent may be needed to offset the hiring crisis in some schools. Some other options for

incentives include state income tax credits, relocation reimbursement, housing assistance, loan forgiveness, and scholarships (Hirsch, 2006). The challenges and idiosyncrasies of performance-pay programs are numerous. Very easily, salary incentives can turn into performance-pay programs.

As is the case with signing bonuses or merit pay, the incentive to leave must be substantial enough to warrant changing jobs. An estimated ten percent salary increase is sufficient to decrease teacher attrition (Hanushek, Kain, & Rivkin, 2001). Overall, literature contends that higher salaries are associated with lower teacher turnover (Murnane & Olsen, 1990; Theobald & Gritz, 1996; Hanushek, Kain & Rivkin, 2001; Hansen, Lien, Cavalluzzo, & Wenger, 2004; Imazeki, 2004; Feng, 2005; Hirsch, 2006)

As discussed earlier, other studies support this outcome as well. “School boards and administrators cannot buy motivation with salary raises. The idea of making a menu of rewards may make it more palatable to teacher bargaining groups” (Frase, 2001). There are several examples of how teacher unions and policy makers have worked together to implement incentive programs for teachers to meet their intrinsic needs. The ProComp plan was implemented in Denver to reward teachers by bumping their salaries and through bonuses. Teacher union groups along with administrators collaborated to develop the plan. Teachers are paid for a variety of elements such as teaching in a high poverty school, increasing their test scores, years of service, and participating in professional development. “A pilot study found that students of teachers who enrolled [in ProComp] on a trial basis performed better on standardized tests than other students. The program is already successful by another measure: raising the number of teachers applying to work in Denver’s most troubled schools” (Willis, 2008). However, in a recent report, negotiations between school employees and union members may be in peril. The superintendent wants to make revisions to the program, but the union members do not want to make any

changes. (Honawar, 2008) The Teacher Advancement Program, also known as TAP, founded by the Milken Family Foundation in 1999, is in place in 180 schools and 14 states. This program pays teachers for excellent teaching and is based on multiple observations by various observers throughout the year. The most interesting facet of this program is that all teachers meet with a lead or mentor teacher for one to two hours every week to work on lesson plans and reflect on their prior lessons. While many veteran teachers were not interested at first in being micromanaged by another teacher, many schools have seen teacher turnover decrease and student achievement increase substantially. One teacher reported that she does many more labs, hands-on activities, and reflects on her own practice more because of TAP (Willis, 2008). These efforts are indicative of an effort by policy makers to meet the motivator needs of teachers in order to reduce turnover and increase student achievement.

Working Conditions

Because of the intricacies involved in recruiting and retaining teachers, monetary incentives or support programs alone are not enough. Job satisfaction is multi-faceted; the decision to leave one's job is a logical and emotional one combined. For this reason, Herzberg's Motivation - Hygiene Theory is relevant to the discussion of teacher turnover and student achievement.

Stockard and Lehman (2004) (as cited in David, 2008) researched the factors influencing first year teachers to remain in their jobs. In support of Herzberg's theory, they found that the most important factors of job satisfaction were the motivator factors of social support (relationships with peers) and school management (school leadership). Their research showed that schools with mentoring programs had lower teacher turnover rates because teachers were supported and developed strong relationships with leaders and peers. Key sources of support for

new teachers are (1) an informative hiring process that ensures a good fit between the candidate and the position, (2) a well-trained and well-matched mentor assigned to each new teacher, and (3) a well-defined, standards based curriculum that provides guidance, but allows for teacher autonomy and flexibility as well. (David, 2008).

Torquati, Raikes, and Huddleston-Casas (2007) labeled intrinsic benefits as “workplace supports” in their study which “includes three characteristics: (1) professional supports; (2) physical/material resources; and (3) absence of work overload.” The top three reasons teachers remain in the profession are 1) a commitment to the profession, 2) quality administration, and 3) an appreciation for relationships with colleagues (Certo & Fox, 2002). All of these opportunities for teachers to be critical thinkers and contributors in their field are impossible if barriers are in the way. “If employees are preoccupied with concerns about unsatisfactory working conditions or the inability to provide adequate food and shelter, positive impact from motivators will not be realized” (Frase, et al., 1982).

Alternative methods of rewarding teachers are also possibilities for policy debate. Frase, Hetzel, and Grant (1982), described a program that rewarded teachers according to the motivators as defined by Herzberg. This program provided recompense other than money on the basis of instructional excellence. Teachers met with their principals for their evaluations and discussed the type of incentive that would be most motivating to them professionally. Incentives ranged from out-of-state attendance at conferences, cash, computers, or instructional materials with a monetary range of \$80 to \$700. Funds were distributed proportionately among the schools and the size of the individual reward would be determined by the principal commensurate with teacher performance which included classroom instruction only and did not include extra duties or leadership positions of the teacher. This program, entitled the “Program for Excellence,” was designed to provide additional recognition for teachers who showed excellent instructional

strategies in the classroom. In their study of this program, Frase et al (1982) found that teachers were very receptive to this reward system; however, there was some disagreement about the possibility of dissention amongst teachers. Some felt that publically announcing the highest award winners would cause dissention, while others viewed a public announcement as an incentive to improve. “The results of this study are very supportive of Herzberg’s theory in that (1) participating teachers valued the rewards very highly, (2) the rewards were perceived as special recognition for teaching excellence, and (3) participants perceived special recognition as motivation to continue their excellent teaching practices” (Frase et al, 1982). The researchers agreed, however, that hygiene needs must be met before motivating factors can be embraced by employees. “Both hygiene and motivation needs are important and both must be met before an employee can work at his optimal level and before rewards of any kind can have a positive effect” (Frase et al, 1982).

Yee (1990) (as cited in Certo and Fox, 2002) “found that teacher highly involved in their work attributed their decision to stay in teaching more to supportive work conditions than to pay: other highly involved teachers reported unsupportive workplace conditions as the main reason they left the field. Supportive work conditions included appropriate workload, opportunities for collegial interaction, professional development, participation in decision-making, and support for student discipline.” In this study, teachers reported that working conditions and poor relationships were reasons for leaving. While supportive working conditions are largely affected by school leadership, policy makers create the structure within which school level administrators can create the climate and culture within individual buildings. Ingersoll (2001) suggests that schools should provide the mechanisms for teachers to have a voice and provide for the protection of academic freedom as well. He postulates that “if there are few mechanisms for the collective or individual expression of disagreement with school policies and few protections for

those employees who challenge school policies, those who disagree with school policy will be more likely to leave” (Ingersoll, 2001).

“It appears that teachers need a career ladder to not leave the school district where they are currently employed.” (Fowler & Mittapalli, 2006). Often known as a “flat profession,” teachers need to have opportunities within the smaller organization to take leadership roles such as within a school or local school district. According to this study and other research, teachers want opportunities for professional growth. The national Center for Education Growth cited a whole list of hygiene factors as reasons for teachers leaving their jobs. The highest of which was a “lack of time to prepare” during their work day for instructional time with students. (Willis, 2008) Professional development for teachers in the United States differs greatly from other countries whose students perform well on achievement tests. (Sawchuk, 2009) Sawchuk reports that other countries allow more time for teachers to work together and plan, which reduces actual instruction hours with students. A greater value on the time that teachers actually spend outside of the classroom improving their skills and preparing their lessons is greater in other countries than it is currently in the United States. Oftentimes, teachers plan alone, and policies such as mandated instructional time and calendar laws do not provide any opportunity for teachers to improve their practice in a non-integrated fashion. Educational advisor, Linda Darling-Hammond, (Sawchuk, 2009) reviewed several studies of professional development and concluded that 30 to 100 hours of time over six months to a year – positively influenced student achievement, while those with fewer than 14 hours had little effect.”

Including teachers in the decision-making process along with empowering teachers to have influence over their own work environment is important. Sergiovanni (as cited in Frase, 2001) stated that “caution must be exercised to avoid providing for motivation needs at the

expense of hygiene needs. “The data from this study clearly indicate that teachers who feel that they have influence over school and teaching policies are more likely to stay” (Shen, 1997).

According to Hirsch (2006), “Teachers want great places to teach and learn,” and he goes on to find the solution in supportive building-level leadership. He states that “non-financial” incentives are more valuable to teachers than monetary rewards. Weiss’s study (as cited in Liu & Meyer, 2005) used the National Center for Education Statistics Schools and Staffing Survey and found that teachers with a strong commitment to teaching also had positive perceptions of their workplace conditions. Also in support of Herzberg’s motivators, Linda Darling-Hammond found that “reasons for remaining in teaching are strongly associated with resources, teacher input into decision making, and school climate” (2003).

In a study of teachers leaving Florida school districts over a period of two years, Kersaint (2007) found six factors that teachers ranked in order of influence in their decision to leave. The factors are (1) administrative support, (2) financial benefits, (3) paperwork/assessments, (4) family responsibilities, (5) joy of teaching, (6) time with family. This study places a motivator as the first factor, but quickly moves to a hygiene element as the second and third factors. While the majority of the reasons are motivators, teachers still found a level of importance with hygiene factors. Sergiovanni (as cited in Frase, 1982) warns supervisors “that caution must be exercised to avoid providing for motivation needs at the expense of hygiene needs.” Volkwein and Zhou (2003) (as cited in Smerek et al., 2007) support this notion of complexity in their findings of job satisfaction concluding that “the model suggests that overall satisfaction is the product of a complex balance of many ingredients.”

While each of these studies used different instruments and procedures, Herzberg’s theory supports the findings of these studies. “All else being equal, individuals will select employment that offers the best “extrinsic” and “intrinsic” benefits (Munane & Olsen, 1989). While hygiene

factors will not produce job satisfaction, they are necessary to prevent job dissatisfaction.

Motivator factors consistently rise to the top as the primary reasons workers find satisfaction in their jobs in the previously mentioned studies.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter describes the research methods and procedures used to conduct this research and the rationale for using the proposed research methods. The purpose and intent of this study was to:

- Assess how changes in local salary supplements impact teacher turnover in all North Carolina school districts over a three-year period;
- Assess the effect of location on teacher turnover;
- Describe the most significant reasons teachers give for leaving one local school district in North Carolina;
- Compare the findings in the local district data with the findings in the state-wide salary supplement data;
- Describe any connection between state-wide salary supplement data and exit survey data.

The research employed a multiple regression approach to analyze the effects of changes in locally competitive salary supplements and the turnover rate in all North Carolina school districts over a period of three years. The study also used exit survey data from one specific school district. When compared to the district's salary data, a description of the findings in the individual school district provided information regarding the reasons teachers are leaving on a state-wide level and insight into the reasons teachers provided for their leaving one North Carolina school district.

Purpose of the Study and Guiding Research Questions

In this study, the researcher examined the effects of locally competitive salary supplements and the turnover rate in all North Carolina school districts and exit survey data in one North Carolina school district to answer the following research questions:

1. What effects do changes in local salary supplements have on teacher turnover in all North Carolina school districts?
2. What effect does location have on teacher turnover, given salary supplements?
3. What are the most significant reasons teachers give for leaving one local school district in North Carolina?
4. Are the findings in the local district data consistent with the findings in the state-wide salary supplement data regarding reasons for teacher turnover?

Conceptual Framework

The study used the conceptual framework of Herzberg's Motivation-Hygiene Theory (also known as the Two-Factor Theory) as a basis for understanding the data regarding local salary supplements and teacher turnover rates over several years (Herzberg, Mausner, & Snyderman, 1959). Herzberg's theory finds that the factors causing job satisfaction (motivation factors) are different from the factors causing job dissatisfaction (hygiene factors). Herzberg found that employee salary is a hygiene factor, in that it may lead to dissatisfaction toward a job; however, it does not lead to job satisfaction. Satisfiers or motivating factors are more intrinsic in

nature and include recognition, advancement, responsibility, achievement, and the nature of the work itself. Table 3.1 describes Herzberg's theory.

Table 3.1. Herzberg's Two Factor Theory / Motivation Hygiene Theory

Factors Affecting Job Attitudes

Leading to Dissatisfaction Hygiene Factors	Leading to Satisfaction Motivators
<ul style="list-style-type: none"> ○ Company policy ○ Supervision ○ Relationship with boss ○ Work conditions ○ Salary ○ Relationship with peers 	<ul style="list-style-type: none"> ○ Achievement ○ Recognition ○ Work itself ○ Responsibility ○ Advancement ○ Growth

Research Design

This study was a non-experimental design using survey data that includes “longitudinal studies using questionnaires...for data collection, with the intent of generalizing from a sample to a population” (Creswell, 2003, p. 14). This study used secondary data derived from the North Carolina Department of Public Instruction on an annual basis. The researcher used data from the annual Teacher Turnover Report, which is generated by the North Carolina Department of Public Instruction. This report is produced by the Human Resources Division and is prepared annually for the State Board of Education. Local Education Authorities (LEAs) or school districts are asked to complete a survey on an annual basis and provide data from teachers who are exiting

their school district. The secondary data provided an opportunity for the researcher to compare the turnover rate of each school district in North Carolina with the average salary of each school district over a three-year period. The use of secondary data “is extremely versatile in that it can be applied to studies designed to understand the present or the past, to understand change, to examine phenomena comparatively, or to replicate and/or extend previous studies” (Hyman, 1972: 11-24) (as cited in Kiecolt & Nathan, 1985, p. 47).

The study also used exit survey data that were distributed to all teachers who left one local school district in North Carolina during the 2006-2007 school year. The exit survey data asked teachers why they left their schools by providing them with a list of reasons to check. Teachers anonymously and voluntarily returned the surveys via mail to the school district. The researcher calculated percentages of teachers who indicated each reason. The exit survey was developed by a local school district for its own data collection purposes. The exit survey only targeted “leavers”, or teachers who have exited the school district. Data was not gathered from “movers” or teachers who moved to a different school within the district. A sample of the survey is included in the Appendix.

The delimitations of the study include geographic location, local salary supplement, and teacher turnover rate for all school districts in North Carolina. The delimitations of the exit survey data are that they provided the percentages of teachers who left for specific reasons.

Some of the limitations of this study included the absence of demographic information, sample convenience, absence of additional incentive information, and pre-existing data sources. The following are the limitations of the proposed study:

- **Demographics:** The data did not include demographic information on the teachers, including age, years of service, race, gender, or educational background. This means that the researcher

was limited to findings without giving consideration to these factors. The proposed study also did not include geographic, demographic, or economic information regarding the school districts.

- Survey sample convenience: The study utilized survey data from only one school system. It was a convenience sample. Since the purpose of the study was to explore relationships among variables, school district practices were not compared as to their effectiveness, i.e. a statistical sample was not appropriate.
- Absence of additional incentive information: There are many incentives teachers may find important in their decisions to leave or stay. This study only examined the impact of local salary supplements.
- Pre-existing data sources: The data from the annual Teacher Turnover Report generated by the North Carolina Department of Public Instruction is prepared annually for the State Board of Education. Local Education Authorities (LEAs), or school districts, are asked to complete a survey each year. The survey data from the local school district were also pre-collected and written by the local school district; therefore, the researcher did not design the surveys to ask specific questions to extract the information. Instead, the proposed study uses a research design and methodology to fit the available data. Using secondary data “requires the application of creative analytical techniques to data that have been amassed by others” (Kiecolt & Nathan, 1985, p. 10).

Site and Participants

The selection of North Carolina school districts was primarily because the Department of Public Instruction provides an annual Teacher Turnover Report that contains data from all North Carolina school districts. North Carolina is a diverse state with a wide range of economic and geographically varied school districts. From urban to rural, the school districts represent the

many communities that they serve. The school districts are also grouped by “region” by the North Carolina Department of Public Instruction, which provides additional geographic information when comparing data.

The local school district survey data are from a school district of central location, large to moderate size (20,000-25,000 students), and median income of \$57,000, according to the North Carolina Department of Commerce. The survey was distributed to all teachers who left this school district during the 2006-2007 school year. Teachers selected the reasons they left the school district from a list developed by the local school district. The researcher calculated the percentages of teachers who indicated each reason. It was a convenience sample, in that the participants were selected “because they are willing and available to be studied. The researcher cannot say with confidence that the individuals are representative of the population” (Creswell, 2005, p.149). The researcher also considered the ease of gaining access to these data since she is currently employed in this school district.

Data Collection

The primary method for the research was survey research. The survey that was analyzed in this study was administered by all local school districts in North Carolina on an annual basis from the 2004-2005 school year through the 2006-2007 school year. The NC Department of Public Instruction provides an annual report summarizing the results of these surveys. The Annual Teacher Turnover Report was used to provide the data for this proposed study. Specifically, data from the Teacher Turnover Report for the purposes of this study was the percentage of teacher turnover by each school district in North Carolina.

Information regarding local teacher salary supplements was obtained from the North Carolina Department of Public Instruction Finance Division. This division provided three years

of data on the amount of local teacher salary supplements provided to teachers by each school district in North Carolina.

The participants in the exit survey gave information regarding reasons they left their current positions categorized under each of the following headings: resigning to teach in another school district, resigning for personal reasons, resigning for other reasons. Sub-categories under each of the three primary categories provide more insight as to why they made the decision to resign. The administration of the survey was created to provide information to the school district's Human Resources Department to improve teacher retention efforts. This data was made available by the school district.

Data Analysis

Reasons for teacher turnover are very complex and individual, making it difficult to generalize the reasons for teachers leaving their positions. This study aimed to limit the scope of the data to annual turnover percentages, annual local salary supplement amounts, and geographic location of the districts. A multiple regression approach was used, with the dependent variable being teacher turnover and the independent variables being location with teacher salary supplement added to the equation. The data was imported into *SPSS Version 17.0* and then a correlation between turnover percentages, salary supplement amounts, and changes in local salary supplements was computed. A measure was used to assess whether a relationship exists between teacher turnover and supplement changes for each year. After this bivariate analysis, the researcher conducted a multiple regression analysis with location as the central independent variable with salary supplement amounts and salary supplement changes added to the equation.

By limiting the data to these economic and geographic factors, the study provided information on a large state-wide scale that was then compared to one local school district's exit

survey data. A descriptive analysis of the exit survey data from one local school district was provided and compared to the state-wide data. This research was utilized to reveal the complexity of this particular situation as it takes into account the multiple reasons for teacher turnover and to investigate whether or not these reasons reveal themselves in state-wide salary data. Specifically, the researcher was applying Herzberg's theory which finds job satisfaction with the presence of motivator factors and hygiene factors simultaneously. By combining macro and micro levels of data, this method allowed the researcher to reveal any connection between state-wide salary supplement data and the reasons teachers provide for their leaving one North Carolina school district.

The results of these data were then described using the conceptual framework of Herzberg's theory. Salaries were included as hygiene factors, in that they contribute to job dissatisfaction and were considered being first-level factors. Second-level factors included responsibility, potential for growth, recognition, and achievement. (Herzberg, F., Mausner, B., & Snyderman, B., 1959, p. 49) Second-level factors were reported by the teachers in the survey data, but are not included in the state-wide data.

Researcher Identity

As a current school district administrator, the researcher had a direct and immediate interest in understanding the factors underlying teacher turnover, recruitment and retention. This study allowed the researcher to better understand why teachers leave and practices and policies that may prevent turnover and promote retention. The researcher had a strong desire to improve the quality of education for students and believed that it starts with a strong and stable teaching force.

For the purpose of this study, it is important to note that the researcher was currently the Assistant Superintendent for Curriculum and Instruction in the district where the exit survey was administered, but was not involved in the development, distribution, or collection of the surveys through the Human Resources Department. The teacher surveys were anonymous and also did not identify the names of schools or regions in the school district. With intentional effort, the researcher was confident that she was able to ensure that the proposed study was absent of any personal bias.

Summary

This study of teacher turnover provided details about the ways in which changes in teacher salary supplement affect teachers' decisions to leave across the state of North Carolina as well as how and why teachers in one local school district made the decision to leave their current positions. Furthermore, the study discerned the reasons for teacher turnover as hygiene or motivating factors using Herzberg's Motivation – Hygiene Theory.

This study provided further guidance for school districts as they seek answers and solutions to provide the best environment for teachers to work and thrive and the best classrooms for students to learn.

CHAPTER 4

PROCEDURES AND FINDINGS

Introduction

The purpose of this quantitative study was to investigate whether changes in salary supplements affected the teacher turnover rate in all North Carolina school districts over a period of three years in each of eight geographic regions across the state. The study also used exit survey data from one school district for one year and, when compared to salary and turnover data from the entire state over three years, provided more insight into the reasons teachers are leaving on a state-wide level. This chapter presents the data analysis process and findings from the study. The first section will take a closer look at the guiding research questions, statistical procedures used for analysis, and will include general observations based on the frequencies reported. Section 2 provides findings for each research question and data analysis procedures. The third section includes ancillary findings and a summary of the chapter.

Research Questions and Procedures

The research questions for this study can be found in Table 1. Questions 1 and 2 were designed to determine whether a statistically significant relationship existed between changes in teacher salary supplements and location existed over a period of three years. If there were such a relationship, the purpose was to also identify whether those relationships were due to increases or decreases in salary supplements in school districts within the same geographic region. Question 3 was designed to observe teacher responses from one local school district as to why

they left their jobs during one school year. Question 4 was meant to take the descriptive data from Question 3 and apply it to the quantitative data from Questions 1 and 2 by looking for consistencies in the data.

Table 4.1. Research Questions and Procedures

Research Question	Statistical Procedure <i>SPSS Version 17</i>
1. What effects do changes in local salary supplements have on teacher turnover in all North Carolina school districts?	Pearson Correlation Coefficients
2. What effect does location have on teacher turnover, given salary supplements?	Pearson Correlation Coefficients Multiple Regression
3. What are the most significant reasons teachers give for leaving one local school district in North Carolina?	Descriptive Analysis of One Local School District's Administered Survey Frequencies and Percentages
4. Are the findings in the local district data consistent with the findings in the state-wide salary supplement data regarding reasons for teacher turnover?	Pearson Correlation Coefficients Descriptive Analysis of One Local School District's Administered Survey Frequencies and Percentages

Descriptive Data

The researcher began by reviewing the descriptive statistics for turnover rates from 2004 to 2007. Descriptive statistics were calculated using *SPSS Version 17* for teacher turnover and teacher salary supplement information for all 115 school districts in North Carolina. The data were retrieved from the Teacher Turnover Report which is created annually by the Department of Public Instruction. Table 4.2 shows summary statistics of teacher turnover percentages from 2004-2007. The average turnover rate in 2004 was 12.4 and was the same in 2007, with increases in the two intervening years. It was especially high in 2005 at 13.29. The median followed a similar pattern, but in 2007 turnover reached a low point at 11.37. The maximum and minimum turnover rates reinforce that 2005 had the highest turnover rate.

Table 4.3 shows summary statistics of teacher turnover rate changes from 2004 to 2007. The turnover rate increased from 2004 to 2005 by .89 but dropped over the next two years by -.40 and -.49 respectively. This change replicates the actual change in turnover rates in Table 4.2 as the actual turnover percentage saw the greatest increase in 2005 which is validated by the largest percentage of change from 2004 to 2005 in Table 4.3. Also, the negative turnover change of -.40 and -.49 are equivalent to the increase of .89 in 2005. This also supports the data in Table 4.2, as the turnover rate in 2004 and 2007 were equal, although the years in between changed. The minimum amount of turnover change in 2005 of -9.41 and maximum of 12.12 support that 2005 had the highest percentage of turnover rate change from the previous year.

Table 4.2. Descriptive Statistics for Turnover Rate 2004-2007 in All North Carolina School Districts

	Turnover Rate Percentage 2004	Turnover Rate Percentage 2005	Turnover Rate Percentage 2006	Turnover Rate Percentage 2007
Mean	12.4	13.29	12.89	12.4
Median	12.0	12.55	12.32	11.37
Std. Deviation	4.14	4.85	3.97	4.07
Minimum	2.73	3.96	2.21	3.53
Maximum	25.76	28.51	25.79	26.23

Table 4.3. Frequencies for Teacher Turnover Percent Changes From Year to Year 2004-2007

	Turnover Rate Percentage Change 2004- 2005	Turnover Rate Percentage Change 2005- 2006	Turnover Rate Percentage Change 2006- 2007
Mean	.89	-.40	-.49
Median	.99	-.19	-.35
Std. Deviation	3.96	3.75	3.27
Minimum	-9.41	-13.93	-10.64
Maximum	12.12	9.44	8.19

Table 4.4 displays the frequencies for teacher salary supplement amounts from 2004-2007. The mean salary supplement amount increased each year from 2004 to 2007 with a minimum mean of \$1657.00 in 2004 and a maximum mean of \$2015.97 in 2007. The median salary supplement amounts also increased each year with the greatest increase between 2004 and 2005. The actual minimum salary supplement amount was \$0 each year; however the maximum actual supplement amounts increased each year.

Table 4.5 displays descriptive statistics for teacher salary supplement changes from 2004 to 2007. The mean amount of supplement change increased the most from 2004 to 2005 and increased the least from 2005 to 2006. The median change was the lowest from 2005 to 2006 at

an amount of \$25.00. The minimum and maximum amounts support that the greatest change in teacher salary supplements was from 2004 to 2005 and the least variance in teacher salary supplement changes was from 2005 to 2006.

Table 4.4. Descriptive Statistics for Teacher Salary Supplements in All North Carolina School Districts

	Teacher Salary Supplement 2004	Teacher Salary Supplement 2005	Teacher Salary Supplement 2006	Teacher Salary Supplement 2007
Mean	\$1657.00	\$1821.23	\$1910.24	\$2015.97
Median	\$1500.00	\$1780.00	\$1851.00	\$1956.00
Std. Deviation	\$1131.37	\$1189.75	\$1219.12	\$1266.85
Minimum	\$0	\$0	\$0	\$0
Maximum	\$5755.00	\$5903.00	\$6080.00	\$6580.00

Table 4.5. Descriptive Statistics for Teacher Salary Supplement Changes from Year to Year 2004-2007

	Salary Supplement Change 2004-2005	Salary Supplement Change 2005-2006	Salary Supplement Change 2006-2007
Mean	\$163.50	\$89.02	\$105.72
Median	\$41.00	\$25.00	\$85.00
Std. Deviation	\$358.00	\$306.67	\$474.55
Minimum	\$-1533.00	\$1103.00	\$-4000.00
Maximum	\$1750.00	\$2000.00	\$1567.00

Findings

Research Question 1: What effects do changes in local salary supplements have on teacher turnover in all North Carolina school districts?

With this information, the researcher used *SPSS Version 17.0* to generate correlations between teacher turnover rates and salary supplements in North Carolina. The researcher used the Pearson bivariate correlation to examine whether there was a statistically significant relationship between teacher turnover and teacher salary supplements from 2004-2007 in North Carolina school districts. An alpha level of .05 was used for all statistical tests. Tables 4.6 and 4.7 are the correlational reports based on teacher turnover percentages as reported in the North Carolina Teacher Turnover Reports from 2004-2007 and teacher salary supplement data as reported by the North Carolina Department of Public Education for each of the 115 school districts in the state from 2004-2007. Table 4.6 reports the correlation between teacher turnover rates from 2004-2007 and teacher salary supplement amounts from 2004-2007. Table 4.6 does not show a statistically significant correlation between teacher turnover rates and salary supplements in any year except 2005. Table 4.7 reports the correlation between teacher turnover rates and teacher salary supplement changes from one year to the next from 2004-2005. Table 4.7 shows a statistically significant correlation between teacher salary supplement changes in 2005 when compared to teacher turnover rates in all years, 2004 to 2007. There was not a significant relationship between salary supplement changes in 2006 or 2007 in any year when compared to teacher turnover rates.

Table 4.6. Correlations: Teacher Turnover Rate and Teacher Salary Supplements

N=115

	Turnover Rate 2005	Turnover Rate 2006	Turnover Rate 2007
Supplement 2004	.108	.081	.070
Supplement 2005	.158*	.141	.130
Supplement 2006	.147	.129	.146
Supplement 2007	.130	.071	.091

*Correlation is significant at the .05 level (1-tailed)

Table 4.7. Correlations: Teacher Turnover Rate and Teacher Salary Supplement Changes from

One Year to the Next Year

N=115

	Turnover Rate 2005	Turnover Rate 2006	Turnover Rate 2007
Supplement Change 2005	.183*	.211*	.212*
Supplement Change 2006	-.027	-.032	.074
Supplement Change 2007	-.031	-.143	-.130

* Correlation is significant at the .05 level (1-tailed)

Overall, the correlations do not present a pattern of statistically significant correlations between teacher turnover rates and teacher salary supplement amounts. Only one indicator of significance was found in 2005 as is indicated in Table 4.6. As for teacher turnover rate and changes in teacher salaries from one year to the next, the researcher did not find a statistically

significant correlation other than in 2005 for all three years of supplement change data as is indicated in Table 4.7, but again, there is no larger pattern of relationships between turnover and supplement change over the next two years.

Research Question 2: What effect does location have on teacher turnover, given salary supplements?

The researcher used multiple regression to examine whether there were statistically significant relationships among multiple variables: teacher turnover with teacher salary supplements from 2005-2007 and with school districts in the eight geographical regions in North Carolina. An alpha level of .05 was used for all statistical tests. Region 5 was used as the reference category. The researcher conducted multiple regression analyses with turnover in years 2005-2007 as the dependent variables, geographic location as the central independent variable, with salary supplement changes and salary supplement amounts added to the equation. Outcomes from these analyses are reported in Tables 4.8, 4.9, and 4.1.1.

Table 4.8 shows the multiple regression of teacher turnover rates and geographic regions. Teacher turnover in Region 8 was statistically significant in 2005 with a difference of 4.254 points below the reference category of Region 5. Region 8 was also statistically significant in 2006 with a difference of 3.421 points below Region 5. Both Regions 7 and 8 were statistically significant for 2007 with Region 7 being 3.207 points below the reference and Region 8 at 2.94 points below the reference. R Square is the proportion of variation in dependent variables explained by the independent variables together. The R Square values were statistically significant for all three years, which demonstrates that the independent variable can explain the variance in the dependent variable. In Table 4.8, Region explains 19.9% of the variation in 2005

turnover rate, 17.2% of the variance in 2006 turnover rate and 14.7% variance in 2007 turnover rate.

Table 4.9 shows a multiple regression between teacher turnover rates for 2005 to 2007 when compared to geographic region with teacher salary supplement changes added. When comparing teacher turnover rate to salary supplement changes and geographic regions, the turnover rate for Region 5 in 2005 was 14.28, in 2006 was 14.13, and in 2007 was 13.39. The turnover rate in Region 8 was 4.7 points lower than Region 5 in 2005, thus resulting in a statistically significant difference. Region 8 was also statistically significant in 2006 and 2007. Region 7 showed a statistical significance in 2007. The supplement change data only showed a statistically significant difference between 2005-2006 and 2006-2007 in teacher turnover in 2006. The R Square values were statistically significant for all three years in Table 4.9. In Table 4.9, Region and supplement change amounts explain 23.6% of the variation in turnover rate in 2005, 24.6% of the variation in 2006, and 21.9% of the variation in 2007.

Table 4.8. Multiple Regression with Turnover Rates 2005-2007 as the Dependent Variable and Region as the Independent Variable

	Turnover Rate 2005 B	Turnove r Rate 2005 Beta	Turnove r Rate 2005 Sig.	Turnove r Rate 2006 B	Turnove r Rate 2006 Beta	Turnove r Rate 2006 Sig.	Turnove r Rate 2007 B	Turnove r Rate 2007 Beta	Turnove r Rate 2007 Sig.
Region 1	.618	.043	.706	.633	.054	.643	-.293	-.024	.832
Region 2	.677	.046	.685	.360	.030	.796	-.218	-.018	.876
Region 3	2.734	.185	.103	1.695	.140	.224	2.537	.205	.072
Region 4	-.454	-.029	.794	-1.237	-.096	.394	-.270	-.020	.853
Region 6	-1.987	-.111	.295	-.1.835	-.125	.246	-2.025	-.134	.204
Region 7	-2.728	-.210	.081	-2.139	-.201	.100	-3.206	-.294	.015
Region 8	-4.254	-.313	.008	-3.421	-.307	.011	-2.914	-.255	.031
Constant	14.085	—	.000	13.694	—	.000	13.304	—	.000
R Square	.199	—	.001	.172	—	.004	.147	—	.001

Note: Bold-faced values reflect statistical significance at the 0.05 level.

Table 4.9. Multiple Regression with Turnover Rates 2005-2007 as the Dependent Variable and with Region and Teacher Salary Changes from Year to Year as Independent

Variables

	Turnover Rate 2005 B	Turnover Rate 2005 Beta	Turnover Rate 2005 Sig.	Turnover Rate 2006 B	Turnover Rate 2006 Beta	Turnover Rate 2006 Sig.	Turnover Rate 2007 B	Turnover Rate 2007 Beta	Turnover Rate 2007 Sig.
Region 1	.602	.042	.711	.736	.063	.579	-.193	-.016	.889
Region 2	.849	.058	.615	.651	.054	.636	-.214	-.017	.881
Region 3	2.828	.192	.096	1.630	.135	.236	2.350	.190	.103
Region 4	-.275	-.017	.874	-.832	-.064	.555	-.060	-.005	.967
Region 6	-2.094	-.117	.269	-1.991	-.135	.197	-1.996	-.132	.215
Region 7	-2.657	-.205	.089	-2.093	-.197	.100	-3.090	-.283	.021
Region 8	-4.763	-.350	.003	-3.938	-.354	.003	-3.102	-.272	.024
Supplement Change 2004-2005	.001	.084	.400	.001	.070	.479	.001	.077	.449
Supplement Change 2005-2006	-.003	-.209	.066	-.004	-.305	.007	-.002	-.114	.318
Supplement Change 2006-2007	.000	-.062	.596	-.002	-.243	.039	.000	-.110	.354
Constant	14.282	—	.000	14.131	—	.000	13.391	—	.000
R Square	.236	—	.001	.246	—	.001	.219	—	.003

Note: Bold-faced values reflect statistical significance at the 0.05 level.

Table 4.1.1 shows the multiple regressions of teacher turnover rates and geographic regions with teacher salary supplement amounts added. When comparing teacher turnover rate to salary supplement amounts and region, the teacher turnover rate for Region 5 in 2005 was 13.97, in 2006 was 13.77, and in 2007 was 13.28. The turnover rate in Region 8 was 4.414 points lower than Region 5 in 2005. This resulted in Region 8 showing a statistically significant difference. The same is true in 2006 for Region 8 with a difference of only 3.6 points and a statistical significance of .013. In 2007 both Regions 7 and 8 are statistically significant. No other regions showed a statistical significance for these three years. When the supplement amounts were added, a statistically significant difference was found in the amount for 2005 with teacher turnover for both 2005 and 2006. The supplement amount for 2007 was statistically significant in its relationship to the turnover rate in 2006. The R Square amounts were statistically significant for all three years. Region and supplement amount can explain the proportion of variation in teacher turnover by 23.2% in 2005, 24.5% in 2006, and 21.5% in 2007.

Table 4.1.1. Multiple Regression Significance Levels as Compared to Region 5 with Turnover Rates as the Dependent Variable and with Region and Teacher Salary Supplement Amounts as the Independent Variables.

	Turnover Rate 2005 B	Turnover Rate 2005 Beta	Turnover Rate 2005 Sig.	Turnover Rate 2006 B	Turnover Rate 2006 Beta	Turnover Rate 2006 Sig.	Turnover Rate 2007 B	Turnover Rate 2007 Beta	Turnover Rate 2007 Sig.
Region 1	.918	.064	.608	1.045	.089	.473	-.037	-.003	.981
Region 2	1.244	.084	.465	.962	.080	.487	.050	.004	.972
Region 3	3.091	.210	.068	1.827	.151	.182	2.535	.205	.078
Region 4	-.046	-.003	.979	-.621	-.048	.670	.064	.005	.967
Region 6	-2.119	-.118	.268	-1.970	-.134	.205	-2.050	-.136	.207
Region 7	-2.615	-.201	.105	-2.007	-.189	.126	-3.110	-.285	.024
Region 8	-4.414	-.325	.013	-3.607	-.324	.013	-2.924	-.256	.053
Supplement Amount 2005	.004	.910	-.039	.004	1.277	.004	.002	.525	.234
Supplement Amount 2006	-.002	-.616	.095	-.002	-.534	.145	.000	-.130	.727
Supplement Amount 2007	-.001	-.277	.341	-.002	-.745	.011	-.001	-.392	.183
Constant	13.967		.000	13.770		.000	13.283		.000
R Square	.232		.001	.245		.001	.215		.004

Note: Bold-faced values reflect statistical significance at the 0.05 level.

The researcher found a statistical significance from the multiple regression data in only two regions, Regions 7 and 8. In Table 4.8, Region 8 showed a statistically significant difference in all three years. Region 7 only showed a statistically significant difference in 2007. Once salary supplement changes were added, the results remained the same with Region 8 showing a statistically significant difference for all three years and Region 7 showing a statistically significant difference for 2007 only. When adding salary supplement amounts, the only

difference in the outcome was that Region 8 no longer showed a statistically significant difference in 2005. All other results remained the same.

Research Question 3: What are the most significant reasons teachers give for leaving one local school district in North Carolina?

The researcher used pre-existing survey data from one local school district and calculated the percentages for each category of reason that teachers left their jobs in 2007. The categories were (1) resigned to teach in another district, (2) resigned for personal reasons, and (3) resigned for other reasons. The survey was mailed to 347 teachers and 132 responded giving a response rate of 38%. Teachers were asked to select one reason for leaving their job with this school district. Most of the teachers left for personal reasons at 47.8%. Following close behind, 44.3% of teachers reported leaving to teach in another school district. These results are calculated in Table 4.1.2.

The researcher then applied Herzberg's Motivation - Hygiene Theory to the survey's specific subcategories of reasons teacher resigned to teach in another district. Only two of the reasons were classified by the researcher as motivators using Herzberg's theory. Table 4.1.3 shows that 17.96% of teachers who resigned to teach in another district, left for salary reasons. The second most reported reason for going to another district was for "professional growth/advancement opportunities". The third most reported reason for leaving to go to another district was "working conditions" which was reported equally with "poor relationships with their supervisor" at 14.8%.

Table 4.1.2 Survey Results from One School District In North Carolina Regarding Reasons
Teachers Left Their Jobs in 2007

Reason	Percentage
Resigned to teach in another district	44.3%
Resigned for personal reasons	47.8%
Resigned for other reasons	7.8%

Table 4.1.3 Percentages of Responses by Teachers Who Resigned to Teach in Another District
and Comparison with Herzberg's Motivation-Hygiene Theory

Subcategory	Percentage	Herzberg's Motivators	Herzberg's Hygiene Factors
Salary	17.96		X
Local Policies	4.68		X
Poor Relationship with Supervisor	14.84		X
Need More Opportunities for Advancement / Professional Growth	16.4	X	
Working Conditions	14.8		X
Change in Role	7.03		X
Poor Relationships with Peers	2.34		X
Need More Opportunities for Recognition	7.81	X	
Need Different Insurance/ Benefits	1.56		X
Distance from home	12.5		X

The survey was not written with Herzberg's theory as a framework; therefore, the theory could not be applied to two of the tables (Table 4.1.4 and Table 4.1.5). Of the teachers leaving for personal reasons, the primary reason for teachers leaving was retirement at 41.3% followed by family relocation at 24.13%, and then "family responsibilities/childcare" at 22.4% as is seen in Table 4.1.4. Of the teachers leaving for other reasons, Table 4.1.5 reports 55.5% of teachers

leaving because they were dissatisfied with teaching or wanted a career change. This reason was followed by 22.22% of teachers whose license was not renewed or whose contract was ending.

Table 4.1.4 Responses of Teachers Who Resigned for Personal Reasons

Retired	41.3
Family relocation	24.13
Family responsibilities / childcare	22.4
To continue education full-time	5.17
Health reasons / disability	6.89

Table 4.1.5 Responses of Teachers Who Resigned for Other Reasons

Dissatisfied with teaching/career change	55.5
License Non-renewed/ contract ending	11.1
Didn't obtain / maintain license	22.22
Dismissed	0
Resigned in lieu of dismissal	0

Research Question 4: Are the findings in the local district data consistent with the findings in the state-wide salary supplement data regarding reasons for teacher turnover?

Findings from the survey data from the local school data are not consistent with the teacher turnover data from all 115 school districts in North Carolina. The local data showed that teachers left their positions for other positions in education primarily for salary reasons. This correlates with a hygiene factor using Herzberg's Motivation – Hygiene Theory. The second most important reason for teacher leaving was for professional opportunities or advancement which correlates as a motivator using Herzberg's Motivation - Hygiene Theory. In the state-wide data, only two regions, Region 7 and Region 8, showed a statistically significant relationship between salaries and salary changes and teacher turnover rates. On the state-wide data, neither geographic location nor salary information was significant in the other geographic

regions as to their impact on teacher turnover. The other reasons for teacher turnover are not evident from the Teacher Turnover Report.

Summary

Using frequency reports conducted with *SPSS Version 17.0* software, Research Question 1 was addressed. The researcher provided frequency reports for all 115 school districts from teacher salary and turnover data. Tables 4.2, 4.3, 4.4, and 4.5 display the results based on the Teacher Turnover Reports 2004-2007 from the North Carolina Department of Public Instruction. The researcher found only slight changes in teacher turnover and salary supplement changes over these three years and no pattern to the change in all 115 school districts.

Pearson correlations were used to explore a possible link between teacher turnover rate and salary supplement amounts and salary supplement changes in Tables 4.6 and 4.7. Only one indicator of significance was found in 2005 as turnover was compared to actual teacher salary supplement amounts.

Using a multiple regression analysis, the researcher used location as the central independent variable with salary supplement amounts and supplement changes added to the equation. Tables 4.8, 4.9, and 4.1.1 reflect these results. Region 8 showed a statistically significant difference in years 2006, 2007, and 2008 with and without the salary supplement change data added. Region 8 did not show a statistically significant change in 2007 when the salary amounts were added; yet the data remained the same for Region 8 in years 2006 and 2007. Region 7 only showed a statistically significant difference in 2007. Region 8 showed a statistically significant relationship when salary amounts were added in 2006 and 2007. Region 7 only showed a relationship of significance in 2007. The supplement amounts in 2005 showed

statistically significant relationships in both 2005 and 2006 while the amount of supplements in 2007 showed a statistically significant relationship in 2006.

The researcher compiled data from exit survey data from one local school district in North Carolina. Survey respondents were to answer in one of three areas their reasons for leaving their jobs. Table 4.1.2 reflects the results with resigning for personal reasons as the primary reason for leaving with 47.8%. Within these three areas, teachers were to answer their specific reasons for leaving. These computations are reflected in Tables 4.1.3, 4.1.4, and 4.1.5.

Herzberg's Motivation – Hygiene Theory was applied to the items in Table 4.1.3 to provide more a basis for discussion. The primary reason for leaving in Table 4.1.3 was salary which is a hygiene factor using Herzberg's theory.

The final chapter will provide discussions, conclusions, and possible implications based on this study. With the state-wide and local data, the researcher found several areas of further discussion.

CHAPTER FIVE

CONCLUSIONS AND IMPLICATIONS

Summary of Purpose

The purpose of this study was to examine the effects of locally competitive salary supplements and the turnover rate in all North Carolina school districts and to discuss exit survey data in one North Carolina school district. Based on Herzberg's Motivation - Hygiene Theory, the researcher used teacher turnover rates and salary supplement amounts from each school district in North Carolina and answered the following research questions.

1. What effects do changes in local salary supplements have on teacher turnover in all North Carolina school districts?
2. What effect does location have on teacher turnover, given salary supplements?
3. What are the most significant reasons teachers give for leaving one local school district in North Carolina?
4. Are the findings in the local district data consistent with the findings in the state-wide salary supplement data regarding reasons for teacher turnover?

Summary of Procedures

Reasons for teacher turnover are very complex and individual, making it difficult to generalize the reasons for teachers leaving their positions. This study aimed to limit the scope of the data to annual turnover percentages, annual local salary supplement amounts, and geographic location of the districts. A multiple regression approach was used, with the dependent variable

being teacher turnover and the independent variable being location with local teacher salary supplement data added to the equation. The data was imported into *SPSS Version 17.0* and then a correlation between turnover percentage and changes in local salary supplements was computed. A measure was used to assess whether a relationship exists between teacher turnover and supplement changes for each year. After this bivariate analysis, the researcher conducted a multiple regression analysis with location as the central independent variable, with salary supplement values added to the equation.

By limiting the data to these economic and geographic factors, the study provided information on a large state-wide scale that was then compared to one local school district's exit survey data. A descriptive analysis of the exit survey data from one local school district was provided and compared to the state-wide data. This research revealed the complexity of this particular situation as it takes into account the multiple reasons for teacher turnover and whether or not these reasons reveal themselves in state-wide salary data. By combining macro and micro levels of data, this method allowed the researcher to reveal any connection between state-wide salary supplement data and the reasons teachers provide for their leaving one North Carolina school district.

The results of these data were then described using the conceptual framework of Herzberg's theory. Salaries were included as hygiene factors, in that they contribute to job dissatisfaction and were considered being first-level factors. Second-level factors included responsibility, potential for growth, recognition, and achievement. (Herzberg, F., Mausner, B., & Snyderman, B., 1959, p. 49) Second-level factors were reported by the teachers in the survey data.

This study used secondary data in the form of an annual report derived from the North Carolina Department of Public Instruction. The researcher used data from the annual Teacher

Turnover Report, which is generated by the North Carolina Department of Public Instruction. This report is produced by the Human Resources Division and is prepared for the State Board of Education. Local Education Authorities (LEAs) or school districts are asked to complete a survey on an annual basis and provide data from teachers who are exiting their school district. The secondary data provided an opportunity for the researcher to compare the turnover rate of each school district in North Carolina with the average salary of each school district over a three-year period.

Information regarding local teacher salary supplements was obtained from the North Carolina Department of Public Instruction Finance Division. This Division provided three years of data on the amount of local teacher salary supplements provided to teachers by each school district in North Carolina.

The research employed a multiple regression approach to analyze the effects of changes in locally competitive salary supplements and the turnover rate in all North Carolina school districts over a period of three years. The study also used exit survey data from one specific school district. When compared to the district's salary data, a description of the findings in the individual school district provided insight into the reasons teachers are leaving on a state-wide level and the reasons teachers provide for their leaving one North Carolina school district.

The participants in the exit survey gave information regarding reasons they left their current positions categorized under each of the following headings: resigning to teach in another school district, resigning for personal reasons, resigning for other reasons. Sub-categories under each of the three primary categories provide more insight as to why they made the decision to resign. The administration of the survey was created to provide information to the school district's Human Resources Department to improve teacher retention efforts. These data were made available by the school district.

Summary of Major Findings

Frequency reports were generated from *SPSS Volume 17.0* for teacher salary supplement, supplement changes and teacher turnover rates in all 115 school districts in North Carolina. An analysis of the data revealed that there were changes in teacher turnover and teacher salary supplements from 2004 to 2007. The changes in teacher salary supplement changes increased more from 2004-2005 than from 2006-2007. Teacher turnover rates, however, increased only from 2004-2005 and then decreased for the next two years. These data suggest that in an analysis of all 115 school districts without including geographic location, the changes were only slight and may have been subject to other factors such as economics, supply and demand trends, or specific vacancy needs. All statistical computations were performed using *SPSS Volume 17.0*.

Correlations were run between teacher turnover rates and both salary supplement amounts and salary supplement changes. The researcher found only one indicator of significance in 2005 for both salary supplement amount and salary supplement changes. This is consistent with the frequency information in that 2005 showed the largest increase in teacher turnover and the highest increase in salary supplements in all 115 school districts.

A multiple regression analysis was then performed to determine whether there was a statistically significant correlation among multiple variables: teacher turnover rate, teacher salary supplements from 2004-2007, and North Carolina school districts in all eight geographical regions in the state. Region 8 showed statistical significance in 2005, 2006, and 2007 when teacher salary supplement changes were calculated. When teacher salary amounts were calculated, Region 8 was statistically significant in 2005, 2006, and 2007. Region 7 was also significant with teacher salary supplement amounts in 2007 only. Thus, the multiple regression calculations showed that when grouped by geographic regions, two regions in the western part of

the state showed a correlation between teacher turnover rates as the salary supplement amounts changed.

Using exit survey data from one local school district, the researcher calculated the percentages for the three main reasons listed on the survey for teachers leaving their jobs. Resigning to teach in another district received 44.3%, resigning for personal reasons received 47.8%, and resigning for other reasons received 7.8%. Teachers were then asked to give details within those subheadings regarding why they left. Within the subheading of resigning to teach in another district, teachers listed salary as the primary reason at 17.96% followed by a need for more opportunities for advancement/professional growth at 16.4%, poor relationships with supervisors at 14.84%, and working conditions at 14.8% as the fourth reason. The researcher correlated these reasons to Herzberg's Motivation - Hygiene Theory which resulted in salary as a hygiene factor receiving the highest percentage followed by more opportunities for advancement as a motivator. Both poor relationships with a supervisor and working conditions were hygiene factors. Under the subheading of resigning for personal reasons, retirement was the largest percentage at 41.3%. Under the subheading for other reasons, career change/dissatisfaction with teaching received the largest percentage at 55.5%.

Herzberg's Theory

Herzberg's theory provided a framework that assisted in defining and understanding the possibilities behind how teacher turnover progressed from 2005-2007 across North Carolina, the role that teacher salary supplements may have played in turnover, the role of geographic region on teacher turnover, and how one school district's leavers responded as to why they decided to leave one district. Herzberg's theory is based on the premise that "the opposite of job satisfaction is not job dissatisfaction but, rather no job satisfaction; and similarly, the opposite of job

dissatisfaction is not job satisfaction, but no job dissatisfaction” (Herzberg, 1987) (as cited in Smerek and Peterson, 2007).

This framework was appropriate for this study because Herzberg clearly defined salary as a hygiene factor contending that dissatisfaction with salary would lead to job dissatisfaction overall. Hygiene factors are first level factors in that they must be met before job satisfaction can occur. It is the combination of hygiene factors and motivator factors that will provide working conditions that are satisfactory.

The teacher turnover data from across the state of North Carolina found the two western-most regions to show a statistically significant relationship between turnover and salary supplement amounts over three years. The findings from the exit survey were also consistent with Herzberg’s theory in that the data showed that salaries were the most selected reason for teachers leaving the district. Salaries, being a hygiene factor, must have been greater in another district or another profession. The second most selected reason were opportunities for professional growth which was categorized as a motivator factor. The almost equal selection of these reasons by teachers shows that there is indeed a need to decrease hygiene factors and increase motivator factors at the same time in order to retain teachers.

Possible Rival Hypotheses

While the data from the *SPSS* reports do not show a statistically significant difference between teacher turnover and salaries as a trend across the state of North Carolina, two regions showed a statistically significant difference in the western part of the state. Regions were used in the study to determine whether or not the movement of teachers may be due to location. A possible rival hypothesis for these two regions may be that the proximity of the districts allows for easy commuting opportunities for teachers, possibly more so than in other parts of the state.

Region 8 was statistically significant for both 2006 and 2007 for teacher supplement changes and in all three years for teacher supplement amounts.

Both Region 7 and Region 8 are at the western-most part of North Carolina and therefore, border several other adjoining states. Region 8 borders South Carolina, Georgia, and Tennessee. Region 7 borders both Virginia and Tennessee. This close proximity to other states may be a reason that teachers were more likely to leave these districts as salary supplements changed. No other regions in North Carolina touch more than one other state. Teachers in Region 7 and Region 8 had more options for local employment readily available as nearby states may offer higher salary options.

Another possibility for these two regions to show a significant relationship between salary and turnover rate might be that the teachers were changing districts in search of what Herzberg describes as motivating factors such as responsibility, advancement, or recognition. Since Herzberg study found that these characteristics must be present for employees to find job satisfaction, these regions may have been more lacking in these factors than other regions. Since local survey data was not available from these districts, the specific reasons are unknown; however, there was a statistical relationship between turnover and salary.

Other demographic elements may have contributed to the statistical outcomes in these districts including the age of the teachers, teacher qualifications, the demographics of the students, and the local socioeconomic status of these regions. The literature in Chapter 2 found that teachers leave rural and low-socioeconomic schools at a higher rate than urban and high-socioeconomic schools. (Hanushek, et al., 2001) Student demographics and achievement were not included in this study; however, they may have played a part in the outcomes as only two regions were found to have a significant relationship between turnover and salary and provide material for further research in these regions.

While Herzberg did find salary to be a statistically significant dissatisfying factor, his study was with engineers and not teachers. As previously noted, people in different professions place different values on different factors. Teaching is a unique profession in which the product is intangible and the relationship between the teacher and student is a factor in and of itself. Salaries in general may not be as important to teachers as they are to people in other professions. More research and data would be needed to make this assumption.

The local survey data also reported that of teachers leaving to work in another district, their primary reason was for salary at 17.96% followed closely by professional opportunities at 16.4%. While correlations were not run on this data, it did provide the researcher with the details from one of the 115 school districts in North Carolina. The district with the exit survey data was not located in either Region 7 or Region 8 where there was significance related to salary; therefore, the results were not high enough to indicate significance due to salary. The survey was not based on Herzberg's theory and did not equally provide teachers with reasons from both categories; however, the survey data did show the importance of salary along with opportunities for professional growth and advancement amongst the teachers who left to go to other districts. This may provide insight as to why more districts were not found to have a significant correlation between salary and turnover. The reasons for leaving may have included motivating factors as well. Additionally, motivating factors may have been the reason teachers remained in their positions despite the changes in salary supplements.

School climate cannot be replicated. While teachers may receive more pay to leave their positions to work in another district, they may not be willing to give up what they consider to be priceless: the culture, relationships, and climate of their current school. Perhaps teachers in North Carolina were more so satisfied with the motivating factor of climate that they were not willing

to give it up for a hygiene factor such as salary. These specific details for these reasons are unknown in this study.

The local survey does not measure the reasons that teachers may have found satisfaction in their jobs. For example, a person may have been dissatisfied with their salary, but satisfied with their relationship with their boss. If both of these factors were combined, it would be difficult to determine whether the person was satisfied or dissatisfied. Therefore, the more general information as to why a person left their job may be more accurate in that it simplifies the responses. They left for one of three reasons: to teach in another district, personal reasons, or other reasons. Those leaving for personal reasons or other reasons may not have been dissatisfied at all. However, the detailed information under each category is especially important to school administrators who wish to alter their work settings to increase job satisfaction.

When discussing the possible existence of rival hypotheses to explain the lack of statistically significant positive correlation between salary and teacher turnover rates in six out of eight regions in North Carolina, the complexities of the situation should be taken into account. As Chapter 2 describes, teacher turnover is complex in that it includes a variety of factors including student demographics, geographic location of the school/district, teacher credentials, teacher years of experience, building-level leadership, and local, state, and national policies. The more specific the study, the more exact the results. This study was focused on both the macro level using state-wide data and on the micro level using one school district to see if a relationship existed. Several factors were not included, such as those listed above, which would have given the researcher more information and possible conclusions for rival hypotheses. The cyclical nature of teacher turnover is that one factor influences the other, thus resulting in higher or lower teacher turnover. Given these outcomes, there are possible implications for public schools.

Implications for Administrators

Factors such as student demographics, teacher years of experience, local and state policies, geographic location, union structure, and school culture have direct implications for school administrators and can impact the decisions they make. As stated in Chapter Two, the impact of school level administration directly impacts the working conditions of the school. Herzberg (1959) has his own implications for management: the job should have sufficient challenge to utilize the full ability of the employee, employees who demonstrate increasing levels of ability should be given increasing levels of responsibility, and if a person cannot be fully utilized, there will be a motivation problem. Translated into the school setting, administrators have direct decision-making authority over the types of tasks that teachers undertake. Teachers want to be recognized for their work, included in the decision making processes of the school, and challenged professionally in order to find job satisfaction, according to Herzberg's theory. The exit survey results supported Herzberg by finding that the second and third most listed reasons for teachers leaving at 16.4% and 14.8% were that teachers needed more opportunities for advancement and professional growth along with improved working conditions. Managing these tasks will lead to a higher sense of motivation by the employees.

While this study did not include building leadership factors, their impact was seen in the teacher survey data as 14.84% of the teachers surveyed listed poor relationships with their supervisors as reasons to leave. Relationships based on trust must be built over time. If building level leadership is also experiencing high levels of turnover, schools are simply moving in an ocean like a ship with no one at the helm. These schools can easily run off course because of a lack of stable leadership for a sustained period of time. Similar incentives, opportunities, and evaluation of effectiveness should be in place for administrators as it is for teachers to ensure that the support and incentives are in place for them as well.

Herzberg's theory supports the notion that working conditions are a combination of both hygiene and motivator factors. This study's results are supportive of that fact as well. The most reported reason for leaving was for salary reasons which is a hygiene factor followed by three motivator reasons: the need for more opportunities for advancement and professional growth, poor relationships with supervisors, and working conditions. Because Herzberg's theory is based on the understanding that both hygiene and motivating factors must be addressed at the same time, the implications for administrators are that they be cognizant of these factors and their impact on teachers as a group and on an individual basis as well. Factors that may seem important to one person, may not be important to another.

One strategy found in the research that intrinsically motivates workers is to work to improve building-level leadership. As school leaders make decisions that affect teachers, Herzberg advises that "a supervisor is successful to the degree to which he focuses on the needs of his subordinates as individuals rather than on the goals of production" (Herzberg, Mausner, & Snyderman, 1959, p.10). By learning what motivates individuals rather than simply improving the working conditions of whole groups, people will be intrinsically motivated to perform better. The exit survey data supports the fact that individual factors are behind the reasons teachers decide to leave or stay. The results of this study should be taken into consideration by school administrators when providing feedback to individual teachers regarding performance and when setting goals with teachers for their professional growth.

Administrators make decisions as to how to supervise their teachers each day. Some situations may require more direct supervision, while others may be best controlled indirectly. The indirect method involves manipulating the working conditions and processes so that the conditions will produce the most satisfied and committed workers. Providing teachers with opportunities for professional growth, collaboration, decision making, and advancement is a

more indirect leadership style and will cater to more of the motivator factors in Herzberg's theory, and therefore, more job satisfaction. Additionally, a more direct leadership style might involve integrating individual recognition for performance or contributions to the profession as a part of the school culture.

A large part of administration is accountability. While job satisfaction is important, holding teachers accountable for effective teaching practices while maintaining positive working conditions is vital to improved student performance. Finding a balance between motivator and hygiene needs while monitoring teacher effectiveness is another challenge for administrators. The literature supports the fact that teachers struggling in their first year are more likely to leave than teachers having a positive first year experience. (Feng, 2005; Guarino, et al., 2006; Boyd, et al., 2008) However, once teachers are in their second or third year, the chances of them leaving are less. Therefore, strong support programs should be in place along with proper evaluation systems that will quickly remove ineffective teachers from the classroom. Herzberg's motivator factors support opportunities for growth, recognition, and responsibility. This study showed that the second reason teachers left the surveyed district was for more opportunities. Effective teaching should be rewarded and feedback should be substantive. Quality teacher feedback through formal and informal evaluations can be powerful tools for school improvement.

Success can only be measured if the goals are clearly defined. The research in Chapter 2 documents that teachers want to work on a team that is headed in a common direction with common goals. (Guin, 2004; Darling-Hammond, 2003, Ingersoll & Kralik, 2004). This can only be accomplished by providing feedback periodically and by creating a team dynamic within the school building. Insisting that teachers work toward a common goal provides guidance, but also gives a sense of accountability and importance to the work of the school.

As stated earlier, Herzberg (1959) suggests to supervisors that job enrichment is important noting that “employees who demonstrate increasing levels of ability should be given increasing levels of responsibility.” Assigned tasks should have enough challenge to fully utilize the employee or the employee will lose their internal motivation. Of teachers surveyed in this study, 16.4% left their district to teach in another district to find more professional opportunities and opportunities for advancement. Evaluations provide administrators opportunities to individualize professional development based on the needs of teachers. Teachers also need positive feedback about their performance so they know when they are performing well. Often, teachers are evaluated; however, their specific strengths are not mentioned. Creating a relationship between principal and teacher that is about continuous professional improvement will encourage teachers to stay. Extrinsic benefits that directly align with Herzberg’s hygiene factors can be addressed to produce situations where there is no job dissatisfaction. Alternative methods of reward such as salary, financial incentives, and opportunities for professional development have been highlighted in Chapter 2. (Honawar, 2008). As a way to decrease the role of hygiene factors, school administrators may want to consider some of these ideas as options. Struggling to find a balance between hygiene and motivating factors is the impending challenge for school administrators.

Implications for Policy Makers

Research Question 1 simply asks about the effect of salary supplement changes on teacher turnover. The decision to raise or lower a teacher’s salary is a result of several factors. Economic conditions such as taxing authority, the economic climate, instructional decisions, class size, and facility needs are just a few of the immediate factors that affect whether or not a local school district can find it feasible to raise salaries. In the study, the researcher did not find a

trend across the state as to the significance of teacher salary changes on teacher turnover other than the two western-most regions. Therefore, other factors must be involved. As mentioned previously, job satisfaction consists of a complex mixture of factors. Perhaps policy-makers should be focused on those policies that influence motivator factors such as opportunities for advancement and professional growth and recognition for individual or group accomplishments.

Teaching is different from other professions in that teachers do not produce a tangible product. Their donation to the growth of a student is partial in nature because, rarely, if ever, does a teacher move along with a student throughout life or even to other classes or schools to see the impact they have had on the student. While many teachers enter the profession with the belief that they are impacting students and are working for the common good, it is easy to lose sight of that vision within the four walls of a classroom. Other intrinsic variables must be present for teachers to feel satisfaction such as opportunities for professional growth, recognition, and acknowledgement. Perhaps this is why Herzberg's motivator factors are so important to finding job satisfaction. They remind teachers of why they pursued this career. Policy makers should embrace the notion that teachers are highly impacted by policies that prevent them from experiencing intrinsic rewards. In other words, some policies may increase teacher dissatisfaction because they affect the hygiene factors in a negative manner such as set salary structures, prevent collaboration with peers, place barriers between supervisors and subordinates, and structure the work day or work year to prevent professional growth opportunities. This research highlights the fact that motivator factors are important and should not be discounted or taken lightly. In the teacher survey, teachers listed a lack of professional growth opportunities as the second highest reason for leaving their current position.

An investment in human capital is the message being sent to policy makers and administrators. Teachers need sustained professional development, effective management of

their performance, and reward systems that compensate those who perform the best. The survey results found that 16.4% of teachers who left the local district cited a need for more opportunities for advancement and professional growth as the reason. This was the second most reported reason for leaving. Policy makers may want to analyze the current time that teachers have to work together and develop professionally during their regular working hours. While this would be a major theoretical shift for many school districts, it would send a clear message to teachers that their professional growth is a priority.

Opportunities for advancement into other positions or into teacher leadership roles should also be considered. Policies that allow teachers to be mentors, model teachers, collaborate with each other, or serve in leadership roles will meet the motivator needs in Herzberg's theory of advancement and professional growth and might encourage teachers to stay.

The recruitment of new teachers is also driven by policies. Public education has followed the lead of business and industry by offering signing bonuses, additional pay for teaching in high poverty schools, housing allowances, loan forgiveness, tuition reimbursement, and merit pay. Recent efforts to attract new candidates to teaching and to administrative roles through organized programs such as New Leaders for New Schools, the New Teacher Project, and Teach for America have introduced new blood into organizations. However, these programs must be fully supported and implemented at the local level. Partnerships with local universities may also yield results when a direct pipeline of candidates who receive special training and tuition reimbursements for that training. Policies should support grant opportunities as well. The Knowles Science Teaching Foundations offers fellowships for teachers who work in math and science fields and provides grants to teachers who will teach in a district for three years.

Once teachers are recruited, keeping them is the next challenge for policy makers and administrators as well. Policy makers are essential to ensuring that there is equity in the area of

support for new teachers especially those entering low-income or low-performance schools. Mentoring programs that support new teachers during their first two years clearly send the message that we're going to help our teachers build a strong foundation for a long-term career to ensure that more students are taught by experienced and insightful veteran teachers. While this study did not include the demographic information for teachers, age and experience may have played a role in teacher turnover. Ensuring that our schools are balanced with both young and veteran teacher will support the mentoring process.

Teacher unions and other bargaining groups often ask for higher teacher pay; however, the results of this study do not show a trend of statistically significant relationship between turnover and teacher pay in all regions across North Carolina. If local districts want to consider higher salaries, performance pay, or other creative financial reward systems, policies must support their efforts. Funding for innovative reward programs would support local districts in their efforts to decrease teacher turnover and to attract teachers as well. One of the major responsibilities of policy makers is to ensure proper start up and long term funding of programs. While this may be easy to initially plan, changing attitudes of tax payers and politicians regarding funding may deplete funding sources. Regular monitoring of these programs and their effect on student achievement and teacher turnover to ensure effectiveness is important to convincing the public that they are worth funding.

Policy-makers may also want to question whether the one-size-fits-all approach is the most effective or not. Across states with a wide range of demographics and in larger school districts, policies to address individual issues may be necessary. Since Region 7 and Region 8 showed a significant relationship between salary and turnover in this study, the importance of understanding how state-wide and local policies might lead to a greater understanding as to why these regions had these results and others did not. Special incentive programs and more

flexibility for local hiring and firing practices will benefit these schools as they attempt to reduce teacher turnover. In short, policy makers should be very familiar with their data. They should be able to recognize areas of high teacher turnover, out-of-field teaching, student achievement, years of teacher experience, and the demographics of their student populations.

Overarching policies that remove the local control over teacher quality are damaging to schools. Because of No Child Left Behind Act sanctions which include removing principals from their jobs or rewarding schools with financial incentives, principals and teachers have more incentive than ever to have concerns about the effectiveness of teaching in their schools. In order for teachers to feel a sense of autonomy and responsibility, they must be held accountable at the school level by an administrator who works with them on a daily basis. Policies that provide local control over teacher evaluations while at the same time supporting efforts to promote teacher leadership and professional development opportunities and efforts to remove ineffective teachers are crucial to keeping effective teachers in the classrooms. Efforts to address both hygiene and motivator factors must be included in policies.

While teacher demographics were not included in this study, the age, experience, and qualifications of teachers may have played a factor in teacher turnover as well. Policies should support veteran teachers; however, prevent veteran teachers from using their marketing skills to gravitate toward schools with fewer minorities and low-income children. The research in Chapter 2 supports the trend that the most experienced and qualified teachers often choose to teach the highest performing students.

As a reflective practice, policy makers should observe and review their own process for creating policies. Herzberg's theory is developed around the concept that feelings of appreciation, leadership opportunities and recognition all lead to job satisfaction. "Empowering teachers and giving them more influence over school and teaching policies are also associated

with teacher retention” (Shen, 1997). Teachers who are empowered to make decisions are having their motivator needs met by providing opportunities for growth and recognition.

Student Achievement Implications

Principals know the importance in staff stability as it keeps a sense of continuity in relationships, instructional philosophy, and curriculum development from year to year. All of these issues have a direct impact on student achievement as they directly impact the effectiveness of instruction in the classroom. Research Question 3 asked: What are the most significant reasons teachers give for leaving one local school district in North Carolina? The researcher found that salary did not play a significant role in teacher turnover across the state but only in two regions; however, it was listed first in the local survey followed closely by professional opportunities. Teacher perceptions about why other teachers leave are important as well.

Teachers perceive that their colleagues leave their jobs for a variety of reasons. Interestingly, the perceived reasons for teachers leaving are opposite in nature to the reasons teachers give for staying. (Certo & Fox, 2002) The relationships with students contribute greatly to stabilizing the teaching workforce and preventing turnover. Fortunately, students are a huge motivator for teachers, as they are the “work itself”; however, this study revealed that administrators must pay attention to overall working conditions as teachers want opportunities for professional growth, recognition, and input into decision making.

If effective teachers need experience to improve their level of effectiveness, then turnover rates have a direct impact on student achievement. The preceding literature has already discussed several studies that indicate that turnover rates in schools with high numbers of minority and low-income students are higher than in schools with high numbers of white students and high-performing students. This is powerful data about the impact of effective teachers on student

achievement. The results of the study showed that the two western-most regions in North Carolina showed a relationship between teacher turnover and salaries. It would be important to understand if the turnover was also a factor of high or low student achievement in these local districts. The literature supports that teachers who did not finding as much success as other teachers showed a natural attrition rate during their first few years. However, if those same ineffective teachers simply transfer to another school, a different set of students will receive inadequate instruction. The literature also found that teachers typically move from schools with low-performing students to schools with higher achieving students which further exacerbate the achievement gap. Efforts to reduce turnover in teachers who have demonstrated effectiveness are important to student achievement. Once again, administrators should focus on support programs for new teachers and opportunities for teachers to earn responsibility, recognition, and growth.

School leadership should also be familiar with local school teacher turnover data to help monitor and understand the reasons for teacher turnover. Exit surveys, such as the one employed in this study, provide administrators with insight into how their leadership decisions are affecting teacher job satisfaction. Developing a culture of motivator factors that encourage teacher retention and recruitment is important; however, this cannot be accomplished without a consistent process of examining student achievement data and surveying teachers about job satisfaction information.

Implications for Future Research

This study supported the conclusion that teacher turnover had a statistically significant relationship in two of eight regions in North Carolina. These data, however, may be based on a variety of factors. The decision to leave or stay in a teaching position was a combination of Herzberg's motivator and hygiene factors amongst the teachers in North Carolina from 2004-

2007. Since the researcher only found that salary played a significant role in two of the regions across the state, other factors were being considered by the teachers who left their jobs in the remaining six regions. It is important for both future research and policy development that we learn which working conditions are most important to teachers. Ongoing research in this area is important as we know the educational environment is rapidly changing. The current economic and political climate of an organization and its community play significant roles in making decisions about leadership, salary, working conditions, and policies in general.

Future research may want to focus only on Region 7 and Region 8 to determine if demographics, socioeconomics, teacher qualifications, teacher experience, or geographic proximity to neighboring states were factors in the outcome of this study.

The conditions of this study were simplistic in that they only considered teacher salaries and turnover rates. The survey was administered to only one of the 115 school districts. In order to draw more definitive conclusions regarding the link between teacher salary supplements and teacher turnover rates, it would be beneficial to conduct a local survey instrument aligned with Herzberg's Motivation - Hygiene Theory in each local school district along with analyzing the teacher turnover rates and salaries across the state. Furthermore, research examining the impacts of turnover and turnover trends within schools would also add to our understanding of factors affecting turnover. Ingersoll (2001) suggests that future studies be conducted using national data to examine the impact of teacher turnover on school community and school performance. His interests also lie in how the impact of teacher turnover affects the reputation of a school and how it impacts parents as well.

Additionally, more research is needed regarding district and state-wide policies that may inadvertently facilitate teacher turnover. Further research is needed to determine if a higher salary supplement difference between school districts would change the teacher turnover rate.

Determining whether or not there is a specific dollar amount for which teachers would overlook positive working conditions and other positively correlated factors associated with job satisfaction is important to understanding the role that salary plays in turnover. Since teachers are not leaving for salary reasons alone, finding the dollar amount that would create a statistically significant difference would be important as states and districts attempt to create incentive programs, signing bonuses, and merit pay systems.

As an additional factor, the researcher may include the ability to discriminate between teachers who left a district and those who moved within a district to a different school. The same factors listed above can be applied to individual schools such as demographics, local economic conditions, and information about the teaching staff. The small amount of changes salary supplements, which actually decreased and then slightly increased again from 2004-2007, along with the survey data that listed salary as the primary reason for going to a different district leads to the conclusion that local conditions vary across the state and within school districts. Insight into these factors would be beneficial to practitioners and researchers as well.

The critical-incident method of gathering information was used by Herzberg in his original studies. This method might be replicated by a researcher to simply gather the thoughts of teachers about what makes them happy or unhappy in their jobs. By replicating this method, the researcher would more easily apply Herzberg's theory to the outcomes. The other variables of salary and turnover rates could be added to substantiate the data gathered from interviews with teachers.

As previously mentioned, just as teacher turnover negatively impacts students, so does principal turnover. It would be interesting for future research to apply Herzberg's theory to the information regarding principal turnover and include the factors of salary and geographic location. Because North Carolina administrators are employed under contractual agreements,

there is more room for variance in salaries amongst school principals across the state than there is within the teaching ranks. The results, when applied to Herzberg's theory, might be similar to that of teachers or different depending on the salary data and geographic region.

Effective student instruction includes student participation in their learning. Engaging students in their own learning means that they must have choice in how they learn, a voice in the activities in the classroom, consistent and periodic measures of their growth, opportunities to solve problems, and conditions conducive to collaborate with their peers. Herzberg's motivators parallel these factors. Teachers are more satisfied when they have a voice in the school, the ability to make choices, opportunities to work together, opportunities for advancement, and receive recognition for their efforts. These factors mirror Herzberg's motivator factors and may very well be applied to classroom settings in future research. An interesting study would be to research student perceptions of "learning satisfaction" in their classrooms as they apply to Herzberg's theory. Additional factors to consider may include demographics and student grades and test data.

Conclusions

Rather than developing wide-spread policies and procedures for reducing teacher turnover, policy-makers and administrators should work hand-in-hand to create positive working environments for teachers in their own settings. The teaching profession has faced many challenges based on policies, public perception, and cultural norms after over 100 years of public education in America. This study provides evidence that the topic of teacher turnover is complex and requires a combination of both motivator and hygiene factors as outlined by Herzberg's Motivation - Hygiene Theory. Herzberg's theory is simple in that job satisfaction is either intrinsic or extrinsic in nature; however, this does not give the complex reasons that some

teachers leave and others stay. Herzberg himself even states that individual employee strengths and needs must be considered to create conditions resulting in job satisfaction. Developing multipronged strategies to reduce teacher turnover is important to successful teacher retention efforts. Some combination of salary incentives along with tuition for graduate programs, common planning time with peers, mentors for new teachers, and opportunities for leadership and advancement is more likely to yield success as the reasons for teacher turnover are complex as this research shows.

The absence of statistically significant positive correlations between teacher salary supplement and teacher turnover rates in six out of the eight geographic regions in North Carolina in this study may be a result of:

1. The absence of information regarding other factors such as: teacher credentials, teacher experience, school district demographics, additional incentive information, leadership credentials and longevity, and teacher survey data from all districts.
2. Economic, political, and cultural conditions in individual regions that may have affected salary supplement changes.
3. Geographic location of the regions including salary information from neighboring states.

While the survey from the local school district was not directly aligned with the framework used for this study, the use of secondary data from this survey supports the fact that local data may provide more insight into the situation than state-wide trend data alone. The results of the survey showed that while the difference in salary supplement may not have been significant, it was an important factor to teachers when deciding to stay in or leave their current positions.

Listed below are concluding recommendations as to what researchers can now do with the concept of teacher salary and teacher turnover:

1. Conduct additional studies that provide teacher survey information along with state-wide data to deepen the understanding of statistical information about turnover.
2. Include additional factors regarding characteristics of teachers, students, and leaders in their study.
3. Continue to make direct relationships between reasons teachers leave and Herzberg's Motivation – Hygiene Theory to assist policy-makers and administrators make better decisions.
4. Replicate Herzberg's method of research and compare that data to qualitative salary and turnover information along with survey data.
5. Further study the two regions that showed a statistically significant relationship between turnover and salary supplements to better understand the reasons why significance was only found in these regions. This may include salary information from neighboring states, teacher demographics, student demographics, and student achievement.

Policy makers need to be aware that teacher turnover happens as a cost to schools. The cost is more than simply financial. It disrupts the organization as a whole which ultimately impacts classrooms. Teacher job satisfaction is important to decreasing the amount of turnover and while both hygiene and motivator factors must be considered, administrators and policy makers should pay particular attention to the importance teachers give to intrinsic or motivator factors overall.

APPENDIX

_____ School System Certified Employee Follow-up Survey

Last year, your employment ended with _____ School System. We would like to know why you left so that we can make the working environment in the _____ School System a positive one for everyone.

Your response is anonymous. Reasons are grouped by category.
Please select one box, and check all that apply within that box.

_____ ***Resigned to teach in another school district.***

Please provide your reason(s) for leaving to teach in another school district. **Mark all that apply in this box.**

- _____ salary
- _____ ABSS policies
- _____ poor relationships with supervisor(s) / administrator(s)
- _____ needed more opportunities for professional advancement
- _____ working conditions
- _____ change job role
- _____ poor relationships with peers
- _____ needed more opportunities for recognition
- _____ needed different insurance / benefits
- _____ distance from home / geographic location
- _____ needed more opportunities for professional growth

_____ ***Resigned for personal reasons. Mark all that apply in this box.***

- _____ retired
- _____ family relocation
- _____ family responsibilities / childcare
- _____ to continue education full-time
- _____ health reasons / disability

_____ ***Resigned for other reasons. Mark all that apply in this box.***

- _____ dissatisfied with teaching / career change
- _____ non-renewed / probationary contract ending
- _____ didn't obtain / maintain license
- _____ employed, but in a non-teaching position in education.
- _____ end of contract
- _____ dismissed
- _____ resigned in lieu of dismissal

Please place this card in the mail by **October 19, 2007.**

Thanks again for your help!

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