THE ECONOMIC AFFECT ON TEACHER EFFICACY

by

IMANI AKILAH BAILEY

(Under the direction of Sheneka M. Williams)

ABSTRACT

This research documents how a metropolitan school district in Georgia has been affected by the economic downturn from 2007 - 2012. This study was to determine how teacher efficacy was affected as a result of a reduction in a school district's budget and is intended to provide school district leaders and school district policymakers with research to assist them in determining how to reduce the budget with the least impact on teachers.

This study relied on analysis of school district financial data, descriptive statistics, and factor analysis to answer the research questions. Annual reports, budgetary data, and national, state, and local economic data were utilized to analyze the changes in the economy and how the school district was affected. Descriptive statistics, factor analysis, and a series of one-way analysis of variance were used to analyze the data collected from the teacher efficacy survey. High school teachers from the metropolitan school district were given an opportunity to complete the survey.

The data gathered led to three primary findings: 1) the school district was reactive by implementing changes towards the end of the great recession; 2)

teachers individual efficacy level is moderate and they feel they can positively impact students learning; 3) overall morale in the school district is low. These findings suggest the importance of planning for difficult economic times, addressing teacher attrition issues throughout the district, and improving teacher efficacy across the district.

INDEX WORDS: Teacher Efficacy, Teacher Attrition, Great Recession, Resource Allocation

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DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2015

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August 2015

DEDICATION

To my parents, Randall and Jean Bailey. You have been with me from day one. Thank you for all the love and support you have given me throughout this and every journey that I have ever undertaken. Thank you for driving me to class when I wasn't able to drive, caring for me while I was in my cast, giving me the look (like only you can Daddy) when I was a little behind on my dissertation, feeding me when I needed nourishment, and nudging me when I needed encouragement. This would not be possible without you.

ACKNOWLEDGEMENTS

What God has prepared for you, is better than what you're going thru
So run this race with determination, God has prepared your destination
Don't give up, wait on Jesus, I'm telling you
There's blessing on the other side of through
-On the Other Side of Through, James Bignon

This has been a long journey and there are so many people that have supported me along the way. To my parents, Randall & D. Jean Bailey, I do not know where I would be without your love, support, and encouragement. You instilled the importance of education in me and made learning an exciting experience. Dr. Candora Seay, Mrs. Cynthia Terry, and Mrs. O. Jackie Adams thank you for being part of my village. You continue to care and nurture me as you do your biological children. You taught me to honor my commitments and always do my best. Thank you all for standing in the gap for me, when I asked and even when I did not realize that you were doing it.

Though I was not blessed to have biological sisters, God placed ladies in my life that have become my sisters. Dr. Carolyn King Stephens, Linda Douglas, Starlin Walker, Stephanie Griffin, and Amesha Cooks, you kept motivating me, you allowed me to have my breakdowns and you built me right back up so I could keep pressing forward. Along with the amazing ladies of the Spring 98 line of the Alpha Mu Chapter of Delta Sigma Theta Sorority, Incorporated, you offered words of inspiration when I was frustrated, and allowed me to talk thru issues I faced personally and professionally as I traveled back and forth to Athens. To my three

best friends, Michelle Carter, Senetra Haywood, Aaliyah Shafiq words cannot express what you have done for me. Thank you for providing a quiet place to write and edit, feeding me while I worked, praying for me, and allowing me to fall asleep on your couch when I needed to be rejuvenated.

Erin Hamler, Ukoha Kalu, Ukaku Kalu, and Kalu Kalu – Suki, Ginger, and I thank you! I would not have been able to make it through this process without you all helping me take care of them. You guys have meant so much to me over the years. I am so proud of the adults that you have become and all that you have and will accomplish.

Dr. Ain Grooms, we began this journey together. Thank you for the friendship that you have provided. You made my years in this program enjoyable. We were able to motivate each other and you always made time for us to enjoy a meal together when I would come to Athens in the middle of the day. The small things mean so much!

To my dissertation committee members, Dr. Sheneka Williams, Dr. John Dayton, and Dr. Elizabeth DeBray thank you for the guidance, support, and words of encouragement throughout this study.

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CHAPTER 1

INTRODUCTION

Changes in the economy affect school district funding. When the economy is robust, school districts are able to increase the per pupil expenditures, utilize funds to hire additional teachers and support staff, purchase instructional materials, and adequately compensate all employees. During difficult economic times, federal, state, and local budgets must be modified, causing school districts to determine how to adjust their overall budget. Finding significant cost savings to school systems proves to be challenging because areas that directly affect students are difficult to adjust. To decrease spending, school systems must increase class sizes, decrease transportation routes, reduce support staff, and reorganize the central office (Johnson, 2012). Spending reductions may also include the implementation of furlough days, salary reductions, and discontinuing supplemental programs or partnerships with external organizations. Oftentimes school districts' budgetary difficulties means a portion of the financial burden is passed to the students. In an attempt to offset budget reductions for extracurricular activities, student fees are increased to help with the needs of the programs (Reschovsky, 2004). An increase in fees is beneficial to extracurricular programs because each organization is able to purchase items needed for the school year.

Historically, local funds have not comprised the majority of the revenues available for school districts. However, since 2003, local funds have accounted for

more than 50% of revenues for school districts. Local economies have been affected by the declining housing market, unemployment, and other issues that pertain to the municipalities, which has led to declining revenue for the locality and the school districts. When school districts are faced with budget shortfalls, they must determine how to decrease spending without significantly affecting the instructional program. The economy has improved recently; yet, school districts are still operating at a deficit. School districts continue to adjust budgetary shortfalls in an effort to situate themselves better financially (Georgia Department of Audits and Accounts, 2013).

State funding is allotted annually to each school district in Georgia. The Georgia Board of Education oversees 180 school districts in Georgia, which include 2,246 schools and 1,678,012 students and 112,460 teachers (Georgia Department of Education, 2015; Governor's Office of Student Achievement, 2015). The composition of the State Board of Education consists of 14 members: one from each congressional district and the state school superintendent. The State Board of Education is responsible for ensuring "that laws and regulations pertaining to education are followed and that state and federal money appropriated for education is properly allocated to local school systems" (Georgia Department of Education, 2012).

Guilford County, Georgia

With over 96,500 students, the Guilford[1] County School System (GCSS) is the third largest school system in Georgia (NCES, 2015). Located east of Atlanta, Guilford is a culturally diverse county. The racial makeup of the school district is majority-minority, with a student body of 67% African-American, 15% Hispanic, 6% Asian, and 2% multiracial. The non-minority population consists of 10% White students. Of the 96,500 students, 73% are eligible for free or reduced lunch, with 9% receiving special education services, and 14% qualifying as English Language Learners. Of the 74 elementary schools, 21 middle schools, 21 high schools, and 21 centers throughout the district, 100 schools (59 elementary schools, 16 middle schools, and 16 high schools) are Title I schools (Guilford County School District, 2015; Governor's Office of Student Achievement, 2015).

Guilford County School District[2] (GCSD) has undergone tremendous changes throughout the district. The district has had to work through crises with the previous leadership, restructuring throughout the district, and monetary issues that date back several school years. Since 2010, the district has changed leadership three times. GCSD had an interim superintendent and two superintendents. Six of the nine school board members were suspended by Governor Nathan Deal and replaced by appointees during the 2012-2013 school year (Badertscher & Rankin, 2013). Although GCSD has experienced several financial and administrative changes, the

[1] The school district name has been changed to Guilford to protect the anonymity of the district studied.
[2] Guilford County School System (GCSS) was changed to Guilford County School District (GCSD) in 2012.

district remains accountable for students working towards state and national standards (GCSD, 2012).

Students in GCSD must meet all federal and state testing criteria, which includes passing the End of Course Tests (EOCT), which are aligned with course standards, and the Georgia High School Graduation Test (GHSGT) for high school students. Students that entered high school prior to Fall 2011 must pass five parts of the GHSGT – Writing, Mathematics, Language Arts, Science, and Social Studies. Students that entered high school during or after the Fall of 2011 must pass either the EOCT in their classes or the GHSGT. There are currently nine courses that have EOCTs that account for 20% of the overall course grade. If a student does not pass the EOCT in a particular content area, the student must take that portion of the GHSGT. All students are still required to pass the Writing portion of the GHSGT. Prior to graduating, students have up to five attempts to pass the GHSGT. Students may attempt to pass the GHSGT during the summer immediately after graduation to be considered a four-year high school graduate. Students that do not successfully pass the EOCT or GHSGT will receive a Certificate of Performance until the test has been passed (GCSD, 2012; GADOE, 2012).

Each school in GCSD also has a Consolidated School Improvement Plan (CSIP) created by school administrators and teachers in each school that outlines annual goals for the year. The CSIP is a living document that is reviewed annually to document progress made toward goals and eliminate goals that may no longer be relevant to the school (GCSD, 2013). The CSIP is available to all stakeholders.

Schools are held accountable for goals in the CSIP and meeting the testing requirements for students previously mentioned.

As a measure of accountability, schools are given annual goals to measure how students perform academically. These goals determine if schools are deemed successful or unsuccessful. For students to reach these goals, there are some areas that need to be considered – teacher efficacy, teacher attrition, and resource allocation, all of which directly impact student achievement. Although schools can address teacher efficacy, teacher attrition, and resource allocation, and make adjustments for the benefit of students, some external factors such has "home environment, family background, and parental influence" are beyond the schools' control (Dembo & Gibson, 1985, p. 173; Lemke, Hoerander, & McMahon, 2006; Parkinson, 2009).

Statement of the Problem

Over the last several years, the declining economy has significantly affected the educational system (Ward & Dadavan, 2009). According to Sielke (2011, p. 175), "Since 2004, school districts have been trying to make do with much less as this recession continues to force more cuts." Changes made in the educational system due to the economy not only affected students, but also the efficacy of teachers in the classroom. Furlough days and salary reductions have impacted teachers directly. One would assume with increased responsibility and accountability, salaries would increase rather than decrease. Given the economy, increasing salaries is not an option; further still, decreasing salaries with the other changes that have been implemented does not affect efficacy in a positive manner (Johnson, 2012).

Due to the declining economy, teachers have higher enrollment in their classes regardless of the size of the room or content taught. Supplemental resources are more difficult to obtain which can impact various types of learners in the classroom. Policymakers are generally concerned with how to effectively use financial resources to improve education, generate revenues to maintain a balanced budget, and increase accountability in education (Reschovsky, 2004; Ward, 2009). This study is intended to contribute to the literature on how teacher efficacy is affected by economic changes in one of Georgia's largest urban districts. More specifically, this study examines how school district budgets might be adjusted so that teachers and instructional programs are protected during times of economic hardships.

During difficult economic times, teacher efficacy is important because teachers must continue to teach students in spite of budget constraints. Budget constraints may lead to changes that affect class sizes, availability of instructional resources, or teacher compensation. Educators often enter the profession because of their love for children, learning, and a desire to help students to maximize their potential. However, educators must contend with increasing pressures imposed on their field by policymakers at the federal, state, and local levels, which often diminishes morale (Reschovsky, 2004).

For an educator, the pressures of being held to higher standards with less compensation can become overwhelming and frustrating. This research may allow educators the opportunity to openly express how educational policies and budgeting changes affect teacher efficacy and student outcomes The results of this

research can provide school district leaders and policymakers valuable information about the direct effects of their policy decisions and possibly aid in the decision-making process when determining how to adjust the budget.

Purpose of the Study

The purpose of the study is to determine how teacher efficacy is affected as a result of a reduction in a school district's budget. This study is intended to provide school district leaders and school district policymakers with research to assist them in determining how to reduce the budget with the least impact on teachers. The following research questions guide the study:

1. How have the economic conditions of the Guilford County School District changed from 2007 – 2012?
2. In what ways did the economic conditions affect high school teachers' self-efficacy in the Guilford County School District?

Significance of the Study

During times of economic growth and decline, school districts make budgetary adjustments. Several factors are considered that will not significantly impact instructional programs when there is a decline in financial resources. Teacher efficacy is not always a consideration when determining how to adjust the overall budget; however, teacher efficacy can directly impact student achievement. Title I schools have additional funds available for teachers to utilize. Instructional resources and supplemental pay can be provided to allow teachers to give students additional academic support before and after school. This study provides policymakers insight into how resource allocation at the district level impacts

teachers' abilities to produce in the school and classroom. As a result, alternatives can be considered when decreasing the budget. In addition, understanding teacher efficacy allows the district to determine which schools need assistance to improve the school climate and make a positive impact on student achievement (Chan, Lau, Nie, Lim, & Hogan, 2008).

Teacher efficacy is critical to the success of a school district. The primary goal of school districts is to provide an adequate education to students. Determining how to positively impact teacher efficacy may decrease the teacher attrition rate, effectively allocate human resources, and increase student achievement.

Overview of the Data and Research Procedures

The primary data sources utilized for this study are a teacher efficacy questionnaire and state and school district financial reports. The questionnaire utilized was adapted from the Teacher's Sense of Efficacy Scale and administered during the Spring Semester of 2015 (Tschannen-Moran et al, 2001). The sample consists of high school teachers in the Guilford County School District. The questionnaire contains three sections: (a) the long form of the Teachers' Sense of Efficacy Scale; (b) an open response section; and (c) demographic data. Data obtained from the survey will be analyzed to determine how teachers in the district were impacted and how the efficacy levels changed.

Financial data from the state and school district from 2007 to 2012 will allow for the budgetary areas that were decreased to be highlighted and compared. Annual reports and revenue and expenditure sheets will be analyzed. Other areas that could have been adjusted will be probed. It is important to compare areas that

have been affected the most since the economy began to decline in 2007. The implementation of the budgetary cuts can show how effective or ineffective the cuts were to the school district. Additionally, policymakers should consider other areas that can be adjusted in the future rather than financially impacting teachers as an easy cost savings method.

This study will rely on analysis of school district financial data, descriptive statistics, and factor analysis to answer the research questions. The first research question will be answered using annual reports, budgetary data, and national, state, and local economic data. Descriptive statistics and factor analysis will be used to answer the second research question based on data that has been collected from the teacher efficacy questionnaire.

Organization of Dissertation

This dissertation contains five chapters. Chapter 1 introduces the study, provides the statement of the problem, the context, the purpose of the study, a brief explanation of teacher efficacy, the study's significance and implications, and an overview of the research procedures. Chapter 2 includes a review of the literature ofthe economic climate, budgeting changes, the politics in budgeting, and teacher efficacy. Chapter 3 outlines the data collected and methods employed. Chapter 4 presents the findings from the research questions. Finally, Chapter 5 presents the broader implications for the study, particularly relating to additional factors policy makers might consider when determining how to adjust the budget during difficult economic times.

CHAPTER 2

REVIEW OF THE LITERATURE

Overview

The economy has gone through many changes since 2007 causing school districts to make adjustments to the budgets. School districts must determine the most cost effective means of reducing the budget while simultaneously continuing to meet state and national goals set forth for students. This challenging task can cause employees of the district to become frustrated with the changes that impact teachers and students.

Teacher efficacy, teacher attrition, and resource allocation are important areas for policymakers to understand and school districts to address before losing quality teachers. Additional research is needed to determine the actual reasons for the high amount of attrition in certain schools versus the lower levels of attrition in other schools within the same school district. Once actual reasons are determined, solutions can be found to address some of the cases. Providing teachers with the support and resources necessary to enact substantial instructional change could assist with the levels of efficacy and attrition thus impacting student achievement.

State of the Economy at the Start of the Great Recession

In 2010. Ben S. Bernanke, Chairman of the Federal Reserve stated,

> The financial crisis that began in August 2007 has been the most severe of the post-World War II era and, very possibly – once one takes into account the global scope of the crisis, its broad effects on a range of markets and

> institutions, and the number of systematically critical financial insitutions that failed or came close to failure – the worst in modern history (2010, p. xx).

The economic situation in the United States has changed over the past seven years. David M. Katz contributes the economic crises to three factors: "1) growing inequality, within the capitalist process between wages and profits, and within society as a whole among households; 2) a financial sector that became increasingly absorbed in speculative and risky activities; and 3) a series of large asset bubbles" (2009, p. 307). Industries became less regulated, causing wages to drop and profits to increase. Some companies used more part-time employees to fill positions rather than paying larger salaries to full-time employees. Top-level executives salaries increased significantly during the period leading up to the financial crisis. Additionally, financial deregulation allowed banks to determine how to earn higher profits beyond the traditional banking practices. Finally, financial institutions changed their lending practices for homeowners, which supported the large asset bubbles of wealthy individuals that invested in large assets during the recession (2007 – 2012) (Hanna, Yuh, & Chatterjee, 2012).

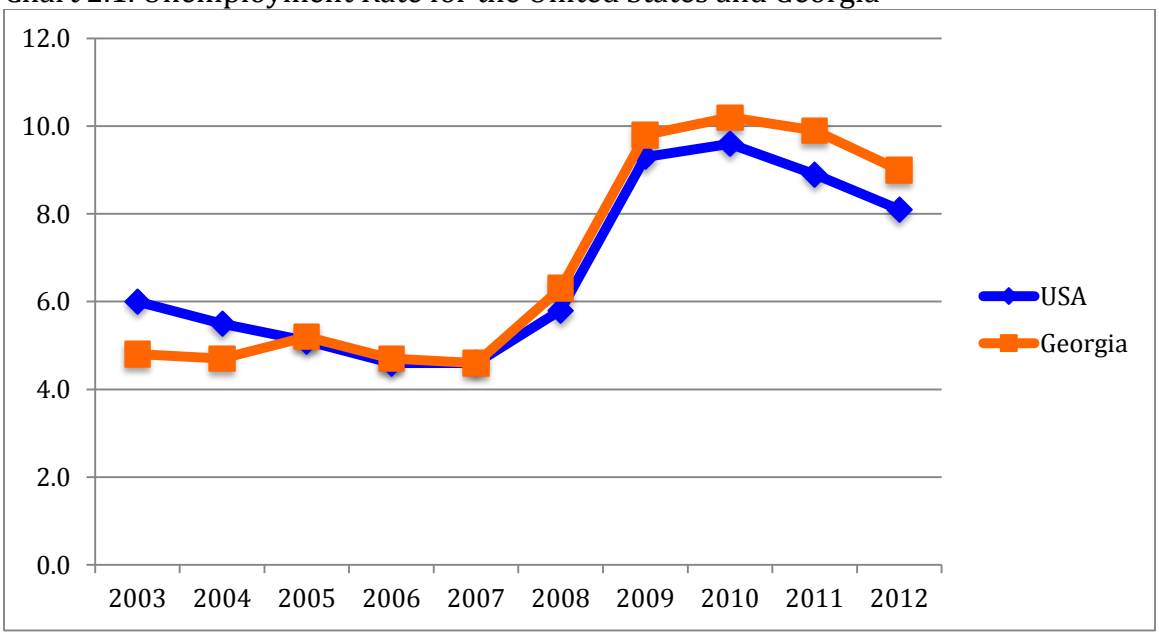
Adrian and Shin (2010) fault financial institutions for the subprime mortgage practices,

> For a bank, expanding its balance sheet means purchasing more securities or increasing its lending. But expanding assets means finding new borrowers. Someone has to be on the receiving end of new loans. When all the good borrowers already have a mortgage, the bank has to lower its lending standards in order to capture new borrowers. The new borrowers are those who were previously shut out of the credit market but who suddenly find themselves showered with credit (p. 18).

Given the increase in unemployment, some people were unable to meet their

financial obligations for their home and ended up losing the homes during the financial crisis. Chart 2.1 shows the unemployment rate for the United States and Georgia over the past ten years per the United States Department of Labor (2013). As shown, 2009 – 2012 had the highest unemployment rates during this period. Georgia's unemployment rate has exceeded the national average since the economic decline.

Chart 2.1. Unemployment Rate for the United States and Georgia



Source: United States Department of Labor, 2013

Along with subprime mortgages, Claessens, Dell'Ariccia, Igan, and Laeven (2010) and Adrian and Shin (2010) cite the downfall of Bear Stearns and Lehman Brothers as major factors in the economic crisis. These two organizations were among the top investment banking firms. Bear Stearns liquidated their assets and Lehman Brothers was acquired by various companies around the world based on the locations.

The Bureau of Economic Analysis (2013) defines Gross Domestic Product (GDP) as the measure of "the prices paid for output of goods and services produced by the U.S. economy labor and property located in the United States and is derived from the prices of personal consumption expenditures (PCE), gross private domestc investment, net exports of goods and services, and government consumption expenditures and gross investment" (p. Glossary). Chart 2.2 shows the percent change in the United States GDP for the past ten years. The largest decrease occurred in 2009 due to tight credit and increased unemployment, in addition to decreased consumer spending (Isidore, 2009).

Chart 2.2. United States GDP Growth Rate

"The crisis years have triggered wide economic restructuring. Sweeping changes in government finances, banking systems, and manufacturing are under way, as are structural reforms in labor markets" (Altman, 2013, p. 8). Since 2012, the economy has begun improving as seen by the steady decrease in the

unemployment rate for the nation and locally (U.S. Bureau of Labor Statistics, 2015). In addition, the housing market is slowly improving. The housing market deterioration caused banks to revise lending policies. (Altman, 2013)

The economy in Guilford County impacts the school district. The county currently is growing at a slower rate than surrounding counties. This is due in part to the uncertain leadership of the county and the issues the school district had over the past seven years. The tax base has decreased because people are moving to other counties, which leaves Guilford with an aging population. The school district has a negative perception therefore impacting the housing market in the county (angeloueconomics, 2014).

Given the changes in the economy from 2007 – 2012, schools districts had to adjust the annual budgets. The budgeting process is important for school district personnel to understand when determining how to adjust the budget in a manner that will not negatively impact the daily operations of the district.

Budgeting Process

Rubin (2010) states that, "All budgeting, whether public or private, individual or organizational, involves choices between possible expenditures. Since no one has unlimited resources, people budget all the time" (p. 3). This may appear to be an oversimplification of budgeting; however, governmental agencies on all levels must make decisions that affect their stakeholders. During times of economic growth, departments assume the budget will increase annually. During declining economic times, tough decisions are made to reduce the budget for the next fiscal period and allocate the limited resources (Lewis, 1984). The budgeting process is

instrumental is depicting how school districts allocate scarce resources, particularly in times of austerity cuts.

School districts receive federal, state, and local funds annually. When state and federal budgets must be adjusted, local governments are often expected to make up for the difference (Reschovsky, 2004). According to Chernick, Langley, and Reschovsky (2011), municipal budgets have been adjusted based on economic factors and the declining property taxes, which have in turn impacted the educational systems in some cities. The degree of the impact varies depending upon the cities and how the educational system is operated. Cities must determine how to adjust the budget for public services, including education, causing the least amount of negative impact to citizens. With the decreased property tax contributions, other funding sources or reserves are utilized. Chernick et al (2011) note, "Both the severity and the long duration of the Great Recession and the housing crisis have resulted in revenue declines that overwhelm any existing fund balances" (p. 379).

Organizations must decide the best method or combination of methods to utilize when preparing an annual budget. There are several methods that can be beneficial during the budgeting processes – 1) line-item budgeting, 2) incremental budgeting, 3) program budgeting, 4) zero-based budgeting, 5) site-based budgeting, and 6) performance-based budgeting. Each budgeting method has its advantages and disadvantages depending on the organizations needs. Understanding the methods allow organizations to determine which is the best to use during the fiscal period in preparation for the next fiscal period (Anderson, 2006; NCES, 2009).

Line-item budgeting is very restrictive. Departments receive a specified amount and each line in the budget details the portion allotted for specific areas (e.g., travel, supplies, equipment, etc.). Departments are not able to spend at their discretion, because line-item budgets are very specific. This budgeting method is extremely detailed and easy to monitor spending for organizations (Rubin, 2010). Prior to the introduction of line-item budgeting in the early 1900s, it was difficult to determine what was being spent. Items were aggregated which made misusing funds easy. Additionally, the budgeted amounts for the two preceding years were used as a comparison point for each line-item. The lack of control over budgets caused extreme frustration to employees who had to work within the constraints. The restrictions of line-item budgeting impact teachers and students due to the rigidity of the method. Along the course of the year, it may be determined that additional resources need to be used in certain areas and less in others. However, the funds cannot be moved between the various line-items in the budget without a great deal of justification.

A few advantages of this method, however, are the ease of preparation and its simplicity in operation. Departments are able to determine how to adjust funds between line-items to best suit departmental needs. Using the two previous years as a starting point can be beneficial to adjust areas annually that need more or less funding. If equipment accounts for a large line-item for one year, this area can be decreased if there is a need for the funds in another, such as transportation or supplies. On the district level, a line-item can be beneficial as a means to control spending. Teachers are often not consulted when creating a line-item budget,

therefore, the needs of teachers and students are often assumed rather than confirmed. Subsequently, the lack of detailed justifications in using this method makes it difficult to evaluate the programs and departments (Wildavsky & Caiden, 2004; NCES, 2009; Rubin, 2010).

Ogden (1978) defines incremental budgeting as using the base financial input and departmental output to determine the necessary adjustments. The base is the term used to describe the amount of money needed to obtain maximum results for the department (Ogden, 1978; Anderson, 2006). If additional funds are requested, the department must provide detailed information on the reasons the funds are needed and what outcomes will occur based on the increase in funding (Ogden, 1978). Dempster and Wildavsky (1979) believe "an incremental process is one in which relationships between actors are regular over a period of years" (p. 375). The process can be beneficial for organizations that want to evaluate particular programs periodically.

According to Wildavsky and Caiden (2004),

> Budgeting is incremental, not comprehensive. The beginning of wisdom about an agency budget is that it is almost never actively reviewed as a whole every year, in the sense of reconsidering the value of all existing programs as compared to all possible alternatives. Instead, it is based on last year's budget with special attention given to a narrow range of increases or decrease (p. 46).

Incremental budgeting is beneficial for organizations that have numerous programs that need to be evaluated in detail. This budgeting method allows for periodic detailed review rather than detailed annual review. It is imperative that

detailed justifications are reviewed to determine if the requested increase should be granted (Ogden, 1978; Wildavsky et al., 2004; Israel et al., 2005).

Program and planning budgeting allows an organization to evaluate all programs and objectives of the programs to determine the desired annual allotment. Unlike line-item budgeting, program details are submitted for review (NCES, 2009). Analyzing all programs and objectives is crucial in determining which programs are viable. The budget is prepared based on program objectives and the amount of financial resources needed to continue to meet the objectives (Wildavsky et al., 2004; NCES, 2009). A major advantage of this method is in the long-term planning that occurs. The program direction must be known in order to plan how to strategically meet the objectives over the specified years. In contrast, organizations can change leadership or shift the organizational focus, which could impede accomplishing the goals outlined during the budgetary process. Another disadvantage is the potential for inaccuracies in the costing data during budget preparation (NCES, 2009).

Program and planning budgeting can be problematic when evaluating program outcomes based on the intended goals that were set. Communities in Schools (CIS) is an organization that partnered with GCSS from 2009 – 2011 and was based in schools to assist students with dropout prevention. This program was intended to improve student attendance and behavior, increase parental involvement, and encourage more community involvement for students (GCSS, 2011). The partnership was discontinued during the 2012 school year. Students found the program to be beneficial because the Communities in Schools Liaison was

a resource person in the building, besides school personnel, that was available to work with them through academic or personal issues. Considering the benefits to students should be placed above funding issues. Additional information on the actual outcomes, benefits to students and teachers, and overall effectiveness need to be included in the annual reports submitted for programming and planning budgets.

Ogden (1978) details how to utilize zero-based budgeting as a tool on a periodic basis rather than annually because of the time and costs associated with this budgeting strategy. The assumption when creating the budget is to start from zero when utilizing this method (Wildavsky et al., 2004). When using zero-based budgeting, every department outlines all of their expenditures. Two distinct plans are evaluated. First, the minimum amount needed for each line item is determined. After all items have been submitted, determinations are made on the amount of money to budget for each department and line item. For some departments, budgets could increase or decrease. Second, each departmental item is ranked in order of most to least importance. Upper level management also ranks the company's overall areas in order of importance. After expenditures are ranked, the budget is set to satisfy the needs of the company and its departments while allowing additional funds to be moved to areas of importance (Ogden, 1978; Israel & Kihl, 2005; NCES, 2009; Rubin, 2010).

Unfortunately, this method may prevent some programs or departments that are deemed least important from receiving funding. Departments that spend unnecessarily, however, can be closely monitored with additional funds allocated to another area. Although school districts are not likely to utilize this method for

individual school budgets (Ogden, 1978; Israel et al., 2005; NCES, 2009; Rubin, 2010), zero-based budgeting could be beneficial for the school system as a whole during difficult economic times. When the overall budget has to be decreased by a significant amount, the school system can determine which programs must remain and allocate funding to the designated areas. Programs that are not deemed absolutely necessary can then be evaluated for effectiveness and it could be determined if the programs are feasible to continue during the difficult economic situation.

Site-based budgeting is an excellent method for school districts because it allows for decentralization of the budgeting function. Some school districts have over 100 schools, making it beneficial for each school to determine how funds will be allotted to meet their students' needs. Principals are responsible for site-based budgets and can appoint people in the building to serve on a committee that determines how to allocate the resources. Training is needed to ensure principals are aware of how to prepare the budget and budgetary constraints (NCES, 2009). Additionally, site-based budgeting allows for each school to determine the areas that need to be addressed annually for their students based on previous expenditures, instructional acquisitions, and students' current academic needs. Whereas, if funds were allocated in a central location for the school system, the instructional items sent to schools could be insufficient for the needs of the students and teachers depending on the schools.

Site-based budgeting requires more work to be completed at the local schools. In GCSD schools were responsible for the departmental budgets to purchase

items for supplies and instructional items teachers. For the 2011-2012 school year, the GCSD Career, Technical, and Agricultural Education (CTAE) Department maintained control of the entire CTAE allotment for all schools. This meant that all orders were placed on the district level, allowing more control over excess funds. Whereas, when the budget was maintained at the school level, the funds could potentially be spent in other areas other than CTAE. With centralized budgeting, teachers were impacted tremendously because there was one person processing orders for all CTAE teachers throughout the entire district. The orders had to be approved and processed. Some orders were not received until the second semester of school, which affected instruction because all items were not received in a timely manner.

Accountability is paramount with performance-based budgeting: "Performance-based budgeting provides us with a multi-year process that links budgets to corporate strategy, planning, performance measures, and program execution" (Walters, 2001, p. 57). The core functions of the performance-based budgeting approach consider programs, rather than line-items, to determine the budget. The budget is prepared in three phases – "1) data and information gathering, 2) planning and programming, and 3) budgeting" (Walters, 2001, p. 60). During phase one, information on all programs is compiled including estimates of revenues and expenditures. Goals and objectives are determined during phase two, for organizations to determine their strategic direction and allocation their resources. Supporting documentation obtained to indicate how departments are utilizing the resources. Each department must show proof of the outcomes during

the review process to ensure compliance with the budget. Actual versus budgeted expenditures are compared with the outcomes to show how the department has performed during the year (Walters, 2001; NCES, 2009; Rubin, 2010).

Like performance pay, this budgeting process requires a great deal of documentation to justify the need for funding each year. Programs must keep detailed documentation to show how funds were utilized and show how the program was able to meet the goals. With performance pay, it has been noted that teachers can falsify data to make results look better to receive the additional compensation. This can be viewed as a potential downfall of this budgeting process. Program directors may falsify information to obtain the additional budget allotment.

School Districts Budgets

Schools districts are accountable to taxpayers, the state government, and the federal government. The budget is an important portion of accountability. The National Center for Education Statistics (2009) states budgets should meet three requirements;

1) be balanced (i.e., with current revenues sufficient to pay for current services);
2) be prepared in accordance with all applicable federal, state, and local laws; and
3) provide a basis for the evaluation of a government's service efforts, costs, and accomplishments. Although some form of a balanced budget requirement is generally necessary to ensure the long-term fiscal health of any organization, variations (such as the

> use of fund balance reserves to pay for current services) may be appropriate over a short period. Generally, however, all departures from this fundamental objective must be in accordance with applicable state and local laws and policies (p. 12).

School districts have the daunting tasks of increasing student achievement to meet the requirements set forth by the federal and state governments. Some districts are finding this difficult to do given the increasing number of students that are economically disadvantaged. The fluctuation in funding from the federal and state levels causes school districts to either find additional funding sources or to reduce per pupil funding throughout the district (Reschovsky, 2004). Revenue generation is important when determining how school districts can make up for the decreased funding sources.

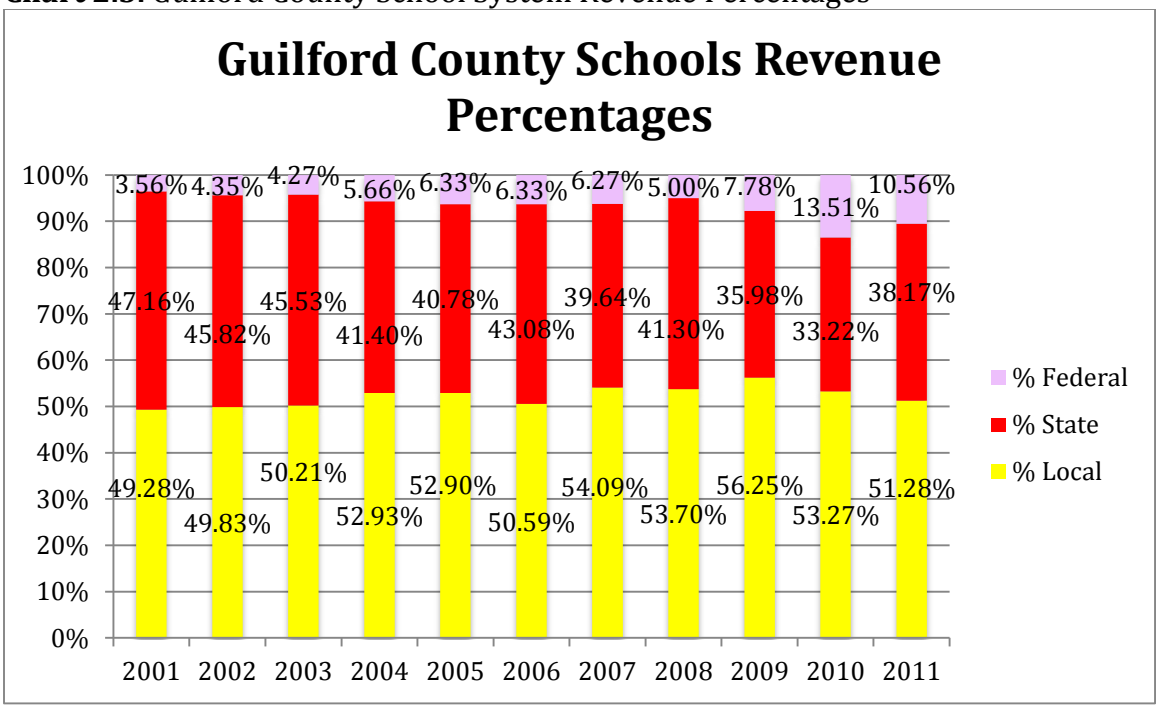
Revenue Generation

During the economic decline, states have had gaps in their budgets that have caused state and local levels to make funding adjustments (Reschovsky, 2004; Sielke, 2011). School district revenues come from federal, state, and local funds (Thompson et al, 2005). With this in mind, school districts have had to make adjustments for the budgetary problems on all levels.

From 2003 – 2011, local revenues have accounted for more than 50% of the revenues for Guilford County Schools, with total revenues declining since 2008. Property taxes are the primary local revenue generator (Reschovky, 2004; Ward, 2009). The housing market encountered difficult times beginning in 2007 and the amount of revenue received from property taxes has decreased since the downturn

of the economy (Ward, 2009; Hanna et al, 2012). Chart 2.3 shows federal, state, and local revenues for Guilford County Schools between 2001 and 2011. The state revenue remained fairly constant until 2008, when the housing market became depressed and unemployment increased. Federal revenue contribution was larger for the 2010 and 2011 school years than in the previous eight school years (Georgia Department of Education, 2011).

Chart 2.3. Guilford County School System Revenue Percentages

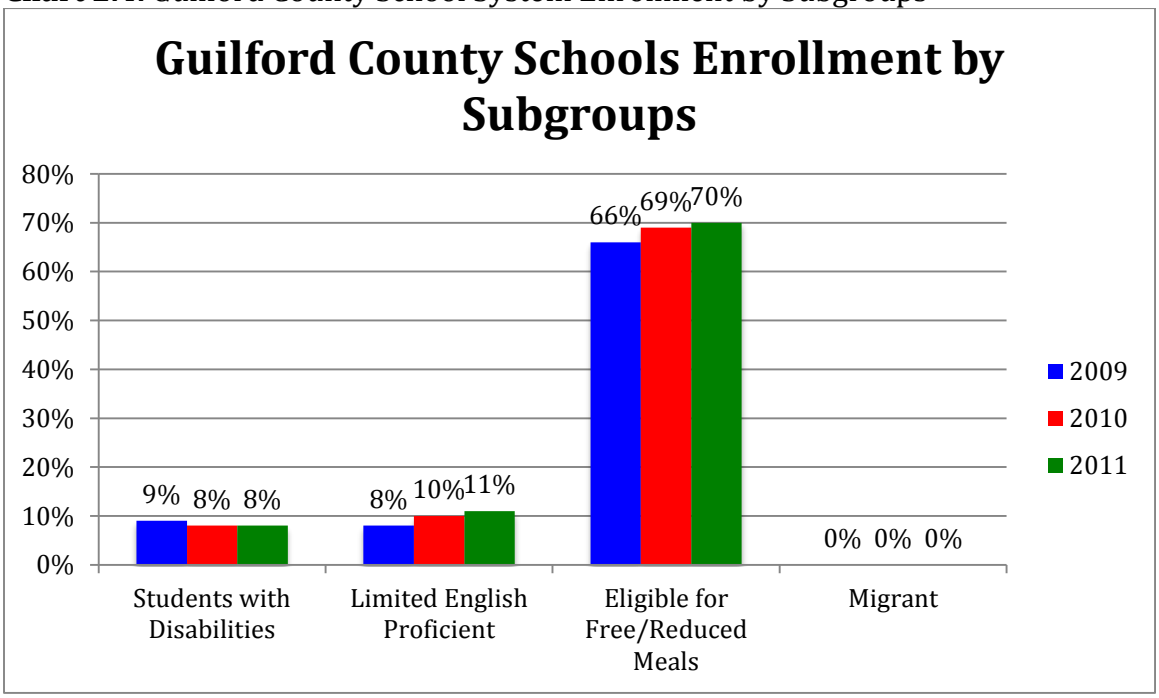


Source: Georgia Department of Education, 2011

Though total revenues have declined, the school district continues to be held accountable for schools meeting or not meeting the expected benchmarks. As Reschovsky (2004) points out, "the dollar cost of maintaining any given level or quality of education increases over time" (p. 90). The question then becomes, how do school districts maintain high levels of student achievement and a quality instructional program with declining financial resources? School districts with large

enrollments, increasing numbers of economically disadvantaged students, and English Language Learners (ELL) must also factor these additional costs into the budget when determining the amount needed to provide a quality education (Reschovsky, 2004). Chart 2.4 includes the student subgroups in Guilford County Schools.

Chart 2.4. Guilford County School System Enrollment by Subgroups



Source: Governor's Office of Student Achievement, 2011

The school district must determine how to adjust spending to provide the instructional programs necessary to assist students in these subgroups. Students with disabilities and those who are have Limited English Proficiency receive additional academic support in the classroom, including classroom and testing modifications. Title I funds are available at 16 of the 21 high schools in the district to assist with reaching students that fall into the Eligible for Free/Reduced Meals subgroup as well (Guilford County School System, 2011). Title I funding is "used to

provide supplemental core academic instruction, instructional support, and parental involvement and engagement to schools to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments." (Guilford County School District, 2015, Office of Federal Programs, para. 3). Students that do not fall into one of these subgroups are able to receive assistance from teachers during tutorials, however, modifications are not designated specifically for these groups and this can be difficult for some students that need the additional help.

The American Recovery and Reinvestment Act of 2009 (ARRA) provided an opportunity for school districts to receive additional funds to implement instructional strategies to improve student achievement through the Race to the Top grant (Georgia Department of Education, 2011). The four areas in which schools must show improvement include:

1) Recruiting, preparing, rewarding, and retaining effective teachers and principals, especially where they are needed most;
2) Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
3) Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction; and
4) Turning around our lowest–achieving schools (Georgia Department of Education, 2011, Georgia's Race to the Top, para. 2).

Guilford County Schools is one of the 26 school systems in Georgia that received a portion of the $400 million grant in 2010. The Georgia Department of Education kept half and dispersing the remainder among the 26 districts (Georgia Department of Education, 2011) Over the course of the grant, Guilford will receive $34,024,997 (www.rt3ga.com, 2011). Table 2.1 outlines the performance measures designated by GCSD as goals for the Race to the Top Grant.

Table 2.1. Guilford County School System's Race to the Top Performance Measures

	Actual Data Baseline	SY 2010-2011	SY 2011-2012	SY 2012-2013	SY 2013-2014
Graduation Rate (%)	79.2%	85%	90%	95%	100%
Dropout Rate (%)	4.78%	3.78%	2.78%	1.78%	0%
Average ACT Score: 22 of 36 Maximum (%)	18.5	19	19.5	20	21
Average SAT Score: 1550 of 2400 Maximum (%) Critical Reading Math Writing	1328 (composite score)	1358 (composite score)	1388 (composite score)	1418 (composite score)	1448 (composite score)
Students Scoring 3 or Higher on AP Exams (%)	34%	39%	44%	49%	54%
Students Completing Postsecondary Accelerate Options and/or AP and IB Courses that Offer the Potential of High School and College Credit (%)	12th grade: 33% 11th grade: 26% 10th grade: 16% 9th grade: 2%	12th grade: 36% 11th grade: 29% 10th grade: 19% 9th grade: 5%	12th grade: 39% 11th grade: 32% 10th grade: 22% 9th grade: 8%	12th grade: 42% 11th grade: 35% 10th grade: 25% 9th grade: 11%	12th grade: 45% 11th grade: 38% 10th grade: 28% 9th grade: 14%
Graduated Students Earning high school Credit for Two or More Years of One World Language (%)	83%	80%	77%	75%	75%

CTAE Pathway Completers Earning a CTAE Industry-Recognized Credential (%)	100%	100%	100%	100%	100%
Students Completing Three or More Designated CTAE Pathway Courses (%)	18%	25%	32%	39%	46%
Students Receiving at least a Gold level on the Georgia Work Ready Assessment (%)	6%	13%	20%	27%	34%

Source: www.rt3ga.com, 2011

The additional funding provided by Race to the Top is beneficial to the school system, however, as seen Table 2.1, additional pressure will be placed on teachers and school administrators to meet the targets set by the district. Upon receiving the Race to the Top funds, GCSD agreed to hit the designated targets for gradation and dropout rates, and for Career, Technical, and Agricultural Education (CTAE). The goals for 2014 included a 100% graduation rate and a 0% dropout rate. This means that all students will complete the required courses for graduation in four years and pass the standardized tests – End of Course Tests (EOCT) and Georgia High School Graduation Tests (GHSGT). Achieving this will also mean the dropout rate goal has been met.

A pathway is a sequence of three courses in the same CTAE area. The number of pathway completers is expected to increase annually and upon completing the third level course, students take an end of pathway exam or certification exam in the designated field. Based on the goals outlined by the Race to the Top grant, all students that complete a pathway are expected to pass annually. Teachers may be

pressured into passing students so they can meet this requirement, even if the students have not mastered the standards for each course. Students that are successful in their academic courses are able to meet this goal, whereas students that have to retake the required courses are not guaranteed to meet this goal, depending on the number of courses that must be retaken.

Most recently, Atlanta Public Schools (APS) been cited as a prime example of the outcome of increasing the pressures for greater student achievement. Erasure marks were detected when the tests were being graded. An investigation launched in February 2010 of 191 schools found that the students' tests answers were changed to improve the scores of the students. One hundred seventy-eight teachers and administrators were named as a result of the investigation with 11 teachers and administrators in APS being referred to the Georgia Professional Standards Commission and losing their jobs and certificates (Gabriel, 2010; Vogell, 2011). Over 20 of the 35 educators indicted took plea deals. Twelve educators stood trial for racketeering and lesser charges. One was acquitted, while the rest were found guilty (Fantz, 2015). Given the pressures placed on teachers, students are expected to achieve in far greater numbers, but is this actually occurring?

Expenditures

In addition to understanding revenue streams, district expenditures must be determined to create a balanced budget. Guilford County Schools have seven expenditure groups:

1) Maintenance & Operations – the costs for the maintaining and operating the district

2) Transportation – all student transportation services;

3) School Administration – daily operations of the schools within the district (i.e., the office of the principal, full-time department chairpersons, and graduation expenses);

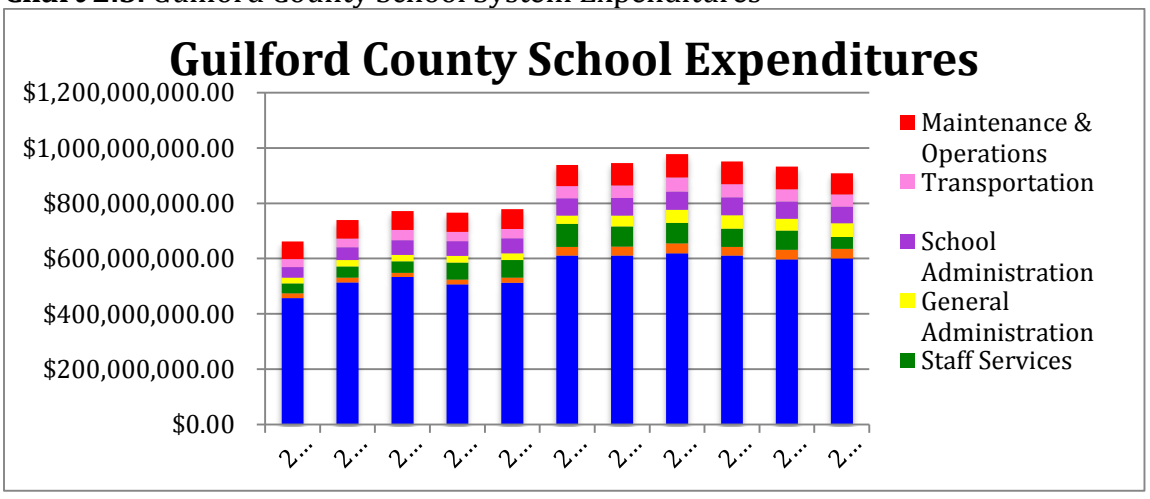
4) General Administration – daily operations of the school district, including the superintendent and board of education and their immediate staff;

5) Staff Services – curriculum development, staff training, libraries, and media and computer centers;

6) Pupil Services – guidance, health, attendance, and speech pathology services; and

7) Instruction – Includes expenditures for activities related to the interaction between teacher and students. Includes salaries and benefits for teachers and instructional aides, textbooks, supplies, and purchased services such as instruction via television. Also included are tuition expenditures to other local education agencies. (National Center for Education Statistics, 2015).

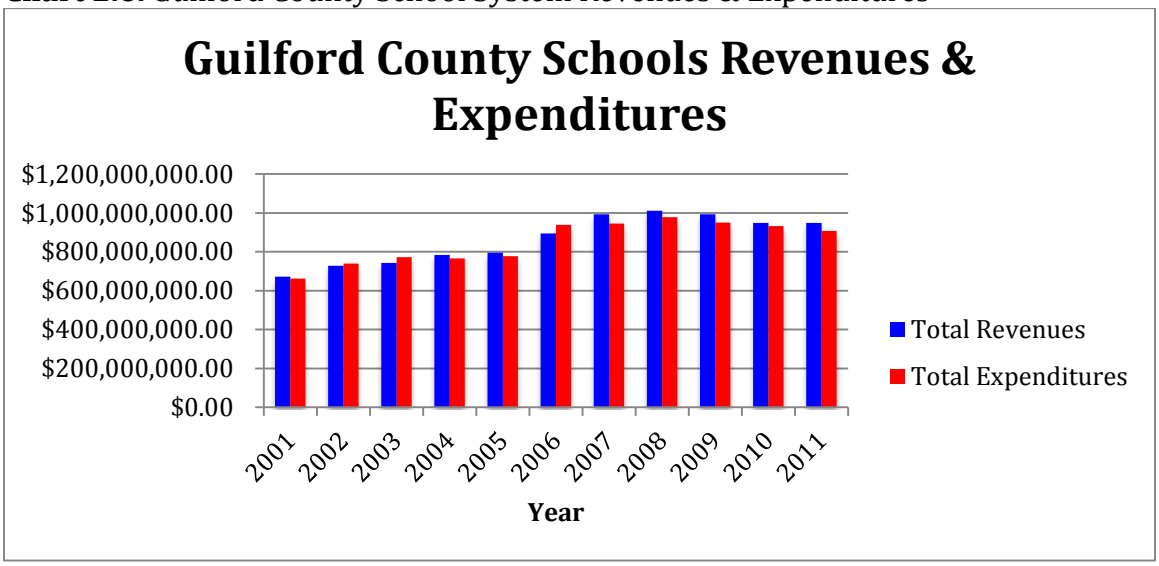
Chart 2.5. Guilford County School System Expenditures



Source: Georgia Department of Education, 2011

Guilford County Schools experienced a loss in three (2002, 2003, and 2006 school years) out of a ten-year period as seen in Chart 2.6. There are various reasons why a school system experienced losses in funding. According to research, Guilford County Schools suffered major financial losses over the past ten years due to the outdated special education funding system for Georgia, Internally Displaced Persons (IDPs) to Guilford County from the Hurricane Katrina disaster in 2005, and also because of the decline in property taxes (Parrish & Harr, 2005).

Chart 2.6. Guilford County School System Revenues & Expenditures



Source: Georgia Department of Education, 2011

Participating school systems found that the Georgia funding formula for special education posed a significant barrier because its detailed and highly regulated structure made it difficult for districts to serve students needing special education services in flexible and integrated settings without incurring a substantial loss in revenues. The state committee found that the current funding formula for special education should be much simpler, more understandable, and less burdensome to adopt. Parrish and Harr (2005) found that if the state stays with the

current pupil weight system for educating funding overall, the committee recommended a simplified weight approach based on category of disability. The State Education Finance Study Commission was established per GA House Bill 192 to review the current funding formula and to determine what measures need to be taken to improve the overall system of educational funding in Georgia (Georgia Department of Education, 2015)

Another variable that affected revenue loss for Guilford County Schools was the influx of IDPs from the Hurricane Katrina disaster. For the 2006-2007 school year, because of the 850 students that were displaced by Hurricane Katrina that enrolled in Guilford County Schools, the Georgia Department of Education granted a waiver under Section 9401 of the Elementary and Secondary Education Act and permitted the Guilford County School District to enroll students at Title I schools in the first year of school improvement ("Dealing with", 2005; Georgia Department of Education, 2007).

Loss in revenue from declining property values and state aid impacted the Guilford School system budget more than anticipated during the 2007 – 2009 school years. For the 2010 - 2014 years the superintendent made and approved recommendations to have furlough days without any discussion for alternatives. Several GCSD Board members stated that 90 percent of the expenses in Guilford County School System were salaries and benefits and that there would not have been enough of the 10 percent left to cut (U.S. Bureau of Labor Statistics, 2010; GCSS, 2011).

The decrease in property values as well as an increase in foreclosures in the county significantly impacts the taxes collected and distributed for the school system, thus causing a decrease in local funds and directly impacting the teachers and schools. This phenomenon has impacted communities throughout the country. One difficulty in reducing expenses was that 91 percent of funds are allocated to salaries and benefits. During the 2011 school year, the Comprehensive Restructuring Plan (CRP) targeted district-level personnel only to avoid impacting schools. Between an early retirement option and layoffs, central office staff was reduced by almost 200 employees. The current fiscal situation for GCSD is not promising. All planning and decision making in the district is made with finances in mind (Guilford County School System, 2011).

Understanding how revenues are generated is beneficial when determining how to adjust the budget during difficult economic times. Districts can use this information to determine if additional revenue streams are necessary or what expenditures can be decreased. Hard decisions have to be made in the best interest of the students. Teachers interact with students daily and are critical to the success for a school district. Keeping students and teachers in mind when reducing budgetary areas will prove beneficial when students meet and exceed the academic expectations set forth.

Politics in Budgeting

Politicians run on a platform that normally includes educational reform. In order to determine which changes are needed, politicians must first find fault with their opponent's ideas and look for areas of improvement within the current

educational system. Politicians on all levels have an input into the local educational systems. Federal funds account for less than 20% of the overall budget for school districts. However, when federal funds are allocated, they are often conditional based upon performance targets or designated for specific purposes. This can prove problematic for school systems that were depending on the funds to make up for budget shortfalls.

Public budgeting "is not merely technical number crunching, but it is also a process of bargaining, negotiating, and compromise" (Taylor, 2011, p. 641). Politicians that are involved in the budgeting process represent constituents in areas that, at times, have divergent interests. Special interest groups often interject their thoughts on areas that need attention during this process. When the budget is discussed, concessions have to be made for a balanced budget to be reached (Anderson, 2006; Taylor, 2011). Agency assertiveness is "the tendency for agencies to pursue an active strategy of expansion in their programs and fundings" (LeLoup & Moreland, 1978, p. 233). The more assertive an organization or program, the more funding may be moved in that direction or the agency could receive a smaller reduction. Departments and programs can advocate for their areas and try to secure the funding requested but this could be to the detriment of other programs. All participants in the process will not be happy, and in turn, may not be re-elected if their constituents take issue with the budgetary areas that are decreased (LeLoup et al, 1978; Thompson et al, 2005; Taylor, 2011).

Changes in Funding and Spending

The following sections outline factors that affect teacher efficacy and potentially impact student achievement in the changing economic climate. They include budgetary allotments, changes in state and local funding, and additional revenue streams.

Budgetary Allotments

Governor Joe Frank Harris appointed the Governor's Education Review Commission in 1983 to determine how to improve the educational system in Georgia. After two years of conducting research and interviews, the Commission submitted recommendations that became the Quality Basic Education (QBE) Act in 1985. The Quality Basic Education Act was created to determine the amount of funding school districts would receive from the state to supplement the educational program. There are currently 180 school districts in Georgia (GADOE, 2011). Each district determines their own budget based on the weighting procedures that are used for the state of Georgia. Students are categorized by the 18 weighted programs. The QBE serves as both a needs equalizer and a cost equalizer to aid the instructional process (Rubenstein, Doering, & Gess, 1998; Thompson & Wood, 2005). Needs equalization allocates funds for students with special needs, which can include special education and gifted students. Cost equalization "recognizes that different costs may arise due to economy or diseconomy of scale" (Thompson et al., 2005, p.94). Additionally, the cost of living in certain areas of the state differs based on the needs of the community (Thompson et al., 2005). For example, some districts pay higher salaries or transportation fees based on the location of the schools.

For the purpose of this research, the primary focus is to determine how money is allocated at the secondary school level. The QBE uses a base of 1.00 for students in grades 9 – 12, which is currently $2,443.99 (Georgia Department of Education, 2015). There are ten additional categories (relative to high schools) that are weighed more because of the additional costs associated with educating students in those categories (Rubenstein et al, 1998). For example, a gifted student counts as 1.6597 rather than the base of 1.0000. Over the years, the weights have fluctuated in small increments as reflected in Table 2.2. Districts classify their students by category, and the quantity is then multiplied by the amount per line-item to determine the amount of funding the district will receive. The funding amounts appear on allotment sheets. (Georgia Department of Education, 2012).

Table 2.2. 2002 – 2011 Weights for FTE Funding Formula

Category	2002 Weight	2003 Weight	2004 Weight	2005 Weight	2006 Weight	2007 Weight	2008 Weight	2009 Weight	2010 Weight	2011 Weight
Base Grades 9 – 12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Vocational Lab PGM (9 – 12)	1.2001	1.1938	1.1937	1.1931	1.1913	1.1882	1.1859	1.1869	1.1847	1.1832
Spec. Ed. I	2.3448	2.3594	2.3616	2.3637	2.3703	2.3803	2.3892	2.3853	2.3936	2.3996
Spec. Ed. II	2.7392	2.7597	2.7629	2.7662	2.7778	2.7936	2.8078	2.8015	2.8150	2.8247
Spec. Ed. III	3.4861	3.5121	3.5162	3.5207	3.5363	3.5573	3.5763	3.5679	3.5860	3.5990
Spec. Ed. IV	5.6398	5.6891	5.6960	5.7037	5.7307	5.7665	5.7995	5.7850	5.8163	5.8388
Spec. Ed. V	2.4261	2.4337	2.4357	2.4372	2.4423	2.4485	2.4548	2.4520	2.4580	2.4623
Gifted	1.6365	1.6449	1.6464	1.6477	1.6523	1.6586	1.6642	1.6617	1.6670	1.6709

Remedial Education PGM	1.2933	1.2989	1.2995	1.3003	1.3032	1.3073	1.3109	1.3093	1.3127	1.3151
Alternative Education PGM	1.5708	1.5799	1.5813	1.5827	1.5873	1.5938	1.5994	1.5969	1.6023	1.6062
Eng. For Speakers of Other Lang. (ESOL) PGM	2.4579	2.4785	2.4814	2.4845	2.4530	2.5102	2.5234	2.5176	2.5301	2.5391

Source: Georgia Department of Education, 2011

Special education funding can be determined one of two ways: the number of students identified as special needs or the students identified and categorized based on their disability (Parrish & Wolman, 2004). Georgia utilizes the second method, as seen in Table 2.2. Utilizing this method to allocate funds leads some to argue that "these systems create fiscal incentives for identifying more special education students and for providing more services" (Parrish et al, 2004, p. 62). Research cannot confirm this fact. Parrish has found evidence that both fund methods have shown increases and decreases to the special education population at various times.

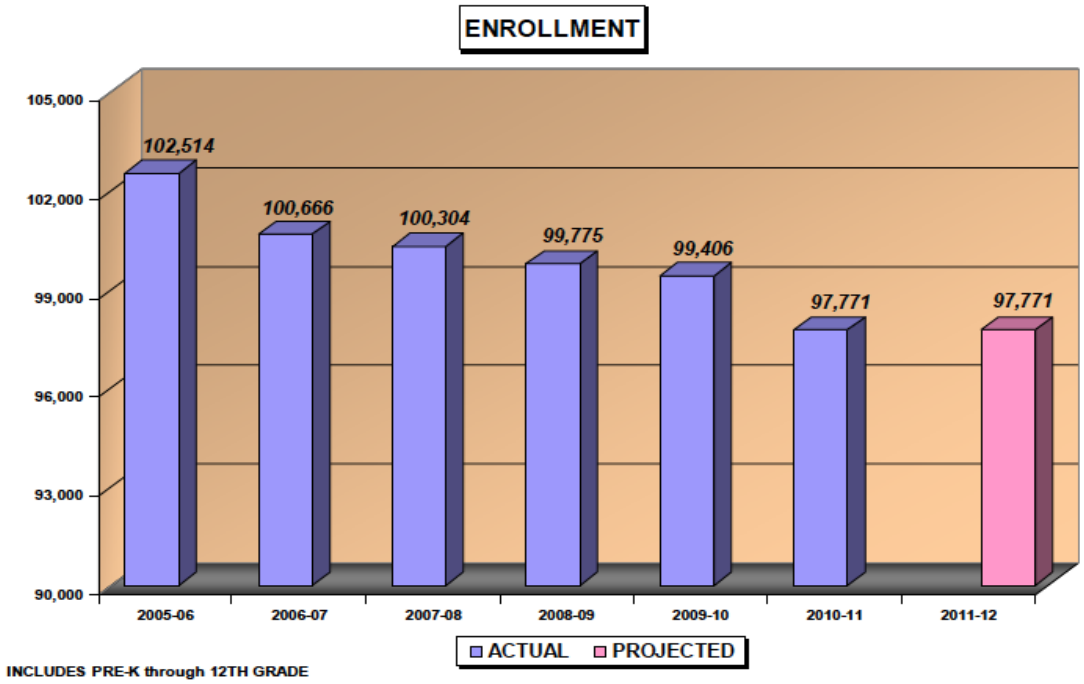
Each area has fluctuated over the past 10 years; however, the Vocational Lab Programs is the only area that has decreased. Race to the Top funding allows GCSD to receive funding to assist with the decline in the Vocational Lab category. Several of the grant goals are specifically related to CTAE course enrollment and pathway completion (Georgia Department of Education, 2011; www.rt3ga.com, 2011).

Chart 2.7 depicts the GCSS actual enrollment for prior to and during the depressed economy. As shown by the data, the enrollment declined since the 2005-2006 school year. The declining enrollment can be attributed to the economic

downturn, foreclosures on homes, and relocations by students and families to other school districts or states. The total enrollment was also necessary when determining state and federal funding.

Guilford County has approximately 27,200 students enrolled in the high schools throughout the district. As previously mentioned, the number of students per classification is multiplied by the designated amount to determine how much per pupil funding the district will receive (GADOE, 2011).

Chart 2.7. Guilford County School System Enrollment

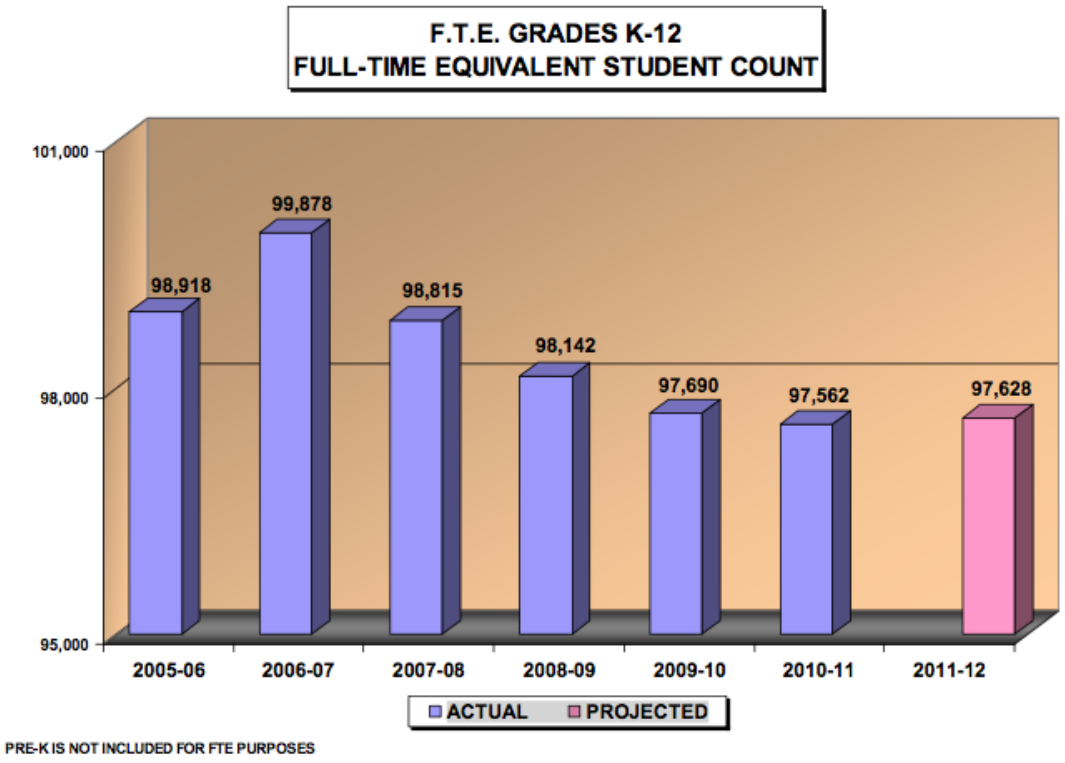


Source: Guilford County School System Approved Budget FY 2011 – 2012

Full-time equivalent (FTE) is used to determine the amount of funding each district will receive from the state. FTE refers to the number of students enrolled on a full time basis. There are two times during a school year when the information is gathered. On the designated days, the information is sent to the Georgia Department of Education. All students must have an identification number and students that

receive special services, must be coded to indicate which service they receive. When comparing Charts 2.7 and 2.8, the FTE Count is lower than the Enrollment data. Chart 2.8 reflects the number of students accounted for on the FTE Count Day. The FTE number is a more accurate indication of the number of students actually enrolled in the district.

Chart 2.8. Guilford County School System Full-time Equivalent Student Count

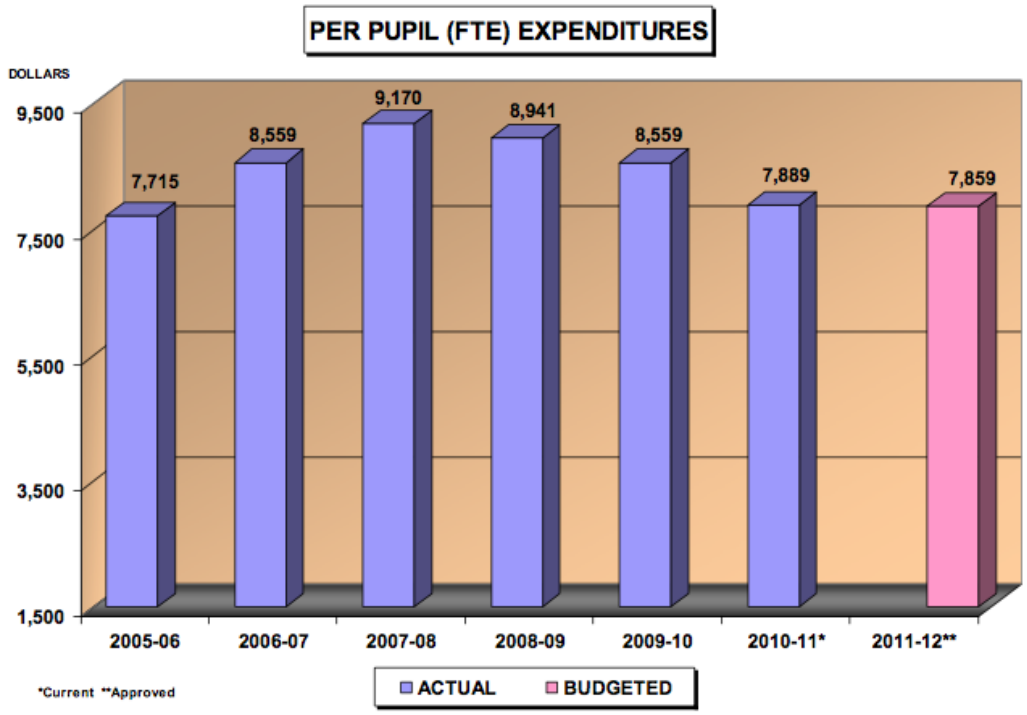


Source: Guilford County School System Approved Budget FY 2011 – 2012

The annual per pupil expenditures for the 2005 – 2012 is shown in Chart 2.9. This is the amount of funding that GCSS received per pupil during the designated school years. GCSD experienced increasing per pupil expenditures through the 2007 – 2008 school year. Each subsequent school year, per pupil expenditures has

declined. This can be attributed to the declining economic resources available throughout the state.

Chart 2.9. Guilford County School System Per Pupil Expenditures

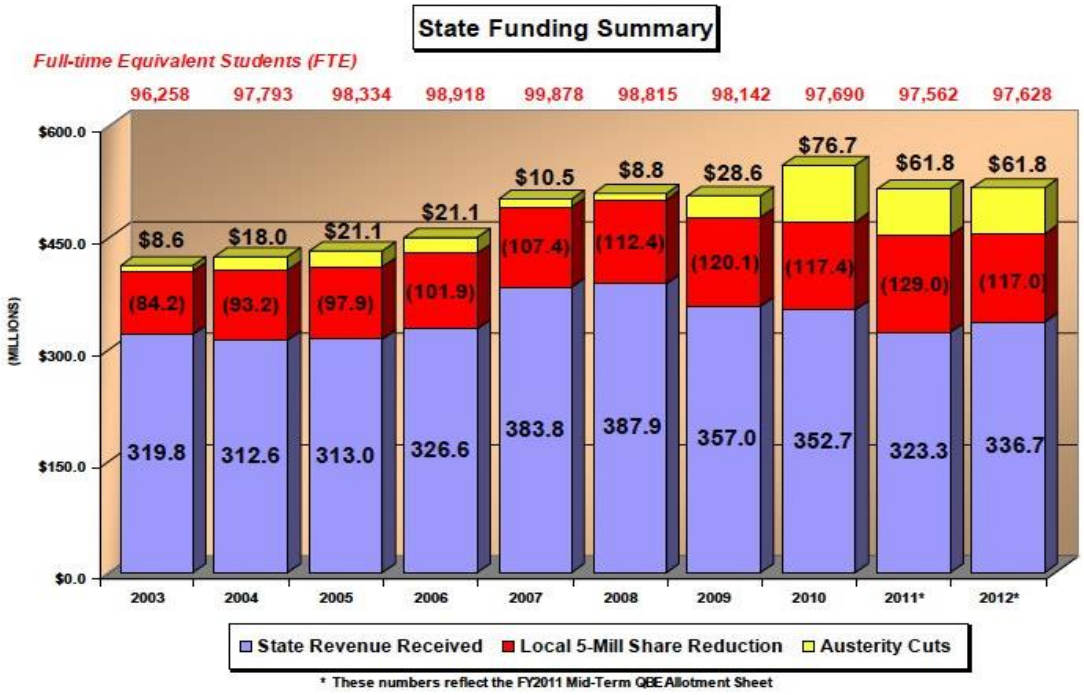


Source: Guilford County School System Approved Budget FY 2011 – 2012

Changes in State and Local Funding

Austerity cuts are reductions in spending taken in an attempt to balance the budget and reduce outstanding debt. The school district had significant cuts in the budget between 2003 and 2012 (see Chart 2.10). The largest cuts were taken during the 2010 & 2011 school years (Guilford County School System Approved Budget FY 2011 – 2012, 2011). In addition to these austerity cuts, the school district determined other cost saving measures that would be taken, including reducing central office staff, decreasing principals' supplements, and furloughing employees (GCSS, 2011).

Chart 2.10. State Funding Summary for Guilford County School System



Source: Guilford County School System Approved Budget FY 2011 – 2012

While the budgeting process shows how resources are allocated, it is important to know that the scarcity of resources might have led to low teacher efficacy and high teacher attrition rates. Governance issues in the district leadership – including superintendent and school board, decreased compensation, and high turnover were all issues the district had to contend with during the great recession.

Teacher Efficacy

As a measure of accountability, schools are given annual goals to measure how students perform academically. These goals determine if schools are deemed successful or unsuccessful. For students to reach these goals, there are some areas that need to be considered – teacher efficacy, teacher attrition, and resource allocation --all of which directly impact student achievement. Although schools can

address these areas, and make adjustments for the benefit of students, some external factors such has "home environment, family background, and parental influence" are beyond the schools' control (Dembo & Gibson, 1985, p. 173; Lemke, Hoerander, & McMahon, 2006; Parkinson, 2009).

Self-efficacy is "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). Teacher efficacy is a subset of self-efficacy and is defined by Ross (1994) as "an individual's beliefs about proficiency in performing the actions thought to lead to student learning." (p. 381) The two distinct areas of teacher efficacy are personal teaching efficacy and general teaching efficacy. Personal teaching efficacy is the belief that a teacher's methodology can affect the learning process. General teaching efficacy describes the uncontrollable outside factors that impede the learning process. Evaluating teacher efficacy occurs individually and on the organizational level. Determining teacher efficacy on an organizational level is more time consuming because it requires evaluating an entire school versus random teachers (Goddard, Hoy, & Hoy, 2000).

According to Guskey (1982), Dembo and Gibson (1985), & Tschannen-Moran and Hoy (2001), teacher efficacy impacts student achievement. Teachers with high efficacy are more effective in instructional planning, student empowerment, and actively engaging students in the learning process. As a result, students enjoy school more, which fosters healthy study habits that lead to academic success and minimal classroom disturbances (Dembo et al., 1985). Teachers with high efficacy use various strategies in the classroom and are able to reach students on all levels.

Research shows students with high efficacy teachers will rise to the expectations of these teachers and are more productive and confident overall, whereas teachers with low efficacy tend to disinterest students and have more behavior problems in the classroom (Guskey, 1982; Dembo et al., 1985; Tschannen-Moran & Hoy, 2001). A teacher's feelings of inadequacy transfer to students and results in discipline problems, disinterest in subject matter, and negative feelings about school. Feelings of inadequacy may arise for teachers when made to teaching a class outside of their content area or teach in an environment they do not feel equipped to handle. Lower expectations of the teacher leads to low expectations of the students regarding their abilities (Guskey, 1982; Ross, 1994; Tschannen-Moran et al, 2001).

The amount of training and resources available to assist teachers is also linked to teacher efficacy. Teachers that receive support during their pre-service period are better prepared to teach upon entering the classroom. During the pre-service period, teachers receive training on how to teach their content, handle various issues that arise in the classroom, and teach students with varied learning styles, all while receiving actual classroom experiences through student teaching. The information obtained and experiences during the pre-service period can increase the preparedness of teachers upon entering the classroom. Over time, teachers should become more comfortable and confident teaching their subject area. They should also become more comfortable relating to students and making necessary adjustments to their teaching styles, which will increase their level of teacher efficacy. Conversely, teachers that did not go through a pre-service program or training period may feel overwhelmed with the duties and responsibilities, which

can decrease their efficacy level. When assessing efficacy levels for teachers, content area, classroom location, class period, and students should be considered. When taking these factors into consideration, a teacher's efficacy level can increase or decrease (Ross, 1994; Goddard et al, 2000; Odden 2012).

Professional development can also increase teacher efficacy. Professional development is "opportunities that will help then enhance their knowledge and develop new instructional practices" (Borko, 2004, p. 3). Teachers that participate in professional development are able to form a network of resources that will aid in teaching students. Teachers become exposed to innovative teaching styles and materials that they can incorporate into their classroom and student learning experience during professional development opportunities. Teachers are able to discuss concerns and successes about students, the curriculum, share lesson plans and projects, and work collaboratively to enhance individual classroom experiences. By sharing with other teachers, the level of a teacher's efficacy could increase, which, in turn, will benefit students. (Ross, 1994; Odden 2012)

Collective Teacher Efficacy

Goddard, Hoy, and Hoy (2000) define collective efficacy as "the tasks, level of effort, persistence, shared thoughts, stress levels, and achievement of groups." (p. 482). Understanding collective teacher efficacy is important when discussing successful and failing schools. Schools that are successful often have high levels of collective efficacy. The advancement of student achievement can also provide an increase to the level of organizational efficacy. There are four sources of collective teacher efficacy:

1. Mastery Experience. As a faculty experiences shared challenges and successes, overcoming difficult situations can boost collective efficacy.
2. Vicarious Experience. Researching, visiting, and studying other organizations can be beneficial to improving collective teacher efficacy. By modeling successful programs and initiatives from other locations, schools can use them as a best practice for their own benefit.
3. Social Persuasion. Cohesiveness is important for collective teacher efficacy. When faculty members work well together, they persuade or guide colleagues to find solutions to challenges.
4. Affective States. When collective efficacy is low, schools become dysfunctional when faced with challenges. When high levels of collective efficacy exist, faculty support each other to move forward despite adversity. (Goddard et al, 2000)

Goddard et al. (2000) created a model reflecting collective teacher efficacy. (p. 486). This model (Figure 2.1) reflects the importance of Analysis of the Teaching Task and Assessment of Teaching Competence. When analyzing teaching task, teachers must consider the conditions they face in their school – students capabilities, instructional resources, administrative expectations, and facility constraints. Teachers then determine how to best serve students given any obstacles these may pose. The assessment of teaching competence is based on judgments made by faculty and students. Various factors lead people to determine a teacher's competence, such as educational background, instructional strategies utilized, or experiences. (Goddard et al., 2000; Petty, 2007)

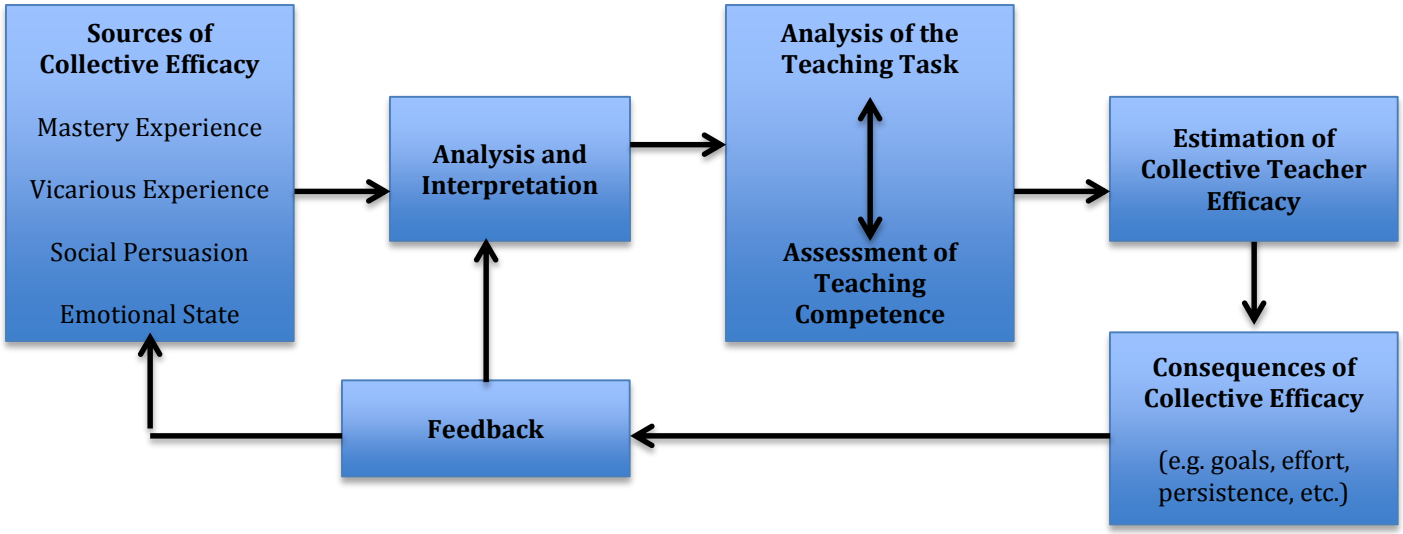


Figure 2.1. Collective Teacher Efficacy
Source: Goodard et al, 2000

Teacher Attrition

Keeping good teachers should be one of the most important agenda items for any school leader. Substantial research evidence suggests that well-prepared, capable teachers have the largest impact on student learning (Wilson, Floden, Ferrini-Mundy, 2001; Darling-Hammond, 2003). Effective teachers constitute a valuable human resource for schools—one that needs to be treasured and supported. The uphill climb to staff schools with qualified teachers become steeper when teachers leave in large numbers.

Teacher attrition refers to teachers that leave the profession altogether whereas teacher migration refers to teachers that transfer to other teaching jobs (Ingersoll, 2001). Since the early 1990s, the annual number of teachers leaving the profession has surpassed the number of newcomers by an increasing amount, putting pressure on the nation's hiring systems. Less than 20 percent of this

attrition is due to retirement (Henke, Chen, & Geis, 2000; Ingersoll, 2001). Golding, Taie, and Riddles (2014) found that eight percent (270,232 teachers) of the nearly 3.4 million teachers left the profession in at the end of the 2012 school year.

In *Empowering Teachers: They Have Told Us What They Want and Need to be Successful*, Petty (2007) discusses what administrators can do to ensure teachers have the resources necessary to be effective. In an effort to address the retention of teachers, 260 math teachers (half of whom were National Board Certified) in North Carolina were surveyed. Four questions were addressed in the study: 1) Why are these teachers leaving the profession?; 2) Are their administrative support needs being met?; 3) What are their professional wants and needs?; and 4) What can principals/administrators do to keep these teachers performing to their best abilities and happy in their profession? (Petty, 2007, p. 25) Understanding the answers to these questions allows administrators to be proactive and address the needs that are feasible. Having knowledgeable teachers that are energetic and enjoy working with students provides stability to the staff and benefits students, and subsequently improves student achievement.

In his study, Petty used Frederick Herzberg's Motivation-Hygiene Theory. Herzberg's theory examines the factors that are motivational and hygienic, which lead to people feeling satisfied with their jobs. Hygienic factors relate to compensation (salary, benefits, work conditions, etc.). Motivational factors keep people fulfilled beyond hygienic factors (growth potential, achievement, recognition, etc.). Combined, these factors contribute to job satisfaction. Negative job stress can lead to teacher dissatisfaction. Areas that were identified by teachers as stressful

were “large class sizes, scarcity of planning time, lack of support for discipline, inadequate materials, lack of administrative support, lack of parental support, and workload” (Petty, 2007, p. 26). The study noted that urban schools usually have the most difficult time of retaining teachers due to conditions at the school, such as problems with the facility, lack of supplies, and feelings of inadequacy and powerlessness (Blumberg, 1980; Shen, 1997; Petty, 2007).

The following areas were identified as teacher needs during Petty’s study: in conjunction with additional administrative support, recognition and control, “adequate materials and supplies; increased salary; smaller class size; safe environment for teaching and learning; more administrative support with discipline; and more quality time in the classroom” (Petty, 2007, p. 27). Teachers did not feel that some amenities were important (telephones, offices, etc.) and agree that standardized tests and meetings need to decrease. Based on this research, when administrators consider these areas of concern, they can adjust how money is spent at the local level and can provide teachers with the tools needed to improve instruction. Administrators cannot address some of the hygienic factors (salary, benefits, etc); however, they can make adjustments to work conditions and to extrinsic motivational factors. These changes can ease some of the needs teachers have that will help them perform better as professionals (Petty, 2007).

Teacher attrition is a national problem. Approximately 30% of American teachers leave the profession during their first five years. The percentage is nearly 50% in areas of high poverty. Many have stated that the shortage of teachers is due to low numbers of people entering the field. However, Shen (1997) and Dove (2004)

dispute that the problem is actually retaining teachers after entry Kelly (2004) believes the more courses and professional development an individual receives, the more likely they are to remain in the field. People that pursue professional development options usually want to learn new strategies that can be used in their classrooms to help students. In the United States, beginning teachers have the highest attrition rates. Unfortunately, the four primary reasons sited for teachers leaving the field are "salary, quality of teacher preparation, working conditions, and conditions that affect service" (Dove, 2004, p. 9). New teachers make relatively low salaries compared with other non-teaching professionals. If salaries were to increase in the United States, many people would be motivated to continue their profession. U.S. teachers with comparable education and experience as other professionals make roughly 20% less than their counterparts.

As a response to the inequities in pay, salary schedules were created that based teacher compensation on the years of experience and the number of degrees held by a teacher. Though this was a fair manner used to determine salaries, some quality teachers felt other areas should be considered in conjunction with these areas. Performance pay systems are often considered as a means of addressing this concern. Performance pay, also known as merit pay, is "any system of teachers' compensation that explicitly rewards better performance" (Dee at al, 2004, p. 473). Podgursky and Springer (2011) view the current compensation system as an interesting mixture:

> An efficient teacher compensation structure is one that is designated to recruit, retain, and motivate the highest quality workforce for any given level of expenditure. However, the current teacher

> compensation "system" is best characterized as a mix of policies reflecting divergent stakeholder preferences, legislative tinkering, and legacies from earlier vintages of employment contracts.

Podgursky et al. (2011) delve into the compensation systems in place for teachers: "Teacher compensation is the sum of four parts – base pay, supplements, benefits, and deferred compensation" (p. 2). Teacher salary schedules have been used for more than 50 years to determine the amount of pay based on the years of experience and degrees held. Teacher productivity cannot be compensated adequately based on a salary schedule. Effective planning and implementation of curriculum is not guaranteed simply because of the length of tenure or degrees obtained. Furthermore, the salary schedule does not take into consideration the various factors affecting the courses taught in school. Some teachers need special working conditions to be able to effectively teach the content.

Performance pay is a concept that is discussed periodically in education. This hot topic dates back hundreds of years when teachers were "paid on the basis of the results of student examinations…After more than 30 years, however, the testing bureaucracy had burgeoned, cheating and cramming flourished, and public opposition had grown dramatically" (Gratz, 2009, p.76). Performance pay resurfaced in the early 1900's, 1950's, 1960's, 1980's, and 1990's for political reasons each time. Politically, compensating teachers for students' performance sounds effective. During several of the pay-for-performance cycles, the program ended due to unethical practices, such as cheating. Gratz (2009) worked with a pilot pay-for-performance initiative in 1999 in Colorado where it was concluded the

program needed to expand to consider variables other than student achievement and how subject areas that do not have standardized tests are affected.

Politicians cite schools for failing to prepare students to compete in the economic climate; however, the current school system cannot be considered the cause of the economic problems that are occurring in the United States. Standardized testing is viewed as a means of holding teachers accountable for student achievement and as a gauge to determine the success of a school and school system. Other factors that affect student achievement (e.g. parental involvement, teacher experience and quality, facility conditions, lack of economic resources) are not considered with standardized testing. In several countries, standardized testing is used differently from the United States. Tests are used to determine the educational track most suitable for students entering secondary and post-secondary institutions. Teachers are not held accountable for standardized test scores in all countries and some countries do not test students while they are in primary grades (Rotberg, 2006; Podgursky et al, 2011).

Gratz (2009) outlines three fallacies that are normally the premise when discussing performance pay. First, teachers are not motivated. This is not a true statement because teachers continue to work with students regardless of the financial resources available for instruction. Second, "schools are failing" (Gratz, 2009, p.78). Education is an area that politicians have addressed while campaigning and during their tenure in office. Therefore, blaming schools for the economic situation is not appropriate. Comparing students in the United States to students internationally is difficult because tests that are used as a means of comparison are

not consistent. Third, standardized test scores is the way to measuring teacher performance. Every subject taught is not tested using standardized tests. The tests do not take into consideration all of the skills that students learn each school year. Using tests as the only measure is inadequate and does not take into consideration the whole student. In Colorado, pay-for-performance is taking on a new dimension. Some areas that are considered for additional pay are teachers in inner city schools, teacher mentors, and curriculum development (Dee & Keys, 2004; Gratz, 2009).

During teacher preparation programs, students are placed "in middle class communities." Teachers that are placed in a school with high numbers of student with socioeconomic challenges will have a difficult time acclimating. Students in middle class communities have different sets of challenges than students from low socioeconomic areas. Therefore, teacher preparation programs need to do a better job of preparing new teachers for the challenges they will meet when working in their first position (Dembo et al., 1985).

Teach for America (TFA) is a program that began in 1989 and has grown to serve schools in 43 cities in the country. This program allows teachers to teach in schools in lower socioeconomic areas after completing a training program in the summer. Teachers must complete a two-year term upon entering the program during which ongoing professional development and support is provided (Teach for America, 2012). Darling-Hammond, Holtzman, Gatlin, and Heilig (2005) conducted a study in the Houston Independent School District to determine if teacher preparation programs matter when determining the effectiveness of teachers. TFA teachers were compared to non-TFA teachers. TFA teachers were shown to impact

math scores but not reading or SAT scores. Classroom management concerns were also higher for TFA teachers. This was thought to be a result of not having training in dealing with discipline problems regarding children and not understanding how to handle issues that arise in the classroom. As a result, students with TFA teachers were not as successful as students with teachers that completed other certification programs. It was also noted that teachers that enter TFA and obtain their certification could impact student achievement when remaining in the district after completing their two-year requirement (Glazerman, Mayer, & Decker 2006).

Qualified teachers who leave the profession early are costly to school systems. Recruiting and training teachers is expensive because of teacher attrition. School systems invest in obtaining qualified teachers and professional development opportunities. When teachers do not remain, schools systems do not to reap the rewards of the investment. Teacher attrition is also due to factors that school systems can work to adapt, such as physical conditions of schools and working conditions in the schools. Physical conditions can be building renovations or minor adjustments to improve the atmosphere of the schoolhouse. Work conditions (high caseloads, lack of collaboration opportunities, lack of resources, etc.) can impact how teachers feel about the educational system and cause some to leave the profession because of feelings of hopelessness (Kelly, 2004; McLeskey & Billingsley, 2008). More administrative support would be helpful to teachers given the ever-increasing demands placed on them (Shen, 1997; Dove, 2004). These factors allow policymakers to determine critical areas that need to be addressed. When teachers remain in the profession, it benefits the students they serve and leads to increased

student achievement. Working conditions must be conducive to implementing research-based practices. Teachers must be allowed to collaborate on educational strategies, work with students without losing instructional time, and have administrative support to implement research-based practices effectively. The results that policymakers expect could be realized if teachers' needs are met through increased teacher retention (Dove, 2004; McLeskey et al., 2008).

Teacher Attrition in Guilford County Schools

With over 96,500 students, the Guilford County School System (GCSS) is the third largest school system in Georgia (NCES, 2015). Located east of Atlanta, Guilford is a culturally diverse county. The racial makeup of the school district is majority-minority, with a student body of 67% African-American, 15% Hispanic, 6% Asian, and 2% multiracial. The non-minority population consists of 10% White students. Of the 96,500 students, 73% are eligible for free or reduced lunch, with 9% receiving special education services, and 14% qualifying as English Language Learners. Of the 74 elementary schools, 21 middle schools, 21 high schools, and 21 centers throughout the district, 100 schools (59 elementary schools, 16 middle schools, and 16 high schools) are Title I schools (Guilford County School System, 2015; Governor's Office of Student Achievement, 2015).

The diversity of GCSS provides some extreme challenges. To meet the needs of this vast population, many programs have been implemented: International Baccalaureate Diploma, magnet and theme school choice, Montessori, Advanced Placement and joint enrollment classes, nine parent centers, after school extended day, English Language Learner (ELL) studies, gifted education, Guilford Online

Academy, Guilford Early College Academy, Early Intervention Program (EIP) for K-5, and the remedial education program for grades 9-12. Each of these programs comes with promise but with subsequent costs. Many of these programs resulted from conflicts regarding the inequity of educational standards, supplies, and resources during segregation dating back to the 1960's (Guilford County School System, 2011).

Anna T. Jeanes created the Jeanes Fund in April 1907, which was used to employ "Jeanes Supervisors to teach industrial and homemaking skills as well as raise money for schools and for committees to improve the standard of living in black communities" (Krause, 2003, p. 193). Narvie J. Harris became the Jeanes Supervisor for Guilford County in 1944 overseeing 17 poorly constructed schools for Black students. Students at the 17 schools had the old textbooks from the White schools and students at 16 of the schools had to use a pit toilet or outhouse. In the 1940s, Jim Cherry, a designee from the Georgia Department of Education, came to unify the "15 independent school districts, each with its own trustees and tax systems" (Price, 2008, p. 22). Cherry became the superintendent and remained in the position for 23 years during which "Guilford became one of the nation's best school system" (Price, 2008, p. 22).

In 1954, the schools were combined into 6 buildings that "were used until the public school system in Guilford County became desegregated" (Mason, 1998, p. 68; Price, 2008, p. 22). During this time, Harris led the effort to get indoor plumbing for residents and schools, introduced an adult education component to local Parent Teacher Associations (PTA), and enhance the curriculum for Black students. In 1969, Harris joined the Guilford County School System as Instructional Coordinator

for Elementary Education (Mason, 1998; Harris & Taylor, 1999, Price, 2008, p. 22). In 1969, a lawsuit was brought against the Guilford County School System charging that officials had operated a dual school system since 1954 (*Freeman v. Pitts, 503 U.S. 467*, 1992).

Black students were integrated into White schools in 1969. This proved to be a difficult transition for students and parents. Black parents did not feel welcomed at the schools and often had problems with the administrators. Harris worked with all schools in GCSS and eventually was considered the "Black superintendent" until her retirement in 1983 (Harris et al, 1999, p.18). Though Black students were integrated into White schools, school zones were determined based on housing areas. Egerton (1967) distinguishes between de facto and de jure segregation: de facto segregation "results primarily in racial segregation in housing" and de jure segregation is "enforced by law" (p. 10). White Flight was rampant in Guilford County. Schools in the southern end of the county originally had a majority White population. When Black families began moving into the area, White families moved to homes in the northern end or out of the county (Carter, 1993). Frankenberg and Lee (2002) conducted a study using school districts servicing more than 25,000 students in the United States. The researchers found that since the 1980s, numerous districts have become resegregated over time, which can impact student achievement.

For almost three decades, the Guilford County School System was under the supervision of the federal courts. This court supervision greatly influenced the Guilford School System and the way in which it operated. In 1989, the GCSS School

Board petitioned the federal court to declare the school system unitary. Though the Circuit Court declared the system unitary, the Appellate Court overturned the decision stating that in order for Guilford to be considered unitary, "Guilford must be unitary in six areas (student assignment, faculty and staff placement, transportation, extracurricular activities, and facilities) at the same time and for at least two to three years" (Guilford County School System, 2011). In June of 1996, the GCSS School Board appealed this decision to the state Supreme Court, which ruled in Guilford School System's favor and ended 27 years of court supervision (White, 1998).

The minority population, which at the time of the initial court case was only 5 percent of the student population, has grown to 90 percent of the district. Similarly, the number of students in poverty has also increased, adding to the complexities that make up GCSS. The socioeconomic climate has changed significantly in Guilford County with the closing of several low income housing developments in Atlanta, which led to an increase in the number of Guilford homeowners renting their homes and moving to other neighborhoods and opening up their homes to lower income families through the housing authority.

As a public institution, Guilford County Schools is accountable to its constituents: taxpayers, parents, students, community members, and employees as well as its 7-member board of education. The school board whose members are elected by the voters in Guilford County appoints the superintendent. Every employee is held accountable by a variety of inside and outside entities. This level of accountability can be exacerbated by the media, which not only publicizes news

about the district, but also often sways constituents' opinions. The media can deliver a story in a positive or negative light regarding teachers and/or schools. When negative news is highlighted more than positive information about the schools system, the community may begin to form opinions on the schools and leadership of rather than obtaining all the information to make an informed decision.

The teacher attrition rate by high school for Guilford County is shown in Table 2.3. The number shown is the percentage of teachers that left the school each year. This information is helpful in determining which schools need to be assessed to understand the primary reason for the high levels of attrition.

Table 2.3. Teacher Attrition Rate in Percentages by School*

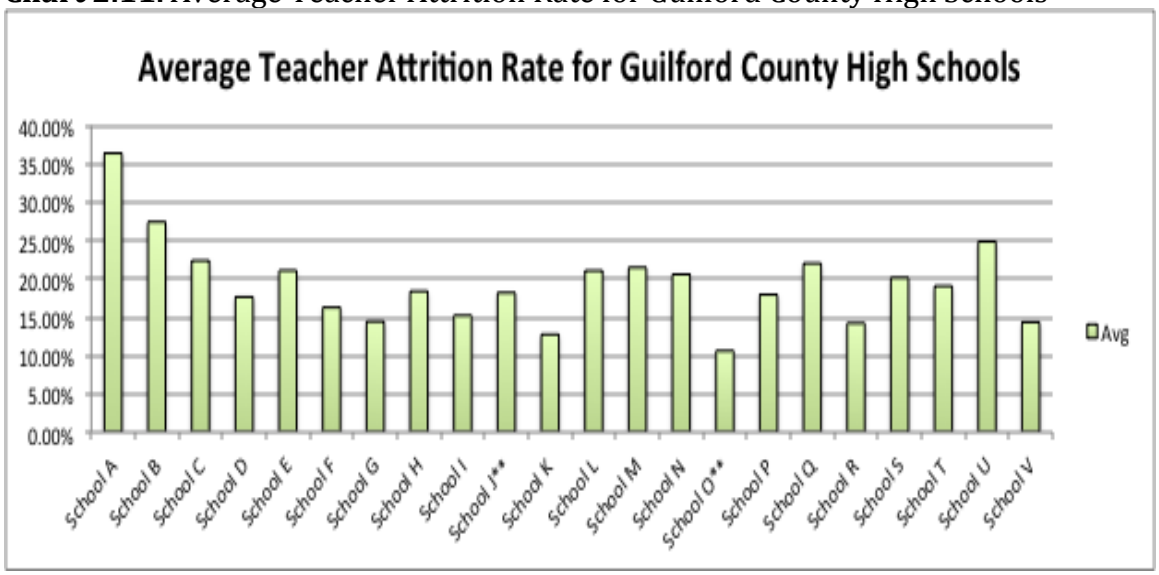
High School	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2010-2009	2010-2011	Avg.
School A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36.40	36.40
School B	20.90	15.10	34.50	18	21.10	42.90	21.10	45.90	27.44
School C	15.80	25	27.30	20.20	27.10	24.80	21.20	17.70	22.39
School D	16.40	16.50	14.30	18.80	22.90	14.70	16.10	21.50	17.65
School E	16.40	24.30	15.80	21.20	22.50	30.70	17.30	20.60	21.10
School F	15	24.10	17.90	21.20	12	11.80	11.20	17	16.28
School G	11.50	15.30	13.80	18.10	13.40	18.80	11.80	12.90	14.45
School H	13.40	19.80	25.40	17.60	28.80	10.80	14.70	16.70	18.40
School I	17.30	16.30	8.60	11	11.60	18.30	19.10	19.60	15.23
School J**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.20	18.20
School K	15.10	7.60	8.40	20	12.70	13.90	9.50	14.90	12.76
School L	24.80	25.10	20	24.20	22.40	18.10	11.10	22.90	21.08
School M	33.70	26.70	21.80	14.30	28.10	14.80	11.20	21.30	21.49
School N	N/A	N/A	20.50	18.50	19.50	27.80	8.20	29.10	20.60
School O**	0.50	8.80	13.10	14.30	15.70	11.30	N/A	N/A	10.62
School P	15.20	28.30	17.30	16.80	12	19.80	12.90	21.30	17.95
School Q	20.20	24.70	28.40	13.30	20.50	24.40	16.70	28.10	22.04
School R	19.70	19.70	16.10	9	15.40	6.70	12	15.20	14.23
School S	26.80	19.80	17.50	14.70	19.60	22.90	20.30	19.60	20.15
School T	23.40	30.90	12.30	24.30	19.30	14.10	10.30	18	19.08
School U	13.40	28.90	25	28.80	30.40	25.90	22.30	24.30	24.88

School V	14.50	15.70	9.30	21	16.40	15.10	9.50	13.40	14.36

Source: Georgia Professional Standards Commission, 2011
*Guilford County began tracking Teacher Attrition during the 2003 – 2004 school year.
**School O High School was renamed School J High Schools after a GCSD Board Member that passed.

School A is the newest high school in GCSS. Four of the five schools (Schools G, I, K, and V) with the lowest average attrition are situated in the northern end of the district (see Figure 2.2). Administration changes have taken place on the southern end of Guilford at higher rates than the schools in the north. Consistent leadership is a factor that can cause the attrition rate to remain fairly low.

Chart 2.11. Average Teacher Attrition Rate for Guilford County High Schools



Despite the increase in the number of foreclosures in Guilford, the homes in the North end of the county have held their value more consistently and there have been fewer foreclosures. There is also consistent leadership in administrators at the schools and higher parental involvement as well as community involvement in the North end of the county. This allows for more resources for the teachers and students, which also increases teacher efficacy and attrition. Additional research

will allow for the determination of how the attrition rate remains low in these schools.

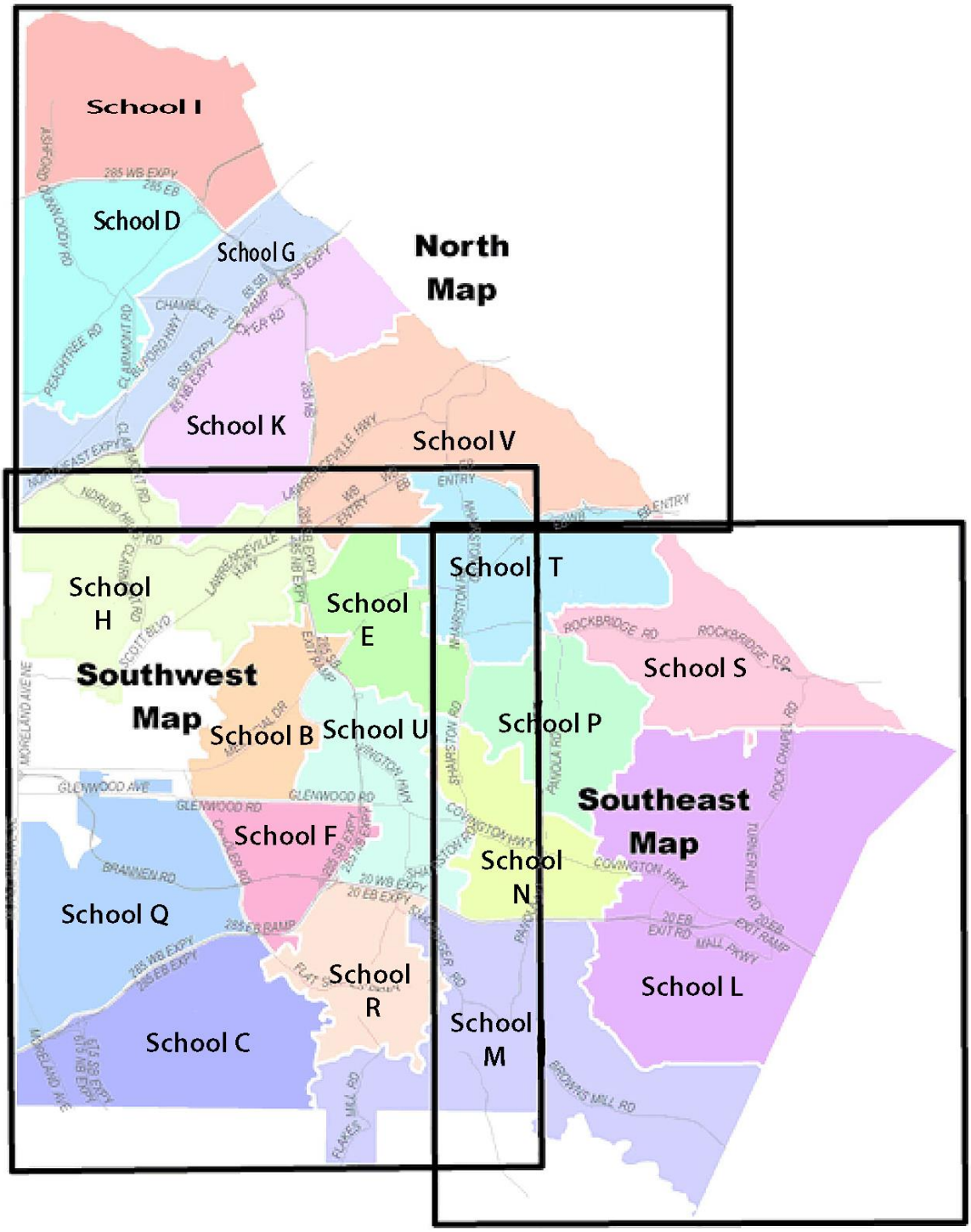


Figure 2.2. Residential Areas by High School
Source: Guilford County School System, 2011

Resource Allocation

Resource allocation affects teacher efficacy and teacher retention. Resource allocation refers to human capital and financial resources. Betts and Shkolnik (2000) discuss the importance of human capital in schools. Teachers have varying levels of experience in their subject area. When students are grouped based on ability levels, teachers with more experience are often assigned the advanced classes. This leaves less experienced teachers to teach the general or remedial classes. Homogenously grouping students by ability is detrimental to the lower performing students. If students are grouped homogenously, assigning teachers with high efficacy levels to general or remedial students can impact their progress. Teachers can work with students to improve their skills and standardized test scores and increase interest in learning (Betts & Shkolnik, 2000).

Allocating financial resources effectively is important. Financial resources contribute to compensating teachers and purchasing supplies and equipment to supplement instructional activities. Financially compensating teachers could reduce the attrition rate. Teachers are paid based on the salary schedule set by the school district (GADOE, 2011). With teachers being compensated less than their professional counterparts in other industries, teachers may do a cost-benefit analysis to determine if continuing to teach is personally beneficial for them. Teachers that have degrees in areas outside of education have additional occupational options available (Shen, 1997; Darling-Hammond, 2003).

Faculty and staff in schools are human capital that impacts the effectiveness of a school district. These employees interact with students daily and directly

impact student achievement. Teachers are placed at schools based on the needs of each school. Some teachers are able to select the school whereas others are placed at schools. This can affect a teacher's feelings toward the school climate and impact the interactions between other faculty members and students. Professional development enhances the human capital of each school district (Goddard, Hoy, & Hoy, 2000).

Teachers and students feel the pressures of the mandates placed on schools. Students are expected to pass End of Course Tests (ECOT) in many of their core curriculum classes and pass the Georgia High School Graduation Test (GHSGT) during their junior year in high school. The Georgia Department of Education (GADOE) has made changes so that students who began in Fall 2011 will not have to take the GHSGT if the EOCT is passed in the subject area (GADOE, 2011).

Students are impacted by resource allocation decisions because there are fewer resources available to enhance the classroom material. The number of field trips, labs, and instructional resources—activities which enhance the educational experience-- are being reduced due to funding issues. The curriculum is brought to life through these experiences and allows students to make real world connections. Students have various learning styles and these hands-on activities were critical for many students. Mastering the course standards and passing the designated standardized tests are already overwhelming to some students. Reducing the activities that helped reach these students is detrimental to their education.

The CLASS (Classroom Analysis of State Standards) Keys Teacher Evaluation System is the current evaluation system for teachers in Georgia which Guilford

piloted during the Spring of 2012. This new system requires teachers document instructional strategies and student work in order to create a portfolio that supports each area of their performance evaluation. Teachers will have seven classroom observations annually. Student surveys will also be conducted. These three areas (portfolio, observations, and student surveys) will be used to determine the overall effectiveness of each teacher. EOCT scores are a percentage of the overall evaluation score. Teachers that do not teach classes that administer EOCT exams (such as CTAE, ROTC, World Langauges) have to test students at the beginning and end of the semester to measure growth using Student Learning Objectives (SLOs). The additional evaluation requirements for teachers can be overwhelming and frustrating for teachers that are continuously given increased responsibilities with decreased compensation.

Guilford County Schools Strategic Plan

The strategic plan for GCSS was developed and approved by the GCSS Board of Education in the 1995-1996 school year. It is reviewed every two years and completely revised every five years by the stakeholders. All aspects of planning take into account the factors inside and outside of GCSS, but as they are constantly changing, so too must the plan be revised regularly. The strategic planning committee identified five objectives: improving student achievement, ensuring quality personnel, providing a risk-free learning environment, creating financial stability, and increasing the effectiveness of educational personnel (Guilford County School System, 2011).

From a competitive standpoint, a public school is only as good as its students.

GCSS has many programs that are also available in other districts, allowing GCSS to remain competitive. These programs include special education, career technology, ELL instruction, the International Baccalaureate Diploma, and magnet and theme school choice programs. Additionally, the Family Technology Resource Centers (FTRC) operates for all residents of Guilford County and is available to employees. These centers provide community access to technology and computer-based learning, encourage parental participation and involvement in the classroom, and promote meaningful business partnerships that address community needs and interests (Guilford County School System, 2011). These programs specifically serve the diverse student population and without these programs, Guilford would not be the system that it is.

The weaknesses that GCSD must overcome are daunting. The public perception of the district reflects disturbing opinions of nepotism and excess spending at the administrative level. The district is in Needs Improvement status due to so many schools not making Adequate Yearly Progress (as outlined by 2001's No Child Left Behind Act) for several years. Although many students have succeeded and the district's 2014 four-year graduation rate is approximately 62.3%, almost 40% of students either drop out or take longer than the traditional four years of study to graduate. Changes in the state's curriculum mean that all 6,812 Guilford County teachers must be trained. While GCSS has a strong professional development division, training that many teachers, monitoring their performance, and addressing their weaknesses is a huge undertaking (Governor's Office of Student Achievement, 2015).

With the drastic changes in district leadership that have occurred, the debate on selecting which schools to close was tense. The list was comprised of 23 schools that were being suggested to close. Closing schools has two implications: the district was paying far too much in utilities and maintenance for buildings that are not being fully utilized; and two, much dissent would come if GCSS tried to close or combine facilities that are operating well below capacity. The school system went through tremendous change while also dealing with the decreasing financial climate, causing some push back from employees (Matteucci, 2010; Badertscher, 2013).

Overall, there is a great deal of mistrust in the district from its stakeholders – parents, students, community members, and employees. This is compounded by rapidly increasing fiscal issues. When cuts are proposed, the public tends to believe that the administration is protecting itself to the detriment of the schools. For the 2007-2008 budget, an annual step increase, which is a salary increase due to a portion of the instructional staff for their years of service, was initially built into the budget. When the state retracted the $10.5 million, the step increase was affected, costing GCSS $9 million. The 2009-2010 budget did not include a "cost-of-living" (or a "step") increase. The financial situation in GCSS is not projected to improve for several years. The many unknown factors make it more difficult to plan for the future (Guilford County School System, 2011).

The revision of the strategic plan in 2009 was an opportunity for GCSS to pull together all of its resources to ensure the district's success during that period of uncertainty. Implementation of an updated information data management system and a student information system during the 2010 school year allowed staff

members to utilize data to more creatively plan and meet each student's needs. Professional learning was provided for all teachers, especially those in areas of academic need for students. A new parent involvement initiative was implemented with the hope that increasing parental presence would subsequently increase parental involvement in the academic lives of their children. By beginning the cuts in 2009 last year, GCSS minimized the damage that the following year's shortfall would bring. The superintendent's senior staff and budget committee worked to ensure that they planned ahead. More cuts were on the horizon for school districts based on tough economic times (Guilford County School System, 2011).

Currently, GCSD is in a position to move forward financially because of the depth of planning to address additional shortfalls. From a strategic standpoint, the district has much more work to do regarding the overall plan for improvement. For many years, senior staff developed plans without truly consulting stakeholders. Beginning in 2006, the strategic plan involved stakeholders. Since then, a Balanced Scorecard has been implemented to align the GCSS vision and values with the goals and actions of the district, to facilitate communications, and to give the district a means to hold itself accountable for meeting those goals. The Balanced Scorecard brings together every facet of the district: instruction, administration, finance, operations, technology, and human resources. Bringing a varied team of planners and managers from within and from outside the district to design the plan, offers an advantage brought out by Mintzberg (1994), that planners and managers are both needed to implement any kind of strategic plan. District personnel serve as managers. They have the power throughout the district to implement the plan.

Planners are often stakeholders and constituents who have the time and desire to analyze. Stakeholders include community members, business partners, parents, and students of the district. Having external players on the team adds an element that may ensure that all options are examined (Guilford County School System, 2011).

An integral part of the plan is to ensure that the proper personnel are in place to make things happen. Time and resources have been pledged to aid in locating and retaining the appropriate leaders and teachers. Maximization of the human capital throughout the district remains a priority. A partnership with the Atlanta Chamber of Commerce was formed in 2008, to formulate a district-wide survey of school personnel in an attempt to determine what makes employees want to work in GCSS and why some choose to leave. An outcome of the survey and the work of the task force was the introduction of the Gallup Teacher Insight assessment as a part of the 2009-2010 hiring process for teachers and administrators. This research-based diagnostic tool assists GCSS in hiring the most qualified candidates for all positions. Perhaps the most promising aspect of this tool is that school-level personnel can utilize it. While the district continually attempts to place appropriate employees in leadership positions, limited resources have been put towards determining the strengths of its teaching applicants. This process is a direct result of the Balanced Scorecard analysis of human resource development and its impacts on the district (Guilford County School System, 2011).

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

Purpose of the Study

Over the last several years, the declining economy has significantly affected the educational system (Ward, 2009). According to Sielke (2011, p. 175), "Since 2004, school districts have been trying to make do with much less as this recession continues to force more cuts." Changes made in the educational system due to the economy have not only affected students, but also the efficacy of teachers in the classroom. Furlough days and salary reductions have impacted teachers directly. One would assume with increased responsibility and accountability, salaries would increase rather than decrease. Given the economy, increasing salaries were not an option; however, decreasing salaries with the other changes that were implemented did not affect efficacy in a positive manner (Johnson, 2012).

Teacher efficacy is teachers' belief that their expertise in their content areas will lead to students learning (Ross, 1994). During difficult economic times, teacher efficacy is important because teachers must continue teaching students in spite of budget constraints. Budget constraints could lead to changes that affect class sizes, instructional resources available, or teacher compensation. Educators often enter the profession because of their love for children, learning, and wanting students to maximize their potential. However, educators must contend with increasing pressures imposed on their field by policy makers at the federal, state, and local

levels (Reschovsky, 2004). For an educator, the pressures can become overwhelming and frustrating. Conducting this research can be the first step in allowing educators to express their opinions and for solutions to be created to address teachers' concerns and would enable school districts and policymakers to determine how to adjust the budget while maintaining a positive work environment. The following research questions guide the study:

1. How have the economic conditions of the Guilford County School District changed from 2007 – 2012?
2. In what ways did the economic conditions affect high school teachers' self-efficacy in the Guilford County School District?

Data

Historical financial data over a ten-year period (2002-2012) will be used to answer the first research question. Analyzing data over a ten-year span will illustrate how school systems allocated resources during strong and weak economic times. These data will be pulled from the Georgia Department of Education (GADOE), the National Center for Education Statistics (NCES), Guilford County School District (GCSD), and other agencies that track school districts' revenue and expenditure data.

To answer the second research question, a teacher questionnaire was developed and adapted from the Teachers' Sense of Efficacy Scale created by Tschannen-Moran and Hoy. The instrument used in this research has three parts. Part one was the long version of the Teachers' Sense of Efficacy Scale, containing 24 statements. Teachers rated these statements using a Likert scale with responses

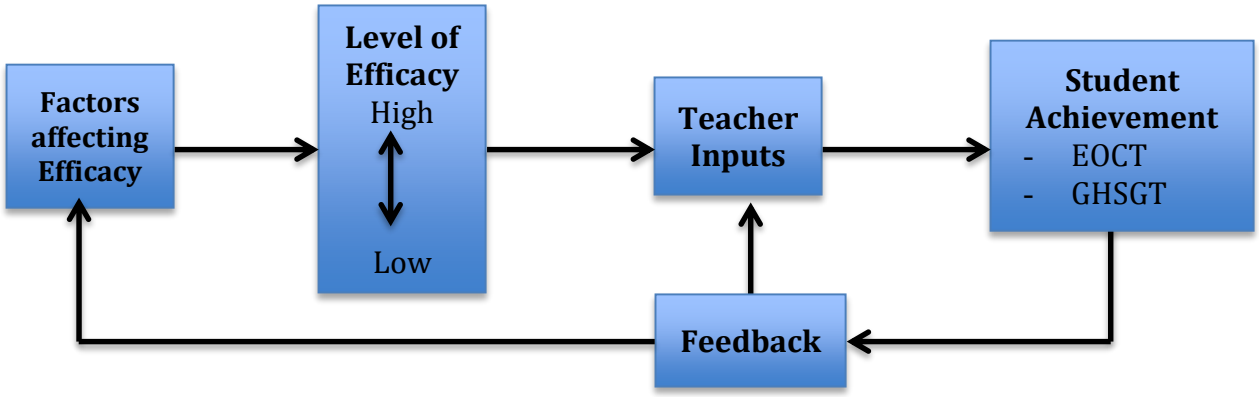
ranging from "nothing" to "a great deal". Parts two and three of the questionnaire contained three open-response questions and demographic questions, respectively. The instrument can be viewed in the Appendix A. The instrument was sent to teachers via Survey Monkey, which allowed for the data to be easily collected and analyzed.

Factors Affecting Efficacy

Dembo and Gibson (1985) define teacher efficacy as "important beliefs that influence teacher-student interactions and teachers' success in producing student achievement gains" (p. 173). As previously mentioned, the economic decline has affected the funding for education over the past few years. The lack of funding has a direct effect on the factors that affect efficacy. The factors that affect efficacy include, but are not limited to, professional development, administrative support, facilities, years of experience, and resources available for instruction. These factors can positively or negatively influence the efficacy level of a teacher, ultimately impacting the amount of effort placed into all aspects of instruction. Teachers' felt additional pressures based on the requirements brought on by the No Child Left Behind Act of 2001 (NCLB) (Reschosky, 2004). In addition to the traditional demands school systems experience regarding graduation rates, test scores, and student performance, pressures came from the state requirements regarding schools making adequate yearly progress (AYP) or being classified as needs improvement (NI). (Georgia Department of Education, 2009; Reschovsky, 2004) The threshold to achieve AYP increased yearly making the task more difficult (*No Child Left Behind Act of 2001,* 2008).

Though the instructional program at a school is important, schools and student achievement are measured based the standardized tests. These tests are in place to comply with the standards set forth by the Georgia Board of Education in the College and Career Ready Performance Index (CCRPI), which has replaced NCLB. Based on a school's CCRPI score, people may make assumptions about the overall instructional program at a school. Standardized test scores (based on EOCT and GHSGT exams) are used to determine whether schools are successful based on the improvement targets set for the school. After determining the level of achievement attained, feedback is provided to teachers that can impact their efficacy level and inputs for the future. Teachers that teach courses with an EOCT, student scores can be discussed and compared to scores of students that take the same course from another teacher. Teachers that do not teach EOCT courses have Student Learning Objectives (SLO) scores to determine the amount of growth per student each school year. Collaborating with other teachers is beneficial to determine strategies that can be implemented in the classroom (Ross, 1994).

Considering the factors that affect efficacy, the following model is the theoretical framework that will be used to answer the research questions:



Taking these factors into consideration, teachers' efficacy levels can range from high to low. Depending on the teacher's level, the teacher inputs – the amount of preparation and depth or breadth of instructional activities – can increase or decrease. The scores on standardized tests are gauging student achievement in this model; therefore, students' scores are used to determine if students are achieving. The feedback received is in terms of the scores on the assessments. When the student scores are compiled per teacher, teachers are able to assess how well prepared students were for the examinations, areas that need additional attention during the next instructional period, and how their efficacy level is impacted moving forward.

Financial Data

Financial data from the state and school district allow for the budget areas that are decreased to be highlighted and compared. Annual reports, allotment sheets, and revenue and expenditure sheets for both Georgia and GCSD will be analyzed. Other areas that could have been adjusted will be probed. It is important to compare areas that have been affected the most since the economy declined in

2007. Budgetary cuts that were implemented show how effective or ineffective the cuts were to the school district. Additionally, policymakers should consider other areas that should be adjusted in the future rather than financially impacting teachers as an easy cost savings method.

Sample

The Guilford County School District (GCSD) has 19 traditional high schools throughout the district that receive full-time equivalent (FTE) funding. There are 1,523 high school teachers in GCSD (Governor's Office of Student Achievement, 2015). The sample used for this study consisted of high school teachers that have been teaching in GCSD at one of its traditional high schools for six or more school years. Principals in 9 schools granted permission for participation. All teachers in those high schools received the questionnaire; however, teachers that did not meet the sample criteria were removed from the sample. Teachers that have been in GCSD for at least six years have had the opportunity to work in the district prior to faculty and staff reductions and teacher furloughs. Furthermore, teachers with six or more years of teaching experience have had an opportunity to see the changes in administration in the district, to collaborate with colleagues throughout the school district, and to make adjustments to their instructional strategies.

High school teachers across the district will provide insight into the individual and collective efficacy levels at their schools. GCSD is a large district that has experienced massive changes over the past three years. These changes may have impacted the culture at various schools within the district. The number of teachers at each high school varies based on the enrollment of the school. To look

more closely at how these changes have affected faculty and students, teachers in can provide information about which areas in the district need attention in order to improve the efficacy levels at the schools, which will, in turn, impact student achievement. The efficacy level of teachers at each school will be determined based on the responses received in the questionnaire.

Questionnaire

Quantitative research can be used to show the relationship between various factors. Quantitative variables can measure degrees of differentiation (Huck, 2008). Research question two is best situated for quantitative methods. There are several instruments that have been created and validated to study teacher efficacy – The Rand Measure, Responsibility for Student Achievement, Teacher Locus of Control, and Teachers' Sense of Efficacy Scale, etc. (Tschannen-Moran et al, 1998; Tschannen-Moran et al, 2001). Based on the current instruments available, the Teachers' Sense of Efficacy Scale was selected and modified slightly to ascertain additional information.

The questionnaire utilized is a modified version of the Teachers' Sense of Efficacy Scale created by Megan Tschannen-Moran and Anita Woolfolk-Hoy to measure the efficacy level of high school teachers. All teacher efficacy surveys were reviewed to determine which would be best suited for this study.

High school teachers throughout the school district were able to complete the questionnaire. The questionnaire is comprised of three sections – belief statements, open-ended responses, and demographic information. This data will

effectively present the changes and the information will be used to determine how the district is impacted and how teachers' efficacy level of has changed.

The questionnaire statements relate to teachers attitudes, behaviors, and perceptions, and how teachers have adjusted their behavior since the decline of the economy. A Likert Scale with nine options will be provided for each statement from "Nothing" to "A Great Deal". (Bradburn, Sudman, & Wansink, 2004; Spector, 1992). The belief statements are directly from the Teachers' Sense of Efficacy Scale and allow teachers to determine their behaviors and attitudes. Open-ended response questions were added to the instrument to allow teachers to provide detailed information that will be coded to determine patterns. The demographic information was important to determine the perception of population segments about the various statements. Different groups within the sample may have similar feelings on issues or highlight areas that were unexpected.

The Teachers' Sense of Efficacy Scales was developed in 2001 at The Ohio State University using Albert Bandura's 30-item Teacher Efficacy Scale as a starting point to create the instrument. After multiple trials, a long and short form of the instrument was created which consist of 24 questions and 12 questions respectively. The three areas covered in this form are efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management (Tschannen-Moran et al, 2001). This study utilizes a modified version of the long form of the Teachers' Sense of Efficacy Scale.

The Teachers' Sense of Efficacy Scale was tested in three separate studies and refined to the current long and short versions that are utilized. During each

study, the instrument was validated using two previous efficacy scales as comparisons. This instrument has been found to be valid and reliable in each of the three areas that are being evaluated as shown below in Table 3.1 (Tschannen-Moran et al, 2001).

Table 3.1. Validity and Reliability of Teachers' Sense of Efficacy Scale

	Long Form		
	Mean	**SD**	**alpha**
Teachers' Sense of Efficacy Scale	7.1	.94	.94
Efficacy in Student Engagement	7.3	1.1	.87
Efficacy in Instructional Strategies	7.3	1.1	.91
Efficacy in Classroom Management	6.7	1.1	.90

Methods

This study relied on economic analysis, factor analysis, and a one-way analysis of variance (ANOVA) to answer the two research questions. The first research question was answered using annual reports, budgetary data, and national, state, and local economic data. This information was collected from Guilford County School District, National Center for Education Statistics, Georgia Department of Audits and Accounts, and other federal agencies. This information was used to determine how the economy has changed and the ways in which the school district was impacted. Furthermore, the various alternatives that were considered to adjust the budget for the school district were reviewed.

Descriptive statistics, factor analysis, and a one-way analysis of variance (ANOVA) were used to answer the second research question based on data that was collected from the teacher efficacy questionnaire. Factor analysis was used to determine how closely all factors for each construct were related. A series of one-

way ANOVAs was used to determine statistically significant difference between the independent variables and the three constructs measured in the survey.

Data Collection

Upon receiving approval from the central office, the principals for each high school had to be contacted for approval prior to conducting the research. An email was sent to all high school principals in the district. All principals that responded were then sent an email to forward to their faculty that contained the survey link. Phone calls were placed to principals that did not respond to the initial email. When contact was made, the initial email was resent. After receiving approval, an email with the link was sent to these principals. Ten principals responded and allowed the teachers to complete the survey. Three phone attempts were made to principals. Two principals verbally declined participation while two principals sent emails to decline. The remaining principals did not respond to emails nor phone calls. Based on the aforementioned responses, the sample size decreased to 753 high school teachers.

Teachers are inundated with e-mails on a daily basis; therefore, talking to teachers directly prior to disseminating the instrument could have resulted in a higher response rate. Principals requested the survey be sent to them directly and forwarded the survey to their faculty. The email included information about the survey, the importance of the research, and the link to the survey.

Teachers received the survey electronically via e-mail from their principal. Electronic surveys allowed teachers to complete them at their convenience (i.e., before or after school, during their planning period, or at home). Furthermore,

electronic surveys provided opportunity for teachers to sit and think about their responses without the interference of others (Bradburn et al., 2004).

Data Analysis

Survey responses were downloaded from Survey Monkey to Excel. Once the data was in Excel, respondents that did not meet the criteria were removed prior to uploading the data into SPSS Statistical software. Once the data was uploaded to SPSS, a descriptive statistical analysis was completed. Then, a factor analysis was completed based on the questions in the three subcategories for the questions – efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management.

Demographic data was coded as shown below in Table 3.2 prior to performing the descriptive analysis and ANOVA. The independent variables used were gender, ethnicity, age, years of experience, highest degree earned, subject taught, Title I school, and primary source of income. The dependent variables were the teacher efficacy subcategories –student engagement, instructional strategies, and classroom management. One-way ANOVAs were performed for each independent variable on the three dependent variables.

Table 3.2 Demographic Data Coded

Category	Answer Choices	Code
Gender	Male	0
	Female	1
Ethnicity	African-American	0
	Caucasian	1
	Asian	2
	Other	3
Age	26 – 30 years old	0
	31 – 35 years old	1

	36 – 40 years old	2
	41 – 45 years old	3
	46 – 50 years old	4
	51 – 55 years old	5
	Over 55 years old	6
Years of Experience	4 – 6 years	0
	7 – 10 years	1
	More than 10 years	2
Highest Degree Earned	Bachelors	0
	Masters	1
	Educational Specialist	2
	Doctoral	3
Subject Taught	Core (Language Arts, Mathematics, Science, Social Studies)	0
	Non-core (CTAE, ROTC, Health/PE, Fine Arts, World Languages)	1
	Exceptional Education	2
Title I School	No	0
	Yes	1
Primary Source of Income	No	0
	Yes	1

Limitations

There are a few limitations that proved challenging when collecting the data. First, Guilford County's Research Department reviews requests for research three times per year. Therefore, there was a four-month grace period before this proposal was reviewed. As mentioned during data collection, each principal had to approve the study being conducted in his or her school. Obtaining approval from the principals was problematic and resulted in all teachers not having an opportunity to complete the survey. Upon receiving approval from the district, it would have been

easier to send the survey directly to faculty instead of going through each individual principal.

Another limitation was the inability to gain access to all schools in the school district as mentioned earlier. Given the number of high schools in GCSD, time constraints prevented the researcher from visiting every school during a semester. Principals preferred to send the survey to the faculty rather than have the researcher introduce it to the faculty. Principals forwarded the link containing the survey to the faculty in their respective buildings. Some teachers may have not been willing to participate for various reasons, such as belief that the topic is not important, forgetting to complete the survey because of numerous daily responsibilities, or being fearful of being able to respond honestly and remain anonymous.

Dillman, Smyth, and Christian (2009) suggest telling respondents what they want to hear – their opinion matters, help is needed, they are appreciated, and the survey will not take up too much of their time. Providing this information about the survey or talking to the faculty directly prior to receiving the survey via e-mail could have allowed for teachers to feel more comfortable about the instrument. They could also have understood that the information being collected would not affect them professionally if they had negative feelings to express.

CHAPTER 4

DISCUSSION OF RESULTS

The purpose of the study is to determine if teacher efficacy has been impacted as a result of the decline in the economy and reduction to school districts' budgets. The following questions guided this study:

1. How have the economic conditions of the Guilford County School District changed from 2007 – 2012?
2. In what ways did the economic conditions impact teachers' self-efficacy in the Guilford County School District?

As discussed in Chapter Three, economic trends and financial data from the district were analyzed along with the results of the questionnaire to determine if teachers perceive their efficacy level has changed.

This chapter is divided into two sections. The first section analyzes the economic differences during the specified time period. Section two discusses the results found from the Teachers' Sense of Efficacy Scale (Adapted).

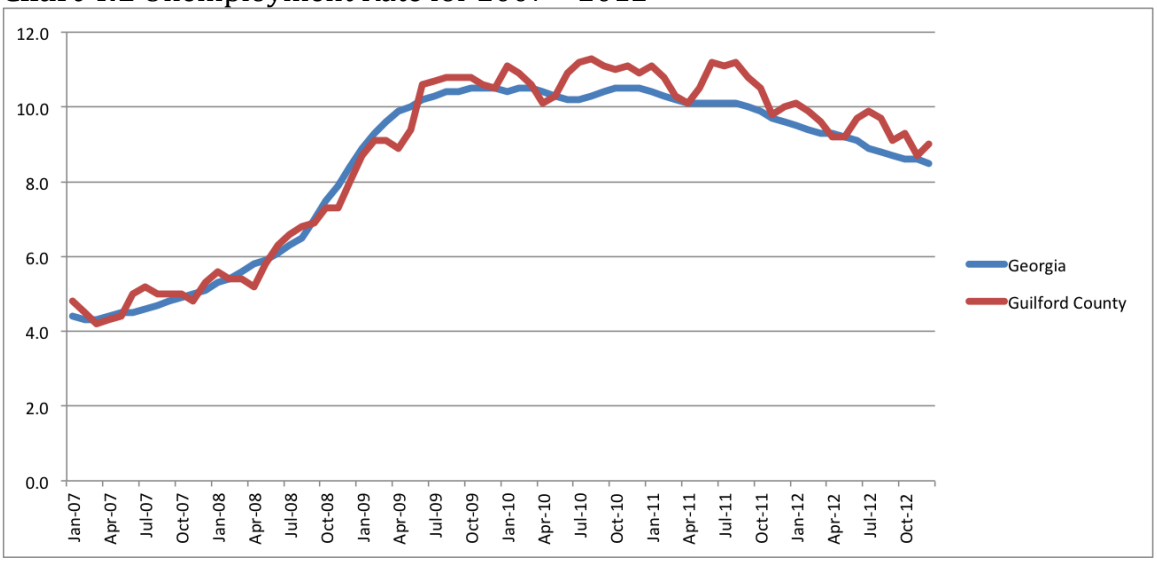
School District Economic Conditions

Guilford County "has lost 50% of its tax digest during the last six years, shifting the burden of taxes to an increasingly poor demographic" (angeloueconomics, 2014, p. 6). This can be attributed to cities being incorporated and some residents have moving to neighboring counties. Guilford County has had a population growth of 6.3% as compared to neighboring counties that have

increased 16.3% and 43.5%. Additionally, the county residents are aging. The number of young professionals in Guilford County has decreased by 16.2%. Taking into consideration the aging population, the small growth rate, and additional new cities, one can understand why the tax base has decreased thus impacting school district funding (angeloueconomics, 2014). This is a factor that must be considered though it is beyond the control of the school district.

Another contributing factor to the declining tax base is the unemployment rate: "Unemployment and poverty in Georgia have increased dramatically in the wake of the deepest recession since the Great Depression" (National Women's Law Center, 2011). Based on the Federal Reserve Economic Data (FRED), the unemployment rate for Guilford County exceeded the unemployment rate for the state of Georgia for most of the recession (see Chart 4.1).

Chart 4.1 Unemployment Rate for 2007 – 2012

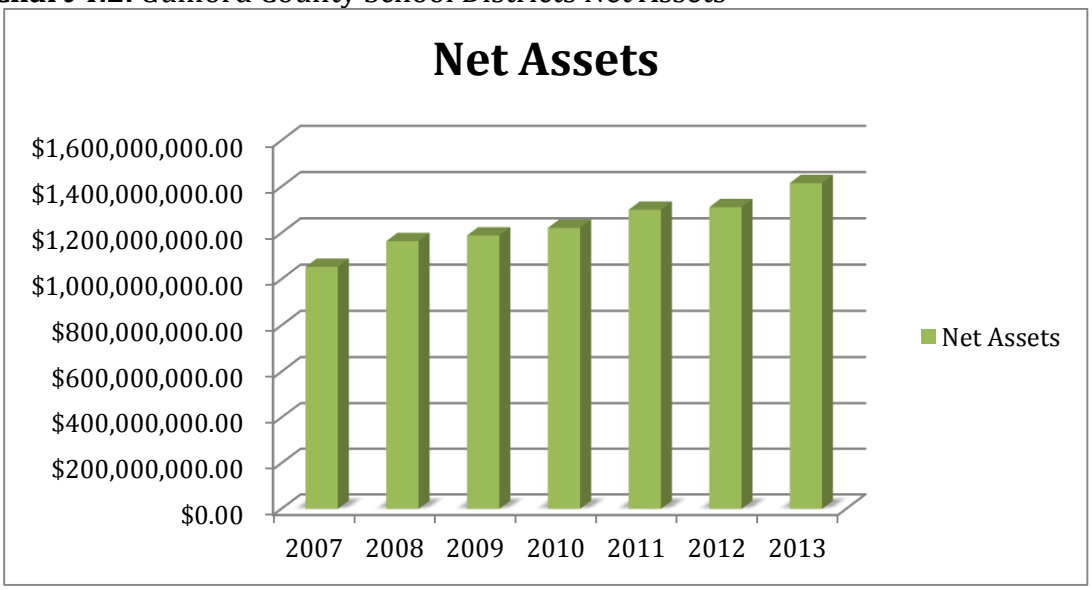


Source: Federal Reserve Economic Data, 2015

Though the county had a high level of unemployment, the school district was not impacted as heavily. However, changes had to be made during the recession that

impacted the district on various levels. The budget and audit reports for fiscal years 2007 – 2012 provided a great deal of insight into the GCSD's financial state and issues that district faced that had effected the district monetarily. Over the aforementioned time period, Net Assets increased slightly, as shown in Chart 4.2.

Chart 4.2. Guilford County School Districts Net Assets



Source: Georgia Department of Audits and Accounts, 2007; Georgia Department of Audits and Accounts, 2008; Georgia Department of Audits and Accounts, 2009; Georgia Department of Audits and Accounts, 2010; Georgia Department of Audits and Accounts, 2011; Georgia Department of Audits and Accounts, 2012; Georgia Department of Audits and Accounts, 2013

Several items were highlighted in GCSD budget and annual reports. GCSD has been involved in a lawsuit over a breached construction since 2007. It has been documented in all audit reports as a significant contingent liability for the district. If the district is found to be in breach of contract, GCSD will have to pay $1,000,000 and legal fees. Also noted in the 2007 reports, schools were having problems with Purchase Cards (P-Card). Policies and procedures for P-card purchases were revised

and activity was being monitored for fraudulent purchases or abuse (Georgia Department of Audits and Accounts, 2007).

In 2008, GCSD had to pay $977,692 to a nonprofit organization in Michigan that provided funding to a charter school. This covered a loan to finance the school while the district was seeking state funding. The district had to reimburse the organization for the funds the state would not cover. Also noted was the relationship between the then-Chief Operations Officer whose husband received construction contracts for the district. Bids were not submitted for all contracts that were granted. This is one factor that would eventually lead to the change in leadership for the district. The related party transactions are also noted again in the 2009 annual report in which the construction company received $123,098.51 and was used as a subcontractor on other projects within the district (Georgia Department of Audits and Accounts, 2007; Georgia Department of Audits and Accounts, 2008).

Per the 2010 annual report, the district no longer employed the Chief Operations Officer; however, her husband's company received $15,221.32 and again was used as a subcontractor on projects for the district. In 2011, GCSD entered into a lease agreement for $63,460,000 for a replacement high school. Payments toward the lease would begin in 2013 (Georgia Department of Audits and Accounts, 2010; Georgia Department of Audits and Accounts, 2011).

During the economic downturn, the school district and the county government went through leadership changes that impacted the county and the school district financially. Within three school years, three people served in the top

seat of the school district. Guilford County's superintendent and Chief Operations Officer were relieved of their positions and indicted on charges mismanaging school district funds in FY 2010. GCSD operated under an interim superintendent during FY 2011. In FY 2012, a new superintendent was name and remained with the district for almost a year and a half. With the school district changing leadership three times within three years, there was very little confidence in the school district's effectiveness (angeloueconomics, 2014).

Education is an area that is thought to be recession proof. School districts must continue to educate students in difficult economic times. However, adjustments may have to be made to meet the needs of the students and for the district to be able to sustain financially. From 2007 to 2012, GCSD made adjustments to ensure the school district would be able to sustain during the depressed economy. One adjustment made during this time period was increasing class sizes. The minimum funding and maximum class sizes for high schools according to the Georgia Department of Education are shown below in Table 4.1. School districts can request to have the class sizes increased. This is can be done on an annual basis.

Table 4.1. Georgia Department of Education High School Class Sizes

Grade(s) Subject(s)	Funding Class Size	Maximum Individual Class Size
Grades 9-12 English, Math, Social Studies, Science, Foreign Language	23	32
All other Subjects Grades 9-12	23	35
Vocational Labs	20	28

Remedial Grades 6-12 No paraprofessional	15	18
Remedial Grades 6-12 With full-time paraprofessional	15	18
Exceptions to Maximum Class-size for Grades K-12		
Typing/Keyboarding	35	
Instrumental Music	100	
Choral Music	80	
Physical Education No Paraprofessional	40	
Co-op Supervision	56	

Source: Georgia Department of Education, 2015

GCSD requested to have class sizes increased during the economic recession. For fiscal years 2011 and 2012, classes increased by between one to six students across all categories. For Fiscal years 2013 and 2014, special education class sizes were increased by between one to four students. English Language Learners (ELL), Career, Technical, and Agricultural Education (CTAE), and alternative/non-traditional education program (AEP) classes were increased by between one to six students. Regular Gifted, early intervention program (EIP), and remedial education program (REP) classes were increased by between one and eight students. Increasing class sizes allowed GCSD to meet the needs of students without hiring additional teachers (Georgia Department of Education, 2015).

Based on the Comprehensive Restructuring Plan, GCSD began making adjustments to the budget during fiscal year 2008 due to the large percentage of the budget allocated toward salaries and the 2% state austerity reductions. Several cost savings measures included: "a modified Transportation Efficiency Plan; cut central office equipment, travel, and supplies budget; cut by 2% central office employees

making $100,000 and above; rescind the $2.00 per student supplement to principals; and eliminate three programs" (GSCD, 2015). Additionally, step increases were not given to employees for fiscal year 2009 and all employees had one furlough day in fiscal year 2010 (Georgia Department of Audits and Accounts, 2008, Georgia Department of Audits and Accounts, 2009).

Furlough days are cost savings measures that were also implemented to reduce the budget: "A furlough is unpaid time that must be taken by an employee in order for their employer to cut costs" (Bartlett, 2009). Table 4.2 reflects the furlough days for GCSD to date based on the Board of Education Approved Calendars. The number of days varied each year and differed for 10-month, 11-month, and 12-month employees. During furlough days, employees are not to do anything work related, including checking email and coming on school grounds (Guilford County School District, 2010).

Table 4.2. Guilford County School District Furlough Days

	10-Month Employees	**11-Month Employees**	**12-Month Employees**
FY 2010	1 day	1 day	1 day
FY 2011	1 day	3 days	4 days
FY 2012	4 days	4 days	7 days
FY 2013	6 days	6 days	10 days
FY 2014	4 days	4 days	7 days >$80,000 – 8 days
FY 2015	-	-	3 days* >$80,000 – 4 days

*excludes 12-month clerical and custodial staff

Source: Guilford County School District, 2010, Guilford County School District, 2011, Guilford County School District, 2012, Guilford County School District, 2013, Guilford County School District, 2014

In addition to saving on salaries during furlough days, utilities are also a cost savings because the schools were not open and utilities were not utilized during those days. Guilford County has 137 schools and centers in addition to the other district facilities (several service centers and central office building). The savings on utilities during furlough days benefit the district. During the summer, 12-month employees have a 4-day workweek to further cut down on utility costs (Guilford County School District, 2015).

During the 2012 fiscal year, the school board approved a restructuring plan that would save the district additional funds. There was a significant reduction in the district workforce of 412 positions, which was estimated to save the district over $16,000,000. Bus monitors, media specialists, media clerks, interpreters, paraprofessionals, and school resource officers were some of the positions eliminated from schools and 70 central office positions were eliminated during the restructuring (GSCD, 2015).

GCSD was awarded $34,024,997 for Race to the Top (RT3) beginning in 2010. This additional money was used to pay for additional teachers, stipends, other salaried positions, substitutes, and benefits. RT3 funds were used to fully implement common core curriculum throughout the district, to transform the lowest performing schools, and increase the emphasis on science, technology, engineering, and math (STEM) in schools. The implementation included training and curriculum writing costs. As a result, two elementary schools have become STEM certified. RT3 funds are critical to GCSD because Student Learning Objectives (SLOs) have been created for over half of the non-tested courses in the district. The district plans to

use the funding to create SLOs for the remaining non-tested courses (Guilford County School District, 2015).

Attrition in the district

Teacher attrition is an issue that all districts throughout the United States must address. Attrition is considered amongst schools within a district, between districts, and outside of the education. Schools with that high enrollment of students from lower socioeconomic backgrounds tend to have higher attrition rates (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2008; Brill & McCartney, 2008).

In an effort to dissuade teachers from breaching their contracts, GCSD instituted a liquidated damages clause to contracts. Teachers that resign after contracts have been signed have $750.00 taken from their final paycheck. At the end of the 2014 school year, 500 teachers resigned after signing their contracts. For a district, losing 500 teachers is tremendous hit. This number does not take into account teachers that did not sign their contracts. Replacing this many educators has an enormous financial impact; however, the financial capital and human capital are both difficult to quantify (Akinyemi, 2013; Downey, 2014).

GCSD is not the only district to assess a liquidated damages fee. Various districts across the country also assess fees. Each district is able to determine the amount assessed. Districts have stated the fees are necessary to replace the teacher. Often, it is difficult to find someone that is able to replace the teacher that leaves. Some teachers also coach or sponsor activities beyond the school day. Losing a teacher that serves as a coach or sponsor is not always easy to replace with someone that also teaches the same subject and is able and willing to coach or

sponsor the same activities. Therefore the funds are used to recruit and train new teachers or to cover the expense of having to potentially start a school year without a teacher (Zirkel, 2004; Boyd et al, 2008; Brill et al, 2008).

Teacher Efficacy Survey Results

The instrument used for this study was an adapted form of the Teachers' Sense of Efficacy Scale. The instrument had three parts. Part one was the long version of the Teachers' Sense of Efficacy Scale containing 24 statements using a Likert scale with responses ranging from "nothing" to "a great deal". Parts two and three contained three open response questions and demographic questions, respectively. The instrument can be viewed in the Appendix A. The instrument was entered into Survey Monkey, which allowed for the data to be collected and analyzed easily.

The intended population for this study was all high school teachers in the Guilford County School District. GCSD has 19 traditional high schools. After receiving approval from GCSD, the principals had to approve the survey for each individual school. Nine of the 19 high schools participated in the study. The questionnaire was sent via email to the principals, who then sent the survey to the teachers. Participation by the teachers was voluntary.

Of the 753 teachers at the nine schools, 73 teachers participated in the study. Of the 73, seven did not meet the criteria for length of time teaching and were removed from the sample, for a response rate of approximately 9%. Due to the low response rate, the results cannot be generalized for the entire district. This low response was based on the limited number of schools that allowed the survey to be

given to their faculty. In addition, schools that had the most respondents have principals that have advanced degrees and took interest in the topic of the study. Those principals encouraged faculty members to take time to complete the survey. The data might reflect different results had more people participated in the study.

The information from the 66 respondents was interesting. Approximately 79% of the respondents are at Title I schools. Title I schools receive additional funds which can be used to hire additional teachers, pay teachers for tutorials, and purchase instructional items needed for students (GCSS, 2015).

One third of the 66 respondents did not attend a traditional teacher preparation program. Eighty percent of those became certified through the Georgia Teacher Alternative Preparation Program (TAPP). TAPP is a program that mixes online and face-to-face instruction to alternatively certify teachers. Teachers must be hired by a school district and complete the program within three years (Georgia Professional Standards Commission, 2015).

Eighty-three percent of the 66 respondents have advanced degrees, 33% of which are specialists or doctorates. In addition, 83% have taught for 10 or more years. Both of these facts speak volumes about the educators that completed the questionnaire. Seeking advanced degrees shows their commitment to self-improvement and students benefit from the additional knowledge gained. Furthermore, the depth and breadth of content, pedagogical, and organizational knowledge are crucial to the overall success of students, the school, and the district. Replacing veteran teachers that possess these characteristics with novice teachers

fills the need of having a teacher in the classroom but the depth and breadth of experiences students would have been exposed to decreases.

Over half of the respondents chose teaching as their first career. Individuals that came into the professional after a different career are also able to bring real world knowledge and expertise to the classroom and can use this to prepare students for life beyond high school. Experience in another profession is great for Career, Technical, and Agricultural Education (CTAE) teachers and Junior Reserve Officers' Training Corps (JROTC) Instructors because teachers that have also worked in industry are able to help students understand how to integrate the skills learned in the core classes with the content learned in the CTAE or ROTC pathway classes.

The following results were found as it relates to three areas: Efficacy in Student Engagement, Efficacy in Instructional Strategies, and Efficacy in Classroom Management.

Part One: Teachers' Sense of Efficacy Scale

Part One contained 24 statements which respondents answered using a Likert scale ranging from 1 (Nothing) to 9 (A Great Deal). The 24 statements addressed the three efficacy areas equally. Efficacy in student engagement included statements 1, 2, 4, 6, 9, 12, 14, and 22. Efficacy is instructional strategies included statements 7, 10, 11, 17, 18, 20, 23, and 24. Efficacy is classroom management included statements 3, 5, 8, 13, 15, 16, 19, and 21. Each construct had a total of 72 possible points. Descriptive statistics for each construct are shown in Table 4.3.

Table 4.3 Teacher Efficacy Construct Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Student Engagement	66	27	72	48.3788	8.84702
Instructional Strategies	66	39	72	55.3030	8.21812
Classroom Management	66	39	72	54.4242	8.42169

Efficacy in student engagement overall has a low correlation, with the highest correlation being .520 which says as the teacher feels like they are getting through to the more difficult students, they sense they are helping the student value the learning experience. The lowest correlation, however, says that even though the teacher feels like they are getting through to the student they do not perceive they are able to foster creativity in the student.

Efficacy in instructional strategies has a moderate correlation, with a few outliers. As students gain comprehension of what is being taught the teachers feel like they are more able to respond to difficult questions posed by the students. However, the teachers have a high correlation of implementing alternative strategies in the classroom and providing challenges for capable students with a correlation of .563.

Efficacy in classroom management has drastic outliers to the relatively moderate correlation; there is a negative correlation between keeping the class in a routine and their response to negative students. As the teacher responds more to a negative student they are less able to keep the class on a routine and schedule. However the correlation between the teacher's ability to calm disruptive or noisy

students and their ability to respond to those same defiant students is .638 which means as the students gets more disruptive the teacher is more able to deal with them.

The Bartlett's test is significant and tells us that the results are not normally distributed but skewed. To explain the total variance from the results of the survey components 7 – 24 are not relevant because they are not greater than 1. Question 1 accounts for over 30% of the variance of the results. The 6 components that are relevant comprise over 66% of the variance.

Following the factor analysis, a series of one-way ANOVAs were run using gender, age, ethnicity, years of experience, degrees earned, subject taught, and Title I school as the independent variables. The three constructs student engagement, instructional strategies, and classroom management were the dependent variables. Unfortunately, due to the small sample size, there was no significance in the data based on the independent variables. If the sample size were larger, results would possible be different.

Part Two: Open-Ended Responses

The instrument contained three open response questions, questions 25 – 27. Question 25 asked, "has the amount of time spent at school beyond contract time increased or decreased over the past five years? In what ways have you adjusted your time?" Sixty-two respondents answered this question. Of the 62 respondents, 78% stated that more time is spent beyond contract hours. Four areas were highlighted among the reasons for spending more time at work: planning for

instruction (29%), increased paperwork (18%), non-instructional responsibilities (6%), and tutorials (3%).

Planning for instruction includes creating lesson plans, preparing for focus walks and evaluations, setting up classroom for instructional activities. Two teachers stated that family time has been sacrificed due to additional planning time needed for school. Instructional planning can be time consuming due to creating lesson plans, common assessments to use for courses, determining how to differentiate instruction for all learners in the classroom.

Due to the increased class sizes, the amount of papers to grade has increased along with data that must be analyzed due to standardized testing and increased teacher accountability. This has required time beyond the school day for some teachers to complete. Some teachers stated the amount of feedback provided on student work has decreased due to the increased amount of papers to grade. Teachers have a planning period during the school day unless they are on extended day. Extended day means the teacher is compensated for teaching a class during their planning period. During the planning period, teachers can utilize this time to complete paperwork, grade papers, and plan for upcoming lessons.

Tutorial allows students that need additional support assistance outside of class. Teachers offer tutorials at times that are best suited for their students either before or after school hours, thus extending the day beyond contractual hours. In addition to tutorials, some teachers coach sports, serve as club or organization sponsors, or assist administrators with their duties. Each of these requires additional time at the school, which is normally not compensated.

Nineteen percent responded that less time is spent with the remaining 3% indicating the amount has remained the same. Teachers that stated time spent at work beyond contractual hours has decreased or remained the same indicated decreased compensation and family issues as the primary reasons.

Question 26 asked, "do you use personal funds or instructional activities in your classroom? How had the amount of personal funds increased or decreased in the past five years? What types of items do you purchase for your classroom?" Based on the responses, 85% spend personal funds. Of the teachers that use personal funds, 88% have increased the amount spent versus 12% that have decreased the amount of personal funds used for classroom materials. Teachers noted that personal funds are used for two areas: classroom supplies and instructional resources.

Classroom supplies include four categories: instructional, decorative, rewards, and cleaning. Many teachers mentioned purchasing basic school supplies for students that did not have the necessary items (e.g. paper, pencils, pens, folders, tissue, hand sanitizer). Other items purchased included materials for bulletin boards and accessories to make the classroom visually appealing to students. Teachers use rewards for students as prices during classroom activities and incentives to motivate students to work hard towards certain goals. Finally, basic cleaning supplies were purchased from personal funds, including brooms, trash bags, and wipes or cleaning sprays for desks.

Instructional resources purchased by teachers were broken into three categories: instructional, activities, and technology. The instructional resources that

teachers felt were necessary include website and magazine subscriptions and books. These items, respondents felt, were necessary to enhance the instructional experience for the various learning styles in their classes. Teachers also noted spending money on classroom activities like lab, art, and project materials (e.g. chemicals, construction paper, trifold boards, markers, glue). The activities were all related to the curriculum and teachers felt beneficial to their students. Finally technology resources for the classroom were purchased. This allowed teachers to infuse technology into the curriculum. One respondent noted spending over $600 on items for their classroom.

Respondents that have decreased the amount of personal funds used stated the decrease in compensation, deciding to do without the supplies, and receiving free supplies from external organizations as the primary reasons. Schools have budgets that are used to purchase supplies for teachers. Therefore, this is the primary source of funds for teachers. Beyond the allotted budget, they determine what they actually need and some stated, they have begun recycling materials when possible to also decrease the personal funds spent on classroom materials.

Question 27 asked, "how has your school climate changed over the past five years?" Of the sixty-five respondents that answered this question, two reported an improvement in the school culture. Thirty-five respondents indicated the school culture had declined. Four areas were highlighted in the comments explaining the declining school culture: high turnover of teachers, poor administration, lack of accountability for students, and testing.

Having teachers that are invested in the school, community, and students is beneficial. Teacher turnover can affect both student achievement and school culture. When teachers leave schools, they are replaced, however, the quality and expertise of that individual may not be replaced. It takes time to get new teachers acclimated to the dynamics of the school and participating in activities beyond the school day.

Numerous respondents (38%) stated that school administration was an issue. The lack of consistent leadership was noted. Administrators changed several times within the schools proving problematic to the school culture. Along with inconsistent leadership, communication with faculty was listed as a problem. As front line employees, respondents felt they did not have all information necessary at times or administration would be adversarial with faculty members. Furthermore, respondents felt administrators were not well prepared for the positions and would often try to exert undue force on faculty. In addition, respondents felt administrators did not hold students accountable for their actions. Teachers stated students were rude and disrespectful, lacked motivation, and there did not appear to be consequences for their behavior.

Finally, 8% of respondents commented that testing was an area that was overwhelming. Many stated they felt they were teaching to the test and as soon as students took one test, they had to start preparing for the next. Though testing was listed as a concern, standardized testing is beyond the school district's control.

Summary

Frederick Herzberg's theories on motivational and hygienic factors are applicable to the teaching profession: "Motivational factors are those favorable

things happening in the course of work that spur people on to higher achievement…Hygienic factors, when present in favorable measure in the work situation, provide a base from which motivating events could take over" (Blumberg, 1980, p. 92). The results from this research indicate just how important both factors are when considering how teachers perceive their work environment. Motivational factors are achievement, recognition, and status. Hygienic factors that are important to teachers are compensation, security, and autonomy. Knowing these factors, school districts and administrators should be able to assist with or provide the motivational factors teachers need to be effective and feel satisfied with their job (Blumberg, 1980; Petty, 2007).

Blumberg (1980) provides suggestions to improve the relationship between teachers and administrators. As Blumberg found in his research, "more effective work will result as the people involved, including those at different hierarchical levels, conceive of themselves as collaborators in a common problem-solving effort." (p. 126). Collaboration is necessary for teachers and supervisors to work together to achieve organizational, professional, and personal goals. For collaboration to occur, both parties have to be able to communicate openly and honestly. There has to be trust and mutual respect for the different points of view. Teachers and administrators approach problems from different angles so collaboration allows all perspectives to be considered so the best possible solution is determined.

Providing praise and constructive feedback to teachers, asking questions, and seeking suggestions that can improve the work environment and support organizational goals is a step towards moving teacher's self-efficacy and collective

efficacy in a positive direction. When teachers and administrators collaborate instruction is improved, the work environment is positive, and students benefit from the expertise and resources of their teachers and supervisors (Tschannen-Moran et al, 1998).

The data gathered pertaining to attrition, resource allocation, and teacher efficacy levels from this study will allow policy makers and building level administrators to make adjustments that will benefit students and teachers. Attrition in this school district can be attributed to low teacher efficacy, lack of step increases, higher compensation in neighboring school districts. These factors in conjunction with the information teachers provided on the survey have led to Guilford's attrition rate increasing.

High levels of attrition indicate there is a problem at a particular school. Addressing the problems in schools will lead to a lower attrition rate and your human capital can be allocated effectively throughout the district so all students can benefit from veteran teachers. Teachers are considered frontline employees because they work with students daily. Improving the work environment based on the aforementioned feedback will move schools, the district, and student achievement in a positive direction.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter includes a brief review of the study, reports key findings as a result of the study, and suggests implications for policymakers and future research.

Review of the Study

The purpose of the study was to determine if teacher efficacy has been impacted as a result of the decline in the economy and reduction to school districts' budgets. During difficult economic times, budgets must be modified. Consequently, school districts must determine how to adjust their overall budget. Finding significant cost savings to school systems proves to be challenging because areas that directly affect students are difficult to adjust. Some of these areas include per pupil funds, transportation, and school nutrition. Areas that do not directly affect students need to be adjusted as much as possible.

Spending reductions may include the implementation of furlough days, salary reductions and discontinuing supplemental programs or partnerships with external organizations. Teachers can be considered the front line employees for a school district because of their daily interactions with students. In this period of high accountability, teachers have been charged with increasing student achievement with decreased resources. Specifically, furlough days and stagnant salaries have impacted teachers in the Guilford County School District. Teachers

have larger class sizes and increased standardized assessments. The intent of my study was to determine if the declining budget has impacted teachers and students and if so, to what degree they have been impacted.

In conceptualizing this study, four factors informed the identification of the topic. First, teachers have no control over the conditions imposed upon them by the state board of education. Second, teachers were being impacted due to the increasing demands for student achievement while receiving decreased compensation. Third, the economy declined significantly to the point where school districts were being affected by the decrease in funds. Fourth, what was in place that would keep teachers motivated when facing challenging conditions? This study attempts to determine how teachers have been impacted given the economic issues during the designated time period.

By utilizing financial data from the school district, it became evident how some decisions were made in regards to budgeting during the economic recession. Both budgeting and audit data was compiled to review options and see how funds were actually allocated during this period. Surprisingly, local funds were higher than anticipated each school year. This helped the district during this time. All employees were impacted financially through furlough days and not receiving annual step increases. In addition, the central office was restructured to operate more efficiently and additional positions from the school were eliminated.

The Teachers' Sense of Efficacy Scale (Adapted) was given to high school teachers in the GCSD to determine their efficacy level. Unfortunately, all high schools did not participate in the survey. Therefore, the results are not generalizable for the

district. The results can however be used as a starting point for additional action and research for Guildford County School District.

Major Findings

The school district was affected by the economy significantly during the recession from 2007 – 2012. The negative impact was not as great as anticipated. Education did prove to be recession proof, but only to an extent. The school district still had to function but with fewer financial and human resources. GCSD made adjustments to meet the basic needs of the district. Though more taxes were collected annually than the district expected, the budget still was decreased which caused the district to respond in the following manner: 1) increase class sizes; 2) school closings; 3) rescind step increases; 4) furlough employees; 5) decrease some staff positions in schools; and 6) reorganize the central office.

The Georgia Department of Education approved the district's request to increase class sizes. The increased class sizes allowed schools to adjust so additional teachers would not be needed. This impacted teachers due to larger numbers of students in classes and having additional scrutiny due to standardized testing. It was also determined that all schools were not functioning at full capacity so several schools were closed and zones were redrawn so the district could save on the costs of maintaining schools that had low numbers.

Teachers did not receive their annual step increases because of the budget short falls and furlough days were implemented for all employees. The number of days varied each year and differed for 10-month, 11-month, and 12-month employees. Since the district was able to save on salaries, taxes were not increased

during this period. The millage rate remained at 22.98. Additional cost savings measure included reducing the support staff at schools and restructuring the central office. As a result, 432 positions were eliminated. Central office staff, media specialists, media clerks, and paraprofessionals were the primary positions reduced during the restructuring. It is yet to be determined how the restructuring has impacted the district.

Title I, RT3, and SPLOST funds were beneficial to the district. Title I and RT3 funds allowed additional teachers to be hired using federal funds rather than local funds for salaries and supplemental instructional materials were able to be purchased to assist students in core subject areas. Professional development was also funded through these sources. SPLOST funds were able to cover construction costs to build and renovate many of the schools throughout the district.

As stated previously, due to the small number of respondents, the data cannot be generalized for the entire school district. However, the survey data shows teachers feel they can make an impact on even the most difficult students in their classroom. This does not mean, though, that the student will improve their feelings toward education. Second, teachers feel they are able to differentiate instructional strategies for students that prove to be challenging for capable students. Finally, teachers feel that students that cause major disturbances in the classroom, disrupt their daily routine. Therefore, in spite of the decreased financial resources available, teachers feel they can make a positive impact on students.

Based on the responses, there is a low morale in the district; this is due to increasing levels of accountability coupled without salaries increasing. Of the

respondents, 56% responded about the decreased in morale in the schools, with 96% of those stating the morale has decreased. Along with the building leadership issues as stated by 38% of respondents, teachers are not feeling valued and supported on a daily basis. Having effective administrators in schools would help improve morale, provide consistency with expectations, and possibly decrease attrition. Teachers care about their students and are working to meet all expectations that have been set by the state, district, and school administrators. Many stated they are putting in time at work (78%) at the expense of their own family time.

Implications for Policy Makers

Darling-Hammond and McLaughlin (1995) explain, "Capacity-building policies view knowledge as constructed by and with practitioners for use in their own contexts, rather than as something conveyed by policy makers as a single solution for top-down implementation" (p. 597). Policy-makers are normally not intimately involved in the process for which they create and administer (Roza, 2010). Based on this study, the following suggestions would be beneficial for policy makers to consider when making policies and procedures for the district and district personnel. First, include teachers in the budgeting process. Second, consider revising the school calendar to increase cost savings in other areas. Third, use the data collected from schools to make decisions in the best interest of students.

Creating a budget can prove to be a lengthy and cumbersome process. When adjustments must be made, various scenarios are investigated to determine the amount of costs savings. Normally, there will have to be a combination of cost

savings measures or adjustment to budgeted items based on the needs and anticipated funding of the district. Including employees from various levels of the district will be beneficial for both employees and the district. Employees that are intimately involved with the budgeting process are able to discuss the budget with their colleagues and speak on issues of why certain decisions were reached. Along with the aforementioned reason, the district would also benefit from incorporating teachers into the budgeting process because a different perspective would be added to the conversation.

The school year consists of 180 days. Normally, the calendar is evenly distributed for each semester. When considering cost savings, adjusting the school calendar could be a viable option. The equivalent of 180 days could still be achieved even if the calendar is modified. If each class is extended by 21 minutes for schools on block schedule and 5 minutes additional for schools on a seven period day. This would decrease the school year by 3 weeks. In this scenario, instructional time would not decrease. The school district would be able to save on transportation and utilities as well. When thinking of cost savings measures, all options should be explored. School year calendars are adjusted due to days missed for inclement weather. Thus considering adjusting the calendar could result in savings for the district.

The school district collects and reports a great deal of data to state and local agencies. Using the data that is available, schools and districts should make adjustments when there is negative data such as declining test scores, declining graduation rate, and increased teacher attrition that shows adjustments should be

made. Investigating and addressing negative data ultimately be benefits students. Every job in the school district is important and all are necessary to make the district function appropriately. Frontline employees impact the children daily and understand what works and what needs to be adjusted for students to be successful.

Starting from the top down, leadership must be effective and make sure the necessary policies and procedures are in place. Building level administrators are evaluated annually by their supervisors and by teachers. This information speaks to the effectiveness of the people in leadership and needs to be considered when making administrative changes. Moving an ineffective administrator to a different location puts another school in jeopardy of falling apart. Teachers are also evaluated by administers and now students based on the Teacher Keys Effectiveness System (TKES) (Georgia Department of Education, 2015). Ineffective teachers can be identified and corrective measures can be taken – teacher mentor or professional development plan – to help them improve.

Frontline employees are able to speak to initiatives and how beneficial they will be to students prior to the district selecting a new program worth millions that is not sufficient to meet students' needs. Attrition data speaks volumes about issues in a school. Determining the problems in the schools and implementing adequate solutions will help move the district forward.

Recommendations for Further Research

Additional research is needed to better ascertain how the economy impacts teachers, both negatively and positively. After conducting this study, six areas of further research have surfaced that fall into two categories: financial and non-

financial. Financial categories that have emerged are the impact of merit pay on teacher efficacy and how to quantify liquidated damages. Non-financial research topics include how to allocate the human capital in the district, tracking and addressing attrition issues, correcting administration issues in schools, and how to positively impact teacher efficacy.

Financial Research Areas

Teachers sign contracts annually. At times, teachers have to break the contract based on personal situations that arise and prevent a teacher from returning to the school or for a new job outside of the district, thus leaving the school district with a need to replace teachers often at the beginning of the school year. In an effort to curtail teachers resigning after contracts have been signed, school districts have instituted liquidated damages clauses in contracts because of the number of teachers that would decide to not return to a district after contracts had been signed. Each district can determine if they will use this clause and the amount of liquidated damages that will be assessed. School districts vary in the dollar amount from $500 to $1500. Some districts use a percentage depending on when the employee resigns as the determining factor. How districts arrive at the amount is unclear (Odden, 2012). Especially when neighboring districts have different amounts that are assessed. Research should be conducted to establish guidelines used to determine the adequate liquidated damages costs. This information would be beneficial for districts to use as well as acceptable reasons for teachers to be released without being assessed the fee. Exactly what the liquidated damages fee covers needs to be established.

Merit pay is not a new concept. Merit pay is a concept that has been used and abused for almost 100 years (Dee & Keys, 2004). It is thought to be an incentive for teachers to work harder so that students will succeed. This has not always been the case. As most recently seen in the case of the Atlanta Public Schools, providing incentives for teachers based on student performance on standardized tests is not effective (Gabriel, 2010). Incentivizing performance can lead to people falsifying the results in order to receive the bonus when the actual intent was for teachers to obtain results based specifically on what they have taught students. How to effectively implement a merit pay program is debated constantly. With every wave of discussion on merit pay, it is tied to some form of student achievement. This can lead to teachers teaching specifically to the test rather than teaching for understanding and mastery. Determining additional ways to implement the merit pay program would help teachers and stakeholders with belief in the program. The National Center for Performance Incentives (NCPI) currently conducts research on this area to determine if and how performance pay can be implemented in the educational system to improve teaching and learning (National Center for Performance Incentives, 2015).

Non-Financial Research Areas

Human capital is important to a school and district. Human capital can be quantified based on the amount of pay each person receives. For school districts, salary schedules are available. Teachers are paid based on the years of experience and the degrees earned. Human capital is important for the wealth of knowledge they can impart on students and shows the consistency of the instructional

program. In a perfect world, the amount of human capital would be equitable in all schools. Experienced and novice teachers would be distributed throughout the district so students at all schools would benefit versus some schools having large numbers of novice teachers while others large numbers of veteran teachers. In the imperfect word that we actually live in, human capital tends to be higher in schools with lower levels of students from lower socioeconomic backgrounds (Akeinyemi, 2013; Roza, 2010).

Attrition is inevitable. When attrition occurs, it is important for districts to track how the attrition occurs: movement within the district, movement to another district, and movement outside of the profession. This information is valuable to both school administration and the district because any perceived problems could be addressed quickly. There are numerous methods to track this data. For employees transferring within the district, it is easy to track the movement. These employees can provide information about why the move was necessary. An exit interview or survey could be conducted with employees when leaving the district. In addition, large numbers of movement needs to be investigated to determine the actual problem occurring at the school.

Teachers can also be replaced. When a veteran teacher leaves a school or school district, the school is at a loss. Replacing a veteran teacher with a novice teacher simply serves the purpose of having someone in the classroom that can teach the students. Losing a veteran teacher means you have lost consistency in a building from a school culture perspective. Veteran teachers are accustomed to various traditions at the school and are able to assist with ease to ensure students'

needs are being met. Furthermore, no one is able to mentor younger teachers if there is a mass exodus of veteran teachers from a school. Veteran teachers can assist new teachers with creating unit and lesson plans that engage the students, providing resources to enhance the educational experience, as well as completing paperwork as they learn to navigate through the district bureaucracy. Veteran teachers also provide a plethora of invaluable information that can help assist new teachers attain goals set by their local districts. Some new teachers feel overwhelmed and are often left to fend for themselves.

Though the Georgia Professional Standards Commission requirements to become an administrator are the same across the state, additional requirements vary in each school district. Administrators are former teachers that have obtained the necessary certification requirements to be deemed capable of being a leader. Some school systems are political and select people for supervisory positions based on gender or ethnicity. Blumberg (1980) discusses two assumptions that school systems use when selecting supervisors that are false:

1. In order to be a good supervisor, one must have been a good teacher.
2. Certification is both the prelude to, and the equivalent of competence. (p. 11)

These two assumptions do not hold true in all cases. The competencies for administrators and teachers are different. While both focus on increasing student achievement, they differ in other areas. For example, teachers focus on the subject and students they teach whereas school administrators focus on all teachers at the school and administrative duties. Some people are great in a classroom but do not possess skills for them to be an effective administrator. Furthermore, teachers can

take classes and pass a test to become certified and obtain a supervisory position. This too is not a good indicator of their competency as an administrator. These two assumptions contribute to the feelings teachers have towards supervisors.

Having a program for potential administrators allow people to gain experience prior to serving in the capacity. Implementing a program in Guilford would help potential administrators gain experience prior to assuming the role. The program could serve a dual purpose by training upcoming administrators and mentoring new administrators. Providing mentors for new administrators is beneficial to new administrators and provides additional support as people are becoming acclimated with the role. Situations arise where decisions must be made quickly. Administrators need to understand how their decisions affect faculty, staff, students, and parents. Lacking the necessary competencies can be detrimental to a school culture and student achievement. The morale can decrease which can lead disgruntled teachers, lack of support for programs, and lower effort put forth to prepare for teaching activities.

An effective administrator can motivate teachers to work harder for and with students, which can positively impact student achievement. High morale makes teachers want to work together on programs, lessons, and plans to help individual students. When teachers feel appreciated and supported by administration, the increased effort will be evident. The skills to be an effective administrator are not characteristics that everyone naturally possesses. These skills can be learned over time and can lead to a decrease in attrition and an increase in student achievement.

Effective administrators also provide consistency in schools with their expectations of faculty, staff, and students.

Positive teacher and collective efficacy is important for schools. Teachers and schools with positive efficacy tend to be more willing to work together and try new initiatives. Teachers enjoy working together and sharing resources with each other. Determining how to move teacher efficacy in a positive direction will transfer to collective efficacy. This can be a powerful force in a school to move the school culture in a positive direction and get students excited about learning. What can be done to increase teacher efficacy? Determining strategies that administrators and districts can put into place will be beneficial.

Summary

School districts have to constantly adjust for uncontrollable and controllable factors. Factors that are beyond school districts control include economic shifts and housing patterns. The school district cannot control economic shifts in the country or state. Based on the lessons learned during the economic downturn, schools districts can plan for future shifts in the economy by restructuring and adjusting the budget so money can be saved for times when there is a negative shift. Additionally, as mentioned in Chapter 2, Guilford County was under court supervision for almost 30 years (Guilford County School System, 2011). School districts are unable to control the housing patterns of citizens in the county. Based on Guilford's housing patterns, citizens have self-segregated, causing certain socioeconomic strains on schools in the southern part of the district. The *Brown v. the Board of Education* (1954) decision determined that separate but equal education was not actually

equal and did a disservice to students (Hanushek, Kain, & Rivkin, 2002). School zones are based on housing patterns, which leads to schools that are more segregated based on the housing patterns of citizens in the county.

School districts can use the controllable factors to their advantage to provide the best possible educational experience for students and professional experience for teachers. Controllable factors include factors affecting teacher efficacy and teacher attrition and allocating resources within the district. Petty (2007) and Odden (2012) discuss how adjustments need to be made to ensure teachers have the necessary materials and training to effectively impact their students. The adjustments include effective administration, administrative support, professional development, and classroom instructional resources. Providing a work environment where teachers are valued and supported can lead to increased teacher attrition. Retaining veteran teachers is important for school climate and for assisting new teachers as they become acclimated to the profession.

Over time, more seasoned teachers tend to move to schools that have fewer challenges which means teachers that are new to the profession are concentrated in areas that have higher rates of economically disadvantaged students. The depth and breadth of knowledge of veteran teachers are invaluable. Effectively allocating the human capital throughout the district helps school climate and student achievement. Administrators set the tone for their schools. Placing effective administrators in schools will help to decrease the desire of teachers to leave schools. Retaining the veteran teachers, along with effective administrators, would prove beneficial to schools that are not meeting the standards.

With the economy going through so many changes, Guilford County School District has made the necessary adjustments to the budget to ensure the district was able to continue educating students. The lessons learned from this economic downturn can be used to move the district forward in a positive direction. Being proactive in implementing policies and procedures will prevent the district from having to resort to drastic in the event of another economic recession.

Using the data that is collected and the information found through this study, policy makers could make informed decisions on administrative changes that can positively impact the school culture and assist with decreasing the attrition rate. In addition, including frontline employees in decisions will provide a different perspective that has intimate insight into how initiatives will benefit students and support teachers.

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APPENDIX

Teachers' Sense of Efficacy Scale (Adapted)

This questionnaire is designed to help gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each statements below. Your answers are confidential.

*** 1. How much can you do to get through to the most difficult students?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 2. How much can you do to help your students think critically?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 3. How much can you do to control disruptive behavior in the classroom?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 4. How much can you do to motivate students who show low interest in school work?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 5. To what extent can you make your expectations clear about student behavior?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 6. How much can you do to get students to believe they can do well in school work?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 7. How well can you respond to difficult questions from your students?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 8. How well can you establish routines to keep activities running smoothly?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 9. How much can you do to help your students value learning?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 10. How much can you gauge student comprehension of what you have taught?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 11. To what extent can you craft good questions for your students?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 12. How much can you do to foster student creativity?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 13. How much can you do to get children to follow classroom rules?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 14. How much can you do to improve the understanding of a student who is failing?**

Nothing		Very Little		Some Influence		Quite a Bit		A Great Deal
○	○	○	○	○	○	○	○	○

*** 15. How much can you do to calm a student who is disruptive or noisy?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○ ○	○ ○	○ ○	○ ○	○

*** 16. How well can you establish a classroom management system with each group of students?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○ ○	○ ○	○ ○	○ ○	○

*** 17. How much can you do to adjust your lessons to the proper level for individual students?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○ ○	○ ○	○ ○	○ ○	○

*** 18. How much can you use a variety of assessment strategies?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○ ○	○ ○	○ ○	○ ○	○

*** 19. How well can you keep a few problem students form ruining an entire lesson?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○ ○	○ ○	○ ○	○ ○	○

*** 20. To what extent can you provide an alternative explanation or example when students are confused?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○ ○	○ ○	○ ○	○ ○	○

*** 21. How well can you respond to defiant students?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○ ○	○ ○	○ ○	○ ○	○

*** 22. How much can you assist families in helping their children do well in school?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○ ○	○ ○	○ ○	○ ○	○

*** 23. How well can you implement alternative strategies in your classroom?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○	○	○	○	○

*** 24. How well can you provide appropriate challenges for very capable students?**

Nothing	Very Little	Some Influence	Quite a Bit	A Great Deal
○	○	○	○	○

Part II: Please answer the following questions.

25. Has the amount of time spent at school beyond contract time increased or decreased over the past five years? In what ways have you adjusted your time?

26. Do you use personal funds for instructional activities in your classroom? Has the amount of personal funds increased or decreased in the past five years? What types of items do you purchase for your classroom?

27. How has your school climate changed over the past five years?

Part III: Please provide additional background information.

*** 28. Do you teach at a Title I school?**

○ Yes

○ No

*** 29. What is the name of your school?**

*** 30. Do you hold a current Georgia's educator's certificate?**

○ Yes

○ No

*** 31. What type of certification do you hold?**

- Clear Renewable
- Performance Based
- Non-Renewable
- Waiver
- Intern
- International Exchange
- Clinical Practice
- Advanced Degree Alternative

*** 32. Did you attend a traditional teacher preparation program? (i.e. Bachelors degree in Education)**

- Yes
- No

*** 33. Did you complete an alternative certification program? (i.e. Georgia Teacher Alternative Preparation Program)**

- Yes
- No

*** 34. In how many areas are you certified?**

- 1 certification
- 2 certifications
- 3 certifications
- 4 certifications
- 5 or more certifications

*** 35. What is your highest degree earned?**

- Bachelors
- Masters
- Educational Specialist
- Doctoral

*** 36. How many years of teaching experience do you have?**

- 0 years
- 1 - 3 years
- 4 - 6 years
- 7 - 10 years
- More than 10 years

*** 37. Is teaching your first career?**

- Yes
- No

*** 38. Why are you teaching at your present school location?**

- First Year Teacher/Assignment
- Personal Choice
- Voluntary Transfer
- Involuntary Transfer

*** 39. What do you teach?**

- Career Technology
- Exceptional Education
- Fine Arts
- Health/Physical Education
- Language Arts
- Mathematics
- ROTC
- Science
- Social Studies
- World Languages

*** 40. Do you teach any Advanced Placement courses?**

- Yes
- No

*** 36. How many years of teaching experience do you have?**

- 0 years
- 1 - 3 years
- 4 - 6 years
- 7 - 10 years
- More than 10 years

*** 37. Is teaching your first career?**

- Yes
- No

*** 38. Why are you teaching at your present school location?**

- First Year Teacher/Assignment
- Personal Choice
- Voluntary Transfer
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*** 39. What do you teach?**

- Career Technology
- Exceptional Education
- Fine Arts
- Health/Physical Education
- Language Arts
- Mathematics
- ROTC
- Science
- Social Studies
- World Languages

*** 40. Do you teach any Advanced Placement courses?**

- Yes
- No

*** 46. What is your household income?**

- ○ Less than $40,000
- ○ Between $40,001 - $50,000
- ○ Between $50,001 - $60,000
- ○ Between $60,001 - $70,000
- ○ Between $70,001 - $80,000
- ○ Between $80,001 - $90,000
- ○ Between $90,001 - $100,000
- ○ More than $100,000