

ABSTRACT

Cassandra H. Cartrette, INCREASING TEACHER ATTENDANCE IN A SOUTHEASTERN NORTH CAROLINA SCHOOL DISTRICT TO GENERATE FISCAL SAVINGS (Under the direction of Dr. Harold Holloman, Jr.). Department of Educational Leadership, March 2019.

In many school districts, a lack of funding has become one of the greatest issues to overcome and the high rate of teacher absenteeism rate adds to the financial burdens. In this problem of practice study, data collected by a southeastern North Carolina district's fiscal monitoring team and secondary data available from other educational sources are used to answer five research questions. The researcher used previously collected data to: identify the cost of substitute teacher pay for the district compared to the cost of substitute teacher pay for the state of North Carolina and in comparison to the focus district's neighboring systems; determine the reasons for teacher absences; determine calendar trends for reported teacher absences; identify trends in teacher absences dependent upon school type; and identify the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district. From the research, recommendations for possible processes to help deter teacher absences to decrease the amount of substitute teacher pay are offered.

INCREASING TEACHER ATTENDANCE IN A SOUTHEASTERN NORTH CAROLINA
SCHOOL DISTRICT TO GENERATE FISCAL SAVINGS

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The Faculty of the Department of Educational Leadership

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Doctor of Education in Educational Leadership

by

Cassandra H. Cartrette

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SCHOOL DISTRICT TO GENERATE FISCAL SAVINGS

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DEDICATION

For my family and all educators who want what is best for children.

ACKNOWLEDGEMENT

“It is God that girdeth me with strength, and, maketh my way perfect” (Psalm 18:32). I know it is God who set me on this wonderful path as an educator to help those He has placed in my life during my career. It is only through the strength He has given to me that I have been able to achieve all that I have, including the completion of this doctoral program. I thank Him for choosing me to be one who has the pleasure to influence the lives of so many children and the educators who guide them each day. Without Him, I know nothing I have ever accomplished would be possible and look forward to the future plans He has for me.

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CHAPTER 1: INTRODUCTION

Background and Statement of the Problem

The school district in this study has an issue with a high rate of teacher absences which causes a fiscal burden on the district. The school district is a medium-sized, low income district in southeastern North Carolina that has experienced high rates of teacher absences and substitute teacher pay over the last several years. The high rate of teacher absenteeism poses a dire economic impact on the district's already limited resources. Since the 2012-2013 school year, the rate of teacher absences has increased and caused the cost of substitute teacher pay to reach over \$400,000 for four of the last six years. This amount does not include the additional salary cost allotted for the absent teacher and associated benefits cost for the position. Within a district that is already strapped for financial resources and that is proposing the closing and mergers of some schools, the additional cost to cover teacher absences is one that needed to be addressed so funds can be used more efficiently.

Because the school calendar can be restricting, the superintendent wanted to try to find ways to begin reducing the cost of substitute teacher pay. As the current human resources director for the school district, the superintendent asked the researcher to use data collected by the fiscal monitoring team and other secondary data available in the district. The district had an established leadership team consisting of all the district's directors, the superintendent, and the assistant superintendent. A sub-team of the leadership team monitored the fiscal aspects of the system and consisted of the superintendent, assistant superintendent, finance officer, and human resources director, who is also the researcher of this study. On March 15, 2017, the fiscal monitoring team began the discussion about the teacher absences and the high cost of substitute pay. From this discussion, it was decided that data would be gathered in one school before

implementing any ideas district-wide. The school with the highest four-year average of teacher absences was chosen to be the one used to test and collect specific data about teacher absenteeism to help the district begin to formulate strategies to increase teacher attendance before implementing them district-wide.

For the purposes of this problem of practice study, the district's superintendent asked the researcher to review and analyze the existing data that the fiscal monitoring team had gathered from 2012 to the present. As a member of the local fiscal monitoring team and as a student practitioner, the researcher participated in the development, design, and delivery of the resources that were analyzed in this study.

District Geographic and Demographic Context

The U.S. Census Bureau 2010 data shows the school district is located in North Carolina's third largest county in geographical size and has a population of 58,098. Of this population, 61.5% are white; 30.5% are black; 4.6% are Hispanic or Latino; 3.2% are American Indian; 3.1% are other; and 0.3% are Asian. The number of citizens age 16 and over who are in the labor force are 24,676. The median household income is \$35,421 with 77.6% of citizens 25 years or older being a high school graduate or higher. Those holding Bachelor's degrees or higher account for 11.6% of the population and those with graduate or professional degrees account for 3.0%.

The district employs approximately 420 certified personnel who fall into the state-defined category of a teacher who get substitutes during their absence. These include regular classroom teachers, exceptional children teachers, and some media coordinators. The district serves approximately 5,600 Prekindergarten through twelfth-grade students in seventeen different schools. The school system participates in the Community Eligibility Program (CEP) which

allows all students to receive free school breakfasts and lunches. In order to qualify, the district must be considered low-income, and the district had 73.64% of its student population deemed in poverty based on the 2014 free and reduced meal rate when it began CEP. Currently, there are 62.51% identified students based on those who automatically qualify without the past applications for free and reduced lunch. This group includes migrant, foster care, and homeless students and those who receive food stamps (School District's Child Nutrition Director, personal communication, November 29, 2017).

District Working Conditions

Every two years, the North Carolina Department of Public Instruction partners with The New Teacher Center to administer the North Carolina Teacher Working Conditions Survey. This survey addresses multiple areas of the educational environment including time; facilities and resources; community support and involvement; managing student conduct; teacher leadership; school leadership; professional development; and instructional practices and support. In the last three surveys, the percentage of the school district's teachers who have responded to the survey are: 98.58% in 2014; 98.75% in 2016; and 100% in 2018. In a comparison of the 2018 results to previous results, 91% of teachers in the district reported their school is a good place to work compared to 88.1% in 2016, and 84.1% in 2014. In the majority of areas addressed on the survey, the percentage of teachers responding positively to aspects of their schools and district increased from the 2016 results to the 2018 results. The only area that showed any significant decreases in positive responses was regarding use of time in the school, but teacher leadership showed consistent increases in all areas.

District Academics

Over the last few years, the school district has appeared on the North Carolina Department of Public Schools' list of low performing districts and schools. Low performing districts, low performing schools, and continually low performing schools are designated based on General Assembly mandates:

Low Performing Districts and Schools in North Carolina are defined by the NC General Assembly and are based on the School Performance Grade and EVAAS growth,

“Low-performing schools are those that receive a school performance grade of D or F and a school growth score of "met expected growth" or "not met expected growth" as defined by G.S. 115C-83.15.” (G.S. 115C-105.37(a)), and

“A Low-performing local school administrative unit is a unit in which the majority of the schools in that unit that received a school performance grade and school growth score as provided in G.S. 115C-83.15 have been identified as low-performing schools, as provided in G.S. 115C-105.37.” (G.S. 115C-105.39A(a)). (North Carolina Department of Public Instruction, 2016)

“A continually low-performing school is a school that has received State-mandated assistance and has been designated by the State Board as low performing for at least two of three consecutive years.” (G.S. 115C-105.37A(a))

In 2015-2016, the district was designated as a low performing district because ten of its schools received low performing school designations based on the 2014-2015 testing data. The district moved out of the designation in the 2016-2017 school year based on results of 2015-2016 testing data. Based on the 2016-2017 testing data, six of its schools are designated as low performing and seven schools are designated continually low performing schools. The continually low performing status means those schools have been designated as low performing at least two of the last three consecutive school years.

Teacher Attendance

In the school district, the teacher attendance data are also problematic. The district abides by the North Carolina Public Schools policies for substitute teacher pay. In North Carolina,

substitute teachers are employed on half-day or full-day bases and at a rate consistent with the state requirements for paying substitute teachers which states:

Beginning January 1, 1999, the minimum pay rate for a substitute teacher who holds a valid North Carolina teacher certification/license must be at least 65% of the daily pay rate of an entry-level teacher with an "A" (Standard Professional 1 or Standard Professional 2) license and can be paid up to their certified daily pay rate (i.e. daily rate based on the teacher's years of experience).

Beginning January 1, 1999, the minimum pay for a substitute teacher who does not hold a valid North Carolina teacher certification/ license must be at least 50% of the daily pay rate of an entry-level teacher with an "A" (Standard Professional 1 or Standard Professional 2) license. The pay for a substitute teacher who does not hold a valid North Carolina teaching certificate shall not exceed the pay of a substitute teacher who holds a valid North Carolina teaching certificate (Public Schools of North Carolina, 2017, pgs. 90-91).

In school years 2012-2013 and 2013-2014, the district's substitutes who did not hold an active North Carolina teaching license were paid at a rate of \$70 per day. Substitutes who had a current certification were paid \$91 per day. In 2014-2015, noncertified substitutes were paid at a rate of \$75 per day and certified substitutes received \$98 per day. With the increase in teachers' salaries in the 2015-2016 school year, substitute teachers' salaries also changed. In that year, noncertified substitute pay was \$80 per day and certified substitutes received \$103 per day and had remained at this rate during the 2017-2018 school year.

In 2015-2016, substitute teaching for the district experienced a change due to the employer shared responsibility provision of the Affordable Care Act (2010). Because an employee who works more than 30 hours per week or 130 hours in one month would have to be offered healthcare benefits at the expense of the school system, a provision was put in place limiting the number of hours each substitute teacher could work in all combined jobs in the district. Substitute teachers are paid from multiple fund codes because they are paid from the funding source of the absent teacher (Public Schools of North Carolina Department of Public Instruction, Division of District Human Resources, 2017). Therefore, federal, state, and local

funding sources, are impacted by the high amount the district is paying each year for substitute teachers.

In the district, substitutes are not required to have a teacher certification, even though many retired teachers serve as substitute teachers in the district along with other non-certified substitutes. The only academic training substitutes are required to complete is an Effective Teacher Training course. The majority of the substitutes within the district complete this course at the local community college. The course is currently taught by a former educator from the district and consists of 24 contact hours in class that encompass various topics the substitute teachers may encounter. Substitute teachers in this district are also required to attend a yearly update during the summer in order to remain on the substitute roster. In this update that usually lasts approximately three hours, district human resources personnel review district routines, policies, and expectations of substitute teachers. The yearly mandated Active Shooter and Bloodborne Pathogens training is delivered during these updates and substitutes must also complete an annual criminal background check. Once a substitute teacher has completed all of these requirements, he/she is then added to the Board of Education agenda for approval.

The district follows the state requirements for the earning of annual, sick, and personal leave for teachers. They also have a policy in place that addresses employees who have to be absent for an extended time, but not long enough to take a short-term disability leave of absence. The district's policy in 2017, required anyone who must be absent more than five consecutive days to produce a note from a doctor on the sixth consecutive day stating the time of absence for the employee. In late spring of 2018, this policy was updated to decrease the consecutive days of absence from five to three. All state and federal laws concerning Family Medical Leave Act and short-term disability are followed by the district, but regardless of the type of absence, substitute

teachers must be employed for teachers if it is an instructional day when students are present (Public Schools of North Carolina, 2017).

The district also has a teacher attendance incentive program in place that gives release time for perfect attendance. The program gives five thirty-minute periods of time each pay period if the teacher does not miss a day, report to work late, or leave early during the pay period. This time cannot be used during instructional time or on required workdays. Each month the schools are required to post teacher attendance and display those teachers who have perfect attendance during the month.

District Leadership Focus on Problem of Practice and Study Design

For this study, the researcher also serves as the current human resources director for the school district. The superintendent asked the researcher to use data collected by the fiscal monitoring team and other secondary data available in the district. As previously mentioned, the district had an established leadership team consisting of the district's directors, the superintendent, and the assistant superintendent. A sub-team of the leadership team monitored the fiscal aspects of the system and consists of the superintendent, assistant superintendent, finance officer, and human resources director, who is also the researcher of this study. On March 15, 2017, the fiscal monitoring team began the discussion about the teacher absences and the high cost of substitute pay. The district's superintendent asked the researcher to review and analyze the existing data that the fiscal monitoring team had gathered from 2012 to the present. As a member of the local fiscal monitoring team and as a student practitioner, the researcher participated in the development, design, and delivery of the resources that will be analyzed in this study.

In this study, improvement science, with a focus on the use of the Plan-Do-Study-Act (PDSA) cycle and Gap Analysis for Problem-solving, Planning, and School Improvement (GAPPSI) method, was used to better understand the issues of teacher absenteeism and its fiscal burden on the focus district. The gap between the current and desired states of teacher absenteeism and its cost to the district were identified and measures of improvement were suggested. Quantitative evidence was used to support the identified states of teacher absenteeism and make projections for future measures of improvement.

In this study, quantitative evidence referred to the data collected using numerical, or quantifiable, data. The quantitative evidence used in this study were: existing district teacher absenteeism data and substitute teacher cost financial reports; data gathered from collection of the district fiscal monitoring team's *Teachers' Absence Reporting Form* in Appendix B; public reports for the substitute teacher cost for the state; identified calendar trends for teacher absences, including certain days of the week or times of the school year; and the types of schools in the district (elementary, middle, prekindergarten through eighth grade, and high school). The quantitative evidence was compiled and presented using tables with narrative presentation.

Objectives of the Study

The main objective of this study was to identify processes to be used to decrease the fiscal burden of teacher absenteeism in the focus district. It was also the objective of this study to identify any trends in the district's teacher absenteeism rate and the affects these trends may have on the system. The study offered suggestions of actions to be used to decrease the rate of teacher absenteeism with a focus on these specific objectives:

- Identify the cost of substitute teacher pay for the district compared to the cost of substitute teacher pay for the state of North Carolina and surrounding districts

- Use existing *Teachers' Absence Reporting Forms* to determine the reasons for teacher absences
- Determine calendar trends for reported teacher absences
- Identify trends in teacher absences dependent upon school type
- Identify the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district

Study Questions

The researcher, who serves as the current human resources director for the school district was asked by the superintendent to use data collected by the fiscal monitoring team and other secondary data available in the district. This data related to teacher absences was used to answer these study questions:

1. What are the costs of substitute teacher pay for the district compared to the substitute teacher cost for North Carolina and the substitute cost for neighboring school districts?
2. What are the reported reasons the district's teachers are absent so often?
3. What are the calendar trends in the reported teacher absences?
4. What are the school-type trends of the reported teacher absences?
5. What are the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district?

Presentation and Organization of the Study

The presentation of this study is organized into five chapters and their relevant subsections that address aspects of the research process. This first chapter introduced the problem of practice for this study, which is the high rate of teacher absenteeism in the focus

district that is causing a fiscal burden due to substitute teacher costs. The second chapter is a review of literature related to the study. The third chapter explains the methodology used to conduct the study. Data analysis and other relevant findings are presented in the fourth chapter. Suggestions for processes to improve teacher attendance based on the data analysis are presented in the fifth chapter.

Chapter 1 introduces the study and the need for this research concerning the high rate of teacher absenteeism in the district. The chapter describes the district geographic and demographic context of the focus district. Chapter 1 gives the reader background about the district and describes the recent working conditions survey and academic testing results. It also explains the district's current teacher absenteeism status and the process for selection and pay of substitute teachers. The chapter concludes with details of how the district's fiscal monitoring team began focusing on the problem with teacher absenteeism in order to make any immediate changes to correct the problem.

Chapter 2 reviews relevant literature and findings from other researchers. Data and research from previous studies are cited to enhance the credibility of the study in the focus district. In chapter 2, literature concerning teacher absenteeism research is separated into subsections: its status on a national and international level; an issue in North Carolina; relation to administrator support; status in rural schools; calendar trends noted; differences in school types; policies related to teacher absenteeism; incentive plans to deter teacher absenteeism; its relation to working conditions, including school morale; its impact on overall budgets; and its impact on student achievement.

Chapter 3 describes the methodology of the study. It includes the background and presentation of the study; the design and main objectives of the study; the study questions and

procedures used in the study; and how data to address each study question will be analyzed. This chapter also details how improvement science, with a focus on the use of the GAPPSI method, was used in the study with gap analysis and the Plan-Do-Study-Act being the core improvement tools used to address the problem of practice. These improvement tools also utilize quantitative evidence to study and analyze existing data, and propose processes to deter teacher absenteeism.

In chapter 4, the quantitative results of the study are presented with citations for the origin of the data. Results are compiled into tables. The compilation of the data into understandable subheadings allow for interpretation and analysis.

In chapter 5, the researcher presents the summary and conclusions based on the data analysis results in chapter 4. The gaps between the current and desired states of teacher absenteeism are identified and the researcher's recommendations for processes to improve the district's issue of a fiscal burden due to teacher absenteeism are offered.

CHAPTER 2: REVIEW OF LITERATURE

Teacher Absenteeism: A National and International Problem

“Teachers are often viewed as behavioral models for their students, and a high absence rate may be perceived as lack of professional and ethical integrity” (Rosenblatt & Shirom, 2005, p. 210). Teacher attendance is an issue that has been a focus of studies for decades. According to the study done by David Griffith (2017), the United States Office of Civil Rights defines teacher absenteeism as:

A teacher is absent if he or she is not in attendance on a day in the regular school year when the teacher would otherwise be expected to be teaching students in an assigned class. This includes both days taken for sick leave and days taken for personal leave. Personal leave includes voluntary absences for reasons other than sick leave. Teacher absenteeism does not include administratively approved leave for professional development, field trips, or other off-campus activities (p. 11).

In the report for the National Bureau of Economic Research, Miller, Murnane, and Willett (2007) find “U.S. teacher absence rates are nearly three times those of managerial and professional employees” (p. 3). The National Council on Teacher Quality (2014) studied forty of the nation’s largest school districts. In this study, it was found that sixteen percent of teachers were chronically absent, missing eighteen or more days of the school year. On average, teachers missed eleven days during the school year. These numbers did not reflect teachers who were absent for more than ten consecutive days (possible short-term disability situations) or absent due to professional development or job-related activities.

In comparison to other professions, research shows teachers are absent at a higher rate. Kronholz (2013) referred to a 2011 weekly absence measure report by the United States Bureau of Labor Statistics that showed three percent of the nation’s workforce worked less than a 35-hour workweek because of absences. Of this workforce, absence rates for federal public-sector workers were 3.9, 4.2 for state workers, and 3.6 for local government employees. For teachers, it

was noted that between eight and ten percent of teachers are absent on any given day. For 2013-2014,

While most teachers are rarely absent, 27% of teachers are absent more than 10 school days per year for reasons unrelated to school activities: About 6.5 million students attend schools where more than 50% of teachers were absent more than 10 days per year.” (United States Department of Education Office of Civil Rights, 2016, p. 9)

The problem with high rates of teacher absences extends beyond the United States. In their study of schools in rural Udaipur, India, Duflo, Hanna, and Ryan (2012) note:

Over the past decade many developing countries have expanded primary school access, energized by initiatives such as the United Nations Millennium Development Goals, which call for achieving universal primary education by 2015. However, these improvements in school access have not been accompanied by improvements in school quality. Poor learning outcomes may be due, in part, to high absence rates among teachers, who often lack strong incentives to attend work. (p. 117)

Alcazar, Rogers, Chaudhury, Hammer Jr., Kremer, and Muralidharan (2006) also studied Peruvian primary schools and found “a high rate of absence of teachers from their posts is a serious obstacle to delivery of education in many developing countries” (p. 117). Robertson, Curtis, and Dan (2018), also found in their study of schools in Papua, that “[t]eachers in Papua are public servants who are remunerated regardless of their attendance at school, and this contributes to teacher absenteeism as an ongoing factor in educational disadvantage in Papua, especially in the remote regions, with the overall rate of teacher absenteeism in Papua assessed as 33.5% in 2012” (p. 91).

Teacher Absenteeism: An Issue in North Carolina

North Carolina has also been seeing problems with the teacher attendance rates. The report presented by Scott, Vaughn, Wolfe, and Wyant (2007) to the North Carolina Department of Public Instruction found between 1994-1995 and 2002-2003, teachers took an average of seven sick days per school year. At that time, the contract year for a teacher was 215 days. These

findings were comparable to those of Clotfelter, Ladd, and Vigdor (2009) who determined between 1994-1995 and 2003-2004,

sick leave averaged 7.1 days per teacher, for a rate of about 3.9% based on a 180-day school year. Adding in personal leave, which averaged about 0.9 over the period, yields a slightly higher average rate of roughly 4.4%, a rate that is in the same ball park as the 5% suggested in the few previous studies of teacher absences. (p. 8)

In April 2017, a presentation was made to the North Carolina State Board of Education concerning teacher absenteeism. Dr. Tom Tomberlin, Director of District Human Resources at the North Carolina Department of Public Instruction, informed the State Board members that the current generation of educators no longer view their careers as thirty-year endeavors and feel the need to use the leave days to “garner any value” from them (North Carolina State Board of Education, 2018). Dr. Timothy Drake with North Carolina State University presented statistics from the three previous years of the study showing a slight increase of teacher absenteeism with ten or more nonconsecutive sick days in one school year to 22%. He also pointed out that teacher absenteeism in the eastern part of the state was higher than that in the western part and higher achieving schools and those with higher EVAAS growth had lower rates of chronic teacher absenteeism. Dr. Drake also shared “that about 42% of the teaching force has been chronically absent at least one year during the time outlined in the presentation” (NCSBE, 2018).

In December 2018, Dr. Maria Pitre-Martin, Deputy State Superintendent of District Support, and Dr. Tom Tomberlin, whose title is now Director of Educator Recruitment and Support, made a follow-up to the April 2017 presentation. They gave a more in-depth look focusing on the effect of chronic teacher absenteeism on student growth and examining the Chronic Teacher Absenteeism and the Teacher Working Conditions Survey. In this presentation, Drs. Pitre-Martin and Tomberlin (2018) explained that chronically absent teachers were defined as “teachers in North Carolina who used 10 or more nonconsecutive sick days in an academic

year” (slide 10). From their data, 21.8% of North Carolina educators were chronically absent in 2014-2015; 22.5% in 2015-2016; and 22.6% in 2016-2017. On slide 16 of the same presentation, Drs. Pitre-Martin and Tomberlin indicated that the data shows that in the three study years (2014-2015 to 2016-2017), only 7% of the 76,933 educators showed chronic absenteeism in all three years while 9% of the 19,414 North Carolina educators who were in two of the study years had chronic absenteeism.

Teacher Absenteeism: An Issue with Recordkeeping

Literature suggests that tracking teacher absences can be difficult because of the disparity in recordkeeping. Rogers and Vegas (2009) declared administrative records for tracking teacher absence can be difficult to study because they are not accurate. Kronholz (2013) gave examples of how some districts would count a coach absent if he or she left a class with a substitute to attend a sporting event with the team or count teachers who are absent due to professional development while other districts do not use the same methods. Miller (2012) pointed out districts have different management methods and policies making the vast disparities in Civil Rights data within individual states. He further emphasized that one third of the disparities happens within districts. In Calvert (2001), the researcher identifies administrators believe keeping good attendance records is tedious because of the difficulty of determining whether absences are legitimate, and they believe teachers deserve the sick days they take.

Teacher Absenteeism and Administrator Support

The administrator of a school has been shown to have an impact on the teacher absenteeism rate at the school. Shapira-Lishchinsky and Raftar-Ozery (2018) found in their study of leadership styles, there is a high correlation between a principal’s leadership style and the school ethical climate. These findings were supported by the fact teachers in schools with

administrators seen as being less effective “tend to accept absenteeism, since they may feel that the principal rewards (material, and emotional) are not commensurate with the actual hard work they invest, including the time they put in after hours” (Shapira-Lishchinsky & Raftar-Ozery, 2018, p. 504). Moline (1988) determined from his research “it can be theorized from the findings of this research question area that those school principals who directly involve themselves in the reporting process both during and after the commission of absence have a direct influence on teacher percentage of total lost time” (p. 188).

Teacher Absenteeism in Rural Schools

In North Carolina, rural schools comprise the majority of districts in the state. According to the Public School Forum of North Carolina (2019), the state is second only to Texas for the largest rural student population and over 75% of the traditional public school districts in the state are in rural counties. Rural schools often do not have the resources to invest for teacher incentives, such as supplements and student support, when compared to urban counties. The Public School Forum of North Carolina cited data showing the 2016-2017 average local investment for urban counties was \$2,101 per student while rural counties invested \$1,539 per student in local funds. The North Carolina Department of Public Instruction Division of School Business’s online statistical profile for 2017-2018 shows the local teacher salary supplement for urban districts was \$4,209 compared to the rural districts that only paid an average of \$2,124 in supplements.

Studies have shown that teacher absenteeism is an issue in all schools, but it can have effect in rural schools like those in this study’s district. When the chronically absent data were presented by educational region to the North Carolina State Board of Education, the Sandhills region, a predominantly rural region in North Carolina which happens to be where the focus

district of this study is located, had the highest rate of chronically absent educators (Pitre-Martin & Tomberlin, 2018). “In small rural school districts, finding qualified substitute teachers is almost impossible. Teacher absenteeism is a very serious problem and deserves further study” (Calvert, 2001, p. 83).

Teacher Absenteeism and Calendar Trends

Research has shown there are calendar trends in the rate of teacher absenteeism. In *Do Teacher Absences Impact Student Achievement? Longitudinal Evidence From One Urban School District*, Miller et al. (2007), cite work done by Bundren in 1974 showing teachers were “absent most frequently on Mondays and Fridays” (p. 4). “In Jackson School District (MS) teacher absenteeism is 12% on Tuesday, Wednesday, and Thursday; while it is 13.5% on Monday and Friday. This amounts to nearly two full years of education being taught by substitute teachers” (Smith, 2001, p. 8). In citing a NCTQ study of the Kansas City, Missouri school district, Hanover Research (2012) presented that the teachers in the district used almost all of the 12.5 days of sick and personal leave allotted to them, but “more striking, nearly 50% of all sick leave absences in the district during 2009-2010 occurred on either a Monday or a Friday” (p. 19). In her doctoral research, Braun (2018) cited work by Reinke finding that a school district in Oregon who changed to a four-day week decreased its teacher absenteeism by 27.5%. Holloway (2011) found in her doctoral research the months of February, April, May, October, and November consistently had the highest number of teacher absences each year from 2008-2010” (p. 82). Calvert (2001) found teacher missed more days in April than any other school month and more on Fridays than any other day of the week.

Teacher Absenteeism and School Type

Previous research addressed whether teacher absenteeism rates differ based on the type of school. There are differing opinions when trying to specify whether teacher absence rates are higher in poverty-stricken schools. Alcazar et al. (2006) indicated that Peruvian public school teachers who taught in a high poverty district were twice as likely to be absent than those in other districts. Rogers and Vegas (2009) cite the argument that a high rate of teacher absences is inevitable in the presence of poverty. In 2012, Miller noted students in high-poverty schools were served by teachers with a higher absence rate than their counterparts. However, the National Center on Teacher Quality (2014) found “[i]n spite of previous research to the contrary, this study did not find a relationship between teacher absence and the poverty levels of the children in the school building” (p. 3).

Research has also shown comparisons of teacher absenteeism in different grade levels of school. Balwant (2016) found the teacher absenteeism rate of secondary school teachers in Trinidad is becoming problematic. Norton (1998) found elementary school teachers to have a higher absenteeism rate than secondary teachers. However, Taylor-Price (2012) found “[t]here was no significant difference in attendance between elementary and secondary staff” (p. 75).

Teacher Absenteeism Policies

Teacher absenteeism policies have been shown to influence the absenteeism rate in some school systems. Foldesy and Foster (1989) suggested “policy should be drafted to curb flagrant absenteeism while providing incentives to teachers for exemplary attendance” (p. 85). In her study of a large Houston, Texas, area school district, Holloway (2011) concluded that “[p]olicy changes in ways in which teacher can use personal and sick days alter the attendance of teachers” and these changes being tied to the teacher’s evaluation, could have more of an impact on

decreasing teacher absenteeism than an incentive model (p. 105). In his study of school districts in California and Wisconsin, Donald R. Winkler (1980) addressed the effects of three sick-leave policies: income protection plans, demonstrating proof of illness, and reporting every absence to the principal. The results of his study showed:

Income protection plans, which provide insurance against the loss of pay once accumulated sick leave has been expended, result in higher short-term absenteeism. Requiring the teacher to demonstrate proof of illness lead to lower absenteeism, at least in Monday-Friday absences. Requiring the teacher to report every absence directly to the principal results in a large reduction in short-term absenteeism (Winkler, 1980, p. 240).

Teacher Absenteeism and Incentive Plans

Esther Duflo and Rema Hanna (2005) conducted a study of non-formal schools in India who were experiencing high rates of teacher absenteeism. In order to increase teacher attendance, cameras were used in the schools as monitoring devices to show teachers' presence and productivity when at work. From the research, it was concluded that these monitoring systems, coupled with other incentives, worked when traditional internal monitoring systems had failed because of the human effect of not following the policies of the schools by marking teachers present when they are actually absent. The researchers warned about the issues that could be created if these video monitoring systems were used in government schools where political ramifications could result.

In her doctoral study, Angela R. Taylor-Price (2012) found once an incentive pay program was implemented in her study district, the "[t]eacher absence demonstrated a significant decline during the first year of the implementation of the program; however, absenteeism increased back to almost the same number of days as the baseline during the final year of the program (p. 75). "This result indicated that teachers responded positively to the TIP during the

first year of the plan but by the second year there was little to no impact” (Taylor-Price, 2012, p. 76).

Franklin Grant (2000) found that “[t]he DeKalb County School System initiated an attendance incentive plan which reduced staff absenteeism by an average of 1.23 days per employee and reduced substitute teacher expense by \$156,000 in its first year of implementation—the 1985-1986 academic year (p. 42). This Meritorious Attendance Recognition program “was based on work-group competition and individual recognition and awards. The individual awards consisted of \$100, \$200, and \$300 U.S. Savings Bonds” and “[t]he number of employees having perfect attendance improved 175%” (Grant, 2000, p. 43).

Hanover Research (2012) noted the success of multiple school districts in implementing teacher attendance incentive programs. These included the Aldine Independent School District, Texas employer-paid retirement contribution and Chicago Public Schools, Illinois probationary teacher dismissal policy change. This research also supported the success of Ahn and Vigdor’s research noted in the following paragraph.

Ahn and Vigdor (2010) analyzed the North Carolina State Accountability System that was in place beginning in the 1996-1997 school year. Even though the program was initially started to increase student achievement, Ahn and Vigdor (2010) noted

It's naïve to assume that teachers are not motivated by money, as naïve as assuming that teachers are only motivated by money. The relevant question is: can teachers be motivated to give more effort compared to the status quo at reasonable cost? The answer is yes. Comparing a teacher’s absenteeism rate when school is in session and the expected dollar amount of the bonus she is expected to receive, we find that an increase in likelihood of qualifying for the bonus will cause her to take fewer absences. If we were to take an average teacher who has a very small chance at qualifying for the bonus (where her expected bonus is equivalent to \$400) and increased her probability of qualifying for the bonus (so that her expected bonus becomes \$900) we expect her to take about one fewer sick day over the course of a school year. In terms of the underlying effort variable, the incentive effect of the extra \$500 at stake is a 10% boost to effort (p. 15).

Although many teacher attendance incentive plans have been proven to be effective other research cites the ineffectiveness of some incentive programs. In Jacobson's (1989) study of Sugar Hill and North Forest, the researcher noted that "[a]ttendance incentives seem incompatible with notions of increased professionalism for teachers" as demonstrated by protests of teachers who normally attend school on a regular basis (p. 89). His study also showed that incentive programs were often effective for a short time but were dependent upon teacher behavior. In his doctoral study of selected New York state schools, Craig Onofry (1994) found there was little difference between teacher attendance rates in schools with attendance incentive programs and those without these programs. Rogers and Vegas (2009) found there is no simple solution, including incentive programs, when trying to combat the problem of teacher absenteeism.

Teacher Absenteeism and Teacher Working Conditions

Teacher absences can also have an impact on the morale of the school or district. Bruno (2012) found with a higher the rate of teacher absences, there is a tendency of lower teacher morale leading to a higher turnover rate. Teachers who are not absent "tend to feel more burdened because they may have to plan for the teacher who is absent" (Brown & Arnell, 2012, p. 174). Miller (2012) shares research from Bradley, Green, and Leeves (2007) indicating when a teacher is absent often, it causes the teacher's colleagues to have a higher instance of absences. Rogers and Vegas (2009), in studying teacher absences in India, cited "states and schools with higher absence rates tend to have lower levels of teacher activity for teachers who are present at school" (p. 16).

In his research, Winkler (1980) indicates if the school is a larger school, the teacher absenteeism is generally higher. He also states that work load and physical comfort influences absenteeism:

In education, the work load can be measured by class size and length of the working day. Physical comfort can be measured by the age of building, the availability of audio-visual and other aids, and the socio-economic composition of the student body (Walker, 1980, p. 235).

However, in their December 2018 presentation to the North Carolina State Board of Education, Dr. Maria Pitre-Martin and Dr. Tom Tomberlin presented statistics from the North Carolina Teacher Working Conditions Survey. This survey is administered biannually to all public school teachers in the state. In their research, Drs. Pitre-Martin and Tomberlin found there were “[n]o statistically significant findings, but data suggests that chronically absent teachers in schools with more positive working conditions experience more negative effects on [EVAAS] growth” and “[m]ore research (multi-year) [is] needed to understand relationship” (slide 23).

Teacher Absenteeism and Its Impact on Student Achievement

Multiple studies have shown teacher absences affect student achievement. Research conducted by Duke University for the National Bureau of Economic Research found data proving 10 additional days of teacher absence would be associated with a decline of 1.7% of a standard deviation in math achievement and 0.9% standard deviation in reading (Clotfelter, Ladd, & Vigdor, 2007). Results from 2011-2012 data collected by the United States Department of Education Office of Civil Rights showed students who need the most attention, those with disabilities were subject to have teachers with a higher rate of absences. “Across the nation, 17% of students with disabilities (served by IDEA) – about one million students – attend schools where over 50% of teachers are absent for more than 10 days, compared to 15.6% of students without disabilities” (United States Department of Education Office of Civil Rights, 2014, p. 4).

In their December 2018 presentation to the North Carolina State Board of Education, Drs. Maria Pitre-Martin and Tom Tomberlin, related chronic teacher absenteeism to different aspects of student achievement. On slide 13 of their presentation, data reflected that more educators were chronically absent in schools who had a school report card grade of F. The chronic absenteeism rate was also high in schools that had a D or C school report grade, while schools who had a school report card grade of A, A+NG, or B had the lowest rates of chronic educator absenteeism. On slide 14 of Drs. Pitre-Martin and Tomberlin's presentation, data shows that schools which did not meet expected growth according to the state's EVAAS measure had the highest rates of chronically absent educators, as did Title I, Low Performing schools cited on slide 15.

Drs. Pitre-Martin and Tomberlin also focused on the impact of educator chronic absenteeism on the state's EVAAS measure. They presented that "[o]n average, teachers who are designated as chronically absent score 0.30 index points lower than their same-school peers who are not chronically absent" and this is "statistically, but not practically, significant" (slide 19). In addition to the within school measure on growth, Drs. Pitre-Martin and Tomberlin cited the data showed that "[o]n average, a teacher experiences a -0.10 index point difference in growth when chronically absent than when he/she is not chronically absent" which was once again, "statistically, but not practically, significant" (slide 20). In comparing teachers across the state while controlling for differences, it was found that "[o]n average, chronically absent teachers show a -0.10 index point difference in growth than non-chronically absent teachers" which was "statistically, but not practically, significant" (slide 22).

Teacher Absenteeism and Its Financial Impact

High rates of teacher absences also affect the financial systems of states and school districts. The cost of paying substitute teachers to work when the regular teacher is not present

causes incidences of paying two people to do the same job at the same time. While the substitute teacher is getting the set daily rate of pay, the regular teacher is also still receiving his or her pay and benefits. Foldesdy and Foster (1989) cited research from two scholars describing the fiscal impact of teacher absenteeism: “On any given day, more than 200,000 teachers are absent from school (Lewis, 1981). This translates into an annual cost of approximately two billion dollars (Hill, 1982, p. 82)”. “It is not uncommon for average size districts to spend millions for substitute teachers. Kanawha County School District in West Virginia spent \$6.4 million for substitute teachers last year, with an average teacher absenteeism rate of 8.3%” (Smith, 2001, p. 10). Appendix D contains slides from a presentation of Dr. Maria Pitre-Martin and Dr. Tom Tomberlin to the North Carolina State Board of Education in December 2018 detailing the financial impact of teacher absenteeism for the state of North Carolina. Brown and Arnell (2012) cited statistics from NCES stating total costs associated with teacher absences in 2000 amounted to \$25.2 billion. Miller (2012) found the annual national cost of substitute pay to be approximately \$4 billion or 1% of total K-12 spending.

Summary of Chapter

As seen in this chapter, vast research has shown teacher absenteeism can be addressed in multiple areas. For the purpose of this research, the literature review consisted of teacher absenteeism in relation to it being a national and international problem and as an issue in North Carolina. The research concerning the issues with keeping records of teacher absenteeism was also presented. Teacher absenteeism and the support given by administrators was addressed. Teacher absenteeism research in rural schools and findings gathered in references to teacher absenteeism related to calendar trends, school types, policies, pay incentives, and working conditions were cited. The impact of teacher absenteeism on student achievement and financial

systems were focuses of literature review. In the next chapter, the methodology for this study was explored, including the secondary data to be analyzed and the procedures for conducting the study.

CHAPTER 3: METHODOLOGY

Background of the Study

As stated previously, the school district being studied has an issue with a high rate of teacher absences causing a fiscal burden on the district. Because the school calendar can be restricting, the superintendent wanted to try to find ways to begin reducing the cost of substitute teacher pay. As the current human resources director for the school district, the superintendent asked the researcher to use data collected by the fiscal monitoring team and other secondary data available in the district. The district had an established leadership team consisting of all of the district's directors, the superintendent, and the assistant superintendent. A sub-team of the leadership team monitored the fiscal aspects of the system and consisted of the superintendent, assistant superintendent, finance officer, and human resources director, who is also the researcher of this study. On March 15, 2017, the fiscal monitoring team began the discussion about the teacher absences and the high cost of substitute pay. From this discussion, it was decided that data would be gathered in one school before implementing any ideas district-wide. The school with the highest four-year average of teacher absences was chosen to gather data to begin formulating strategies to increase teacher attendance. To collect this data, members of the team designed, and the superintendent endorsed, the use of the *Teachers' Absence Reporting Form* during the 2017-2018 school year (see Appendix B).

To introduce the *Teachers' Absence Reporting Form* to the staff at the school, the human resources director, who also is the researcher in this study, facilitated professional development with all certified staff. On September 6, 2017, the teachers at the school attended professional development concerning teacher absenteeism. The presentation for the teachers, documented in Appendix C, presented all facts for teacher absenteeism, including research, data particular to

the school, and information about the state policies for leave. An example was also given for how being present for work aids in allowing a teacher to retire early. The form the teachers would complete on a voluntary basis and to be used for data collection was introduced at the end of the presentation. The anonymously completed *Teachers' Absence Reporting Forms* were placed in a locked box and collected once per month.

For the purposes of this problem of practice study, the district's superintendent asked the researcher to review and analyze the existing data that the fiscal monitoring team has gathered from 2012 to the present. As a member of the local fiscal monitoring team and as a student practitioner, the researcher participated in the development, design, and delivery of the *Teachers' Absence Reporting Form* and other resources that were analyzed in this study.

Presentation of the Study

The presentation of this study is organized into five chapters and their relevant subsections that address aspects of the research process. The first chapter introduced the problem of practice for this study, which is the high rate of teacher absenteeism in the focus district that is causing a fiscal burden due to substitute teacher costs. The second chapter presented a review of literature related to the study. The third chapter explains the methodology used to conduct the study. Data analysis and other relevant findings are presented in the fourth chapter. Suggestions for processes to deter teacher absenteeism proposed by the researcher based on the data analysis are presented in the fifth chapter.

Chapter 1 introduced the study and the need for this research concerning the high rate of teacher absenteeism in the district. The chapter described the district geographic and demographic context of the focus district. Chapter 1 gave the reader background about the district by describing the recent working conditions survey and academic testing results. It also

explained the district's current teacher absenteeism status and the process for selection and pay of substitute teachers. The chapter concluded with details of how the district's fiscal monitoring team began focusing on the problem with teacher absenteeism in order to make any immediate changes to correct the problem.

Chapter 2 reviewed relevant literature and findings from other researchers. Data and research from previous studies were cited to enhance the validity of the study in the focus district. In chapter 2, literature concerning teacher absenteeism research was separated into subsections: its status on a national and international level; an issue in North Carolina; relation to administrator support; status in rural schools; calendar trends noted; differences in school types; policies related to it; incentive plans to deter it; its relation to working conditions, including school morale; its impact on overall budgets; and its impact on student achievement.

Chapter 3 described the methodology of the study. It included the background and presentation of the study; the design and main objectives of the study; the study questions and procedures used in the study; and how data to address each study question were analyzed. This chapter also detailed how improvement science, with focus on the use of the GAPPSI method, was used in the study with gap analysis and the Plan-Do-Study-Act being the core tools used to address the problem of practice, used quantitative evidence to compile existing data, and proposed processes to deter teacher absenteeism.

In chapter 4, the quantitative results of the study are presented with citations for the origin of the data. Results are compiled into various tables for easier analysis. The researcher's compilation of the data into understandable tables allow for interpretation and analysis.

In chapter 5, the interpretations from the researcher of the data analysis results presented in chapter 4 are presented. The gaps between the current and desired states are identified and the

researcher's recommendations for processes to improve the district's issue of a fiscal burden due to teacher absenteeism are explained.

Study Design

In this study, improvement science, with a focus on the use of the PDSA cycle and GAPPSI method, was used to better understand the issues of teacher absenteeism and its fiscal burden on the focus district. The gap between the current and desired states of teacher absenteeism and its cost to the district were identified and recommendations given to aid narrowing the gap between the current and desired states. Quantitative evidence was used to support the identified states.

In this study, quantitative evidence referred to the data collected using numerical, or quantifiable, data. The quantitative evidence used in this study are: existing district teacher absenteeism and substitute teacher cost financial reports; data gathered from collection of the district fiscal monitoring team's *Teachers' Absence Reporting Form* in Appendix B; public reports for the substitute teacher cost for the state; identified calendar trends for teacher absences, including certain days of the week or times of the school year; and the types of schools in the district (elementary, middle, prekindergarten through eighth grade, and high school). The quantitative evidence was compiled and presented using tables with further narrative presentation.

Improvement Science

Improvement science is a scientific approach to research and design that combines sets of tools, approaches, and methodologies. It has been used for years in business, industry, education, and healthcare. In improvement science, "[r]ather than simple replication, the practical and pragmatic improvement emphasis shifts the focus to the ability to achieve effective results

reliably and across contexts.... It uses tools of disciplined analysis and rigorous inquiry to ensure the effective instantiation of complex practices at scale and across contexts” (LeMahieu, Edwards, & Gomez, 2015, p. 446).

Improvement science has six core principles of improvement:

1. Make the work problem-specific and user-centered.
2. Variation in performance is the core problem to address.
3. See the system that produces the current outcomes.
4. We cannot improve at scale what we cannot measure.
5. Anchor practice improvement in disciplined inquiry.
6. Accelerate improvements through networked communities (Carnegie Foundation for the Advancement of Teaching, 2019).

For the purpose of this study, improvement science was used to identify the problem of teacher absenteeism and the system currently in place that allows for the high rate of teacher absenteeism within the focus district.

Plan-Do-Study-Act Cycle

The Plan-Do-Study-Act (PDSA) Cycle falls within the fifth core principle of improvement science. It is a disciplined inquiry that has three fundamental questions:

1. What are we trying to accomplish?
2. How will we know that a change is an improvement?
3. What changes can we make that will result in improvement? (Langley, Moen, Nolan, Nolan, Norman, & Provost, 2009, p. 24).

For this study, the PDSA cycle was used to gather existing data to answer question one in order to justify the need for changes that will decrease the district’s fiscal burden due to teacher

absenteeism. The second question was answered when addressing the need for the increase in teacher attendance, resulting in the decrease in substitute teacher pay. The last question of the PDSA cycle was addressed as recommendations for multiple stakeholder groups were made for the reduction of teacher absenteeism. The PDSA cycle also served as a model for the Increasing Teacher Attendance Plan (ITAP) that was developed as a result of this study.

GAPPSI Method

As discussed in the explanation of PDSA, the district's issue with teacher absenteeism will be an ongoing cycle of trying processes and determining whether they are successful in reducing the fiscal burden on the district. Teacher absenteeism is an "ill-structured" problem as described by Archbald in the GAPPSI (Gap Analysis for Problem-solving, Planning, and School Improvement) model. "An ill-structured problem is a situation that raises concerns about performance, is complex, has multiple and uncertain causes and interpretations, and lacks ready solutions" (Archbald, 2014, p. 1). With ill-structured problems, "[p]roblem 'solving,' then is a misnomer...because it is not really about 'solving.' Rather, think of problem-solving as a *process* of GAPPSI and solutions as decisions and actions resulting from GAPPSI. Improvement is the aim" (Archbald, 2014, p. 2).

The researcher understands that teacher absenteeism will never be eliminated because it is an ill-structured problem as defined in the above paragraph. For the purposes of this study, the GAPPSI process was used to make suggestions for actions to be taken by the stakeholders to help address the issue of teacher absenteeism and the improvement will be the reduction of substitute teacher pay.

Main Objectives of the Study

The main objective of this study was to identify processes to be used to decrease the fiscal burden of teacher absenteeism in the focus district. It was also the objective of this study to identify any trends in the district's teacher absenteeism rate and the affects these trends may have on the system. The study offered suggestions of actions to be used to decrease the rate of teacher absenteeism with a focus on these specific objectives:

- Identify the cost of substitute teacher pay for the district compared to the cost of substitute teacher pay for the state of North Carolina and neighboring districts
- Use existing *Teachers' Absence Reporting Forms* to determine the reasons for teacher absences
- Determine calendar trends for reported teacher absences
- Identify trends in teacher absences dependent upon school type
- Identify the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district

Study Questions

As the current human resources director for the school district, the superintendent asked the researcher to use data collected by the fiscal monitoring team and other secondary data available in the district. This data concerning teacher absences will be used to answer these study questions:

1. What are the costs of substitute teacher pay for the district compared to the substitute teacher cost for North Carolina and the substitute cost for surrounding districts?
2. What are the reported reasons the district's teachers are absent so often?
3. What are the calendar trends in the reported teacher absences?

4. What are the school type trends of the reported teacher absences?
5. What are the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district?

Procedures

As mentioned earlier, improvement science, with a focus on the use of the PDSA cycle and GAPPSI method, was used to better understand the issues of teacher absenteeism and its fiscal burden on the focus district. On March 15, 2017, the district's fiscal monitoring team, consisting of the superintendent, assistant superintendent, finance officer, and human resources director, who is also the researcher of this study, began the discussion about the teacher absences and the high cost of substitute pay. From this discussion, it was decided that the team would gather data in one school before implementing any ideas district-wide. The school with the highest four-year average of teacher absences was chosen to be the one used to test the effectiveness of any strategies. To collect this data, members of the team designed, and the superintendent endorsed, the use of the *Teachers' Absence Reporting Form* during the 2017-2018 school year (see Appendix B).

To introduce the data gathering form to the staff at the school, the human resources director, who also is the researcher in this study, facilitated professional development with all certified staff. On September 6, 2017, the teachers at the school attended professional development concerning teacher absenteeism. The presentation for the teachers, documented in Appendix C, presented all facts for teacher absenteeism, including research, data particular to the school, and information about the state policies for leave. An example was also given to demonstrate how high teacher attendance allows a teacher to retire early. The form was voluntary for the teachers, used for data collection, and was introduced at the end of the

presentation. The anonymously completed absence forms were placed in a locked box and collected once per month.

This study used existing quantitative evidence from the district concerning teacher absenteeism and the cost of substitute teacher pay. This evidence included data concerning the entire district and each of its eighteen schools. It also included public data compiled by the state of North Carolina, including but not limited to, financial and business division public reports and results of the North Carolina Teacher Working Conditions Survey. In all, the quantitative evidence used in this study were: existing district teacher absenteeism and substitute teacher cost financial reports; data gathered from collection of the district fiscal monitoring team's *Teachers' Absence Reporting Form* in Appendix B; public reports for the substitute teacher cost for the state; identified calendar trends for teacher absences, including certain days of the week or times of the school year; and the types of schools in the district (elementary, middle, prekindergarten through eighth grade, and high school). The quantitative evidence was compiled and presented using tables.

The gap between the current and desired states of teacher absenteeism and its cost to the district were identified and recommendations for improvement were suggested. Quantitative evidence was used to support the identified states of teacher absenteeism. The researcher detailed actions that can be implemented to help improve the state of the current teacher absenteeism issue and any available results were analyzed and presented.

Data Analysis

In order to gather reliable data and produce possible improvement processes to help alleviate some of the district's current issue with teacher absenteeism and substitute teacher cost, the following methods were used to answer the study questions:

1. *What are the costs of substitute teacher pay for the district compared to the substitute teacher cost for North Carolina and the substitute cost for neighboring school districts?*

Reports from the district's financial data system were used to determine the amount being paid for substitute teachers from fiscal years 2012-2013 to 2017-2018. In order to compare the district's cost to the state and surrounding districts, data from the North Carolina Department of Public Instruction Financial and Business Services division was used.

2. *What are the reported reasons the district's teachers are absent so often?*

Using data collected from the district's fiscal monitoring team's administration of the *Teachers' Absence Reporting Form* during the 2017-2018 school year, specific reasons for the teachers' absences were analyzed and reported in table format.

Reports from the district's financial system for fiscal years 2012-2013 to 2017-2018 were also used to determine the percentage of sick and personal leave days being used by teachers in each school. These results were also presented in table form.

3. *What are the calendar trends in the reported teacher absences?*

Data obtained from the district's financial system for fiscal years 2012-2013 to 2017-2018 were used to identify any calendar trends seen in teacher absenteeism. Trends in absences on certain days of the week, days before and/or after holidays, and during certain times of the year were identified in table form.

4. *What are the school type trends of the reported teacher absences?*

Using the six years of finance data (2012-2013 through 2017-2018), the teacher absenteeism rate for each particular type (elementary, prekindergarten through eighth

grade, middle, or high) were identified in table form. Analysis was done to determine whether a particular type of school has higher rates of teacher absenteeism.

5. *What are the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district?*

The total amount of cost for the high rate of teacher absenteeism was analyzed on an individual school and district basis. Using reports from the district's finance system, the monetary cost for substitute teachers was analyzed. In addition to the monetary cost, the amount of lost instructional hours was analyzed and student achievement results were compiled with the teacher absenteeism rates. These results were presented in table form.

Summary of Chapter

The information for this study is organized into five chapters. The first chapter introduced the problem of practice for this study, which is the high rate of teacher absenteeism in the focus district that is causing a fiscal burden due to substitute teacher costs. It described the district geographic and demographic context of the focus district and gives the reader background about the district. It also explained the district's current teacher absenteeism status and the process for selection and pay of substitute teachers. Details of how the district's fiscal monitoring team began focusing on the problem with teacher absenteeism in order to make any immediate changes to correct the problem concluded the chapter.

The second chapter presented a review of relevant literature and findings from other researchers. Data and research from previous studies were cited to enhance the credibility of the study in the focus district and literature concerning teacher absenteeism research is separated into subsections: its status on a national and international level; as an issue in North Carolina; in

relation to administrator support; status in rural schools; calendar trends noted; differences in school types; fiscal issues with substitute teacher pay and its impact on overall budgets; its impact on student achievement; policies related to it; incentives plans to deter it; and its impact on working conditions, including school morale.

The third chapter explained the methodology used to conduct the study. It included the background and presentation of the study; the design and main objectives of the study; the study questions and procedures used in the study; and how data to address each study question will be analyzed. This chapter also detailed how improvement science, with focus on the use of the GAPPSI method, was used in the study with gap analysis and the Plan-Do-Study-Act being the core tools used to address the problem of practice, use quantitative evidence to compile existing data, and propose processes to deter teacher absenteeism.

Data analysis and other relevant findings are presented in the fourth chapter. The quantitative results of the study are presented with citations for the origin of the data and results are compiled into multiple tables.

Suggestions for processes to deter teacher absenteeism and improve teacher attendance based on the data analysis are presented in the fifth chapter. The interpretations and conclusions from the researcher of the data analysis results are presented. In answering the five research questions, the gaps between the current and desired states of teacher absenteeism are identified and the researcher's recommendations for actions to improve the district's issue of a fiscal burden due to teacher absenteeism are explained for the different stakeholder groups.

CHAPTER 4: RESULTS

Study Overview

In order to address the issue with a high rate of teacher absences causing a fiscal burden on the district, the focus district's superintendent wanted to try to find ways to begin reducing the cost of substitute teacher pay after the fiscal monitoring team began the discussion about the teacher absences and the high cost. The researcher currently serves as the human resources director for the school district and was asked by the superintendent to analyze available data concerning teacher absenteeism and substitute teacher cost. Using data concerning teacher absences and the cost of substitute teacher pay, the following study questions were used to guide this research process:

1. What are the costs of substitute teacher pay for the district compared to the substitute teacher cost for North Carolina and the substitute teacher cost for neighboring school districts?
2. What are the reported reasons the district's teachers are absent so often?
3. What are the calendar trends in the reported teacher absences?
4. What are the school-type trends of the reported teacher absences?
5. What are the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district?

The quantitative evidence used to answer these study questions were: existing district teacher absenteeism and substitute teacher cost financial reports; data gathered from collection of the district fiscal monitoring team's *Teachers' Absence Reporting Form* in Appendix B; public reports for the substitute teacher cost for the state; identified calendar trends for teacher

absences, including certain days of the week or times of the school year; and the types of schools in the district (elementary, middle, prekindergarten through eighth grade, and high school).

Overview of Chapter 4

Using the study questions as introductions to each section, the data results are compiled and organized into tables. Those twelve tables are presented in chapter 4 accompanied by a narrative concerning the results. For the results presented in the tables, the findings for the state include only information about state and federal funding sources documented on the North Carolina Department of Public Instruction website. Due to the unavailability of public data citing the exact local funds budgeted and used for substitute teacher pay in districts other than the focus district, findings presented are based on public data available through the North Carolina Department of Public Instruction website that only included state and federal funding for those districts. For findings presented about the focus district, funding from local, state, and federal sources are cited using reports from the focus district's financial software.

By compiling the findings into table form, the researcher was able to more readily identify areas of concern and use these data to design a tool to increase teacher attendance. The data was also used to help design the upcoming school year academic calendar for the district. Interpretation of the data and recommendations to address areas of concern are offered in chapter 5.

Study Question 1 Findings

What are the costs of substitute teacher pay for the district compared to the substitute teacher cost for North Carolina and the substitute teacher cost for neighboring school districts?

Reports from the focus district's financial software were used to determine the amount being paid for substitute teachers from fiscal years 2012-2013 to 2017-2018. In order to compare

the district's cost to the state and neighboring districts, data from the North Carolina Department of Public Instruction Financial and Business Services division was used. Table 1 reflects the findings from these data sources concerning substitute teacher pay in the focus district and in the state. Table 2 compiles data from both sources and documents substitute teacher pay for the focus district and its neighboring school districts.

Substitute Teacher Cost in Focus District and State

Table 1 displays data concerning the substitute teacher pay cost for the focus district and the state of North Carolina for fiscal years 2012-2013 through 2017-2018. The amounts for the focus district include state, federal, and local funding sources and the percentages of the budget for the district represent the amount of substitute teacher pay that was paid from all three funding sources. The amounts in Table 1 for the state only include state and federal funding sources and represent the amount of substitute teacher pay that was paid from those two sources.

As seen in Table 1, the focus district had a six-year average of \$382,910 for substitute teacher pay accounting for 0.8% of its total budget. During fiscal year 2013-2014, the focus district saw a \$78,707 decrease in the cost of substitute teacher pay from the previous year. In the next five years, the district had a steady increase in the amount of substitute teacher cost with fiscal year 2017-2018 being the highest cost at \$408,766. This was an increase of 25% over five years.

The state had a six-year average of \$40,970,865 for substitute teacher pay accounting for 0.5% of its budget. The highest amount of substitute teacher pay was fiscal year 2016-2017 with a total of \$47,420,442 in federal and state funding spent on substitute teacher pay. The amount paid for substitute teachers the next fiscal year decreased to \$33,842,628, marking a difference of

Table 1

Cost of Substitute Teacher Pay for Focus District and North Carolina

School year	Substitute teacher pay cost for focus district (state, federal, and local funding)	Percent of focus district's fiscal year's budget (state, federal, and local funding)	Substitute teacher pay cost for North Carolina (state and federal funding)	Percent of state's fiscal year's budget (state and federal funding)
2012-2013	\$405,523	0.8	\$39,886,154	0.5
2013-2014	\$326,816	0.7	\$39,872,890	0.5
2014-2015	\$347,703	0.7	\$42,373,083	0.5
2015-2016	\$403,108	0.8	\$42,429,998	0.5
2016-2017	\$405,546	0.8	\$47,420,442	0.6
2017-2018	\$408,766	0.8	\$33,842,628	0.4
6-year Average	\$382,910	0.8	\$40,970,865	0.5

Note. NCDPI Expenditure reports for designated years and school finance data.

Table 2

Cost of Substitute Teacher Pay for Focus District's Neighboring School Districts

Neighboring District	2013-2014		2014-2015		2015-2016		2016-2017		2017-2018		5-Year Average	
	Substitute teacher pay cost	Percent of fiscal year budget	Substitute teacher pay cost	Percent of fiscal year budget	Substitute teacher pay cost	Percent of fiscal year budget	Substitute teacher pay cost	Percent of fiscal year budget	Substitute teacher pay cost	Percent of fiscal year budget	Substitute teacher pay cost	Percent of fiscal year budget
1	\$344,697	0.8	\$585,094	1.2	\$624,223	1.2	\$729,359	1.3	\$665,320	1.2	\$589,739	1.1
2	\$174,132	0.6	\$111,658	0.4	\$172,393	0.6	\$154,068	0.5	\$120,318	0.4	\$146,514	0.5
3	\$180,546	1.3	\$178,208	1.2	\$195,112	1.3	\$194,993	1.3	\$189,263	1.2	\$187,624	1.3
4	\$2,381,004	1.6	\$2,681,128	1.8	\$2,901,259	1.9	\$2,241,006	1.4	\$2,507,106	1.6	\$2,542,301	1.7
5	\$298,513	0.5	\$243,750	0.4	\$359,664	0.5	\$320,795	0.4	\$944,699	1.3	\$433,484	0.6
Focus	\$326,816	0.7	\$347,703	0.7	\$403,108	0.8	\$405,546	0.7	\$408,766	0.8	\$378,388	0.7

Note. Data from Annual Expenditure Report by LEA for applicable year (Retrieved from <http://www.ncpublicschools.org/fbs/resources/data/>). For neighboring districts 1-5, only state and federal funding is available. Focus district amount includes state, federal, and local funding.

\$13,577,814. The rate of substitute teacher pay for the state had shown both increases and decreases across the six-year period included in the research.

In comparison to the state percentage paid for substitute teacher pay, the focus district shows a higher percentage in all years. Ranging from 0.7% to 0.8% in all six years of the study, the average cost for substitute teachers was 0.8% of the district's overall budget. This percentage was double the state's six-year average of 0.4%.

Cost of Substitute Teacher Pay for Focus District's Neighboring School Districts

In Table 2, five years of data (fiscal years 2013-2014 through 2017-2018) was used due to the unavailability of the expenditure reports at the district level. For neighboring districts 1 through 5, only state and federal funding information was used due to the lack of accessibility through public sites that include detailed information about the local funding used for substitute teacher pay. For the focus district all funding sources, including state, federal, and local, were used.

The neighboring districts used in this study are all located in southeastern North Carolina. Data from the North Carolina Department of Public Instruction Financial and Business Services Data and Reports webpage shows that of the six districts, five neighboring districts and the focus district, one district had a student population of less than 2,500; two districts had 2,501 to 7,500 students; two districts had 7,501 to 12,500 students; and one district had more than 20,000 students. As seen in Table 2, of the focus district's five neighboring districts, district 4 had the highest percentage of its state and federal funding being used for substitute teacher pay (1.7%). District 2 had the lowest percentage of its state and federal budget being used for substitute teacher pay at 0.5%. In comparison to the other districts, the focus district ranked fourth highest with 0.7% of its local, state, and federal funding being used for substitute teacher pay.

Study Question 2 Findings

What are the reported reasons the district's teachers are absent so often?

Using data collected from the district's fiscal monitoring team's administration of the *Teachers' Absence Reporting Form* during the 2017-2018 school year, specific reasons for the teachers' absences were compiled from the study school. Reports from the district's financial system for fiscal years 2012-2013 to 2017-2018 were also used to determine the percentage of types of leave being used by teachers in each of the focus district's school. These findings from both of these data sources are presented in Table 3 and Table 4.

Teachers' Absence Reporting Form Reasons for Study School's Teacher Absenteeism

During the 2017-2018 school year, teachers at the focus district's school with the highest average rate of teacher absenteeism were educated on types of leave available from the state and introduced to the *Teachers' Absence Reporting Form*. The reasons on the form were more specific than the normal leave choices from the state. During that year, 81 of the forms were voluntarily and anonymously completed when the teachers were absent. Table 3 presents the findings from the completed forms.

Table 3 presents the results of the forms that were submitted separated by months of absences and reasons for absences. Of the 81 forms submitted, 24.5 (30.2%) of the absences were in the month of October. December and January showed 13.0 (16.0%) absences each. Of the submitted forms, November showed the lowest rate of absences with 2.0 (2.0%) reported. Other months reflected totals of: 8.5 (10.5%) for September; 6.5 (7.4%) for February; 4.0 (4.9%) for March; 4.5 (5.5%) for April; 3.0 (3.7%) for May; and 2.5 (3.1%) with no dates recorded on the forms.

Table 3

Reasons for Teacher Absenteeism at Study School (2017-2018)

Month	Personal Sickness	Family Sickness	“Mental Health” Day	Vacation	Child Involvement	Field-Trip Chaperone	Other	Total Per Month
September	3.0	3.0	1.0				1.5	8.5
October	10.0	12.0	0.5	1.0		1.0		24.5
November		2.0						2.0
December	6.5	2.5		3.0			1.0	13.0
January	5.0	3.0		2.0			3.0	13.0
February	2.0	2.0					2.0	6.0
March		3.5			0.5			4.0
April	2.0	1.0			0.5	1.0		4.5
May				2.0	1.0			3.0
No Date Recorded		1.0			1.0		0.5	2.5
Total Per Absence Type	28.5	30.0	1.5	8.0	3.0	2.0	8.0	81.0

Note. Data found using optional anonymously reported *Teachers’ Reason for Absence Reporting Form* at study school.

Table 4

Percentages of Reasons for District Teacher Absenteeism

	Types of Leave											
	Annual*	Child involvement	Donated	Extended	Leave without pay	Pay sub only	Personal	Professional	Sick	Special Bonus Annual*	Suspended with pay	Attendance Incentive Program*
2012-2013	35.8%	0.1%	2.0%	3.4%	2.1%	2.1%	4.6%	3.3%	35.4%	10.8%	0.1%	1.8%
2013-2014	29.7%	<0.1%	0.6%	1.9%	1.8%	0.6%	4.8%	6.1%	33.2%	18.2%	0.4%	1.8%
2014-2015	49.6%	0.1%	0.1%	3.0%	1.8%	1.7%	2.8%	5.2%	33.9%	NA	0.2%	1.7%
2015-2016	46.7%	<0.1%	1.1%	2.5%	2.1%	1.8%	2.3%	7.2%	34.5%	NA	NA	1.3%
2016-2017	45.2%	<0.1%	2.4%	4.3%	1.3%	2.5%	2.5%	4.2%	36.7%	NA	NA	1.9%
2017-2018	35.6%	0.1%	2.0%	3.3%	2.3%	2.6%	4.6%	3.3%	35.2%	10.7%	0.1%	1.8%
Total	40.5%	<0.1%	1.4%	3.1%	1.9%	1.9%	3.6%	4.9%	34.9%	13.3%	0.2%	1.7%

Note. Teacher absence data are from study district for years indicated. Absence History Report. Retrieved from District Financial Software. * = days when substitute pay is not allowed for teacher absences unless it is for an extended period of leave.

For the types of absences, 28.5 (35.2%) were reported for personal sickness while 30.0 (37.0%) were for family sickness. The combined total for sickness was 58.5 (72.2%). The lowest reported reason for absence according to the submitted forms was for “mental health” days at 1.5 (1.9%). Totals for reasons besides the two types of sickness were: 8.0 (9.9%) for vacation; 3.0 (3.7%) for child involvement; 2.0 (2.5%) for field-trip chaperone; and 8.0 (9.9%) for other. For the reason type of field-trip chaperone, both forms indicated the absences were teachers who were not serving as chaperones for groups or classes he/she sponsored. For the other reason type of the form, one teacher reported an absence for a death in the family and one reported an absence to take a required state licensure test. The other six absences for the other reason had no specific information recorded.

Financial System Reports Reasons for District Teacher Absenteeism

Table 4 reflects findings of data compiled from the focus district’s financial reports. The reasons reported for teacher absenteeism for fiscal years 2012-2013 through 2017-2018 were recorded in percentages for each year. The reasons included were those allowed by the state and the district’s teacher attendance incentive program. Substitute teachers can be paid on all of these days except annual, special bonus annual, and teacher attendance program. For professional days, the district has approved for teachers to attend workshops or other forms of professional growth sessions, so these dates were not included in the total district cost of substitute teachers when calculating substitute teacher pay in Table 1. Personal days require \$50 per day to be deducted from the teacher’s pay.

Of the absences, annual leave accounted for the highest percentage at 40.5%. The state required ten days of annual leave to be taken each year for all employees. Of the types of leave taken when substitute teachers were paid, 34.9% were taken as sick leave. The next highest type

of leave when substitute teachers were paid was professional at 4.9% and personal at 3.6%. The lowest recorded type of leave taken over the six-year period was child involvement leave which accounted for less than 0.1% of absences. All the different types of leave remained close in their rates from year-to-year.

The data in Table 4 collected from the financial system reports can be compared to the data collected in Table 3 from the voluntarily submitted *Teachers' Reason for Absence Reporting Forms*. In both tables, sick leave accounts for the largest percentage of absences requiring substitute teacher pay. When a teacher is taking leave for vacation during instructional days, personal leave should be taken. Table 4 shows 3.6% of the absences for the district were for personal days while Table 3 shows 9.9% of the reported absences were taken for vacation.

Study Question 3 Findings

What are the calendar trends in the reported teacher absences?

Data obtained from the district's financial system for fiscal years 2012-2013 to 2017-2018 were used to identify calendar trends seen in teacher absenteeism. Trends in absences on certain days of the week, days before and/or after holidays, and months of the school year were recorded. Table 5 presents findings for teacher absenteeism rate per day. Table 6 displays results for teacher absenteeism per month and Table 7 shows the teacher absenteeism rate on the day before and the day after holiday breaks.

District Teacher Absenteeism Rates per Day

In Table 5, the district teacher absenteeism rate per day were noted. Data revealed that Fridays had the highest rate of teacher absenteeism at 25.2% for the six-year average. Mondays were the second highest at a rate of 19.2% with Thursdays a close third highest with a rate of 19.1%. Tuesdays and Wednesdays were fourth and fifth respectively, with rates of 18.6% and

Table 5

Percentages of District Teacher Absenteeism per Day

	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	2017- 2018	6-Year Average
Monday	19.0%	18.7%	19.4%	18.9%	19.2%	20.3%	19.2%
Tuesday	17.7%	18.5%	18.9%	19.4%	19.2%	18.2%	18.6%
Wednesday	16.3%	17.5%	18.9%	17.8%	18.5%	17.6%	17.8%
Thursday	19.6%	20.2%	19.0%	18.1%	18.9%	19.1%	19.1%
Friday	27.4%	25.1%	23.8%	25.8%	24.3%	24.8%	25.2%

Note. Teacher absence data are from study district for years indicated. Absence History Report. Retrieved from District Financial Software.

Table 6

Percentages of District Teacher Absenteeism per Month

	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	2017- 2018	6-Year Average
January	9.2%	8.0%	9.2%	10.9%	9.6%	9.5%	9.4%
February	12.0%	7.3%	11.1%	11.9%	12.1%	10.3%	10.8%
March	12.3%	13.5%	13.4%	9.7%	14.6%	10.6%	12.%3
April	8.6%	8.9%	9.7%	11.7%	9.5%	9.5%	9.7%
May	13.6%	12.6%	11.3%	10.9%	10.4%	11.2%	11.7%
June	4.1%	10.0%	4.8%	2.4%	4.0%	4.6%	5.0%
July	0.1%	0.2%	0.0%	0.2%	0.1%	0.1%	0.1%
August	1.4%	1.5%	1.3%	2.3%	1.5%	3.4%	1.9%
September	7.7%	7.1%	8.7%	10.8%	8.9%	8.5%	8.6%
October	12.7%	11.7%	11.4%	11.8%	8.3%	12.2%	11.3%
November	10.3%	10.5%	10.5%	10.3%	11.9%	11.8%	10.9%
December	8.1%	8.8%	8.6%	7.2%	9.1%	8.2%	8.3%

Note. Teacher absence data are from study district for years indicated. Absence History Report. Retrieved from District Financial Software.

Table 7

Percentages of District Teacher Absenteeism Before and After Holiday Breaks

School year	Days before holiday	Days after holiday
2012-2013	4.6%	3.1%
2013-2014	4.5%	2.5%
2014-2015	4.0%	3.1%
2015-2016	3.9%	3.7%
2016-2017	4.2%	3.8%
2017-2018	3.7%	3.3%
6-year Average	4.2%	3.3%

Note. Percentage of sick or personal days used before or after designated holiday breaks.

17.8%. All the days of the week showed very little difference each year, with 3.6% deviation being the highest.

District Teacher Absenteeism Rates per Month

Table 6 records the district teacher absenteeism rate per month for fiscal years 2012-2013 through 2017-2018. The month of March showed the highest six-year average of teacher absenteeism at 12.3% and ranged from 9.7% to 14.6%. The summer month of July when only one of the district's schools is in session for one week showed the lowest rate of teacher absences with a six-year average of 0.1%. The district teacher absenteeism rates in the month of January, when teachers return from a two-week Christmas break, have the Martin Luther King, Jr. holiday, and teacher workdays for semester break, ranged from 8.0% to 10.9 and showed a six-year average of 9.4%. In the month of February, the district teacher absenteeism rates ranged from 7.3% to 12.1% with a six-year average of 10.8%. In the month of April, which usually has the week-long spring break, the rates ranged from 8.6% to 11.7% with a six-year average of 9.7%. In the month of May, the teacher absenteeism rates ranged from 10.4% to 13.6% with a six-year average of 11.7%. The month of June, the last school month for the district, showed rates of 2.4% to 10.0% with a six-year average of 5.0%. In August, the teacher absenteeism rates were 1.3% to 3.4% with a six-year average of 1.9%. The month of September showed rates of 7.1% to 10.8% with a six-year average of 8.6%. In October, teacher absenteeism rates were 8.3% to 12.7% with a six-year average of 11.3%. In the month of November, rates were 10.3% to 11.9% with a six-year average of 10.9%. In December, teacher absenteeism rates were 7.2% to 9.1% with a six-year average of 8.3%.

District Teacher Absenteeism Before and After Holiday Breaks

Data outlining the percentage of teacher absences before and after holiday breaks are shown in Table 7. These holiday breaks include the eleven days required by the state to be taken by teachers. The district allows for a two-week break where the Christmas holidays fall and a one-week break where the Easter holiday falls. Absences on days before holiday breaks ranged from 3.7% in 2017-2018 to 4.6% in 2012-2013 with a six-year average of 4.2%. For days after holiday breaks, teacher absences were lowest at 2.5% in 2013-2014 to the highest of 3.8% in 2016-2017 with a six-year average of 3.2%.

Study Question 4 Findings

What are the school type trends of the reported teacher absences?

Using the six years of finance data, 2012-2013 through 2017-2018, the teacher absenteeism rate for each school type (elementary, prekindergarten through eighth grade, middle, or high) of school was identified. Only those teachers using ten or more personal or sick leave days were included in the data. Table 8 listed each of the eighteen schools in the focus district by their school type and presented their absenteeism rates. Table 9 summarized the averages for each school type group.

Individual School Teacher Absenteeism by School Type

In Table 8, the teacher absenteeism rate is recorded for each school in the focus district based on the type of school (elementary, middle, prekindergarten through eighth, and high). Elementary schools, which consist of grades prekindergarten through fifth, had a six-year average teacher absenteeism rate ranging from 38.6% for the lowest average to 63.7% for the highest. For middle schools which consist of grades sixth through eighth, the lowest six-year

Table 8

Percentages of Teachers with More Than 10 Days Absent by School

School Type	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	6-Year Average
Elementary	41.0%	61.2%	69.2%	71.4%	82.4%	55.1%	63.7%
Elementary	64.8%	62.3%	58.0%	58.1%	55.6%	41.6%	57.3%
Elementary	70.1%	56.4%	57.1%	46.2%	40.0%	43.7%	52.0%
Elementary	30.0%	54.1%	62.8%	45.8%	41.3%	53.1%	47.8%
Elementary	45.1%	29.3%	30.5%	50.0%	50.0%	40.7%	41.1%
Elementary	39.9%	66.5%	30.4%	37.5%	27.8%	24.7%	38.6%
Middle	78.0%	83.1%	68.3%	54.5%	40.0%	61.5%	63.9%
Middle	57.6%	62.9%	63.6%	72.2%	68.0%	4.8%	57.9%
Middle	56.5%	82.5%	59.1%	66.7%	50.0%	22.2%	57.5%
Middle	42.8%	41.5%	69.2%	62.5%	56.0%	54.5%	54.6%
Middle	32.2%	31.7%	40.0%	42.9%	39.1%	40.0%	37.4%
PK-8	59.7%	90.0%	79.2%	59.5%	79.7%	56.4%	70.6%
PK-8	46.9%	75.3%	66.0%	67.9%	36.0%	42.8%	56.3%
PK-8	27.9%	75.0%	40.5%	48.1%	23.3%	18.3%	40.0%
High	46.0%	66.7%	57.5%	56.4%	39.4%	30.8%	50.3%
High	43.8%	64.3%	45.6%	53.2%	42.2%	37.4%	47.9%
High	6.7%	21.4%	50.0%	68.8%	58.3%	46.2%	41.6%
High	40.4%	41.0%	43.2%	41.5%	36.9%	37.9%	40.4%

Note. Teacher absence data are from study district for years indicated. Absence History Report. Retrieved from District Financial Software.

Table 9

Average Teacher Absenteeism by School Type

School Type	6-Year Average %
Elementary	50.1
Middle	54.8
PK-8	58.8
High	45.9

Note. Teacher absence data are from study district for years indicated. Absence History Report. Retrieved from District Financial Software. More than 10 sick and/or personal leave days.

average of teacher absenteeism rate was 37.4% and the highest was 63.9%. For schools serving grades prekindergarten through eighth, the lowest six-year average of teacher absenteeism was 40.0% and the highest was 70.6%. In high schools with grades ninth through twelfth, the lowest six-year average of teacher absenteeism rate was 40.4% and the highest was 50.3%.

District Teacher Absenteeism Rate by School Type

Table 9 summarizes the six-year teacher absenteeism average for the four types of schools in the focus district. Prekindergarten through eighth grade schools showed the highest six-year teacher absenteeism rate at 58.8%. Middle schools showed the second highest absenteeism rate at 54.8% followed by elementary schools at 50.1%. High schools had the lowest teacher absenteeism average of 45.9%.

Study Question 5 Findings

What are the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district?

The total amount of cost for the high rate of teacher absenteeism was analyzed on an individual school and district basis. Using reports from the district's finance system, the monetary costs for substitute teachers by school were recorded in Table 10 and the total amounts of lost instructional hours were presented in Table 11. Table 12 highlights the student achievement data by school with the teacher absenteeism rate.

Teacher Absenteeism Fiscal Costs

The district had a six-year average fiscal cost of \$382,910 with a fiscal cost per teacher of \$294. Table 10 outlines the fiscal cost for substitute teacher pay by school. As seen in the table, the rankings of schools from lowest teacher absenteeism percentage to highest teacher

Table 10

Fiscal Cost per School Due to Teacher Absenteeism

School	6-year Teacher Absenteeism Average %	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	2017- 2018	6-year Average Teacher Absenteeism Fiscal Cost	6-year Average Fiscal Cost per Teacher
1	37.4	\$9,884	\$12,639	\$13,809	\$9,061	\$20,789	\$13,478	\$13,277	\$463
2	38.6	\$20,157	\$10,147	\$6,968	\$9,936	\$9,128	\$9,259	\$10,933	\$408
3	40.0	\$19,257	\$15,078	\$16,779	\$17,781	\$18,165	\$17,120	\$17,363	\$333
4	40.4	\$35,375	\$31,165	\$31,470	\$16,593	\$25,980	\$28,421	\$28,167	\$313
5	41.1	\$29,593	\$19,065	\$18,154	\$42,555	\$22,112	\$32,930	\$27,402	\$360
6	41.6	\$4,053	\$2,842	\$8,277	\$8,735	\$7,241	\$13,446	\$7,432	\$215
7	47.8	\$18,816	\$18,893	\$25,513	\$34,162	\$19,670	\$23,289	\$23,391	\$385
8	47.9	\$41,118	\$23,926	\$39,264	\$32,213	\$36,412	\$29,050	\$33,664	\$247
9	50.3	\$38,469	\$33,929	\$27,605	\$35,285	\$27,115	\$21,841	\$30,707	\$262
10	52.0	\$25,361	\$12,999	\$20,058	\$23,891	\$21,296	\$24,216	\$21,304	\$276
11	54.6	\$8,082	\$7,956	\$8,593	\$18,687	\$11,001	\$12,116	\$11,073	\$255
12	56.3	\$27,882	\$24,357	\$17,640	\$27,719	\$24,147	\$43,515	\$27,543	\$327

Table 10 (continued)

School	6-year Teacher Absenteeism Average %	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	2017- 2018	6-year Average Teacher Absenteeism Fiscal Cost	6-year Average Fiscal Cost per Teacher
13	57.3	\$22,634	\$18,480	\$24,612	\$26,216	\$21,932	\$32,007	\$24,314	\$287
14	57.5	\$19,884	\$7,949	\$9,274	\$10,107	\$19,063	\$8,629	\$12,484	\$329
15	57.9	\$11,585	\$15,036	\$8,910	\$13,863	\$13,560	\$8,103	\$11,843	\$223
16	63.7	\$14,203	\$14,438	\$15,345	\$16,849	\$41,477	\$29,367	\$21,947	\$327
17	63.9	\$20,295	\$19,572	\$17,078	\$18,054	\$14,210	\$13,206	\$17,069	\$275
18	70.6	\$38,878	\$38,346	\$38,349	\$41,401	\$52,243	\$48,770	\$42,998	\$252
District	51.1	\$405,523	\$326,816	\$347,703	\$403,108	\$405,546	\$408,766	\$382,910	\$294

Note. Teacher absence financial data are from study district for years indicated. Absence History Report. Retrieved from District

Financial Software.

Table 11

Instructional Hours Lost Due to Teacher Absenteeism

School	6-year Teacher Absenteeism Average %	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	6-Year Average Instructional Hours Lost
1	37.4	1274.0	1365.0	1638.0	1095.5	2019.5	1782.1	1529.0
2	38.6	1865.5	959.0	682.5	885.5	833.0	1001.0	1037.8
3	40.0	1660.8	1414.0	1484.0	1480.5	1382.5	1683.5	1517.5
4	40.4	3342.5	2957.5	2800.0	1459.5	2282.0	2719.5	2593.5
5	41.1	2838.5	1960.0	1666.0	3713.5	1904.0	3209.5	2548.6
6	41.6	346.5	238.0	721.0	843.5	619.5	1172.5	656.8
7	47.8	1764.0	1596.0	2061.5	2803.5	1715.0	2128.0	2011.3
8	47.9	3923.5	2348.5	3477.3	2763.3	3146.5	2544.5	3033.9
9	50.3	3841.3	3433.5	2621.5	3136.0	2369.5	2105.6	2917.9
10	52.0	2464.0	1274.0	1736.0	1998.5	1963.5	2397.5	1972.3
11	54.6	969.5	889.0	892.5	1886.5	1172.5	1281.0	1181.8
12	56.3	2586.5	2215.5	1680.0	2576.0	2156.0	3668.0	2480.3

Table 11 (continued)

School	6-year Teacher Absenteeism Average %	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	6-Year Average Instructional Hours Lost
13	57.3	2194.5	1830.5	2345.0	2394.0	1911.0	2975.0	2275.0
14	57.5	1872.5	1018.5	1008.0	1032.5	2138.5	1134.0	1367.3
15	57.9	1127.0	1512.0	843.5	1221.5	1193.5	787.5	1114.2
16	63.7	1277.5	1302.0	1533.0	1445.5	3517.5	2635.5	1951.8
17	63.9	2152.5	2583.0	2114.0	1589.0	1260.0	1151.5	1808.3
18	70.6	3892.0	4137.0	3755.5	3801.0	4840.5	4417.0	4140.5
District	51.1	39392.5	33033.0	33059.3	36125.3	36424.5	38793.2	36138.0

Note. Teacher absence financial data are from study district for years indicated. Absence History Report. Retrieved from District Financial Software.

Table 12

Teacher Absenteeism and Student Achievement

School	2012-2013			2013-2014			2014-2015			2015-2016			2016-2017			2017-2018		
	6-year Teacher Absenteeism	EOG & EOC Composite	Growth Status	EOG & EOC Composite	SPG*	Growth Status	EOG & EOC Composite	SPG*	Growth Status	EOG & EOC Composite	SPG*	Growth Status	EOG & EOC Composite	SPG*	Growth Status	EOG & EOC Composite	SPG*	Growth Status
1	37.4	27.9	M	30.9	F	M	41.7	D	M	49.3	C	E	36.4	D	M	48.6	C	M
2	38.6	33.5	M	37.3	D	E	31.3	F	M	49.1	C	M	64.7	B	E	55.6	C	E
3	40.0	34.7	M	43.1	D	NM	45.4	D	M	44.1	D	M	50.9	C	E	43.0	D	M
4	40.4	25.3	M	40.8	C	M	36.5	D	NM	41.0	C	M	46.7	C	M	59.5	C	NM
5	41.1	33	M	45.3	C	M	36.3	C	M	41.1	D	NM	43.2	D	M	56.3	C	M
6	41.6	46.7	M	57.5	D	E	51.6	D	M	55.5	B	NM	58.8	C	NM	77.3	B	M
7	47.8	19.3	E	26.9	D	M	33.3	D	E	44.0	D	M	52.8	C	M	45.1	D	M
8	47.9	29.5	M	49.1	C	M	44.3	C	M	45.2	C	NM	53.3	C	M	63.1	C	NM
9	50.3	33.4	M	50.7	C	M	40.9	C	NM	41.0	C	NM	57.7	C	M	62.5	C	M
10	52.0	23	NM	37	D	M	42	F	NM	60.9	C	M	65.5	C	M	63.2	C	M

Table 12 (continued)

School	2012-2013			2013-2014			2014-2015			2015-2016			2016-2017			2017-2018		
	6-year Teacher Absenteeism	EOG & EOC Composite	Growth Status	EOG & EOC Composite	SPG*	Growth Status	EOG & EOC Composite	SPG*	Growth Status	EOG & EOC Composite	SPG*	Growth Status	EOG & EOC Composite	SPG*	Growth Status	EOG & EOC Composite	SPG*	Growth Status
11	54.6	31.9	NM	51.8	C	E	53.9	C	NM	60.4	C	M	52.3	C	NM	59.9	C	M
12	56.3	39.1	E	51.3	C	E	55	C	M	65.0	C	M	66.2	C	NM	63.7	C	M
62 13	57.3	20.4	NM	27	F	M	40.5	D	M	40.1	D	M	46.1	D	M	58.6	C	E
14	57.5	22.9	NM	29.9	D	M	33.5	D	M	40.5	D	NM	44.7	D	M	31.5	F	NM
15	57.9	29.5	NM	36.7	D	NM	36.9	D	NM	44.8	D	M	41.5	D	M	32.4	F	NM
16	63.7	38.1	M	55.1	C	M	64	C	E	78.5	B	M	72.9	B	M	76.8	B	M
17	63.9	34.8	M	46	C	E	42.2	D	M	54.6	C	E	46.9	D	M	58.7	C	E
18	70.6	37.9	M	50.6	C	M	51.7	C	M	53.5	C	M	55.6	C	M	54.3	C	E

Note. SPG=School Performance Grade calculated as 80% proficiency and 20% growth scores based on state standardized testing.

M=Met Expected Growth. E=Exceeded Expected Growth. NM=Not Meeting Expected Growth. Student achievement data gathered from NCDPI Accountability Reports and absenteeism rate from school district finance reports.

absenteeism percentage did not always correlate with the ranking of average fiscal costs per school. The district has schools that range in teacher count from six to forty-eight, thus causing the number of teachers needing substitute teachers to vary at the schools. Even though school 1 had the lowest 6-year teacher absenteeism percentage at 37.4%, it did not have the lowest fiscal cost for teacher absenteeism. However, it did have the highest cost per teacher at \$463. School 6, which had a teacher absenteeism average of 41.6%, had the lowest fiscal cost of substitute pay at an average of \$7,432 and the lowest cost per teacher at \$215. The second lowest fiscal cost was school 2, with an absenteeism rate of 38.6% at a fiscal cost of \$10,933, but it was the second highest cost per teacher at \$408. School 18, which had the highest rate of teacher absenteeism at 70.6%, had the highest fiscal cost at an average of \$42,998, but the fourth lowest cost per teacher at \$251. The second highest school was school 8, which had a teacher absenteeism rate of 47.9% at a fiscal cost of \$33,664 and the third lowest cost per teacher at \$247. Other schools ranged from a lower average of \$11,073 to \$30,707 average six-year fiscal cost with cost per teacher ranging from \$255 to \$385.

Teacher Absenteeism Instructional Hours Lost

The district had an average of 36,138.0 hours of lost instructional time during the six years studied. This amount is equivalent to 5,162.6 school days over six years. Table 11 shares the findings for the instructional hours lost due to teacher absenteeism. These hours were calculated by multiplying the number of teacher absence days by seven, which is the length of student instructional days for the district. As in Table 10, the number of lost instructional hours did not correlate with the percentage of absences due to the varying teacher counts at each school. School 18, which had the highest rate of teacher absenteeism, had the highest number of instructional hours lost at 4140.5, equivalent to 591.5 instructional day over six years. School 6

had the lowest number of instructional hours lost at 656.8 hours or 93.8 days over six years.

Other schools ranged in hours from 1037.8 lost instructional hours (148.3 days over six years) to 3033.9 lost instructional hours (433.4 days over six years).

Teacher Absenteeism and Student Achievement

Table 12 records the findings for teacher absenteeism rates in each of the district's schools with the student achievement for the six years studied. The performance composite on end-of-grade (EOG) and end-of-course (EOC) state tests, along with the school growth status are recorded. The School Performance Grade (SPG) began in 2013-2014 and is reported for that year and the subsequent years. Using the 2017-2018 data, school 6, with a teacher absenteeism rate of 41.6%, showed the highest proficiency level at 77.3% with a SPG of B and met its growth. School 14, with a teacher absenteeism rate of 57.5%, had the lowest proficiency rate of 31.5% with a SPG of F and did not meet its growth. Even though the two lowest performing schools in the district, school 14 and school 15, fall within the five highest teacher absenteeism schools, the schools who ranked 12, 14, and 16 in terms of proficiency had the three lowest rates of teacher absenteeism. The second highest performing school in the district, school 16, had one of the highest teacher absenteeism rates at 63.7% while acquiring a proficiency score of 76.8% with a SPG of B and met expected growth.

Summary of Chapter

In chapter 4, multiple points of data gathered during this research were presented in twelve tables. The findings in these tables showed total costs of substitute teacher pay in the focus district, the state, and in neighboring districts. Tables also showed the reasons why the district's teachers were absent and the calendar trends in the reported teacher absences. In other tables, the school type trends in teacher absences were noted and the fiscal, instructional, and

student achievement effects were identified. In chapter 5, these findings will be used to make recommendations for stakeholders in reducing teacher absenteeism and substitute teacher costs.

CHAPTER 5: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Study Overview

In 2016, the focus district's fiscal monitoring team began the discussion about the high number of teacher absences and the high cost of substitute pay. When the superintendent saw the average cost of substitute teacher pay was exceeding \$300,000, he asked the researcher, the current human resources director for the district, to analyze available data concerning teacher absenteeism and substitute teacher cost.

Study Questions

To guide the research and focus the data collection process, the following study questions were addressed:

1. What are the costs of substitute teacher pay for the district compared to the substitute teacher cost for North Carolina and the substitute teacher cost for neighboring school districts?
2. What are the reported reasons the district's teachers are absent so often?
3. What are the calendar trends in the reported teacher absences?
4. What are the school-type trends of the reported teacher absences?
5. What are the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district?

Quantitative evidence collected to answer these study questions were: existing district teacher absenteeism and substitute teacher cost financial reports; data gathered from collection of the district fiscal monitoring team's *Teachers' Absence Reporting Form* in Appendix B; public reports for the substitute teacher cost for the state; identified calendar trends for teacher

absences, including certain days of the week or times of the school year; and the types of schools in the district (elementary, middle, prekindergarten through eighth grade, and high school).

After analyzing the data, the results were organized into twelve tables presented in chapter 4. Due to the unavailability of public data citing the exact local funds budgeted and used for substitute teacher pay in districts other than the focus district, findings presented were based on public data available through the North Carolina Department of Public Instruction website that only included state and federal funding for those districts and the state. The findings presented about the focus district, funding from local, state, and federal sources are cited.

Using the findings in the twelve tables in chapter 4, the researcher was able to identify areas of concern in order to make recommendations to the different stakeholders with interest in teacher absenteeism and its costs. A tool, Increasing Teacher Attendance Plan (ITAP), was designed to assist districts in the cyclical process of addressing and trying to curtail the high cost of teacher absenteeism, thus increasing teacher attendance. Interpretation of the data using the five study questions, recommendations for stakeholders, and the ITAP are presented in chapter 5.

Data Interpretation

Study Question 1

What are the costs of substitute teacher pay for the district compared to the substitute teacher cost for North Carolina and the substitute teacher cost for neighboring school districts?

Using data from the focus district's financial software and the North Carolina Department of Public Instruction Financial and Business Services division, the amounts of substitute teacher pay for six years for the focus district, surrounding districts, and the state were compiled in Tables 1 and 2.

Table 1 displayed findings for the substitute teacher pay cost for the focus district and the state of North Carolina for fiscal years 2012-2013 through 2017-2018. The amounts displayed in Table 1 for the focus district include state, federal, and local funding sources and the percentages of the budget for the district represented the amount of substitute teacher pay that was paid from all three funding sources. The amounts in Table 1 for the state only included state and federal funding sources and represented the amount of substitute teacher pay that was paid from those two sources. Analyzing the percentages of the funding sources paid for substitute teacher allow for a more accurate comparison even though there is one less funding source documented for the state.

During fiscal year 2013-2014, the focus district saw a \$78,707 decrease in the cost of substitute teacher pay from the previous year. Two major winter storms occurred in January and February 2014 causing the district to miss eight instructional days as documented in the *Number of Days for LEA School Closings* (North Carolina Department of Public Instruction Financial and Business Services Division, 2018). Table 6 shows that in the same year, the teacher absenteeism rate was the lowest for January and February than in the other five years. It can be assumed that since teachers had eight days out during those months due to weather, they were less likely to take off instructional days during those months, which would have necessitated the need for a substitute teacher. This, in turn, could have attributed to the decrease in the amount of substitute teacher pay for that school year. In the next five years, the district had a steady increase in the amount of substitute teacher cost with fiscal year 2017-2018 being the highest cost at \$408,766, remaining at 0.8% of that year's total budget. Even though the amount of money spent for substitute teacher pay in the focus district increased 25% over five years, the yearly total budget percentage remained at 0.7% to 0.8%.

In comparing the focus district to the state, the researcher expected the state percentage of budget spend on substitute teachers to be higher. However, the lack of the amount spent across the state from local funding sources for substitute teachers could attribute to the lower percentage. As seen with the focus district's percentage, which includes local funding, the rate was high for a district with limited fiscal resources.

When comparing the focus district to its neighboring districts, it is difficult to determine if other factors attribute to the findings. As stated in chapter 4, the districts range in size and the local funds were not included in the neighboring districts' data. Within districts, teachers are paid from all funding sources, thus affecting how the substitute teacher funding would be disbursed. It would be interesting to determine if the local funding for each of the districts would affect the percentage of the budget spent for substitute teachers.

Study Question 2

What are the reported reasons the district's teachers are absent so often?

Data collected from the district's fiscal monitoring team's administration of the *Teachers' Absence Reporting Form* during the 2017-2018 school year and Reports from the district's financial system for fiscal years 2012-2013 to 2017-2018 were used to determine the reasons and types of leave being used by teachers in each of the focus district's school. Tables 3 and 4 reflected the information compiled from these data sources.

Using data from the *Teachers' Absence Reporting Form* and the focus district's financial reports, as expected, sick leave accounts for the largest percentage of absences requiring substitute teacher pay. When a teacher is taking leave for vacation during instructional days, personal leave should be taken. Surprisingly, Table 4 shows 3.6% of the absences for the district were for personal days while Table 3 shows 9.9% of the reported absences at the study school

were taken for vacation. The difference of 6.3% in this data leaves to question whether sick leave was being used in lieu of personal leave for vacation days. If teachers take sick days for vacation, the district pays the full amount for the substitute teacher and the teacher's regular daily rate of pay with benefit costs from one of its funding sources. However, if personal leave is taken, as should be done for any absence during the instructional days besides sickness, the district could recoup \$50 from the teacher's pay for the substitute pay cost.

Study Question 3

What are the calendar trends in the reported teacher absences?

Tables 5, 6, and 7 reflected data obtained from the district's financial system for fiscal years 2012-2013 to 2017-2018 and identified calendar trends, such as absences on certain days of the week, days before and/or after holidays, and months of the school year. Using this data would be valuable in assisting with development of the school calendar each year by strategically placing non-instructional days, such as teacher workdays and holiday breaks. By strategically placing these days, the district could reduce the cost of substitute teacher pay for days or dates that historically have a high rate of teacher absenteeism.

From analysis of the data presented in the three tables, as a district human resources director, some of the findings were surprising while others were not. It is not surprising that Fridays and Mondays had the highest rates of teacher absenteeism, so teachers could have long weekends if the absences were for planned reasons. During the month of March, scheduled non-instructional days varied dependent upon the date of Easter, when the district schedules its spring break. The district teacher absenteeism rates for the month of January was surprising because teachers had multiple non-instructional built-in dates in the calendar. They had returned from a two-week Christmas break at the beginning of January and had the Martin Luther King, Jr.

holiday and teacher workdays for semester break mid- to late January. However, the rate for January ranged from 8.0% to 10.9% and showed a six-year average of 9.4%. In the month of February, it was expected for there to be a higher rate of teacher absenteeism on instructional days because there was rarely a non-instructional date scheduled during the month. For the month of May, it was surprising the teacher absenteeism rates ranged from 10.4% to 13.6% with a six-year average of 11.7%. May is usually the month that teachers are preparing students for the end-of-year state testing and they get the Memorial Day holiday as a non-instructional day. It would be assumed the teachers would want to be present for the test review to ensure students were prepared correctly. The month of June, the last school month for the district, usually had less than ten instructional days. However, June showed rates of 2.4% to 10.0% with a six-year average of 5.0%. August, the first school month for the focus district, included approximately five instructional days because students could not start school until the Monday closest to the 26th of the month, due to legislation. This short period of instructional days could account for August having the lowest rate of teacher absenteeism rates at 1.3% to 3.4% with a six-year average of 1.9%. October proved to be the third highest rate of teacher absenteeism with rates of 8.3% to 12.7% and a six-year average of 11.3%. This high rate of absenteeism may be expected since not many non-instructional days were scheduled in most of the school calendars during the six years studied. It is to be noted that in the month of November, teacher absenteeism rates were 10.3% to 11.9% with a six-year average of 10.9%, even though teachers have a three-day break for the Thanksgiving holiday. In December, teacher absenteeism rates were 7.2% to 9.1% with a six-year average of 8.3%, making it the third lowest rate of the regular school months. Even though it had one of the lowest rates of teacher absenteeism, December's rate was not expected

to be as high as it was because there is a two-week break of non-instructional days scheduled around the Christmas holiday.

In addition to the days and months being analyzed for trends in teacher absenteeism, data showing the percentage of teacher absences before and after holiday breaks were shown in Table 7. These holiday breaks included the eleven days required by the state to be taken. These holidays included one-day breaks, such as the Martin Luther King, Jr. holiday, Memorial Day, Labor Day, and Veterans' Day, along with longer one- to two-week breaks that the district builds into the calendar around Easter and Christmas. Absences on days before holiday breaks ranged from 3.7% in 2017-2018 to 4.6% in 2012-2013 with a six-year average of 4.2%. For days after holiday breaks, teacher absences were lowest at 2.5% in 2013-2014 to the highest of 3.8% in 2016-2017 with a six-year average of 3.2%. It could be expected for there to be low rates of absenteeism for teachers who may travel long distances to be with family or those who choose to use a holiday to make a long weekend for a vacation.

Study Question 4

What are the school-type trends of the reported teacher absences?

The teacher absenteeism rate for each school type (elementary, prekindergarten through eighth grade, middle, or high) of school was recorded in Tables 8 and 9. Only those teachers using ten or more personal or sick leave days were included in the data. From the two tables, it can be seen that prekindergarten through eighth grade schools showed the highest six-year teacher absenteeism rate at 58.8%. Middle schools showed the second highest absenteeism rate at 54.8% followed by elementary schools at 50.1%. High schools had the lowest teacher absenteeism average of 45.9%.

Various reasons could attribute to the rates of teacher absenteeism at the different types of schools. As seen in chapter 2 of this document, one of the problems with tracking teacher absenteeism is the difference in record-keeping among schools. For elementary schools that usually have teacher assistants in the lower grades, teachers may not always take an official leave day, if the principal decides to “cover the class in-house” using a teacher assistant. This practice should not become routine because the state requires that teacher assistants who are acting as a substitute teacher get paid on their daily rate of pay, which is higher than a regular substitute teacher daily rate. For middle and high schools that may operate on a block or period schedule, teachers may not always take an official leave day because the principal may have teachers who are on their planning period to supervise the classes of the absent teacher. By doing this, the school is saving money in substitute teacher pay, but it does not allow for accurate documentation of teacher absences.

Study Question 5

What are the fiscal, instructional, and student achievement effects of high teacher absenteeism in the district?

Data was compiled in Table 10, 11, and 12, to show the monetary costs for substitute teachers, the total amount of lost instructional hours, and the student achievement data by school with the teacher absenteeism rate. By analyzing this data, some preconceived notions about teacher absenteeism’s cost at each school and its relation to student achievement were changed and some were confirmed.

Data from these three tables produced unexpected findings. As shown in Table 10, the district had a six-year average fiscal cost of \$382,910 with a fiscal cost per teacher of \$294. Unlike what was expected, the rankings of schools from lowest teacher absenteeism percentage

to highest teacher absenteeism percentage did not always correlate with the ranking of average fiscal costs per school. The unexpected correlation of teacher absenteeism percentage to cost per teacher could be due to the schools' teacher absenteeism rates being based on the number of teachers within each school. This data could have an effect on the substitute teacher cost per teacher at each school. The schools with the lower number of teachers had lower percentages of teacher absenteeism while they carried a higher cost per teacher because the same teachers are missing multiple days. In most instances, the larger schools showed the opposite correlation. As with the cost for per teacher, the number of lost instructional hours noted in Table 11 did not correlate with the percentage of absences due to the varying teacher counts at each school. The data reflected in Tables 11 and 12 showed the teacher absenteeism rate did not always predict whether a school would perform better or worse on the state's end-of-year tests. Some schools with a higher teacher absenteeism rate and high number of lost instructional hours performed better than schools with a lower teacher absenteeism rate and lower number of lost instructional hours. It would be beneficial to study how the schools with the higher rates outperformed those with the lower rates by looking at other data, such as teacher effectiveness data, family and community engagement rates, and qualifications of the substitute teachers in these students (retired with a teaching license, college degrees, or high school diploma with effective teacher training).

Implications and Recommendations for Stakeholders

In North Carolina, public schools have multiple stakeholders and are operated based on a hierarchy of governing bodies. The General Assembly creates and revises the laws applicable to the public school system. These laws are then used by the North Carolina State Board of Education, North Carolina Department of Public Instruction, and district boards of education to

create policies and regulations to meet the established laws. District administrators, school-based administrators, and teachers then implement the established policies and regulations. Using the data and research compiled during this study, implications and recommendations for selected educational stakeholders in North Carolina have been developed. Stakeholders selected to be included for these implications and suggestions are: state legislators, the State Board of Education and Department of Public Instruction, district boards of education and district administrators, school-level administrators, and teachers.

Implications and Recommendations for State Legislators

“The Legislative Branch makes laws for North Carolina. It is made up of the Senate and the House of Representatives, which together are known as the General Assembly” (“General Assembly,” n.d.). In North Carolina public schools, the laws made by the General Assembly delineate the business and operation of the entities. Even though some progress has been made by the NC General Assembly to increase support for public schools, actions that have been taken in recent years could affect the absenteeism rate of teachers. Certain legislative actions have led to teachers working second jobs for supplemental income and teachers missing instructional days to meet licensure requirements imposed on North Carolina teachers.

Teachers working additional jobs. “Teaching is a very noble profession that shapes the character, caliber, and future of an individual. If the people remember me as a good teacher, that will be the biggest honour for me” (Kumar, 2016). A. P. J. Abdul Kalam made this statement just prior to his death. His sentiment represents how the majority of teachers feel about their profession. Teachers do not go into the profession for a high salary, but they do it because they love teaching and helping their students succeed. Research by Lori A. Brown and Michael E. Roloff (2011) shows that teachers are spending an average of 1,913 hours on teaching work

during a 36-week school year in comparison to the 1,932 average hours spread over 48 weeks for other full-time employees. However, “the average American teacher earns less than 60% of what a similarly educated professional makes...In inflation-adjusted terms, teacher salaries are almost 5% lower than they were a decade ago, even as teachers’ retirement contributions and health-insurance premiums have gone up” (“Pedagogic Protest,” 2018).

In *Working Toward “Wow”: A Vision for a New Teaching Profession*, Arne Duncan, the former United States Secretary of Education (2011), stated:

Money is never the reason why people enter teaching, but it is the reason why some people do not enter teaching, or leave as they start to think about beginning a family and buying a home. Today, too often the heart-breaking reality is that a good teacher with a decade of classroom experience is hard-pressed to raise a family on a teacher's salary.

According to the National Education Association’s April 2018 rankings of the 2016-2017 teacher pay status, the national average of teacher pay was \$59,660. According to the report, North Carolina ranked 39th in average teacher pay at \$49,970 in 2017 and the prediction was for it to be \$50,861 in 2018. In the *Highlights of the North Carolina Public School Budget* published by the North Carolina Department of Public Instruction Division of School Business in February 2018, the average teacher compensation in North Carolina for 2017-2018 was \$51,214 and included many other payment categories besides base salary, including professional development days, performance bonuses, annual leave pay, mentor pay and other categories (p. 17). For a majority of these categories, not all teachers in the state receive the additional categories, thus possibly reducing them to the base salary average of \$45,861.

During the last decade, the North Carolina legislature has ended some salary bonuses that qualified teachers could receive. In the Appropriations Act of 2013, Section 8.22, teachers who

did not already receive a ten percent pay increase for a master's degree were no longer eligible for the master's degree bonus pay (p. 59). The Appropriations Act of 2014, Section 8.3.(a), tried to rectify the loss of master's degree pay by adding a provision that allowed teachers who had taken the first course toward the master's degree prior to August 1, 2013, to be eligible for the pay (p. 30). In the same 2014 act, the North Carolina legislature ended longevity pay for teachers in the state. The act stated in Section 9.1.(d), that "[i]n lieu of providing annual longevity payments to teachers paid on this salary schedule for the 2014-2015 fiscal year and subsequent fiscal years, the amounts of those longevity payments are built into this salary schedule" (p. 51). For many teachers, it was hard to see this as an increase in their salary when they were already earning more money with the lump-sum longevity payment each year.

Even though teachers never expect a high salary, many are currently having to work second jobs to supplement their full-time teaching income. According to the United States Department of Labor Bureau of Labor Statistics, in 2018, 5.0% of all employed persons over the age of 16 held multiple jobs (2019). In their data point, *Outside Jobs for Regular, Full-Time Public School Teachers*, the National Center for Education Statistics reported that in 2015-2016, 18% of teachers held an additional job. More specifically, the data reflected for the South, which includes North Carolina, showed that 17% of teacher held a job outside of their school system (National Center for Education Statistics, 2018). This information indicates that teachers in the South region are three times more likely to hold an additional job than those in other professions. Perhaps teachers are working to buy supplies and materials for their classrooms since another data point by the National Center for Education Statistics (2018), *Public School Teacher Spending on Classroom Supplies*, indicated that in 2014-2015, 94% of teachers spent an average of \$479 of their own money, without reimbursement. Perhaps some teachers are working to

make more to pay their bills. No matter the reason for the teachers working additional jobs, it would be expected for these teachers to be absent more often due to sheer exhaustion caused by working long hours on their full-time teaching jobs and then working at their additional jobs. It would be beneficial to the state to do a survey specific to North Carolina teachers who work additional jobs to determine the reasons why the teachers are having to work second jobs, determine the absentee rates of these teachers in comparison to teachers who solely work in their full-time teaching positions, the specific reasons for the absences of these teachers, and whether the amount being paid for substitute teachers could be decreased if this problem was addressed.

Absences due to licensure requirements. In the 2017 Excellent Educators in Every Classroom statute, the North Carolina General Assembly amended educator testing requirements by allowing teachers to complete the requirements during the first two years of teaching instead of having to complete them prior to graduation from an educator preparation program. Teachers who are also teaching with alternative licenses must meet testing requirements before the expiration of their initial alternative license.

During the process of collecting data using the focus district's *Teachers' Absence Reporting Form*, one teacher indicated an absence occurred to fulfill licensure testing requirements. This situation raises the question of whether teacher absences due to meeting licensure requirements is an issue that needs to be addressed to help reduce the substitute teacher rate of pay. If the licensure requirements are going to remain in place, legislators may want to consider conducting a study to determine the actual cost for the missed instructional days due to these requirements. If it is determined that teachers missing instructional days to fulfill licensure requirements is a statewide issue, consideration could be given to adding a budgetary line item to cover these costs, such as the funding that is in place for teachers who are completing National

Board certification. If no other funding can be appropriated to assist in the costs for these absences, legislators could consider reducing testing requirements; requiring testing requirements to be completed prior to graduation from an educator preparation program; using the newly required edTPA portfolio as a successful fulfillment of testing requirements; or developing a combination of these recommendations.

Implications and Recommendations for State Board of Education and NC Department of Public Instruction

The North Carolina State Board of Education (NC SBE) creates and amends policies for public schools based on legislation that has been approved by the General Assembly. The Department of Public Instruction (DPI) assists with the creation and revision of policies by providing data to the NC SBE and are responsible for ensuring the policies are followed at the state and district levels. Some information and policies being addressed by the NC SBE and DPI could affect teacher absenteeism and rate of substitute teacher pay.

As shown in chapter 2, the North Carolina State Board of Education has been presented information about teacher absenteeism in recent meetings. When determining the next steps in policy revision concerning teacher leave types and teacher absenteeism, it is recommended the state board get input from teachers who are currently in the field. In a state where the teacher average rate of pay is not near the national average, the board does not want to implement policies that will be detrimental to those teachers who do not have an attendance issue. Any policy revision should try to help, not hinder, the recruitment and retention efforts of the districts. The board should continually monitor the data on teacher absenteeism to determine if any policy revisions are effective.

In researching data for teacher absenteeism and school district budgets, it was difficult to locate information about local budgets for each district. The exact amount paid for substitute teachers could not be readily identified because local costs were not recorded on any state website. Even though local budgets are not often audited by the state, it is recommended for local funding of certain categories in districts' budgets, including personnel, should be more easily located and available for reference.

Implications and Recommendations for District Boards of Education and Administrators

Boards of education and district administrators always need to be cognizant of their budget processes and how the budgets are being spent. This level of leadership requires consistent communication between the Board of Education and the district superintendent as a representative of all departments of the district office. All district administrators have to willingly look at the issues being shown by the data and work toward ways of addressing issues that may be causing budget shortfalls within the district, including high rates of teacher absenteeism.

To ensure data is accurate, the district needs to develop a consistent way to track teacher absences across the district. Within the district, procedures for the process to use when a teacher is absent would be beneficial for gathering the correct information concerning the absences. Even if a school is capable of monitoring classes of an absent teacher with other personnel, the absence of the teacher needs to be recorded in some form to ensure accurate data is being collected for future budgeting and planning processes. Developing accurate record keeping systems for teacher absences is one of the critical first steps needed to ensure the district is being fiscally responsible.

District leadership should continually monitor teacher absenteeism and the rate being paid for substitute teachers. The focus district should study the 2018-2019 school year data to determine whether the days missed due to Hurricane Florence affected the teacher absenteeism and substitute teacher pay for September and October 2018. This could be compared to data for other major weather events, such as the winter storm in 2013-2014, to determine if weather does affect the substitute teacher pay costs.

When reviewing some of the findings of the research, the focus district's fiscal monitoring team determined the teacher absenteeism rate was higher in some years due to a higher number of retirees that year. As retirees were inquiring about retirement, they were sometimes incorrectly advised they may "lose" some days, so they often take days off if they know they may "lose them" upon retirement, thus causing a greater need for substitute teachers. If they are told incorrectly and take too many days off thus decreasing their final payout that may affect their future retirement pay, the liability on the district is increased due to the error. In order to curtail the increase of teacher absenteeism in years with a high number of retirees, it is recommended that the district Health Benefits Representative (HBR) encourage the retirees to make their last year the best year of instruction. Under the Public Schools of North Carolina benefits policies, sick leave earned and not used during the teacher's career counts as creditable service toward retirement. One month of creditable service is given for every twenty days of unused sick leave upon retirement and one more month is allowed for any part of twenty days remaining, as long as the remaining is at least one hour. These creditable service days are applied toward the teacher's retirement, often allowing some to retire before actually working a full thirty years. The days teachers are being told they are going to "lose" are days remaining after the creditable service to retirement days and those days for which the employee will not receive a

lump sum payout because it is over the allowed thirty annual leave days payout. Many retirees often take these days off throughout the school year which increases the substitute teacher cost in a year with high retirement rates. Retirees are allowed to donate days left after retirement to be given to others that are in need of leave days due to extended absences and this option could be given to them upon retirement.

There are several recommendations for trying to increase teacher attendance, thus reducing substitute teacher costs. In 2016-2017, North Carolina asked school districts to design an incentive pay plan for non-certified personnel. In the focus district, a portion of the merit pay plan included a higher rate for those who had better attendance. As seen in literature, monetary incentives have been shown to cause a lower rate of teacher absence:

The North Carolina ABC Accountability Program [had] proven successful at improving attendance. Through this program, teachers are awarded a cash bonus if their school's average year-over-year improvement in reading and math test scores exceeds a state-set threshold. According to an analysis by the American Enterprise Institute, this bonus program has led teachers to take fewer absences and has had a positive effect on student test scores. (Hanover Research, 2012, p. 3)

In relation to the non-certified merit pay plan, a suggestion for school districts that give local supplements would be to link an attendance requirement to the supplement. This incentive could possibly encourage teachers to miss fewer instructional days, thus decreasing the yearly substitute teacher pay cost. If a district already has an incentive program, such as the voucher program in the focus district, the district leadership should ensure the program is being implemented correctly.

Educating all employees about leave policies and the cost of substitute teacher pay is also a recommendation for school district. In an effort to deter the issue with teacher absenteeism, professional development on the topic needs to be addressed early in the year and early in teachers' careers. Each year a portion of the district's beginning of year administrative training should address or review leave policies and present data concerning recent teacher absenteeism rate. New Teacher Orientation for all beginning teachers can also include information concerning the types of leave and the retirement benefit of not using leave days unless needed. By introducing this topic to teachers early in their careers, it will reiterate the importance of being present at school.

Foldesy and Foster (1989) suggest that policies should be made to limit excessive absenteeism while provided incentives to teacher who do not have excessive absenteeism. Holloway (2011) found in her research that changes in policy concerning the ways a teacher can use personal and sick days tend to alter the attendance of teachers and these changes being tied to the teacher's evaluation, could have more of an impact on decreasing teacher absenteeism than an incentive model. The revision or development of specific policies for sick and personal leave may be a strategy used to help reduce teacher absenteeism and substitute teacher pay. After being presented with the data concerning teacher absenteeism, the focus district's policy addressing leaves of absence was revised in February 2018 and updated in June 2018 to clarify some of the wording. The updated policy requires employees who use sick leave for three or more consecutive days to provide "a statement from a medical doctor or other acceptable proof that the employee was unable to work due to illness or injury" (Columbus County Schools, 2018). The district will need to collect and analyze teacher absenteeism data for the 2018-2019 to determine if the policy change has been effective. In addition to the number of days of sick leave that can

be taken before requiring a doctor's note, teachers should be required to contact a school administrator when requesting a substitute. In the focus district, teachers already have to call a live person when a substitute teacher is needed. Many schools allow them to call a secretary, but by stipulating the teacher must call the school-based administrator, the teacher may think twice before requesting a substitute.

Teacher absenteeism data can also be used to inform district decisions, such as school calendars. By using the data concerning days of the week missed most often and months with higher rates of absenteeism, the district could strategically design calendars that take this data into consideration. Non-instructional days, such as teacher workdays, could possibly be scheduled on days with higher rates of absenteeism to help reduce the need of substitute teachers. School districts could also consider reducing the number of days in a school week. There are pros and cons to the four-day weeks as seen in information from the National Conference of State Legislatures and Georgia Heyward from the Center of Reinventing Public Education. The decision to reduce the school week to four days would need to be carefully studied to ensure the right decision for the individual district is made.

Implications and Recommendations for Principals

School administrators, mainly principals, typically are the initial contact when a teacher needs to be absent and request a substitute teacher. The role school administrators play in reducing the teacher absenteeism rate is of utmost importance. Principals can talk to teachers to determine the need for the absence and the type of leave that should be used. Principals also assign the substitute teacher for the absent teacher. Calvert (2001) identified that administrators believe keeping good attendance records is tedious because of the difficulty of determining

whether absences are legitimate, and they believe teachers deserve the sick days they take. The attitude and precedent reflected by the principals set examples for the teachers in their buildings.

Principals must make sure they are aware of the teacher absenteeism data in their schools and must be educated about and understand the types of leave. By gathering data about teacher absenteeism on a regular basis, principals can stay abreast of any issues that may be beginning and can address those issues in a timely manner. In order to appropriately determine those issues, principals must know which types of leave are available for teachers; when they can take the different types of leave; and whether the leave is a cost to the school or district. Principals can gain this knowledge by participating in district-level professional development concerning teacher absenteeism and by asking district leadership any questions they may have.

While understanding leave and determining any issues with teacher absenteeism in the school is critical, principals must understand the ramifications of high rates of teacher absenteeism in their schools. Principals must first know the funding sources from which their teachers are paid. If a teacher is paid from certain funding sources, such as Title I, the principal must know that anytime the teacher is absent, the funding source of the teacher's salary must also pay the substitute teacher cost. It is reality that teachers will be absent, but if principals are cognizant of the funding sources for those teachers, they can wisely determine the substitute costs and increase fiscal savings that can be used towards other materials, initiatives, or school needs. Principals must also educate their teachers about the different types of leaves and leave policies, in order to be able to have honest discussions if the need arises. Moline (1988) determined from his research "it can be theorized from the findings of this research question area that those school principals who directly involve themselves in the reporting process both during

and after the commission of absence have a direct influence on teacher percentage of total lost time” (p. 188).

Implications and Recommendations for Teachers

For teachers, it is imperative to only be absent when absolutely necessary because of the many consequences that can result from frequent absenteeism. The attitude the teachers take toward teacher absenteeism will guide their actions. Teachers need to be careful not to think just because they may earn one sick leave per month, they need to use one sick day per month. They should see the leave days they earn each month as incentives of their jobs that will benefit them when they reach time for retirement or are available in case of a future emergency. They also need to understand that if data begins to show excessive absenteeism at high costs to the state and district, policies could be developed that would be detrimental to the way leave is awarded.

The most important consequence of teacher absenteeism is the lack of quality instruction that students receive on the days of absence. No matter how good substitute teachers are, they cannot replace the regular classroom teacher. The regular teacher knows the abilities and weaknesses of all students and can address the needs of each student. Teachers have been trained in the curriculum and effective instructional strategies and should have the desire to be present at school to see their students grow and succeed.

Future Study

In the course of this research, several ideas were brought to the forefront that could be considered for future study to give more information about teacher absenteeism. In light of the data revealed about sick leave days possibly being taken for vacation time, it would be beneficial to do more research to determine if the pattern is produced at other schools in the district as it was at the study school. It would also be valuable to determine the reason or reasons why schools

with higher teacher absenteeism rates are experiencing higher student achievement than those schools with lower teacher absenteeism rates. Possible reasons in the future study to consider would be teacher effectiveness data, family and community engagement rates, and qualifications of the substitute teachers at the schools with the higher teacher absenteeism and higher student achievement.

For legislators, further study specific to North Carolina teachers who work additional jobs would be informative. The study could be used to determine the reasons why the teachers are having to work second jobs, determine the absentee rates of these teachers in comparison to teachers who solely work in their full-time teaching positions, the specific reasons for the absences of these teachers, and whether the amount being paid for substitute teachers could be decreased if this problem was addressed. Legislators also need to determine whether the testing requirements for licensure are causing an increase in teacher absenteeism, and in turn, an increase in substitute teacher pay. When the further research is completed, the ITAP could be used to help develop specific strategies to address the findings.

Use of the Increasing Teacher Attendance Plan (ITAP)

In order to assist district and school administrators in the process of addressing teacher absenteeism, the researcher developed the *Increasing Teacher Attendance Plan (ITAP)* in Appendix E. The instrument is patterned as a Plan-Do-Study-Act (PDSA) cycle. The quantitative evidence gathered about the school's or district's teacher absenteeism can be a form of "continuous measurements" as the district and school continue the PDSA cycle for the problem (Langley et al., 2009, p. 29).

By using the ITAP, administrators and their teams are guided through the process of determining the effective strategies for addressing issues with teacher absenteeism. The process begins with the three fundamental questions cited by Langley et al. (2009), to guide the cycles:

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?

Administrators and their teams then begins the PDSA cycle by determining what they are going to do; determining how they are going to do it; stating the outcomes; and deciding the changes that are going to be made based on the findings. Even though the process can be done simultaneously with multiple cycles, the most efficient way to determine a strategy's effectiveness is to perform the process in isolation with one small change and repeat individual cycles until successful strategies are found to deter teacher absenteeism.

Conclusion

During the course of this research, high rates of teacher absenteeism and their effects on the educational system have been studied and analyzed, with emphasis placed on the fiscal consequences teacher absenteeism can cause for financially-strapped school districts. Literature has shown that problems with teacher absenteeism extend much further than the individual districts. It is a problem on a state, national, and international level. Teacher absenteeism is affected by many aspects including administrator support, type of school, and working conditions. Trends in teacher absenteeism have been shown in days of the week, months of the year, and days before and after holidays. Policies and incentive programs have been proven to have an impact on teacher absenteeism. Impacts of teacher absenteeism on student achievement and financial system were also addressed in this study.

Using Improvement Science and gap analysis, this study made recommendations to educational stakeholders about how to reach the desired state of reduced teacher absenteeism and reduced substitute teacher costs. Emphasis was placed on the development of laws and policies that would address teacher absenteeism. Education of staff about leave processes and the types of leave was also shared as a recommendation at the district and school levels. School leaders are beginning to address the issue of teacher absenteeism and are realistic about the problem. Their interests will present the most recent statistics about the issue and could possibly produce some additional solutions. However, the solutions that could be produced may have negative impacts on those teachers who do not have attendance problems and could make it even harder to recruit quality teachers for already hard-to-fill positions.

As a result of this study, the Increasing Teacher Attendance Plan (ITAP) was created to help guide school administrators in analyzing issues with teacher absenteeism. With this instrument, district and school leaders, along with their chosen teams, will be able to use a routine process that can be replicated multiple times with different changes that will be tested. Once the change is tested and determined whether to be effective, the implementation of policy, procedure, or routine revisions will assist in ensuring teachers attend school more regularly. The expectation is that this instrument will place effective teachers in their classes at a higher rate, thus increasing the quality instruction being delivered to students.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office 252-744-2914 · Fax 252-744-2284 ·
www.ecu.edu/ORIC/irb

Notification of Exempt Certification

From: Social/Behavioral IRB
To: [Cassandra Cartrette](#)
CC: [Hal Holloman](#)
Date: 1/29/2019
Re: [UMCIRB 18-001689](#)
Increasing Teacher Attendance

I am pleased to inform you that your research submission has been certified as exempt on 1/29/2019. This study is eligible for Exempt Certification under category #4b.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

IRB00000705 East Carolina U IRB #1 (Biomedical) ICRG0000418
IRB00003781 East Carolina U IRB #2 (Behavioral/SS) ICRG0000418

APPENDIX B: TEACHERS' ABSENCE REPORTING FORM

Date(s): _____

Circle One: Whole Day

Half Day

Reason for Absence:

_____ Personal Sickness

_____ Family Sickness

_____ "Mental Health" Day

_____ Vacation

_____ Child Involvement

_____ Field Trip Chaperone—Only check this one if it is the date(s) of the field trip.
(Are you the sponsor of the club/class on the field trip? Yes No)

_____ Other (specify):

APPENDIX C: PRESENTATION CONCERNING TEACHER ABSENTEEISM

REQUEST FOR HELP

Information on teacher absenteeism
September 6, 2017

PURPOSE OF THIS MEETING AND STUDY

- Educate**: Educate all certified staff at the school who require a substitute about the upcoming study
- Review or introduce**: Review or introduce leave policies
- Inform about**: Inform about surveys that will be shared and form to be completed during study

WHY ARE TEACHERS ABSENT?

- ▶ School environment
 - ▶ Student behavior
 - ▶ Lack of administrator support
 - ▶ Lack of administrative monitoring
- ▶ Illness
 - ▶ Personal
 - ▶ Family
- ▶ Workplace stress
- ▶ Salary
- ▶ Contract status
 - ▶ Tenured
 - ▶ Non-tenured
- ▶ Location of school
- ▶ Working conditions
- ▶ Personal reasons
- ▶ Child involvement

(Matos, 2016) and (Alcazar et al., 2006)

School Year	Absentee rate (more than 10 days)	Cost
2012-2013 ⁷	46.8%	\$415,277.49
2013-2014 ⁸	60.4%	\$327,806.33
2014-2015 ⁹	55.2%	\$352,417.27
2015-2016 ¹⁰	54.8%	\$413,583.65
2016-2017 ¹¹	47.8%	\$405,629.19

*Sick and personal leave days only; professional development absences not included

FOCUS DISTRICT'S TEACHER ABSENTEEISM STATISTICS

SCHOOL'S TEACHER ABSENTEEISM STATISTICS

School Year	Total Teachers	Missed 10 or more days	Percentage	WTS Teacher Absenteeism Rate	
				Sub Amount	Notes
2012-2013	38.5	25.5	66.23	\$38,616.25	No sub for guidance, media, AIG and not counted in total #
2013-2014	39	19	48.72	\$35,962.02	No sub for guidance, media, AIG and not counted in total #
2014-2015	37.3	25	67.02	\$35,826.25	No sub for guidance, media, AIG and not counted in total #
2015-2016	39.5	23.5	59.49	\$41,876.50	No sub for guidance, media, AIG, literacy teacher, lead teacher and not counted in total #
2016-2017	39.5	23.5	59.49	\$51,793.50	No sub for guidance, media, AIG, literacy teacher, lead teacher and not counted in total #
2017-2018	41	?	?	?	Subs for guidance, media so counted in total #; No sub for AIG, lead teacher so not counted in total #
5 Year Average	39.8	116.5	60.11	\$40,795.90	

WHY IS IT IMPORTANT FOR
TEACHERS TO BE PRESENT?

STUDENT ACHIEVEMENT

- “These fixed effects models imply that 10 additional days of teacher absence would be associated with a decline of 1.7% of a standard deviation in math achievement and 0.9% s.d. in reading.” (Clotfelter, Ladd, & Vigdor, 2007)
- “Across the nation, 17% of students with disabilities (served by IDEA) – about one million students – attend schools where over 50% of teachers are absent for more than 10 days, compared to 15.6% of students without disabilities.” (US Dept of Education Office of Civil Rights, 2014)

SCHOOL MORALE

- Teachers who are not absent “tend to feel more burdened because they may have to plan for the teacher who is absent” (Brown & Arnell 2012)
- At this school, teachers who agree on the 2016 NCTWCS Overall question about the school being a good place to work and learn fell to 93.5% compared to 97.7% in 2014. (New Teacher Center, 2016)

FINANCIAL SYSTEMS

- “Annual national cost of teacher absenteeism at \$4 billion” or 1% of total K-12 spending (Miller, 2012)
- Substitute pay accounted for 1.1% of all the focus district’s expenditures (\$38.9 million) during 2015-2016.

THINGS YOU MAY NOT KNOW

SICK DAYS

4.1 Sick Leave Policy ID#: 4.1

4.1.1 Eligibility and Rate of Paying

(a) **Full-time employees:** All permanent, full-time employees working on an paid leave (including paid holidays and workers' compensation) for one half or more of the workday in any monthly pay period earn one sick day per month or the number of hours worked daily by a full-time employee at that class of work up to a maximum of eight hours.

(b) **Part-time employees:** All permanent, part-time employees working on an paid leave (including paid holidays and workers' compensation) for one half or more of the workday in any monthly pay period earn sick leave computed on a pro rata basis of the amount earned by a full-time employee at that class of work.

Permanent, part-time employees previously employed in a full-time position obtain the balance of sick leave earned in the prior position upon transferring to a part-time position.

(c) **Values:** Sick leave must be used in one-half day, whole day, or hours as determined by the issuing authority by the local board. Only sick leave taken on an employee's workday shall be deducted from the employee's sick leave balance.

(d) **Accumulation:** Sick leave may be accumulated indefinitely.

4.1.2 Expenses for Which Sick Leave May Be Used

Sick leave may be used for:

(a) Any actual period of temporary disability caused by or contributed to by personal illness or injury, which prevents an employee from performing his or her assigned duties. Sick leave does not apply to emergency, elective, elective, or personal necessary leave as treated in the same manner as any other temporary disability. Sick leave may be used during the 90-day waiting period of workers' compensation, or in lieu of workers' compensation to maintain 100% salary (see Section 2.2).

(b) Up to 30 days of annual sick leave may also be used to care for a child placed with an employee for adoption. (These days should be consecutive and within the first 12 months following the adoption, unless otherwise agreed upon between the employee and the L.E.A. administration.) Note: The foster care benefit is afforded under FICA and is not designated in state policy.

(c) Medical appointments of the employee.

(d) Illness in the immediate family (see Section 1.1.1.2) and medical appointments related to illness that necessitates the employee's attendance.

Policy ID#: 4.1

(e) **Death in the immediate family** (see Section 1.1.1.2).

(f) The length of leave granted for illness or death in the immediate family is determined by the local administration and based on individual employee need.

(g) Whenever possible, employees should give 30 days advance notice of plans to take sick leave for elective medical or surgical procedures on the individual.

(h) Military employees may choose to exhaust available sick and/or vacation leave, or any portion, or go on leave without pay to care for an unpaid family member.

(i) Employees may use vacation leave, or go on leave without pay for military emergency subject to the terms and conditions of the employee's annual leave policy. Military employees do not qualify for the use of sick leave, unless specifically necessary (see Section 2.2.1 - the explanation of Qualifying Emergency) (Only the DC General Assembly may give House Leave).

4.1.3 Verification of Need for Sick Leave

The appropriate authority requires a statement from a medical doctor or other acceptable proof that the employee was unable to work due to personal illness, medical appointment, illness or death in the family, or adoption.

4.1.4 Accumulation and Use During Summer Employment

Any employee who earned sick leave during the regular school term will continue to earn sick leave during the summer if employed in the same school system at least 20 hours per week, even if employed in a temporary or interim position for the summer. The rate will be pro rata of the summer employment is less than full-time. The employee may use sick leave during the summer for the same reasons permitted during the regular term.

4.1.5 Limitations on Sick Leave

Sick leave may not be used while on leave without pay or on holidays and annual vacation leave days scheduled in the school calendar. An absence covered by workers' compensation is not considered to be a leave without pay.

Sick leave may be used on any workday or student day including the first day employees in permanent positions report to work.

An employee who is not eligible to earn leave, cannot use previously accumulated leave.

4.1.6 Administration of Sick Leave

An employee may have accumulated in his or her credit at the beginning of each school year. The number of days or hours of sick leave to which he or she is entitled for that school year. The

ANNUAL LEAVE DAYS

3.1 - Annual Vacation Leave Policy ID#: 3.1

3.1.1 Purpose

The purpose of paid annual vacation leave is to allow and encourage all employees to renew their physical and mental capabilities, and to remain fully productive. Employees are encouraged to request annual vacation leave during each year in order to achieve this purpose.

3.1.2 Eligibility and Rate of Paying

All full-time and part-time permanent employees who work on an paid leave (including paid holidays and workers' compensation) for one half or more of the workday in a monthly pay period are entitled to one annual vacation day for each year provided for state employees. Leave for a part-time employee is computed on a pro rata basis of the amount earned by a full-time employee at that class of work. A single employee working in two or more positions may not earn more than the benefits allowed for the full-time position.

The rate of earning is based on the length of total State service as follows:
(See Sections 13.2 and 13.3 regarding earning State service.)

Year of State Service	Accrual Rate	100% Full-Time Accrual Rate
Less than 1 year	1.1 days/12 months	1.1 days/12 months
One to two years	1.2 days/12 months	1.2 days/12 months
Two to three years	1.3 days/12 months	1.3 days/12 months
Three to four years	1.4 days/12 months	1.4 days/12 months
Four to five years	1.5 days/12 months	1.5 days/12 months
Five to six years	1.6 days/12 months	1.6 days/12 months
Six to seven years	1.7 days/12 months	1.7 days/12 months
Seven to eight years	1.8 days/12 months	1.8 days/12 months
Eight to nine years	1.9 days/12 months	1.9 days/12 months
Nine to ten years	2.0 days/12 months	2.0 days/12 months
Ten to eleven years	2.1 days/12 months	2.1 days/12 months
Eleven to twelve years	2.2 days/12 months	2.2 days/12 months
Twelve to thirteen years	2.3 days/12 months	2.3 days/12 months
Thirteen to fourteen years	2.4 days/12 months	2.4 days/12 months
Fourteen to fifteen years	2.5 days/12 months	2.5 days/12 months
Fifteen to sixteen years	2.6 days/12 months	2.6 days/12 months
Sixteen to seventeen years	2.7 days/12 months	2.7 days/12 months
Seventeen to eighteen years	2.8 days/12 months	2.8 days/12 months
Eighteen to nineteen years	2.9 days/12 months	2.9 days/12 months
Nineteen to twenty years	3.0 days/12 months	3.0 days/12 months
Twenty to twenty-one years	3.1 days/12 months	3.1 days/12 months
Twenty-one to twenty-two years	3.2 days/12 months	3.2 days/12 months
Twenty-two to twenty-three years	3.3 days/12 months	3.3 days/12 months
Twenty-three to twenty-four years	3.4 days/12 months	3.4 days/12 months
Twenty-four to twenty-five years	3.5 days/12 months	3.5 days/12 months
Twenty-five to twenty-six years	3.6 days/12 months	3.6 days/12 months
Twenty-six to twenty-seven years	3.7 days/12 months	3.7 days/12 months
Twenty-seven to twenty-eight years	3.8 days/12 months	3.8 days/12 months
Twenty-eight to twenty-nine years	3.9 days/12 months	3.9 days/12 months
Twenty-nine to thirty years	4.0 days/12 months	4.0 days/12 months
Thirty to thirty-one years	4.1 days/12 months	4.1 days/12 months
Thirty-one to thirty-two years	4.2 days/12 months	4.2 days/12 months
Thirty-two to thirty-three years	4.3 days/12 months	4.3 days/12 months
Thirty-three to thirty-four years	4.4 days/12 months	4.4 days/12 months
Thirty-four to thirty-five years	4.5 days/12 months	4.5 days/12 months
Thirty-five to thirty-six years	4.6 days/12 months	4.6 days/12 months
Thirty-six to thirty-seven years	4.7 days/12 months	4.7 days/12 months
Thirty-seven to thirty-eight years	4.8 days/12 months	4.8 days/12 months
Thirty-eight to thirty-nine years	4.9 days/12 months	4.9 days/12 months
Thirty-nine to forty years	5.0 days/12 months	5.0 days/12 months
Forty to forty-one years	5.1 days/12 months	5.1 days/12 months
Forty-one to forty-two years	5.2 days/12 months	5.2 days/12 months
Forty-two to forty-three years	5.3 days/12 months	5.3 days/12 months
Forty-three to forty-four years	5.4 days/12 months	5.4 days/12 months
Forty-four to forty-five years	5.5 days/12 months	5.5 days/12 months
Forty-five to forty-six years	5.6 days/12 months	5.6 days/12 months
Forty-six to forty-seven years	5.7 days/12 months	5.7 days/12 months
Forty-seven to forty-eight years	5.8 days/12 months	5.8 days/12 months
Forty-eight to forty-nine years	5.9 days/12 months	5.9 days/12 months
Forty-nine to fifty years	6.0 days/12 months	6.0 days/12 months
Fifty to fifty-one years	6.1 days/12 months	6.1 days/12 months
Fifty-one to fifty-two years	6.2 days/12 months	6.2 days/12 months
Fifty-two to fifty-three years	6.3 days/12 months	6.3 days/12 months
Fifty-three to fifty-four years	6.4 days/12 months	6.4 days/12 months
Fifty-four to fifty-five years	6.5 days/12 months	6.5 days/12 months
Fifty-five to fifty-six years	6.6 days/12 months	6.6 days/12 months
Fifty-six to fifty-seven years	6.7 days/12 months	6.7 days/12 months
Fifty-seven to fifty-eight years	6.8 days/12 months	6.8 days/12 months
Fifty-eight to fifty-nine years	6.9 days/12 months	6.9 days/12 months
Fifty-nine to sixty years	7.0 days/12 months	7.0 days/12 months
Sixty to sixty-one years	7.1 days/12 months	7.1 days/12 months
Sixty-one to sixty-two years	7.2 days/12 months	7.2 days/12 months
Sixty-two to sixty-three years	7.3 days/12 months	7.3 days/12 months
Sixty-three to sixty-four years	7.4 days/12 months	7.4 days/12 months
Sixty-four to sixty-five years	7.5 days/12 months	7.5 days/12 months
Sixty-five to sixty-six years	7.6 days/12 months	7.6 days/12 months
Sixty-six to sixty-seven years	7.7 days/12 months	7.7 days/12 months
Sixty-seven to sixty-eight years	7.8 days/12 months	7.8 days/12 months
Sixty-eight to sixty-nine years	7.9 days/12 months	7.9 days/12 months
Sixty-nine to seventy years	8.0 days/12 months	8.0 days/12 months
Seventy to seventy-one years	8.1 days/12 months	8.1 days/12 months
Seventy-one to seventy-two years	8.2 days/12 months	8.2 days/12 months
Seventy-two to seventy-three years	8.3 days/12 months	8.3 days/12 months
Seventy-three to seventy-four years	8.4 days/12 months	8.4 days/12 months
Seventy-four to seventy-five years	8.5 days/12 months	8.5 days/12 months
Seventy-five to seventy-six years	8.6 days/12 months	8.6 days/12 months
Seventy-six to seventy-seven years	8.7 days/12 months	8.7 days/12 months
Seventy-seven to seventy-eight years	8.8 days/12 months	8.8 days/12 months
Seventy-eight to seventy-nine years	8.9 days/12 months	8.9 days/12 months
Seventy-nine to eighty years	9.0 days/12 months	9.0 days/12 months
Eighty to eighty-one years	9.1 days/12 months	9.1 days/12 months
Eighty-one to eighty-two years	9.2 days/12 months	9.2 days/12 months
Eighty-two to eighty-three years	9.3 days/12 months	9.3 days/12 months
Eighty-three to eighty-four years	9.4 days/12 months	9.4 days/12 months
Eighty-four to eighty-five years	9.5 days/12 months	9.5 days/12 months
Eighty-five to eighty-six years	9.6 days/12 months	9.6 days/12 months
Eighty-six to eighty-seven years	9.7 days/12 months	9.7 days/12 months
Eighty-seven to eighty-eight years	9.8 days/12 months	9.8 days/12 months
Eighty-eight to eighty-nine years	9.9 days/12 months	9.9 days/12 months
Eighty-nine to ninety years	10.0 days/12 months	10.0 days/12 months

L.E.A.s have the authority to determine the number of hours in their employees' workday. The above chart is based on the Office of State Human Resources model of an 8-hour, 40-hour week. Districts should scale the leave accrual rates to reflect that. For example, an employee who works less than 8 hours per week (e.g., 7.5 hours) would earn 1.7 hours (2.1 days) of annual leave per month. Employees cannot earn more annual leave days than are allowed by state law.

Bus drivers who work less than 20 hours per week and who are not otherwise entitled to earn vacation or disability leave are entitled to earn one day per year (up to a total of one regular workday the next school year) if:

(a) They are employed to drive a regular daily route (i.e., they are not substitute drivers), and

(b) They were employed as regular drivers the entire previous school year.

A bus driver who is reassigned or resigns before taking the leave day is not entitled to compensation for the annual vacation leave day.

Policy ID#: 3.1

(a) Use of annual vacation leave by interim or temporary employees: An employee who had previously earned annual vacation leave may not use that leave while employed in an interim position of less than six months, a temporary position, or a position of less than 20 hours per week except as provided in Section 1.1.2.

(b) Accumulation and use during summer employment: Any employee who earned annual vacation leave in the regular school term will continue to earn annual vacation leave during the summer if employed at least 20 hours per week in the same school system. The rate will be pro rata of the summer employment is less than full-time. Annual vacation leave may be used under the same conditions as during the regular term.

(c) Scheduling annual vacation leave and workdays in the calendar: Local calendars must be designed to allow all employees an opportunity to take annual vacation leave. This applies to summer school calendars as well as calendars for the regular term. Days not scheduled in the calendar for district presentations, holidays, annual vacation leave, or optional workdays may be designated by the local board of education as mandatory workdays. (See Sections 13.2 and 13.3 for assignment of days).

(d) Leave deficit: An employee who has neither earned nor will earn sufficient annual vacation leave to cover any annual vacation leave day scheduled in the school calendar will be placed on leave without pay.

(e) Military emergency: An employee may choose to exhaust available sick and/or vacation leave, or go on leave without pay to care for an unpaid family member. (An employee's ability to exhaust annual leave is determined by the terms and conditions of the employee's annual leave policy.)

(f) Qualifying Emergency: When necessitated by one of the qualifying emergency reasons, employees may use available vacation leave, or go on leave without pay. (An employee's ability to exhaust annual leave is determined by the terms and conditions of the employee's annual leave policy.) (See Section 2.2.1 - Qualifying Emergency Exemption).

3.1.4 Accumulation/Carryover on Sick Leave

Annual vacation leave may be accumulated without any applicable maximum until June 30 of each calendar year. On June 30 or upon termination accumulation annual vacation leave in excess of 30 days will be converted to sick leave so that only 30 workdays of annual vacation leave are carried forward.

Upon separation in order to retire, annual vacation leave over 30 days may be converted to sick leave for creditable service toward retirement.

PERSONAL LEAVE

Policy ID#: 5.1

5.1 - Personal Leave

5.1.1 Eligibility and Types of Leave

Personal leave is reserved for classroom teachers and school media coordinators who require substitutes. It is subject to the eligibility, the teacher must be on a permanent full- or part-time position. Personal leave is earned at the rate of 20 days for each full month of employment and is accrued over three years. Part-time personnel earn a pro rata share of the rate for full-time teachers. Unused personal leave may be carried forward from one year to another and may be accumulated without limitation until June 30th. On June 30, personal leave in excess of 7 days is converted to sick leave on that a maximum of 7 days of personal leave are carried forward to July 1st. Upon retirement, any personal leave may also be converted to sick leave.

Note: As used in this section the term "teacher" applies to classroom teachers and media coordinators who require substitutes. Teachers (as defined by G.S. 115C-210.1(a)) who are contracted in their use of annual leave (i.e., when students are in school) shall accrue personal leave at the same rate as classroom teachers. Teachers who do not accrue personal leave shall not be restricted in their use of annual leave with prior approval.

5.1.2 Use of Personal Leave

- (a) Personal leave may be used only upon the authorization of the immediate supervisor.
- (b) A teacher shall not take personal leave on the first day the teacher is required to report for the school day, on required teacher workdays, on days scheduled for late arrivals, or on the day before or the day after a holiday or scheduled vacation day, unless the request is approved by the principal.
- (c) A teacher who requests personal leave at least five days in advance shall be automatically granted that request subject to the availability of a substitute teacher. A teacher making the request cannot be required to provide a reason for the request if the request is made at least five days in advance.
- (d) Personal leave may be used on any noncontracted day or workday except as noted in paragraph (b) above.
- (e) Teachers using personal leave receive full salary less the required substitute deduction, except for teachers using personal leave on teacher workdays. Teachers using personal leave on teacher workdays shall receive full salary. Teachers may use up to their accrued amount of personal leave on teacher workdays in accordance with paragraphs a, b, c and d above.

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5.1.3 Limitations on Personal Leave

- (a) Personal leave should be paid with due and proper consideration given to the welfare of the students and teachers alike and shall not be advanced.
- (b) Personal leave may not be used during summer employment.
- (c) When a teacher is no longer eligible to earn personal leave, that teacher may not use previously accumulated personal leave.
- (d) When a teacher resigns or separates from service, personal leave cannot be paid out in lump sum.

5.1.4 Personal Leave Increment

Personal leave must be used in one-half or whole day units.

5.1.5 Deduction

- Teachers using personal leave receive full salary less the required substitute deduction with the following exceptions:
 - (a) Teachers using personal leave on teacher workdays shall receive full salary.
 - (b) Teachers may use up to their accrued amount of personal leave on teacher workdays in accordance with paragraphs 5.1.1 a, b, c and d above.

5.1.6 Transfer of Personal Leave

Personal leave must be transferred between local administrative units.

5.1.7 Reimbursement of Personal Leave

A teacher must be credited with all personal leave accumulated up to the time of resignation or separation provided that the teacher is requested to an eligible permanent full-time or part-time teacher within 60 calendar months from the date of resignation or separation.

Legal References(s)

G.S. 115C-302.1(d)	S.L. 2007-378
16 NCAC 8C-64(3)	S.L. 2008-187
G.S. 115C-375(b) (9)	S.L. 2008-289

WHERE DOES THE PAY FOR SUBS COME FROM?

Dependent upon a teacher's salary fund, substitute pay is made from:

- Local funds
- State funds
- Federal funds

WHY YOU SHOULD "SAVE" YOUR DAYS

- Student success
 - No substitute can ever be as good as the classroom teacher
- Monetary Benefit
 - More money available for other uses (instructional supplies, additional teaching positions, etc)
- Retirement
 - For any amount of annual leave days over 30 on June 30 of each year, the amount over 30 is converted to sick days on July 1.
 - Allows you to retire early and be paid for any additional days

AN EXAMPLE FOR RETIREMENT

The Perfect Example**

Years of Service	Total Sick Days Available at End of Year	Sick Days Used in Annual Leave Accrual Date	Total Annual Leave Days Accrued During Year**	Total Sick Days at End of Year	Total Annual Leave Payout at End of Year
0	0	0	0	0	0
1	30	0	0	30	0
2	30	0	0	30	0
3	30	0	0	30	0
4	30	0	0	30	0
5	30	0	0	30	0
6	30	0	0	30	0
7	30	0	0	30	0
8	30	0	0	30	0
9	30	0	0	30	0
10	30	0	0	30	0
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96	30	0	0	30	0
97	30	0	0	30	0
98	30	0	0	30	0
99	30	0	0	30	0
100	30	0	0	30	0

** 10 annual leave days each year in calendar
 *** Annual leave will be calculated from the beginning of July 1, 2017

If a 10-month teacher has a career not using any sick or annual leave days, he/she would be able to retire after 28 years due to having more than 460.3 sick leave days built up at that time.

The teacher will also receive a payout for the 30 annual leave days accrued at his/her daily rate of pay upon retirement. For the 2017-2018 school year, this would be (before taxes, social security, retirement, etc):
 Bachelor degree=\$6,995.40
 Master degree=\$7,695.00
 This payout also adds to your monthly retirement benefit.

THE STUDY

WHY ARE WE DOING THIS STUDY?

- Find out the real reasons teachers are absent
- Find any patterns in teachers absences
- Possibly inform decisions for future school calendars
- Update or create district policies concerning teacher absences
- Decrease amount paid for substitutes each year thus making more money available for other purposes



THE FORM

Date(s): _____ Circle One: Whole Day Half Day

Reason for Absence:

Personal Sickness

Family Sickness

"Mental Health" Day

Vacation

Child Involvement

Field Trip Chaperone—Only check this one if it is the date(s) of the field trip.
(Are you the sponsor of the club/class on the field trip? Yes No)

Other (specify): _____



**APPENDIX D: FINANCIAL IMPACT OF TEACHER ABSENTEEISM
IN NORTH CAROLINA**

Financial Impact

Sick Leave and Absence Without Pay

School Year	Chronic	Number of Teachers	Mean Days Missed	Diff	Additional Cost of One CAT @ \$91.5/day*	Total Annual Cost to State
2015	Yes	23,105	13.01	7.62	\$697.23	\$16,109,499.20
	No	89,799	5.39			
2016	Yes	23,621	13.06	7.92	\$724.68	\$17,117,666.30
	No	69,666	5.14			
2017	Yes	23,771	13.08	7.85	\$718.28	\$17,074,115.00
	No	68,713	5.23			

*Daily rate is the average of the Licensed Substitute rate of \$103 and the Unlicensed Rate of \$80



Public Schools of North Carolina

Financial Impact

Sick Leave, Extended Sick Leave and Absence Without Pay

School Year	Chronic	Number of Teachers	Mean Days Missed	Diff	Additional Cost of One CAT @ \$91.5/day*	Total Annual Cost to State
2015	Yes	23,105	13.86	8.32	\$761.28	\$17,589,374.40
	No	89,799	5.54			
2016	Yes	23,621	13.94	7.92	\$785.96	\$18,159,605.80
	No	69,666	5.35			
2017	Yes	23,771	13.95	7.85	\$777.75	\$17,969,913.80
	No	68,713	5.45			

*Daily rate is the average of the Licensed Substitute rate of \$103 and the Unlicensed Rate of \$80



Public Schools of North Carolina

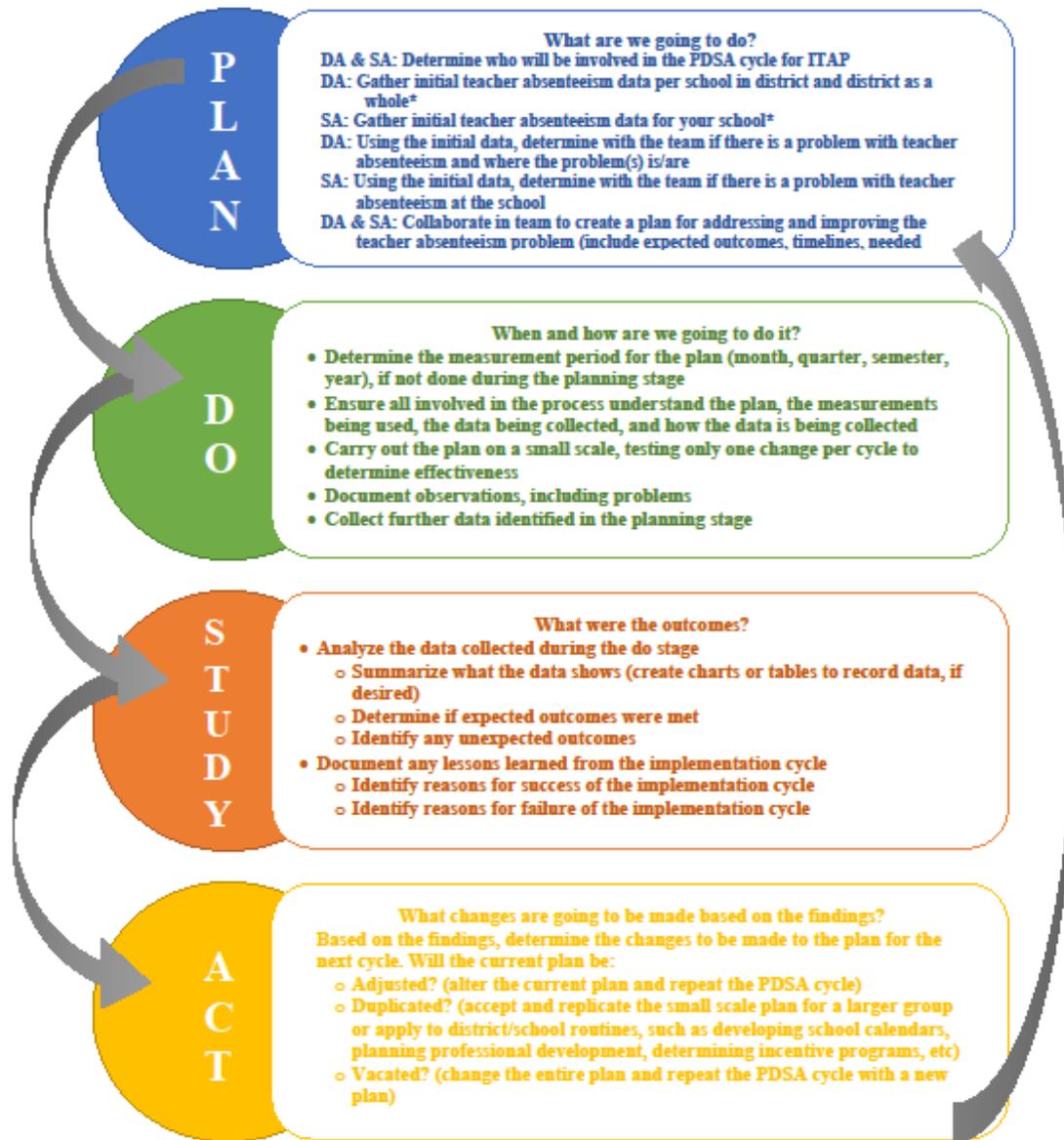
Note. Pitre-Martin & Tomberlin, 2018, slides 24-25.

APPENDIX E: INCREASING TEACHER ATTENDANCE PLAN

Increasing Teacher Attendance Plan (ITAP)

Three Fundamental Questions to Guide the PDSA Cycle

1. What are we trying to accomplish?
2. How will we know that a change is an improvement?
3. What changes can we make that will result in improvement?



DA=District Administrators

SA=School-based Administrators

*Confidentiality of employees must be maintained at all times. Ensure identifying information has been removed from the data sources used during the process.

This PDSA cycle can be done in isolation or multiple cycles can be done simultaneously. However, it is more effective to test one small change at a time to determine its effectiveness and inform the next PDSA cycle.

Based on work by Lanelev, Moen, Nolan, Nolan, Norman, & Provost. 2009

