# The Four-Day School Week: Teacher Retention and Recruitment, Perceptions, and Achievement 

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The Four-Day School Week: Teacher Retention and Recruitment, Perceptions, and Achievement

by Peter Damian Fay

A Dissertation submitted to the Education Faculty of Lindenwood University In partial fulfillment of the requirements for the Degree of

Doctor of Education

School of Education

The Four-Day School Week: Teacher Retention and Recruitment, Perceptions, and Achievement

## by

## Peter Damian Fay

This dissertation has been approved in partial fulfillment of the requirements for the degree of Doctor of Education at Lindenwood University by the School of Education


Dr. Robyne Elder, Committee Member


$\frac{11 / 22 / 19}{\text { Date }}$


## Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Peter Damian Fay



## Acknowledgements

I am very thankful for support I have received from my family, friends, colleagues, and professors. To my wife, Jen, for understanding when I needed to miss functions and family time to go to class or to work on my dissertation. To my son, Lucas, for giving up a lot of time with dad. Thank you both for allowing me to pursue my doctorate. I am also grateful for my friends, Dr. Kelly Manning and Dr. David Duckworth, for encouraging me to go for my doctorate and being there every step of the way. Also to my committee member, Dr. Kelly Mantz, for her friendship and being such a wonderful role model.

I am so very thankful for support I have received from my Lindenwood University professors. Specifically, I thank Dr. Charles 'Jeff' Marion for his expertise in leadership. Dr. Robyne Elder, for her patience, input, and encouragement. Dr. Stephen Sherblom, for his input and feedback. Most importantly, Dr. Kevin Winslow, for his guidance, input, statistical wizardry, and support through each and every step.


#### Abstract

In order to explore various issues with the four-day school week in rural, Missouri school districts, the researcher conducted a mixed-methods study which utilized both quantitative and qualitative research techniques. The researcher was primarily interested in the ability of the four-day model to attract and retain teaching staff, although he was also interested in the impact on student achievement. The purpose of this study was to investigate the possible effects of the four-day school week model on teacher attraction and retention in a rural school district in Missouri. The researcher conducted interviews with seven principals of schools that had adopted the model. He also deployed a survey consisting of closed- and open-ended questions to collect the opinions of respondents working at those seven schools. Additionally, he retrieved assessment data from the state's public education website. First, the researcher collected data from the human resources department about teacher retention rates and the number of applicants who applied for teaching positions in the district for a period of three year prior to becoming a four-day school week district. Second, the researcher sent out anonymous surveys to all teachers in the school district to collect information from open-ended questions about the reasons they either joined or stayed with a four-day school district. Lastly, the researcher collected data from the human resources department about teacher retention rates and the number of applicants who applied for teaching positions in the district for each school year since implementing the four-day school week. Secondary data was analyzed to determine if MAP scores were affected by the four-day school week. The researcher suggests rural, Missouri schools struggling with retaining and attracting teaching staff to


implement the four-day school week in order to increase teacher retention and teacher candidates for open positions.

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## Chapter One: Introduction

## Rationale of the Study

Public school teachers never seem to have enough time. Every day educators leave school to head home to their families and tend to their lives outside of work knowing they could stay each night working to perfect their craft to help students learn and grow. School districts across the nation are faced with the daunting task to satisfy their teaching staff by providing more time and doing so with the same budget year after year. Some school districts have decided to turn to a four-day school week to help solve the issue of time. At the time of this writing, there were at least 18 school districts in Missouri utilizing a four-day school week (Levin, 2016, para. 3).

The idea of the four-day school week dates to 1936 but became more prevalent in 1973 due to a need for a reduction in energy costs (Hewitt \& Denny, 2012). Per Wallace and Heintz (2016), there were more than 120 schools in 21 states which had implemented a four-day school week. In Missouri, the Jasper R-5 school district decided to implement the four-day school week, after rural districts reported a positive outcome (Hacker, 2017). Skalicky's (2016) news article mentioned that one school district, Stockton R-1, considered a transition to the four-day school week after visiting another school district to interview their students and teachers about the implementation of the four-day school week.

Initially, school districts were switching to the four-day school week to help with budget cuts. Most of the savings came with the reduction of fuel cost for buses, one fewer day to pay cafeteria workers, a reduction in substitutes, and less cost for school building utilities. A school district in Colorado reported a financial savings of their budgets from
0.4 to $2.5 \%$ (Younker, 2015, para. 8). However, teacher salaries were not an area of savings since districts had to pay teachers the same salaries as the five-day school week (Pickens, 2015).

A decrease in absenteeism could be another benefit of utilizing a four-day school week. Under that model, staff have one more day during the school week to schedule doctor and dentist appointments. Antequera (2015) reported that school district administrators in Georgia saw student absence rates decreased by $32 \%$ and teachers' absence rates decrease by $28 \%$ (para. 3). Long (2016) reported teachers noticing students more engaged and on-task throughout the four-day school week, no longer facing the "Friday slump." According to Venosa (2015) student and teacher absenteeism decreased as a result of the four-day school week schedule.

The ability to teach longer lessons allowed teachers to increase rigor in their curricula and to provide students more of the interventions they needed. "More in-depth instruction during the school week and valuable training on Fridays" helped teachers plan better lessons thus having an increase in academic achievement (Cummings, 2015, para. 6). Farris (2013) gathered that the switch to a four-day school week helped school districts to avoid making cuts elsewhere, such as the arts, and science teachers found the shift to a four-day week supported labs being accomplished in one day instead of over two days due to the longer class periods.

Researchers have found an increase in proficiency rates of students' academic achievement when comparing, within the same school district, the four-day week to the five-day week (Long, 2016). Researchers have not concluded if the four-day school week
had a significant increase on academic assessments as compared to the five-day school week schedule.

The literature suggests that staff members and students have a positive outlook on implemented four-day school weeks. "When learners and their instructors have additional time to themselves, to prepare for the upcoming week or to relax, they are more inclined to enter the new school week with a sense of enjoyment and happiness" (Antequera, 2015, para. 5). Younker (2015, para. 3) interviewed students, including a senior at the local high school who stated that she "liked everything about [the four-day week]." This researcher regularly observes teachers reporting to school outside of their contract time to work on plans, grade, or collaborate with fellow teachers. One teacher interviewed about the four-day school week reported the extra day off helped her to create better lesson plans, due to an additional day over the weekend to work on the plans (Long, 2016).

Teacher retention and attraction has been a problem for many small, rural school districts across the United States as a result of budget cuts, and the fact that larger districts ae able to offer better salaries and professional development. Providing a competitive salary, as compared to larger school districts, is a challenge rural schools face when trying to attract highly qualified teachers (Jimerson, 2005). Farris (2013) believed that the physical location of rural schools presented a challenge to attracting teachers due to the remoteness of the school district sites. Eppley (2009) suggested that the inability to offer competitive salaries for teachers in a rural school district is a main reason that there are fewer applicants to reside and work for the districts. The remoteness of rural school districts made it difficult to retain teaching staff and to attract new teachers (Jimerson, 2005). In addition to financial savings from the switch to the four-day
school week, some districts claimed that another reason they changed was to attract and retain teaching staff. The principal of the Community R-VI middle and high schools claimed to have seen an increase in teacher applicants due to the four-day school week (Newman, Pavolva, \& Luna, 2016).

Newman et al. (2016) stated that some Missouri schools have transitioned to a four-day week to provide more professional development for teachers, to help the school district remain open, or to create more programs for their students. Some Missouri school districts claimed another reason they have switched to the four-day school week was to encourage more applicants for teaching positions and to help with persistence in the job opposed to leaving for another school district. One superintendent interviewed said, "A recent opening at the middle school received twice as many teacher applications than it usually would" (Newman et. al, 2016, para. 15). Wendler (2015) interviewed Asher Public Schools superintendent and was told, "The switch is not an attempt to win over students, or freak out parents-but is really an experiment in recruiting and retaining teachers" (para. 5).

Burke (2016) reported that according to a school board member, the switch to the four-day school week was because of the challenge of retaining and recruiting teachers.

This study adds to the existing research by reporting on the potential of the fourday school week to attract and retain teachers in a rural school district in Missouri. The results of this study contribute to the existing research about the four-day school week's effects on teacher attraction and retention rates as compared to a five-day school week schedule. The researcher examined a number of variables in comparing the two models, including teacher retention rates and MAP scores, and solicited the perceptions of
teachers and administrators. The study was conducted from June 2017 through May of 2018.

## Purpose of Study

The purpose of this study was to investigate the possible effects of the four-day school week model on teacher attraction and retention in rural school districts in Missouri. In addition, the study explored whether or not the switch to the four-day model had an impact on student achievement. The researcher conducted a mixed-methods study, analyzing existing human resources data, state testing data, and data collected through a teacher survey that the researcher created and deployed.

First, the researcher collected data from the human resources departments of the districts regarding teacher retention rates and the number of applicants who applied for teaching positions over a period of three years prior to adopting the four-day school week model. Second, the researcher sent out anonymous surveys to all teachers in the school districts to collect information from open-ended questions about the reasons they either joined or stayed with four-day school districts. Lastly, the researcher collected data from the human resources departments about teacher retention rates and the number of applicants who applied for teaching positions in the districts for each school year since implementing the four-day school week. The researcher also analyzed secondary data, state MAP scores available from Missouri's Department of Elementary and Secondary Education (DESE), to investigate the impact of the adoption of the four-day school week model on student achievement.

## Questions and Hypotheses

The following research questions and hypotheses guided this mixed-methods study.

Research Question 1: After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did it influence the teachers' decisions to stay?

Research Question 2: After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did teachers perceive the change?

Research Question 3: After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did the human resources departments report on the change in their applicant pools?

Research Question 4: After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did the human resources departments feel it helped to attract highly-qualified teachers to apply?

Hypothesis 1: There is a difference in teacher retention rates between rural school districts in Missouri operating with four-day and five-day school weeks.

Hypothesis 2: There is a difference in number of teacher applicants between rural school districts in Missouri operating with four-day and five-day school weeks.

Hypothesis 3: There is a difference in percentage of highly qualified teachers between rural school districts in Missouri operating with four-day and five-day school weeks.

Hypothesis 4: For rural school districts in Missouri that adopted the four-day school week model, there is a change in overall school district achievement in ELA and Math, as measured by MAP scores, from before they adopted the model to after they adopted the model.

Hypothesis 5: Among teachers in rural school districts in Missouri that adopted the four-day school week model, there is a difference in perceptions of the model based on demographics, including marital status, years of teaching experience, having children or not, gender, grade level taught (elementary or secondary), subject taught, type of teacher certification, and route to obtaining teacher certification.

## Study Limitations

There were a number of factors that proved to be limitations of this study. The first limitation was that the sample size was small. At the time the research began, there were only fifteen school districts implementing the four-day school week in Missouri. The researcher was only able to gain permission from seven of those districts to send surveys to their teaching staff and to interview their principals.

The surveys emailed to teachers were also voluntary. This limited the researcher to only receiving responses from teaching staff willing to spend the time required to share their views and perceptions. It was the same with the principal interviews. Voluntary principal surveys also proved difficult to obtain; it was difficult to find willing participation from principals. In addition, since the survey and interviews required the participants to compare their experiences under both the five-day and four-day school week models, respondents who only worked for the districts under the four-day model
had to be excluded. Therefore, the information gathered from the surveys and interviews were not a complete account of the population.

Another limitation to the study involved some of the hypotheses. When the researcher created the hypotheses for this study, he did not realize that some of the data were not available. One of the hypotheses involved data on how many applicants the four-day schools received for open teaching positions, comparing them to how many they received when they were a five-day school district. The districts participating in the study did not have a human resources department and did not have readily available data on the number of applicants. This effectively made the exploration of that hypothesis impossible. Another hypothesis involved the percentages of highly qualified teaching staff working for the four-day school districts, as compared to the districts under the fiveday school week model. Neither the school districts nor DESE had that data available, making the analysis of that hypothesis also impossible.

## Definition of Terms

Four-day school week: An alternative, shortened school week schedule eliminating Monday or Friday by adding more instructional time to the remaining days (Rymeski, 2013).

Rural School District: Any school district not in a metropolitan area (Monk, 2007).

Teacher Attrition: The departure from the teaching profession whether it be from retiring, quitting, or being let go (Karsenti \& Collin, 2013).

Teacher Recruitment: The practice to lure teachers towards positions in a certain school district (Kimball, Heneman, Robin, Worth, \& Arrigoni, 2016).

Teacher Retention: The ability to retain teachers in the same district from year to year (Lochmiller, Sugimoto, \& Muller, 2015).

Teacher Salary Schedule: The chart used to determine a teacher's salary based upon years of experience and level of education (Kimball, Heneman, Robin, Worth, \& Arrigoni, 2016).

## Summary

The four-day school week model is growing in popularity across the country. School districts located in rural counties in particular are adopting this model in order to deal with budget challenges and to attract and retain a qualified teaching staff. Such districts find it difficult to compete with larger neighboring districts for quality teachers, and the four-day model represents a possible advantage that they can offer.

At the time of study, little research has been conducted to explore how the fourday school week model affects the attraction and retention of qualified teachers in rural school districts. There has also been little reported in the literature about how the model influences student achievement. The results of this mixed methods study will contribute to the existing research on the four-day school week model by documenting its impact on teacher attraction and retention, along with student achievement, in rural school districts in Missouri.

The following chapter explores the literature that serves as background for this study.

## Chapter Two: Review of Literature

## Introduction

This literature review explores the history of the four-day school week in the United States and in Missouri. In addition, the literature provides a rationale for Missouri school districts to consider transitioning from a traditional five-day school week to the four-day school week. The regulations of the No Child Left Behind Act and their impact upon rural school districts were also reviewed.

Numerous school districts across the United States were faced with the ramifications of the NCLB Act, which led the districts to come up with ways to increase student achievement. One way that they faced the challenges was to adapt their school calendar toward less traditional methods (Leiseth, 2008). Many school districts turned away from the traditional calendar and schedule and tried others such as the four-day school week, block scheduling, and a year-round approach (Leiseth, 2008).

Leiseth (2008) concluded year-round schools typically had short breaks at the end of each school quarter instead of the traditional long summer break, and there was a $544 \%$ increase in United States schools that implemented the year-round school year from 1993 to 2008 (p. 25). Teachers benefited from the year-long school year due to the breaks built into this style of calendar which gave them time to re-charge (Leiseth, 2008).

Another non-traditional calendar approach was the block schedule, which consisted of fewer periods in the school day with longer times (Leiseth, 2008). Schools that implemented the block schedule did so to have increased time for students to have more lengthy lessons and engagement, and it provided teachers with fewer classes each school day and more time for preparation (Leiseth, 2008).

The idea of the four-day school week dates back to 1936, but became more prevalent in 1973 due to a need for a reduction in energy costs (Hewitt \& Denny, 2012). Multiple industries examined the four-day work week as a result of the Emergency Conservation Act of 1979 and also favored the four-day work week to improve production rates and employee attitudes toward work, and to decrease absences (Leiseth, 2008). According to Farris (2013) the city of Cimarron, New Mexico introduced the fourday school in 1972, and the main reason was for the four-day week to cut costs of utility bills and bus fuel. Cimarron School District planned at first to not have school during winter but eventually decided to implement the four-day week after recommendations from the state department (Leiseth, 2008).

According to Wallace and Heintz (2016) there were more than 120 schools in 21 states that had implemented a four-day school week by 2016. The common theme this researcher noticed was most of those school districts were either small or rural. Ryan (2009) suggested most districts that implemented the four-day school week were mostly located to the west of the Mississippi River. Herring (2010) felt boards of education at the district level and state legislators were allowing school districts to have more flexibility to create non-traditional school calendars.

The first school in Missouri implemented a four-day school week in 2009 (Knapp, 2014). At the time of this writing, there were at least 18 school districts in Missouri utilizing a four-day school week (Levin, 2016, para. 3). Some of these schools followed a Monday through Thursday schedule, while others met from Tuesday to Friday (Long, 2016). In addition to the state of Missouri allowing a four-day school week, the state also created statutes focused on helping to keep teachers in the classroom, included mentoring
programs which lasted for two years (Grissom \& Harrington, 2010, p 5). Insufficient teacher preparation and excessive teacher attrition rates had challenged lawmakers to create helpful education policies (Glazerman, et al., 2010).

In 2009, Missouri defeated House Bill 242, which would have made the four-day school week a reality statewide. Again in 2012, House Bill 1732 as well as Senate Bill 751 both failed to pass, thus only allowing the traditional five-day school week to exist in Missouri (Wallace \& Heintz, 2016). State statutes determine the time public school students go to class during the school year, and almost all states have a minimum number of hours and days students must attend each school year (Ryan, 2009). Missouri law mandated that schools must be in session at least 1044 hours per school year and meet a minimum of 174 days under a five-day week model, or 142 days under a four-day school week. The days had to be at least three hours long for the five-day week and at least four hours long for a four-day week (Rowland, 2014, p. 5).

More rural school districts joined the four-day-school-week trend once they saw other rural districts having successful transitions. Skalicky's (2016) news article mentioned one school district considering a transition to the four-day school week after visiting another school district to interview their students and teachers about their feelings about the implementation of the four-day school week (Skalicky, 2016). Leiseth (2008) recommended that school districts considering if they should implement a four-day school week should visit districts that were implementing the model to interview staff, parents, and students. Wallace and Heintz (2016) reported that there were more than 120 schools in 21 states which had implemented a four-day school week by 2016.

## NCLB

One factor that had an impact on the adoption of the four-day school week model was the No Child Left Behind (NCLB) Act of 2002. Dee and Jacob (2010) believed that "the overarching goal of NCLB has been to drive broad and substantive improvements in student achievement" (p. 155). The NCLB Act had an overarching goal for public school students to demonstrate proficiency on state assessments by 2014 (Leiseth, 2008, p. 32). A key component to come from the NCLB Act was its requirement for teaching staff to be certified in the area they taught and to be defined as a high quality teacher (Harrington, 2017). The high quality teacher was defined as: "(1) obtain a content area bachelor's degree in the subject taught, (2) obtain a full state certification or licensure, and (3) obtain proof of content knowledge for each subject taught" (Harrington, 2017, p. 45). Dee and Jacob (2010) identified several of the NCLB components, such as yearly assessments of all public-school students from grades 3 to 8 and each state had to grade each of their public schools' progress towards achievement on the yearly assessments (p. 154).

Dee and Jacob (2011) described the NCLB Act as "arguably the most far-reaching education policy initiative in the United States over the last four decades," and when the act was signed by President Bush it expanded the federal scope over all of the public schools in the United States (p. 418). A goal of the NCLB Act was to decrease the disparity gaps of "student performances by race and socioeconomic status" by identifying subgroup scores and comparing them to the overall scores of a school (Dee \& Jacob, 2011, p. 437).

The NCLB Act required states to create systems of accountability based on yearly assessment exams (Dee \& Jacob, 2011). The NCLB Act was trying to improve the education system by setting the standards bar high for teachers as well as holding school districts accountable for student growth (Harrington, 2017). Within the NCLB Act there was a requirement for teachers to be highly qualified, which put pressure on all schools to meet this expectation. However, this requirement was more challenging for rural school districts due to their remote locations and difficulty in attracting highly qualified teachers (Mollenkopf, 2009). Another factor of the NCLB Act was to make school performance scores public in order to apply pressure for public schools to work for and to show improvement (Dee \& Jacob, 2011).

The purpose of requiring a teacher to be highly qualified was to improve student growth and to have a sustaining influence on students' educational careers (Harrington, 2017). The NCLB Act had a more positive effect on students in the area of math, as compared to reading, for those students attending public schools in areas of poverty (Dee \& Jacob, 2010).

Harrington (2017) noted one of the problems for rural schools to meet the NCLB expectations was that rural schools often had teachers educating students outside of their trained subject matter. With the new provisions requiring teachers to be highly qualified, rural teachers who taught a subject or class not in their field had to go back to college, which was a problem since rural communities lacked universities or colleges (Harrington, 2017).

Since the inception of the NCLB Act, educators' views of curricula changed from broad and expansive to provide more focused in order to teach to the standardized tests.

Some educators felt this emphasis on test preparation got in the way of the teachers' autonomy to take advantage of teachable moments (Deniston \& Gerrity, 2011). Dee and Jacob (2011) noted that those opposed to the NCLB Act claimed it would cause schools to pull resources away from subjects not assessed on state exams and put more funding and time into those tested areas. Deniston and Gerrity (2011) reported that with the curricular focus being narrowed toward the high-impact topics assessed on the state assessments, there was a loss of time to instruct students in the arts and social studies. With this decrease of time for non-tested topics, elementary students lost about 75 minutes per week (p. 27).

The annual testing regulations the NCLB Act imposed were summarized by Dee and Jacob (2011) as "annual testing of public school students in reading and mathematics in grades 3 through 8 (and at least once in grades 10 through 12) and ratings of school performance," and the requirement "that states introduce sanctions and rewards relevant to every school and based on their AYP status" (p. 420).

Research suggested, since the implementation of the NCLB Act, teacher attitude and morale has been effected in a negative way due to the importance placed upon the results of state's standardized assessments, and "teachers and researchers alike have raised concerns about how to recruit and retain quality teachers within the profession" (Deniston \& Gerrity, 2011, p. 27). Some positive effects of the NCLB Act were an increase in teacher salaries and an increase in the percentage of teachers with master's degrees (Dee \& Jacob, 2011).

## Characteristics of the Five-Day School Week

A majority of the school districts across the United States and Missouri utilize a typical five-day school week calendar to guide their school year. Leiseth (2008) observed that "traditional agrarian work schedules and school calendars built around them replicate the needs of the past" (p.3). School calendars were usually based upon an economic or agricultural element instead of being based upon student needs (Leiseth, 2008). During the last decade or so, school years started in early to mid-August and ended in mid to late May, and a traditional school calendar has had approximately 180 days during nine months of school (Leiseth, 2008, pp. 21-22). School districts stopped using the traditional calendar for many reasons, including an increase of student performance, better morale for both students and staff, and maximization of the school buildings (Leiseth, 2008).

## Benefits of the Four-Day School Week

There are multiple reasons to leave the five-day school week system for a fourday school week schedule. This literature review will focus on several of them, including: increased time for academic support and extracurricular activities, teacher collaboration and planning, attendance of both students and staff, financial savings, lower utility and transportation costs, staff and student morale, impact on parents, teacher retention and attraction, and the costs related to teacher attrition. Others, including Farris (2013) felt there were more than just financial reasons to being utilizing a four-day school week:

Most school districts that switch to a four-day week do so for the financial reasons but discover numerous non-financial related benefits, such as a decline in student drop-out rates, decrease in disciplinary referrals, improvement in student and teacher attendance, less interrupted instructional time due to longer class periods
and fewer transitions, increased positive attitudes about school, more time for staff development, and more time for extracurricular activities, personal business, such as doctor appointments (Fager, 1997, p.23).

Increased time for academic support and extracurricular activities. School districts should be focused on academics for students, but also provide many extracurricular activities such as clubs, sports, and fine arts. The ability to teach longer lessons allowed teachers to go deeper with their curriculum and to give students what they needed through more interventions. "More in-depth instruction during the school week and valuable training on Fridays" helped teachers plan better lessons, thus having an increase in academic achievement (Cummings, 2015, para. 6). Implementing a nontraditional school calendar could have increased the time students spent learning (Leiseth, 2008). Researchers have found an increase in proficiency rates of students when comparing, within the same school district, the four-day week to the five-day week (Long, 2016). Researchers have not concluded if the four-day school week had a significant increase of academic assessments as compared to the five-day school week schedule. Farris (2013) gathered the switch to a four-day school week helped school districts not have to make cuts elsewhere, such as the arts. Science teachers found the shift to a four-day week supported labs being accomplished in one day instead of over two days due to the longer class periods.

Leiseth (2008) found increased instructional time, paired with best practices, led to better student achievement. With the four-day school week, students and teachers worked together longer each day as compared to the typical five-day school week. Instructional time remained the same over the course of the year while each school day
saw an increase in minutes. One school district that implemented the four-day school week reported an approximate increase of 55 minutes in a student's school day (Leiseth, 2008, p. 4). Grissom \& Harrington (2010) felt teachers leaving school districts year after year could have negatively impacted student assessment results since there was not consistency with teachers staying in a school system.

Leiseth (2008) reported that a school district in South Dakota found switching to the four-day school week resulted in an increase of student participation in extracurricular actives by $24 \%$ (p. 17). A few districts used the fifth day off to offer tutoring or enrichment activities to help students or to challenge them (Leiseth, 2008).

Teacher collaboration and planning. A large portion of a teachers' duties are to plan lessons and to grade student work. During the school day, teachers cannot tend to these while they are teaching and supervising students. Therefore the time needed to complete these tasks comes outside of their contracted time.

Bovender (2016) believed teachers' daily duties do not just include teaching all alone, but working with a team to collaborate on plans as well as collecting data. Some of the NCLB opponents believed the act took away from the focus of non-high stake assessed subjects such as social studies and performing arts (Dee \& Jacob, 2010). Grissom, Nicholson-Crotty, and Harrington (2014) deduced, from the results of a national survey of school staff, the NCLB Act caused teachers' to have longer hours yet also has created a feeling of support from fellow teachers and supervisors as well as more control in their classrooms.

Bradley (2019) reported:

An effective teacher is willing to work on weekends, or after hours, [one respondent] stated, "There are some things as a teacher that you will have to make sacrifices for. You have long work days, you know. The schedule says we get out at $3: 30$ but it really does not end at $3: 30$ (p. 158).

Attendance effects. In order to help their students to learn and grow, teachers need to be in the classroom educating them. However, teachers also have families, and they sometimes need to get to medical and dental appointments, or tend to other personal business, during the Monday through Friday work week. Since most doctor offices and businesses work on a five-day work week with hours similar to a school day, teachers have to take days off to tend to their appointments.

Switching to a four-day school week also affected attendance rates for both students and staff. After all, the model provided for an additional day to schedule doctor, dentist, and other types of appointments. Antequera (2015) reported a school district in Georgia saw student absence rates decreased by $32 \%$ and teachers decrease by $28 \%$ (para. 3). Long (2016) reported teachers noticing students more engaged and on throughout the four-day school week, no longer facing the "Friday slump." Leiseth (2008) reported a school district in South Dakota found switching to the four-day school week resulted in a reduction of student absences by $3 \%$ (p. 17). Farris (2013) proposed "rural school districts travel farther for sports and activities therefore missing more class time" (p. 6), contributing to student absences.

According to Venosa (2015) student and teacher absenteeism decreased due to the four-day school week schedule. Bovender (2016) believed teacher attendance was
affected by low morale. Knapp (2014) believed there were more benefits, beyond financial gain, such as better student and teacher attendance.

Financial savings. School districts should do all they can to create a budget which is financially sound. Sometimes school districts are faced with budget cuts out of their control. When this happens they have to be creative and can be forced to make decisions which could impact the entire community.

The increased expenditures of the NCLB Act's requirement of public schools needing highly qualified teachers in the classrooms led to the need to cut the allotted yearly budget. Leiseth (2008) felt school districts had to come up with ways to cut operation costs as well as increase student opportunity with education. Dee and Jacob (2010) deduced the NCLB Act influenced many factors, one being teacher qualifications, which led to better results on yearly assessments. Herring (2010) interviewed the superintendent of a school district in Minnesota about the $\$ 1.3$ million budget cuts they were facing and the superintendent stated, "We've repeatedly asked our residents to pay higher taxes, cut some of our staff, and we may even close one of our schools." (para. 8).

When considering replacing a teacher, Grissom and Harrington (2010) estimated the costs to attract, hire, and provide professional development depended upon each school system and fell into the range of $\$ 4,366$ to $\$ 15,325$ per position (p. 2). Staff turnover led to higher costs, due to recruitment and hiring, diverting funds from "student services, such as providing up-to-date textbooks, hands-on learning experiences, and devices for technological literacy training" (Bovender, 2016, p. 6).

Instead of reducing staff and dropping programs, many school districts across the United States switched to a shortened school week (Knapp, 2014). Leiseth (2008)
speculated the pressures of reduced funding and the need for more student growth led some school districts to adopt a four-day school week calendar. Dee and Jacob (2010) reasoned that the NCLB Act of 2001 caused school districts to spend more of their yearly budget on teacher salaries, yet the districts did not receive more federal funding to cover such costs. One reason there was an increase in teacher compensation was a larger proportion of teachers having graduate degrees (Dee \& Jacob, 2010). The adoption of the four-day school week also helped school districts avoid eliminating art and music as well as cutting staff (Leiseth, 2008).

Reduced transportation, heating and cooling, food service costs. When a school district is faced with making budget cuts, the decisions they make could impact a lot of areas besides teacher salaries. With the decrease of one day a week of school, the four-day school week could help to save costs. This section focused on the impacts the four-day school week had for some school districts who implemented the four-day school week.

In order to attract and retain qualified teachers, districts moving to the four-day school week had to offer salaries comparable to those in the five-day model (Pickens, 2015). Therefore, teacher salaries was not an area of savings for them. The savings came from a reduction of fuel cost for buses, one-fewer day to pay cafeteria workers, a reduction in the need for substitute teachers, and less cost for school building utilities. A school district in Arizona faced a $\$ 2.7$ million cut to their operating budget and turned to the four-day school week to assist with the cuts (Barahona, 2016, para. 21). A school district in Oklahoma reported an 8-10 percent savings by switching to the four-day school week (Wendler, 2015, para. 4). Colorado school districts reported a financial savings of
their budgets from 0.4 to 2.5 percent. (Younker, 2015, para. 8). Griffith (2011) suggested the reason savings are not more is because a typical school district employee worked similar number of hours in a five-day week as a four-day school week, and the salary and benefits of all public education staff members typically takes up to $65 \%$ of a school district's yearly budget (p. 3). Leiseth (2008) reported a school district in South Dakota found switching to the four-day school week resulted in a decrease of transportation costs by $15 \%$ (p. 17).

Staff and student morale. The four-day school week also contributed to a positive outlook on the parts of both staff members and students. "When learners and their instructors have additional time to themselves, to prepare for the upcoming week or to relax, they are more inclined to enter the new school week with a sense of enjoyment and happiness" (Antequera, 2015). Younker (2015) interviewed students, including a senior at the local high school who stated she "liked everything about [the four-day week]" (Younker, 2015). Positively focusing on the spirit and well-being of the staff had the potential to produce educational benefits for both the student population and the district (Bovender, 2016). This researcher regularly sees teachers coming in outside of their contract time to work on and plan lessons, grade work or collaborate with fellow teachers. One teacher interviewed reported the four-day week helped her to create the best lessons they ever had (Long, 2016).

If schools did not lose staff from year to year, then teachers would be able to have better, continuing relationships with their communities and other school staff (Bovender, 2016).

How parents are affected. Parents have a large impact on their children's education and should be considered when making decisions that could affect their lives too. When a district considers changing their academic schedule to implement a new schedule, such as the four-day school week, the parents should have an opportunity to voice their opinions. This is especially true since the four-day school week does not align with a typical five-day work week calendar.

One downfall of the four-day school week was the way it caused parents with full time jobs to adjust their lives due to the need to arrange for alternative care for their children on the fifth day (Knapp, 2014). Sandoval, Madden and Wen (2017) interviewed parents about their feelings about their rural, Missouri school district implementing the four-day school week. In the words of one of the parents they interviewed, "I was upset at first, but as the year went on, I found it to be very beneficial" (para. 4). In looking at the results of a 2014 survey, Sandoval, Madden, and Wen (2017) found that "64 percent of parents were 'very supportive' of the four-day school week, with just 13 percent against it" (para. 6). Another parent who Sandoval, Madden, and Wen (2017) interviewed stated, "It gives the kids a longer weekend to recuperate and get ready for the school week" (para. 15).

Many parents who had to find alternatives on the fifth day for their children were at a loss. However, many communities stepped up and helped create opportunities. In one community, the Boys and Girls Club and a local church helped out by providing a lowcost day care on the fifth day (Herring, 2010).

As a parent, the researcher thought about what to do with children on the fifth day since there was no longer "child care" for them. Hadfield (2016) states that "many
families [had] a dilemma of either leaving their child at home, unsupervised, or sign them up for costly camps or latchkey programs." "Community members at Homedale have banded together to make sure students stay busy on their extra day off, creating a Friday enrichment program in a local church" (Cummings, 2015). It seemed, as in most cases, people did not react to the change in a positive way but with time there were solutions to the problem as to what parents did with their children on the "fifth-day."

Rural school district characteristics. Demi, Coleman-Jensen, and Snyder (2010) found that "over half of the school districts in the United States are located in rural areas, approximately one third of schools themselves are rural, and over $20 \%$ of the nation's students are educated in rural schools" (p. 1). Leiseth (2008) observed that most districts that adopted a four-day school week served fewer than 1,000 students (p. 33). Bradley (2019) reported that rural schools are challenged to provide an adequate learning environment for their students since it was very difficult to hire a teaching staff with strong credentials, and principals had to hire from an applicant pool of teachers who were "under-prepared, inexperienced teachers who do not get the proper guidance and support to meet the needs of the students" (p. 46).

Providing a competitive salary is a challenge rural schools face when trying to attract highly qualified teachers (Jimerson, 2005). Farris (2013) believed the physical location of rural schools was a cause of difficulty for attracting teachers due to how remote the school districts were. Eppley (2009) suggested the inability to offer competitive salaries for teachers in a rural school district was a significant reason for fewer applicants to reside and work for rural districts. The remoteness of rural school districts made it difficult to retain teaching staff and to attract new teachers (Jimerson,
2005). Monk (2007) suggested the share of highly trained teachers working for small, rural schools was below-average. Grissom and Harrington (2010) evaluated national data about teacher attrition of rural, public schools and compared it to data of turnover in Missouri rural schools. They noted that school districts in rural Missouri were above the state and national norms by 1.5 points at $17.5 \%$ (p. 4). Teachers in rural school district typically worked longer hours since it was common for them to work extra duties and to serve multiple schools, especially if they were a teacher of a specialized subject matter which could include special education or art (Mollenkopf, 2009). Harrington (2017) gathered findings about rural school district challenges with the NCLB and reported:
(1) Teachers often teach out of their core certified field; (2) rural school districts lack economies of scale in offering more specialized teaching areas; and (3) rural school districts may reside in "remote" locations making it difficult to attract applicants without connections to the area (p. 44).

Since some rural schools had to comply with the requirements of the NCLB Act and were having a hard time doing so, the U.S. Department of Education gave rural school districts more time to comply with the expectations (Harrington, 2017).

There were also many positive aspects to working in a rural community. Teachers who worked in the rural setting reported their influences and control with school policies were more influential (Monk, 2007). The benefits of rural educators being from their community was greater because they had a sense of pride and were more involved in their community which, led the teachers to stay in their positions (Mollenkopf, 2009).

Attraction and retention. Teacher retention and attraction has been a problem for many small, rural school districts across the United States due to budget cuts, larger
districts offering better salaries, and lack of professional development. Robertson-Kraft and Duckworth (2014) did not believe that one could predict if teachers would stay in their districts at the time of their hiring. In addition to the financial savings of switching to the four-day school week, some districts cited attracting and retaining teaching staff as another reason for switching. Some districts also claimed an increase in applicants and better retention rates due to the four-day school week. Bovender (2016) reported that national teacher attrition rates were $25 \%$ more in 2012 as opposed to 1992, and believed that about $50 \%$ of the teachers leaving did so just to transfer to another school (p. 5).

Grissom and Harrington (2010) categorized teachers as follows:
Teachers who stay in the same school (stayers), teachers who remain in teaching but change schools (movers), teachers who cease to continue teaching in Missouri (leavers), and other teachers, which includes teachers who transition into nonteaching positions, such as school administration. This last group constitutes fewer than $1 \%$ of teachers in any year. Summing together all non-stayers and dividing by the total number of teachers in a school, district or the state by year yields a rate of turnover for that unit. (pp. 2-3)

Kukla-Acevedo (2009) found "a large amount of the turnover was due to teachers' switching schools, rather than their exiting the field altogether" (p. 447). When teachers leave schools, it can be looked at in three different ways: "Moving to another school in the same district (within-district moves), moving to a school in another district (cross-district moves)" or leaving teaching altogether (Goldhaber, Gross, \& Player, 2011, p. 59).

Newman et al. (2016) stated that some Missouri schools had transitioned to a four-day week to provide more professional development for teachers, to remain open, or to create more programs for their students. Some Missouri school districts claimed another reason they switched to the four-day school week was to help with having more applicants for teaching positions and to help with keeping teaching staff returning year after year as opposed to leaving for another school district. One superintendent who implemented a four-day school week said, "A recent opening at the middle school received twice as many teacher applications than it usually would" (Newman et. al, 2016, para. 15). Wendler (2016) interviewed the Asher Public Schools superintendent and was told, "The switch is not an attempt to win over students, or freak out parents-but is really an experiment in recruiting and retaining teachers (Wendler, 2015, para.5)". The superintendent went on to say, "I've hired three teachers this summer, and all three said they applied here because we're going to the four-day week" (Wendler, 2015, para.18).

Younker (2015) reported one teacher describing the four-day week as "a nice selling point to get teachers to stay here." The researcher believed teachers would want to work for a district with a four-day school week and teachers would be attracted to the four-day school week as well as stay with a district who switched from the five-day school week. Burke (2016) reported a school board member claiming that the reason for the switch to the four-day school week was the challenge of retaining and recruiting teachers (Burke, 2016).

Leiseth (2008) stated, "Implementing a four-day school week schedule can assist administrators with staff recruitment, as the four-day school can be attractive to prospective teachers" (p. 36). However, apart from some anecdotal evidence, this
researcher has not found significant research supporting the proposition that the four-day school week influences teacher retention and attraction. This mixed methods study reported upon the findings of the four-day school week and its ability to attract and retain teachers in a rural school district in Missouri. By this means, the researcher intends to add to the existing literature about the four-day school week's effects on teacher attraction and retention rates as compared to a five-day school week schedule.

## Trends in Rural Teacher Retention and Attraction

It was difficult to attract and then retain qualified teachers to rural school districts as compared to urban school districts. Maranto and Shuls (2012) felt administrators of some schools could not select the best teachers but simply filled the positions by hiring whoever walked into their buildings, or the principals decided not to offer the classes all together. This was problematic in light of the requirements of the NCLB Act of 2001. NCLB required rural schools to fill specialized subject areas, such as math and science, with highly qualified teachers (Harrington, 2017). The NCLB Act forced human resources departments of rural districts to consider the elements which helped them attract qualified applicants and to retain them once they were hired (Goodpaster, Adedokun, Weaver, 2012). Harrington (2017) found rural districts had to provide incentives or bonuses to help draw applicants who were highly qualified, but the rural schools often did not have the funding in place to do so.

Teachers leave their profession for various reasons. According to Grissom and Harrington (2010) teachers in Missouri left their profession to retire or to take a teaching job in another school district or stopped teaching altogether, and they reported 9,550 of the 59,800 full-time teachers fell into this category (p. 1).

Mollenkopf (2009) reported that the salaries of rural teachers were from 11 to $17 \%$ lower than the rest of the teacher population (p. 1). Since the salaries were lower in rural areas, school districts had to compete with their suburban and urban counterparts in different ways. Bovender (2016) believed "little progress has been made toward establishing policies and procedures that effectively address" attrition of staff (p. 6). However, many states implemented programs to help with attracting teachers to work and live in rural communities.

For example, the Arkansas Department of Education implemented three programs to address this issue: Stated Teacher Education Program, High Priority Bonus Incentives, and Teacher Housing Development. These programs were created specifically to help draw teachers to positions in rural settings and for class subjects rural schools often find difficult to fill (Maranto \& Shuls, 2012). One reason highly qualified teacher attraction and retention is important was the affect a low performing teacher had on students was visible even two years later (Borman \& Dowling, 2008, p. 368).

Rural school districts lose teachers or cannot attract teachers as well as an urban or suburban school district due to the rural district's inability to offer similar amenities, teacher salary, and other opportunities (Harrington, 2017). Ladd (2009) felt teachers working in challenging positions for one district moved to other districts with less challenges when the salary schedule was similar.

## Teacher Turnover Costs

Teacher turnover led to several problems for schools and districts. These included the time and money spent on hiring for posted positions, decreased consistency with curriculum and school culture, and the prospect of placing unseasoned educators into
classrooms (Grissom \& Harrington, 2010). Ladd (2009) believed a teacher's decision to stay with a position was based upon the benefits and salary received as well as the condition of the work environment. Some rural school districts in Missouri have turned to the alternative four-day school week to retain and attract teachers. Watlington, Shockley, Guglielmino, and Felsher (2010) found the costs of recruiting added up when considering all the steps necessary to process applicants. According to Jimerson (2005), "At the local level in rural areas, there will be additional costs associated with offering competitive salaries to recruit (and retain) highly qualified teachers and instructional assistance" (p. 3). Goldhaber, Gross, and Player (2011) found several cost elements associated with replacing a teacher who left. Those were not limited to but could include hiring new teachers, advertisements and recruiting fairs, screening procedures, and the costs of training the new staff member with the district's curriculum and practices.

Teacher attrition has been approximately 9\% each year across the United States, and leaving the teaching career has been the common theme for rural teachers (Goodpaster, Adedokun, \& Weaver, 2012, p. 9). Teachers withdraw from the teaching profession at the rate of at least $40 \%$ in the first five years of teaching (Robertson-Kraft \& Duckworth, 2014, p. 2). Teachers have left the classrooms for multiple reasons, including a lack of classroom management, little support or guidance, and simply because teaching is difficult (Bradley, 2019). Boyd et al. (2011) reported that half of a million teachers in the United States left their schools each year, and while retirement was the reason for $16 \%$ of them, the other $84 \%$ transferred to other schools (p. 304). Barnes, Crowe, and Schaefer (2007) suggested an idea for school districts to spend more funds on teacher induction programs to help prevent retention thus giving teachers the support and skills
they need to feel successful, and they felt the costs of the induction programs would "offset by the savings achieved through decreases in the costs of turnover" (p. 5).

Staff turnover has been particularly hard on at-risk students and on schools performing below expectations. In short, low performing schools have a hard time retaining and hiring teachers (Watlington et al., 2007). No matter the reason for a teacher to leave a position, a school district had to replace the staff member, incurring costs for locating applicants and professional development (Ladd, 2009). Time and money was often lost due to teacher turnover because of the constant cycle of hiring and replacing educators who left "before they have mastered the ability to create a successful learning culture for their students" (Barnes, Crowe, \& Schaefer, 2007, p. 4).

Borman and Dowling (2008) suggested teacher attrition in the United States could cost an average of $\$ 12,546$ per staff member needing to be replaced, with an annual cost of $\$ 2.2$ billion ( p .370 ). Teacher attrition annual costs in Missouri have been almost $\$ 112$ million while the amount for the United States was $\$ 4.9$ billion (Grissom \& Harrington, 2010, p. 1). Not only did high rates of teacher attrition hurt pupil achievement, turnover imposed huge financial burdens on school district budgets due to the need for more recruitment, hired teachers, and future training too (Glazerman, et. al, 2010). Barnes, et al. (2007) noted that school districts which have to replace teachers from year to year lose funds they could spend on professional development and student growth.

Ronfeldt, Loeb, and Wyckoff (2013) believed teacher turnover was not always bad since some teacher replacement led to new ideas and passion on the part of the new teacher, and along with the change came new relationships and collaborative teams which could result in better student growth.

Barnes, et al. (2007) reported teacher attrition costs from several different school districts:

In Granville County, North Carolina, the cost of each teacher who left the district was just under $\$ 10,000$. In a small rural district such as Jemez Valley, New Mexico, the cost per teacher leaver is $\$ 4,366$. In Milwaukee, the average cost per teacher leaver was $\$ 15,325$. In a very large district like Chicago, the average cost was $\$ 17,872$ per leaver. The total cost of turnover in the Chicago Public Schools is estimated to be over $\$ 86$ million per year. (pp. 4-5)

## Teacher/Staff Satisfaction Surveys

Teacher satisfaction came from several areas, such as their autonomy with how they teach in their classrooms, and their being able to help with decision making in areas of professional development, schedules, and the materials they used (Boyd et al., 2011). A survey of rural staff perceptions about benefits found participants felt their compensation was too low, with one teacher responding, "We give and give and give of ourselves to such a great extent, but yet, it's not valued" (Goodpaster et al., 2012, p. 17). The same survey results indicated that rural teacher needed to have rewards of intrinsic value since the pay was so low. (Goodpaster et al., 2012). Borman and Dowling's (2008) research found teaching staff had a preference for more money, better working conditions, and rewards of an intrinsic nature, and the teachers left one position for another if these preferences were there.

Researchers have identified certain factors, such as positive student growth on assessments, which motivated teachers to stay in the profession longer (Boyd et al., 2011). Skaalvik and Skaalvik (2011) suggested that teachers' main reasons for their
satisfaction was making a difference and contributing to students' learning and growth, and believed that "teachers are often motivated by values, ethical motives, and intrinsic motivation" (p. 373).

Boyd et al. (2011) suggested surveys alone do not provide enough information about teacher satisfaction, and researchers should include other school when examining attrition and retention rates.

## Attraction and Retention

Ronfeldt, Loeb, and Wyckoff (2013) suggested one way to help reduce teacher attrition would be "to introduce incentive structures to retain teachers that might leave otherwise" (p. 18). Grissom and Harrington (2010) reported teacher autonomy, strong administrative leadership, and teachers involved in making decisions resulted in higher teacher retention rates. Glazerman, et al. (2010) cited that $24 \%$ of new educators left the profession after their second year, and by the conclusion of the fifth school year, $46 \%$ had left the classroom (p. 39).

Teachers leave their jobs for multiple reasons; Deniston and Gerrity (2011) listed moderate benefits, inadequate administrative backing, lack of involvement with decision making, and poor student behavior as several reasons for teachers' job displeasure. Goldhaber, Gross, and Player (2011) generalized from research that educators who were well prepared collegiately are more likely to leave the teaching profession when working in a high poverty school.

Kukla-Acevedo (2009) believed higher salaries caused teachers to leave one district for another, and stated that "salary increases necessary to neutralize turnover are
so high that this is not typically considered to be a viable policy tool to limit teacher turnover on a national scale" (p. 444).

Student behavior and engagement was also a solid predictor of teacher retention decisions (Boyd et al., 2011). Student misbehavior was an increased cause of stress for teachers and led to job dissatisfaction and attrition (Kukla-Acevedo, 2009).

Another area which influenced teachers to stay or leave a school was how well teachers felt their administrators supported them with professional growth, morale, and input on their teaching skills (Boyd et al., 2011). According to Stockard \& Lehman (2004) school principals had an influence on the satisfaction of their teachers. If the teachers are satisfied, the more likely they are to stay in the profession (Stockard \& Lehman, 2004).

Boyd et al. (2011) felt the decision to stay at a school or not also had to do with how well staff members felt supported by their peers and/or had positive relationships with teammates. With the negative effects of the NCLB Act, Deniston and Gerrity (2011) recommended that teachers find ways to support each other through inspirational acts to help improve morale.

If teachers felt satisfied with the facilities and safeness of their school buildings, it helped them to continue teaching for their current school (Boyd et al., 2011). When a teacher changed from one school district to another it was usually for better benefits and working conditions (Goldhaber, et al., 2011). After entering the profession, teachers made decisions about whether or not to stay based upon the environment of their position and if there were more attractive opportunities available (Kukla-Acevedo, 2009).

Goldhaber, et al. (2011) found differing opinions as to whether or not teachers were staying in public schools. Some schools kept their best teachers while others lost them to better teaching situations or other positions outside of teaching. Some school districts turned towards monetary bonuses and provided mentorship programs to help reduce the number of teachers who left each year (Boyd et al., 2011). School districts could have deterred teachers from leaving with improved, desired working conditions and environment (Kukla-Acevedo, 2009). Leiseth (2008) stated:

The study provides the selected K-12 school district and other districts having like populations and similar characteristics, with important data which may be considered as they examine their own situation regarding teacher recruitment, student and staff retention, and strategic plans for improvement. (p. 4) Kukla-Acevedo (2009) believed women left the teaching profession more often than men as a result of childbearing and childrearing. With math and science educators having more opportunities outside of teaching, they had one of the highest rates of attrition (Kukla-Acevedo, 2009).

## Academic Affects

When schools face a lot of staff turnover, it is costly and detrimental to curricular consistency across the school years (Boyd et al., 2011). Kukla-Acevedo (2009) suggested, "Staff turnover always imposes training, interviewing, and productivity costs on an organization, yet in the educational system, turnover can also compromise student learning" (p. 443). High attrition rates are likely to have negative impacts on student learning and growth due to the possibility of curriculum disruptions (Boyd et al., 2011). Ulferts (2016) reported that when teachers do not remain in the same school, the achievement gap is larger for their students.

## Summary

This literature review explored the history of the four-day school week. The regulations of the No Child Left Behind Act put rural schools in a difficult position due to the requirement to hire a highly qualified teaching staff. Rural schools traditionally have a more difficult time with attracting and retaining highly qualified teachers. Many rural schools across the country turned to the four-day school week to help with many different areas. The four-day school week was reported to have helped with staff and student attendance, teacher collaboration and planning time, financial savings, staff and student moral, and teacher satisfaction. The literature did not offer as much about whether or not the four-day school week helped to retain and attract teaching staff. The researcher felt that research on the topic of the four-day school week's ability to attract and retain teachers was in order since there was a lack of research available in the existing literature.

## Chapter Three: Research Method and Design

## Purpose

Attracting and retaining quality teachers has long been a challenge for rural school districts. Limited resources and geographic remoteness have traditionally served as barriers for these districts in maintaining quality teaching staffs. In recent years, a new model has emerged with potential to address this problem. While not offering teachers more money or superior facilities, this model offers them something else of significance: time. By eliminating a day of instruction from the school week, the four-day school week model provides teachers with additional time for personal and professional endeavors.

The idea for this study began when the researcher read about a small, rural school district in Arizona that was experiencing staffing problems. The superintendent of the district proposed adopting a four-day school week model with the expectation that it would help to attract a highly qualified teaching staff and help to retain that staff from school year to school year.

While the literature contained many references to the four-day school week model, the researcher could not locate any studies indicating that the four-day school week did, in fact, help increase teacher retention and attraction. The purpose of this mixed methods study was to investigate the four-day school week model as it was utilized in rural Missouri schools, especially as it contributed to the attracting and retaining of highly qualified teachers.

The research questions guiding this study were as follows:

Research Question 1: After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did it influence the teachers' decisions to stay?

Research Question 2: After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did teachers perceive the change?

Research Question 3: After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did the human resources departments report on the change in their applicant pools?

Research Question 4: After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did the human resources departments feel it helped to attract highly-qualified teachers to apply?

The study also explored the following null hypotheses:
Null Hypothesis 1: There is no difference in teacher retention rates between rural school districts in Missouri operating with four-day and five-day school weeks.

Null Hypothesis 2: There is no difference in number of teacher applicants between rural school districts in Missouri operating with four-day and five-day school weeks.

Null Hypothesis 3: There is no difference in percentage of highly qualified teachers between rural school districts in Missouri operating with four-day and five-day school weeks.

Null Hypothesis 4: For rural school districts in Missouri that adopted the fourday school week model, there is no change in overall school district achievement in ELA
and Math, as measured by MAP scores, from before they adopted the model to after they adopted the model.

Null Hypothesis 5: Among teachers in rural school districts in Missouri that adopted the four-day school week model, there is no difference in perceptions of the model based on demographics, including marital status, years of teaching experience, having children or not, gender, grade level taught (elementary or secondary), subject taught, type of teacher certification, and route to obtaining teacher certification.

The researcher explored these research questions and hypotheses by collecting and analyzing various sources of data. First, the principals of seven rural, Missouri school districts implementing the four-day school week were interviewed by phone. Second, the teaching staff of the same seven school districts were surveyed through an online survey tool. Lastly, the researcher used data from the DESE website to obtain ELA and Math MAP scores from each of the seven school districts and used them to compare scores from when they were operating under the five-day school week model to when they were operating with the four-day school week.

This chapter describes the methodology, data collection, and analysis procedures used to discover the principal and teacher perceptions on the four-day school week's ability to attract and retain teaching staff in rural, Missouri school districts.

## Research Method

The researcher opted for a mixed methods research approach because of the need to collect open-ended responses from participants and a review of state assessment data from public sources. Creswell and Creswell (2017) stated mixed methods research encompassed the strengths of both quantitative and qualitative research. This researcher
selected the mixed method design because its "combined use provides an expanded understanding of research problems (Creswell, 2017).

The qualitative research looked at the perceptions of principals and teachers who worked for a rural, Missouri four-day school week district. The responses gathered from the phone interviews and the online surveys was analyzed qualitatively. After organizing the answers into a spreadsheet, the researcher coded the responses with emerging themes.

The online survey included multiple Likert scale questions, several multiplechoice questions, demographic questions, and open-ended questions. The researcher deployed this online survey through Google and solicited responses from all teachers of the seven rural Missouri schools that adopted the four-day school week model. Once the online survey was closed, the researcher transferred all the responses to a spreadsheet, so it could be organized. Each of the open-ended survey responses was then coded for emerging themes.

The first open-ended survey question asked respondents how they perceived the change of the four-day school week once their district implemented the model. Each of the responses were first categorized as either positive or negative. Some respondents had negative and positive perceptions to the change, so the researcher coded them as "both" negative and positive. Some of the responses had nothing to do with their perception of the change, so they were coded as "Non-Applicable". One response that was coded as "Non-Applicable" was, "Already a four-day [school week] when I started [working here]." After each response was coded for positive or negative, the researcher then identified emerging themes and coded them. The themes included: Instruction, Student Attendance, Extra Time Off, Staff Retention, Learning \& Growing, Support Staff,

Parents, Student Needs, Student Gains, Staff Attendance, Plan Time, Test Scores, Professional Development, Financial Gains, and Schedule Consistency.

Next the researcher organized the first survey question and aligned it with the demographic information which was gathered. The survey asked for gender, marital status, children, years working for the district, ethnicity, grade level taught, subject taught, Missouri teaching certificate obtained, and route to obtain Missouri teaching certificate.

Another survey question asked respondents to tell why they would or would not apply to a five-day school district with a higher salary. The researcher coded the responses for emerging themes with the following categories: Benefits, Family, Personal, Co-workers, Salary, Live in District, Location, Other Job, Financial, Instructional, Other, Time, More Resources, and Left five-day.

The last open-ended survey question was asking for respondents to add any other comments they were willing to share about the advantages or disadvantages of implementing a four-day school week. The researcher coded the responses with the emerging themes as follows: Attendance, Livelihood, Time, Family, Schedule, Learning, Instruction, Financial, Salary, Attract, Extra Curricular, Professional Development, Staff Morale, Student Benefits, and Cons.

The principal phone interviews were designed by the researcher to help gather their perceptions of the four-day school week's ability to attract and retain teaching staff. Each of the phone interview questions was coded for emerging themes. When principals were asked about their school district and the challenges it faced when it was a five-day school week, multiple answers were given which lead the researcher to code into these
categories: Professional Development, Time, Retention, Pay, Location, and Experience. Another question the principals were asked was about the challenges they faced with recruiting teachers when they were a five-day school week. The researched coded emerging themes for this question in the following categories: Pay, Attraction, and Location. When the principals were asked about what they felt kept teachers from applying to their rural school district when they were a five-day school week, many answers were given which led the researcher to code for emerging themes with these categories: Contract, Pay, Attraction, Resources, and Location. The next phone survey question asked the principals about what led teachers to leave their rural school district when it implemented the five-day school week. The answers to this question led to the researcher to code it for emerging themes with these categories: Pay, Retention, Family, Location, and Rural.

The next question asked the principals about how implementing the four-day school week helped their human resource department with recruiting highly qualified staff. Again, the answers from the group of principals varied but was found to have emerging themes in these categories: Increased Applications, Job Fairs, Stronger Applicants, Decision Maker, Retention, and Time Saver. One of the last questions asked principals what impact they felt the four-day school week had on the recruitment and retention of staff. The principals had a variety of responses, but there were emerging themes such as: Increased Retention, Retirement, Increased Recruitment, and Long-term Retention.

The last phone interview question asked the principals how their applicant pool changed since implementing the four-day school week. The responses varied and allowed
the researcher to code them into emerging themes as follows: Increased, Retirement, Pay Bumps, and Experienced Applicants.

The quantitative analysis was limited due to the fact not one of the human resources departments of the rural school districts stored any data on the number of applicants per open teaching position. However, there was quantitative data available on the DESE website about both the ELA and Math MAP scores between a rural school district in Missouri operating with four-day and the previous MAP scores from when operating five-day school week. This data was found on the public portion of the DESE website.

## Participants

First, the researcher identified all rural school districts in Missouri implementing the four-day school week. From there the researcher reached out to all those districts to gain their permission to gather responses from their teaching staff through the use of an online survey and through interviewing their principals over the phone. Seven of the school districts' superintendents responded back granting permission for the researcher to conduct the study.

Next, the researcher attempted to collect data from the human resources department about teacher retention rates and the number of applicants who applied for teaching positions in the district. The researcher was looking for a period of three years prior to becoming a four-day school week district. Once the researcher began contacting the four-day school week districts, he discovered that the human resources departments of the rural school districts did not keep applicant data for past open teaching positions. This caused the researcher to turn to the building principals of the rural school districts to
conduct phone interviews with them. The thought was that the principals could provide this information due to the fact they were the ones who were posting the vacant teaching positions, selecting candidates to interview, interviewing the teaching candidates, and in the long run recommending the teaching candidate to their Board of Education for a teaching contract.

## Procedure

The researcher planned to conduct phone interviews with the principals of the seven rural, four-day school districts in Missouri. Next, the researcher reached out to principals of the buildings in each district by emailing them directly to get their permission to phone them and interview questions. Embedded in the email was an informed consent form to participate in research activities provided by the researcher's university. Once the principals emailed back the consent forms, the researcher set up dates and times for them to be interviewed. A few building principals did not reply to the researcher's email indicating that they agreed to be interviewed, so the researcher moved on to another building principal in the district. One district's set of building principals did not respond back at all. The researcher telephoned each principal, letting them know that the interviews were going to be recorded but would be scrubbed of any identifying information about them, their school and their school district. After conducting the interviews, the researcher transcribed each of them into a spreadsheet. The questions asked during the phone interview can be found in Appendix A.

The researcher sent the survey to more than 350 teachers in seven different rural school districts in Missouri. The surveys were sent out for teachers to fill out anonymously. The emails to the teaching staff asked for their consent and stated that
clicking on the link leading to the survey constituted consent. The survey questions and choices are located in Appendix B.

After receiving responses from 207 teachers, the researcher placed all of the data into a spreadsheet to sort. For example, with the open-ended question, "Since your school district implemented the four-day school week, how do you perceive the change," each of the open-ended responses was coded one of four ways: Positive, Negative, Both, or Not Applicable. Each response was coded this way based upon the overall feeling of the responses.

## Instrumentation

The researcher was unable to locate a reliable and valid instrument for collecting this data; he could not locate any previously implemented surveys on the feelings of staff members about the ability of the four-day school week to persuade them to stay with or to apply toward a school district. Therefore, the researcher had to create the survey. When creating the survey, the researcher wrote questions directly related to the research questions and the hypotheses guiding the research. Included in the survey were multiple demographic questions to help determine feelings from each demographic area.

The researcher used Google Forms to help create the teacher surveys. Google Forms is a tool that allows the creator to build questions with multiple choices, checkboxes, short answers, and paragraph answers. Google Forms also allows the creator the ability to insert a hyperlink into an email. Responses to the Google Forms survey were exported a Google Sheets document, which is a spreadsheet. From there the responses were sorted and analyzed. Google Forms and Google Sheets are both secure within a Google login allowing the researcher to keep all responses secure.

## Data Collection

The researcher gained access to each school district by emailing the superintendents and asking for permission to conduct a study with their school district's teaching staff, human resource departments, and/or building principals. Once permission was given, the researcher then gained approval from the IRB of the researcher's university.

After the researcher gained approval from seven of the four-day school week, rural school districts in Missouri, the surveys were emailed to all teaching staff in all seven of the districts. Email addresses were obtained from the websites of each school of each school district. The survey was emailed in batches to each district. One school district did not have email addresses on their website, so the researcher asked the superintendent for advice and the superintendent emailed out the survey directly to their teaching staff. The survey was open for several months to obtain as many responses as possible since teaching staff are limited on time. The email sent to the participants included a link leading to the survey. The opening of the survey included the survey research information sheet. The survey research information sheet stated that by accessing and completing the survey, the participants were indicating that they had read the consent information and were willing to participate in the research. Each participant's responses were collected and stored into the researcher's Google Drive account which is secured by a login and password.

## Data Analysis

The researcher utilized a $t$-test for independent means to analyze the collected data. A $t$-test compares the means of two groups using statistical data. Kim (2015) stated
an "independent $t$-test, which can be used when the two groups under comparison are independent of each other, and the paired $t$-test, which can be used when the two groups under comparison are dependent of each other."

The researcher used a series of $t$-test of dependent and independent means, with an Alpha of .05 for all hypothesis.

## Summary

In Chapter 3, the researched presented information from several forms of collected data. The researcher conducted a mixed methods study, using both quantitative and qualitative research, to determine if the ability of the four-day school week helps to attract and retain teaching staff to rural school districts in Missouri. The researcher created a survey and collected opinions from teaching staff who worked for a four-day a week school district using an online survey tool which included closed- and open-ended questions. In addition, the researcher conducted phone interviews to collect the opinions of principals who worked in the four-day school week settings. Assessment data was also collected from the state's public education website. The results were analyzed and reported in Chapter Four.

## Chapter Four: Analysis

## Purpose

The purpose of this study was to investigate the four-day school week model as it was utilized in rural Missouri schools, especially as it contributed to the attracting and retaining of qualified teachers. The researcher conducted a mixed-methods study with existing human resources data, principal interviews, and teacher surveys.

## Hypotheses

Null Hypothesis 1. There is no difference in teacher retention rates between rural school districts in Missouri operating with four-day and five-day school weeks.

In order to test whether or not there was a difference in teacher retention rates between the four-day and five-day schools, the researcher compared the average years of experience of full time teachers in the two groups. A preliminary test of variances revealed that the variances were equal. The analysis revealed that the years of experience for the four-day schools $(\mathrm{M}=10.93, \mathrm{SD}=1.49)$ was not significantly different from that of the five-day schools $(\mathrm{M}=12.17, \mathrm{SD}=2.44) ; t(19)=-1.23, \mathrm{p}=0.234$. The researcher failed to reject the null hypothesis and concluded that there is no difference in teacher retention rates between rural school districts in Missouri operating with four-day and five-day school weeks.

The researcher also ran a $t$-test of dependent means comparing the years of experience of full-time teachers at the schools before becoming four-day schools to the most recent year. The analysis revealed that the mean difference $(M=0.86, S D=1.94)$ was not significant; $t(6)=1.17, \mathrm{p}=0.287$. The researcher failed to reject the null
hypothesis and concluded that there was not a significant change in the years of experience after the districts went to a four-day school week.

Null Hypothesis 2. There is no difference in number of teacher applicants between rural school districts in Missouri operating with four-day and five-day school weeks.

During the data collection process, the researcher discovered that none of the human resource departments of the four-day school week districts collected the type of application data that would make the analysis of this hypothesis possible. Therefore, the researcher was unable to test this hypothesis and had to rely on anecdotal data from the principal interviews to determine whether or not there was a difference in the number of teacher applicants after the districts adopted the four-day school week model.

Null Hypothesis 3. There is no difference in percentage of highly qualified teachers between rural school districts in Missouri operating with four-day and five-day school weeks.

After researching the data available, the researcher was unable to collect any tangible data due to the lack of data. Null Hypothesis 4. For rural school districts in Missouri that adopted the four-day school week model, there is no change in overall school district achievement in ELA and Math, as measured by MAP scores, from before they adopted the model to after they adopted the model.

In order to test whether or not the average ELA and Math MAP scores changed after the districts adopted the four-day school week model, the researcher ran a series of $t$-tests of two dependent means comparing MAP scores for all seven of the four-day school districts explored in this study. The first test compared MAP scores from the last
year the districts employed the five-day school week model to the first years they adopted the four-day model. The second test compared the last year the districts employed the five-day school week model to the second year after adopting the four-day model. The third test compared the last year the districts employed the five-day school week model to the third year after adopting the four-day model. Since not all of the seven districts adopted the four-day model during the same year, the MAP data analyzed for each test did not come from the same years but rather reflected the years of adopting the model. The researcher ran these three tests to determine whether any effect of changing to the four-day school week model might prove latent and not manifest the first year after the model was adopted.

As another curve in this analysis, the format of the MAP tests changed during the years involved with this analysis. As a result, the researcher converted the average MAP scores to z -scores to ensure that the comparison was valid.

For the test comparing the last year of the five-day model to the first year of the four-day model, the analysis revealed the difference $(M=-0.14, S D=0.35)$ was not significant; $t(6)=-1.02, \mathrm{p}=0.349$. The researcher failed to reject the null hypothesis and concluded that there was not a significant change in overall school district achievement in ELA and Math MAP scores the first year after adopting the four-day school week model.

For the test comparing the last year of the five-day model to the second year of the four-day model, the analysis revealed that the difference $(\mathrm{M}=0.20, \mathrm{SD}=0.67)$ was not significant; $t(6)=0.81, \mathrm{p}=0.447$. The researcher failed to reject the null hypothesis and concluded that there was not a significant change in overall school district
achievement in ELA and Math MAP scores by the second year after adopting the fourday school week model.

For the test comparing the last year of the five-day model to the third year of the four-day model, the analysis revealed that the difference $(\mathrm{M}=0.40, \mathrm{SD}=0.60)$ was not significant; $t(6)=1.75, \mathrm{p}=0.130$. The researcher failed to reject the null hypothesis and concluded that there was not a significant change in overall school district achievement in ELA and Math MAP scores by the third year after the district adopted the four-day school week model.

Table 1 summarizes these dependent-sample $t$-tests of means.
Table 1
Summary of Growth in Achievement: t-Tests

|  | Mean | S.D. | t -Score | p-Value | Sig |
| :---: | :---: | :---: | :---: | :---: | :---: |
| After 1 Year | -0.14 | 0.35 | -1.02 | 0.349 | No |
| After 2 Years | 0.20 | 0.67 | 0.81 | 0.447 | No |
| After 3 Years | 0.40 | 0.60 | 1.75 | 0.130 | No |

Null Hypothesis 5. Among teachers in rural school districts in Missouri that adopted the four-day school week model, there is no difference in perceptions of the model based on demographics, including marital status, years of teaching experience, having children or not, gender, grade level taught (elementary or secondary), subject taught, type of teacher certification, and route to obtaining teacher certification.

Marital status. In order to determine whether or not there was a difference in impression between married survey respondents and unmarried respondents, the researcher ran a $z$-test of proportions. The analysis revealed that the percentage of
married respondents who thought the change to a four-day week was positive ( $\mathrm{N}=134$, 95.5\%) was not significantly different from the percentage of unmarried respondents who thought the change was positive $(\mathrm{N}=42,95.2 \%) ; z=0.081, \mathrm{p}=0.935$. The researcher failed to reject the null hypothesis and concluded that the perception of married and unmarried respondents were not significantly different.

Number of years teaching experience. In order to determine if there was a difference in perception based on the number of years of experience that respondents had teaching in their current positions, the researcher ran a chi-squared test of homogeneity of proportions. The analysis revealed that there was no difference of perception based on years of experience, $\chi^{2}(5, N=176)=2.74, p=.603$. The researcher failed to reject the null hypothesis and concluded that there was not a difference in perception based on number of years of experience.

Ethnicity. In order to determine whether or not there was a difference in perception based on ethnicity, the researcher ran a $z$-test of proportions. Because of the high percentage of White teacher respondents, the researcher had to group all non-White respondents together to make the analysis valid. The analysis revealed the percentage of White respondents who thought the change to a four-day week was positive $(\mathrm{N}=172$, 95.3\%) was not significantly different from the percentage of non-White respondents who thought the change was positive $(\mathrm{N}=4,100 \%) ; z=-0.45, \mathrm{p}=0.656$. The researcher failed to reject the null hypothesis and concluded that the perceptions of White and nonWhite respondents were not significantly different.

With or without children. In order to determine whether or not there was a difference in perception between staff members who were parents and those who were
non-parent respondents, the researcher ran a $z$-test of proportions. The analysis revealed the percentage of staff members who were parents who thought the change to a four-day week was positive ( $\mathrm{N}=129,97.7 \%$ ) was not significantly different from the percentage of non-parent respondents who thought the change was positive $(\mathrm{N}=47,89.4 \%) ; z=$ $2.339, p=0.0193$. The researcher rejected the null hypothesis and concluded that the perceptions of parents and non-parent respondents were significantly different. In examining the proportions, while both percentages are high, the percentage of parents who thought the change to a four-day school week model was significantly higher.

Gender. In order to determine whether or not there was a difference in perception based on gender, the researcher ran a $z$-test of proportions. The analysis revealed the percentage of female staff members who thought the change to a four-day week was positive ( $\mathrm{N}=146,94.5 \%$ ) was not significantly different from the percentage of male respondents who thought the change was positive $(\mathrm{N}=30,100 \%) ; z=-1.32, \mathrm{p}=$ 0.188. The researcher failed to reject the null hypothesis and concluded that there was not a significant difference of perceptions based on gender.

Grade level taught, elementary vs. secondary. In order to determine whether or not there was a difference in perception between teachers who taught elementary and those who taught secondary, the researcher ran a $z$-test of proportions. The analysis revealed the percentage of staff members who were elementary teachers who thought the change to a four-day week was positive $(\mathrm{N}=85,95.3 \%)$ was not significantly different from the percentage of secondary teachers who thought the change was positive $(\mathrm{N}=71$, $94.4 \%) ; z=0.25, \mathrm{p}=0.800$. The researcher failed to reject the null hypothesis and
concluded that the perception was not significantly different between elementary and secondary teachers. Therefore the researcher failed to reject the null.

Table 2 summarizes the results of these $z$-tests of proportion.
Table 2
Summary of Demographic Results: z-Tests

| Marital Status | Married | 134 | 95.5 | 0.08 | 0.935 | No |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unmarried | 42 | 95.2 |  |  |  |
| Ethnicity | White | 168 | 95.2 |  |  |  |
|  | Non-White | 4 | 100.0 |  | 0.962 | No |
| Parents | Parents | 129 | 97.7 | 2.34 | 0.019 | Yes |
|  | Non-Parents | 47 | 89.4 |  |  |  |
| Gender | Female | 146 | 94.5 |  |  |  |
|  | Male | 30 | 100.0 | -1.32 | 0.188 | No |
|  | Elementary | 66 | 97.0 |  |  |  |

Subject taught: Special Area (physical education, art, computers, library, etc.), Elementary, Math, Science, Special Education, Counseling, Other, ELA, Social Studies, Reading Intervention. In order to determine if there was a difference in perception based on the subject respondents taught, the researcher ran a chi-squared test of homogeneity of proportions. The analysis revealed that there was no difference of perception based on the subjects respondents taught, $\chi^{2}(10, \mathrm{~N}=165)=3.83, \mathrm{p}=0.922$. The researcher failed to reject the null hypothesis.

Type of MO teacher certification: Initial Professional Certificate (IPC), Career Continuous Professional Certificate (CCPC) or Continuous Career Education Certificate (CCEC), Temporary Authorization Certificate (TAC), Provisional Certificate, Permanent Certificate, Content Substitute Certificate, Career Technical Substitute. In order to determine if there was a difference in perception based on the type of Missouri teacher certification respondents obtained, the researcher ran a chi-squared test of homogeneity of proportions. The analysis revealed that there was no difference of perception based on the type of Missouri teacher certification respondents obtained, $\chi^{2}(8, \mathrm{~N}=171)=4.15, \mathrm{p}=0.763$. The researcher failed to reject the null hypothesis.

## Route taken to obtain MO teacher certification: Traditional

Route, Alternative or Innovative route, Temporary Authorization route, Out-ofState Certified route, American Board of Certification for Teacher Excellence (ABCTE) route, Doctoral route, Other. In order to determine if there was a difference in perception based on the route respondents took to obtain Missouri teacher certification, the researcher ran a chi-squared test of homogeneity of proportions. The analysis revealed that there was no difference of perception based on the route respondents took to obtain Missouri teacher certification, $\chi^{2}(7, N=170)=4.20, p=0.649$. The researcher failed to reject the null hypothesis.

Table 3 summarizes the results of these $\chi^{2}$ tests of homogeneity of proportion.

Table 3
Summary of Demographic Results: $\chi^{2}$ Tests

|  |  | N | Percent | $\chi^{2}$-Score | p-Value | Sig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subject <br> Taught | Special Area | 32 | 93.8 |  |  |  |
|  | Elementary | 57 | 94.7 |  |  |  |
|  | Math | 8 | 87.5 |  |  |  |
|  | Science | 10 | 100.0 |  |  |  |
|  | Special Education | 22 | 95.5 | 3.83 | 0.922 | No |
|  | Counseling | 9 | 88.9 |  |  |  |
|  | Other | 7 | 100.0 |  |  |  |
|  | ELA | 12 | 100.0 |  |  |  |
|  | Social Studies | 4 | 100.0 |  |  |  |
|  | Read Int | 4 | 100.0 |  |  |  |
| Type of Certification | IPC | 25 | 96.0 |  |  |  |
|  | CCPC | 64 | 95.3 |  |  |  |
|  | CCEC | 2 | 100.0 |  |  |  |
|  | TAC | 4 | 75.0 | 4.15 | 0.763 | No |
|  | Provisional | 70 | 95.7 |  |  |  |
|  | Permanent | 4 | 100.0 |  |  |  |
|  | Content Sub | 1 | 100.0 |  |  |  |
|  | Career Tech Sub | 1 | 100.0 |  |  |  |
| Route to Certification | Traditional | 132 | 94.7 | 4.20 | 0.649 | No |
|  | Alternative | 17 | 100.0 |  |  |  |
|  | Temporary | 3 | 100.0 |  |  |  |
|  | Out-of-state | 10 | 100.0 |  |  |  |


| ABCTE | 3 | 100.0 |
| :---: | :---: | :---: |
| Doctoral | 0 | 0 |
| Other | 5 | 100.0 |

## Research Questions

Research Question 1. After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did it influence the teachers' decisions to stay?

The teacher surveys asked both open and closed-ended questions. One of the closed-ended questions asked: Since your school district implemented the four-day school week, have you considered applying to another school district implementing a five-day school week? Of the 207 respondents, $156(75.4 \%)$ of them stated no to the question, while 51 (24.6\%) stated yes.

In a second question, teachers were asked: How likely are you to stay with your current school district while it has the four-day school week? Of the 207 respondents, 171 $(82.6 \%)$ selected either "extremely likely" or "likely." The remaining respondents' answers were as follows: 14 (6.8\%) "somewhat likely," 8 (3.9\%) "neutral," 3 (1.4\%) "somewhat unlikely," 0 "unlikely," and 11 (5.3\%) "extremely unlikely."

One teacher replied, 'When I got the job here, we were a five-day week. Now that we are a four-day week, it will be extremely hard for me to leave.' The researcher noticed several trends with the open-ended responses in the survey results. One such area was staff morale. Multiple respondents replied with accounts of how implementing the fourday school week helped to improve the morale of the staff. One teacher stated:
'I have worked for many years in the [public-school] setting. I have noticed a big boost in teacher morale since the district implemented the [four-day] school week.'

Another teacher reported, 'It is a positive for our school, I believe it has improved our attendance and attitude among the students and staff.' 'I feel like the teachers are more enthusiastic about learning and teaching after longer weekend,' stated another teacher. There were multiple positive responses having to do with staff morale: 'Teachers are more relaxed,' 'Three days off to recuperate is very helpful,' 'Having Mondays off helps both the teachers and staff rest after busy weekends,' and 'The staff is happier, and morale seems better.'

Several of the responses included recommendations suggesting more school districts should switch to the four-day school week:

I would highly recommend all districts considering the four-day school week. The more frequent, but shorter breaks are beneficial to teachers and students. The worries of childcare have seemed to fade, especially considering the routine scheduling we have (no random off days).
and

I believe the four-day school week is the wave of the future. Indeed, students and teachers are thriving with this new schedule, and I believe other school districts will implement the four-day school week when they see the positive outcomes for students, teachers, parents, and communities.

Another theme the researcher noticed in the open-ended responses was how the four-day school week effected the livelihood of the teachers. Thirty-nine (18.8\%) of the 207 teachers reported positive responses as to how it improved their own lives. Responses included expressions of no longer feeling tired, not needing a 'mental' day off anymore, being rested and more prepared, having more time for family and friends
instead of grading papers and planning, and having less stress in their lives. One teacher stated, 'I don't feel like I'm running around like a chicken with my head cut-off quite as frequently as I did on a five-day week.' This same teacher went on to state:

The advantages far outweigh the disadvantages. One of the most important things for me is I have my weekends back. Since we have Mondays off, I can go into school and work on Monday instead of working during the weekend. This gives me more time with my family and time to get things done at home. Less stress for me.

Multiple respondents also stated how it helps them to balance their work and family lives, with one stating, 'It has helped me personally as a teacher and mother to balance my life so that I am giving my students and my family the best of me.' Another teacher, a grandparent, stated, 'I get to spend more time with my granddaughter! My laundry gets done and I am just a happier person to work with!' 'I am able to better balance my personal and professional life,' was also expressed.

Time was another noted theme throughout the teacher responses. With having the four-day school week schedule it allows for students and teachers to set their personal doctor or dentist appointments on the days off. This helps gain more instructional time since students and teachers are missing less time in their classrooms. Multiple teachers noted this gain of time. A teacher stated that while working for a five-day school, the 'grading was insane to try to keep up with...I always felt like I was behind.' The same teacher went on to explain that weekends were not enjoyable because of always worrying about grading and planning. This teacher concluded:

I don't think I'd want to be anywhere other than a four-day district if I could help it. That extra day to prep and grade means you can actually have a bit of a life on the weekend to invest in friends and family. It would have helped keep me balanced.

With the gain in time on the day off, teachers noted the extra time allowed for them to enjoy their weekend and to use the day off as their planning and preparing day. One teacher reported, 'I also feel like I get to enjoy a weekend now without worrying about school. I use Monday to prepare for the week.' Another teacher expressed, '[The four-day week] allows the teacher more time to prep, refresh, and give $100 \%$. I absolutely love it.'

While the positive responses were more prevalent in the open -ended answers, there were some negatives about implementing the four-day school week. The researcher noted 47 (22.7\%) responses which included some sort of disadvantage. Of those 47 responses, only 10 of them were strictly negative while 37 of them also had positive things to say as well.

Negative responses included a variety of topics. One observed, 'The biggest downside I see is less time to interact as teachers together to build community. It feels like a sprint each week.' Another referenced the effect on other school personnel, noting that 'the secretaries, custodians, bus drivers, aids, (non-salary people) got their pay cut because of the loss of the day.' One teacher stated that 'a disadvantage is getting kids to practices on the [off-day] Monday with parents working.' In the opinion of another teacher, the four-day school week resulted in lost instruction time and the need for "cramming" to get all the teaching in.

One teacher's response listed two disadvantages:
You lose one plan time a week, which stinks. We are also required to meet as a grade level once a week during our plan time. This only leaves three [50-minute] blocks a week for "plan time". As a result, it is hard to keep up with [all] the planning and grading. You can't really assign much homework. The students have already had such a long day. They can't be expected to go home and complete an additional hour of homework.

Another disadvantage pointed out was making up snow days on the days off, but having the same longer school day. When this happens the teachers and students are both back to a full five-day school week which can be very long. One teacher reported as a negative 'having snow make up days on Mondays when the students would be off. It is hard to plan around that.'

Multiple teachers reported they felt the four-day school week had some disadvantages when it came to their students. A teacher pointed out, 'If a student misses a single day in a four-day district, they have essentially lost $25 \%$ of their instructional time, not counting the time to catch them up on what they missed.' Another reported: Sometimes I feel like the 3-day weekend is a long stretch for my students to remember the material we've learned. There is some short review time that has to happen at the beginning of our lessons to start the week.

According to another teacher:
The school day is long. The end of the day is rough. I teach 8th grade, so my students are 13-14 years old. Once about 2:00 rolls around, they are often pretty antsy and kind of done. Behaviors peak in the afternoon and students struggle to
focus, much more so than they did when I student taught at a school with shorter school days.

One of the teacher's responses was full of the disadvantages and did not mention any positives:

I feel like our student attendance is not any better than it was with a 5 -day week. We added 5 minutes of instruction time to our classes, resulting in a loss of 45 minutes per week. Then we have reduced number of school days, resulting in a large loss of instructional time over the year. I have greatly reduced the amount of lessons and units I teach in a year because of this change. I feel it is important for students to understand how "real world" jobs work, and the majority are 5-days a week. I am not a proponent for our 4-day schedule.

Some of the teachers' responses mentioned the longer weekend disrupting students' routines, especially in the younger students. Another teacher mentioned not thinking it was best for reading instruction while another mentioned if you miss a class due to an assembly you are essentially missing $25 \%$ of the school week since it would be one out of the four days missed. Other educators felt the longer weekends also hurt their students' retention levels. According to one response, 'The retention level of what an elementary student remembers from Friday to Tuesday is more of a [setback].' Another stated that the 'biggest problem is the interference with young children and their learning process.' Still another downfall of the longer weekend is how it can impact students in need. According to one teacher:

One of my biggest concerns with the four-day week is meeting the needs of some of my students who come from low socio-economic backgrounds. School is their
"safe" place where they are warm, have meals, and a caring adult available. With the four-day week, some students are fending for themselves an extra day.

Several of the teaching staff mentioned their worries for the support staff and the possible pay cuts they were receiving due to working one-less day. One teacher reported, 'Support Staff Salary is lessened with four-day school week.' Another reported, 'Our instructional assistants and other hourly workers took a cut in pay when the four-day school week was implemented.'

Research Question 2. After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did teachers perceive the change?

One of the open-ended questions asked: Since your school district implemented the four-day school week, how do you perceive the change. Of the 207 respondents, 8 (3.9\%) gave a negative response, $9(4.3 \%)$ gave a mixed response with both negative and positive reactions, 22 ( $10.6 \%$ ) gave responses which were considered non-applicable, and $168(81.1 \%)$ gave positive responses. An example of a response considered nonapplicable was, 'I was employed after the change and I am a first year teacher.'

In a close-ended question, teachers were asked: If your school district decides to switch back to a five-day school week, how do you think you will feel? Of the 207 respondents, 133 ( $64.3 \%$ ) selected either "very dissatisfied" or "somewhat dissatisfied." The remaining respondents' answers were as follows: 37 (17.9\%) "dissatisfied," 23 (11.1\%) "neutral," 6 (2.9\%) "somewhat satisfied," 7 (3.4\%) "satisfied," and 1 (0.5\%) "very satisfied."

From the negative open-ended responses, one teacher shared:
[A majority of the] community and school people are in favor of it. I feel like we are not meeting the needs of our students that struggle learning in school. I also worry about the kids where school is the only place they get heat and food.

Another teachers' negative responses stated, 'I feel like I have lost instructional time with students as we are not in school as many days. We added 5 minutes to our class time, and that did not allow us to teach more in a class period.' According to another, 'I think it is difficult at times for parents and teachers alike. Parents for the extra day of child care and teachers for trying to fit five-days' worth of work into four days.' One response noted that the shortened school week required teaching at a higher pace to get through the curriculum. With the four-day school week, it is difficult to cover grade-level standards with the time constraints and 'it seems like there is less time to accomplish everything that needs to happen in class.'

Several teachers mentioned that the four-day school week took a toll on student retention from Friday to Tuesday, causing Tuesdays to be a day of review. One teacher stated that 'it is not in the best interest of the elementary kids or kids that have a hard time retaining information.' One staff member stated, 'On an academic level for students, I think the five day is better, mainly for areas such as mathematics,' and another teacher added that 'it's not great when trying to teach children how to read.'

A few teachers mentioned how the four-day school week adversely affected the support staff (maintenance workers, bus drivers, aides, etc.). With the support staff being hourly employees, they work one fewer day which means they earn less, and in some circumstances that precludes them from benefits such as health insurance.

When organizing the responses to this research question, staff members indicated several areas which had an impact on their students' education. Those emerging themes were: Learning and growing, test scores, student needs/gains, and student attendance.

Learning and growing. Of the 207 responses, 13 (6.3\%) included positive input about how the four-day school week helped with students in the area of learning and growing. One teacher felt this was due to students having more time to work on school work which meant students were turning in more assignments. The teacher stated, 'The amount of missing assignments is significantly lower.' Another response stated, 'I do believe my students are learning more here compared to my five-day district.' Another respondent shared the increase in student and teacher attendance causes negative behaviors to be down, resulting in 'kids [who] are able to pay attention and are on task more.'

Test scores. Another area in which the researcher noticed a trend was how teachers perceived the four-day school week effected test scores. One response was, 'Student achievement is at or above where it was before the four-day school week implementation,' while another stated, 'Our MAP scores are comparable or higher to surrounding five-day schools.' One teacher felt test scores were the 'best ever' after implementing the four-day school week. Another positive response was:

MAP scores are doing well. Our current fourth grade class was in kindergarten the first year that the four-day school was implemented. These students scored well their third grade year of the MAP test. In math $78 \%$ of the third grade scored a proficient or advanced. In ELA 70\% of the third grade scored a proficient or advanced. As a teacher I found the four-day school week a wonderful change.

Student needs/gains. Student gains was another area the researcher noted a trend in teacher responses. Several of the responses included how students were more rested, student morale improved, students were happy, they were ready to learn, and students were more relaxed and ready to work each day. 'I think it makes students more excited to come to school, and it makes the class hours a little bit longer, so that we can get more instruction and student practice time in,' shared one teacher. One staff member stated, 'Students aren't as exhausted by Friday.'

Student attendance. Student attendance improvements were mentioned in many responses. Some of the responses noted that absences were fewer due to having the ability to schedule appointments on the off day. One staff member shared, 'My previous school struggled to get students to attend or they missed a lot due to appointments. This is solved with having Mondays to do those things.'

In addition to the positive staff perception for the students, many teachers also noted in their responses how the four-day school week positively impacted the teaching staff. The researcher noted the following emerging themes of positivity for the teaching staff: Extra time off, staff retention increased, staff attendance improved, staff attitude and morale higher, professional development and plan time increased.

Extra time off. In the area of having an extra day off, respondents noted it gave them a day to schedule their doctor or dentist appointments, which increased their work attendance. The extra day also allowed teachers to 'have an entire day to play, make copies, grade papers, etc.' One teacher noted the 'staff seems well-rested and ready to teach each week.' Multiple respondents noted that the extra day allowed them to spend more time on the weekend with their family and friends, thus leaving the day off for
grading and planning. 'I love it for my family,' was a response from a staff member. A teacher stated, 'Usually I worked on Saturday in the classroom. Now I am able to take the entire weekend off and go in and work on Monday.' According to one teacher:

I love it! Not only am I a teacher in this district, I'm also a mother of both an elementary and middle school student. From both positions (teacher and parent), it has been wonderful! We utilize our Monday's to make doctor/dentist appointments, and therefore we don't have to miss school to complete these tasks. It has also "given us our Sunday's back"...we can actually take time to relax and spend quality time with family without having to rush from church, right into "getting ready for the week" mode.

Staff retention increased. Staff retention was mentioned as a positive aspect of the four-day school week by several of the teachers. One teacher shared, 'It is the best. I would not want to go back to a five-day week. I still get in all the curriculum and I feel like the students are still learning.' According to another, 'It's how I justify making considerably less than other districts,' and another response included, 'I like it and it does make you think twice about applying to other districts, knowing you would have to work more days.'

This is a full response from one teacher:
I love the change. I will continue to work at this district until I am no longer welcome (hopefully never!), I love the four-day week and am open about my feelings about the week with lots of small school leaders.

Staff attendance improved. Staff attendance is another area where teachers reported a positive impact of the four-day school week. Several felt it helped reduce
teacher absences, and therefore the need for substitute teachers. One respondent mentioned the 'teachers were given a day to do the things needed to do themselvesdoctor [appointments], banking, shopping, etc.' Another response felt with the teachers being in the classrooms more, it allowed the students to have 'more uninterrupted instructional time on the four-day school week.'

A teacher who joined a district after they implemented the four-day week had this to say:

I was not here when the four-day school week was implemented so I can only tell you what "change" I see coming from a school that was a normal five day a week school. The biggest change I see is the fact that I do not have to use as many days for things like Dr.'s appointments and therefore I am able to roll over more days each year.

Staff attitude and morale higher. Another theme the researcher noted was an improvement in staff attitude and morale as well as staff having reduced stress. Many of the responses mentioned staff being happier, refreshed, rested, and ready to work. One staff member stated, 'As a teacher, I also feel less stress trying to balance my home and work lives.' A teacher stated the, ‘four-day week and three-day weekend, makes me feel more refreshed and prepared for each school day.' 'Staff morale has skyrocketed,' was the response of another teacher.

One teacher who worked in a five-day school week prior to their current four-day school week shared:

I started working here when the district already had the four-day week. From previously working a five-day week, I do think that it seems to be the same
amount of time in the classroom. I feel more relaxed and more prepared because I get an extra day to plan and take care of any appointments outside of school.

Professional development and plan time increased. The last theme the researcher noted was an increase in plan time and professional development for teachers. Multiple teachers felt they were no longer rushed on the weekend and they had more time to plan their lessons. One also added, 'Teachers love it - gives us more time for teacher collaboration without adding a school day.' This teacher shared:

Love it! Happy to have an extra day to do lesson plans. I have taken back my weekends and have spent them with family. I am a busy mother of five. I spend my Mondays preparing my lessons when my children are in school. Even when my own children are not in school on Mondays (they are in another district than where I teach), I still have two days of quality family time with them and then work to prepare for my workweek on one of the three days off.

Several teachers brought up how the four-day school week allowed for them to improve upon their knowledge and teaching with additional time for professional development opportunities. A teacher stated, 'It allows time during the week for me to work towards my master's degree.'

The four-day school week also helped the school schedules be more consistent. Most five-day schools have early out days, professional development days, late start days, and Mondays off due to certain holidays. With a consistent Monday off, some of the four-day school weeks have professional development days and grading days on the Mondays off once a month. This allows consistency for parents and schools to plan knowing they will always have those Mondays off. One teacher wrote, 'We do not have
early outs for in-service which makes scheduling easier I feel for everyone.' Another stated there is, 'way more consistency with the schedule.'

Research Question 3. After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did the human resources departments report on the change in their applicant pools?

Principals from six of the seven school districts returned the researcher's request for interviews. Of those six, four were from an elementary school, one was from a middle school, and one was from a high school. Of the six principals, only two were the administrator of the building when it changed from a five-day school to a four-day school. Two of the four principals who were not administrators when the four-day was implemented did work in the school district as teachers at the time of the change. Two of the administrators who were not the principals when the change was implemented did not work in the district prior to becoming a principal.

The interviews revealed a similarity among the applicant pools for rural school districts in Missouri changing from a five-day school week to a four-day school week. The principals all noticed an increase in applicants with trends indicating they were receiving more experienced applicants and/or applicants who were newer to the teaching profession.

The initial question asked how their applicant pool changed since implementing the four-day school week. Several of the principals commented on the increase in numbers. 'Yeah, it increased significantly. It really did,' and, 'Yes, there are definitely more people applying' were two such comments. 'We definitely noticed more
applicants,' and, 'I mean we have more people to pick from since more people are applying,' noted others.

When it comes to getting more experienced applicants, one principal commented: I am getting not only first year job applicants. Before, with our limited pay we can be [guaranteed] with getting applications from people brand new to the profession, completely new to the field. The last couple of years, since implementing the four-day week when I get applications, I do have applications of veteran teachers who have taught more than 5 years and they're making a change.

As for attracting younger teachers, one principal observed,
We are attracting younger people and I think what that has to do with is those are the age who have young kids at home and so that third day becomes important because when you have toddlers and things like that.

Another administrator stated, 'I would say [the applicant pool] got younger.'
One administrator summarized, 'Yes, there are definitely more people applying and I'm, I mean, as a birds-eye view I'm gonna say that there is more and better qualified/better quality applicants compared to what it was in the past.' Another principal added, 'We definitely noticed more applicants from places outside of [undisclosed rural town in Missouri]. We're getting applicants from bigger schools and applicants with experience that are typically just looking for that extra day off.'

Research Question 4. After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did the human resources departments feel it helped to attract highly-qualified teachers to apply?

The researcher began the phone interviews by trying to understand the challenges the rural school districts faced in recruiting and retaining a quality teaching staff from year to year under the five-day school week model. Two questions from the phone interviews focused on the principals' thoughts and beliefs about it. There were many common themes in the responses. The researcher coded them as follows: Professional Development, Retention of Staff, Pay, Location, and Length of Experience.

One administrator stated the five-day school week made it difficult to have consistent professional development for the teaching staff. The problem was the professional development for the staff fell onto early release days, late start days, or on random full days in the semester. The administrator did not feel that professional development on a late start day was beneficial because it only allowed for one to two hours of time to train staff on new initiatives or curriculum. One stated, 'The quality of the PD wasn't there because we couldn't get started on something because of our contracted day. We would then have to come back two days later to try to pick it back up.'

The retention of the teaching staff was another challenge. One principal felt his school district was a stepping stone for new teachers to gain experience, and then they would leave to a larger or higher paying district., That principal stated, 'In a rural area we don't pay as much and so people would come to us and they would be really good teachers but they would only stay a couple of years.' A second principal had a similar thought: 'Often times we would find, we would get first year teachers to come here for a couple of three years and then they would look for a district that would pay better.' The same principal felt the teachers would leave for another district in a metro or urban area
due to their ability to pay more. Another administrator stated teachers could 'go about 10 minutes down the road and make approximately $\$ 8000-\$ 10,000$ more dollars. So we were really fighting the battle of you know teachers not having to travel very far to make a lot more money.'

As for recruiting teaching staff to the rural school districts, the common themes principals shared about the challenges they faced were Pay, Location, and Attracting staff. All six of the principals interviewed stated the pay their districts offered was lower than larger school districts that are nearby. This is what one of the principals shared:

I think that you're just like everybody else and so what it boils down to at that point is can you offer me more money. Um, I do think when a teacher first comes into your district they like want to meet people when they come in to interview in particular so you kind of have the people aspect for that first impression importance. So you could do things to dress your building up, you could have the right people do your walk-thru or you could do that to show people around the building, I think that's important. But ultimately if I'm going to work 174 days one place or another, unless there is just something overwhelmingly different that's going to make it better for me, I'm probably going to pick the place that pays me more. And for us, we're kind of North of the suburban area where we kind of fall into that. We are kind of a bedroom community where most of our folks go to the city to work so they don't mind driving 30 minutes to [an undisclosed urban city] or [an undisclosed urban area] from here to make $\$ 5000$ more a year in pay or $\$ 3000$ more a year. But for us that four-day is something that attracts people.

One respondent shared it was both location and pay that made it challenging to recruit qualified teachers to apply to positions. That administrator stated, 'The first challenge is location. The second challenge - we were not able to pay as high, so most people would obviously be trying to get onto the other districts first.' Another stated that the district is 'kind of in a hole, we are not really near anything' as a determining factor as to why it was difficult to recruit teachers.

For this research question, the researcher asked two open-ended questions during the phone interviews to obtain feedback. The first question was: Since implementing the four-day school week, how does it help your human resources department with recruiting highly qualified staff? Each of the six principals had extensive answers filled with multiple positive impacts of how the four-day school week has helped them with recruiting highly qualified staff. The researcher coded their answers on a spreadsheet. The common themes were: Increased applications, Job Fairs, Time Saver, Stronger Applicants, and Retention of Staff.

The most prevalent theme was how the four-day school week helped increase the number of applicants. One administrator stated, 'I have noticed a tremendous increase in number of applicants.' The same administrator shared:

A few years ago I hired a music teacher, I expected to get maybe five applicants. I had 17. Seventeen is more than I'd get for a regular education teaching position in a classroom. Last year I had a regular education teacher position opening, I had 80 applicants. And so in the past 18-20 would be a good to look through for a regular [education], you know regular classroom teacher and I had over 80. And so when I had that music position I literally thought I'd have four or five and I ended up
with 17. So, I think the sheer numbers helped you narrow it down to the quality so
I could find someone that would be of a better quality.
Another principal stated, 'We have had a huge uptake in getting applicants who have experience,' indicating that the application pool was gaining teacher applicants who were highly-qualified.

Another theme the researcher noticed when coding the responses from the principals was how the four-day school week helped them with recruiting by not having to attend job fairs as much as they used to. One principal stated, 'We don't have to hit [job fairs] near as hard as we used to because we have people who are seeking us out now.' Another administrator phrased it this way: 'I didn't have to, you know, beat the bushes as much as extensively in the past because, you know, I had more applications available to me.' The other benefit of not having to attend job fairs and 'beating the bushes' was administrators gained time in their school year. A principal described it this way:

I will say that the last openings I had posted, I had a [bunch]. It seemed like I had much more applicants to choose from. So I guess, yeah, in a way I saved time. I didn't have to search as long, because, you know, I had more applications available to me.

Another benefit of the four-day school week was its ability to attract stronger applicants to open teaching positions. Several principals noted they have seen an increase in experienced applicants. One principal even stated they are able to hire retired teachers on a part time basis. Another stated, 'There is more and better qualified/better quality applicants compared to what it was in the past.' 'We're getting applicants from bigger
schools and applicants with experience,' stated a third principal. Another school administrator shared, 'The last couple of years, since implementing the four-day week when I get applications, I do have applications of veteran teachers who have taught more than five years and they're making a change.' On the other hand, one of the principals shared they didn't feel it was attracting more experienced teachers. They felt they were attracting younger teachers and retired teaches, but they were not seeing those who landed in the middle of the road of experience levels.

The second question was: What impact do you feel a four-day week will have on the recruitment and retention of staff? The overall theme from the responses was the fourday school week does help with the recruitment of teaching staff. As far as recruitment goes, most principals shared they were seeing an increase in applicants and felt the reason was the implementation of the four-day school week. One principal shared, 'It's a very strong recruiting tool.' Another administrator stated:

When I was hiring last summer and in late spring, when we asked that, why are you interested in my school a lot of people mentioned the four-day week and I'm really intrigued by it but also put a positive spin on and because they don't want to look lazy. Like, hey I only want to work four days. It definitely pulls people in. One of the principals felt it was a "bargaining chip" they could present to the applicant. That principal said:

It gives us kind of an extra bargaining chip to toss in there. We can point out the fewer number of days you are working, the benefits of having the four days, the three-day weekend. You know you can schedule your doctor's appointments and
that kind of stuff. If it is someone with a family you'll have more family time and less days you spend at school.

Another response from a principal included:
I see it as having a very positive impact on recruitment and retention. Just because it is something that if you take into consideration with our salary schedule with us not paying out at the very top of the salary schedule. Well, they're working something like 22 fewer days than at a bigger district. So, if you figure out the per day then it's still competitive. So I think we'll be able to attract teachers more easily and quite frankly I love the four-day week. I would have a hard time considering moving from my current position because I wouldn't want to give that up. So I think teachers feel that way as well. Once they've experienced it, it's like ewe, I really don't want to go back to that.

The other portion of the question asked respondents to talk about how the fourday school week helped with the retention of their teaching staff. All six of the principals interviewed had positive comments in regards to how the four-day school week helped retain staff. One simply stated, 'Our turnover has definitely decreased since we implemented the four-day school week.' One principal gave the researcher an example comparing the five-day school week to the four-day school week. That principal shared that the number of teachers who had to be replaced one five-day school year was in the teens, but once they switched to the four-day school week, the number of teachers needing to be replaced was four or fewer. The same principal shared, 'Retention has gone way up in terms of people coming and staying.' Another administrator felt teachers would even travel further for the four-day school week. According to that principal, 'We
have some teachers who travel you know quite a distance to come and it's definitely, they've indicated it is the four-day week that causes them to stay as opposed to finding a job closer to where they live.' Another principal described the benefit of the four-day school week by stating, 'We don't have holes that we're trying to go beg people to come take anymore.'

One principal felt the four-day school week does help to keep teachers around but feels some will leave to a higher paying district implementing the five-day school week because it will help increase their take-home pay once they retire. The principal stated:

I think that that extra day off gives them enough of an incentive that they are hanging around an extra few years. Is it going to maintain them for 30 ? No it's not. We've got teachers that are in their 4th and 5th year looking to go somewhere else because, you know, when you get in your 4th and 5th year of teaching that pay jump is big. And so shopping other districts they are thinking, it was like a five grand difference in my first few years but in years five, six, seven that five grand difference is now 10 grand because of the other pay scales and how they progress.

Another principal had a similar response:
I don't have as much turnover. Typically, if I have someone leave, occasionally it is because they are in their last three years and they want to try to bump their salary for retirement. Other than that they just don't go anywhere. Some of them stay, even the ones who want to move closer to home. They'll say well they'll drive 30 minutes to get here, maybe 45 they'll say well I'd like to be closer to home but boy it's going to be hard to give up this schedule. And so, I know even
in circumstance where it is convenient for them it weighs as something of an option that it's a difficult option to give up.

## Themes

Multiple themes of positivity for the four-day school week presented themselves throughout the qualitative and quantitative data collected from within all of the research questions. Some of the themes were noticeable across several of the research questions. Those themes included staff retention and/or attraction, staff morale/climate, schedule consistency, the balance of home life and work, and student impact. While it was much less noticeable, there were also negative responses towards the implementation of the four-day school week. In the following sections, the researcher will describe how each of the themes were presented across multiple research questions.

Staff retention and staff attraction. The first noticeable theme was how the four-day school week helped to both retain teaching staff and attract prospective teaching staff to the four-day school week districts. Within RQ1, $75.4 \%$ of the respondents stated they had not considered applying to a five-day school week since their current district implemented the four-day school week. Also, of the 207 respondents, $82.6 \%$ chose either "extremely likely" or "likely" when responding about how likely they were to stay in their current school district due to the four-day school week.

From within RQ2, open-ended responses from the online survey asking staff members about their perception of the four-day school week, $85.5 \%$ of the teachers responded with a positive attitude toward implementing the four-day school week. $82.1 \%$ of the respondents also indicated in a close-ended response they would feel either "very dissatisfied," or "somewhat dissatisfied," or "dissatisfied" if their current school district
returned to the five-day school week schedule. Of the open-ended responses from RQ2, multiple teachers felt the four-day school week does improve their perspective of the school district and makes them want to continue working in the four-day school week district, as opposed to leaving for a district with a five-day school week.

In RQ3, the researcher turned to the leaders of the schools to find their perceptions of the four-day school week's ability to retain and/or attract staff. All of the administrators interviewed indicated the four-day school week did help attract more applicants who were more experienced and highly qualified. Several of the principals indicated they now had more applicants to choose from when filling open teaching positions.

RQ4 also indicated the four-day school week helped to attract highly qualified staff. All of the administrators the researcher interviewed stated their districts' teacher salaries were lower than larger, five-day school week districts nearby. Many of the principals felt they did not have to work as hard on recruiting now that they were a fourday school week. The four-day school week gave the principals an extra bargaining chip when presenting offers to prospective teachers, and the four-day school week helped to convince the prospective teacher to sign a contract. Also from RQ4, the four-day school week helped teacher turnover rates to decrease and resulted in fewer openings to fill as compared to when they had a five-day school week.

Morale and climate. Another theme clearly emerged throughout the data: The four-day school week helped to create better staff morale and a more positive work environment. In RQ1, multiple respondents indicated that since switching to a four-day school week they had witnessed a positive boost in staff morale, more enthusiastic staff,
and improved staff attendance. Several other respondents felt so strongly about the fourday school week that they made suggestions that more school districts should switch too.

While there was positivity toward how the four-day school week helps build morale, a few respondents mentioned negative aspects. One respondent stated that the four days felt like a sprint each week and that it was harder to interact with fellow teachers. Several also mentioned how the four-day school week was not conducive to the school district's support staff since they lost a day of work. The teachers felt the lost day of work was not the best for the support staff since support staff are paid hourly and with one fewer day to work, they received less pay and possibly no benefits.

From RQ2, there was also evidence the four-day school week helped to increase staff morale and the work climate. Many respondents noted they saw an increase in staff retention, an improvement in staff attendance, and a higher, more positive staff attitude. Teaching staff shared in their responses how their fellow teachers seemed happier, refreshed from the longer weekend, and more prepared for work. Several of the respondents shared that they did not feel rushed on the weekends anymore and felt more prepared for their classes. The increased time off allows for staff members to refresh, rest, and relax. This leads to a happier staff.

Consistency. Consistency was another theme the researcher noticed throughout the responses from both the teaching staff and the principals. The four-day school week format provided a consistent school schedule that everyone could follow. Instead of having professional development days scattered across the school year, or early release days four times a year, or report card days, the teachers, students, and parents always
knew they would have the Monday off and not have random days off throughout the school year.

As seen in RQ2, teachers appreciated the consistency of the four-day school week schedule because it made it easier for everyone to follow the school's academic calendar. From the administrator's perspective, the four-day school week provided a consistent professional development schedule which allowed for better, stronger opportunities for the teaching staff to learn and grow. Instead of having a few hours several times a school year for professional development, they had a full Monday once month or so to have teaching staff in to learn about curriculum and work together as a team to implement it.

Work and home balance. Another important theme that emerged is how the four-day school week helps staff to have a better handle on a balance with their work and home. The responses shared by the teaching staff indicated that the four-day school week helped them to feel more rested and better prepared, provided them with more time with their family and friends, and helped them to have less stressful lives. With having the Mondays off, several respondents mentioned that they felt they had their weekends back to spend with their children and to have more family time, allowing them to not spend the weekend worrying about school. One respondent felt that the four-day school week was conducive to feeling well-rested and more ready to teach. Another indicated that Saturdays no longer had to be filled with working on school planning and grading.

Student Impact. A major goal of schools is to increase student growth and learning. Another theme that emerged from the data was how the four-day school week helped to have a positive impact on students. Teaching staff shared that the four-day
school week helped improve students' attitudes towards school. They also noted how student attendance increased due to several factors.

One factor was, with the students having the Monday off, they could use it to attend to doctor or dentist appointments. This helped to increase student attendance, and since students were in the classroom more, they gained more instructional time. One respondent felt the four-day school week helped both students and staff attend more, which resulted in having students having more positive behaviors. This lead to students being on-task more and being more attentive. Moreover, just as the four-day school week model helped to improve staff morale, it boosted the morale of students. Several of the staff reported that students were happy, more ready to learn, more relaxed, and not as exhausted by Friday.

However, when evaluating the data from the open-ended survey responses, the researcher recognized the area of student impact had the most negative responses out of all themes. While only ten of the 207 responses were strictly negative, the area of student impact was the biggest concern for teachers. Teachers noted that if a student missed a day of the four-day school week, they essentially lost $25 \%$ of the instructional week, as opposed to only $20 \%$ if they were in a five-day school week. Another felt the longer days were tougher on the students.

Several of the respondents shared how the four-day model made it more difficult for students to retain information over the weekend. Also, the three-day weekend caused some students to fall out of the daily routine of the school day more easily. One educator worried about those children who come from lower socio-economic backgrounds had one fewer day of breakfast and lunch or one more day to fend for themselves.

## Summary

The study utilized a mixed methods approach, using both quantitative and qualitative research to determine if the four-day school week model helps to attract and retain teaching staff in rural school districts in Missouri. Opinions were collected from respondents using an online survey tool which included closed- and open-ended questions. Also phone interviews were conducted to collect the opinions of respondents who worked in the four-day school week settings. Assessment data was also collected from the state's public education website.

The analysis of the quantitative data suggested that teachers in rural Missouri districts that had adopted the four-day school week model were generally in favor of the new model, and that there were no differences in preference for the model based on demographics. The one exception was that teachers who were parents preferred the new model at a higher rate than non-parents, although even the non-parents preferred the fourday model at $89.4 \%$. The quantitative analysis also suggested that the years of experience of staff teaching under the two different models was the same. Likewise, there was not a difference in ELA and Math MAP performance in districts that had adopted the four-day school week model, comparing scores before the change to scores one, two, and three years into the new model.

The analysis of the qualitative data supported the four-day school week over the five-day school week for rural school districts in Missouri. Through several research questions, the researcher gathered qualitative information from the responses of teachers and administrators working for four-day school week districts. The positive themes outweighed the negative themes. From the teachers' responses it was noted the switch to
a four-day school week helped to improve staff morale, help to balance work and family life, and gave teachers more time in their weekly schedule. The negative responses were much fewer but did include themes of the three-day weekend leading to students lacking in routines. The responses also included more positives with student impact. Including increased learning and growing, increased test scores, positives with students' needs and gains, as well as improved student attendance.

As far as the staff's positive perception of the four-day school week, many responses showed themes of higher staff retention, improved staff attendance, more professional development time and increased staff attitude and morale. The principal interviews also revealed positive results of the four-day school week. Many of the themes from the qualitative information gathered noted an increase in teacher applicants and teacher retention rates.

The following chapter presents implications of these analyses and offers recommendations for both practice and further research.

## Chapter Five: Discussion

This mixed-methods study utilized both quantitative and qualitative research techniques to explore various issues regarding the four-day school week in rural Missouri school districts. The researcher was primarily interested in the ability of the four-day model to attract and retain teaching staff, although he was also interested in the impact on student achievement. To that end, the researcher conducted interviews with seven principals of schools that had adopted the model. He also deployed a survey consisting of closed- and open-ended questions to collect the opinions of teachers working at those seven schools. Additionally, he retrieved assessment data from the state's public education website.

## Summary of Findings

Five hypotheses and four research questions guided this study. While Chapter Four presented the full findings associated with those hypotheses and research questions, those findings are summarized here.

Hypothesis 1. There is a difference in teacher retention rates between rural school districts in Missouri operating with four-day and five-day school weeks.

To test this hypothesis, the researcher compared the average years of experience of full-time teachers at four-day schools to the average years of experience of full-time teachers at comparable five-day schools. The $t$-test of independent means revealed the averages were not significantly different.

Hypothesis 2. There is a difference in number of teacher applicants between rural school districts in Missouri operating with four-day and five-day school weeks.

During the data collection process, the researcher discovered that the human resource departments of the four-day school week districts did not collect application data. None of the four-day school week districts, which participated in the mixedmethods study, had any sort of human resource department that would collect the data. The rural school district was very small, so the principals at the schools were considered the human resource departments. Consequently, the researcher was unable to test this hypothesis.

Hypothesis 3. There is a difference in percentage of highly qualified teachers between rural school districts in Missouri operating with four-day and five-day school weeks.

During the data collection process, the researcher discovered that he did not have access to data to test this hypothesis adequately.

Hypothesis 4. For rural school districts in Missouri that adopted the four-day school week model, there is a change in overall school district achievement in ELA and Math, as measured by MAP scores, from before they adopted the model to after they adopted the model.

To test this hypothesis, the researcher compared MAP scores from before districts adopted the four-day model to scores one, two, and three years after adoption of the model. The analyses revealed that none of the differences were significant. This indicates there was not a significant change in overall school district achievement in ELA and Math MAP scores after they adopted the four-day model.

Hypothesis 5. Among teachers in rural school districts in Missouri that adopted the four-day school week model, there is a difference in perceptions of the model based
on demographics, including marital status, years of teaching experience, having children or not, gender, grade level taught (elementary or secondary), subject taught, type of teacher certification, and route to obtaining teacher certification.

To test this hypothesis, the researcher analyzed the survey data, comparing responses according to the various demographics. The perceptions of the four-day model were almost universally positive, with each demographic category reporting at least $89.4 \%$ favorability. With that said, the analyses revealed that there were hardly any differences in perception according to demographics. The one exception was that parents preferred the four-day model significantly more than non-parents, $97.7 \%$ to $89.4 \%$.

Research Question 1. After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did it influence the teachers' decisions to stay?

The survey emailed to teachers who were working for a four-day, rural school district asked several open- and closed-ended questions about how the four-day school week influenced them to stay in their current district. When directly asked about if the teachers considered applying for another school district implementing a five-day school week, $75.4 \%$ of the responses stated no. When asked how likely they were to stay with their four-day school week district, $82.6 \%$ stated they were either "extremely likely" or "likely" to stay.

Many themes of a positive nature emerged in the open-ended responses. An increase of positive staff morale was evident in multiple responses. Many comments about the improvement of staff morale were noted in Chapter Four. Several other positive themes were noted as well with the switch to a four-day school week. The teaching staff
reported positive gains in their livelihood outside of the school setting such as more time with family and friends and more time to prepare for lessons. The extra day off gave the teaching staff more time on the weekend to enjoy themselves, to relax, and to spend more time with family and friends.

There were also negative responses, although they were much fewer than the positive responses. Some expressed that the four-day school week caused teachers to feel like each week was a sprint to build community or to fit in curriculum. Another downfall mentioned by teachers was how the four-day school week did not cater to the support staff. Since hourly support staff no longer worked five days they were losing pay and sometimes losing benefits such as insurance. The teaching staff do not lose pay because a salaried contract is the same cost if it is a five- or four-day school week. Also, a few teachers noted the students could fall out of routines or retain less information over the longer weekends.

Research Question 2. After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did teachers perceive the change?

When teachers were asked an open-ended question about how they perceived the change from a five-day to a four-day school week, $85.5 \%$ of them gave responses which were coded with a positive response. Only eight of the 207 response were strictly negative in nature. Also, when teachers were asked a close-ended question about how they would feel if their four-day school week district switched back to a five-day school week, $82.1 \%$ of the staff responded they would be "very dissatisfied", "somewhat dissatisfied", or "dissatisfied."

The three themes of the 17 teaching staff who had negative thoughts about the four-day school week were in the areas of teaching at a higher pace, student retention over the longer three-day weekend, and how the four-day school week impacted the support staff employees.

The open-ended responses from the teachers were overwhelmingly positive its nature. The staff shared the four-day school week allowed students to have more time in the school day to complete work, thus having a positive influence on students turning in more assignments. The four-day school week also helped to increase both student and staff attendance. This helped because students were at school more, thus leading to more learning opportunities. While staff absences went down, it helped students more because they would not have substitute teachers in their classrooms. Several of the teachers felt the four-day school week had a similar or a positive gain on student achievement since they were in school more since they did not have to miss school due to medical appointments. Multiple teachers responded that students gained a lot from the four-day school week, noting that the change resulted in students having improved morale with being better rested, and that they were in general more relaxed, happier, and more ready to learn.

The implementation of the four-day school week also increased positivity amongst the teachers. Several teachers noted how the four-day school week helped to increase staff retention from year to year. The most cited positive aspect for the teachers was how the four-day school week helped them to gain time to collaborate, learn through professional development, plan better lessons, and re-energize over the three-day weekend.

Research Question 3. After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did the human resources departments report on the change in their applicant pools?

The researcher interviewed principals who were working for a four-day school week district in rural Missouri. All of the principals interviewed noted they did see a positive change in the number of applicants applying to open teaching positions. The principals felt they were also getting applicants who were more experienced than in the past when they were a five-day school district. The increase in applicants allowed for the principals to have a wider variety with their choices when filling teaching positions, and they did not have to fill a position with a teacher who could have had only obtained a substitute certification.

Research Question 4. After rural school districts in Missouri changed from operating with a five-day school week to a four-day school week, how did the human resources departments feel it helped to attract highly-qualified teachers to apply?

When principals were asked for their thoughts as to how the four-day school week helped to attract teachers to their rural school districts, many had similar responses, indicating that the four-day school week did help to attract more qualified teachers towards their open positions. One administrator felt the fact they could provide better professional development led to more teachers trying to land a position in their four-day school week district. Having the fifth day off allowed teachers to be trained on curriculum and district initiatives for a full day instead of a few hours from here or there on late-start or early-out school days. Another principal felt their district was no longer a
stepping-stone for teachers to gain experience and then leave after a year or two to another larger district with better pay.

Several principals also commented on how the four-day school week helped give them more time to accomplish the other duties of their job. Since they no longer had to spend as much time attending job fairs or posting jobs in local media or social media, they could get into classrooms more, spend time with staff and students more, and also spend time on their own professional development so they could improve upon their craft as well. The benefits of the four-day school week also helped principals with gaining more time.

Since most of these rural schools were in locations far away from urban or metro areas, it was hard to attract teachers since they might not want to live in the same rural area or travel far to their job each day. The four-day school week helped to attract those teachers since they now would only have to travel four days instead of five. Also, the four-day school week became a "bargaining chip" for these rural school districts since they don't have as high a salary as their surrounding larger school districts. While recruiting teachers, the principals could point out the benefits of being in the classroom for fewer days and of having three-day weekends. The researcher believes the four-day school week does help rural school districts attract highly qualified teachers to apply for open teaching positions.

When the researcher began this study, there were approximately seventeen rural school districts in Missouri implementing the four-day school week. When the study was completed, there were nearly sixty rural school districts implementing or planning to implement the four-day school week.

With this in mind, some of the attractions to the four-day school week might no longer be unique, so the researcher has to note for rural school districts to complete some marketing research before implementing the four-day school week since more and more rural schools are adopting the model. The researcher feels the market could end up having so many four-day school weeks in the future that they will be in the same boat they were when they were a five-day school week, due to their inability to have the enticement of the four-day school week.

## Implications

From Hypothesis 1, there is not a difference in teacher retention rates between rural school districts in Missouri operating with four-day and five-day school weeks. The researcher believes the four-day school week does have positive implications on the staff's attitude towards teaching in a rural school district. The positive responses outweighed the negative response from the open-ended survey questions. The teaching staff felt the four-day school week helped to balance their work and home life by giving them extra time on the weekends to get back with their families. They no longer had to worry about planning and grading papers on a Saturday or Sunday. The extra day off, Monday, gave them a feeling of content and balance.

From Hypothesis 4, there is not a difference in overall school district achievement in ELA and Math MAP scores between rural school districts in Missouri operating with four-day and the previous MAP scores from when operating five-day school week. One of the most important factors when discussing a school is its ability to help students learn and grow. The four-day school week did not have a significant impact on achievement scores; the four-day school week did not help or hinder achievement scores. This means
rural school districts can turn towards the four-day school week knowing they will not see a significant change in their student achievement. The researcher believes if rural schools in Missouri implement the four-day school week, then they will not see a significant change in ELA and Math Map scores.

From Hypothesis 5, there is not a difference on teacher perceptions of the fourday school week based on demographics. The teachers' perceptions of the four-day school week were generally very positive, and none of the demographic comparisons revealed differences in those perceptions. The one exception was that the teachers who were parents preferred the four-day school week significantly higher than teachers who were not parents. This could represent an opportunity in terms of recruiting teachers. The researcher recommends that principals and human resource departments implement a recruiting campaign geared towards teachers who are parents. The campaign could focus upon how the four-day school week helps teaching staff gain more time to spend with their families on the weekends.

Overall, the positive responses outweighed the negative responses. Based upon this information, the researcher believes the four-day school week does positively influence teacher retention, encouraging the teachers to continue working for a rural school district in Missouri. The researcher believes a positive staff morale helps to retain teachers from one year to the next because a happy employee is more likely to stay than an unhappy employee. The researcher believes the four-day school week helps to create a positive environment for teachers to help their students learn and grow. If the teachers are happy with their work environment, then the morale will be high. If the morale is high,
then the teachers will have a better attitude, which will then funnel into the students' attitudes and perceptions of school.

The researcher believes the teachers' perceptions did change for the better. The switch to the four-day school week from a five-day school week helped teachers gain more time to plan, grade, and to meet with their peers. The most compelling changes in perception come from the teachers gaining an extra day each week. The extra day each week allowed the teachers to gain back their weekend. Instead of having to grade papers on a Saturday or a Sunday, they had the Monday to accomplish this. The extra time gained gave the teachers time to spend with family and friends, instead of worrying about planning and grading. The information gathered from research questions 3 and 4 also showed that the switch to a four-day school week had a positive influence on retention of teaching staff from year to year as well as attracting more applicants to open positions. The principals felt it helped retain staff members due to the four-day school week's ability to keep morale high. The four-day school week helped the rural schools retain teaching staff, and so the principals did not need to post as many teaching positions. When they did post open teaching positions, as one principal noted, they had an "extra bargaining chip up their sleeve" to help attract more applicants to fill those open positions.

With the information gathered from the principals' perspectives, the researcher feels the four-day school week has a positive influence on the number and quality of applicants. The researcher believes the four-day school week does help to increase applicants for open teaching positions. The researcher also believes the four-day school week helps to attract applicants who are more experienced. When the researcher started
this mixed-methods study, there were expectations that the four-day school week would result in an overwhelming positive perceptions from both the principals and the teachers. Although the results of the $t$-tests and $z$-tests were not significant, except for those teachers who were parents, the researcher only collected a few negative responses from both the teachers and the principals. The overall perception, gathered from the survey results and the principal interviews, was of a positive image of the four-day school week. Therefore the researcher concluded the four-day school week did help rural schools in Missouri with the retention of staff and also helped with attracting more applicants to open positions.

## Recommendations

With the results of this mixed-methods study, the researcher recommends rural school districts in Missouri, having trouble retaining staff members and attracting highly qualified applicants, to look into implementing a four-day school week. The researcher's mixed-method study shows there are many positive attributes to the four-day school week for rural school districts. With an increase in staff morale, the rural schools will see an increase in staff retention and an increase with applicants for their open teaching positions.

The researcher also recommends that rural school districts in Missouri implement a human resources campaign to advertise how the four-day school week gives back to their teaching staff by allowing them to gain more family time. This recommendation is based on the results that showed teachers who are parents preferred the four-day school week significantly more than those teachers who are not parents. This could assist in
attracting more highly qualified applicants toward open positions located within rural school districts.

The researcher recommends that rural school districts consider how they can also keep their support staff in the forefront when deciding to switch to a four-day school week. One of the downfalls of switching to the four-day school week is the support staff lost a day of pay. Some of them also lost benefits since they were no longer employed fulltime. Plucker, Cierniak, \& Chamberlin (2012) stated the four-day school week caused some non-teaching staff to lose wages and working hours, and they reported some districts have paid higher wages for non-teaching staff since they are working fewer hours in a four-day week. The researcher suggest looking into increasing the pay of support staff so they are not losing their take home pay, or to still provide benefits as if they are employed fulltime. If they do not address this problem, they could be in a similar predicament with losing support staff members and seeing fewer applicants for those support staff positions - bus drivers, cafeteria staff, custodians, and the like. This would then cause the principals and human resource departments more problems with retaining support staff members, who are also very crucial to the day-to-day successes of a school district.

## Conclusion

The researcher became interested in studying the four-day school week because one of the largest issues teachers have a need for is time. Teachers always seem to need more time to plan, grade, prepare, and collaborate. The researcher heard of the four-day school week and initially thought only the students attended school for four days, and the staff still worked five days. This thought lead the researcher to believe the day the
students were not in attendance the teachers had to still report to school to use the time to plan, grade, prepare, and to collaborate. Once the research began, the researcher realized the teaching staff also only worked four days instead of five. Therefore, the four-day school week did actually give the teachers an additional day off for them to use without having to worry about getting work completed for school. The teachers could have a balanced life with their home life and work.

The researcher was initially only thinking about the four-day school week as a tool to allow the teaching staff to have more time to plan, grade, prepare, and collaborate. While investigating the four-day school week as a dissertation topic, the researcher found a school district in Arizona that was planning to implement for four-day school week. The superintendent of the school district created a video for the community explaining the reasoning for implementing the four-day school week. The superintendent's message indicated their school district was having a hard time with the retention of staff and attracting applicants due to their inability to provide a teaching salary which would compete with those of bordering, larger school districts which paid more and had fiveday school weeks. This lead the researcher to explore the state of Missouri and how some of its rural schools were beginning to implement the four-day school week. All of this sparked the idea of asking whether they implement the four-day school week for the same reasons as the Arizona school district, to retain and attract teaching staff.

The impact on student learning should always be a primary consideration whenever a school or district considers making a change to its instructional program, especially one as drastic as changing to a four-day school week. Consequently, it is natural to be leery about how the new model might affect academic achievement, one
way or the other. While this study identified several benefits associated with a switch to the four-day school week, the change to the schedule would not be acceptable were they to come at the price of lower performance on standardized tests. Hypothesis 4 of this study focused upon this topic by looking into if there was a difference in overall school district achievement in ELA and Math MAP scores between rural school districts in Missouri operating with four-day and the previous MAP scores from when operating five-day school week.

The analysis of that hypothesis indicated that the four-day school week did not have a significant impact on achievement scores; the four-day school week did not help or hinder scores on the MAP tests. Therefore, this study can ease the minds of those stakeholders who are worried about whether or not the implementation of the four-day school week will have a negative impact upon student achievement, when looking at the standardized test scores from a state. Again, this means rural school districts can move forward with confidence with making the decision to begin implementation of the fourday school week.

When taking all of the information gathered from this mixed-method study, the researcher believes the four-day school week does have positive implications because of its ability to increase the morale of the teaching staff. If the teaching staff has high morale, then the school will have an environment for students to feel comfortable and cared for. The more positive a school building is, the more positive its students will be. If the students are positive, it will have a lasting effect on the teaching staff to stay. Additionally, if the teaching staff has a higher morale, they will be more likely to stay which would increase the retention rates of the teachers from school year to school year.

All of these elements do have the potential to help lead to what all educators want, students who consistently learn and grow and students who perform to their highest potential.

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## Appendix A

## Principal Interview Questions

1. Were you the human resources leader/principal prior to your school district implementing the four-day school week?
2. When your school district was a five-day school week, what were the challenges it faced with retaining teachers?
3. When your school district was a five-day school week, what were the challenges it faced with recruiting teachers?
4. With the five-day school week calendar, what factors do you feel kept potential teachers from applying for a teaching position?
5. What factors led to teachers leaving your school district for another?
6. Since implementing the four-day school week, how does it help your human resources department with recruiting highly qualified staff?
a. Recruitment process?
b. Financial savings?
c. Advertising costs?
d. Travel to hiring fairs?
7. What impact do you feel a four-day week will have on the recruitment and retention of staff?
8. Since implementing the four-day school week, how did your applicant pool change?

## Appendix B

## Teacher Survey Questions and Choices

1. Did you apply to your current school district because it implemented a four-day school week or for other reasons?
a. Yes
b. No
c. Already employed when it implemented the four-day school week
2. Since your school district implemented the four-day school week, how do you perceive the change?
a. Open-ended responses allowed
3. Since your school district implemented the four-day school week, have you considered applying to another school district implementing a fiveday school week?
a. Yes
b. No
4. Even though a nearby school district pays a better salary than your current school district and has a five-day school week, how likely are you to apply for a position with the district?
a. Extremely unlikely
b. Unlikely
c. Somewhat unlikely
d. Neutral
e. Somewhat likely
f. Likely
g. Extremely likely
5. How likely are you to stay with your current school district while it has the four-day school week?
a. Extremely unlikely
b. Unlikely
c. Somewhat unlikely
d. Neutral
e. Somewhat likely
f. Likely
g. Extremely likely
6. Please tell why you would or would not apply to a five-day school district with a higher salary.
a. Open-ended responses allowed
7. Which are your reasons for staying in a four-day week school district?
a. Due to longer days, I have more time to teach a lesson
b. Student behavior is better and they are more focused
c. Student attendance rates are better
d. Students learn and grow more since lessons are longer
e. Teacher collaboration time is better
f. More personal time with the extra day off
g. Return to work after the longer break more refreshed
8. If your school district decides to switch back to a five-day school week, how do you think you will feel?
a. Very dissatisfied
b. Somewhat dissatisfied
c. Dissatisfied
d. Neutral
e. Somewhat satisfied
f. Satisfied
g. Very satisfied
9. Your age range
a. 20-29
b. $30-39$
c. $40-49$
d. 50-59
e. $60+$
10. What is your gender?
a. Female
b. Male
c. Transgender
d. Prefer not to say
11. Marital Status
a. Single
b. Married
12. Do you have children?
a. Yes
b. No
13. How many school years have you worked for your current school district?
a. 0-5
b. 6-10
c. 11-15
d. 16-20
e. $21+$
14. Please specify your ethnicity.
a. White
b. Hispanic or Latino
c. Black or African American
d. Native American or American Indian
e. Asian/Pacific Islander
f. Mixed
15. What grade level do you teach?
a. Kindergarten
b. $1^{\text {st }}$
c. $2^{\text {nd }}$
d. $3^{\text {rd }}$
e. $4^{\text {th }}$
f. $5^{\text {th }}$
g. $6^{\text {th }}$
h. $7^{\text {th }}$
i. $8^{\text {th }}$
j. $9^{\text {th }}$
k. $10^{\text {th }}$
16. $11^{\text {th }}$
m. $12^{\text {th }}$
17. What subject do you teach?
a. Elementary
b. Special Education
c. Special Area (physical education, art, computers, library, etc.)
d. Math
e. Science
f. Social Studies
g. Math Intervention
h. Reading Intervention
i. Counseling
18. What type of Missouri teacher certification do you have?
a. Initial Professional Certificate (IPC)
b. Career Continuous Professional Certificate (CCPC) or Continuous Career Education Certificate (CCEC)
c. Temporary Authorization Certificate (TAC)
d. Provisional Certificate
e. Permanent Certificate
f. Content Substitute Certificate
19. What route did you take for your Missouri teacher certification?
a. Traditional Route
b. Alternative or Innovative route
c. Temporary Authorization route
d. Out-of-State Certified route
e. American Board of Certification for Teacher Excellence (ABCTE) route
f. Doctoral route
20. Any other comments you are willing to share about the advantages or disadvantages of implementing a four-day school week:
a. Open-ended responses allowed
21. If you would like a chance to receive a $\$ 25$ gift card to a restaurant of your choice, please enter your email address. Your email address will not be used for any other purposes other than contacting you to let you know you won the gift card.
a. Open-ended responses allow
