# Combating Chronic Absenteeism: Utilizing An Attendance Intervention in Schools 

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## Combating Chronic Absenteeism: Utilizing An Attendance Intervention in Schools

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#### Abstract

In schools across America a veiled and dangerous problem continues to grow that impacts millions of students daily; that problem is student absenteeism from school. The more frequently a student misses school, the wider the achievement gap becomes. During the 2009-2010 school year, data collected from the United States Department of Education (DOE) exposed that students enrolled in public schools across the nation missed more than 57 million days of school (Taylor, 2014). Chronic absenteeism is defined as a student's absenteeism from school at least 10 days in a single year based upon a 184-day school calendar in the state of Ohio (Attendance Works, n.d.). The purpose of this study is to identify if effective communication with families regarding their students' attendance will impact student attendance rate. The investigation lasted 128 school days and was quantitative in nature as it measured the change in attendance rate once a specific attendance intervention was utilized by the school district to address the problem of chronic absenteeism and examined student attendance rate pre and postintervention. The study looked to answer the following questions: how does a specific attendance intervention impact student attendance rate to school, how does the intervention's impact vary by grade, school, cohort, and student characteristic/subgroup, and how much does early chronic absenteeism predict later attendance patterns? Based upon a dependent $t$-test that was conducted using dependent variables representing student change in attendance rate pre-intervention and student change in student attendance rate post-intervention, there were no significant differences from pre- to postintervention, $t(2890)=-1.05, p=.292, r=.982$. Findings from the quantitative study displayed no significant impact from the post-data analysis on student attendance rate and


the answer to the three research questions being a distinctive no. An unintended outcome of the study was a significant increase in parent engagement with the school district with communication increasing during the post-data collection phase of the investigation lasting 42 school days by more than $200 \%$. At the start of the post-data collection phase of the investigation, a global pandemic, COVID-19, or the Coronavirus, reached the United States but was not initially identified in Ohio until March 11, 2020. All K-12 schools were closed on March 12, 2020, six days after the completion of the post-data phase of the study. The bearing of this global pandemic on the outcome of this study and its data would be absolutely minimal given its less than $1 \%$ infection rate per populous at the time of data collection.

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## DEDICATION

This is for Julie, Arianna and Roman. For all of the sacrifices that you made so this could become a reality. Thank you for believing in me and supporting me through this process.

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## Chapter 1

## Introduction

## Problem Statement

In schools across America a veiled and dangerous problem continues to grow that impacts millions of students daily; that problem is student absenteeism from school. The more frequently a student misses school, the wider the achievement gap becomes. Garcia and Weiss (2018) noted in their study: "missing school is negatively associated with academic performance (after controlling for factors including race, poverty status, gender, Individual Education Plan [IEP] status, and English Language Learners [ELL] status). As students miss school more frequently, their performance worsens." (p. 5) During the 2009-2010 school year, data collected from the United States Department of Education (DOE) exposed that students enrolled in public schools across the nation missed more than 57 million days of school (Taylor, 2014). Chronic absenteeism is defined as a student's absenteeism from school at least 10 days in a single year based upon a 184-day school calendar in the state of Ohio (Attendance Works, n.d.). McConnell and Kubina (2014) conducted a longitudinal study to examine the at-risk behavior of chronically absent students. The study unearthed the statistic that on any given day, an average of $10 \%$ of all public high school students are absent from school. In rural and urban school districts, that number more regularly reaches into a number greater than $30 \%$. There is a glaring hole in the relevant research schools need to understand what interventions are the most effective to support the needs of students that become chronically absent from school. This study will examine specific attendance
interventions and measure their impact on the attendance rate of students to determine if they are efficient when applied routinely and in a proactive manner.

## Statement of Purpose

The purpose of this study is to identify if effective communication with families regarding their students' attendance will impact future attendance patterns and rates. An additional purpose of the study is to measure the particular gains of individual attendance interventions; specifically, the use of effective parent communication (in this study it will be a postcard) has on student attendance rate on individual students and cohorts of students over time. Further, the impact and findings of this study may be utilized as a predictor for future attendance patterns of students in districts of similar size and demographics to scaffold attendance interventions early on and identify student needs before absenteeism becomes chronic.

## Role of the Researcher

The role the researcher plays in the school district, identified in this study simply as district, is the Director of Education. The name of the school district will be omitted from this study for the purpose of anonymity. The Director of Education in the district is the Assistant Superintendent who oversees curriculum and instruction, personnel, technology, and daily operations, in addition to the student information system (SIS), which is currently Power School. The Director of Education has uninterrupted access to the information needed and oversees the interventions to be designed and implemented on a daily basis to elicit the greatest impact on student attendance. The researcher oversees the building leadership that is responsible for implementing the interventions on
a daily basis with the aid of teachers, counselors, liaisons, attendance officers, secretaries, and other district staff who would be a part of the attendance plans. Due to the broad scope of duties that the Director of Education is expected to cover, the role of the researcher in this study will be to assist in designing, implementing, and facilitating the interventions, gathering, and analyzing the data on a frequent basis to understand their impact. The role the Director of Education has a two-fold problem: (a) at the district level, a failing grade was displayed in its chronic absentee rate of $14.5 \%$ on the Ohio State Report Card (Ohio State Report Card, n.d.), and (b) on a granular level, the problem is evident on a student-by-student basis, as student attendance data are disaggregated on a regular basis at the monthly district leadership team meetings and discussed at length.

## Research Questions and Hypotheses

In this study, the following research questions will be addressed:
Diagnostic Analysis:

1. How does a specific attendance intervention impact student attendance rate to school?
2. How does the intervention's impact vary by grade, school, cohort, and student characteristic/subgroup?

Predictive Analysis:
3. How much does early chronic absenteeism predict later attendance patterns?

The district implements a variety of attendance interventions on a regular basis; however, there is currently no practice implemented to measure the effectiveness of each individual intervention or the impact each has on specific students. The chronic absenteeism rate continues to climb, and the efforts of the staff often goes mismanaged
because of the lack of monitoring and measuring interventions. With the implementation of House Bill 410, school districts require a more effective way to measure the impacts of specific attendance interventions; once that understanding exists, districts can then implement highly effective interventions on a more regular basis.

## Overview of Methodology

This study is quantitative in nature as it measures the change in attendance rate once a specific attendance intervention is utilized by the school district to address the problem of chronic absenteeism. Due to the complexity of the study, regression discontinuity in addition to a randomized control trial will both be utilized to gather the data needed to decide if the intervention had an impact on student attendance. Examples of how each methodology can be used are as follows:

Regression Discontinuity - For example, if the school district decided to implement an intervention for students with nine or fewer absences, the study would look to compare the impact of the intervention for students just below the threshold with students right above the threshold (B. Vuong, personal communication, December 4, 2017).

Randomized Control Trial - For example, if the school district wanted to determine whether a "rewritten" attendance notification (a postcard) is more effective than the traditional truancy letter, the district would send the "rewritten letter" to a random set of students and assess its impact (B. Vuong, personal communication, December 4, 2017).

Data will be collected utilizing the SIS operated in the school district, currently Power School, on a weekly basis. Change in attendance rate or $+/-$ will be examined before and after a specific attendance intervention is put into place for the different tiers or cohorts of students. This change in attendance rate will assist in determining if and to what significance the specific intervention was to those who benefit the most from the different groups of students in the district so that efforts can be put into place to increase all students' attendance to school.

## Rationale and Significance

During the 2009-2010 school year, students in the United States missed 57 million days of school (Taylor, 2014). Students in the district contained within this study, during the 2017-2018 school year missed 34,673 days of school of excused and unexcused absences which averages to more than 10 days of school missed for every student enrolled in the district. (Anonymous Local School District Profile, n.d.) The rationale for the study is to understand what attendance interventions prove to be the most effective and apply them to specific cohorts of students to improve their attendance rates so they are present at school on a more frequent basis and can receive a high-quality education.

The significance of the study is twofold: first, for the use of the school district, when implementing attendance interventions, to make an impact on the chronic absenteeism rate in the district; second, for future use and translation of advantageous intervention strategies to combat chronic absenteeism in other school districts of similar
demographics to the one contained in this study. With the added pressure of House Bill 410 ([HB 410], 2018) playing such a huge factor on operations in school districts, the outcomes and measures of the study will prove invaluable for school districts moving forward. Further, the study will provide significant and viable information to all stakeholders of the district to measure the impact each individualized intervention has on chronic absenteeism. As stated previously, it is hypothesized that the data will have predictive properties for students' attendance rate as they progress through PreK-12.

The chronic absentee rate within the district continues to grow and the reported rate grows worse yearly. As noted previously, the school district displayed a failing grade in its chronic absentee rate of $14.5 \%$ on the Ohio State Report Card during the 2018-2019 school year (Ohio State Report Card, n.d.). During the 2016-2017 school year (the first official year of reporting), the district reported a chronic absentee rate of $12.2 \%$ (Ohio State Report Card, n.d.). The chronic absentee rate reported by the district during the 2017-2018 school year was $13.4 \%$ (Ohio State Report Card, n.d.). The average yearly increase of chronic absenteeism within the district is $1.15 \%$; considering an enrollment of 2,973 students within the district, an average of 34 additional students display a pattern of chronic absenteeism to school. This study is needed to stop the growth of chronic absenteeism within the school district and increase student attendance to school.

## Limitations of the Study

There are several limitations when conducting the attendance intervention study. While the benefit of this study is pronounced and the greatest impact it will have is getting students in front of highly qualified educators to receive instruction on a more regular basis, there are limitations and pitfalls. These limitations center on the statistical
instrumentation being utilized, the sample size, as well as the financial impacts. These limitations can provide potential roadblocks to the data being used in a meaningful way for the individual districts, for sustaining long-term future programs, and for translating interventions into other districts.

As for the statistical models, a limitation of a matched comparison is that there could be reasons why some students started some of the controlled interventions and some did not, (i.e., a before- or after-school program, or more affluent parents with transportation enrolled their children) that would drive the effect. A problem then might be that the data display smaller effects of the program when it is rolled out more broadly because the effect was for these more affluent students (E. Scherer, personal communication, December 5, 2017). There are also some limitations to regression discontinuity and randomized control trials in terms of one's ability to extend the findings outside a tested strategy; in other words, can the results of one finding (intervention) truly be translated to another with a great level of confidence? (E. Scherer, personal communication, December 5, 2017). Finally, all of the methods utilized are extremely rigorous and can consume an enormous amount of manpower to implement and disaggregate the data in a useable manner on a school-based level if the sample size becomes too large (E. Scherer, personal communication, December 5, 2017). Subsequently, the most profound bias of the researcher is the desire for the data to shift toward the positive and attendance to increase because of the direct involvement of the Director of Education with the school district.

## Definition of Terms

Absenteeism: term assigned to a student who misses $10 \%$ or more of the school year, including excused and unexcused absences (in Ohio, this is about 18 days in a 180-day school year). This threshold is an empirically supported indicator of whether a student is at academic risk due to absenteeism (Kearney \& Graczyk, 2013).

Average Daily Attendance: more commonly known as ADA, average daily attendance is the calculated number (on average) of students enrolled who attend school daily. In Ohio, excused and unexcused absences are calculated in the ADA and these absences are calculated in hours and not holistic days since the inception of HB 410 (Attendance Works, 2014).

Intervention (School-based): "An ... intervention is a specific program or set of steps to help a child improve in an area of need" (Lee, 2014, p. 190). Interventions are intentional and targeted as well as specific and formalized so they can be monitored and measured for their effectiveness (Lee, 2014).

Mentor: term assigned to someone, often times an adult or an individual who is older, considered to be a counselor or a guide. Mentors often work with individuals out of the goodness of their heart to improve on specific, targeted aspects of a person's life in a structured environment or program over a span of time (Reh, 2019).

Mobility: in K-12 education, the term is more often utilized as student mobility and can include any time a student changes schools for reasons other than grade promotion. In general, it refers to students changing schools during a school year. It may be voluntary (e.g., a student changing schools to participate in a new program; or involuntary as being expelled or escaping from bullying). Student mobility is often
related to residential mobility, such as when a family becomes homeless or moves due to changes in a parent's job (Sparks, 2016).

Truancy: term assigned to students with five or more unexcused absences in the school year. The truancy rate does not include out of school suspensions. Truancy and the term is applied differently by states; this definition is the working definition as it is applied in Mississippi, Ohio, Kentucky, Vermont, New York, Pennsylvania, and Indiana (Freeman et al., 2016).

## Chapter 2

## Literature Review

Recent changes in education at the state level in Ohio, specifically HB 410 (2018), have altered the way school districts approach attendance and absenteeism. In December 2016, Ohio legislators, in an effort to limit the number of students identified as chronically absent, passed HB 410 displaying near unanimous support for the bill. HB 410 is a shift in mindset from looking at attendance in days holistically to attendance to school in hours or the breaking up school days into segments to measure how much of each day students attend (House Bill Fact Sheet, n.d., p. 2). At the foundation of HB 410 (2018) is the belief that regular school attendance is the true basis to a student's success in school. If a student is absent from school an excessive amount of time, then their ability to master content is interfered with, as is their progress toward obtaining the skills needed to graduate from school, ready for post-secondary work, and/or prepared to enter the workforce. The school district where this study is based shares a similar belief and has looked to combat this issue unsuccessfully for an extended period of time.

The district where the study takes place is a small-town, rural school district in Ohio serving over 3,200 students in Grades PreK-12. The district covers over 75 square miles while serving six different cities and municipalities. The district is located on one centralized campus consisting of five buildings: PreK-2 elementary, 3-4 elementary, 5-6 intermediate, one middle school, and one high school. As of the 2017-2018 school year, the district's enrollment had $41 \%$ of its students classified as economically disadvantaged. Of the 3,200 students enrolled, $14.6 \%$ are identified with special needs and over $40 \%$ are open enrolled into the district from surrounding communities. The
district's mobility rate during the 2017-2018 school year, on average, was $6.2 \%$; however, students identified in minority subgroups averaged a mobility rate of nearly $18 \%$. The district is much more than ratings on a report card. The schools are full of hard working and talented students, teachers, and staff who excel not only in the classroom but also on the field and on the stage. The district's mission statement is: "Where the Community Educates and Empowers." This can be seen in the hard work and focus of the staff who consistently help its students reach their full potential.

Students enrolled in the district during the 2017-2018 school year accumulated 8,858 unexcused and 25,815 excused absences totaling 34,673 days absenteeism, an average of more than 10.8 absences per student enrolled. In terms of instructional hours, based upon students receiving five hours of instruction per day (excluding down time, lunches, transitions, etc.), students missed 173,365 hours of instruction. As outlined in the goal of HB 410, students must be present at school in order to achieve and become prepared to transition into post-secondary opportunities. To understand how each school and grade level contributes to the overall sum of absences, data have been compiled into Figures 1 and 2 below (District Profile of Anonymous Local Schools, n.d.).

To meet the demands of HB 410, in addition to gaining a holistic understanding of why students are not attending school on a regular basis, it is essential that the proper attendance interventions are implemented and measured to elicit the greatest effect on student attendance rates. By measuring what interventions work, the school district can better implement them and support the diverse community and study body it serves while understanding the complex issue that is chronic absenteeism in order to make continual adjustments to current and future practices.

| School Name | Sum of Excused Absences | Sum of Unexcused Absences |
| :--- | :---: | :---: |
| 5-6 Intermediate School | 3112 | 942 |
| Electronic | 8 | 73 |
| High School | 8604 | 4614 |
| Middle School | 5051 | 1180 |
| PK-2 Elementary School | 5353 | 856 |
| 3-4 Elementary School | 3687 | 1193 |
| Grand Total | $\mathbf{2 5 8 1 5}$ | $\mathbf{8 8 5 8}$ |

Figure 1. Total Excused and Unexcused Absences by School

| Grade Level | Sum of Excused Absences | Sum of Unexcused Absences |
| :---: | :---: | :---: |
| PreK | 323 | 230 |
| $K$ | 2105 | 359 |
| 1 | 1899 | 342 |
| 2 | 1932 | 302 |
| 3 | 1415 | 428 |
| 4 | 1366 | 388 |
| 5 | 1638 | 552 |
| 6 | 1475 | 390 |
| 7 | 2559 | 555 |
| 8 | 2494 | 638 |
| 9 | 2257 | 1412 |
| 10 | 2478 | 1168 |
| 11 | 1884 | 944 |
| 12 | 1990 | 1150 |
| $12+$ | 0 | 0 |
| Grand Total | 25815 | 8858 |

Figure 2. Total Excused and Unexcused Absences by Grade Level

## Theoretical Framework

As the study progresses, the data and research will display three interventions that impact student attendance more so than any other. Those three interventions are: a student's enrollment in an early childhood education program, the support of an intervention mentor, and the district's design and intentional communication attempts to
the families that are served. A graphic depicting the relationship those three interventions have on one another as well as student attendance rate can be seen in Figure 3.


Figure 3. Theoretical Framework of the Impact of the Most Impactful Attendance Interventions on the Whole Student and the Relationship Each Has with One Another

While it is significant to understand that each intervention plays its own unique part in improving a student's attendance rate, the graphic also displays the impact that all three in a harmonious relationship can create a culture of sustenance and depth in a school's culture. Imbedded in these three interventions are foundational theories that support the need for the research in addition to providing a basis for the design and implementation of specific attendance-based interventions.

When conducting research, it is important that one entrenches that work with solid theory to support what is being done to strengthen the idea itself. As it pertains to
combating chronic absenteeism utilizing specific attendance interventions in schools, while looking at a student's enrollment in early childhood programs, the support of a mentor, and effective communication to families, the presence of four main theories emerge. Epstein's Six Types of Parent Involvement relates to the impact a school's communication can have on family and student engagement especially when it pertains to achievement and attendance in school when the family is aware of early signs of chronic absenteeism (Epstein, 2009). Examining the history, intentions, and development of the Head Start Program lends insight to the impact it has on a student when they are enrolled, and their future compared to other students who did not participate in the program specifically regarding attendance rates. DuBois (2002) developed the Handbook on Youth Mentoring, which substantiated the mentoring theory in schools and can be translated to its impact on attendance rate when programs are designed around that intent. Finally, Urie Bronfenbrenner (1979) developed the Ecological Systems Theory where five ecosystems interact and impact the outcomes of an individual. In this theory, each of the five systems contains roles, standards, and guidelines which may shape their role in society. For example, a family from a rural school district who must travel further to school during a snowstorm may not be as inclined to do so as much as would an affluent family who lives only miles from the school in a gated community, and vice-versa. The rural family is more likely to experience hardships due to the environment that surrounds them, and this could impact factors like achievement and student attendance rate.

## Epstein's Framework of Six Types of Involvement

The importance of creating a strong line of communication with a student's home is significantly impactful when attempting to change attendance and behavioral patterns.

Epstein's (2009) framework provides a school with six types of parent involvement to accomplish this task; they are: parenting, communicating, volunteering, learning at home, decision-making, and collaborating with community (Epstein, 2009). In each, Epstein (2009) examined challenges and outcomes while providing examples of how schools can create meaningful school/home connections to impact outcomes. By examining this framework and the theory imbedded in it to understand how these connections with the family can generate positive outcomes, they can be utilized to develop attendance interventions and effectively communicate with the most at-risk populations of families early on before the absences become chronic.

Parenting. In the parenting component of the framework, Epstein (2009) stated that a school's role is to assist families in creating and fostering an environment that establishes that children are students and emphasizes the importance of school. Epstein (2009) professed that schools should hold workshops to assist families in accomplishing this, provide direct and guided suggestions, deliver parent education programs, conduct home visits and target assistance of families based upon data gathered from those visits, and offer additional health-based programs to families that could be impacting educational outcomes. He outlined challenges of accomplishing this such as reaching all families with information, data-gathering methods to ensure that all families are accounted for, ensuring the at-risk families are identified, and ways to safeguard that the information being communicated to the families is easy to understand and useable. Epstein (2009) provided guided examples of the parenting component so schools could translate this into practice; those examples were:

- parent education and other courses or training for parents (e.g., GED, college credit, family literacy);
- family support programs to assist families with health, nutrition, and other services; and
- home visits at transition points to elementary, middle, and high school. (Epstein, 2009, p. 3)

Communicating. Epstein's (2009) communication aspect of the framework asserted that there must be protocols in places that are two-way in nature around student progress and school programs. Such practices include:

- conferences with every parent at least once per year with follow-ups as needed;
- distributing student progress folders to homes with individualized comments;
- parent pickup of report cards and conferences concerning improving student performance;
- regularly scheduled communication mediums that families expect;
- communicating more transparently around student course selection, program offerings, and activities in the schools; and
- communicating transparently and regularly on school policies and transitions to all families through multiple mediums. (Type 1, para. 1) Epstein (2009) defined challenges for the communication types outlined such as:
- readability and clarity of the messages being sent home;
- translation of the messages for families who do not speak English as their native language;
- alternative communication (i.e., visual aids) for those who are poor readers, or those who cannot see, needing to review the quality of the materials sent home; and
- the difficulty of establishing a two-way communication between home and school. (Type 1, para. 2)

Epstein (2009) supplied examples of effective communication techniques in the forms of:

- student-led conferences with each parent at least once a year and followup as needed;
- language translators to assist families as needed with additional visual aids provided for those in need; and
- an advance schedule of communications sent to the community comprised of useful notices, memos, phone calls, newsletters, and other communications to be distributed throughout the year

Volunteering. Parent support and help are needed for students and communities to be successful and recruiting and organizing those efforts is a monumental task in any district. In Epstein's (2009) framework of involvement, sample practices were outlined to accomplish that task; they are:

- volunteer programs at the school and classroom level to help all levels of school operations;
- areas of the school dedicated for parent involvement;
- annual surveys gauging the best times for families to become involved;
- designing programs around those times;
- collecting communication information in one location for easy access; and
- parent groups to assist in the safety of programs in and outside of the school (Type 3, para. 1)

Epstein (2009) provided the challenges of such practices in the form of:

- ability to recruit volunteers from all families so all talents are able to be utilized;
- ability to accommodate all schedules due to the stationary nature of a school day schedule;
- organizing the work;
- providing the needed training;
- matching time and talent with school personnel, teacher, and individual student need; and
- following up those efforts with recognizing those volunteers for their dedication in an appropriate manner (Type 3, para. 2)

Learning at home. Some of the most powerful tools that a school maintains are to provide information and ideas to families about how to help students at home; not only provide families with that information but also coach those families on what to do with that information once it is given to them (Epstein, 2009). Inside Epstein's (2009) framework, the sample practices for learning at home may be the most valuable. Those practices are defined as:

- learning benchmarks for students at each grade level;
- clearly defined homework policies and prompts on how to discuss work at home;
- information on how to assist students with work at home;
- calendars with parental/student activities;
- academic family nights held in the schools and community;
- summer learning activities; and
- families' involvement in setting goals for the students and planning for college or future work. (Type 4, para. 1)

With so many initiatives come hurdles and challenges that need to be considered; Epstein (2009) outlined the following as major challenges for learning at home: when students have several teachers these tasks become even more difficult, student responsibility of these tasks must remain the key while helping families understand how to assist along the way, and students and families must be involved in curricular-level decisions so buy-in is present.

Decision-making. The most successful schools, and the most successful students, have parents and families at the center of the decision-making process. The role a school plays is an important one when working to develop the skills of families and students as decision-makers and active participants in the operations of schools (Epstein, 2009). The practices Epstein (2009) provided in the framework that schools can utilize to accomplish this in a successful manner are:

- maintaining an active parent-teacher association or parent-teacher organization;
- utilizing independent advocacy groups centered around different departments like curriculum or buildings and grounds;
- having a district level committee centered around family involvement; and
- having a network to assist families in linking with parent representatives (Type 5, para. 1)

Challenges to a holistic decision-making model according to Epstein (2009) are:

- the ability to include parents from all subgroups in order to represent all opinions;
- effective training to optimize communication techniques to families; and
- the ability to ensure the inclusion of students in the decision-making groups alongside parents that make this progression more meaningful for all (Type 5, para. 2)

Collaborating with community. In order to support the stakeholders in the district, it is imperative that successful schools coordinate the resources available to them in the community and provide them to the families they serve in a collaborative manner (Epstein, 2009). Epstein (2009) outlined ways that schools accomplish this with their stakeholders on a regular basis and turn them into results; those practices are:

- providing stakeholders with information on community resources surrounded on holistic supports;
- providing information on community resources that offer support year round;
- examining ways to build and sustain partnerships that include school, civic, counseling, cultural, health, recreation, and other agencies;
- examining how the school can become a full-service agency for the community through all measures; and
- engaging school alumni in programs for the students and families (Type 6, para. 1)

Specific challenges that were named in the framework by Epstein (2009) when discussing collaborating with the community were:

- only surface-level problems really get solved here and begin to fester causing more issues down the line;
- information becomes harder to communicate due to the scale of the partnerships;
- equity of partnerships is hard to keep; and
- attempts to match community partnerships with contributions of school (Type 6, para. 2)

Epstein (2009) outlined in the Framework of Six Types of Involvement how schools can collaborate with the community to increase student achievement. When examining this framework, it is clear that the school's role in this process is to be active, decisive, and clear in the process in approaching the community and providing the stakeholders with the supports needed for the students to be successful. When applying this framework to attendance interventions, Epstein's (2009) framework cross-integrates from achievement into absenteeism, in the way it is applied, by looking at the examples provided by Epstein and understanding how engaging families is beneficial for student outcomes and limiting the challenges before they present themselves.

One of the essential roles of a school is to create a strong line of communication with the home. No matter what type of intervention or program a school puts into place, without the support or some type of partnership created between home and school established, an improvement in student attendance rate or any measure for that matter will not mature. While it is important to have that partnership in place, it is also important
to have a strong foundation and routine for students/families created as early as possible, which is why the data suggest that students enrolled in early childhood programs display better attendance rates than those that were not enrolled. The Head Start Program (History of the Head Start Program, 2018) is attributed with being the first and most important early childhood program that laid the groundwork and model for future early childhood programing. Data gathered from early iterations and implementations of the program were used to sustain and expand such programming so the benefits of early childhood programs could be had by those who wanted to take advantage of it.

## Enrollment in Early Childhood Programs: The History of Head Start Programming

The impact that enrollment in an early childhood education program has on a student's overall attendance rate as they advance throughout their education is sizeable. While the academic benefits of the Head Start Program is yet examined and argued, the influence that membership in such a program has on a student's habit of attending school regularly cannot be denied. Often, it is because the intent of these programs is aimed at providing structure and support for the most at-risk in order to close an achievement gap and help in accelerating processes for students in impoverished areas. In order to understand how the Head Start Program has impacted student attendance rate on a national scale, it is imperative that the history of the program be analyzed so future programming can be designed and results translated for prospective successes.

A strategic War on Poverty was declared at the start of 1964 by President Johnson in his State of the Union Speech. President Johnson sought out Sargent Shriver to create a panel of experts in the field of both education and community development to address a growing problem: the achievement gap between those minority students in poverty and
their counterparts in more affluent areas. Shriver looked to Yale University for assistance as he recruited Dr. Edward Zigler, the Director of the Child Study Center at the University and Dr. Robert Cooke a pediatrician from Johns Hopkins University to aid in the task (U.S. Department of Health and Human Services, ([DHS], 2018).

The team that Shriver assembled was tasked with examining the correlation between poverty and educational outcomes. As the study progressed, the data displayed one fact: an obligation to help disadvantaged groups, compensating for inequality in social or economic conditions; from this, the Head Start Program was born. At its inception, the Head Start Program was designed to "help break the cycle of poverty, providing preschool children of low-income families with a comprehensive program to meet their emotional, social, health, nutritional and psychological needs." (U.S. DHS, 2018, Introduction). A key aspect that was the focus of Dr. Robert Cooke's work was the need for the program to ingrain the culture and the requirement for practices to reflect the differences of students in the communities being helped. The team also wanted to ensure that the communities that had Head Start Programs felt an investment in the program so that they were sustained through volunteer hours and other donations once supports were removed (DHS, 2018, Introduction)

In 1995, the notion of "Early" Head Start Programs (EHS) began to take shape as students were enrolled in programs at an even earlier age to help assist in closing the achievement gap. The first grant funding for these programs was awarded in the fall of 1995, and students began to take advantage of these funds immediately. Expanding upon the idea for the need to reach more children, in the fall of 1998, the Head Start Program was reauthorized by the Federal Government to include full-day and full-year
programming. The enduring effects of the program were to increase achievement of students long-term (DHS, 2018).

In 2007, in order to ensure the program remained effective and was reaching its targeted population, the Head Start Program was once again reauthorized. This reauthorization was met with mixed support from government officials due to the educational achievement of the students not being sustained; however, the socioemotional and attendance benefits of the program for the students that were enrolled continued to be game-changing and life-altering. The realignment of the program included changes such as:

- alignment to state learning standards;
- requiring certification for staff;
- implementing a State Advisory Council;
- increasing the monitoring of the programs;
- reviewing the outcomes of each child; and
- conducting annual financial audits (History of the Head Start Program, 2018)

The leadership structure was also changed to include a technical assistance system to support programs through six National Centers and a state-based system to ensure success. The statute also included a provision that Head Start Programs be audited for certification every five years instead of an indefinite certification being granted; by doing this, programs would have to demonstrate to the state boards that they met a certain quality of educational standards in order to receive funding to continue to provide support for at-risk youth (DHS, 2018).

As of the fall of 2018, Head Start Programs have served more than 32 million children since the program's inception. The program started as a two-month demonstration of need to a full year support for the nation's most at-risk populations of students to close achievement gaps. Currently, Head Start is administered by the Administration for Children and Families (ACF) in the DHS. There are Head Start Programs in all 50 States and in all demographics with more concentrated areas in urban and rural environments serving over one million children; programs are also serving the District of Columbia and Puerto Rico including American Indian, Alaskan Native, and migrant/seasonal communities (DHS, 2018).

The Head Start Program, at its launch in the 1960s, was created to bridge a gap between subgroups. While it was initially a proof of concept, it has grown and sustained itself throughout the $21^{\text {st }}$ Century, while evolving into the program that it is today. Enrollment in early childhood education programs does not guarantee the success of students or at-risk youth in all areas; however, it does provide them with the structures and expectations of success early in their life that they otherwise would not necessarily have had without that program in place. Urban and rural youth often do not place as much emphasis on education as their more affluent counterparts due to the external factors weighing down upon them. The Head Start Program allowed them to have the structures to focus on attendance in an educational program and build those habits early in their adolescence (DHS, 2018).

## David Dubois: Youth Mentoring

The impact of having an active adult in the life of a young person is immeasurable; coupling that presence with the mentoring of that youth and engagement of that adult in the education of that child increases that student's chances of success. David DuBois' Youth Mentoring Theory examined the process of "matching mentors with young people who need or want a caring, responsible adult in their lives" (DuBois, 2011, p. 6). Studies have shown that mentors are more impactful when the mentor is closer in age to the student, not related, and works as a volunteer either through a public agency such as a school, church, or social service program. As DuBois (2011) pointed out, the goal of the Youth Mentoring Theory is to holistically improve the well-being of the youth while providing socio-emotional supports and guidance that support the child both academically and on a social/personal level to increase successes and overcome obstacles. In addition to providing support, one of the aspects of the Youth Mentoring Theory that makes it so successful is individualized goal setting. The goals that students set with their mentors can be school-based or home-based depending on the nature of the mentoring and the need of the youth (DuBois, 2011).

In the United States, over the past decade or so, youth mentoring has seen a surge in usage due to the need of adolescents to receive additional supports regarding both academics and socio-emotional health. Currently, it is estimated that there are as many as 5,000 youth mentoring programs functioning nationwide with approximately 3 million children involved in programing being supported (DuBois, Portillo, Rhodes, Silverthorn, \& Valentine, 2011; Tolan, Henry, Schoeny, Lovegrove, \& Nichols, 2014). Even after adolescents complete these mentoring programs, most go on to receive additional supports as adults due to the successes they experience in programming as youth. In a

2014 study, Stewart and Openshaw reported that with increased political and public support, one-in-three adults report that they have attended or participated in at least one form of mentoring. Due to this increased need, funding for these services has poured into the sector with more than $\$ 100$ million per year dedicated to programs that are focused on the mentoring of youth and the research behind it (Stewart \& Openshaw, 2014). Due to its success, it is estimated that youth mentoring programs are the most widely supported endeavor in America for at-risk youth, and they are seen as the most costeffective intervention strategy in support of academic and socio-emotional assistance (DuBois, 2011).

A growing body of support and research grounded in both traditional and contemporaneous theories support that rapid expansion of youth mentoring programs as outlined by DuBois (2011) and Agnew and Brezina (2011). A key factor to comprehend and recall is that these theories and research are grounded in social bonds - learning, disorganization, and strains (DuBois, 2011). Understanding that combining all of these theories often leads to a mixed methods approach to mentoring and allows for individuals and organizations to slant the practice in a way that is unique to the population and need that they are targeting (DuBois, 2011). DuBois' (2011) Youth Mentor Theory proceeded to state that in addition to identifying preventative risk factors, mentoring groups, in the form of individual, peer-, family-, school-, and community-based, can all benefit from the creation of a supportive environment that is focused on the support around the targeted needs of the subgroup and unique population being mentored (DuBois, 2011).

The extensive work of DuBois, in his 2011 study, has provided both limitations and findings when examining the benefits of existing mentoring programs. DuBois
(2011) conducted a combination of individual and comprehensive reviews that included multiple, statistical meta-analyses to gain a holistic understanding of the results and outcomes of these specific programs examined. The typical outcome of the studies was that mentoring programs and the impact that a mentor has on at-risk youth are effective across multiple settings, especially school-based mentors, when academic, emotional, behavioral, and attendance data are being measured (DuBois, 2011). To further support the findings of DuBois (2011), Tolan et al. (2014) and a group of social psychologists focused their work specifically on the population of at-risk youth. Tolan et al.'s study utilized a random assigned treatment in a quasi-experimental design to implement 46 unique analyses of the effectiveness of youth mentoring programs on schooling outcomes of youth. The study found significant results in all four categories examined: academic achievement, substance abuse, behavior, and attendance. The implementation and support of a youth mentor had a substantial positive impact on the subjects for which they were assigned and interacted with on a regular basis (Tolan et al.).

The impact a mentoring program can have and the structure those programs provide to at-risk youth that often lack important structures in their lives has been shown to have substantial results when it comes to academic, behavioral, socio-emotional, and attendance outcomes on adolescence in schools. The support that these programs provides these students teaches the structures and lessons needed to translate into work and adult situations that they may not have had if these programs were not in place. As Tolan et al.'s (2014) study pointed out, mentoring programs also impact the adults that take part as well as the positive outcomes with those adults have been measured as increased patience and social skills, superior supervision and decision-making when
compared to their peers who did not partake, a sense of self-actualization and fulfillment, social-acceptance, and even health benefits (Tolan et al.). Providing the needed supports and guidance for the students who are designated and defined as at-risk is imperative to the success of every school whether in the form of a mentoring programs, counseling, buddy programs or whatever programs the school may deem beneficial based upon data for their unique population.

## Ecological Systems Theory

The Ecological Systems Theory (Bronfenbrenner, 1979), sometimes referred to as the Human Ecology Theory, is made up of five unique systems thought to impact how an individual behaves and the outcome of a person. The theory, published in 1979 by famous psychologist Urie Bronfenbrenner, has been the basis and inspiration of many psychologists that examine the effects environmental systems have on patient outcomes. Bronfenbrenner's 1979 work is looked at by many as the foundation for systems-based ecological theory work. The theory helps psychologists understand why people behave differently when compared to others who have different external factors impacting them either with their family or in their professional/social life. Understanding how the environment surrounding students impacts their behavior and outcomes allows those interacting with them to support them in more meaningful ways to gain the greatest intended outcomes. Figure 2 demonstrates a child's interaction with each system in Bronfenbrenner's Ecological Systems Theory (1979).

## Bronfenbrenner's Ecological Systems Theory

## Chronosystem

Changes Over Time

## Macrosystem

Social and Cultural Values
Exosystem
Indirect Environment
Mesosystem
Connections

Microsystem
Immediate Environment

Figure 4: Graphic representation of Bronfenbrenner's Ecological Systems Theory (The Psychology Notes HQ, 2013)

The microsystem. The Microsystem, in Bronfenbrenner's Ecological Systems Theory (1979), is defined as the immediate atmosphere that impacts a child's life the most. Those symbols in a child's life that would be included in this ecosystem could include: immediate family, friends, school stakeholders, neighborhood folk, and other people who have immediate contact or direct social interactions with the child.

Bronfenbrenner's Ecological Systems Theory (1979) stated that in this part of the system, children are not bystanders but architects contributing to the construction of the
ecosystem itself by interacting with those agents involved in the experiences (Bronfenbrenner, 1979).

The mesosystem. The Mesosystem, in Bronfenbrenner's Ecological Systems Theory (1979), is defined as how each system interacts with one another in a child's life through development. Simply stated, how familial interactions may impact interactions with teachers or friends at school or vice-versa. For example, if a child has a positive relationship with his parents, where there is trust based upon communication, that relationship could translate to the school-based environment with the child's teacher(s) (Bronfenbrenner, 1979).

The exosystem. The Exosystem, in Bronfenbrenner's Ecological Systems Theory (1979), is defined as the link between the environment where a child chooses to either be an active or passive participant in the ecosystem. A way to frame this in a logical sense would be if a teacher goes out on maternity leave and a student had a close connection with that teacher, the student could choose to make a new connection with the teacher that comes into the classroom or remain distant based upon their prior relationship with the teacher that was present in the class. Furthermore, this can be used when thinking about a mother and father relationship. Children tend to be closer to one parent or another. If a child's father goes on an extended business trip abroad and that child has a stronger bond with his father than his mother, this event can either strengthen the relationship between the child and the mother or cause conflict in the child's life (Bronfenbrenner, 1979).

The macrosystem. The Macrosystem, in Bronfenbrenner's Ecological Systems Theory (1979), is defined simply as the culture of the child in the ecosystem. The cultural
frameworks of the child can include such factors as: socioeconomic status, race, religion, location, work ethic of family, perceptions of the world around them, etc. For example, being born to an affluent family impacts how a child approaches the rest of the ecosystems and outcomes on a daily basis due to the remaining factors that play upon the child's development (Bronfenbrenner, 1979).

The chronosystem. The Chronosystem, in Bronfenbrenner's Ecological Systems Theory (1979), is defined as the transitions and life events that impact the life of a child. One classic example of a Chronosystem-esc type interaction would be the effects of a divorce on multiple ecosystems. Not only would that divorce impact the relationship of the couple that was married but it would impact the child's living conditions, the relationship the child has with the parents, the socioemotional health of the child as well as many other factors in the four other ecosystems encompassed in Bronfenbrenner's (1979) theory. This could also be seen in the death of a matriarch of a family. That death impacts the ecosystem(s) of multiple members of that family in several different systems and the impact that one event has could endure for an unknown duration of time based upon each system (Bronfenbrenner, 1979).

## Chronic Absenteeism

The focus of this study is how to effectively combat chronic absenteeism, so it is important to understand what types of interventions have historically been effective. Remembering the definition of chronic absenteeism as a term assigned to a student who misses $10 \%$ or more of the school year, including excused and unexcused absences (in Ohio, this is about 18 days in a 180-day school year). This threshold is an empirically supported indicator of whether a student is at academic risk due to absenteeism (Kearney
\& Graczyk, 2013). Examining literature to view how researchers have understood the problem of chronic absenteeism is vital to build a foundation of knowledge when beginning to study a problem as broad as student absenteeism at a K-12 level.

Sutphen, Ford, and Flaherty (2010) conducted an extensive review of literature examining and evaluating specific truancy interventions that were published between the years 1990 and 2007. The 2010 study reviewed 16 impactful works that occurred during that time span. Sutphen et al. provided a broad base of information as the study examined different populations, demographics, sample sizes, and different types of specific interventions. Half of the articles examined utilized group comparison designs while the other half utilized a one-group pre-test/post-test approach. Results from this extensive review of literature displayed that, of the 16 cases reviewed, six attendance interventions proved to be the most impactful. The six interventions were: contingency management, school reorganization, punitive measures, community partnerships, and family-oriented activities.

Similarly, Raedeke and Dlugonski (2017) conducted a randomized control study over the period of 10 weeks to examine the impact that exercise and being active played on attendance rate. The two utilized step counts of the 56 participants from the trial to determine if those who were more active over a period of time displayed higher attendance rates than their less active counterparts. The study found that focusing on activity alone did not impact attendance rate; however, those who were more active displayed a higher sense of self-worth as well as a better attitude. The combination of attitude, self-worth, and being active improved their outlook on the program, therefore
increasing their attendance rate as learned through follow-up conversations with the study participants.

The two studies examined different types of interventions and how they impacted attendance rate. Interpreting and understanding how these findings have utilized specific interventions and the data from said interventions to provide the evidence needed for this study to move further. The intent of the study is to take information rendered from the above and apply it when examining what interventions are beneficial to students in the K12 realm of education.

## Data Collection Measures Used to Define Chronic Absenteeism

When defining chronic absenteeism, it is important for the researcher collecting that data to understand the measurers and the method they are using. This section examines several studies and the data that were collected, the method that the studies utilized, and how that method was used to define chronic absenteeism in their organization. The exceptionally helpful part of these studies was the different methodologies that were utilized in each that allowed the researcher to analyze the data collection piece in addition to the how the studies took place in different demographics and utilized different instruments and different interventions. The helpfulness of these studies allowed the researcher to apply the knowledge gained from these to the implementation of the interventions applied in the study itself and impacted the outcomes overall.

Pollak and Parnell (2018) conducted a weighted least squares (WLS) regression combined with an ordinary least squares (OLS) regression study to determine if structure of course schedules and when courses are offered had an impact on student attendance at the college level. The study found that students were more successful when a college course met three-times per week as opposed to only two-times be week. While student grades on average increased three-to-nine percentage points with the additional class meetings, student attendance rate decreased across the board due to additional classes being added to the course of study.

Rogers et al. (2016) used a random control trial in a large urban school district to understand the effectiveness of specific attendance interventions. The study is focused on communication, specifically with parents, and how different types of communication impacts student attendance rates. The study also looks to provide the parents of students with important information about how their student's attendance impacts their achievement and then gauge if that information then changes student attendance rate. Ultimately, the study found that effective communication with parents was a great deterrent to student absenteeism.

Spencer (2009) used a composite sequence analysis alongside a cross-case analysis over an extended period of time to conduct an extensive review of educational records. These records were of students in Grades K-8 in a cumulative nature. The study helped to determine if these records could be used to predict patterns of student attendance over time. Data were analyzed on an individual by individual basis to understand and present predictive patterns over time. The concluding statement in the
study was that student attendance records, in fact, can be utilized in most instances to predict student absentee patterns when moving through their grades.

Whitney and Liu (2017), during the academic years of 2007-2008 and 2012-2013, utilized a longitudinal study that included over 50,000 urban middle and high school students to examine full- and half-day absences. The focus of this study was to determine if students that missed only part of a day were prone to miss full days as well or just partial school days on a more frequent basis. The study also examined how the data were represented in the different subgroups to understand how it changed or was impacted by a student being represented in this group. The researchers also posed the question if the data changed by student age from middle to high school. The data from the study displayed a sharp jump from middle to high school in both full and partial student absences. In high school students, there is a greater variance in how students choose to leave school due to how the day is segmented, and the data also displayed that the older a student becomes, the more likely they are to leave school before the day ends.

As a researcher, the most important thing one can do is gather studies that utilize a multitude of methodologies in addition to examining different demographics so that the scope of the work can be examined from different angles. When the work and data can then be applied to the same subgroup as the work that the researcher intends to study, the effort becomes that more valuable to the researcher. Examining different methodologies allows the researcher to understand how one can apply said methods to a study that makes sense and is valuable to intended outcomes. In the sense of the above studies, they are a good representation of different approaches to examining the problem of chronic
absenteeism and would assist a researcher in understanding that problem as it was intended.

## Reasons for Chronic Absenteeism

In order to address and ultimately fix the problem of chronic absenteeism requires truly understanding the reasons for it. Interviews and reviews of literature are two methods of gathering information and examining possible outcomes for chronic absenteeism that were utilized for this study. The benefit of these studies were the firsthand accounts of students and families giving their reasoning behind missing school or simply not enrolling at all. Overwhelmingly, it was due to a lack of support, motivation, and a disconnect between the families and the students with the school that allowed them to simply begin to miss school and feel that it was okay to not attend on a consistent basis. Those students who felt that there was a sense of belonging attended school on a more regular basis. Using that feedback and knowledge from both sides and building interventions will allow schools to increase attendance rates and combat chronic absenteeism.

Baker and Bishop (2015) conducted interviews in homes that were semistructured and then analyzed using Interpretative Phenomenological Analysis. These interviews were of four students who displayed chronic absentee issues at the secondary level. Discussions and questions centered around early interventions and programs, their feelings towards school, the students experience with their teachers and peers in school, the programs that interested them in their schools, what impacted their attendance, as well as questions designed for each individual child. Findings from the study differed for each individual student due to the reasons for non-attendance being different for each
child; however, their positive and negative experiences appeared remarkably similar. Emergent themes from the study were: lack of support, feeling blamed by peers and adults, being punished or wrongly accused, not being believed in, and no sense of achievement or future of success.

Black, Seder, and Kekahio (2014) conducted an in-depth review of literature to gain a better understanding of why students either do not enroll in school or fail to attend school. The study examined the specific reasons why students miss school as well as the uniqueness of each community to understand the external factors that play upon the environment that lends to student attendance rates. When examining the research, the study broke the abundance of material into four-themes: student, family, school, and community specific to better understand the impacts. In most cases, one theme impacted another due to their interrelatedness. The overall findings of the review determined that students who appear to be performing below standards in school tend to remove themselves and are less motivated to perform at higher levels. Students are more likely to repeat grades, drop out of school, and attendance rates drop for those students.

Sugrue, Zuel, and LaLiberte (2016), over a two-month period, interviewed staff working in a truancy intervention program. The benefit of these interviews and subjects was providing deep insights into factors related to chronic absenteeism as well as successful truancy programs. Purposive sampling was utilized to choose the participants, 22 in all, that included 15 case workers and eight supervisors. The study examined students in Grades K-5 while focusing specifically on the racial subgroups of: Latino, Hmong, Somali, and Native American. The study proposed three over-arching research questions: (1) What factors are related to chronic school absenteeism for children in

Grades K-5 participating in a truancy intervention program? (2) What are the key elements that make up the caseworker intervention component of the program? and (3) How does the caseworker intervention fit with the identified related factors? The study found that there are very few relevant and dynamic studies and pieces of literature that display truly effective attendance interventions to combat truancy. The results also demonstrated that chronic absenteeism is correlated to multileveled ecology and the problem itself is overly complex.

Once a school is able to understand the why, the what can then begin to be developed. Perhaps one of the biggest issues facing school districts today is their lack of ability to understand their why (Michael, 2017). Asking what impact chronic absenteeism has on a student and their school or why it really is an issue truly is the crux of this study. The answer is a simple one: student absenteeism impacts student achievement. The more days a student misses from school, the more likely they are to not do well academically; similarly, the more disconnected a student feels from the school the less likely they are to attend school on a consistent basis if at all.

## The Impact Chronic Absenteeism Has on Student Achievement

The greatest impact chronic absenteeism has on a student is it limits their ability to achieve academically at their highest levels. During the 2009-2010 school year students in the United States missed 57 million days of school (Taylor, 2014). Students in the school district during the 2017-2018 school year missed 34,673 days of school, when totaling excused and unexcused absences, which averages to more than 10 days of school missed for every student enrolled in the district (Anonymous Local School District Profile, n.d.) If a student is not at school, the simple correlation is that they cannot learn
or retain information. When conducting the study of what attendance interventions were the most impactful, it is important to understand the academic impact non-attendance has on a student so these outcomes could be communicated to stakeholders in a way that would make that connection real, if the connection existed. Based upon the research below, there was a strong correlation between non-attendance and lower academic success in students.

Bijsmans and Schakel (2018) examined the factors that contribute to a student succeeding in school, namely attendance. The study dug into the issue of non-attendance on a student's ability to be successful. Bijsmans and Schakel (2018) examined three different populations from Maastricht University's Bachelors in European Studies to determine their outcomes. One of the factors that the study looked at was the delivery method of the content and how engaging the material was. One of the things lacking in attendance studies is the importance (or lack thereof) of the learning environment of the students since there is little research dedicated to this topic on attendance rate. While there is little research dedicated to this topic, the authors found that attendance and the learning environment are in direct correlation with one another. When the learning environment of the students is positive, attendance increases; on the contrary, when students perceive the environment as negative or not healthy, attendance is poor.

Gotfried (2010) uniquely utilized a triad methodological approach to help understand the relationship, if one exists, between student achievement; in short, if a student has a higher attendance rate, do they do better in school? The study was a longitudinal approach that took place from 1994 through 2001 in the Philadelphia Public Schools in the elementary through middle school grades creating an extremely large
sample size. Outlying factors such as age and grade, value-added data to understand historical performance, and utilizing the distance a student lives from their school was the three methodical approaches the author chose to implement in order to minimize the flaws in data that they could not observe. One issue of this study was not examining a student's pathway all the way through high school which could have been truly effective. The study also focuses on one district, in one setting, and one sub-group which limits its ability to draw in multi-district comparisons on data. Gotfried (2010) concluded that attendance, especially in the elementary grades, is essential to academic success and positive movement through content mastery.

Sund and Bignoux (2018) utilized the records of 674 students attending a Londonbased University to examine if attendance has an impact on performance at the college level. The study examined attendance polices of the classes to understand how these polices influenced if students had the right to decide if attending the class or not would greatly impact their final overall grade. Those classes that wrote and communicated carefully extensive attendance policies saw their student success rate as well as student attendance data improve over classes that did not have such measures in place. The study relied on three forms of data collection, student records (as noted above, examining the attendance policies of the classes the students in the study were enrolled in, and direct interviews and reactions of the students taking part in the study. Sund and Bignoux (2018) provided evidence that there is a clear connection that strong attendance policies and an expectation to attend class results in increased student achievement as well as students taking ownership over their success while taking the class more seriously.

Tobin (2014) conducted a quantitative study and analysis of a large urban school district over a period of two years examining students from Grades 3-8; however, Tobin (2014) only utilized Grades 3-5 when compiling the results of the study. An analysis of the test scores of the students was done and correlated with the housing status of the students in the district that was utilized for the study; the district is described as a large urban school district from the northeastern United States but is never named specifically. The specific question being analyzed was if a student in the homeless subgroup had a differing achievement level in math and language arts than their counterparts due to different factors like infrequent attendance and emotional state. During a review of student records, Tobin (2014) provided the alarming statistic that, on average, homeless students in the study missed $50 \%$ less school than students who fall in the low socioeconomic sub-group which was a misconception going into the data review. Tobin (2014) made the statement that socio-economic status can be an accurate predictor for student attendance rate based upon this finding from this 2014 study as well as his own review of literature. The concluding statement made was that homelessness should be considered a risk factor when considering attendance rate much like poverty and a student's race in correlation with achievement.

The one aspect that needs to be taken into consideration when examining the academic outcomes as well as attendance to school that many often forget about is subgroups, i.e., socio-economic status, homelessness, race, special education, etc. The data from the above studies displayed a correlation with lower attendance and academic performance in said sub-groups in comparison to their peers. When designing interventions and creating structures in schools, circumstances and outreach to special
groups should be considered so messaging and the needed supports are appropriately used in order to increase attendance and academic performance.

## Theory and Policy [Programs] Combating Chronic Absenteeism

When calculating attendance data, one thing that must be considered is how data are recorded and how said data are analyzed. Most school districts in the state of Ohio use a SIS that automates the student data and attendance. There is nothing written into law that regulates how school districts must take or report their attendance data to the state, simply that the data must be reported. It is because there is a lack of guidance and regulation that there is inconsistency in the data sets and the integrity and reliability of the data are often called into question, especially by school districts with exceptionally high mobility rates. Examining studies with programs, theory, and policy that regulate such issues can help curb these anomalies and purify data mistakes to assist schools in ensuring attendance interventions and their effectiveness are truly measured against others in an apples to apples (emphasis added) sense.

Watson and Hemmer (2015) spent three months examining data from Texas school districts. The focus of the study was to review the way districts in Texas reported and recorded student attendance in accordance with state and local policies in place. Included in this review were all classifications of schools: public, charter, alternative, and virtual. Watson and Hemmer (2015) utilized data prompts that looked at how and when student attendance was taken and then how that data were reported to the state; further, they examined the differences in the polices in each district. In the study, Watson and Hemmer (2015) cited the Texas Education Code and how each district interpreted that Code differently causing discrepancies in how attendance data are reported to the state
and differences and errors in the attendance data itself. The study specifically stated how similar the practices were in Texas to Ohio and hypothesized that the errors found in Texas, if examined in Ohio, would more than likely be found as well. Watson and Hemmer (2015) concluded that while school districts are required to adopt certain guidelines in accordance with state guidelines, attendance reporting is accurate only $70 \%$ of the time.

## External Factors That Influence Student Attendance Rate

Educators are notoriously hard on themselves for not being able to help their students, and, when they fail to help them, holding themselves accountable for their own and their student's failure. There is only so much that humans can control in the environment of a school and those are the internal factors of the educational environment, the environment that a teacher creates and maintains daily for their students. One of the greatest contributions to a student's success, and, ultimately their failures, should that be the case, are the external factors and pressures that they face on a daily basis. When it comes to attendance, external factors play possibly the greatest role in determining attendance rate in students. Examining studies that can help in determining what external factors play the greatest role in impacting attendance rate in students and what interventions have impacted those factors $+/-$ will assist the study in developing the most beneficial interventions for each cohort of student.

Mhurchu et al. (2013) conducted a randomized control trial in 14 schools located in New Zealand focused on low socio-economic schools. The study encompassed 424 children with average age of nine, 225 of which were female and 199 were male. The focus of the study was to determine if schools offered a free breakfast to students in a low
socio-economic subgroup would increase their attendance to school. The thought behind this study was incentivizing a student's attendance to school and removing a barrier often associated with why students miss school in the first place and providing removal of that barrier for those students allowing them to focus on their studies. The study found that offering a free breakfast to the students included in this study had no significant impact on their attendance rate. It did, however, decrease their short-term hunger and improve their attention and performance in school while they were present in class.

Morrissey, Taryn, Hutchinson, and Winsler (2014) examined the relation between academic achievement, student attendance, and socio-economic status in students. The 2014 study encompassed an extremely large sample size of students from Grades K-4 including more than 35,000 students. The study hypothesized that students identified as low-income will exhibit low attendance rates, and thus, will translate into poor academic performance. The findings of the study determined that there was no direct association with socio-economic status and student achievement when compared in a three-tiered hierarchy model such as this; however, the study did conclude that the longer a student was classified as a low socio-economic status, there was a small correlation between school absences and poor school performance displaying a positive data influx in all three categories.

Reneth, Buckley, and Puchner (2015) performed a qualitative, mixed method study. Academic, attendance, and discipline data were collected from 62 students classified in the low-socioeconomic subgroup in a rural school district to determine if an achievement gap existed between peers. Themes that emerged when data were examined were consistent, those themes were: the extent to which parents are involved and the
capacity that they are able to be involved, their access to resources, the role of a school and the resources they offer, and societal and government systems placing limitations on a family's advancement. The study found that there was a significant gap in achievement and attendance rate between those students in a rural school district identified in the low socio-economic sub-group. Reneth et al. determined that students would benefit from strategies and gaining an understanding of the avenues and resources available to them to bridge the gap of the families around them as well as the programs in which other students are enrolled. The study also determined that practices and policies are unintentionally discriminating against students and families in the low socio-economic sub-group and it is often hard for families to overcome those odds due to this.

Rodriquez and Conchas (2009) studied students in Grades 3-12 in an urban school setting outside of Detroit, Michigan. Rodriquez and Conchas (2009) collected and analyzed data in a constructivist-grounded theory approach. The focus of the study was to determine how truly effective one specific intervention program can be on one population and subgroup of students. The study utilized interviews to listen to and consider student voice when examining the culture of the schools. The authors found it important to incorporate visual observations to enrich the context and beliefs of the overall study itself. The uniqueness of student voice and inclusion of community in the study set it apart from others that set up similar structures or examined similar interventions. While the authors noted that one specific truancy attendance program can have a significant impact on student attendance rate, they failed to supply the reader with any data or mention an actual intervention to support that claim; rather, they supplied the reader with
actual accounts of students and parents to provide a structural groundwork for their study and claim.

Saporito (2017) examined data from the 2008-2012 American Community Survey Data to determine the distribution of family incomes as they relate to student attendance and attendance zones/rates. Saporito (2017) stated that communities were segregated by income and attendance rate can be almost pre-determined by how much a family makes as well as segregating classmates from one another due to their family income. The study examined the extent school attendance and the makeup of school districts contribute to individual student attendance rates as well as the overall attendance rate of a school district as it can be predetermined due to an income-based structure. The study stated that larger school districts that are irregular in shape have a harder time with this segregation due to the amount of families in the district as well as the melting pot of communities and neighborhoods comprised in the school. Saporitio (2017) further concluded that income segregation across residential areas impacts attendance rates and there is a high correlation between income and student attendance.

Sweetland (2015) examined the state funding model in Ohio as it evolved over time by tracing its history through specific court cases and assessing how effective it truly is. Sweetland (2015) presented a review of school finance and current practices to help the reader understand the foundation of how current practices were put into place. The study then layered in how school funding is determined and how ineffective the current model is, estimating how much it costs to educate a student vs. actual costs and not defining what an adequate education for a student really is. Sweetland (2015) supplied a successful school strategy which encompasses an attendance component that lays the
groundwork for HB 410 in its infancy and talks about a school funding model that incorporates attendance rate. Sweetland (2015) presented this alternative funding model in four different measurements including achievement, income, attendance, and population in a statewide school-funding shortfall. The study ultimately stated that school funding is an issue and that urban districts with attendance and achievement issues will suffer the greatest in the future no matter what the state decides on how to fund schools moving forward.

## Internal Factors That Influence Student Attendance Rate

One of the greatest internal factors driving a student to stay engaged in their school is how well they are performing. If a student is doing well, they are naturally more inclined to attend and feel a stronger connection with the school, whereas, if a student feels that there is little to no hope for success or that school is simply too hard, they will feel less likely to attend on a regular or routine basis. Internal factors or motivators often drive student attendance rate and interventions put in place to assist in supporting and motivating a student's internal drive to succeed and attend school for their own selffulfillment and worth.

Subedi, Reese, and Powell (2015) compiled grade point averages, student attendance data, and teacher effectiveness surveys in a two-level hierarchical linear model to attempt to determine if there were significant predictors between the data points. Subedi et al. additionally utilized interventions from the High School Graduation Initiative Program to understand and predict if a relationship existed between the amount of school days a student missed and their grade point average (GPA), the authors used a multileveled modeling approach to accomplish this. The study took place from 2010 -

2014 and collected its data from four large urban high schools housing Grades 9-12. The authors provided background data to make connections between attendance, GPA, and teacher effectiveness so the study held a relevance and the overall intervention would make sense once applied to the students in the study. When conducting the research to determine the connections, Subedi et al. created an unintended consequence when they were able to produce a dropout indicator for students in the different subsets of data. The authors ultimately concluded that the three data points were able to demonstrate attendance patterns but were not able to produce an actual prediction model. The statement was made that high school attendance patterns are determined by how students ultimately attend school in the elementary grades.

## The Impact Enrollment in Early Childhood Education Programs Plays on Student

## Attendance Rate

Building a foundational routine, skills, and expectations is instrumental in the success of students. Enrollment in an early childhood education program, specifically preschool, assists in building that strong foundation. Students who have been enrolled in such programs, research suggests, display stronger social-emotional skills earlier on and better adjustment to school-based routines and higher attendance rates over the course of their K-12 careers. Finding the research to support these statements was somewhat easy because the outcomes on such a topic is prevalent in the space; where research needs to fill in the gaps is how great of an impact enrollment plays on the attendance rate of a student over time compared to their counterparts who failed to enroll in such programs.

Ansari and Gottfried (2018), during the years of 2010-2011, conducted a longitudinal study that included 12,835 kindergarten students. The study looked at
patterns of attendance in early childhood programs to determine if those patterns would continue as students transition into first grade. The study indicated that the most important thing a child could do was enroll in a center-based preschool programs followed by a full-day kindergarten program. A half-day kindergarten program showed moderate results but was not as effective as the other two programs showing very slight impact on attendance rate for those students enrolled when they entered the first grade.

Ehrlich, Gwynne, and Fatani (2016) used information from students in preschool and kindergarten gathered from an SIS to conduct an analysis of what student subgroups were the most chronically absent and why. Ehrlich et al. determined that the data gathered could be utilized to create identifiable attendance patterns for students as students progress through future grades. Additionally, data gathered should be considered when making a predictive analysis on attendance patterns when looking at subgroups of students based upon the sample size of students used. The study was able to create an early warning system for student attendance patterns so attendance interventions could be put into place due to the predictive nature of the data being gathered. The study concluded that those students who displayed tendencies of chronic absenteeism also struggled academically and socially and this gap continued to widen as they got older. Eisenhower, Taylor, and Baker (2016) used a block randomized control trial that included seven different schools, 33 different kindergarten classrooms, and 97 students who were selected at random. Seventy-two of the 97 students were boys and 56 were White while only 38 spoke English as their first language. The focus of the study was to develop and implement a system of supports and communications for parents that promoted positive student behavior and increased student attendance while involving
those parents directly with the teachers. An additional focus was to provide support for the student as they transitioned into kindergarten in order to start their schooling strong, with the idea that a strong start would translate into increased attendance and academic success later on as a student. The study implemented a 10 -week parent and student support group that assisted in preparing both the student and parent for school and provided strategies and coaching while building relationships with the teachers focusing on collaboration. The collaboration and program overall had positive effects on student behaviors and the teacher-parent relationship but did not have an impact on student attendance that could be significantly measured.

Hazarika (2013) examined students' attendance in school by age band in rural Northern India as a result of being enrolled in an early childhood education program before the age of six. Educational policy in foreign countries, especially those that are underdeveloped, place no emphasis on early childhood education. Developing policy that focuses on enrollment in early childhood education programs is essential to the development and success of educational programs in and outside of the United States. Findings from the study published that pre-school programs raise school enrollment especially in the households of students from low socio-economic backgrounds.

Lee, Han, and Waldfogel (2018) conducted a study of 1,650 five-year-olds enrolled in kindergarten whose mothers were immigrants. The study was longitudinal in nature and compared students who were enrolled in a preschool program against those who were cared for in a home or home-based program. The data comparison looked at both attendance as well academic success when looking at a student being prepared to enter school after exiting a school preparation program. The study displayed that students
who attended a traditional preschool program had an increase in the number of hours they attended school the following year once entering a traditional school program, meaning a better attendance rate. Academically, students who attended a traditional preschool program displayed higher aptitude in both reading and math skills over their peers who failed to take part in a similar program.

## Specific Attendance Interventions

Understanding the research behind why students miss school is essential to, then, dissecting what specific attendance interventions are needed to address those situational attendance difficulties facing schools. Analyzing what has been successful over time and then looking at the scope of today's educational environment while piecing together successful interventions, along with unsuccessful ones, are essential in identifying the key attendance interventions that will make the greatest impact on student attendance rate for the great amount of time across multiple subgroups and populations. It is not until one understands where they have been and what others have done well that one can develop innovative programming to address the needs of their own unique student population that is truly meaningful and impactful.

Costello and Smyth (2017) analyzed at-risk students in a diversion program with a sample size of 10 adolescent males. The study was a completely unique approach to project school attendance in at-risk youth as well as the reduction of criminal acts and antisocial behavior. What made this approach unique was that it mirrored itself after a fantasy football model scoring system meaning that each participant was given a team of classmates and earned points based upon attendance, behavior, and other factors. This helped students hold each other accountable and motivate one another in the school
setting as well as outside of it in order to gain those points. The study demonstrated a significant increase in attendance rate and a decrease in behavioral and societal issues overall.

Kim and Streeter (2008) conducted a longitudinal study that focused on improving school attendance. The study attempted to address and segregate the main issues that school stakeholders, namely administrators, teachers, and families face when attempting to combat chronic absenteeism and improve attendance in school. A multilevel approach was taken to this study not only from the school, but also, in the home by the families of the students. Positive Behavior Interventions and Supports (PBIS) was utilized to create a school culture that students wanted to attend because it was found that punitive measures were not enough to deter students from changing behaviors. There is an abundance of historical research that supports a relationship between issues in a student's life outside of the school that causes them to miss school or perform poorly academically. The study found that the most effective interventions were the ones that were developed for each individual student based upon the school's knowledge of the family and the student's needs. These interventions included

- mental health supports;
- drug/alcohol treatment;
- family counseling;
- academic interventions;
- social service connections;
- increased communication measures when a student is not in attendance at school;
- home visits;
- changing a school's organizational structure and curriculum; and
- understanding the needs of each individual child to make a holistic change to move the data in a positive direction to improve attendance. (Kim \& Streeter, 2008, pp. 3-12)

Maynard, McCrea, Pigott, and Kelly (2013) conducted a thorough search that was both randomized and quasi-experimental in nature to examine the effects interventions can have on chronically truant student's attendance rate. While utilizing a systematic review and meta-analytic method, Maynard et al. chose to identify a total of five randomized and 11 quasi-experimental studies to compare and understand how these interventions affect the attendance rate of students. This extensive study revealed that there was no intervention that made a more significant impact on the data more so than any other. The authors concluded that the true need lies in policy and practice in order to supply structures for students and expectations for regular attendance while communicating those in an easy to understand way and on a routine basis.

Oldham, Kellett, Miles, and Sheeran (2012) examined the reason adults chose to attend (or not attend) therapy sessions and measure their attendance rates after specific factors were changed or influenced. The group utilized a random control trial to test their attendance strategy and measure its effectiveness utilizing a basic measure of attendance rate over time both before and after implementation of said strategy. Prior to this study, the authors stated, many strategies to increase attendance had been developed, but there has never been a true measure if those interventions have been effective or not or measuring which has been the most effective. Conclusions drawn by Olhdam et al. were that the interventions overall had a small to medium effect, at most, on attendance. The
ones that showed the most promise centered around time of day and ones that were motivation-based. Communication, including reminders and case managers, also proved to be an effective measure to increase attendance rate but none has a high impact on patients' rate of attendance to sessions.

Twenty administrators, in a qualitative study to examine truancy in schools, were interviewed by Perkins (2013). The purpose of the study was to examine themes in truancy and what causes/stops truancy in schools. The author was also able to uncover several useful tactics for administrators to combat chronic absenteeism by identifying those themes in the work. The nine themes that appeared consistent among those administrators were:

- high schools seem to have the biggest issue with absenteeism;
- administrators believe that the best way to fix the issues is with internal interventions and not external assistance;
- administrators feel that employees that are hired to strictly deal with truancy do not enforce the policy subjectively;
- administrators feel that those same employees feel the opposite about external assistance and that it works better than any measure they could utilize as a building leader;
- school leaders prefer to use a mix of internal and external supports to address truancy;
- employees hired to simply address chronic absenteeism are too quick to refer students to court;
- the most effective interventions have proven to be relationships - community, service, and fines;
- it is essential that parents and students both commit to good attendance or efforts will never take hold; and
- students must believe in themselves in order for their attendance rate to increase. A questionnaire was used to collect the views of 88 learning mentors to gain their understanding and practices of how to deal with and apply interventions when it comes to school attendance and chronic absenteeism (Reid, 2007). The data were collected from two-2004 conferences on school attendances: Excellence in Cites (EiC) and Education Action Zone (EAZ) Initiative Schools; professionals who attended the conference willingly participated in the data collection process. The study stated the serious problem of parents taking their students out of school during critical instructional times, especially those surrounding extended breaks that prolong a student's time away from instruction. Doing this requires a modification of curriculum and educational pathways for students that alter their education and ultimately their ability to be successful in the goals that they set for themselves. The study stated that pairing students and families with highly trained learning and school-based mentors to address their attendance had a great impact on student attendance. Individualized attendance and planning assisted students and families in understanding the impact that missing school had on their own learning and outcomes. The study also uncovered that mentors currently in place had little previous training on how to truly service the stakeholders they are engaging and that more holistic training would increase their effectiveness even more.

Schultz (1987) provided guidance and definitions for key terms surrounding truancy, nonattendance, and information from the differing viewpoints of school stakeholders to gain a holistic understanding of absenteeism. The structure of the work is a paper that summarized theory to build upon while identifying the serious problems that absenteeism causes with students. The study frames and provides evidence that students who are chronically truant often exhibit signs of performing poorly in school, behaving badly, mistreating their peers, as well as having a negative relationship with their teachers. Interventions that assist students with a chronic absentee designation in the framework of this paper were direct communication attempts and interventions specifically designed for individual students.

Smink and Reimer (2005) presented a paper on the 15 most effective strategies to address truancy and attendance issues in schools. In the paper, Smink and Reimer (2005), examined work from the National Dropout Prevention Center and their extensive work around reducing the dropout rate of America's youth by specifically addressing and understanding the needs of students. Smink and Reimer (2005) knew it was important that for an intervention to be effective, one must first understand why students do not attend school in the first place, drop out of school, or decide to be late. While the 2005 work from Smink and Reimer discussed 15 works, the conclusion of the paper stated that there are four effective attendance and truancy-based interventions: mentors, servicelearning projects, enrollment in early childhood programing, and relationships with stakeholders turned into after-school programs and opportunities. Further, Smink and Reimer (2005) found that if a poor attendance pattern is identified early in a student's schooling and interventions and supports are put in place, there is a significantly greater
chance to change that pattern of absences for the students' duration of school than if the attendance issue goes unaddressed. Ultimately, the study concluded that the earlier interventions are put in place, the more effective they are and the presence of the four mentioned are the most effective when attempting to combat chronic absenteeism in students.

In 2014, Taylor collected and conducted a holistic review of attendance data from across the nation to understand the impact that enrollment in early childhood programs has on attendance in later schooling years on students. Taylor (2014) stated that while there is an abundance of data surrounding interventions and attendance, there is not a lot of data for this particular study collected nationally due to attendance not being mandatory at this age of child. In the study, Taylor (2014) provided the data from The United States DOE that during the 2009-2010 school year, there were more than 57 million days of school missed by students nationwide. Taylor (2014) offered the correlation that poor attendance often leads to poor academic outcomes for students. Taylor (2014) continued to state that poor or failing professional habits manifest themselves when adolescents graduate from high school and enter the work force or transition to college that have exhibited patterns of chronic truancy due to the foundation of these behaviors having been built for the duration of their schooling. In the 2014 study, Taylor stated that if attendance was mandatory and recorded, in addition to being communicated effectively, during preschool programing, attendance issues could be resolved more expediently, and poor patterns could be changed and rectified earlier with interventions being put into place for students and families to support their needs instead of allowing the problem to persist and embed itself into a student's routine.

A randomized control trail, in 2016, was conducted by Xiao, Rosas, Karve, Luna, and Jameiro to determine if motivation proved to be an effective intervention to improve attendance. The study took place over a nine-month period from March to November 2013. Included in the study was 200 participants who were selected at random; from the 200, only 122 had data that were readily available to be studied, and ultimately, the study could only utilize 64 participants because of how the data were collected, utilized, stored, and studied. Xiao et al. examined the use of interviewing these participants in two ways, alone and in a group, and providing motivational messages and supports for certain subjects in different settings while taking measures of attendance for the duration of the study during the intervention. The most effective outcome of the study found that group motivational sessions had the greatest impact on attendance rate. Xiao et al. found that $92 \%$ of the participants who participated in a group motivational session improved their attendance after that session when compared to those that did not attend a session that was designed as such.

Zenner, Herrnleben, and Walach (2014) conducted 24 separate studies to determine if mindfulness-based interventions in schools had an impact on students and if they did, what impact did they have. The study itself utilized a controlled design and overall 1,348 students in Grades 1-12 were included but only 876 served in the control group. Zenner et al. utilized a comprehensive search strategy to identify and locate studies pertaining to the topic of mindfulness in schools and the group systematically reviewed each once found. A wide range of instrumentation was needed to examine the studies that were collected due to the differing nature of each. Ultimately, Zenner et al. determined that mindfulness and the interventions that encompass them hold promise in
schools, especially when addressing the socioemotional health of students to impact attendance outcomes and relationships with teachers.

## School-based Interventions

The school is one of the three key aspects in the partnership that can provide, develop, and sustain interventions for students. It is important for schools to understand the "customers" who they serve and the needs that they possess. An important job of all school personnel is to understand the why behind a student's actions, including being absent from school. Once the why is understood, the what becomes much clearer. The what in this case is what attendance intervention or what need does the student have that is not being met that must be met in order for them to attend school on a consistent basis. Once the school is able to understand and fill that void, they can put those scaffolds in place to support their students and build that bridge so the student can begin to attend school regularly.

Edwards (2013) conducted a study at a middle school in the southeastern United States to determine the effectiveness of two attendance-based interventions on students. Edwards (2013) focus was centered around a mentoring- and incentive-based approach for students. Before landing on mentoring and incentive-based measures, Edwards (2013) researched several other approaches but ultimately decided on these two due to their measured effectiveness based upon the research supporting them. Edwards (2013) also identified four factors of absenteeism: family, school, economic, and student variables. The 2013 study concluded that both mentoring- and incentive-based programs have a positive impact in changing student attendance rate at the middle school level prompting

Edwards (2013) to discuss the need for further research centered around individualized interventions for students.

Freeman et al. (2016) conducted a study that examined how the implementation of a positive behavior intervention system impacted the attendance rate of students in the school. The authors' focus was across 37 different states, and specifically, middle through high school students creating a data set that was extremely large and lengthy lasting more than seven years. Data were gathered and supplied from The Office of Special Education Programs, the National PBIS Technical Assistance (TA) Center database, and state-level data sets obtained from publicly released data-archived from department websites. Taking a quasi-experimental approach, Freeman et al., compared the data sets on a multi-level approach to understand the data holistically and see how positive behavior systems and the variables that effect their implementation play upon student attendance rates. The authors concluded that the successful implementation of a tiered positive behavior intervention system has a significant impact on student attendance rate toward the positive in addition to a multitude of other positive factors for students and stakeholders in schools.

Johnson and Lampley (2010) collected archival data from 2003-2005 from a mentoring program involving at-risk youth in Grades 6-8 to determine the effectiveness of a youth mentoring program entitled Linking Individual Students to Educational Needs, (LISTEN). The program was school sponsored in which the at-risk youth were identified by their teachers and the mentors were recruited to address the specific needs of the students involved in the program. The mentors in the LISTEN program were there to assist students with academic, socioemotional and attendance-based issues. In order to
truly determine if the mentoring of the at-risk students were effective, the data collected from the students were triangulated and the following was measured: change in students' GPAs, discipline referrals, and attendance records. Johnson and Lampley (2010) found that the implementation of the LISTEN mentoring program significantly impacted in a positive way all three facets of student outcomes.

Kearney and Graczyk (2013) conducted a study that examined utilizing a traditional Response to Intervention (RTI) programs to address chronic absenteeism in schools and the effect it has on student attendance rate. Kearney and Garczyk (2013) provided a tiered approach to attendance interventions similar to how schools approach an academic intervention system. Interventions that appeared in the tiered system and those that were measured for their impact were: before- and after-school programing, communication notices, attendance plans, conferencing, and alternate placements. The authors concluded that the RTI approach to absenteeism is effective due to the differing application of interventions for each student's unique need; however, the authors did state that the measure of effectiveness for that worked and what did not work for each district would be different based upon the different populations and demographics of the students served.

Maynard, Kremer, and Vaughn (2015) examined the impact implementing afterschool programs would have on attendance rate and combating chronic absenteeism. The study covered 34 years, from 1980 until 2014, molding the policy and practices of many districts. The focus of the after-school programs mainly dealt with the mentoring of the students involved, not always by their teachers but by adults who cared about the outcomes of the students enrolled in the program. The programs that the students were
enrolled in lasted, on average, one and one-half hours. Programs of a similar nature that were implemented during the summer months were structured to function as a normal school day and were found to positively impact the attendance rate of students enrolled for the following school year. According to the study: "The purpose of this systematic review and meta-analysis is to synthesize the available evidence on the effects of afterschool programs with at-risk primary and secondary students on school attendance and externalizing behavior outcomes" (Maynard et al., p. 15). Maynard et al. concluded that a student's enrollment in an after-school program had no significant impact in attendance rate.

Peek (2009) conducted an action research project that gathered information over a 15-month period of time. The project was focused in one school and on the entire 615 student population. Peek (2009) looked at three different interventions and their effects on the 615 students; they were: attendance letters, attendance meetings, and an attendance diversion program. Peek (2009) concluded that while all three interventions had a positive impact on student attendance rate, the most impactful was the combination of the mentor/letter writing campaign at the elementary level entitled "Perfect Pals" due to the increased attention on specific students' attendance rates and needs (p. 12).

Leos-Urbel (2013) used a unique longitudinal data set to conduct a regression and hierarchical linear model analysis over 29 after-school programs. The 29 after-school programs that were examined were through Grades 4-8, contained 5,108 students, and lasted more than two years. Leos-Urbel (2013) examined the relationship between afterschool programs, attendance, school quality, and socioeconomic levels of students. The 2013 study findings displayed that the middle school students in the study displayed a
higher attendance rate when they were enrolled in an after-school program with a familiar adult and felt a sense of purposeful engagement with the programming message. Elementary-aged students displayed an increase in attendance rate when the environment they were surrounded in was more supportive and attendance was incentivized by communicating with families the purpose of attending school. Leos-Urbel (2013) concluded that while the interventions displayed some positive results, they could not be conclusive due to the poor program attendance and overall quality of the design of the programs.

## Family-based Interventions

Schools make up one-third of the groups that make an impact on student attendance interventions; families are one of the other groups and perhaps the most important. Understanding the needs and circumstances of the family will assist the school in putting the needed supports in place to help the family in the ways required to get their student to school on a consistent basis. Often times, the reason the student is not attending school on a consistent basis has nothing to do with their lack of desire to do so, but with family circumstances prohibiting them or allowing them to attend. If a school or family can assist in allowing those students to attend then those attendance rates will increase. Further, sometimes families lack the knowledge, communication link, or relationship with the school that allow them to understand what is occurring with their child that truly impacts their students' academic and attendance outcomes. By intervening with the family, this allows the school, or other party, to directly engage with the whole family, which could directly impact more facets of a student's life and increase the likelihood that their attendance in school would then increase.

Epstein and Sheldon (2002) conducted a longitudinal study that looked at reducing student truancy and absenteeism in schools across the United States. Data that were collected for the study were a student's daily attendance rate as well as the chronic absenteeism rate for students. Once the data were collected, specific partnerships and interventions were developed so that measurements of effectiveness of those specific interventions could be taken. Epstein and Sheldon (2002) wanted to understand how the family-school-community partnership could truly combat chronic absenteeism and the researchers stated that there is very little research to lend to cause. Data from Epstein and Sheldon's (2002) study displayed that student attendance, especially in elementary school, can be significantly increased by implementing specific family and community partnership activities and communication mediums.

Finigan, Copeland, Haynie, and Cheng (2014) utilized an exploratory mixedmethods study to engage the parents of youth. Subjects for the study were from three urban, public high schools and ranged from ages 11-13. Their community was described as a high violence area. The parents of the students in the study were placed into three random groups of interventions: six home sessions, two home sessions followed by four group sessions, or six group sessions. Finigan et al. stated that their study displayed that these results are effective, but it is difficult to hone in on which is the most effective because it is difficult to design interventions and supports for families from these subgroups due to the lack of research and resources surrounding the topic. In order to make the study as effective as possible, the group stated what is truly needed is a way to communicate and engage families in a way that is welcoming and easy for them to understand. Finigan et al. closed with data showing that home visits in an urban setting
were moderately effective but could not be fully measured due to relationship constraints with the researcher and subject.

McConnell and Kubina (2014) turned to a longitudinal study to examine the atrisk behavior of chronically truant students. The study provides the statistic that on any given day, $10 \%$ of public high school students are absent from school and that number regularly reaches into the mid-to-upper 30\%- Data from the 2014 study displayed that students who were labeled as chronically truant displayed trends of absenteeism as early as first grade. McConnell and Kubina (2014) stated: "Chronic nonattendance or absenteeism is the beginning of a slow process eventually leading to school dropout. In a recent statistical analysis of students in public schools in the United States, only $55 \%$ of high school dropouts are employed" (p. 252). The study examined the at-risk behaviors of students who were chronically absent from school and whose behaviors were stated as: vandalism, criminal violence, alcoholism, occupational difficulty, crime, and physical abuse. McConnell and Kubina (2014) concluded that strengthening the family-community-school relationship and communicating needs of individual students resulted in substantial change in student behavior and attendance rate over time.

Rogers and Feller (2016) ran a data test using ordinary least squares (OLS) regressions to generate treatment effect magnitudes and one-sided Fisher Randomization Tests. The intent of the study was to measure the effect that sending home an attendance mailing to at-risk students had on student attendance rate on the following date and in the long-term. The population size of the study was extremely large as it was collected from elementary, middle, and high schools from a major metropolitan area designated as public and totaling nearly 200 schools. Ranging from Grades 1-12, there were more than

30,000 students that were included in the sample size in the 2014-2015 school year. Data were collected from students in the 30,000 population who were absent more than two school days in the current and previous school year. The intent of the letter was to motivate the parents of the at-risk students to improve the attendance of their children through multiple communication mediums in addition to building a relationship with the school. Rogers and Feller (2016) also implemented phone calls as a form of communication alongside the letters to build those relationships and motivate parents to improve their student's attendance. Findings from the study showed significant evidence that communicating with the families, especially with personal phone calls, showed an increased motivation by parents to want to change negative patterns of school attendance and build a relationship with the school.

Seit and Apfel (1994) conducted a study that examined if families with more than one student focused their energy and the outcomes of the interventions applied towards the older or younger students more. The younger students in the study were enrolled in the Yale Child Welfare Project, a family support program previously shown to result in better school adjustment for the firstborns. Seit and Apfel (1994) provided the data from their study that displayed that attendance data for the older students improved more so than the younger students when support was provided to the entire family. The 1994 study stated that the greatest need for at-risk students in multiple student households is for the parents to be armed with more resources and supports from the schools so that they may better understand the outcomes of truancy and chronic absenteeism. Seit and Apfel (1994) further concluded that parents of multi-student households, where the
children are chronically absent, need assistance in changing their home environment and building a supportive one where education is at the forefront.

## Community-based Interventions

The combination of school-based, family-based, and community-based interventions can be a powerful tool when supporting at-risk students. When adding the support of the community to the former supports, the additional resources allow families and schools to call upon outside entities for support when they need it but cannot provide those supports themselves due to lack of assets. Community organizations and locations allow families and schools to address specific concerns and gaps that are found in each student, and then those holes can be filled with the services provided by assistances offered by groups found in the community like shelters, social workers, community organizations, etc. It is imperative that the three: family, school, and community, work in tandem in support of the child in order for them to be successful and get back on track when they are identified as at-risk, or even before that in order to avoid those pitfalls.

Balfanz and Byrnes (2014) used action research to examine 100 different schools in four cohorts that totaled over 87,000 students in New York City. The study examined the impact that a taskforce had on changing the attendance rate of those students labeled as chronically truant. The taskforce utilized student success mentors as a tactic of support and identified individuals who would benefit most based upon data from these mentors to change attendance patterns. Balfanz and Byrnes (2014) stated: "The need for additional resources and community partnerships is lacking, specifically in low-income and urban areas which leads to low attendance rates for students in grades 5-12" (p. 3). The 2014 study concluded that the most impactful of all interactions the taskforce had with the at-
risk youth was the success of mentors, as that intervention had the greatest change in student attendance rate.

Epstein and Sheldon (2002) collected data in a longitudinal study on schools' daily attendance rates. These attendance rates were then broken down into students who were chronically absent, and then, specific parent partnerships and interventions were built to help increase and sustain student attendance. The goal of the study was to understand how to build student attendance rate over time and sustain it. Epstein and Sheldon (2002) further stated that while research exists pertaining to interventions, there is little research available for gradual increases and the sustainability of increasing student attendance rates. The 2002 study suggested that focusing on building family and community partnerships at the elementary grades were essential to the sustainability of maintaining high attendance rates of students long-term.

Fantuzzo, Grim, and Hazan (2005) assessed attendance outcomes in a quasiexperimental design for 567 students identified as truant. Students contained in the study were matched based upon their demographics and then drawn/placed into three distinct categories of attendance interventions: no court referral, traditional court referral, and court referral with community-based services. The study examined how involving the courts and a system based upon a tiered referral system could impact student attendance rate in partnership with the court, schools, community, and families. Fantuzzo et al.'s study displayed no demographic correlation in the data; however, it did display that those students who were placed in the community-based court referral group showed a significant change in their attendance rate. When the group examined this data further, they discovered that the attendance of the students in this group showed a significant
change for the 30 days following the initial placement and continued to show improvement over time. The conclusion of the study was that the partnership with the family, community, and school built a realization around the importance of attendance to school for the parent and student alike.

## History of House Bill 410

HB 410 is a shift in mindset from looking at attendance in days, holistically, to attendance at school in hours or the breaking up of school days into segments to measure how much of each day students attend (House Bill Fact Sheet, n.d.). The foundation of HB 410 is the belief that regular school attendance is the true basis to a student's success in school. If a student is absent from school an excessive amount of time, then their ability to master content is interfered with as is their progress towards obtaining the skills needed to graduate from school and be prepared to enter the workforce (Ohio Department of Education, [ODE], n.d.).

HB 410 was signed in December 2016 by Ohio Governor Kasich with parts of the Bill going into effect on April 6, 2017. The primary sponsors of HB 410 were Republicans Jim Butler of Oakwood, Ohio, and William Seitz of Cincinnati, Ohio, who currently serves as the majority floor leader for the Ohio Senate (Ohio House of Representatives, n.d.). Governor Kasich remained a huge champion for the Bill and utilized it as a political platform.

The ODE's and Ohio Senate's position is that:
It is important for every student in Ohio to attend school every day. Missing too much school has long-term, negative effects on students such as lower achievement and graduation rates. There are many reasons
students miss school, but districts often can directly impact their students' attendance. By using data to identify and support students who may need extra support and services, districts can target supports to get students to school every day. (House Bill 410 Requirements, p. 1)

Further ramifications of the implantation of HB 410's truancy provisions begin to align Ohio law with federal law and to address the overabundance of students who are referred to the court for truancy each year. Lawmakers had intentions of supporting the students' needs but did not consider the additional resources needed to support such huge efforts in the schools.

In HB 410 language, objectives were laid out in Sec. 3314.03. In this section is a 31-point plan and contract that lays out objectives and subcomponents of the policy for the districts to follow in order to meet compliance and funding. Part of the section reads:

A copy of every contract entered into under this section shall be filed with the superintendent of public instruction. The department of education shall make available on its web site a copy of every approved, executed contract filed with the superintendent under this section. (HB 410, p. 44)

After initial implementation of the HB 410, districts had many questions and issues with HB 410 overall. Because of this, a subcommittee was put together by the ODE and a House Bill 410 Fact and Guidance Sheet was released by the ODE as it was designed by this subcommittee made up of educators from different levels and different legislators (ODE, n.d.).

The ODE laid out very specific guidelines and expectations for school districts to follow; those expectations are outlined below coming directly from the HB 410 language that was updated in December 2017.

Updated District policies and procedures needed to reflect the following changes:
Definition of Truancy and Excessive Absences: (HB 410 Requirements, n.d.)

1. 'Chronic truant' is removed from the law;
2. Definition of 'habitual truant' changed from days to hours. The new definition is:
a. Absent 30 or more consecutive hours without a legitimate excuse;
b. Absent 42 or more hours in one school month without a legitimate excuse; or
c. Absent 72 or more hours in one school year without a legitimate excuse.
3. Includes 'excessive absences':
a. Absent 38 or more hours in one school month with or without a legitimate excuse; or
b. Absent 65 or more hours in one school year with or without a legitimate excuse.

Truancy is Decriminalized with Several Changes: (HB 410 Requirements, n.d.)

1. A district must remove 'excessive truancy' from its zero-tolerance policy for violent, disruptive, or inappropriate behavior;
2. Students cannot be expelled or suspended (out of school) for being truant (beginning July 1, 2017); and
3. A district must take several steps to engage the student and his or her family before filing a complaint with juvenile court (including parental notification, an absence intervention team, and an absence intervention plan detailed below). Juvenile court should consider alternatives to adjudication and adjudication should be used as a last resort.

A complaint cannot be filed until:
a. The $61^{\text {st }}$ day after failed implementation of an absence intervention plan; or
b. A child has been absent without a legitimate excuse for 30 or more consecutive hours or 42 or more hours in a school month during the implementation of an absence intervention plan.

## Student Discipline Changes (HB 410 Requirements, n.d.)

1. Schools may permit students to make up missed work due to out-of-school suspensions per district policy; and
2. Schools cannot apply any remaining part or all of a suspension to the following school year, but the superintendent may require a student to participate in community service or an alternative consequence for the number of hours equal to the time left on the suspension.

EMIS Reporting Changes (HB 410 Requirements, n.d.):

1. When a district notifies a parent that a student has excessive absences;
2. When a child has been absent without a legitimate excuse for 30 or more consecutive hours, 42 or more hours in one school month, or 72 or more hours in one school year;
3. When a child, who has been adjudicated an unruly child for being a habitual truant, violates the court order regarding that adjudication; and
4. When an absence intervention plan has been implemented for a child who is habitually truant.

District Responsibilities When a Child Has Excessive Absences (HB 410 Requirements, n.d.)

When a student is excessively absent from school, the following will occur:

1. The district will notify the student's parents in writing in seven days of the triggering absence;
2. The student will follow the district's policy for addressing excessive absences; and
3. The district may refer the student and family to community resources as appropriate.

## District Responsibilities When a Child is Habitually Truant (HB 410 Requirements, n.d.)

When a student is habitually truant, the following will occur:

1. In seven school days of the triggering absence, the district will do the following:
a. Select members of the absence intervention team;
b. Make three meaningful attempts to secure the participation of the student's parent or guardian on the absence intervention team.
2. In 10 days of the triggering absence, the student will be assigned to the selected absence intervention team;
3. In 14 school days after the assignment of the team, the district will develop the student's absence intervention plan; and
4. If the student does not make progress on the plan in 61 days or continues to be excessively absent, the district will file a complaint in the juvenile court.

Districts must establish an absence intervention team to be deployed only when a student is deemed habitually truant. Intervention teams for students excessively absent is at the discretion of the local district (HB 410 Requirements, n.d.).

The purpose of the absence intervention team is to establish a student-centered absence intervention plan for every child who is habitually truant by identifying specific barriers and solutions to attendance. The team is cross-sector and ideally includes the participation of the student and the parent. This requirement is new and is aimed at breaking down barriers to attendance without filing criminal complaints against the student in juvenile court.

1. Districts with a chronic absenteeism rate of $5 \%$ or greater must establish absence intervention teams for students who are habitually truant beginning with the 2017-2018 school year;
2. Schools are permitted to have their own absence intervention teams, but the district is responsible for developing a team if the school does not have one;
3. Membership of each team should vary based on the needs of each individual student, but each team MUST include:
a. A representative from the individual's school or district;
b. Another representative from the school or district who has a relationship with the child;
c. The child's parent (or parent's designee) or the child's guardian, custodian, guardian ad litem, or temporary custodian; and
4. The district or school may consult or partner with public and nonprofit agencies to aid, as appropriate, students and their families to reduce absences (HB 410 Requirements, n.d.).

## Chapter 3

## Methodology

## Research Purpose and Questions

The purpose of this study was to identify what attendance interventions are successful and what interventions are not. An additional purpose of the study was to measure the specific gains particular attendance interventions have on student attendance rate over time, both on individual students and cohorts of students. Further, the study could be utilized as a predictor for future attendance patterns of students to scaffold attendance interventions early on and identify student needs before absenteeism becomes chronic. The impact and findings of this study could be utilized and translated additionally into districts of similar size and demographics.

In this study, the following research questions were addressed:
Diagnostic Analysis:

1. How does a specific attendance intervention impact student attendance rate to school?
2. How does the intervention's impact vary by grade, school, cohort, and student characteristic/subgroup?

Predictive Analysis:
3. How much does early chronic absenteeism predict later attendance patterns?

The school district implements a variety of attendance interventions on a regular basis; however, there is currently no practice implemented to measure the effectiveness of each individual intervention or the impact each has on specific students. It is because
of this the chronic absenteeism rate continues to climb and the efforts of the staff often goes mismanaged. With the implementation of HB 410 and the amount of instructional time students miss, there must be a better way to measure the effectiveness of specific attendance interventions and implement highly effective measures on a more regular basis. The current investigation used data analysis procedures that were supported by the available data. This included correlational and/or regression procedures. A complete data analysis description was provided once the study analysis was completed.

## Participants

Each student enrolled in the school district took part in the intervention attendance program based upon their level of absences in Grades PreK-12. The school district is considered a small-town, rural school district located in Ohio, serving over 3,200 students in Grades PreK-12. The district covers over 75 square miles while serving six different cities and municipalities. The district is located on one centralized campus consisting of five buildings: PreK-2 elementary, 3-4 elementary, 5-6 intermediate, one middle school, and one high school. The average daily enrollment of the district comprised in those five school buildings, excluding those students who attend the vocational school (currently 253 high school students), is 2,973 students (ODE District Profile, n.d.). Based upon 2017-2018 state testing and enrollment data, Figure 6 displays student demographic data.

As of the 2017-2018 school year, the district's enrollment had $39 \%(1,258$ students) of its students classified as economically disadvantaged. Of the 3,226 students enrolled in the school district, $13.6 \%$ are identified with special needs (439 students) and over $40 \%$ ( 1,355 students) are open-enrolled into the district from surrounding communities. The district's mobility rate during the 2017-2018 school year, on average
was $6.2 \%$ (200 students); however, students identified in minority subgroups averaged a mobility rate of nearly $18 \%$ (ODE, District Profile, n.d.)

|  | Enrollment \# | Pct |
| :--- | :--- | :--- |
| All Students | 2,944 |  |
| American Indian or Alaskan Native | 11 | 0.4 |
| Asian or Pacific Islander | 20 | 0.7 |
| Black, Non-Hispanic | 78 | 2.7 |
| Hispanic | 132 | 4.5 |
| Multiracial | 112 | 3.8 |
| White, Non-Hispanic | 2,590 | 88.0 |
| Students with Disabilities | 402 | 13.7 |
| Economic Disadvantage | 1,039 | 35.3 |
| English Learner | NC | NC |
| Migrant | NC | NC |

If Enrollment is less than 10, results are Not Calculated(NC).

Figure 6. Student Demographic Data Based upon State Testing from the 2017-2018 School Year (Anonymous Local School Profile, n.d.)

For the past four school years, enrollment of minority and students contained in the subgroups listed in Figure 6 have remained relatively constant. As displayed in Figure 7, enrollment in the school district has remained relatively normal due to the ability to
fulfill any open seat with the district's open enrollment policy from the surrounding cities.


This graph shows enrollment trends across time.
If Enrollment is less than 10, results are Not Calculated(NC).

Figure 7. Anonymous Local School Enrollment History 2014-2018 Based upon Subgroup According to State Testing Information (Anonymous Local School Profile, n.d.)

As stated previously, students in specific subgroups other than White, show a significantly higher mobility rate over their White counterparts.

Figure 8 and Figure 9 display a graphic representation of the subgroups contained in the school district with an enrollment number greater than 10: American Indian or Alaskan Native, Asian or Pacific Islander, Black/Non-Hispanic, Hispanic, multiracial, students with disabilities, and economically disadvantaged students as recognized by the ODE.


This chart shows the percentage of students, who, because they moved into or out of the district, did not spend a majority of the year within the district. If Enrollment is less than 10, results are Not Calculated(NC).

Figure 8. District Subgroups' 2017-2018 Mobility Rates According to State Testing Data (Anonymous Local School Profile, n.d.)

|  | District Mobility |
| :--- | :--- |
| All Students | $6.2 \%$ |
| American Indian or Alaskan Native | $8.3 \%$ |
| Asian or Pacific Islander | $4.8 \%$ |
| Black, Non-Hispanic | $14 \%$ |
| Hispanic | $18.1 \%$ |
| Multiracial | $11.5 \%$ |
| White, Non-Hispanic | $5 \%$ |
| Students with Disabilities | $13.6 \%$ |
| Economic Disadvantage | $10.4 \%$ |
| English Learner | NC |
| Migrant | NC |
|  |  |

Figure 9. District Subgroups' 2017-2018 Mobility Rates According to State Testing Data (Anonymous Local Schools Profile, n.d.)

Based upon the above subgroups' enrollment in the district and their mobility rates, their attendance rate can be greatly affected on a daily basis. There are many factors that play into attendance and attendance rate, specifically chronic absenteeism. In Figure 10, students enrolled in the school district's attendance by subgroup in addition to sex is displayed in order to gain a holistic understanding and compare how students are attending school on a daily basis.


This graph shows attendance rates by subgroup. If Enrollment is less than 10, results are Not Calculated(NC).

Figure 10. District Attendance Rate by Subgroup During 2017-2018 Including Gender According to State Testing Data (Anonymous Local School Profile, n.d.)

## Target Population

The school district is classified as a small-town, rural school district located in Ohio, serving over 3,200 students in Grades PreK-12. The district covers over 75 square miles while serving six different cities and municipalities. The district is located on one
centralized campus consisting of five buildings: PreK-2 elementary, 3-4 elementary, 5-6 intermediate, one middle school, and one high school. The average daily enrollment of the district comprised in those five school buildings, excluding those students who attend the vocational school (currently, 253 high school students), is 2,973 students (ODE District Profile, n.d.).

As of the 2017-2018 school year, the district's enrollment had $39 \%$ (1,258 students) of its students classified as economically disadvantaged. Of the 3,226 students enrolled in the district, $13.6 \%$ are identified with special needs ( 439 students) and over $40 \%$ (1,355 students) are open-enrolled into the district from surrounding communities. The district's mobility rate during the 2017-2018 school year, on average, was $6.2 \%$ (200 students); however, students identified in minority subgroups averaged a mobility rate of nearly $18 \%$.

The adult population in the district is made up of mostly blue-collar workers integrated among the farmland sprinkled throughout the district. The population of the city where the centralized campus is located, according to 2017 census data, was 6,015 (United States Census Bureau, [USCB], 2017). Of the remaining cities where students are either directly or indirectly enrolled through open-enrollment, the sum total of those cities' populations as of 2017 was 113,985 (local and open-enrollment population). The median income of the cities as of 2017 was $\$ 41,790$, which is roughly $\$ 15,000$ below the national average according to the USCB (2017). Contributing to the above statistic of residents earning $\$ 15,000$ below the national average income could be the fact that only $15.6 \%$ of the population has above a high school diploma, with roughly 17,782 of the 113,985 residents of the five cities pouring into the district either directly or indirectly
(USCB, 2017). The inclusive density of agricultural property making up the district as of 2017 is $6.8 \%$ making the population density of the school district 398.3 and the nonresidential and non-agricultural population per pupil 31,301 (USCB, 2017). These statistics paint the clear picture that the schools are a mid-to-large size rural school district with a blue-collar work force fighting the poverty line on a daily basis that rarely puts an emphasis on higher education due to their own rare experience with higher education.

The district is much more than ratings on a report card and numbers on a census collection. The schools are full of hard working and talented students, teachers, stakeholders, and staff who excel not only in the classroom but also on the field and on the stage. The district's vision is: "Where the Community Educates and Empowers." This can be seen in the hard work and focus of the staff who consistently help students reach their full potential. This potential cannot be reached if students are not in front of their highly qualified and trained teachers learning on a regular basis. During the 2017-2018 school year, $14.5 \%$, or 468 students of the students enrolled in the school district, were classified as chronically absent, roughly two entire grade levels of students (ODE District Profile, n.d.). Without intense interventions and structured focus, this number will only continue to rise over time and students' academic performance and future will ultimately suffer.

## Methods and Instrumentation

The study used student attendance data classified as one of the four sets of attendance codes utilized by the school district. The attendance codes utilized by the district are: absent-excused, absent-unexcused, tardy, and present to school. Student
attendance data were entered daily into the SIS, currently PowerSchool, by the teacher and reconciled by building-level staff. Student attendance reports displaying the data and housed in the SIS were disaggregated by: building, grade, gender, special education designation, and free-reduced lunch status. The study sought to examine the impact that modified, intentional, and succinct communication/notification to families pertaining to student attendance had on individual student attendance rates and then cohorts of students based upon the disaggregated subsets. Student attendance to school was measured before the intervention was applied and then after the communication was distributed to the school district in the form of a postcard. The data were examined to see what cohorts, if any, the intervention was the most beneficial for in shifting attendance rates of students toward the positive.

The district, in its student and staff handbook, includes a section that addresses student attendance. The information contained in the section that defines absences, excused absences, unexcused absences, in addition to the guidelines of HB 410 is as follows:

The laws of the State of Ohio (ORC 3321.04) require that every parent, guardian, or adult having charge of any child between the ages of six (6) and eighteen (18) must send the child to public, private, or parochial school for the full term that school is in session, unless excused by proper legal certificate. Attendance must begin with the first week of school. (Anonymous Schools' Handbook, n.d.)

Many students who miss school have great difficulty in realizing the maximum benefits of schooling because, with few exceptions, make-up work cannot take the place
of regular classroom instruction. Accordingly, students are required to be in regular attendance except when excused by law (Anonymous Schools' Handbook, n.d.).


#### Abstract

Absences In 120 minutes ( 2 hours), after the start of each school day, the school is required by law to attempt to contact the parent or guardian of each student who is absent without legitimate excuse. Because it can be very difficult to contact working parents, we ask that parents or guardians contact the school if they know their child is going to be absent for the day (Anonymous Schools' Handbook, n.d.).

If a phone call is not received to excuse a child's absence, a note must be presented in two days of the student's return to school. The number of days absent, dates, and reason for absence should be stated in the note. If a note is not presented in two days of the student's return to school, the absence will be considered "unexcused." Only school officials have the legal authority to excuse a student from school (Anonymous Schools’ Handbook, n.d.).

In 2016, both the Ohio House and Senate passed HB 410, which adopts nationally accepted best practices to support students and families and keep students engaged in school and on a path to success. Student absence is based on hours of missed instruction, which includes time missed due to tardiness and early pick-up (Anonymous Schools' Handbook, n.d.).


Due to this legislation, the district is required to send a notice to parents when a student reaches the following criteria for absences, either excused or unexcused:

- Missing 38 or more hours in a 30-day period; and
- Missing 65 or more hours in the school year (Anonymous Schools' Handbook, n.d.).

This letter simply serves as a notification of missing hours. Additionally, per Ohio HB 410, any student who is identified as "habitual truant" referring to unexcused absences only, will be assigned to an Absence Intervention Team and placed on an Absence Intervention Plan. Failure to adhere to the plan may result in referral to the Lorain County Juvenile Court. The criteria for "Habitual Truant" is as follows:

- 30 consecutive hours of unexcused absences;
- 42 hours of unexcused absences in one month; and
- 72 hours of unexcused absences in one school year


## Excused Absence

Ohio law recognizes the following as valid reasons for absence from school:

1. Personal Illness;
2. Illness in the Family;
3. Death in the Family;
4. Religious Holidays;
5. Medical/Dental Appointments (with note from doctor); and
6. Emergencies/Circumstances deemed as good and sufficient cause by administration (Anonymous Schools’ Handbook, n.d.)

## Unexcused Absence

The law does not excuse absence from school due to reasons such as shopping, trips, dance lessons, visits to other schools, movies, trips to beauty or barber shops, hunting, picnics, or other leisure activities.

Unexcused absences are as follows:

1. Any absence not excused by state law;
2. Days of out-of-school suspension;
3. Any absence for which a parental note was not received in two days of return from the absence; and
4. Per board policy, once a student has reached 15 excused or unexcused absence days in a school year, all further absences will be considered unexcused unless accompanied by a doctor's note (Anonymous Schools' Handbook, n.d.).

## Sampling Method and Sample Size

The sampling method selected for this study was that of convenience sampling. Convenience sampling is sometimes also referred to as availability sampling due to the ease of access to the subjects contained in the study. Due to the students enrolled in the school district as the focus of the attendance interventions being applied, the convenience sampling method was a logical choice to be utilized in this study. In convenience sampling, the first available primary data sources are often utilized for the research findings without additional need for advanced requirements because the researcher has a relationship or knowledgebase close to the subjects being studied; again: an ease of access. In this type of sampling, there are no seclusion criteria and all subjects are invited to participate, which is beneficial for an attendance-based study so that all students can profit from the work to improve as a scholar (Saunders, Lewis, \& Thornhill, 2012).

Saunders et al. (2012) listed the following advantages and disadvantages of utilizing a convenience sampling method when applied to a dissertation study: Advantages of Convenience Sampling:

- Simplicity of sampling and the ease of research;
- Helpful for pilot studies and for hypothesis generation;
- Data collection can be facilitated in short duration of time; and
- Cheaper to implement when compared to alternative sampling methods.


## Disadvantages of Convenience Sampling

- Highly vulnerable to selection bias and influences beyond the control of the researcher;
- High level of sampling error; and
- Studies that use convenience sampling have little credibility due to reasons above (Saunders et al., Ch. 4).

Convenience sampling was used from the student population in the district in Grades PreK-12 across all five buildings. Projected enrollment for the 2018-2019 school year is 2,996 excluding students enrolled at the local vocational school, roughly 250 students at the high school level. Students from each building were included in the interventions that were applied to measure the impact they had on attendance; however, only specific students and specific buildings received certain interventions due to the need to track enrollment in early childhood programing and separate out and measure the impact applying interventions to students who were separate from only enrollment in such programming. School and cohort enrollment numbers can be seen in Figure 5.

| School Building | Grade | Enrollment Number |
| :---: | :---: | :---: |
| PreK-2 Elementary | PreK | 200 |
| PreK-2 Elementary | K | 200 |
| PreK-2 Elementary | 1 | 199 |


| PreK-2 Elementary | 2 | 218 |
| :---: | :---: | :---: |
| 3-4 Elementary | 3 | 195 |
| 3-4 Elementary | 4 | 210 |
| 5-6 Intermediate | 5 | 205 |
| 5-6 Intermediate | 6 | 201 |
| Middle School | 7 | 219 |
| Middle School | 9 | 220 |
| High School | 10 | 251 |
| High School | 11 | 266 |
| High School | 12 | 269 |
| High School |  | 256 |

Figure 5. 2018 - 2019 Projected Enrollment Numbers for Anonymous Local Schools by School Building and Cohort (Anonymous Local School Profile, n.d.)

## Research Design

For the purpose of this study, the focus was effective communication with families. One of the greatest challenges for schools, as outlined by Epstein (2009), is readability and clarity of the messages being sent home, translation of the messages for families that do not speak English as their native language, those who are poor readers, or those who cannot see, needing to review the quality of the materials being sent home and the difficulty of establishing a two-way communication between home and school. (Epstein, 2009) The district will look to focus on the readability, clarity, and addressing those with different reading levels' aspect of the challenge(s) outlined by Epstein (2009). For this study, the district designed a communication tool, a postcard, with simplistic data
and graphics to assist parents in understanding the importance of attendance to school.
Figure 6 and Figure 7 display the communication tool that was utilized to initiate the conversation about student attendance with the families.


Figure 6. Front of Postcard to be Sent Home to Families


Figure 7. Back of Postcard to be Sent Home to Families
Student attendance data were collected daily in the SIS, currently PowerSchool, and classified into four categories: Excused Absence, Unexcused Absence, Tardy to School, Present/Attending. Student attendance data were run out of the SIS prior to the implementation of the family communication device and then on a routine basis once the material was disseminated to district families to gauge the impact said intervention had on student attendance rate. The data could then be classified into subgroups and/or grade levels/buildings to further determine with whom and at what levels the intervention was the most successful.

## Procedure and Data Analysis

In order to address the following research questions: How does a specific attendance intervention impact student attendance rate to school? How does the
intervention's impact vary by grade, school, cohort, and student characteristic/subgroup? How much does early chronic absenteeism predict later attendance patterns? the following steps were taken in order to gather attendance data, apply interventions, and measure if the interventions worked once applied towards students.

The-school district will continue to utilize prior interventions implemented as well as a tiered intervention system based upon student attendance. An overview of those tiers and actions is:

Tier 1- All Students

- Recognize good and improved attendance utilizing the structures in PBIS programing; and
- Educate and engage students and families through multiple communication mediums (HB 410):
- Technology-based communication methods; and
- Direct communication through phone, postcards, notes home, home visits, etc.;
- Monitor whether absences are adding up (utilize data and analytics) through disaggregation of attendance data in the SIS (currently, Power School);
- Clarify attendance expectations and goals for all stakeholders clearly before school starts; and
- Establish a positive and engaging school climate (e.g., motivating messages about attendance for the community and students)


## Tier 2- Habitually Absent Students

- Provide personalized early outreach (home visits with the use of mentors):
- Utilize school counselors, school administrators, and school social workers in conjunction with school agencies.
- Meet with students and their families to develop individualized attendance plans (truancy intervention plans as required by HB 410 );
- Outreach to students with health challenges; and
- Offer attendance mentors/buddies to assist with understanding patterns and the impacts of missing school on a regular basis.

Tier 3- Chronically Absent Students, Students Who Have Missed More than 10 Days of School:

- Intensive education case management with coordination of public agencies and legal response as needed (file truancy after 61st day if no increase in attendance as stated in the HB 410 statute):
- Utilize school counselors, school administrators, and school social workers in conjunction with school agencies
- Individualized attendance plan that is monitored on a bi-weekly basis with formal communication sent home weekly. Communication form is agreed upon between stakeholders.

Biweekly attendance reports were run and change in attendance rate was tracked as families reacted to the communication they received. These rates of change measured the impact the postcard and transparent communication had on individual students in addition for each tier of student. The data also examined how the intervention was most impactful for each grade level, cohort, and subgroup as the data were disaggregated through the SIS once it was broken out and utilized/examined at the district level on a
routine basis. It is the intent of the researcher to utilize the gathered attendance data to examine the impact on attendance rate the intervention had for four different dependent variables: grade level, building, special education status, and free-reduced lunch status in addition to overall impact for the district.

The researcher, prior to the current role as Director of Education in the district in this study, spent time in a similar position in an urban school district of a similar size in Northeast Ohio. For the purposes of anonymity, this district shall be referred to as "Randomville". While in Randomville, the researcher worked in collaboration with the ODE and Harvard University and its Proving Ground program to gain a holistic understanding of the attendance data and the problem of chronic absenteeism. Further, Harvard University created a professional network of seven schools (including Randomville) to build the capacity of intervention strategies to be implemented. Those interventions were measured on a daily basis and looked for a change in attendance rate in the data gathered and housed in each district's individual SIS (Center for Education Policy Research at Harvard University, n.d.). The Proving Ground program created a useable data dashboard for each district to visualize attendance data and the impact specific interventions had on student attendance rate on a student, grade, building, district, and cohort level.

As a partner with Proving Ground, Randomville Schools were provided with services focused on three areas on a yearly basis, those areas were: data and analytics, peer networking, and education and training. Data and analytics involved a robust analysis of data, actionable reports including cross-network benchmarking and weekly attendance data (Center for Education Policy Research at Harvard University, n.d.). Peer networking
provided collaboration opportunities through a network partner collaboration hub, webinars, and an interactive learning of processes used to reduce chronic absenteeism for students. Education and training involved collaborative network-wide workshops, personalized training, and two individualized strategy meetings (Center for Education Policy Research at Harvard University, n.d.).

Randomville schools, in collaboration with Harvard and the ODE, examined the uniqueness of the community to truly understand the why behind student attendance issues. As an exercise, the district held stakeholder meetings to gather feedback from those that interacted with the school and those that the school communicated with in an effort to curb the attendance problems. Each informational session contained a mixture of staff, parents, students, and community partners; the researcher was directly involved in these meetings and interacted with the stakeholders of Randomville to understand their position. The major takeaway from the sessions was that communication between school and home was too formal and too hard for stakeholders to understand that attendance really was a problem. Feedback gathered during the sessions painted the picture that stakeholders viewed the communications coming from the schools as something mass produced, state mandated, and not relevant to their community. The stakeholders preferred simplistic messages that felt personalized in language that non-educators could understand. Further, the stakeholders shared feedback with the district that something as simple as a postcard with facts and information on it that was designed by the district would make the greatest impact on the community and assist in translating the message in a much clearer and succinct way. Based upon the feedback from the stakeholder sessions
and the impact the postcard had, it was chosen to be the focused intervention for this study.

On January 29, 2020, the researcher, in an effort to collect stakeholder feedback regarding the postcard and its use as an intervention, utilized part of a strategic planning committee meeting to gather said feedback. The group was comprised of parents, teachers, administrators, board of education members, and district staff who were all impacted to some degree by the use of the intervention. The breakdown of the group members was as follows: six parents (one is a board of education member), three principals, four teachers and the researcher (a member of the central office staff within the district). To continue with the theme of anonymity, the comments and feedback regarding the postcard intervention will be separated by the stakeholders' role within the district and then assignment of a number to differentiate each participant. The postcard was sent to district stakeholders on January 21, 2020. The feedback gathered from the strategic planning group was provided approximately one week after their initial interaction with the intervention.

The meeting concluded with a lengthy discussion that examined the intervention by asking the initial question: "Are you aware of the student attendance rate within Anonymous Local Schools?" The replies to this question were divided by those employed by the district and those who had children attending the schools. Parent 1 quickly replied: "My students have great attendance to school. Unless they are puking, they are attending school." Parent 2, who also plays the role of school board member, quickly replied to Parent 1 correcting their response: "That was not the question that was asked. He asked are you aware of the attendance rate within the district? You are an
involved parent, of course your students will have good attendance." Parent 2's response to the group ignited the conversation helping to steer it towards the chronic absentee rate of students attending Anonymous Local Schools.

The knowledge of the group contained within the room regarding student attendance and the chronic absentee rate was limited to how it personally impacted each individual. Parents of students who regularly attended school were unaware that chronic absenteeism is an issue within the district with more than $14 \%$ of students labeled as chronically absent (Anonymous Local School District Profile, n.d.). It was further discovered that some stakeholders were unaware of the district's failing grade on the report card pertaining to student attendance and the consistent increase in the absentee rate over the past three school years and that topic was discussed. Statistics were shared with the group that displayed both the problem that currently exists and the trend as it has continued to grow. One of the teachers present, Teacher 1, in the meeting shared:

We are nearly 100 days through the school year and there have only been 18 days that I have had all of my students in attendance. This makes it extremely hard on me as an educator to catch those children up and plan lessons that address the needs of each student due to the irregular attendance patterns of some of the students within my class

The parents present at the meeting were shocked by this statement.
The researcher then provided additional copies of the postcard to the group. The question was asked: "What was your reaction to the postcard that was sent home last week promoting an awareness of student attendance" Parent 3 responded: "I questioned why I was receiving this postcard because my student has good attendance." A follow-up
question was directed to Parent 3: "That may be the case; however, did it make you think about your student's attendance to school, the last time they missed school and/or how many days they have missed?" Parent 3 paused for several moments and replied with a simple "yes."

Parent 4 then added to the conversation: "I have four students within the district, I received four different post cards addressed to the parents of, was it necessary to send multiple postcards to the same household?" The feedback from this parent can be utilized to improve a future study should this method be used. The postcards were sent out applying a mail-merge process to data extracted from the SIS; therefore, multiple postcards were sent to homes containing more than one student. By refining the addresses and removing duplicates, the additional postcards sent to homes could be avoided and the address line changed to "The $\qquad$ Family" instead of "To the Parents of...."

The conversation moved forward and the group was asked about the design of the postcard while giving the stakeholders several minutes to examine it. Principal 1 commented:

I like that there are some of my students on the postcard. A lot of times when things like this are sent out, they lose a personal feel, I do not think that this is the case with these postcards

Principal 2 added:
Since the postcards were sent home last week, we have seen an increase in the number of requests from families regarding their access to PowerSchool. Prior to the postcard going home, there was minimal
requests for this information other than the first few weeks of school; over the past week, the office has fielded multiple calls per day regarding this

I like how the district is branded all over the postcard, exclaimed Parent 4. I was tired of getting letters home from the schools that felt so formal. The postcard is simple to read and understand. I do not feel that many of the communications parents receive from the schools are sent out with much thought other than just trying to get the information to us

Parent 5 reacted to one of the statistics that was present on the postcard:
I was initially shocked to see the number 57 million [emphasis added] as the amount of days that students miss across America. When my husband and I began discussing the number based upon how many students are actually enrolled in all schools, we could not decide if that number was large or not

Towards the end of the conversations, Principal 3 asked the question: "What do you intend to look at with these postcards? How are you going to know if it worked?" The researcher then shared the four dependent variables that were examined as well as the overall structure for data analysis. It was reported that attendance rate to school would be measured prior to the postcards going home and then it will be measured again once the families have received the intervention. Student attendance rate to school were compared in a pre- post-intervention model to measure if the postcard had any impact on student attendance rate.
"Will the data be shared with the parents and staff?" asked Parent 6. The researcher replied that there was a planned presentation to the board of education once the findings are gathered and data broken apart into a presentable format.

The feedback gathered from the stakeholders was both complementary and helpful when reflecting upon the overall design and dissemination of the intervention tool to the community. The goal of having a more personal touch with simplified language was a highlight for some of the stakeholders at the meeting. Additionally, a goal of the intervention was to create an awareness of student attendance while facilitating discussions with families. This goal was met as evident in the responses from the stakeholders in the meeting and their actions after the postcard was received. There were also multiple pieces of helpful feedback provided by the stakeholders in the meeting about how to further improve upon the postcard intervention, how parents interpreted it, and the desire for the results to be shared. All of the information gathered from the meeting can and should be utilized for reflection/implementation by anyone looking to implement a similar intervention moving forward.

## Proposed Data Analysis

Data were generated daily for this study as student attendance was taken on a regular basis at the start of each school day. The SIS currently utilized by the school district is PowerSchool. Teachers utilized PowerSchool to enter student attendance data in said system and it recorded if a student was or was not present in class. Students received the designation of: Absent - Excused, Absent - Unexcused, Tardy to Class, Present. The district has utilized this SIS since the start of the 2001-2002 school year so
student attendance data could be tracked for students enrolled in the district from Grades PreK-12 given that timeframe.

Attendance reports were completed in a multitude of ways: by individual student, by class, by grade, by subgroup, by gender, by race, by number of absences, by school, etc. The data were manipulated so that the reports could give the researcher a snapshot of whatever subgroup was desired. Data were compared prior to the intervention being applied and then after. This gave the researcher the $+/$ - effect of the intervention impact given the change in attendance rate and monitoring a student's attendance pattern over time. Data analysis for the current investigation included correlational and/or regression type analyses. More information about the data analysis was added once data analysis was complete.

## Chapter 4

## Results

The current investigation examined the change in attendance rate after the attendance intervention was applied; in this investigation, the intervention was a postcard sent home to families. The time periods examined were quarter two of the 2019-2020 school year and quarter three of the 2019-2020 school year.

Specifically, the research questions for this investigation were:

1. How does a specific attendance intervention impact student attendance rate to school?
2. How does the intervention's impact vary by grade, school, and student characteristic/subgroup (gender, disability, and economically disadvantaged)?
3. How much does early chronic absenteeism predict later attendance patterns?

The chapter begins by presenting the basic descriptive statistics, followed by results for each individual research question.

## Descriptive Analysis

The school district under investigation is made up of five school buildings. Two elementary buildings housing grades Preschool through grade four, one intermediate building containing grades five and six, a middle school educating both seventh- and eighth-graders and a comprehensive high school for students in grades nine, 10, 11, and 12. A breakdown of the total student enrollment for the 2019-2020 school year of each building can be found in Table 1.

Table 1
Enrollment of Buildings Under Investigation

| School | Frequency | Percent |
| :--- | :---: | :---: |
| Intermediate | 438 | 14.6 |
| High School | 900 | 30.0 |
| Middle School | 459 | 15.3 |
| Pre to $2^{\text {nd }}$ Grade | 552 | 18.4 |
| Pre $/ 3^{\text {rd }}$ and $4^{\text {th }}$ | 543 | 18.1 |

Note: DATA PRESENTED ARE VALID PERCENTS WITH NO MISSING DATA PROVIDED

As indicated in Table 1, the high school represents the greatest proportion of students within the district.

Table 2 represents a breakdown of the number of students by grade level.

Table 2
Breakdown of Students Within the District Under Investigation by Grade Level

| Grade | Frequency | Percent |
| :---: | :---: | :---: |
| Pre | 60 | 2.0 |
| K | 208 | 6.9 |
| 1 | 203 | 6.8 |
| 2 | 209 | 7.0 |
| 3 | 199 | 6.6 |
| 4 | 216 | 7.2 |
| 5 | 214 | 7.1 |
| 6 | 224 | 7.5 |
| 7 | 227 | 7.6 |
| 8 | 232 | 7.7 |
| 9 | 254 | 8.5 |
| 10 | 241 | 8.0 |
| 11 | 193 | 6.4 |
| 12 | 212 | 7.1 |

Note: DATA PRESENTED ARE VALID PERCENTS WITH NO MISSING DATA PROVIDED

As evident in the breakdown, with the exception of preschool due to capacity limitations, enrollment within the district remains consistent throughout each grade.

Table 3 is a breakdown of enrollment in the district as a whole by gender.

Table 3
Enrollment in the District Under Investigation Broken Down by Gender

|  |  |  |
| :--- | :---: | :---: |
| Gender | Frequency | Percent |
| F | 1389 | 46.3 |
| M | 1502 | 50.1 |
| Note: DATA PRESENTED ARE VALID PERCENTS WITH NO MISSING DATA PROVIDED |  |  |

The enrollment numbers in Table 3 indicate that males during the 2019-2020 school year made up more than $50 \%$ of students enrolled.

Table 4 is a breakdown of the overall student population into students with disabilities and those without.

Table 4
Enrollment in the District Under Investigation Displaying Students With or Without Disabilities

|  |  |  |
| :--- | :---: | :---: |
| Disability | Frequency | Percent |
| No | 2513 | 83.8 |
| Yes | 379 | 12.6 |

Note: DATA PRESENTED ARE VALID PERCENTS WITH NO MISSING DATA PROVIDED

Table 4 displays that $12.6 \%$ of students enrolled in the district under investigation have a learning disability as of the 2019-2020 school year.

Table 5 is a breakdown of the overall student enrollment when examining the economically disadvantaged population.

Table 5
The District Under Investigation's Enrollment Breakdown of Students Who Are Economically Disadvantaged vs. Those Who Are Not

| Economically <br> Disadvantaged | Frequency | Percent |
| :---: | :---: | :---: |
| No | 1871 | 62.4 |
| Yes | 1021 | 34.0 |

Note: DATA PRESENTED ARE VALID PERCENTS WITH NO MISSING DATA PROVIDED

Table 5 shows 1021 of the nearly 3,000 students enrolled within the district under investigation, or $34 \%$, are classified as economically disadvantaged.

Table 6 is a breakdown of students enrolled by ethnicity.

Table 6

Students Enrolled in the District Under Investigation Broken Down by Ethnicity

| Ethnicity | Frequency | Percent |
| :--- | :---: | :---: |
| Asian | 19 | 0.6 |
| Black | 79 | 2.6 |
| Hispanic | 132 | 4.4 |
| Indian | 10 | 0.3 |
| Multi-Race | 117 | 3.9 |
| Pacific Islander | 5 | 0.2 |
| White | 2530 | 84.4 |

Note: DATA PRESENTED ARE VALID PERCENTS WITH NO MISSING DATA PROVIDED

Table 6 shows that the majority of students within the district are White. There is one student within the district under investigation that is classified as Limited English Proficient (LEP).

## Research Question 1

Research question one asked, How does a specific attendance intervention impact student attendance rate to school? A dependent $t$-test was conducted using dependent variables representing student change in attendance rate pre-intervention and student change in student attendance rate post-intervention. The intervention was sent at the beginning of the collection of the post data. These results are presented in Table 7.

Table 7
Change in Student Attendance Rate Pre-Intervention and Post-Intervention

|  |  |  |  |
| :--- | :---: | :---: | :---: |
|  | N | Mean | Sd |
| Pre | 2891 | 0.92 | 0.12 |
| Post | 2891 | 0.93 | 0.12 |

As indicated in Table 7, results suggest that, overall, there were no significant differences from pre- to post-intervention, $t(2890)=-1.05, p=.292, r=.982$.

## Research Question 2

Research question two asked, How does the intervention's impact vary by grade, school, and student characteristic/subgroup (gender, disability, and economically disadvantaged)? Zero-order correlations were used for preliminary data examination of the relationship between these variables. The investigation utilized a Pearson Correlation when examining the intervention's impact on gender, economically disadvantaged, and special education subgroups. However, when examining a student's school building and
analyzing grade-level data, a Spearman Correlation was utilized, due to the ordinal nature of these variables. Table 8 presents the results of these analyses.

## Table 8

Results of the Pearson and Spearman Correlation's Pre- and Post-Intervention

|  | Change | School | Grade | Gender | Ed | Dis |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Change | - | 0.02 | 0.01 | 0.00 | -0.01 | -0.02 |
| School |  | -- | $.954^{* *}$ | $.048^{*}$ | $-.159^{* *}$ | 0.00 |
| Grade |  |  | - | $.061^{* *}$ | $-.154^{* *}$ | $-.053^{* *}$ |
| Gender |  |  | - | -0.03 | $-.089^{* *}$ |  |
| Economically Disadvantaged (Ed) |  |  |  |  | - | $.138^{* *}$ |
| Disability(Dis) |  |  |  |  | - |  |

Note: ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed). Gender coded Male = 1 and Female =2; ED coded No = 0 and $\mathrm{Yes}=1$; Disability coded No = 0 and Yes = 1 .

As indicated in Table 8, only school and grade reveal small negative significant correlations with the change in attendance frequency from the pre- to post-intervention quarters. Since only two variables present significant correlations, a general linear model (GLM) with these two variables was conducted. Levene's Test of Equality of Error Variance indicates that homogeneity of variance is not tenable, $F(14,2876)=2.10, p=$ .009 , however, based on the error degrees of freedom (2876), this is assumed tenable based on the guidelines of Field (2009). The results of the GLM are presented in Table 9.

Table 9
GLM of School and Grade of Pre- and Post-Intervention Change

|  |  |  |  |  | Partial <br> Eta |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Source | df | Mean <br> Square | F | Sig. | Squared |
| Corrected <br> Model | 14 | 0.001 | 1.369 | 0.159 | 0.007 |
| Intercept | 1 | 0.000 | 0.427 | 0.514 | 0.000 |
| School | 1 | 0.00 | 0.063 | 0.802 | 0.000 |
| Grade | 10 | 0.001 | 1.565 | 0.111 | 0.005 |

As Table 9 data display, there is no significant change.
Table 10 provides a breakdown by school and grade level.

Table 10
Breakdown by School and Grade Level

| School | N | Grade | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 140 | 0 | 0.0005 | 0.0067 |
|  | 203 | 1 | 0.0005 | 0.0066 |
|  | 209 | 2 | -0.0002 | 0.0075 |
| 2 | 60 | -1 | 0.0003 | 0.0089 |
|  | 68 | 0 | 0.0014 | 0.0062 |
|  | 199 | 3 | 0.0004 | 0.0068 |
|  | 216 | 4 | 0.0000 | 0.0083 |
|  | 214 | 5 | -0.0019 | 0.0093 |
|  | 224 | 6 | 0.0003 | 0.0222 |
|  | 227 | 7 | 0.0005 | 0.0074 |
|  | 232 | 8 | -0.0007 | 0.0071 |
|  | 254 | 9 | 0.0062 | 0.0716 |
|  | 241 | 10 | -0.0008 | 0.0108 |
|  | 192 | 11 | 0.0007 | 0.0177 |
|  | 212 | 12 | -0.0005 | 0.0078 |

In Table 10, school one and two are elementary schools, school three is an intermediate school, school four is a middle school, and school five is a high school.

Figure 11 is a graphical representation by school of change in attendance rate preand post-intervention. As is evident in Figure 11, there is a variance by building with school building three showing the greatest decrease from the mean and building five showing the greatest increase from the mean.


Figure 11. Graphical Representation of Average Student Attendance Rate Change, Preand Post-Intervention by School Building

Figure 12 provides a graphical representation of change in average student attendance rate pre- and post-intervention by grade. Change in attendance rate remains consistent in most grades with the exception of grade five, where it drops below the mean slightly, and grade nine, where it is visually evident that there is a spike in average student attendance rate by grade but the rate itself is not statistically significant.


Figure 12. Graphical Representation of Average Student Attendance Rate Change, Preand Post-Intervention by Grade Level

A Fisher's Exact Test was used to assess the impact of the intervention on Disability Status, by Gender, and economically disadvantaged. Results are presented in Table 11.

Table 11. Fisher's Exact Test of Disability, Gender, and Economically Disadvantaged

| Variable | Value | df | Exact Sig |
| :--- | :---: | :---: | :---: |
| Disability | 0.216 | 1 | 0.341 |
| Gender | 1.984 | 1 | 0.085 |
| Economically Disadvantaged | 0.798 | 1 | 0.196 |

As indicated in Table 11, there are no significant differences on these variables based on the intervention.

## Research Question 3

Research question three asked, How much does early chronic absenteeism predict later attendance patterns with the intervention? The State of Ohio defines students as chronically absent in the House Bill 410 overview (House Bill 410 Requirements, p.1) by the amount of school missed in hours. The Absence Rate Category is defined with the following cutoffs:

- Satisfactory: $0.00 \%$ through $4.99 \%$;
- At Risk: 5.00\% through 9.99\%;
- Moderately Chronic: $10.00 \%$ through $19.99 \%$; and
- Severely Chronic: 20.00\% and higher

For this analysis, all students with attendance rates below $85 \%$ were considered to be chronic, therefore $n=238$ students were included. A linear regression analysis was conducted in an effort to examine if those who are identified as having chronic absenteeism up to the second quarter of the school year was predictive of their change in attendance, post-intervention.

Assumption tests reveal that assumptions are tenable. Linearity was assessed through a visual analysis of Curve Estimation Analyses of the independent variable with the dependent variable change, the r-squared value was only $4 \%$. These analyses support that a linear relationship exists between the independent variable and the dependent variable. The assumption of homoscedasticity was examined with a standardized residual plot. This plot reveals a scattered non-patterned plot, indicating that homoscedasticity is tenable (Tabachnick \& Fidell, 2009). Finally, Mahalanobis Distance and standardized
residual tests reveal no influential outliers exist in the data set. Regression analysis was conducted as a one-step model. The model was determined to be:

$$
\text { Change }=.045+-.001 \text { (2ndQAttendance) }
$$

The details of the model are indicated on Table11.

## Table 11

Linear Regression Examining the Predictability of Students Remaining Chronically Absent from Quarter Two to Quarter Three Pre- and Post-Intervention

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| (Constant) | 0.045 | 0.012 |  | 3.663 | 0.000 |
| Q2 Attend | -0.001 | 0 | -0.204 | -3.202 | 0.002 |

Overall, data in Table 11 display that students who fell within the chronically absent category did not respond to the intervention. There were only a few students who showed any improvement pre- and post-intervention towards the intervention, but largely, there was no measurable change in attendance rate pre- and post-intervention when examining students who were identified as chronically absent as evident in Figure 13.


Figure 13. Scatterplot of Students Identified as Chronically Absent Improvement in Attendance Rate from Quarter Two to Quarter Three

## Summary

Data from the investigation show no statistical evidence that the intervention had an impact on the average student attendance rate once pre- and post-intervention data were collected and analyzed. When examining the data as an entire school population, the data set did not display significant statistical student data that changed for the positive or the negative and remained consistent for the overall population. Breaking down the data further to see if the intervention made an impact on student subgroups the following findings were made: the intervention had no significant statistical impact on the average student attendance rate by grade, school building, gender, socioeconomic status, or disability category. While the intervention did prove to be impactful for small pockets of students, its overall impact could not statistically be measured or used as a predictor for future behaviors. The pockets of students the intervention revealed impacts for were on
an individual student basis after the data were disaggregated and examined on a student by student basis; however, when the students were added to the entire population or subgroup, their change in attendance rate pre and post intervention did not make a significant enough change to the overall data set to register an impactful statistical change in attendance rate for the whole.

## Chapter 5

## Discussion

## Summary of Findings

The current investigation examined the impact a specific attendance intervention had on student attendance rate pre and post-intervention. The research was conducted over a period of time lasting 128 school days. The 2019-2020 school year for students began on September 3, 2019 and post-data collection ended on March 6, 2020. Pre-data was collected for 83 (41-day first quarter and 42-day second quarter) school days and post-data was collected for a period of 45 school days. The intervention was a postcard that was designed with parent and staff input and sent to families on January 6, 2020. Student attendance data were analyzed pre- and post-intervention to determine if the intervention had an impact on student attendance rate. The research questions for the investigation were as follows:

1. How does a specific attendance intervention impact student attendance rate to school?
2. How does the intervention's impact vary by grade, school and student characteristic/subgroup (gender, disability, and economically disadvantaged)?
3. How much does early chronic absenteeism predict later attendance patterns?

The findings suggest that the intervention did not make a significant overall impact on student attendance rate when looking at all student attendance data. When breaking the data down on a student-by-student basis, minimal increases in student attendance rate can
be seen but a statistically significant impact was not revealed. The intervention did not make a significant impact on student attendance rate pre- and post-intervention nor could it be used to predict later attendance patterns for students who were identified as chronically truant.

The post card intervention designed to improve student attendance rate was a communication tool at its core. The intervention was intended to elicit effective interaction between the school district and home to raise parental awareness regarding student attendance rate. When examining the investigation from this lens, there was an important unintended outcome that came into focus that lends a positive to the intervention and the impact that it had regarding parental communication. While not a research question in this investigation, there was an overall increase in engagement between parents and district personnel pre- and post- intervention when requesting access to the SIS that would display the attendance records of their students to raise an overall awareness if an attendance problem actually existed for a student.

Figure 14 below is an overview of district engagement between parents and the school district, via school district secretaries, pre- and post-intervention, requesting access to their students' SIS account. This was tracked and recorded on a daily basis and combined into a weekly log. Post intervention data were tracked the week of January 6 January 10.

| District Being Examined |  |
| :---: | :---: |
| Date | Engagements |
| October 28 - November 1 | 69 |
| November 4 - November 8 | 90 |
| November 11 - November 15 | 83 |
| November 18 - November 22 | 90 |
| November 25 - November 29 | 103 |
| December 2 - December 6 | 84 |
| December 9 - December 13 | 66 |
| December 16 - December 20 | 87 |
| January 6 - January 10 | 296 |
| January 13 - January 17 | 243 |
| January 20 - January 24 | 229 |
| January 27 - January 31 | 174 |
| February 3 - February 7 | 144 |
| February 10 - February 14 | 138 |
| February 17 - February 21 | 108 |
| February 24 - February 28 | 77 |
| March 2 - March 6 | 97 |
| Average Engagements Before Intervention | 84 |
| Total Average Engagements | 121.00 |
| Increase Above the Mean after Intervention | 175.00 |

Figure 14. District Overview of Parent Engagement with the District Requesting Access to Student SIS Accounts Pre- and Post-Intervention

As displayed in Figure 14, the average increase in parent communication postintervention across the district increased by an average of 175 occurrences per week. Prior to the intervention being put into place, the average number of parental engagements requesting the same type of access was significantly lower with an average of 91 occurrences less per week across the district.

Figure 15 displays the equivalent breakdown of K - 2 elementary during the same time period.

| K-2 Elementary |  |
| :---: | :---: |
| Date | Engagements |
| October 28 - November 1 | 14 |
| November 4 - November 8 | 18 |
| November 11 - November 15 | 23 |
| November 18 - November 22 | 21 |
| November 25 - November 29 | 30 |
| December 2 - December 6 | 24 |
| December 9 - December 13 | 22 |
| December 16 - December 20 | 19 |
| January 6 - January 10 | 91 |
| January 13 - January 17 | 50 |
| January 20 - January 24 | 45 |
| January 27 - January 31 | 31 |
| February 3 - February 7 | 22 |
| February 10 - February 14 | 28 |
| February 17 - February 21 | 25 |
| February 24 - February 28 | 18 |
| March 2 - March 6 | 29 |
| Average Engagements Before Intervention | 21.38 |
| Total Average Engagements | 30 |
| Increase Above the Mean after Intervention | 61 |

Figure 15. Overview of Parent Engagement Within K-2 Elementary Requesting Access to Student SIS Accounts Pre- and Post-Intervention

The data from Figure 15 displays that engagements at K-2 Elementary pre- and postintervention nearly doubled on average.

Figure 16 displays the same breakdown at 3-4 Elementary following the same time period.

| 3-4 Elementary |  |
| :---: | :---: |
| Date | Engagements |
| October 28 - November 1 | 18 |
| November 4 - November 8 | 24 |
| November 11 - November 15 | 20 |
| November 18 - November 22 | 22 |
| November 25 - November 29 | 25 |
| December 2 - December 6 | 15 |
| December 9 - December 13 | 10 |
| December 16 - December 20 | 15 |
| January 6 - January 10 | 70 |
| January 13 - January 17 | 41 |
| January 20 - January 24 | 45 |
| January 27 - January 31 | 42 |
| February 3 - February 7 | 30 |
| February 10 - February 14 | 31 |
| February 17 - February 21 | 20 |
| February 24 - February 28 | 18 |
| March 2 - March 6 | 16 |
| Average Engagements Before Intervention | 18.625 |
| Total Average Engagements | 27.18 |
| Increase Above the Mean after Intervention | 42.82 |

Figure 16. Overview of Parent Engagement Within 3-4 Elementary Requesting Access to Student SIS Accounts Pre- and Post-Intervention

Figure 16 displays an average weekly increase of 15 engagements with a spike of 55 engagements from pre- and post-engagement data collection being the highest movement in the dataset.

Figure 17 is an overview of the parental engagements from 5-6 Intermediate School collected during the same period of time.

| 5-6 Intermediate |  |
| :---: | :---: |
| Date | Engagements |
| October 28 - November 1 | 17 |
| November 4 - November 8 | 22 |
| November 11 - November 15 | 18 |
| November 18 - November 22 | 19 |
| November 25 - November 29 | 20 |
| December 2 - December 6 | 24 |
| December 9 - December 13 | 13 |
| December 16 - December 20 | 19 |
| January 6 - January 10 | 51 |
| January 13 - January 17 | 63 |
| January 20 - January 24 | 64 |
| January 27 - January 31 | 41 |
| February 3 - February 7 | 35 |
| February 10 - February 14 | 33 |
| February 17 - February 21 | 18 |
| February 24 - February 28 | 12 |
| March 2 - March 6 | 20 |
| Average Engagements Before Intervention | 19 |
| Total Average Engagements | 28.76 |
| Increase Above the Mean after Intervention | 22.24 |

Figure 17. Overview of Parent Engagement Within 5-6 Intermediate School Requesting Access to student SIS Accounts Pre- and Post-Intervention

Data at the 5-6 Intermediate School found in Figure 17 shows a more than $200 \%$ increase pre- and post-intervention during the week of January 6 through January 10 in parent engagement before returning to the normal engagement range in February.

Figure 18 displays data collected pre- and post-intervention from the 7-8 Middle School.

| Date |  |
| :--- | ---: |
| Middle School | Engagements |
| October 28 - November 1 | 11 |
| November 4 - November 8 | 16 |
| November 11 - November 15 | 15 |
| November 18 - November 22 | 14 |
| November 25 - November 29 | 18 |
| December 2 - December 6 | 14 |
| December 9 - December 13 | 15 |
| December 16 - December 20 | 15 |
| January 6 - January 10 | 20 |
| January 13 - January 17 | 49 |
| January 20 - January 24 | 55 |
| January 27 - January 31 | 51 |
| February 3 - February 7 | 40 |
| February 10 - February 14 | 36 |
| February 17 - February 21 | 32 |
| February 24 - February 28 | 32.71 |
| March 2 - March 6 | 39 |
| Average Engagements Before Intervention | 36 |
| Total Average Engagements | 18 |
| Increase Above the Mean after Intervention | 17 |

Figure 18. Overview of Parent Engagement Within 7-8 Middle School Requesting Access to Student SIS Accounts Pre- and Post-Intervention

The Middle School data collected indicates parent engagement more than doubled preand post-intervention and remained above the average for seven weeks post-intervention before returning to the norm.

Figure 19 breaks down data from the High School grades 9-12.

| D-12 High School | Engagements |
| :--- | ---: |
| October 28 - November 1 | 9 |
| November 4 - November 8 | 10 |
| November 11 - November 15 | 7 |
| November 18 - November 22 | 14 |
| November 25 - November 29 | 10 |
| December 2 - December 6 | 7 |
| December 9 - December 13 | 6 |
| December 16 - December 20 | 14 |
| January 6 - January 10 | 35 |
| January 13 - January 17 | 34 |
| January 20 - January 24 | 24 |
| January 27 - January 31 | 20 |
| February 3 - February 7 | 21 |
| February 10 - February 14 | 14 |
| February 17 - February 21 | 12 |
| February 24 - February 28 | 14.61 |
| March 2 - March 6 | 11 |
| Average Engagements Before Intervention | 15 |
| Total Average Engagements | 9.625 |
| Increase Above the Mean after Intervention | 14 |

Figure 19. Overview of Parent Engagement Within 9-12 High School Requesting Access to Student SIS Accounts Pre- and Post-Intervention

Figure 19 displays that engagement at the high school level, while low, did increase postintervention more than doubling before returning to a number that remained higher than the pre-intervention average.

The post card intervention did not have a major significant impact on student attendance data that could be measured. The intervention did have an unintended and inciteful outcome that could be measured and that was increased communication and parent engagement with the SIS and parents checking their student attendance. While the answer to the initial research questions of: How does a specific attendance intervention impact student attendance rate to school? How does the intervention's impact vary by grade, school, and student characteristic/subgroup (gender, disability, and economically disadvantaged)?, and How much does early chronic absenteeism predict later attendance patterns? remains "no", parental awareness of their students' attendance, how to access their students' attendance rate, and communication between home and school have all increased and can be measured pre- and post-intervention as evident in the data displayed in the preceding tables. However, what was not known is if the potential confounds of COVID-19 and influenza during the data collection period hds an impact on reporting. Interpretation of Findings

The investigation asked the following research questions: How does a specific attendance intervention impact student attendance rate to school? Hhow does the intervention's impact vary by grade, school, and student characteristic/subgroup (gender, disability, and economically disadvantaged)?, and How much does early chronic absenteeism predict later attendance patterns? After pre- and post-data returns, the answer to each, as outlined above was "no", the intervention did not make a statistical
impact. Although there was not a statistical impact on the holistically data set, individual students did show minimal attendance gains but not enough to definitively state that the intervention worked. The postcard being designed as a communication piece at its core proved to be effective as the average engagements increased districtwide pre- and postintervention on an average of 175 interactions per week across the district.

The framing of the research questions could be an issue. While the intervention did not provide a major statistical impact on student attendance rates, it did marginally improve student attendance by either .5 or 1 day for significant amounts of students across the district that would not be accounted for in a greater data analysis.

Figure 20 is a breakdown by building by of students that attendance rates either maintained their current rates or showed some type of improvement pre- and postintervention. As the data analysis displayed in Chapter 4, change in pre- and post-data was not significant enough in student attendance rate to state the intervention made enough of an impact.

| K-2 Elementary | Total Students | Stayed the same or showed improvement | 69\% |
| :---: | :---: | :---: | :---: |
|  | 552 | 346 |  |
| 3-4 Elementary | Total Students | Stayed the same or showed improvement | 62\% |
|  | 543 | 339 |  |
| 5-6 Intermediate | Total Students | Stayed the same or showed improvement | 51\% |
|  | 438 | 223 |  |
| 7-8 Middle School | Total Students | Stayed the same or showed improvement | 55\% |
|  | 458 | 251 |  |
| 9-12 High School | Total Students | Stayed the same or showed improvement | 54\% |
|  | 901 | 490 |  |

Figure 20. Breakdown of Buildings Displaying Students That Had a Positive Change in Attendance Rate Pre- and Post-Intervention

As displayed above in Figure 20, nearly $50 \%$ of all students enrolled were either able to maintain the same attendance rate or showed no decrease or displayed even a minimal gain.

The design of the investigation had no impact on the outcome of the pre- and post-data results. The sampling of the investigation included the entire student population of the district being investigated. The examination of the pre- and post-data also included a disaggregation into subpopulations of the entire student population into small groups such as gender, disability, and economically disadvantaged. Including the entire
population allowed for a holistic look at the interventions' impact, pre- and post-data collection, for all students.

Data were collected for a period of time lasting 128 school days. The 2019-2020 school year for students began on September 3, 2019 and post-data collection ended on March 6, 2020. Pre-data was collected for 83 (41-day first quarter and 42-day second quarter) school days and post-data was collected for a period of time lasting 45 school days once the intervention was sent home to all families. The period of time pre- and post-intervention signifies the entire length of the first, second, and third quarters for the district that the investigation occurred marking the cutoff of data collection significant and timely in its measure. All buildings and all grade levels contained within the district followed the same schedule pertaining to quarters so the 83-/45-day pre- and post-data collection measure was an equal variable for all student measures across all subjects making the data collection variable and design of the collection to last more than $70 \%$ of an entire school year.

On March 12, 2020, six days after the post-data collection was complete, the Governor of Ohio, Mike DeWine, closed all K-12 schools due to a global pandemic caused by the COVID-19 virus better known as the Coronavirus. The Coronavirus disease 2019 (COVID-19) is a respiratory illness that is most commonly spread from person to person (Center for Disease Control, 2020). The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China. The first case of COVID-19 in the United States was reported on January 21, 2020, which was near the midway point into this investigation (Center for Disease Control, 2020). The virus is thought to spread mainly between people who are in close
contact with one another, currently thought to be an approximately six feet. It is because of this statistic that social distancing and precautions such as shutting down schools were taken to slow the rapid spread of the virus (Center for Disease Control, 2020). It may also be possible for people to contact COVID-19 by touching a surface or objects, such as laptop computers or school papers that have the virus on them and then touching their own mouth, nose, or eyes, but this is not thought to be the main way the virus spreads (Center for Disease Control, 2020). As of April 1, 2020 it is not yet determined if the closure of schools will last for the remainder of the 2020 school year.

As noted above, the first case of COVID-19 appeared in the United Stated on January 21, 2020 and the first case in Ohio was reported on March 11, 2020 (Center for Disease Control, 2020). The Director of the Ohio Department of Health, Dr. Amy Acton, recently stated in an update to the State of Ohio (a transcript of the address can be found online at the Center for Disease Control) that:

We know now, just the fact of community spread, says that at least 1 percent, at the very least, 1 percent of our population is carrying this virus in Ohio today. That 1 percent could have been carrying it since January and just not have known it. We have 11.7 million people. So, the math is over 100,000 . So that just gives you a sense of how this virus spreads and is spreading quickly and will continue to spread. Some people have the virus and show no symptoms and it leaves their system, that is what makes this so tricky

The fact that the Director of the Ohio Department of Health says that " 1 percent could have been carrying it [the Coronavirus] since January and just not have known it ... So, the math is over 100,000 [people] " could greatly impact the outcome of the findings of
the study. There were no reported cases within the state of Ohio during the data collection phase of the study; however, within the United States there were reported cases starting on January 12, 2020 according to the Center for Disease Control (2020). Given that data, there were 35 school days of post-intervention data that could have been impacted by the global pandemic or roughly $78 \%$ of the time post-data was being collected for the investigation.

There was no way to account for the COVID-19 variable during the pre- and postdata collection of this investigation. It was not until five days after post-data collection was complete that the first case of Coronavirus appeared in the state of Ohio and the next day all K-12 schools in the state of Ohio were closed for at least a three-week period. During the design of the intervention and implementation of the study, there was no awareness that the COVID-19 pandemic existed, and therefore, there is a distinct possibility that it had an impact on the data to some degree but that degree cannot be measured with any sort of certainty. Following the guidelines of Dr. Amy Acton, if 1\% of the population on average can carry the virus, and translating that to the population of the study and applying that to the affect size, had the variable of COVID-19 been present, it remains to be seen if the designed intervention would have truly had an impact on student attendance rate due to the minimal statistical impact it had on such a large sample size.

Figure 21 displays attendance data for all students in the district under investigation for the school year 2018 and the current school year 2019. Data in the table displays a decrease in student attendance rate from the Fall to the Winter quarters on a consistent basis. Each quarter is roughly 42 school days in length. During the 2018 school year average student attendance rate for all students decreased by an average of $1.84 \%$;
whereas during the 2019 school year, the average student attendance rate decreased by $2.88 \%$ over the same period of time. Comparing the change between the 2018 and 2019 school years, there was an overall increase in attendance rate for the Fall semester of the 2019 school year by a rate of $.15 \%$ for students; whereas the average student attendance rate for students saw an average decrease of $.89 \%$. The less than $1 \%$ swing in overall attendance rate between the Fall and Winter comparing the 2018 and 2019 school year is less than the overall decrease seen between quarters in the 2019 school year itself. Bringing this data into the investigation suggests that the COVID-19 global pandemic had a minimal if any impact on the post-data collection outcomes for the study.

|  | Fall 2018 | Winter 2018 | Change |
| :--- | :---: | :---: | :---: |
| Average <br> Attendance Rate <br> All Students | $\mathbf{9 4 . 6 7 \%}$ | $92.83 \%$ | $-1.84 \%$ |
|  | Fall 2019 | Winter 2019 | Change |
|  | $94.82 \%$ | $91.94 \%$ | $-2.88 \%$ |
|  | Difference | Difference |  |
|  | $0.15 \%$ | $-0.89 \%$ |  |

Figure 21. Difference in Attendance Rate in the Fall of 2018 and Winter of 2018 Compared to the Fall of 2019 and the Winter of 2019 for All Students in the District Under Investigation

## Context of Findings

The investigation reviewed and compared many different academic studies that found that the use of specific attendance interventions were successful in finding positive gains in student attendance rate to school. As stated previously, the outcome of this investigation was not as significantly impactful as intended, perhaps due to COVID-19,
but that cannot be determined at this time. When designing the research, it was determined that one of the greatest challenges for schools, as outlined by Epstein (2009), was readability and clarity of the messages being sent home, translation of the messages for families that do not speak English as their native language, those who are poor readers, or those who cannot see, needing to review the quality of the materials being sent home and the difficulty of establishing a two-way communication between home and school (Epstein, 2009). This was addressed by sending the intervention home to families. As evident in the post-intervention data, communication between the two increased by more than $200 \%$. Feedback from family and staff regarding the designed intervention was overwhelmingly positive as well. One comment was: "I like that there are some of my students on the postcard. A lot of times when things like this are sent out, they lose a personal feel, I do not think that this is the case with these postcards" (Parent 1, January, 2020).

Building upon the success that this investigation displayed building a bridge between home and school communications, Epstein and Sheldon (2002) conducted a longitudinal study that looked at reducing student truancy and absenteeism in schools across the United States. Data that were collected for the study were students' daily attendance rates as well as the chronic absenteeism rates for students. Once the data were collected, specific partnerships and interventions were developed so that measurements of effectiveness of those specific interventions could be taken. Epstein and Sheldon (2002) wanted to understand how the family-school-community partnership could truly combat chronic absenteeism and the duo stated that there is very little research to lend to that cause. Data from Epstein's and Sheldon's (2002) study displayed that student
attendance, especially in elementary school, can be significantly increased by implementing specific family and community partnership activities and communication mediums. This investigation displayed that such a partnership can be built and once that partnership is built, specific programs need to then be put into place to address issues such as attendance one those lines of communication are established.

Keeping with the theme of effective communication and understanding that families truly need a bridge between school and home to understand when there are issues in order to address them, specifically attendance, another piece of scholarly work that supports an outcome of the investigation was Finigan's, Copeland's, Haynie's, and Cheng's 2014 study. In their work, they utilized an exploratory mixed methods study to engage the parents of youth. Subjects for the study were from three urban, public high schools and ranged from ages 11-13; their community was described as a "high violence" area. The parents of the students in the study were placed into three random groups of interventions: six home sessions, two home sessions followed by four group sessions, or six group sessions. Finigan et al. stated that their study displays these results are effective but it is difficult to hone in on which is the most effective because it is difficult to design interventions and supports for families from these subgroups due to the lack of research and resources surrounding the topic. In order to make the study as effective as possible, the group stated what is truly needed is a way to communicate and engage families in a way that is easy for them to understand and welcoming. Similar to the design of a postcard that helps families understand an attendance program occurring within the school and a way to check their own student's attendance pattern, this study assisted families in understanding at-risk signs in their own students. Data from this investigation
support a correlation between effective communication methods and parental engagement.

One study that added an additional layer onto its investigation more so than just a postcard was Rogers' and Feller's 2016 study that added a personalized phone call to more than 30,000 students. In their 2016 study, Rogers and Feller ran a data test using OLS regressions to generate treatment effect magnitudes and one-sided Fisher Randomization Tests. The intent of the study was to measure the effect of sending home an attendance mailing to at-risk students on student attendance rate on the following date and in the long-term. The population size of the study was extremely large as it was collected from elementary, middle, and high schools from a major metropolitan area designated as totaling nearly 200 schools. Ranging from Grades 1-12 there were more than 30,000 students who were included in the sample size in the 2014-2015 school year. Data were collected from students in the 30,000 population who were absent more than two school days in the current and previous school year. The intent of the letter was to motivate the parents of the at-risk students to improve the attendance of their children through multiple communication mediums in addition to building a relationship with the school. Rogers and Feller (2016) also implemented phone calls as a form of communication alongside the letters to build those relationships and motivate parents to improve their students' attendance. Findings from the study showed significant evidence that communicating with the families, especially with the use of personal phone calls, showed an increased motivation by parents to want to change negative patterns of school attendance and build a relationship with the school. One issue with their study was that it is hard to determine the true impact of the interventions to see if it was the letter or the
phone call that had the most impact. This study was the closest one to the current investigation so there is a correlation to the outcome of the current investigation with Rogers' and Feller's 2016 work. Should this investigation be continued in a further iteration, it may be interesting to add a personalized phone call to see if the results from Rogers' and Feller's 2016 study can be replicated with similar success.

To be clear, the research questions asked: How does a specific attendance intervention impact student attendance rate to school? How does the intervention's impact vary by grade, school, and student characteristic/subgroup (gender, disability, and economically disadvantaged)?, and How much does early chronic absenteeism predict later attendance patterns? These clearly demonstrated no statistical impact on student attendance rate that could be measured on a broad scope. The unintended consequence of the investigation that was supported in the review of literature regarding effective communication to parents and the necessity of building partnerships between home and school was strengthen through the collection of pre- and post-intervention data.

## Implications of Findings

The findings of the investigation are not congruent with the findings of current theories in the field of education nor of current studies that set up investigations with similar parameters. As evident in the studies shared in the review of literature, the impact of the pre- and post-intervention data displayed in this investigation showed no tangible evidence that the effective communication tool sent to families influenced student attendance rate within the school district that the study took place. There is currently an outlying factor, in place, in COVID-19 that took t place during the collection of post-data
that may have impacted the results; however, the degree that COVID-19 may have impacted said data would be hard to measure with any degree of accuracy.

The research contained in the study and the overall design of the study could lend to further investigations in the future but with a different approach and scheme. When looking at Rogers' and Feller's 2016 study and the implementation of an additional variable and their ability to show an undoubted increase in student attendance rate, with the coupling of a communication tool, one could utilize that approach combined with elements of this investigation. A researcher could further design an investigation around communication between home and school as evident in the success demonstrated in this study and the more than $200 \%$ increase in communication between home and school that was created by sending the intervention tool home and tracking the tool pre- and postintervention. Once that line of communication is created between families and schools, other avenues are then open to begin to design other studies and address other needs of both the school in addition to the families and students that they serve.

The role of the researcher in this investigation is an educator; the reason this investigation was conducted was an attempt to calm a widespread and growing problem across the nation: chronic absenteeism. Those who should take notice of this study are educators, both teachers and administrators, in addition to families and students. The review of literature offered that students who miss school are more likely to struggle academically (Gottfried, 2010) and tend to become involved in crime (Kim \& Streeter, 2008), in addition to having a higher dropout rate (Tobin, 2014). One of the greatest contributing factors to poor student attendance is middling communication attempts between school and home that fail to hit the mark (Garcia \& Weiss, 2018). If schools and
educators are able to translate an understanding from this study on how to personalize those communication attempts and increase parent interest in their students, it could lead to a change in how professionals communicate to families especially when it comes to attendance concerns.

## Limitations of Study

Initial limitations for the study were focused on the statistical instrumentation being utilized, the sample size, as well as the financial impacts. Prospective limitations could provide potential roadblocks to the data being useable in a meaningful way for the district, for sustaining long-term future programs, and for translating interventions into other districts should they desire to utilize a similar study in their own district. As the study progressed, it was determined that the global pandemic, COVID-19, and the inability to follow-up with families after the intervention was sent home were true inhibitions to impacting student attendance data.

As for the statistical models, a limitation of a matched comparison is that there could be reasons why some students started some of the controlled interventions and some did not that would drive the effect (i.e., a before- or after-school program, more affluent parents with transportation enrolled their children). A problem then might be that the data display smaller effects of the program when it is rolled out more broadly because the effect was for these more affluent students (E. Scherer, personal communication, December 5, 2017).

The impact of COVID-19 limits the ability of the researcher to continue the study past the March 6, 2020 post-data collection date as the study was initially designed. On March 12, 2020 the Governor of Ohio shut all K-12 schools down due to the global
pandemic in order to stop the spread of the virus. If the study was to continue further and more data were to be gathered and analyzed, it would not be able to gather data beyond that point because schools are not open and formal attendance data is not being collected for students. Even if it were desired for the study to continue, the data analysis section of this study clearly displays that the pre- and post-data analysis does not display a statistical impact of the intervention, or the hint of it making an impact, over a longer period of time.

An additional limitation of this study would be the lack of a pilot study conducted within the district being utilized under the current investigation to determine the effectiveness of the postcard intervention. Without a pilot study conducted within the district it is hard to determine the exact impact the intervention had on the cohort of students' attendance data pre and post intervention. It should be noted that there was a pilot study conducted by the researcher in another district that displayed successes that ultimately led to the determination and inspiration to utilize the postcard intervention in the current investigation. Utilizing a similar structure while modifying it to fit the needs of the current district allowed the researcher to develop a successful investigation but a pilot study would have provided baseline data for a compare and contrast of dataset purposes.

A final limitation, as evident in the success of Rogers' and Feller's 2016 study and the failure of this investigation, was the lack of follow-up by the researcher after the intervention was sent home. By limiting additional communication between home and school beyond the postcard intervention, the researcher was extremely limited in the interaction and the amount of awareness families had regarding their students' attendance
rate. One of the main functions of the postcard was to call parents' attention to their students' attendance rate. If the postcard failed at that initially, the intervention failed and there was not a follow-up after that. The researcher was limited in the attempt to intervene if the initial intervention did not work and that is where this investigation deviated from the design of Rogers' and Feller's 2016 model of success.

## Discussion on Future Direction of Research

This study could prove most impactful in a school district where the chronic absentee rate of students is well above $20 \%$ so the attendance rate has a greater distance to move towards the positive. While the district utilized in the study does have students that are designated as chronically absent, the number is well below that threshold set by the state as outlined here:

- Satisfactory: $0.00 \%$ through $4.99 \%$;
- At Risk: 5.00\% through 9.99\%;
- Moderately Chronic: $10.00 \%$ through $19.99 \%$; and
- Severely Chronic: $20.00 \%$ and higher

Additionally, this investigation could also deliver modified results in a district with a more diverse population. The breakdown of students within the study district is nearly $90 \%$ White and almost a perfect $50 / 50$ split of males and females, with not a great deal of poverty found within its borders. By utilizing the intervention in a district with a more diverse population, the response to the intervention may elicit a different response from different subgroups and the researcher may be able to gain an understanding of how the intervention may be applied to different subgroups for more positive results.

Redesigning the research question(s) to encompass the success this investigation did exhibit would also allow further research conducted to modify this study so it can focus on communication rather than attendance interventions. If the researcher had the ability to redesign the research questions they would look like the following:

- Can a simple communication tool increase parent engagement with schools?
- Does parent engagement impact student attendance rate?
- What methods do parents prefer schools utilize to communicate with them? By modifying the research questions, it would actually shift the focus of the study from attendance to effective communication between home and school which was the true and unintended success of the investigation.

The district under investigation currently has in place a mobile application that is available for download in all online stores. One of the capabilities of that mobile app is the feature to send push notifications to families. Additionally, during the COVID-19 pandemic, when a student misses an assignment, a push notification is sent as an alert to the parent/guardian of the student who is registered as the parent in the Google Classroom site. Future developments could build upon these two technologies as a notification system for families for absences and alert both students and families when a student is not present at school or in a hybrid classroom setting. An immediate notification when a student misses a day of school will keep all stakeholders continuously aware of student attendance patterns instead of lettering possible dangerous attendance patterns build before a problem develops and becomes chronic.

Ultimately, the greatest modification to the study would be the need to follow up with families once the initial intervention, the postcard, was sent home. While the
intervention itself proved to be a good communication tool as evident in feedback from parents during the January feedback meeting, the one communication attempt was not enough. The success displayed in Rogers' and Feller's 2016 study could be translated to a future study combined with the aspects of this study when more communication is attached to the initial intervention attempt. When post-data are being collected and analyzed, it is imperative that when no change is seen in attendance rate for the positive, more should be done by those involved to see that change, rather than to assume that a postcard will simply make that change happen. The second communication attempt is what made Rogers' and Feller's 2016 study successful and galvanizing this investigation with more thoughtful scaffolding and supports for students will realistically produce better results in a future study focused on student attendance.

## Conclusion

Most districts are not aware of their chronic absentee rate because their academic performance does not cause them to be aware of it. The district in the current study is one of those districts. By having systematic truancy interventions in place for all students in districts, even the highest performing districts, it will ensure that all students are provided access to their teachers on a regular and routine basis. This access would be consistently monitored and backed by data-based practices to ensure that when attendance rates reach certain milestones, if they ever do, specific attendance interventions can be put into place to assist students and families in getting back to school and back in front of their teachers. And, while there were limitations to the current investigation, what became clear is that the attempts to communicate with parents did impact parent behavior. This finding will be important as the State of Ohio and other states move forward in delivering more online
and remote education in response to unplanned circumstances such as COVID-19. While this investigation did not provide evidence of impacting student attendance at a statistically significant level, potentially because of the mitigating factors of an aggressive flu season and/or mild COVID-19 symptoms, parents responded to the outreach. From an administrative perspective, motivating parents to be active and engaged are the first steps to solving student issues at school. In that regard, the research activity provided a pragmatic service to this school district.

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## Appendix A

IRB Certification

Dr. Karen Larwin, Principal Investigator
Mr. Frank Major, Co-investigator
Department of Counseling, School Psychology and Educational Leadership UNIVERSITY

RE: HSRC PROTOCOL NUMBER: 057-2020
TITLE: Combating Chronic Absenteeism: Utilizing Specific Attendance Interventions in Schools

Dear Dr. Larwin and Mr. Major:
The Institutional Review Board has reviewed the abovementioned protocol and determined that it meets the criteria of DHHS 45 CFR 46.101(b)(4) and therefore is exempt from full committee review and oversight. Your project is approved

Any changes in your research activity should be promptly reported to the Institutional Review Board and may not be initiated without IRB approval except where necessary to eliminate hazard to human subjects. Any unanticipated problems involving risks to subjects should also be promptly reported to the IRB.

The IRB would like to extend its best wishes to you in the conduct of this study.
Sincerely,

Dr. Severine Van Slambrouck
Director Research Services, Compliance and Initiatives
Authorized Institutional Official
SVS:cc

c: Dr. Jake Protivnak, Chair<br>Department of Counseling, School Psychology and Educational Leadership



