# School Accountability and Chronic Absenteeism in the State of Tennessee 

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School Accountability and Chronic Absenteeism in the State of Tennessee

A dissertation presented to the faculty of the Department of Educational Leadership and Policy Analysis East Tennessee State University

In partial fulfillment of the requirements for the degree Doctor of Education in Educational Leadership
by
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December 2021

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Dr. John Boyd
Dr. Heather Moore

Keywords: accountability, chronic absenteeism, chronically out of school indicator, subgroup


#### Abstract

School Accountability and Chronic Absenteeism in the State of Tennessee by

Heidi E. Campbell

The purpose of this quantitative, non-experimental study was to explore a possible relationship between the number of students in grades 9-12 classified as chronically absent and the inclusion of the Chronically Out of School indicator in Tennessee's accountability model for schools and school districts. Using publicly available data from the Tennessee Department of Education, the research study examined 6 years of data from the 2014-2015 to 2019-2020 school years. Data were divided into 3 years before and 3 years after implementation.


Results of the study indicated that the mean number of chronically absent students in grades 9-12 were significantly lower during the 3 years after implementation of the Chronically Out of School indicator. Data was further disaggregated and analyzed based on the following subgroups: Black/Hispanic/Native American, Economically Disadvantaged, and Students with Disabilities. Results indicated a significant difference in the number of chronically absent Black/Hispanic/Native American subgroup after implementation, but there were no significant differences found in the Economically Disadvantaged and Students with Disabilities subgroups. In addition to a summary of the research findings, implications, and recommendations for future research and current practice are discussed.

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## DEDICATION

This accomplishment would not have been possible without the love and support of my family. Ryan, thank you for believing in me throughout this process and patiently understanding the time I needed to accomplish this goal. Your unwavering support means the world to me. You are correct...it's about time! AJ, I am so proud of the young man you are becoming. I hope this process has shown you the importance of perseverance and working hard to accomplish a goal. I love you to the moon, the stars, the Milky Way, and beyond.

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## Chapter 1. Introduction

The Elementary and Secondary Education Act of 1965 (ESEA) marked a shift in the federal government's involvement in schools within the United States (Casalaspi, 2017; Gamson et al., 2015). As the federal government expanded its role in education policy, the idea of holding schools accountable for student performance began to emerge as a critical component of education legislation. With each reauthorization of ESEA, accountability policies emerged focusing on student performance and the responsibility of schools for ensuring students met established goals. ESEA's reauthorization as the No Child Left Behind Act (2001) set forth legislation focused on school-based accountability tied to student performance on high-stakes tests as well as the use of rewards and sanctions for schools (Bae, 2018). Reauthorization as the Every Student Succeeds Act in 2015 led to a shift granting states greater flexibility in designing accountability policies for districts and schools. In addition, states were required to select a nonacademic indicator related to school quality or student success (SQSS) as an additional component of their accountability systems (Kaput, 2018; Portz \& Beauchamp, 2020; Rafa, 2017). Tennessee was one of 37 states that chose to use chronic absenteeism to meet this requirement.

While student attendance had long been a concern of educators, the focus on chronic absenteeism and accountability highlighted how traditional attendance measures often mask students who meet the criteria for chronic absenteeism. Attendance figures such as Average Daily Attendance (ADA) and truancy do not consider patterns of student attendance, both excused and unexcused, that occur throughout a given school year (Attridge et al., 2016; Bruner et al., 2011). In Tennessee, students are chronically absent if they miss $10 \%$ or more instructional days for any reason within a given school year (Tennessee Department of Education, 2020b).

Within a 180-day school year, missing $10 \%$ or more instructional days equals at least 18 days of learning.

The most recent data report from the Civil Rights Data Collection (CRDC) indicated that $16 \%$ of students within the United States were chronically absent during the 2015-2016 school year (United States Department of Education, 2019a). As collection and reporting procedures improved, the number of chronic absences reported by schools and districts was considered more accurate (Chang et al., 2018). With more accurate reporting, the scope of chronic absenteeism among U.S. students gained increasing attention, and many studies began examining the root causes and effects of student absences and the identification of at-risk groups. Balfanz and Byrnes (2012) noted that chronic absenteeism rates tend to be higher during transitional years, such as kindergarten and middle school, with high school seniors experiencing the highest rates. Students chronically absent in middle school or $9^{\text {th }}$ grade are less likely to graduate on time with their cohort and are at higher risk of dropping out (Allensworth \& Easton, 2007; Balfanz \& Byrnes). Attendance disparities were also noted among students belonging to certain racial and ethnic subgroups (Attridge et al., 2016; Balfanz \& Byrnes, 2012; Chang et al., 2018; Jacob \& Lovett, 2017; United States Department of Education, 2019a).

The inclusion of the Chronically Out of School indicator in the Tennessee accountability model for districts and schools meant that previous attendance reporting policies would no longer hide students with excessive absences or patterns of behavior resulting in exclusionary discipline. Starting with the 2017-2018 school year, chronic absenteeism was included as one of the metrics used to evaluate district and school-level performance (Tennessee Department of Education, 2020a). Chronic absenteeism calculations include student absences classified as excused or unexcused and out-of-school suspensions.

## Statement of the Problem

Existing research on accountability and chronic absenteeism was used as a framework for this study to determine if holding districts and schools accountable for student attendance would significantly affect the number of students classified as chronically absent. According to Balfanz and Byrnes (2017), chronic absenteeism tends to begin in kindergarten as families adjust to the routine and expectations of school. Student attendance improves throughout elementary school, with chronic absenteeism once again becoming an issue as students transition to middle and high school. While chronic absenteeism occurs at all grade levels, it is particularly prevalent among students in grades 9-12 (United States Department of Education, 2019a). Patterns of chronic absenteeism among $9^{\text {th }}$ grade students have been linked to higher dropout rates (Allensworth \& Easton, 2007; Balfanz \& Byrnes, 2012; Schoeneberger, 2012).

The focus of this study was district-level data indicating the number of students classified as chronically absent in grades 9-12. Attendance data were analyzed over 6 years encompassing 3 years prior and 3 years from the inclusion of the Chronically Out of School indicator in the state accountability model created to measure district and school-level performance. The initial year of implementation was included as one of the years examined.

## Significance of Study

Accountability has been a critical component of education legislation, policies, and procedures for quite some time. Since the passage of the Elementary and Secondary Education Act (ESEA) of 1965, federal legislation has expanded the scope of accountability measures. The most recent reauthorization of ESEA, the Every Student Succeeds Act (2015), required states to include a nonacademic measure in district and school accountability models. Many states,
including Tennessee, chose to submit plans incorporating chronic absenteeism as a performance indicator for districts and schools (Kaput, 2018; Portz \& Beauchamp, 2020; Rafa, 2017).

While there is substantial literature on the causes and effects of chronic absenteeism, there is a lack of literature examining the effects of incorporating chronic absenteeism into accountability models. Determining if there is statistical significance in holding districts and schools accountable for chronic absenteeism rates is a crucial first step in understanding the importance of interventions and initiatives to improve and promote student attendance.

## Purpose of Study

The purpose of this research study was to determine if the inclusion of the chronically out of school indicator in the state accountability model has made a significant difference in the number of chronically absent students in grades 9-12 throughout the state of Tennessee. There is currently a gap in literature focused on the implementation and effect of including chronic absenteeism in state accountability models. The effects of chronic absenteeism on student achievement and growth have been studied in-depth, but few examine if holding schools and districts accountable for student attendance improves aggregate and subgroup rates of chronic absenteeism. Additionally, many studies regarding accountability in schools have focused on the impact of test-based accountability measures.

## Research Questions

The following research questions were used as part of this nonexperimental quantitative study to examine the effects of including the Chronically Out of School indicator in the Tennessee accountability model on the number of students classified as chronically absent in grades 9-12 throughout the state.

Research Question 1: Is there a significant difference in the number of students chronically absent in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?

Research Question 2: Is there a significant difference in the number of chronically absent students within the Black, Hispanic, and Native American subgroup in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?

Research Question 3: Is there a significant difference in the number of chronically absent students within the Economically Disadvantaged subgroup in grades $9-12$ during the 2 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?

Research Question 4: Is there a significant difference in the number of chronically absent students within the Students with Disabilities subgroup in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?

## Definition of Terms

The following terms are significant to the study:

1. Accountability: "An obligation or willingness to accept responsibility or to account for one's actions" (Merriam-Webster, n.d., Definition 1).
2. Accountability Model: Indicators that comprise how districts and schools are evaluated in Tennessee (Tennessee Department of Education, 2020a).
3. Average Daily Attendance: Aggregate number of days a student is in attendance divided by the number of days school is in session during a designated reporting period (Tenn. Code Ann. § 49-3-302, 2020).
4. Chronic Absenteeism: Classification of students absent for 10 percent or more instructional days during the period in which they are enrolled in a Tennessee school or district (Tennessee Department of Education 2020a).
5. Chronically Out of School Indicator: Metric included in Tennessee district and school-level accountability models measuring the percentage of students classified as chronically absent within a given school year (Tennessee Department of Education, 2020a).
6. Elementary and Secondary Education Act: Legislation passed in 1965, which expanded federal involvement in K-12 education (Casalaspi, 2017; Gamson et al., 2015).
7. Every Student Succeeds Act: The 2015 reauthorization of the Elementary and Secondary Education Act of 1965 (Every Student Succeeds Act, 20 U.S.C. § 6301, 2015).
8. No Child Left Behind Act: The 2001 reauthorization of the Elementary and Secondary Education Act of 1965 (No Child Left Behind, 2002).

## Limitations and Delimitations

The study was delimited to district-level attendance data for students in grades 9-12 within the state of Tennessee during the 2014-2015, 2015-2016, 2016-2017, 2017-2018, 20182019, and 2019-2020 school years. District composition for each research question varied based on whether or not data points were available for all 6 years of the study. Availability of data points varied based on suppression rules established by the Tennessee Department of Data in an effort to protect student privacy. Chronic absenteeism data were analyzed based on a 3-year average before and a 3-year average after implementation of the Chronically Out of School
indicator. It is possible that future research replicating the methodology used in this study will yield different results due to the changing composition of student data and increased accountability requirements for attendance reporting procedures.

A significant limitation of this study is the potential for factors affecting student attendance rates that are beyond the scope and control of schools and school districts. Potential discrepancies in district level reporting of student attendance could affect the accuracy of data files available from the Tennessee Department of Education. In addition, an analysis of chronic absenteeism rates at regional, district, or school levels may yield different results due to changes in sample size and overall demographics. As accountability for chronic absenteeism rates increases, it is presumed that increased accuracy of reporting procedures and additional information regarding attendance interventions and cohort data will be available to future researchers.

Another significant limitation of this study is the effect of the COVID-19 pandemic on student attendance during the 2019-2020 school year. Attendance data for Tennessee students were collected until March 2, 2020. In accordance with accountability guidance provided by the U.S. Department of Education (2020b), many states, including Tennessee, provided waivers and excluded chronic absenteeism from accountability measures due to the pandemic. While attendance data were collected and calculated based on the proportion of instructional days for which students were enrolled, there is a possibility that chronic absenteeism data for the 20192020 school year are not fully representative of students in Tennessee (Tennessee Department of Education, 2020c).

## Chapter Summary

This study is divided into five chapters. Chapter 1 includes an introduction to chronic absenteeism, accountability, and school attendance requirements throughout the state of Tennessee. In addition, Chapter 1 includes a statement of the problem, description of the significance of the study, the purpose of the study, theoretical framework, research questions, definitions of terms, and limitations and delimitations. Chapter 2 includes a literature review summarizing existing literature focused on the history of accountability in schools and the significant issues surrounding chronic absenteeism in schools. Chapter 3 provides an overview of the methodology used to guide the study as well as research questions and null hypotheses, population, sample, instrumentation, data collection, and data analysis. The research findings from the study are presented in Chapter 4. Chapter 5 includes a summary of the findings, implications, and recommendations for future research and current practice.

## Chapter 2. Literature Review

Implementing policies and programs to address educational issues associated with poverty was the initial justification for the passage of the Elementary and Secondary Education Act (ESEA) in 1965, which expanded the federal government's role in K-12 education (Gamson et al., 2015). Over time, the federal government's presence and influence in education policy have become increasingly common, yet no less controversial. What initially began as an effort to address factors surrounding students in poverty evolved into increased attempts to hold states, districts, and schools accountable for student performance. Supported by the response to $A$ Nation at Risk, the standards-based reform movement was designed to tie student performance directly to rigorous educational standards (Bae, 2018).

The reauthorization of ESEA as No Child Left Behind (2001) ushered in a period of school-based accountability focused on student performance and the use of sanctions and rewards (Bae, 2018). According to Supovitz (2009), the accountability policies set in place by NCLB also operated under the expectation that increased stakeholder awareness would ultimately lead to student improvements and achievement. With the expectation that all students make Adequate Yearly Progress (AYP) toward a goal of $100 \%$ proficiency by 2014, it quickly became evident that previously successful schools would be labeled as failing (Black, 2017).

NCLB's era of high-stakes testing came to an end with President Barack Obama's election in 2008. Without a reauthorization of ESEA, the new presidential administration began encouraging states to apply for waivers that would allow them to avoid the punitive sanctions associated with NCLB's 100\% proficiency deadline (Duncan, 2011). In addition to waivers, a competitive grant program known as Race to the Top was implemented, requiring states to implement new policies and programs aligned with the new administration's goals (Portz \&

Beauchamp, 2020). For many, NCLB waivers and Race to the Top were seen as a way to bypass the rigid requirements and failings of NCLB, while others pushed back against what some viewed as beyond the Department of Educations scope of power (Black, 2015; Black, 2017; McGuinn, 2012)

The passage of the Every Student Succeeds Act in 2015 marked a shift in accountability practices and granted states greater flexibility in determining what accountability indicators to focus on and how they would be measured (Darling-Hammond et al., 2016; Portz \& Beauchamp, 2020). All states were required to submit ESSA plans outlining the specific steps that would be taken to meet ESSA requirements and guidelines. The elimination of AYP and emphasis on student growth characterized some of the testing changes made under ESSA. An area of increased focus and interest was the inclusion of at least one school quality or student success measurement (SQSS). Many states chose to use student attendance as their nonacademic indicator, with 37 states including chronic absenteeism as one of their accountability indicators (Kaput, 2018; Portz \& Beauchamp, 2020; Rafa, 2017).

The inclusion of attendance in state accountability models was not a new concept, but the focus on rates of chronic absenteeism among K-12 students marked a shift between NCLB and ESSA. Under NCLB, states relied heavily on Average Daily Attendance (ADA). ADA calculations measure the percentage of students present in school each day, without considering the total number of absences individual students acquire throughout the school year (Martin et al., 2016; Rafa, 2017). Unlike ADA, chronic absenteeism takes into account a student's total number of excused and unexcused absences, including those related to disciplinary offenses (Rafa, 2017). However, the exact number of days a student must miss to be categorized as chronically absent varies across states.

Chronic absenteeism was included in Tennessee's accountability framework as one of its SQ/SS measures. Known as the Chronically Out of School indicator, this measurement was implemented during the 2017-2018 school year and is one of six performance indicators that comprise the accountability framework for schools and districts (Tennessee Department of Education, 2020a). In Tennessee, a student is considered chronically absent if they miss $10 \%$ of more school days. The indicator includes data related to excused and unexcused absences as well as out-of-school suspensions. The data are disaggregated to show trends in minority student groups, English Language Learners, economically disadvantaged students, and students with disabilities since those groups tend to have higher rates of absences than other groups (Tennessee Department of Education, 2018a)

## Accountability and Schools

The definition of accountability is "an obligation or willingness to accept responsibility or to account for one's actions" (Merriam-Webster, n.d., Definition 1). While not a new concept, holding schools accountable for student growth and achievement gained traction in the latter half of the $20^{\text {th }}$ century and continues today. Education in the United States has long been the subject of legislation and policies aimed at addressing inequity and achievement gaps among the total population and within subgroups. The term accountability is often used to explain and justify various concepts and policies pertaining to education; however, a lack of consensus remains regarding effective accountability policies. For many years, accountability models focused on goals, actions, and rewards or consequences. Recent shifts have led to the inclusion of capacity building, progress monitoring, and supports to ensure schools can demonstrate effectiveness and meet accountability goals (Darling-Hammond et al., 2014; Perie et al., 2007).

In the field of education, accountability is complex and involves a multitude of factors when determining effectiveness. Previously, accountability policies were structured around goals and rewards or consequences. The foundation of accountability policies is the relationship and expectation of reciprocity between all parties (Perie et al., 2007). In schools, this includes dynamic relationships at the federal, state, and local levels and how schools implement goals and attempt to meet performance expectations (Loeb \& Byun, 2019; Perie et al., 2007). Effective accountability systems provide a structure of support that enables the schools to continuously monitor performance and build their capacity for change and improvement (Darling-Hammond et al., 2014).

Throughout the $20^{\text {th }}$ Century, an increasing amount of accountability policies and legislation emerged. As a result, accountability systems began to include provisions for evaluating schools, organizational support, and capacity building (Perie et al., 2007). The availability of numerous data resources such as student performance on standardized tests, perpupil expenditures, graduation, and attendance has enabled stakeholders and policymakers to evaluate school performance and determine if goals and expectations have been met. The availability of data has led to schools being held accountable in various ways (Loeb \& Byun, 2019; Stitzlein, 2015). Economically, schools are expected to demonstrate that taxpayer dollars are used in a fiscally responsible manner and yield positive results (Stitzlein, 2015). There is also an expectation that students in the United States will achieve at comparable or higher levels than their peers in other nations. For many, increases in student achievement and growth are used as signals of effective accountability policies.

As accountability policies became increasingly politicized, federal and state governments played a more active role in creating and evaluating policies and performance (McDonnell,
2012). Accountability expectations have led to an increased focus on the interconnected relationship between federal, state, and local education agencies. While federal legislation provides the framework for many educational requirements, state governments are tasked with creating policies and holding schools accountable for implementation and student performance (Loeb \& Byun, 2019). In turn, states grant local education agencies (LEAs) the authority to determine how best to facilitate the implementation of federal and state policies. Each entity possesses roles and responsibilities that help shape the creation, execution, and evaluation of accountability policies in education (Perie et al., 2007). Modern accountability systems also provide for the communication of information to and from stakeholder groups.

A single framework does not guide accountability research, and many individuals have contributed their views toward research on accountability and school effectiveness. Levin's conceptual framework serves as a foundational resource on accountability in education. For Levin (1974), an effective accountability system should be viewed as a closed-loop guided by needs, actions, outcomes, and feedback (Levin, 1974; Perie et al., 2007). Accountability is seen as a continuous cycle of action, adaptation, and evaluation. When needs emerge, the organization creates goals and action steps that allow for identified needs to be addressed. Review of outcomes provides organizations with the ability to evaluate and measure performance systematically. Internal and external feedback provide policy creators and stakeholders with information necessary to evaluate progress toward goals. In some cases, feedback helps identify other areas for action and growth (Levin, 1974).

Building on Levin's conceptual framework for accountability, Stecher and Hanser (1992) presented an accountability model based on a relationship between two parties in which there is an expectation that an action will occur or a goal will be met. The relationship is based on roles
in which one party has the authority to make requests of the other and provide a response in the form of rewards or consequences for not meeting goals. For the system to be effective, there must be a structure in place that allows for the creation and assessment of progress toward goals, feedback loops comprised of internal and external stakeholders, and a change process to promote improvement and capacity building based on feedback (Perie et al., 2007, Stecher \& Hanser, 1992). To help evaluate the effectiveness of accountability frameworks, Perie et al. (2007) identified seven core concepts: goals, performance indicators, design decisions, communication, support, system evaluation, consequences, monitoring, and improvement.

More recently, Darling-Hammond et al. (2014) introduced an accountability paradigm based on the idea that education should reflect a continuous learning cycle that results in meaningful learning and improvement. This is achieved through the work of skilled educators, with a focus on increasing professional capacity and resource accountability. The purpose of this model is to spur the conversation regarding accountability and how best to prepare students for college and career readiness. Accountability policies should be responsive to the ever-changing landscape of post-secondary challenges and opportunities students will encounter. With a focus on learning, this model calls for building school capacity to evaluate and respond to evidence of student growth and achievement (Darling-Hammond et al., 2014).

As accountability in education continued to focus on assessment results as a measure of student achievement, a movement emerged that emphasized the use of multiple measures in accountability models (Center for American Progress, 2014; Portz, 2017). Also known as nextgeneration accountability, this push called for the establishment of accountability systems that moved beyond the use of test results and incorporated a variety of non-test measurements and goals to evaluate school and student progress (Darling-Hammond et al., 2014; Portz, 2017). In
addition to graduation cohort data, some states began including student performance on the SAT or ACT and enrollment in early post-secondary opportunities. Part of this shift was due to the recognition that test-based accountability measures are not indicative of a student's college and career readiness (Center for American Progress, 2014). Using multiple measures of accountability allows states to examine multiple factors when assessing overall student, teacher, and school performance.

## Accountability and Federal Legislation

## Elementary and Secondary Education Act

Legislative policies aimed at increasing accountability within the United States’ education system have taken many forms in recent years and vary across states. The nature of federalism in the United States, and the division of power between the federal and state governments, limited the federal government's involvement in education for quite some time (Gamson et al., 2015). The absence of explicit references to education in the United States Constitution, and the Tenth Amendment's provision for reserved powers, meant that education has long been the purview of state and local governments (Gamson et al., 2015; McGuinn, 2015; U.S. Const. amend. X). The responsibility for implementing and monitoring school policy was largely left to state and local governments and resulted in a division between individuals who sought to preserve federalism by limiting federal spending for education and those for whom increased expenditures seen were necessary (Casalaspi, 2017).

The federal government's role in education shifted in 1965 with the passage of the Elementary and Secondary Education Act (ESEA) during the administration of President Lyndon B. Johnson. A former educator, Johnson, desired to address the vast inequities that existed in the
U.S. education system. As part of Johnson's War on Poverty, the intent of ESEA was to provide students, particularly those from lower socioeconomic backgrounds, with equitable educational experiences (Thomas \& Brady, 2005). The Gardner Commission was created in 1964 and tasked with designing a way of distributing federal education aid while addressing student poverty and inequitable education opportunities (Casalaspi, 2017; Thomas \& Brady, 2005).

On January 12, 1965, Johnson gave a special address to Congress in which he shared his education agenda and outlined the framework for ESEA. Consisting of five titles, ESEA would provide federal aid totaling 1.3 billion dollars; however, it lacked direction on how to use the funds other than to provide low-income students with equitable opportunities (Casalaspi, 2017; Gamson et al., 2015). Title I comprised the largest portion of aid at more than 1 billion dollars and was intended to provide an equitable distribution of funding among school districts. Titles II - V consisted of funding provisions for instructional resources and school libraries, education centers and supplemental education services, regional education laboratories to support education research and training, and support for the increased capacity of state education agencies (Johnson, 1965; McGuinn, 2015).

Stemming from progressive education legislation passed by the previous session of Congress and supported by Johnson's desire to address poverty and inequalities in education, the push for ESEA has been viewed as either inevitable or the result of favorable political conditions resulting from political party majorities (Casalaspi, 2017). Regardless of the conditions that led to its passage, ESEA addressed many aspects related to the inequitable distribution of educational resources and opportunities that existed for years among communities (McKenzie \& Kress, 2015; Thomas \& Brady, 2005). With the passage of the ESEA, a shift occurred in the role
the federal government would have in future decisions regarding education policy and school funding (Casalaspi, 2017; Thomas \& Brady, 2005).

The passage of the ESEA was controversial and signaled greater federal involvement in the education of K-12 students and opened the door for federal involvement in areas that had typically been left to state and local governments (Casalaspi, 2017; Gamson et al., 2015). To address fears that ESEA was the result of the federal government overstepping its bounds, a provision was added stating ESEA should not be seen as a directive, federal supervision, or an attempt to circumvent state and local control over of curriculum and instruction, personnel, and operational decisions (United States, 1965). The most recent reauthorization of ESEA, the Every Student Succeeds Act of 2015, contains a revision of the "Prohibition Against Federal Mandates, Direction, or Control," which states:

Nothing in this title shall be construed to authorize an officer or employee of the Federal Government to mandate, direct, or control a State, local education agency, or school's specific instructional content, academic achievement standards and assessments, curriculum, or program of instruction. (Elementary and Secondary Education Act of 1965, 20 U.S.C. 6575 § 1604, p. 155)

The political climate surrounding government involvement in education, the nature of federalism, and vague directions on how the money should be spent made the implementation of ESEA challenging (McGuinn, 2015). According to McGuinn (2015), the United States Office of Education (USOE) faced multiple challenges when implementing the first version of ESEA. The legislative act was so large that many of its goals conflicted with one another. ESEA also failed to provide federal administrators the ability to require compliance or enforce punitive measures at the state and local levels. Over time, evidence emerged that ESEA funds were not being used
as intended nor producing the desired outcomes for students in poverty, but there remained conflicting views on federal influence and authority in education (Black, 2017; McGuinn, 2015; Thomas \& Brady, 2005).

## The Reagan Administration

Within the legislative framework created by ESEA, subsequent presidential administrations left their mark on U.S. education policy and increased accountability requirements used to monitor the performance and growth of students and schools. ESEA also expanded the role of the federal government in education funding and policy creation. Whereas the first iteration of ESEA was intended to facilitate equitable access to education for all students regardless of economic background, amendments and reauthorizations of the law began incorporating more elements directed towards closing achievement gaps and holding schools accountable for student growth and achievement (Casalaspi, 2017; Gamson et al., 2015; Kuehl, 2012). As education reform evolved, student outcomes began to shape presidential rhetoric and government policies at both the federal and state levels (Kuehl, 2012).

The belief that schools and students within the United States were lagging behind other nations originated with the A Nation at Risk report published by the U.S. Department of Education's National Commission on Excellence in Education. This report was published during the Reagan administration and shaped educational rhetoric for decades (Ansary, 2007; Glover, 2013). Written by politicians, A Nation at Risk was seen as an exposé highlighting the decline of U.S. schools and the United States' inability to compete with other nations (Glover, 2013; National Commission on Excellence in Education, 1983). Describing the performance of U.S. students as mediocre, schools as failing, and the overall success of the nation at imminent risk,
the authors of A Nation at Risk capitalized on fears of U.S. economic decline in comparison to that of other nations (Ansary, 2007; National Commission on Excellence in Education, 1983; Glover, 2013).

In direct contrast to Reagan's education agenda and desire to decrease the federal government's role in education, A Nation at Risk quickly became the focus of his reelection efforts and led to an increased push for school reform (Ansary, 2007; Clabaugh, 2004; Keuhl, 2012). Although Reagan was not supportive of the United States Department of Education created under the Carter Administration and drastically cut education spending while president, the groundwork was set for future presidential administrations (Clabaugh, 2004; McGuinn, 2015). When combined with A Nation at Risk, the potential emerged for greater federal involvement in school policy creation and reform (McGuinn, 2015). Many state accountability systems that currently exist emerged out of the Reagan era and the nation's desire to ensure that students within the United States performed at equal levels to their peers in other nations.

The claims outlined in A Nation at Risk were proven false or misleading by the Sandia report; however, politicians, corporations, and the American public became fixated on the idea that schools within the United States were lagging behind schools in other nations (Glover, 2013). This led to numerous legislative acts emphasizing a push to close achievement gaps and increase accountability. According to Darling-Hammond, Reagan and other conservative politicians focused on policies that shifted the federal government's role from providing inputs to a focus on student outcomes through high-stakes testing (Darling-Hammond, 2010).

The changes implemented during the Reagan Era aligned with a broader push for accountability and combined with standards-based reform efforts that established performance standards aligned with subject area curriculum. Corresponding performance assessments, such as
the National Assessment of Educational Progress (NAEP), were used to provide data indicating if students were meeting academic expectations and serve as a tool for measuring overall school and teacher performance (Figlio \& Loeb, 2011; Hamilton et al., 2008). Student test results provided a metric to evaluate and compare student peer groups and their performance within individual schools, districts, and across states. Schools that failed to meet established standards of performance were expected to implement policies to address and improve student achievement (Figlio \& Loeb, 2011).

## No Child Left Behind

Throughout the 1990s and early 2000s, there were continued efforts to expand accountability measures, but enforcement and implementation efforts were not consistent across states (Hamilton et al., 2012; McGuinn, 2015; Shaul \& Ganson, 2005). Frustration surrounding achievement gaps increased as NAEP results continued to show disparities between advantaged and disadvantaged students' achievement levels and corresponding subgroups (Shaul \& Ganson, 2005). Legislation put in place under the administrations of George H.W. Bush and Bill Clinton was inconsistently implemented as the U.S. Department of Education lacked the capacity to enforce policies and states were slow or unwilling to implement new policies with fidelity (McGuinn, 2015; Shaul \& Ganson, 2005). However, the framework for reducing achievement gaps between students through test-based accountability and expanding the federal government's role in education was established.

Under the administration of George W. Bush, the passage of the No Child Left Behind Act (NCLB) in 2001 created an accountability system in which states were required to implement standards-based performance assessments as a measure of student achievement (McKenzie \& Kress, 2015; Simpson et al., 2004). Many of the requirements outlined in NCLB
focused on closing achievement gaps among students and holding states, LEAs, and schools accountable through annual testing and other metrics (Simpson et al., 2004). Within the accountability model set forth by NCLB, states still had autonomy in designing and implementing policies and programs, but federal monitoring and enforcement increased (Shaul \& Ganson, 2004). In some cases, states concerned about the federal government violating federalism's basic premise pushed back against the government's expanded role and the U.S. Department of Education (McGuinn, 2015; Shaul \& Ganson, 2004).

NCLB greatly expanded the federal government's role and oversight of K-12 education in the United States and differed from previous reauthorizations of ESEA in that it tied compliance to federal Title I funding (McGuinn, 2015). In addition to the requirement that states administer yearly assessments, all students were required to make adequate yearly progress (AYP) toward proficiency by 2014-2015 (Simpson et al., 2004; McGuinn, 2015; Polikoff et al., 2014). NCLB compliance was monitored at the federal level through audits of state-submitted accountability plans and state-reported data (McGuinn, 2015). Schools were also expected to employ educators that met education and licensing requirements to be classified as highly qualified. To promote transparency in education, annual State and LEA report cards were required to disseminate accountability information to parents and members of the general public (No Child Left Behind [NCLB], 2002).

Compared to previous versions of Title I, NCLB created a national accountability system in which schools, districts, and states were directly responsible for ensuring student achievement and growth (Black, 2017; Polikoff et al., 2014; Simpson et al., 2004). The following requirements were included in the accountability model set forth by NCLB (Black, 2017; NCLB, 2002):

- All states were required to adopt rigorous standards emphasizing math, science, and English but retained the flexibility to create their own standards and determine the content and curriculum addressed. Emphasis was placed on the expectation that standards be challenging and rigorous.
- Each state was required to implement annual math and English assessments for students in grades three through eight. The assessments were also expected to be administered at least once at the high school level. An assessment in science was required to be given at least three times between grades three and twelve. Assessments were expected to align to academic standards and measure student mastery at either the proficient or advanced levels.
- Benchmarks were required to determine if students made achievement gains on assessments that demonstrated Adequate Yearly Progress (AYP) with the goal of all students achieving proficiency by 2014. States were given the flexibility to set measurable objectives and intermediate targets that schools and students were expected to meet each year to demonstrate progress toward AYP.
- In addition to aggregate numbers at individual schools, student subgroup results were disaggregated and included in proficiency determinations. Schools and districts were required to collect data for students classified in one of the following subgroups: racial and ethnic groups, economically disadvantaged, students with disabilities, and students with limited English proficiency.
- Schools that failed to make AYP faced escalating sanctions and consequences. After two years, schools were given a needs improvement classification and required to create an improvement plan. Continued failure to achieve AYP opened the door for student
transfers, replacement of staff, curriculum modifications, and potentially takeover by the state.

In addition to the accountability requirements previously mentioned, states were required to provide data on high school graduation rates and one additional academic indicator (NCLB, 2002). Schools in which students failed to meet AYP requirements were at risk of receiving sanctions or direct state involvement in daily operations.

The passage of No Child Left Behind changed the dynamic between the federal and state governments as the federal government took on a greater role in education, an area that had historically fallen under state purview (Shaul \& Ganson, 2004). While states retained autonomy to create the infrastructure for carrying out NCLB requirements, the federal government was responsible for holding states accountable for compliance and results. For proponents of NCLB, this new level of accountability meant data were more accessible, and schools were required to meet increasingly rigorous requirements for ensuring students were achieving academic growth. However, states retained the ability to determine what constituted as challenging academic standards and design corresponding assessments leading some to wonder if the bar would be set too low (Black, 2017). Critics claimed NCLB mandates such as $100 \%$ student proficiency by 2014 were unrealistic, and heavy sanctions would lead to states manipulating performance benchmarks to make AYP more attainable (Black, 2017; Fusarelli, 2004). NCLB's emphasis on testing also led many to question the possibility of narrowed curriculum and instruction focused solely on test preparation at the expense of non-tested subjects and the arts (Black, 2017; Dee \& Jacob, 2010).

As states adjusted policies to meet NCLB's accountability requirements, some schools made progress toward closing achievement gaps, but significant concerns remained regarding its
yearly and long-term requirements (Black, 2017; Dee \& Jacob, 2010). There were many unintended consequences associated with NCLB that gained attention as some schools failed to meet AYP targets within the first few years of implementation (Black 2017; Darling-Hammond, 2007; Fusarelli, 2004). By the 2014-2015 school year, it was apparent that many schools would not meet proficiency requirements for all students and would be labeled as failing even though students were making academic gains (Darling-Hammond, 2007; Education Commission of the States, 2004; Fusarelli, 2004). Instruction and building content knowledge shifted as teachers and schools were forced to focus of instruction to test preparation. In some states, revisions were made to standardized tests and lower cut scores were established to ensure more students demonstrated academic proficiency. The results of test-based accountability were a narrowed curriculum and emphasis on test preparation rather than educational opportunities promoting critical thinking and problem-solving skills (Black, 2015; Darling-Hammond et al., 2016).

## NCLB Waivers and Race to the Top

The election of Barack Obama as President of the United States led to the reevaluation of existing educational policies. The United States Congress's failure to reauthorize NCLB in 2007 enabled the Obama Administration to circumvent many existing NCLB requirements through competitive grant programs and waivers that allowed states and Local Education Agencies to have greater autonomy and flexibility in establishing accountability policies. By 2011, the NCLB deadline for all students to achieve proficiency was rapidly approaching and it became clear the mandate that $100 \%$ of students would achieve proficiency was unrealistic and unattainable (Black, 2017). More states began speaking out about the punitive performance measures used to indicate how well public schools were performing (Jimenez \& Sargrad, 2017).

Along with NCLB mandates, the financial crisis associated with the Great Recession of 2008 left many states, districts, and schools throughout the nation scrambling to meet budget shortfalls. As the economic downturn continued, many state and local funding resources were drastically cut. Research suggests that changes in spending directly impacted students' academic achievement (Jackson et al., 2018; Shores \& Steinberg, 2019). The passage of the American Recovery and Reinvestment Act of 2009 was intended to stimulate the economy and provide needed resources to various areas, including education (United States Department of Education, 2009). As part of the recovery package, a competitive grant program known as Race to the Top (RTTT) was implemented that allowed Secretary of State Arne Duncan the ability to wield power and influence that was unparalleled and controversial (Black, 2017).

Under RTTT, $\$ 4$ billion dollars was set aside for competitive grants awarded to states that agreed to develop programs and policies that embodied four key goals of the Obama Administration: the creation of a common set of standards and assessments designed to ensure college and career readiness among U.S. students; the creation of data systems that would allow student growth and achievement to be measured and used to enhance instruction; reevaluating educator accountability by designing evaluation policies tied to student performance while also working to recruit and retain effective teachers and school leaders; and efforts to turn around the trajectory of low-performing schools while promoting school choice (McGuinn, 2012; United States Department of Education, 2009). The implementation of these goals was not without controversy. Many viewed it as an attempt for the federal government to overstep its power in the education realm and questioned Secretary Duncan's constitutional authority to execute and enforce policy requirements associated with RTTT (Black, 2015; Black, 2017).

To avoid the sanctions associated with NCLB, states were encouraged to apply for waivers with the expectation that policy changes align with the goals of the Obama administration (Black, 2015; Black, 2017; McGuinn, 2012). In a letter to Chief State School Officers, Secretary of Education Arne Duncan praised states for implementing accountability systems, reforms, and other innovations to increase student growth and close achievement gaps. In his letter, Duncan stated he was:
writing to offer you the opportunity to request flexibility on behalf of your State, your LEAs, and your schools in order to better focus on improving student learning and increasing the quality of instruction. This voluntary opportunity will provide educators and State and local leaders with flexibility regarding specific requirements of NCLB in exchange for rigorous and comprehensive State-developed plans designed to improve educational outcomes for all students, close achievement gaps, increase equity, and improve the quality of instruction. This flexibility is intended to build on and support the significant State and local reform efforts already underway in critical areas such as transitioning to college- and career-ready standards and assessments; developing systems of differentiated recognition, accountability, and support; and evaluating and supporting teacher and principal effectiveness. (Duncan, 2011, para.3)

At the same time, Duncan acknowledged that NCLB's focus on punishing schools that failed to meet AYP targets toward proficiency led many schools to lower academic standards. States were encouraged to request waivers that would allow them to continue developing plans focused on increasing the educational outcomes of all students through improved instruction, college and career readiness plans, and measures to increase the effectiveness of teachers and school administrators (Duncan, 2011; United States Department of Education, 2013).

The message sent by Duncan and the Obama Administration marked a shift in accountability as states, including Tennessee, were encouraged to create and implement progressive plans designed to provide a multifaceted approach to accountability and student achievement. Through the renewal of waivers and modification of existing NCLB plans, states were required to submit requests demonstrating progress toward ESEA flexibility requirements. States were also required to provide evidence supporting the identification and implementation of targeted interventions for schools and subgroups (United States Department of Education, 2013). The trade-off for flexibility in meeting NCLB requirements was a push toward college and career readiness standards, targeted efforts to close achievement gaps overall and among subgroups, and new accountability measures focused on student growth over time (Portz \& Beauchamp, 2020).

## The Every Student Succeeds Act

In December of 2015, ESEA was reauthorized as the Every Student Succeeds Act (ESSA), marking a shift in how accountability practices would shape American schools (Portz \& Beauchamp, 2020; United States Department of Education, 2020a). In comparison to NCLB, the passage of the ESSA signaled a continuation as well as a reversal of many accountability policies and practices that had shaped the previous decade. Emphasis on systemic changes leading to improvement and student achievement rather than sanctions characterized many policies that emerged from the passage of ESSA. Increased flexibility to determine state-level accountability policies and the use of multiple measures allowed for a multifaceted approach to measuring student achievement and school effectiveness at state and local levels (Darling-Hammond et al., 2016). ESSA also eliminated the requirement that all schools meet AYP targets required by NCLB.

Whereas NCLB called for states to implement challenging standards, ESSA clearly specified that challenging standards were designed to provide students with the education and skills needed for college and career success (Black, 2017). However, the push back from RTTT's efforts to establish a collective set of national standards known as the Common Core led to a provision stating:
the Secretary shall not attempt to influence, incentivize, or coerce State- (1) adoption of the Common Core State Standards developed under the Common Core State Standards Initiative or any other academic standards common to a significant number of States, or assessments tied to such standards. (Every Student Succeeds Act [ESSA], 2015, p. 52). Under ESSA, states were not required to submit standards to the federal government for approval, but simply an assurance that standards were appropriately rigorous (Black, 2017). This stipulation reflected the discretion previously afforded to states under NCLB to establish challenging academic standards while specifying the purpose for those standards.

States were required to create and submit individualized ESSA plans outlining how they would meet accountability expectations and address student growth and achievement for all students as well as those belonging to the following subgroups: economically disadvantaged, students with disabilities, English language learners, and ethnic groups (Darling-Hammond et al., 2016; ESSA, 2015). ESSA continued the testing requirements put in place by NCLB but shifted many accountability-related decisions and responsibilities to states and local education agencies (Black, 2017; Jimenez \& Sargrad, 2017). At the high school level, states were required to measure English language learners' proficiency rates and monitor 4-year graduation rates among student cohorts.

States were also required to include one nonacademic indicator in their ESSA plans, with many choosing to incorporate chronic absenteeism (Darling-Hammond et al., 2016; Jimenez \& Sargrad, 2017). The inclusion of the nonacademic measure allowed states to shift from solely focusing on test scores to measure educator effectiveness and student growth and achievement. To ensure transparency and inform stakeholder groups, all states and districts were required to report data related to all indicators. States were expected to continue the publication of school data through annual district and school report cards (ESSA, 2015; United States Department of Education, 2019b).

In the state of Tennessee, the accountability framework created to address ESSA requirements was designed to reflect the correlation between the district and state frameworks and the multiple measures used to assess school effectiveness throughout the state (Tennessee Department of Education, 2018b). Beginning with the 2017-2018 school year, high schools throughout the state were evaluated based on the following indicators: Achievement (30\%), Growth (25\%), Graduation Rate (5\%), Ready Graduate (20\%), Chronically Out of School (10\%), and ELPA (10\%). The Chronically Out of School indicator was designed to measure student rates of chronic absenteeism of 10 percent or more resulting from both excused and unexcused absences as well as absences from out-of-school suspensions (Tennessee Department of Education, 2018a).

## Accountability and Chronic Absenteeism

## Chronic Absenteeism

Taking attendance is a routine procedure that occurs daily in classrooms throughout the nation, yet how absences are accounted for has been the subject of increasing concern. In a 2008
report, Chang and Romero found that one out of every ten students in kindergarten and first grade were at risk of being classified as chronically absent. While unexcused absences and average daily attendance rates were tracked, they failed to account for other types of absences such as excused absences and those related to exclusionary discipline policies (Chang \& Romero, 2008; Chang et al., 2018). Prior to the passage of ESSA, the collection of attendancerelated data was not consistent as there was an absence of standardized policies and procedures for the collection and reporting of student attendance (Balfanz \& Byrnes, 2012; Chang et al., 2018). Definitions surrounding what constitutes an absence and the number of minutes a student must be present to account for an entire day also varied across states and districts (Chang et al., 2018).

The OCR initially defined chronic absenteeism as missing 15 or more days of school per year. However, the U.S. Department of Education, and many states, now define chronic absenteeism as missing 10 percent or more of the days for which the student is enrolled per school year (Chang et al., 2018). During the 2013-2014 school year, the Office for Civil Rights (OCR) collected and subsequently released figures on chronic absenteeism as part of the Civil Rights Data Collection (CRDC). This was the first-time national data on chronic absenteeism were collected and reported. Data were collected again during the 2015-2016 school year and signaled an increase in chronic absenteeism rates among K-12 students in 37 states. The data showed that 16 percent of the United States' student population missed 15 or more days of school during the 2015-2016 school year. Over 7 million students throughout the nation met the reporting criteria necessary to be labeled as chronically absent (United States Department of Education, 2019a).

According to CRDC released data files, a total of 7,848,626 students were classified as chronically absent in the United States during the 2015-2016 school year compared to 6,731,214 during the 2013-2014 school year (CRDC, 2021). A potential explanation for this increase was improvements in reporting consistency and awareness of OCR reporting policies and procedures. Between 2013-2014 and 2015-2016, there was a decline in schools that reported zero occurrences of chronically absent students. Chang et al. (2018) found that approximately 5,500 schools went from reporting zero occurrences in 2013-2014 to reporting some level of chronic absenteeism during the next phase of data collection. Overall, 44 states reported a decrease in the number of schools that did not report rates of chronic absenteeism. This data trend signifies more accurate and robust data collection and reporting procedures (Chang et al., 2018).

The reauthorization of the Every Student Succeeds Act (ESEA) as the Elementary and Secondary Education Act (ESSA) led to an increased focus on student attendance at both the state and national levels. ESSA required all states to submit implementation plans that included chronic absenteeism in school report cards while including a nonacademic metric focused on school quality or school success. In addition to the District of Columbia, 36 states chose chronic absenteeism as the additional accountability metric and began collecting, monitoring, and reporting data focused on K-12 chronic absenteeism rates (Chang et al., 2018; DarlingHammond et al., 2016; Jimenez \& Sargrad, 2017). As the fifth indicator in many state ESSA plans, chronic absenteeism has gained increased attention at the federal, state, and local levels. Many states, including Tennessee, began including chronic absenteeism rates in district and school accountability models (Jordan \& Miller, 2017).

Unless prevented by illness or another excusable factor, there is a fundamental expectation that students attend school regularly. Attendance requirements protect instructional
time needed to ensure students acquire the skills necessary to meet current and post-secondary demands (Rafa, 2017; Tennessee Department of Education, 2020b). Regular school attendance facilitates the development of academic and social skills necessary to become a contributing member of society. The link between student achievement and attendance has been the focus of numerous research studies. Chronic absenteeism in early grades affects $3^{\text {rd }}$-grade reading proficiency and academic achievement (Attridge et al., 2016; Rafa, 2017). High rates of student absences are associated with decreased rates of mastery on state and national assessments and lower levels of literacy and numeracy proficiency (Balfanz \& Byrnes, 2012; Smerillo et al., 2018). In addition, the high school dropout rate is significantly higher for students who do not consistently attend school (Schoenberger, 2012). Student access to post-secondary college and career opportunities is limited by the failure to obtain a high school diploma.

Much of the impetus for tracking rates of chronic absenteeism stems from research that shows high absenteeism rates significantly impact academic performance and increase the likelihood that students will drop out once they reach high school (Rafa, 2017; Schoeneberger, 2012). Students who miss between two and four days within the first month of school are likely to be classified as chronically absent during the school year (Ginsburg et al., 2014). Another motivating factor behind recent chronic absenteeism initiatives is that schools with significant levels of chronically absent students are less likely to meet state achievement and growth measures for both chronic absenteeism and state assessments (Bauer et al., 2018; Holmes, 2019).

## At-Risk Groups

Even though chronic absenteeism is an issue at all grade levels, it is most prevalent at the high school level, with 1 in 5 high school students labeled chronically absent based on CRDC
data (United States Department of Education, 2019a). Patterns of chronic absenteeism that exist in early grades often persist as students advance into later grades. After an examination of chronic absentee patterns, Balfanz and Byrnes (2012) were able to conclude that chronic absenteeism is most evident during years of transition. Specifically, chronic absenteeism in elementary school begins as early as kindergarten and first grade but tends to stabilize when students enter third and fourth grades. Rates of chronic absenteeism increase again during middle and high school, with the highest number of absences occurring among $12^{\text {th }}$-grade students.

While students of all demographic groups may be classified as chronically absent, specific subgroups are considered at risk. There are wide-ranging disparities between attendance rates of students belonging to racial and ethnic subgroups, those classified as economically disadvantaged, and students with disabilities (Attridge et al., 2016; Balfanz \& Byrnes, 2012; Chang et al., 2018; Jacob \& Lovett, 2017; United States Department of Education, 2019a). Black, Hispanic, and Native American students are more likely to acquire greater numbers of absences than their White and Asian peers (Ford \& Triplet, 2019; Jacob \& Lovett, 2017; United States Department of Education, 2019a). High school students with disabilities are 1.4 times more likely to be classified as chronically absent than their non-disabled peers (Rafa, 2017). Economically disadvantaged students are chronically absent in higher numbers, as studies have shown that poverty is a key determinant of student attendance (Chang et al., 2018).

## Root Causes of Chronic Absenteeism

While student attendance has been monitored and tracked for quite some time, rates of chronic absenteeism have not been consistently scrutinized and acted upon until recently (Portz
\& Beauchamp, 2020; United States Department of Education, 2019a). Balfanz and Byrnes (2012) found that causes of chronic absenteeism typically fit into one of 3 categories:

1. Students are unable to attend school due to illness, homelessness or housing instability, work commitments, family obligations, or legal issues.
2. Students choose not to attend school to avoid bullying, harassment, embarrassment, or other perceived safety issues.
3. Students fail to see the value in attending school regularly and lack a family support system to keep them engaged in learning.

In many cases, chronic absenteeism can be attributed to a variety of causes and is seldom due to one specific factor. The root causes of chronic absenteeism vary among students since many families face unique challenges such as transportation issues, poverty, homelessness, and health challenges (Chang et al., 2018; Rafa, 2017; United States Department of Education, 2019a). Other barriers to student attendance include bullying, school discipline practices, diagnosed and undiagnosed student disabilities, and disengagement (Rafa, 2017). Students who feel unsafe or unwelcome are less likely to attend school regularly (Balfanz \& Byrnes, 2012; Chang, 2018).

## Barriers to School Attendance

Poverty. Low-income families often face higher levels of income volatility and less overall stability in housing, family routines, and the ability to provide basic school supplies (Gennetian et al., 2018). Balfanz and Byrnes (2012) found evidence to support the conclusion that a connection exists between economically disadvantaged students and chronic absenteeism. Examining the number of students who qualified for free and reduced lunch, they concluded that schools with a higher number of eligible students were more likely to have high rates of chronic
absenteeism. Specifically, they found rates of chronic absenteeism were three times higher in high schools with populations of economically disadvantaged students.

Transportation. Using survey data from 5,790 students in the $6^{\text {th }}-12^{\text {th }}$ grades who were considered chronically absent, Brundage et al. (2017) found students cited transportation as a significant barrier to attending school. Students cited reasons such as missing the bus, car problems, and a desire to avoid walking to school during inclement weather. As more schooling options become available to families, students travel further distances from home, and more districts rely on public transportation options. In a study of students enrolled in Baltimore City Schools, Burdick-Will et al. (2019) found that individuals who were required to walk or wait at public transit spots associated with high rates of violent crime were more likely to have higher rates of chronic absenteeism than their peers.

Housing Instability. Homelessness or the threat of losing housing is a key barrier to student attendance (Byrnes \& Balfanz, 2012; Erb-Downward \& Watt, 2018). An analysis of attendance data from the state of Michigan revealed economically disadvantaged and homeless students make up $75 \%$ of chronically absent students within the state. Compared to their peers, homeless students were 2 and a half more times likely to be chronically absent than their peers who did not face housing instability (Erb-Downward \& Watt, 2018). Homeless students tend to experience multiple school placements as families search for adequate housing. An analysis of data from the New York City Department of Education showed a positive correlation between frequent enrollment changes and chronic absenteeism (da Costa Nunez et al., 2012).

Student Illness. Between 15 and 20 percent of students within the United States suffer from one or more chronic health conditions (Arimas-Macalino et al., 2019). Students suffering from chronic ailments are more likely to miss school than their peers. Given that chronic
absenteeism figures include both excused and unexcused absences, chronic illnesses often lead to attendance troubles. In response to links between illness and chronic absences, the American Academy of Pediatrics issued a statement on the importance of attending school as an important factor in the prevention of health issues that typically develop later in life as a result of diminished education achievement (Allison \& Attisha, 2019; Kim et al., 2020).

Exclusionary Discipline. Policies and procedures associated with school discipline affect various student outcomes such as academic achievement and attendance. Not only does an out-of-school suspension count toward a student's total absences, but it also increases the likelihood the student will be suspended again and possibly drop out (Balfanz et al., 2014). In addition to the detrimental effects of exclusionary discipline, black males and students with disabilities are suspended at higher numbers than their peers at both the elementary and secondary levels (Executive Office of the President, 2016; Losen et al., 2015). While suspension rates are higher for all student subgroups, black students with disabilities tend to be suspended at higher rates compared to their white peers.

Using data from the CRDC, the Executive Office of the President (2016) found that schools with higher rates of chronic absenteeism tended to suspend students in higher numbers. An analysis of the percentage of students receiving in-school and out-of-school suspensions showed that schools with lower incidences of chronically absent students tend to use suspension less often than schools with higher levels of chronically absent students. The increased awareness of chronic absenteeism among student subgroups, combined with exclusionary discipline practices, has led to many district-level initiatives to foster positive change in school administrators' disciplinary practices and implementation of behavioral support (Losen et al., 2015).

Student Engagement. While the experiences of individual students vary, schools that emphasize relationships between students, teachers, and families while working to promote a positive school climate tend to have increased levels of student and family engagement along with decreased rates of chronic absenteeism and disciplinary issues (Allensworth \& Easton, 2007; Chang \& Romero, 2008; Jones et al., 2018). Student engagement plays a significant role in creating a positive educational experience and building relationships and connections within a school (Balfanz et al., 2014; Gottfried, 2019; Jones et al., 2018; Thapa et al., 2013). Allensworth and Easton (2007) found that school engagement is one of the key factors determining whether or not a student chooses to attend school. Students who reported higher levels of trust and support from teachers were likely to have 5 fewer absences per year than students who stated they lacked trusting relationships. In addition, schools that emphasized post-secondary opportunities and success for all students regardless of ability were found to have higher levels of student engagement. Overall, student engagement is a key component of student attendance and high school completion (Allensworth \& Easton, 2007; Balfanze \& Byrnes, 2012: Smerillo et al., 2018).

School Refusal. Many occurrences of student absenteeism can be attributed to school refusal behavior (Kearney, 2019; Maynard et al., 2018). School refusal behaviors present themselves in a variety of ways, with students choosing not to attend certain class periods or an entire day either periodically or on a long-term basis. In many cases, these behaviors are linked to various factors such as family issues, mental health problems, or school factors such as bullying (Maynard et al., 2018). Students exhibiting school refusal behaviors in conjunction with anxiety often have difficulty forming positive peer relationships. Also, individuals who experience bullying are more likely to exhibit school refusal behavior and have high rates of
chronic absenteeism (Feldman et al., 2014; Kearney, 2019). Overall, school refusal behaviors can lead to long-term academic decline, and students may struggle with social-emotional health or social adjustment (Maynard et al., 2018).

COVID-19 Pandemic. In March 2020, many schools within the United States transitioned to distance learning in response to the spread of COVID-19 (Attendance Works, 2021b; Santibanez \& Guarino, 2020). Challenges emerged as states and districts scrambled to redesign attendance collection policies for students engaged in distance learning (Attendance Works, 2021a). There are concerns that COVID-19 has led to dramatic increases in chronic absenteeism rates and widened existing achievement gaps across the nation. In an early response to the pandemic, the Connecticut Department of Education began collecting and distributing 2020-2021 attendance reports monthly. Data comparing December 2020 attendance data to the 2019-2020 school year suggests dramatic increases in chronic absenteeism across all students and student subgroups (Attendance Works, 2021b). While student data is still forthcoming, there are concerns inequalities among students and achievement gaps will continue to increase due to challenges associated with distance learning and student engagement (Attendance Works, 2021a; Santibanez \& Guarino, 2020).

## Effects of Chronic Absenteeism on Student Outcomes

Numerous studies support the conclusion that students who miss school experience lower achievement and academic growth rates than that of their peers (Balfanz \& Byrnes, 2012; Gottfried, 2009; Gottfried, 2019; Tennessee Department of Education, 2018b). Occurrences of chronic absenteeism in elementary and middle school, and the corresponding loss of academic achievement, have been linked to an increased risk that a student will drop out of high school (Gottfried, 2019; Schoeneberger, 2012; Smerillo et al., 2018). A study of Chicago Public Schools
found that students with excessive rates of chronic absenteeism as freshman are $10 \%$ less likely to graduate than their non-chronically absent peers and are more likely to drop out of high school (Allensworth \& Easton, 2007).

## Academic Achievement

Students classified as chronically absent in kindergarten experienced less academic success than their peers upon transitioning to first grade (Chang \& Romero, 2008; Ready, 2010). Ready (2010) found that kindergarten students classified as chronically absent gained 14 percent fewer literacy skills than students without attendance concerns, but there was no significant difference in mathematical skills. By first grade, that number increased to 15 percent for literacy and 12 percent for mathematics. Upon entering fifth grade, economically disadvantaged students who were chronically absent in kindergarten performed lower in reading and math than their peers (Chang \& Romero, 2008).

Patterns of chronic absenteeism typically continue beyond elementary school, occurring at a higher frequency during periods of educational transition between elementary, middle, and high school as well as a student's senior year (Balfanz \& Byrnes, 2012; Chang et al., 2018). According to Smerillo et al. (2018), chronic absenteeism in the early years of middle school has a direct negative impact on math achievement by the time a student reaches $8^{\text {th }}$ grade. Allensworth and Easton (2007) found that as students transition to high school, those with even moderate absences have lower grade point averages and often fail to attain necessary credits toward graduation in a timely manner. Schools that promote a culture of learning focused on post-secondary opportunities report higher attendance rates, increased academic achievement, and lower failure rates.

## Spillover Effects

In a study of elementary students, Gottfried (2019) concluded that chronic absenteeism negatively affects both absent students and their peers' academic achievement. Referred to as spillover effects, these negative consequences lead to decreased academic achievement due to disruptions within the classroom environment as teachers must revise instructional pacing to accommodate students' academic needs. While students who are chronically absent experience greater academic gaps, all students within the classroom are at risk of diminished achievement. Chronically absent students have also been found to have increased behavioral problems and social-emotional needs that require modifications to classroom management policies (Gottfried, 2019).

## Student Dropouts

Student attendance is also a key indicator of whether or not students will complete high school with their graduation cohort (Schoenberger, 2012; Smerillo et al., 2018). Using attendance data from middle school, researchers concluded that chronic absenteeism among middle school students could be used to predict whether or not a student will enter high school on track to graduate within four years (Kieffer et al., 2011). Another research study indicated that students who are chronically absent in the fourth through sixth grades are less likely to graduate on time (Smerillo et al., 2018). Students who drop out of school are at risk of future issues such as limited post-secondary enrollment and decreased employment opportunities, as well as potential issues with mental health, relationships, and social-emotional health (Balfanz \& Byrnes, 2012; Gubbels et al., 2019). Chronically absent students who are at risk of dropping out are also likely to participate in behaviors classified as risky or life-altering such as drug use,
sexual activity, pregnancy, alcohol consumption, and juvenile delinquency (Gubbels et al., 2019).

## Chronic Absenteeism in Tennessee

In Tennessee, all children between the ages of six and seventeen must attend school unless they meet certain circumstances warranting an exemption (T.C.A. § 49-6-3001). According to the Tennessee Department of Education (TDOE), students may be classified as chronically absent if they miss $10 \%$ or more instructional days during the school year (Tennessee Department of Education, 2020b). This classification includes student absences that are excused, unexcused, or related to disciplinary actions (Rafa, 2017). Students in Tennessee are required to attend 180 days of instruction lasting 6.5 hours per day (T.C.A. § 49-6-3004). Missing 10 percent or more instructional days equates to 18 absences over the course of a 180-day school year. Students who accrue a large number of excused and unexcused absences or out-of-school suspensions are at risk of being classified as chronically absent.

It is important to note that chronic absenteeism differs from other attendance calculations such as truancy or Average Daily Attendance (ADA). ADA calculations reflect the percent of enrolled students present while school is in session but do not consider cumulative absence totals for individual students (Attridge et al., 2016; Tennessee Department of Education, 2020b; Rafa, 2017). According to Tennessee Code Annotated § 49-3-302 (2020), ADA calculations include the total number of days a student is present in school during a designated reporting period divided by the number of days school is in session during the same period. In Tennessee, the reporting period is set at 20 days (Tennessee Department of Education, 2020d).

Since ADA calculations are based on a designated reporting period, and do not account for the frequency of student absences, it can mask chronic absenteeism issues (Attridge et al., 2016; Bruner et al., 2011). In a report issued on chronic absenteeism rates among K-3 students in Tennessee, schools reported ADA rates of 95 percent during the 2014-2015 school year. However, almost 10 percent of the state's K-3 students met the criteria to be classified as chronically absent (Attridge et al., 2016). ADA rates of less than $97 \%$ can be viewed as an indication of chronic absenteeism issues among a school's student body (Bruner et al., 2011).

In the state of Tennessee, students are considered truant if they incur five or more unexcused absences. As part of the state's Truancy Tier System, schools are required to implement a series of progressive interventions and consequences for student absences, including written notification of unexcused absences to parents and guardians, conferences, attendance contracts, and possible referral to the juvenile court system. Parents and guardians are also at risk of being found guilty of educational neglect, a Class C misdemeanor (T.C.A. § 49-6-3009).

## Chronically Out of School Indicator

Beginning with the 2017-2018 school year, chronic absenteeism became a component of the accountability framework for schools and districts in Tennessee. The inclusion of the Chronically Out of School indicator required districts and schools to begin reporting chronic absenteeism rates as one of six performance targets (Tennessee Department of Education, 2020a). In Tennessee, a student is classified as chronically absent if they miss $10 \%$ or more school days. The indicator includes data related to excused and unexcused absences as well as out-of-school suspensions. To be included in chronic absenteeism calculations, a student must have been enrolled in the school for at least $50 \%$ of the total number of instructional days for that
school year. District and school level chronic absenteeism figures may vary due to enrollment transfers within and between districts (Tennessee Department of Education, 2020a).

At the district level, chronic absenteeism accounts for one of six indicators that are given equal weights and averaged together based on multiple pathways (Tennessee Department of Education, 2020a). District indicators include 3-5 Success Rate, 6-8 Success Rate, 9-12 Success Rate, K-12 Chronically Out of School, Graduation Rate, and K-12 English Language Proficiency Assessment (ELPA). Districts are scored on a scale of zero to four ranging from in need of improvement to exemplary. Overall scores for each indicator, including the Chronically Out of School indicator for K-12, are calculated based on the district's value-added performance points averaged with the best of either the points received for their absolute performance goal or Annual Measurable Objective (AMO) targets. Calculations are conducted for all students as well as each student group classified as historically underserved. Final scores for each indicator are calculated with all students comprising $60 \%$ and historically underserved student groups making up the remaining 40\%. Historically underserved students are those classified as Black, Hispanic, and Native American (BHN), Economically Disadvantaged Students (ED), English Learners (EL), and Students with Disabilities (SWD). Districts are classified as exemplary, advancing, satisfactory, or marginal based on their final overall score (Tennessee Department of Education, 2020a).

School accountability designations for Tennessee high schools are based on six indicators comprising different percentage weights: Achievement (30\%), Growth (25\%), Ready Graduate (20\%), Graduation Rate (5\%), Chronically Out of School (10\%), and English Language Proficiency (10\%). To determine a school's performance on each indicator, the best of either absolute performance or AMO targets is used (Tennessee Department of Education, 2019). Final
indicator scores are calculated with $60 \%$ comprising of all students and the remaining $40 \%$ made up of historically underserved student groups. Once each indicator percentage is calculated, schools receive a final grade and overall weighted average. Final grades are used to determine focus, priority, and reward school status (Tennessee Department of Education, 2020a).

## Theoretical Framework

This study's theoretical framework is guided by three theories - systems theory, accountability theory, and agency theory. Systems theory is used as a framework to understand open systems and the importance of systems thinking when analyzing the complex relationships between schools and external forces. Accountability theory serves as the foundation for supporting the implementation of different measurements used to evaluate the effectiveness of schools. Agency theory is used to demonstrate that schools, as open systems, operate under the assumption that a relationship exists between principals and agents in which balance is achieved through accountability.

## Systems Theory

Schools operate as open systems that are influenced by a series of input exchanges with the external environment. Based on Bertalanffy's ideas, systems theory addresses the influence the environment has on all living organisms or systems (Robertson \& Klir, 1973). A system is commonly referred to as a set of diverse yet interrelated elements that work together as part of a whole (Senge, 1990). In some cases, systems support one another and combine efforts to work toward a common goal (Robertson \& Klir, 1973). This is particularly evident in schools and school systems as their communal efforts are focused on providing quality educational
experiences to K-12 students. As the amount of inputs changes, schools must adapt and adjust to respond to complex problems and situations that arise (Hoy \& Miskel, 2013).

Systems Thinking. Rooted in systems theory, systems thinking refers to the interdependency between organizations and the external environment (Arnold \& Wade, 2015). Together, the organization and external environment function in a circular pattern to achieve a common goal or purpose. As systems become more complex, the flow of information and resources between the organization and its environment change (Scott \& Davis, 2007). External events shape individual organizations' dynamics and functions; therefore, they cannot act in isolation and expect to thrive (Hoy \& Miskel, 2013). For systems thinking to be effective, responsibility must be spread throughout the organization (Senge, 1990). By understanding and combining the dynamic working parts of an organization, proponents of systems thinking are able to see the bigger picture and interrelated workings of the individual components.

According to Scott and Davis (2007), systems can be divided into three viewpoints: rational systems, natural systems, and open systems. A rational systems perspective is centered on the idea that organizations are intended to attain established goals efficiently. These systems are characterized by goal specificity and formalization of structures and behavior. Natural systems move beyond decision-making processes and focus on organizational behavior and individuals' actions as they work toward achieving goals. As open systems, schools continuously interact with their environment and must be prepared to accept inputs from various sources (Betts, 1992; Hoy \& Miskel, 2013). For an organization to survive, it must be willing and able to accept inputs and adapt to necessary changes. Schools are affected by inputs such as state and federal mandates that require increased accountability measures addressing a variety of items such as student achievement and attendance. As accountability measures change, schools must
adopt policies and procedures for accounting, reporting, and addressing these issues (CookHarvey \& Stosich, 2016).

## Accountability Theory

Accountability in education centers on the idea that schools are responsible for providing students with a comprehensive education based on three fundamental principles: academic content standards, assessments aligned to standards, and consequences for schools that do not meet or exceed established goals (Hoy \& Miskel, 2013). The theory of school-based accountability is built upon the premise that schools must be evaluated and held accountable for transparent reporting of student performance and achievement based on various indicators (Cook-Harvey \& Stosich, 2016). Proponents of school accountability measures argue that outcomes for students will be improved due to the availability of information to the general public and the use of incentives and sanctions (Figlio \& Loeb, 2011; Supovitz, 2009).

## Agency Theory

In agency theory, the principal-agent problem highlights many elements related to schools and accountability. Agents are expected to act on behalf of principals and perform in a manner that is responsive to established goals and objectives (Gailmard, 2012; Ferris, 1992). In return, incentives are provided to agents for aligning decisions and actions with those preferred by principals (Gailmard, 2012). As agents, educators, and school leaders are responsible for carrying out state policies and acting in stakeholders' best interests (Dee \& Jacob, 2010). Stakeholders also have the ability to monitor agent actions by accessing published accountability data available on state report cards and websites.

Many performance-based accountability measures that emerged in recent decades are based on the idea that sanctions and punishments serve as incentives for agents to carry out principal expectations (Figlio \& Loeb, 2011; Finnigan \& Gross, 2007). In education, incentives created through accountability systems focus actions towards policies and procedures that will help achieve desired outcomes and allow for stakeholder monitoring (Figlio \& Loeb, 2011; Polikoff et al., 2014). Attaching positive or negative consequences to school and student performance is often viewed as an incentive for educators to ensure established standards are being taught with fidelity (Figlio \& Loeb, 2011).

## Chapter Summary

Monitoring student attendance is not a new concept, as many studies have been devoted to understanding the impact student absences have on attendance and academic achievement. The evolution of federal and state accountability models has led to increased attention on chronic absenteeism rates among K-12 students. As discussed in previous sections, recent studies have shown the connection between chronic absenteeism, low academic achievement and growth, dropout rates, and lack of preparation for post-secondary opportunities. With the 2015 reauthorization of ESEA as the Every Student Succeeds Act, many states submitted ESSA plans that included chronic absenteeism as the required nonacademic indicator (Jordan \& Miller, 2017). During the 2017-2018 school year, chronic absenteeism was included as one of the six accountability indicators that comprise the accountability framework for schools and districts throughout Tennessee. The purpose of this study is to examine the Chronically Out of School Indicator and determine if it has made a significant impact on the number of chronically absent students in grades 9-12 throughout Tennessee.

## Chapter 3. Methodology

The purpose of this study was to examine the effects of accountability policies on student absenteeism and determine if the inclusion of the Chronically Out of School Indicator in school accountability models had a significant effect on the number of chronically absent students in grades 9-12 throughout the state of Tennessee. Specifically, the research examined trends in the number of students classified as chronically absent in grades 9-12 during the 3 years before and 3 years from the inclusion of chronic absenteeism as one of the six indicators that comprise the Tennessee Accountability Model. The study examined data beginning with the 2015-2016 school year and ending with the 2019-2020 school year. The Chronically Out of School Indicator was included in the school accountability model beginning with the 2017-2018 school year.

In addition to the number of chronically absent students in grades $9-12$, the following student subgroups were examined for districts reporting 6 years of data: Black/Hispanic/Native American (BHN), Students with Disabilities (SWD), Black/African American, and Hispanic. The number of chronically absent students in the Economically Disadvantaged subgroup were examined for districts reporting 5 years of data due to a lack of data for the 2014-2015 school year. Data for 9-12 students were examined at the district level to account for schools that report additional student populations in their accountability figures.

The Statistical Package for the Social Sciences (SPSS) was used to conduct data analysis and determine if a significant difference occurred in the average number of student absences prior to implementation of the Chronically Out of School Indicator and the three years since its inclusion in school accountability models. This chapter includes a description of the research design, research questions and null hypotheses, population, sample size, instrumentation, data collection, data analyses, and chapter summary.

## Research Questions and Null Hypotheses

The following research questions and null hypotheses were used as part of this nonexperimental quantitative study. Post-hoc analysis was conducted for research questions found to have a significant difference.

RQ1: Is there a significant difference in the number of students chronically absent in grades 912 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 1$ : There is no significant difference in the number of students chronically absent in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model.

RQ2: Is there a significant difference in the number of chronically absent students within the Black, Hispanic, and Native American subgroup in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 2$ : There is no significant difference in the number of chronically absent students within the Black, Hispanic, and Native American subgroup in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model.

RQ3: Is there a significant difference in the number of chronically absent students within the Economically Disadvantaged subgroup in grades 9-12 during the 2 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 3$ : There is no significant difference in the number of chronically absent students within the Economically Disadvantaged subgroup in grades $9-12$ during the 2 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model.

RQ4: Is there a significant difference in the number of chronically absent students within the Students with Disabilities subgroup in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 4$ : There is no significant difference in the number of chronically absent students within the Students with Disabilities subgroup in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model.

RQ5: For the above Research Question 2 found to have a significant difference, as a result of post-hoc analysis, is the statistical difference by Black/African American subgroup during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 5$ : There is no significant difference in the number of chronic absences among Black/African American students in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model.

RQ6: For the above Research Question 2 found to have a significant difference, as a result of post-hoc analysis, is the statistical difference by the Hispanic subgroup during the 3 years
before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 5$ : There is no significant difference in the number of chronic absences among Hispanic students in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School indicator in the Tennessee accountability model.

## Research Design

This study was conducted using a nonexperimental, quantitative research framework to determine if a relationship existed between the expansion of the school accountability model and the number of chronically absent students in grades 9-12. Using an ex post facto research design, the study was intended to determine if there was a significant difference in the number of chronically absent students in grades 9-12 after the inclusion of the Chronically Out of School Indicator in the state accountability model. Publicly available secondary data were accessed through the Tennessee Department of Education's Data Downloads and Requests webpage (Tennessee Department of Education, 2020c).

## Population

This quantitative, nonexperimental study consisted of school districts reporting 6 years of data for students in grades 9-12 in Tennessee. Data sets were analyzed at the district level for students in grades 9-12 since a few high schools consist of additional grade levels such as PreK12 , K-12, or 6-12. Due to the inclusion of those students in school-level data, it was determined that an analysis of data at the district level would allow the researcher to isolate students in grades 9-12 when conducting the study. Data collected by the Civil Rights Data Collection survey show that chronic absenteeism rates tend to be highest among high school students in grades 9-12 (United States Department of Education, 2019a). The 9-12 student population within
a district was analyzed for the number of chronically absent students between the 2014-2015 school year and the 2019-2020 school year. In addition to aggregate numbers of chronically absent students, data were analyzed for the following student subgroups: Black/Hispanic/Native American, Economically Disadvantaged, and Students with Disabilities.

The sample for Research Questions 1-5 included all districts serving students in grades 912 for which the necessary data points were available. Due to variations in data availability for the years examined by each research question, the total sample analyzed varied based on whether the district met the criteria for that question. For example, a district may have reported the overall number of chronically absent students in grades $9-12$ for the 6 years examined in this study but lack significant data points for one or more of the research questions analyzing student subgroups. The sample size for each research question was also affected by Tennessee's requirements for protecting the identities of individual students. Tennessee data suppression rules prevent data from being published if fewer than 10 valid students are included in the sample. In addition, the chronic absenteeism rate is suppressed if it is greater than $99 \%$ at the district level (Tennessee Department of Education, 2019).

## Instrumentation

Data for this study consisted of data files published and made publicly available on the Tennessee Department of Education Data Downloads and Requests webpage (Tennessee Department of Education, 2020c). Accountability data are compiled and released annually to reflect current school year data reported by the state, districts, and individual schools. Accountability data are reported on district and school report cards as well as used in calculations to determine if achievement and performance targets are met by schools and districts. Based on overall performance, districts may be classified as exemplary, advancing,
satisfactory, or in need of improvement (Tennessee Department of Education, 2018b). At the school level, accountability data are used to determine if schools are classified as reward, priority, or focus (Tennessee Department of Education, 2020a). Districts and schools throughout the state are required to accurately record and report attendance data at various times throughout the year via the Education Information System (EIS) as directed by the TDOE's procedures for reporting student membership and attendance (Tennessee Department of Education, 2020d). The validity and reliability of the data were considered strong, given the data consists of information districts are mandated to report by the State of Tennessee for inclusion in accountability models and classifications for schools and districts.

## Data Collection

This study consisted of secondary analyses of publicly available ex post facto data from the Tennessee Department of Education. While the Tennessee Department of Education collected the available data sets for various purposes, they contain the necessary data points for the completion of this research study. For Research Questions 1-5, data were downloaded in an Excel spreadsheet and organized according to the years and groups addressed by the study. District-level data sets for chronic absenteeism were used to identify and sort relevant data points for students in grades 9-12 throughout the State of Tennessee. After data organization, a statistical analysis was conducted through SPSS to determine the relationship between each of the study variables.

## Data Analysis

Data were analyzed using a nonexperimental quantitative methodology. Data analysis procedures were conducted using the Statistical Package for Social Sciences (SPSS) Version 27.0 software. Research Questions 1-5 were analyzed using a paired samples $t$-test to identify if a
statistical significance existed within the data. Using a repeated measures design allowed data to be analyzed with each district serving as its own control group resulting in a comparison of district to district. By comparing each district to itself, rather than one district to another district, the unique factors that may affect outcomes in one district did not affect outcomes in others (Zimmerman, 1997). For Research Question 5, the researcher disaggregated the data by individual subgroup to identify if significant differences existed in the number of students chronically absent among the Black and Hispanic subgroup.

Before analysis in SPSS, the average number of chronically absent students was calculated for the designated period of time before and after implementation of the Chronically Out of School Indicator. Research questions 1, 2, 4, and 5, were examined based on the 3 years prior to implementation of the indicator (2014-2015, 2015-2016, and 2016-2017) and the 3 years after (2017-2018, 2018-2019, and 2019-2020). Research question 3 was examined based on the 2 years prior to implementation of the indicator (2015-2016 and 2016-2017) and the 3 years after (2017-2018, 2018-2019, and 2019-2020) due to limited data for the 2014-2015 school year. All research questions included an analysis of the first year of implementation (2017-2018) as part of the 3 years examined after the indicator was included in the Tennessee Accountability model.

## Assessment of Quality and Rigor

The data used for this study comprised of publicly available data sets published by the Tennessee Department of Education (TDOE). The data consisted of files that included districtlevel totals of chronically absent students for all 9-12 students as well as selected subgroups. Reporting requirements set forth by the TDOE ensure the validity of the data sets. Attendance data from the 2019-2020 school year were collected through March 2, 2020, due to the COVID19 pandemic and tornados that affected many students throughout Tennessee (Tennessee

Department of Education, 2020c). For reporting purposes, March 2, 2020, is considered the last instructional date for the 2019-2020 school year. Students were considered chronically absent if they missed $10 \%$ or more school days prior to March 2, 2020. While schools were not held accountable for a variety of data during this time, the data were considered useful and valid for this study since absences were calculated based on the proportion of instructional days for which the student was enrolled prior to March 2, 2020.

## Ethical Considerations

When releasing information to the general public, the Tennessee Department of Education suppresses certain data points to protect students' identities. For this reason, the districts included in analysis of each research question varied based on the availability of grade 9-12 data points spanning the years examined by each research question. Chronic absenteeism rates are included on district and school report cards. Student data are suppressed if the metric is calculated based on the performance of fewer than 10 students. In addition, chronic absenteeism data at the district level are suppressed if it is greater than $99 \%$ (Tennessee Department of Education, 2019). By establishing suppression rules for publicly available data, the TDOE has taken steps to ensure that identifiable information is not released that could jeopardize student privacy.

## Chapter Summary

Chapter 3 presents information outlining the methodology of the research study and included the following components: Research Questions and Null Hypotheses, Research Design, Population, Instrumentation, Data Collection, Data Analysis, Assessment of Quality and Rigor, and Ethical Considerations. A nonexperimental, ex post facto study was designed to determine if there was a statistical significance between the number of chronically absent students before and
after the inclusion of the Chronically Out of School indicator in district accountability models. Data used in the study consisted of 6 years, allowing for an analysis of the number of chronically absent students 3 years before and 3 years after the inclusion of the indicator. The data used to analyze the 3 years after implementation included the first year the Chronically Out of School indicator was added to the accountability model.

The study was conducted using quantitative research methods. The study sample consisted of all 9-12 students in school districts throughout Tennessee. Data were analyzed at the district level to ensure data analysis focused solely on data involving students in grades 9-12. Paired samples $t$-tests were conducted to determine if there was a statistical significance between the average number of chronically absent students before and after the inclusion of the Chronically Out of School indicator in the district accountability model. When a significant difference was found, post hoc analysis was done on data the researcher was able to further disaggregate. This study is intended to serve as preliminary research regarding accountability and chronic absenteeism. Chapter 4 outlines the findings of the study. Chapter 5 includes a discussion on the implications of the study and recommendations for future research and practice based on the findings.

## Chapter 4. Findings

The purpose of this ex post facto quantitative study was to determine if there were significant differences in the number of students in grades 9-12 classified as chronically absent before and after the inclusion of the Chronically Out of School Indicator in the accountability model for schools and school districts. Using statistical analyses, the researcher focused on district-level chronic absenteeism numbers for students in grades 9-12 and the following student subgroups: Black/Hispanic/Native American (BHN), Economically Disadvantaged, Students with Disabilities (SWD). For post-hoc analysis, data for the BHN subgroup were disaggregated into Black/African American and Hispanic subgroups. The sample for each question included students in grades 9-12 for districts that reported the data points necessary to conduct statistical analysis of each research question. Data analysis did not include districts lacking data for the period examined by each research question in the statistical analysis. Research Questions 1, 2, 4, and 5 were analyzed using the 3year average of the number of students chronically absent before and after the inclusion of the Chronically Out of School Indicator. Research Question 3 was analyzed using an average of the 2 years before and 3 years after inclusion of the indicator. The 2017-2018 school year was the first year of implementation and was included as one of the three years analyzed after implementation.

## Research Question 1

RQ1: Is there a significant difference in the number of students chronically absent in grades 9-12 during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 1$ : There is no significant difference in the number of students chronically absent in grades 9-12 during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model.

A paired samples $t$-test was conducted to determine if there was a significant difference between the number of students chronically absent in grades $9-12$ during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model. The test was significant, $t(118)=2.85, p=.005$. Therefore, the null hypothesis was rejected. The results indicated that the mean rate of the number of students chronically absent in grades 9-12 for the 3 years prior to implementation of the Chronically Out of School indicator $(M=455.13, \mathrm{SD}=975.04)$ was significantly greater than the number of students chronically absent in grades $9-12$ for the 3 years after $(M=431.41, \mathrm{SD}=989.49)$. The $95 \%$ confidence interval for the difference in means was 7.24 to 40.20 . The standardized effect size index, $d$, was .26, which indicated a small effect size. Figure 1 shows the distribution for the average number of students classified as chronically absent for the 3 years before and 3 years after implementation of the Chronically Out of School Indicator.

## Figure 1

Average Number of Students in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator


District Level Chronic Absenteeism Grades 9-12

The data were reanalyzed after the extreme values identified in Figure 1 were removed.
An additional paired samples $t$-test was conducted to determine if there was a significant difference between the number of students chronically absent in grades 9-12 during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model. The test remained significant, $t(109)=3.57, \mathrm{p}=.001$. Therefore, the null hypothesis was again rejected. The results indicated that the mean rate of the number of students chronically absent in grades 9-12 for the 3 years prior to implementation of the Chronically Out of School indicator $(M=246.20, \mathrm{SD}=211.29)$ was significantly higher than the number of students chronically absent in grades $9-12$ for the 3 years after ( $M=223.20, \mathrm{SD}=210.69$ ). The
$95 \%$ confidence interval for the difference in means was 10.22 to 35.78 . The standardized effect size index, $d$, was .34 , which indicated a small effect size. Figure 2 shows the distribution for the two groups, excluding initial extreme values.

## Figure 2

Average Number of Students in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator, Excluding Initial Extreme Values


District Level Chronic Absenteeism Grades 9-12

## Research Question 2

RQ2: Is there a significant difference in the number of chronically absent students within the Black, Hispanic, and Native American subgroup in grades 9-12 during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 2$ : There is no significant difference in the number of chronically absent students within the Black, Hispanic, and Native American subgroup in grades 912 during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model.

A paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronically absent students within the Black, Hispanic, and Native American subgroup in grades 9-12 during the 3 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test was significant, $t(101)=-2.32, p=.022$. Therefore, the null hypothesis was rejected. The results indicated the mean number of chronically absent students within the Black, Hispanic, and Native American subgroup in grades 9-12 for the 3 years prior to implementation of the Chronically Out of School indicator $(M=186.31, \mathrm{SD}=781.59)$ was significantly less than the mean number of chronically absent students with the Black, Hispanic, and Native American subgroup in grades $9-12$ for the 3 years after ( $M=200.18$, SD 817.77). The $95 \%$ confidence interval for the difference in means was -25.73 to -1.99 . The standardized effect size index, $d$, was .23 , which indicated a small effect size. Figure 3 shows the distribution for the two groups.

## Figure 3

Average Number of Black/Hispanic/Native American Students in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator


Black/Hispanic/Native American Chronic Absenteeism Grades 9-12

The data were reanalyzed after the extreme values identified in Figure 3 were removed. An additional paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronically absent students within the Black, Hispanic, and Native American subgroup in grades 9-12 during the 3 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test was not significant, $t(90)=-1.53, p=.130$. Therefore, the null hypothesis was retained. The number of Black, Hispanic, and Native American students classified as chronically absent tended to be similar during the 3 years prior to the implementation of the Chronically Out of School Indicator $(M=32.51, \mathrm{SD}=33.04)$ compared to the 3 years after implementation $(M$
$=35.25, \mathrm{SD}=37.97$ ). The $95 \%$ confidence interval for the difference in means was -6.32 to .82 .
The standardized effect size index, $d$, was .16 , which indicated a small effect size. Figure 4 shows the distribution for the two groups, excluding initial extreme values.

## Figure 4

Average Number of Black/Hispanic/Native American Students in Grades 9-12 Classified as
Chronically Absent Before and After Implementation of the Chronically Out of School Indicator, Excluding Initial Extreme Values


## Research Question 3

RQ3: Is there a significant difference in the number of chronically absent students within the Economically Disadvantaged subgroup in grades 9-12 during the 2 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 3$ : There is no significant difference in the number of chronically absent students within the Economically Disadvantaged subgroup in grades 9-12 during the 2 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model.

A paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronically absent students within the Economically Disadvantaged subgroup in grades 9-12 during the 2 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test was not significant, $t(71)=-.817, p=.417$. Therefore, the null hypothesis was retained. The number of Economically Disadvantaged students classified as chronically absent tended to be similar during the 2 years prior to the implementation of the Chronically Out of School Indicator ( $M=228.03$, $\mathrm{SD}=523.98)$ compared to the 3 years after implementation $(M=245.43, \mathrm{SD}=671.18)$. The $95 \%$ confidence interval for the difference in means was -59.86 to 25.06. The standardized effect size index, $d$, was .096 , which indicated a small effect size. Figure 5 shows the distribution for the two groups.

## Figure 5

Average Number of Economically Disadvantaged Students in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator


The data were reanalyzed after the extreme values identified in Figure 5 were removed. An additional paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronically absent students within the Economically Disadvantaged subgroup in grades $9-12$ during the 2 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test was significant, $t(65)=2.37, \mathrm{p}=.021$. Therefore, the null hypothesis was rejected. The results indicated the mean number of chronically absent students within the Economically Disadvantaged subgroup in grades 9-12 for the 2 years prior to implementation of the Chronically Out of School indicator $(M=100.02, \mathrm{SD}=81.90)$ was significantly greater than
the mean rate of chronic absenteeism for the 3 years after $(M=91.29, \mathrm{SD}=76.01)$. The $95 \%$ confidence interval for the difference in means was 1.36 to 16.09 . The standardized effect size index, $d$, was .29 , which indicated a small effect size. Figure 6 shows the distribution for the two groups, excluding initial extreme values.

## Figure 6

Average Number of Economically Disadvantaged Students in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator, Excluding Initial Extreme Values


## Research Question 4

RQ4: Is there a significant difference in the number of chronically absent students within the Students with Disabilities subgroup in grades 9-12 during the 3 years
before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model? $\mathrm{H}_{0} 4$ : There is no significant difference in the number of chronically absent students within the Students with Disabilities subgroup in grades 9-12 during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model.

A paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronically absent students within the Students with Disabilities subgroup in grades 9-12 during the 3 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test was not significant, $t(114)=-.398, p=.692$. Therefore, the null hypothesis was retained. The number of students with the Students with Disabilities subgroup classified as chronically absent tended to be similar during the 3 years prior to the implementation of the Chronically Out of School Indicator $(M=68.39, \mathrm{SD}=147.06)$ compared to the 3 years after implementation $(M=68.94, \mathrm{SD}$ $=150.75)$. The $95 \%$ confidence interval for the difference in means was -3.28 to 2.18 . The standardized effect size index, $d$, was .037 , which indicated a small effect size. Figure 7 shows the distribution for the two groups.

## Figure 7

Average Number of Students with Disabilities in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator


SWD Chronic Absenteeism Grades 9-12

The data were reanalyzed after the extreme values identified in Figure 7 were removed. An additional paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronically absent students within the Students with Disabilities subgroup in grades 9-12 during the 3 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test remained not significant, $t(105)=.170, p=.859$. Therefore, the null hypothesis was again retained. The number of students with the Students with Disabilities subgroup classified as chronically absent tended to be similar during the 3 years prior to the implementation of the Chronically Out of School Indicator ( $M=37.91, \mathrm{SD}=31.68$ ) compared to
the 3 years after implementation ( $M=37.75, \mathrm{SD}=31.72$ ). The $95 \%$ confidence interval for the difference in means was -1.61 to 1.92 . The standardized effect size index, $d$, was .017 , which indicated a small effect size. Figure 8 shows the distribution for the two groups, excluding initial extreme values.

## Figure 8

Average Number of Students with Disabilities in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator, Excluding Initial Extreme Values


SWD Chronic Absenteeism Grades 9-12

## Research Question 5

RQ5: For the above Research Question 2 found to have a significant difference, as a result of post-hoc analysis, is the statistical difference by ethnic subgroup during
the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 5$ : There is no significant difference in the number of chronic absences among Black/African American students in grades 9-12 during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model.

Due to significant difference in the number of chronically absent students in the Black/Hispanic/Native American subgroup, paired samples $t$-tests were conducted to determine whether the difference was by race. For Research Question 5, a paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronic absences among Black/African American students in grades 9-12 during the 3 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test was not significant, $t(87)=-.337, p=.737$. Therefore, the null hypothesis was retained. The number of Black/African American students classified as chronically absent tended to be similar during the 3 years prior to the implementation of the Chronically Out of School Indicator ( $M=171.86, \mathrm{SD}=729.83$ ) compared to the 3 years after implementation ( $M=173.03, \mathrm{SD}=721.46$ ). The $95 \%$ confidence interval for the difference in means was -8.08 to 5.74 . The standardized effect size index, $d$, was .036 , which indicated a small effect size. Figure 9 shows the distribution for the two groups.

## Figure 9

Average Number of Black/African American Students in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator


The data were reanalyzed after the extreme values identified in Figure 9 were removed. An additional paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronic absences among Black/African American students in grades 9-12 during the 3 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test remained not significant, $t(77)=.602, p=.549$. Therefore, the null hypothesis was again retained. The number of Black/African American students classified as chronically absent tended to be similar during the 3 years prior to the implementation of the Chronically Out of School Indicator ( $M=25.64, \mathrm{SD}=$ 28.59) compared to the 3 years after implementation ( $M=24.82$, $\mathrm{SD}=26.89$ ). The $95 \%$
confidence interval for the difference in means was -1.89 to 3.54 . The standardized effect size index, $d$, was .068 , which indicated a small effect size. Figure 10 shows the distribution for the two groups, excluding initial extreme values.

## Figure 10

Average Number of Black/African American Students in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator, Excluding Initial Extreme Values


## Research Question 6

RQ6: For the above Research Question 2 found to have a significant difference, as a result of post-hoc analysis, is the statistical difference by ethnic subgroup during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model?
$\mathrm{H}_{0} 6$ : There is no significant difference in the number of chronic absences among Hispanic students in grades 9-12 during the 3 years before and 3 years after the inclusion of the chronically out of school indicator in the Tennessee accountability model.

Due to significant difference in the number of chronically absent students in the Black/Hispanic/Native American subgroup, paired samples $t$-tests were conducted to determine whether the difference was by race. For Research Question 6, a paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronic absences among Hispanic students in grades 9-12 during the 3 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test was significant, $t(80)=-2.65, p=.010$. Therefore, the null hypothesis was rejected. The results indicated that the mean number of chronically absent Hispanic students for the 3 years prior to implementation of the Chronically Out of School indicator ( $M=44.85, \mathrm{SD}=$ 141.31) was significantly less than the mean rate of chronic absenteeism for the 3 years after ( $M$ $=60.59, \mathrm{SD}=193.25)$. The $95 \%$ confidence interval for the difference in means was -27.57 to 3.92. The standardized effect size index, $d$, was .294 , which indicated a small effect size. Figure 11 shows the distribution for the two groups.

## Figure 11

Average Number of Hispanic Students in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator


Hispanic Chronic Absenteeism Grades 9-12

The data were reanalyzed after the extreme values identified in Figure 11 were removed. An additional paired samples $t$-test was conducted to determine if there was a significant difference between the number of chronic absences among Hispanic students in grades 9-12 during the 3 years before and the 3 years after implementation of the Chronically Out of School indicator in the Tennessee accountability model. The test remained significant, $t(70)=-2.72, p=$ .008. Therefore, the null hypothesis was again rejected. The results indicated that the mean number of chronically absent Hispanic students for the 3 years prior to implementation of the Chronically Out of School indicator $(M=12.34, \mathrm{SD}=13.49)$ was significantly less than the mean rate of chronic absenteeism for the 3 years after $(M=15.61, \mathrm{SD}=18.97)$. The $95 \%$ confidence
interval for the difference in means was -5.66 to -.87 . The standardized effect size index, $d$, was .32, which indicated a small effect size. Figure 12 shows the distribution for the two groups, excluding initial extreme values.

## Figure 12

Average Number of Hispanic Students in Grades 9-12 Classified as Chronically Absent Before and After Implementation of the Chronically Out of School Indicator, Excluding Initial Extreme Values


Hispanic Chronic Absenteeism Grades 9-12

## Chapter Summary

The purpose of this study was to explore the possibility of significant differences between the number of students chronically absent before and after the inclusion of the Chronically Out of School indicator in the Tennessee Accountability Model. A series of paired samples $t$-tests were used to determine if significant differences existed between the number of chronically
absent students before and after implementation of the Chronically Out of School Indicator. Data analysis included the number of chronically absent students in grades 9-12 at the district level and the following student subgroups: Black/Hispanic/Native American, Economically Disadvantaged, and Students with Disabilities. Post-hoc analysis included subgroup data for Black/African American and Hispanic students classified as chronically absent in grades 9-12. The null hypotheses were rejected for Research Questions 1 and 2 as the results of paired samples $t$-tests were found to be significant. The null hypotheses were retained for Research Questions 3 and 4 as results of the paired samples $t$-tests were not significant.

Due to the varied size of districts included in the study, extreme values were present in each data set. After the initial paired samples $t$-tests were run for each research question, extreme values were excluded and a second series of paired samples $t$-tests were used to determine if significant differences existed between the number of chronically absent students before and after implementation of the Chronically Out of School Indicator. The null hypotheses were rejected for Research Questions 1 and 3 as the results of paired samples $t$-tests were found to be significant. The null hypotheses were retained for Research Questions 2 and 4 as results of the paired samples $t$-tests were not significant.

Research Question 5 and 6 were a post-hoc analyses of significant differences found for Research Question 2. Due to the significant difference found in Research Question 2, the BHN subgroup data were disaggregated by ethnicity into Black/African American and Hispanic groups. Paired sample $t$-tests were conducted on the number of Black/African American and Hispanic students classified as chronically absent in grades 9-12. The first post-hoc paired samples $t$-test compared the number of Black/African American students classified as chronically absent during the 3 years before and 3 years after implementation of the Chronically

Out of School Indicator. The test was insignificant, indicating the number of Black/African American students classified as chronically absent during the 3 years before and 3 years after was not significantly different ( $M=171.86$ and $M=173.03$ respectively). The second post-hoc paired samples $t$-test compared the number of Hispanic students classified as chronically absent during the 3 years before and 3 years after implementation of the Chronically Out of School Indicator. The test was significant, indicating the number of Hispanic students classified as chronically absent during the 3 years before and 3 years after was significantly different ( $M=$ 44.85 , and $M=60.59$ respectively). While the test was significant, the mean number of chronically absent Hispanic students increased during the 3 years after implementation. Chapter 5 includes a summary of the findings, implications, and recommendations for future research and current practice.

## Chapter 5. Conclusions

## Introduction

Since the passage of the Elementary and Secondary Education Act of 1965 (ESEA), accountability measures used to evaluate schools have shaped the landscape of education. The most recent reauthorization of the ESEA, the Every Student Succeeds Act (ESSA), allowed states greater flexibility in creating and implementing accountability policies. As part of ESSA, states were required to include a nonacademic indicator related to school quality or student success (SQSS) within accountability models (Kaput, 2018; Portz \& Beauchamp, 2020; Rafa, 2017). Chronic absenteeism was selected as a nonacademic indicator by 37 states, including Tennessee. The inclusion of attendance in state accountability models highlighted a longstanding concern that traditional methods of tracking attendance masked chronic absenteeism among students (Attridge et al., 2016; Bruner et al., 2011).

The purpose of this quantitative study was to explore the effects of implementing the Chronically Out of School indicator on the number of students classified as chronically absent by comparing the average number of chronically absent students before and after the indicator's inclusion in Tennessee's accountability models for schools and districts. District level chronic absenteeism data were obtained from the Tennessee Department of Education's Data Downloads and Requests webpage. The data files included the number of students chronically absent in grades 9-12 overall and among the following subgroups: Black/Hispanic/Native American, Economically Disadvantaged, and Students with Disabilities.

Statistical tests were conducted to explore the possibility of differences in the number of chronically absent students before and after implementation of the Chronically Out of School indicator in school and district accountability models. For significant differences found in

Research Question 2, the researcher conducted post hoc analyses to examine the possibility of significant differences based on race. Chapter 5 includes a discussion of the findings, implications, and recommendations for future research and current practice.

## Discussion

The research questions examined in this study centered on the effects of implementing the Chronically Out of School Indicator on the number of chronically absent students in grades 9-12 and various subgroups. The Chronically Out of School Indicator is a component of school and district accountability models in Tennessee.

## Research Question 1

Research Question 1 was analyzed using a paired-samples $t$-test to compare the mean number of chronically absent students in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School Indicator in the Tennessee accountability model for schools and school districts. The results of the paired samples $t$-test were significant, indicating that the number of students in grades 9-12 classified as chronically absent was significantly lower $(M=431.41)$ compared to the number of chronically absent students before implementation of the Chronically Out of School Indicator ( $M=455.13$ ). The results continued to be significant when extreme values were removed, and an additional paired samples $t$-test was conducted.

The inclusion of a nonacademic indicator in state ESSA plans resulted in many states placing an increased focus on chronic absenteeism (Darling-Hammond et al., 2016; Jimenez \& Sargrad, 2017). Prior to the passage of ESSA, there was a lack of standardized policies and procedures focused on collecting and tracking student absences (Balfanz \& Byrnes, 2012; Chang
et al., 2018). In addition, varied definitions regarding what constitutes an absence and chronic absenteeism led to varied absentee reports (Chang et al., 2018). Variations in attendance reporting procedures across schools and districts before ESSA demonstrate the importance of establishing standardized reporting procedures across schools and districts for the 37 states that chose to use chronic absenteeism as the nonacademic indicator included in accountability models.

The results of Research Question 1 correspond to existing literature focused on the importance of accountability practices for attendance reporting and the inclusion of attendance measures in accountability models (Chang et al., 2018). The results indicated a decrease in the number of chronically absent students in grades 9-12 after including the Chronically Out of School indicator in the state accountability model. While the data were analyzed at the district level to allow for the inclusion of students in grades 9-12 who attend schools that serve students outside this grade band, it is possible an analysis of school-level chronic absenteeism data could yield different results. In addition, the differences in overall enrollment and student subgroup numbers across districts indicate the need to further disaggregate and analyze the data.

## Research Question 2

Research Question 2 was analyzed using a paired-samples $t$-test to compare the mean number of chronically absent students in grades 9-12 who belonged to the Black/Hispanic/Native American subgroup during the 3 years before and 3 years after the inclusion of the Chronically Out of School Indicator in the Tennessee accountability model for schools and school districts. The results of the paired samples $t$-tests were significant, indicating that the number of students in the Black/Hispanic/Native American subgroup classified as chronically absent was significantly higher $(M=200.18)$ compared to the number of chronically absent students before
implementation of the Chronically Out of School Indicator ( $M=186.31$ ). An additional paired samples $t$-test was conducted after the removal of extreme values. The results of the second test were not significant, indicating that the number of students in the Black/Hispanic/Native American subgroup classified as chronically absent ( $M=35.25$ ) was not significantly different compared to the number of chronically absent students before implementation of the Chronically Out of School Indicator $(M=32.51)$.

As discussed in the literature review, students in the Black/Hispanic/Native American subgroup tend to be absent more often than their White and Asian peers (Ford \& Triplet, 2019; Jacob \& Lovett, 2017; United States Department of Education, 2019a). The initial results of Research Question 2 coincided with existing literature addressing higher rates of chronic absenteeism among student subgroups. However, the results indicated an increase in the number of chronically absent students within the BHN subgroup after the implementation of the Chronically Out of School Indicator. In addition, due to data being examined at the district level, differences in aggregate student enrollment across districts may have affected the results of the paired samples $t$-tests. For example, larger districts throughout Tennessee reporting higher numbers of chronically absent students within the BHN subgroup may have different results when compared to districts with fewer students. It is possible that future research focused on individual districts or schools will allow for better results due to a smaller sample size.

## Research Question 3

Research Question 3 was analyzed using a paired-samples $t$-test to compare the mean number of chronically absent students in grades 9-12 who belonged to the Economically Disadvantaged subgroup during the 2 years before and 3 years after the inclusion of the Chronically Out of School Indicator in the Tennessee accountability model for schools and
school districts. The period before implementation was limited to 2 years due to limited data available for the 2014-2015 school year. The results of the paired samples $t$-test were not significant, indicating that the number of students in the Economically Disadvantaged subgroup classified as chronically absent ( $M=245.43$ ) was not significantly different compared to the number of chronically absent students before implementation of the Chronically Out of School Indicator $(M=228.03)$. An additional paired samples $t$-test was conducted after the removal of extreme values. The results of the second test were significant, indicating that the number of students in the Economically Disadvantaged subgroup classified as chronically absent ( $M=$ 91.29) after implementation of the Chronically Out of School indicator was significantly different compared to the number of chronically absent students before implementation ( $M=$ 100.02).

Existing literature supports the connection between poverty and higher rates of chronic absenteeism due to factors such as housing instability, lack of basic necessities, unreliable transportation, and disruption of family relationships (Balfanz \& Byrnes, 2012; Gennetian et al., 2018). Studies citing the connection between chronic absenteeism and qualification for free and reduced lunch could provide further insight on the effects of poverty on student attendance and lead to successful interventions (Balfanz \& Byrnes, 2012). The results of the paired samples $t$ test after removal of extreme values support the assertion that districts with higher student enrollment may mask significant differences among districts with lower student enrollment.

## Research Question 4

Research Question 4 was analyzed using a paired-samples $t$-test to compare the mean number of chronically absent students in grades 9-12 who belonged to the Students with Disabilities subgroup during the 3 years before and 3 years after the inclusion of the Chronically

Out of School Indicator in the Tennessee accountability model for schools and school districts. The results of the paired samples $t$-test were not significant, indicating that the number of students in the Students with Disabilities subgroup classified as chronically absent ( $M=68.94$ ) was not significantly different compared to the number of chronically absent students before implementation of the Chronically Out of School Indicator ( $M=68.39$ ). The results continued to be not significant when extreme values were removed, and an additional paired samples $t$-test was conducted.

## Research Questions 5 and 6

As a follow-up to the significant difference indicated in the analysis of Research Question 2, the Black/Hispanic/Native American subgroup was disaggregated to conduct posthoc analyses. For Research Questions 5 and 6, paired-samples $t$-tests were conducted to compare the mean number of chronically absent Black/African American and Hispanic students in grades 9-12 during the 3 years before and 3 years after the inclusion of the Chronically Out of School Indicator in the Tennessee accountability model for schools and school districts, respectively. The results of the paired samples $t$-test on the number of chronically absent Black/African American students were not significant, indicating that the number of Black/African students classified as chronically absent $(M=173.03)$ was not significantly different compared to the number of chronically absent Black/African American students before implementation of the Chronically Out of School Indicator ( $M=171.86$ ). The results continued to be not significant when extreme values were removed, and an additional paired samples $t$-test was conducted.

The results of the paired samples $t$-test on the number of chronically absent Hispanic students were significant, indicating that the number of Hispanic students classified as chronically absent $(M=60.59)$ was significantly greater compared to the number of chronically
absent Black/African American students before implementation of the Chronically Out of School Indicator $(M=44.85)$. The results continued to be significant when extreme values were removed, and an additional paired samples $t$-test was conducted. Both paired samples $t$-tests indicated an increase in the mean number of chronically absent students after the inclusion of the Chronically Out of School Indicator.

As stated in the analysis of Research Question 2, the results of Research Questions 5 and 6 support existing literature that students belonging to the BHN subgroup tend to experience a higher number of chronic absences compared to their White and Asian peers (Ford \& Triplet, 2019; Jacob \& Lovett, 2017; United States Department of Education, 2019a). Additionally, exclusionary discipline policies tend to disproportionally affect minority students (Davis et al., 2019; Executive Office of the President, 2016; Losen et al., 2015). Therefore, further investigation is needed to determine the factors leading to increased numbers of chronic absences among Black/African American and Hispanic students despite accountability policies aimed at reducing chronic absences among students.

## Possible Factors Contributing to Results

While the research study results indicate areas of significant difference in the overall number of chronically absent students, further analysis of subgroups yielded varied results. A possible contributing factor to these results is the analysis of data at the district level. Due to the inclusion of additional grades outside the 9-12 grade band in school-level data, the researcher decided to use district-level data to analyze the number of chronically absent students in grades 9-12. Variations in enrollment numbers across districts could have led to larger districts affecting the statistical significance of the paired samples $t$-tests. For example, larger districts with higher
aggregate and subgroup enrollment numbers may have masked changes in the average number of chronically absent students in smaller districts.

In addition to variations in district enrollment, the following items were identified as possible contributing factors.

## COVID-19 Pandemic

The COVID-19 pandemic caused unprecedented disruptions to the education of Tennessee students. In March 2020, schools were forced to transition to virtual learning due to the pandemic (Attendance Works, 2021b; Santibanez \& Guarino, 2020). The Tennessee State Board of Education passed an emergency rule allowing schools to take attendance but restricting their ability to record unexcused absences or implement truancy policies (Tullos, 2020). Attendance records were for schools and districts to evaluate student access to online instruction and the effectiveness of virtual instruction but could not count against the student.

Due to these unprecedented challenges, state accountability policies regarding attendance and chronic absenteeism were suspended for the 2019-2020 school year. Therefore, available chronic absenteeism data from the state was calculated based on student attendance until March 2, 2020, which represents the last day of in-person instruction for Tennessee students (Tennessee Department of Education, 2020c). This was acknowledged as a limitation of this research study due to the possibility that reported data may not represent the full scope of the number of chronically absent students during the 2019-2020 school year. However, the lack of existing research on the effectiveness of accountability and attendance policies, specifically implementation of the Chronically Out of School Indicator, led the researcher to conclude this study would serve as a starting point for further research.

At the time this research study was conducted, the COVID-19 pandemic continued to hinder regular school attendance for many student groups. While attendance data were available until March $2^{\text {nd }}$ of the 2019-2020 school year, attendance data collection during the 2020-2021 school year was affected due to the differences between online, hybrid, and in-person instruction (Attendance Works, 2021). Districts were left to answer questions about what constitutes attendance during periods of synchronous and asynchronous instruction. The differences in attendance policies across districts and modes of instruction led to questions about the quality and reliability of attendance procedures during the period of remote learning.

## Contributing Factors Beyond School

Students with a history of chronic absenteeism often have other factors affecting their ability to attend school regularly. As stated in the literature review, Balfanz and Byrnes (2012) found that most cases of chronic absenteeism were typically caused by outside barriers, avoidance of issues affecting the student at school, or a lack of engagement and family support. While the root causes of chronic absenteeism vary from student to student, districts, and schools that take a proactive approach in partnering with outreach services and improving school culture often experience the greatest success in improving student attendance (Chang et al., 2019).

The COVID-19 pandemic exposed many inequities students face daily in addition to financial difficulties, job loss, and food or housing insecurity. As schools transitioned to virtual learning, districts that did not provide student devices found that many families lacked access to a computer or reliable internet services. Preliminary studies indicate that the transition to virtual learning affected at-risk and minority students at disproportionately higher levels than their nonchronically absent peers (Attendance Works, 2021; Bailey, 2020; The Hunt Institute, 2021).

## Data Reporting and Collection

As stated by Chang et al. (2018), reported incidents of chronic absenteeism were not widespread prior to the ESSA's requirement of a nonacademic accountability metric. While there are a variety of factors that cause variations in the number of chronically absent students from year to year, increased monitoring and oversight most likely led to increased accuracy in attendance reporting and tracking. Over time, long-range attendance data will provide more opportunities to analyze the effectiveness of the Chronically Out of School Indicator on chronic absenteeism.

The inclusion of the Chronically Out of School Indicator in the accountability model for Tennessee schools and districts began with the 2016-2017 school year. Due to data availability, this research study included the initial year of implementation as part of the three years analyzed after the inclusion of the Chronically Out of School Indicator in Tennessee district and school accountability models. Analysis of the data indicates that the number of chronically absent students at the district level has increased within many subgroup areas analyzed in this study. It is possible districts and schools are in the midst of an implementation dip as they work to create policies and procedures designed to decrease the number of students classified as chronically absent. According to Fullan (2007), implementation dips often occur when new policies are put into place. In this case, districts and schools may still be working toward effective policies and procedures aimed at decreasing chronic absenteeism.

## Implications for Current Practice

The number of chronically absent students and overall chronic absenteeism rates continue to be tracked as part of the Tennessee accountability model. In addition, the COVID-19 pandemic continues to impact student attendance and those classified as chronically absent.

Based on the results of this study and current literature on chronic absenteeism, the researcher suggests the following practices for district and school leaders:

- Districts and schools should monitor student attendance daily to identify attendance trends of individual students to identify those at risk of chronic absenteeism. Routine monitoring of attendance will allow school and district leaders to take a proactive approach in tracking student attendance and implementing interventions to combat unnecessary student absences.
- Professional development should be provided to educators on how to reengage students with learning. Many students spent the 2020-2021 school year either learning behind a computer screen or socially distanced away from peers. Students who are engaged often develop deeper connections and relationships with their teachers and peers (Balfanz et al., 2014; Gottfried, 2019; Jones et al., 2018; Thapa et al., 2013). Preliminary research from the 2020-2021 school year indicates students lacked motivation and engagement with their coursework during periods of virtual learning (Patrick et al., 2021).
- Schools should continue developing partnerships with community outreach resources to assist families in need. When students have their basic needs met, they are less likely to miss school (Balfanz \& Byrnes, 2012). In addition, by reducing or removing barriers to school attendance, students are less likely to develop patterns of chronic absences.
- Exclusionary discipline policies should be reevaluated to determine if alternative interventions could best support students with behavioral challenges since suspension patterns are often an indicator of future behavioral issues and chronic absenteeism (Balfanz et al., 2014). Therefore, schools should proactively work to address patterns of student suspensions and provide behavioral supports.
- Using school-level data, school leadership teams should identify and implement interventions to prevent chronic absenteeism and improve student attendance both overall and among subgroups.
- Schools should provide frequent communication to students and families. Clear and consistent communication between schools and families helps develop the mindset that school is a partnership. These communications also provide schools with a resource to share messages about the importance of regular school attendance.


## Recommendations for Future Research

The results of this research study indicated that chronic absenteeism remains an issue for students in grades 9-12 throughout Tennessee. While significant differences in the number of chronically absent students were noted, in some cases, the significance was due to an increase in the number of students classified as chronically absent. Recommendations for further research and educational studies include the following:

- Conduct similar studies using data from individual schools to determine if accountability policies aimed at student attendance are effective at the school level. In addition, data should be disaggregated to explore school-level absences related to at-risk students and students belonging to one or more subgroups.
- By narrowing the scope of the research study, future researchers should identify schools and districts that have experienced significant improvements in chronic absenteeism rates. Policies and procedures implemented at these schools should be identified and studied as potential strategies for schools and districts with higher incidents of chronic absenteeism.
- Conduct interviews with students and families to identify barriers to attendance that may be unique to individual schools or geographic regions. Information gleaned from these conversations will allow for the development of specific interventions based on student and family needs.
- Research centered on attendance during the COVID-19 pandemic should examine external factors affecting student attendance and engagements during synchronous and asynchronous instruction.
- Chronic absenteeism research during the COVID-19 pandemic should explore the possibility of a link between student subgroups and populations most affected by the illness. In particular, the Hispanic and Black/African American communities, since these groups are historically absent at higher rates than their non-minority peers (Ford \& Triplet, 2019; Jacob \& Lovett, 2017; United States Department of Education, 2019a).
- Longitudinal studies analyzing attendance of student cohorts from grades K-12 would be beneficial to identifying attendance patterns across a student's educational career. In addition, a comparison of similar student cohorts will allow for a different approach to analyzing the effectiveness of the Chronically Out of School Indicator.


## Chapter Summary

Chronic absenteeism is an issue affecting all districts and schools throughout the nation. With the reauthorization of the Elementary and Secondary Education Act (1965) as the Every Student Succeeds Act (2015), many states began incorporating student attendance as a nonacademic indicator in district and state accountability models. In Tennessee, this resulted in the inclusion of the Chronically Out of School Indicator in district and school-level accountability models. The purpose of this research study was to determine if there was a
significant difference in district-level chronic absences among students in grades 9-12 both overall and among student subgroups. This study represents one of the first attempts to analyze student attendance data prior to and after the inclusion of student attendance in Tennessee district and school accountability models.

The study's findings indicate significant differences in the number of chronically absent students in grades 9-12 at the district level and among the Black/Hispanic/Native American (BHN) subgroup, supporting the idea that holding schools accountable for student attendance results in significant differences in the number of chronic absences. Further analysis of the BHN subgroup indicated no significant differences in the number of Black students classified as chronically absent. Significant differences in the number of chronically absent Hispanic students resulted from increases in the number of students classified as chronically absent during the 3 years after implementation. Analysis of the Economically Disadvantaged and Students with Disabilities subgroups did not yield significant results.

Due to extreme values resulting from varied district enrollment numbers, initial extreme values were removed from each data set, and data were reanalyzed for each research question. Results remained significant for the overall number of students in grades 9-12 classified as chronically absent. However, data for the BHN subgroup did not indicate significant differences with the removal of initial extreme values. In addition, the removal of the extreme values resulted in significant differences in the mean number of Economically Disadvantaged and Hispanic students. The significant difference among Hispanic students continued to result from increased numbers of students classified as chronically absent during the 3 years after inclusion of the Chronically Out of School Indicator in district and school accountability models. Results remained insignificant for Black students and Students with Disabilities, indicating no significant
difference in the number of chronically absent students after implementing the Chronically Absent Indicator.

The results of the study indicate the importance of continuing research and data analysis focused on the implications of including chronic absenteeism in district and school accountability models. Further inquiry and investigation are needed to examine school-level chronic absences since the inclusion of attendance accountability policies. Significant findings should be used to further explore effective interventions and school or district policies that positively impact the number of chronically absent students. While the effects of the COVID-19 pandemic on student attendance have yet to be fully examined, preliminary research indicates that chronic absenteeism has increased among students at all grade levels. Additional analyses will help state, district, and school-level officials devise accountability policies and interventions to decrease chronic absenteeism at all levels.

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