Tennessee's Funding Model in Large Districts:
Perceptions and Implications

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Abstract

The passage of the Basic Education Plan 2.0 (BEP 2.0) was intended to make funding Tennessee’s school equitable and adequate; however, it has never been fully implemented. This partial implementation negatively impacted the budgets of large school districts in Tennessee, resulting in several lawsuits being filed in 2015. This study utilizes the Delphi method to determine the perceptions of directors of schools and finance directors of large school districts concerning BEP 2.0. The Delphi method is used because expert knowledge is required to understand the impact of BEP 2.0. Directors of schools and finance directors are specialized actors in the development and implementation of public policy, making the use of the advocacy coalition framework useful. In the first round of the Delphi process, participants were presented with the three research questions and asked to answer open ended questions about how their district has and will continue to be impacted over the next five years, as well as how they can maintain financial stability. The second round had them rank the accuracy of these responses from their peers to reassess their own perceptions and show the level of consensus among the large school districts. Statistical tools, including mean, median, mode, standard of deviation, coefficient of variance, Kendall’s coefficient of concordance, and Spearman’s rank-order correlation were utilized to analyze the rankings. A clear consensus was not evident. However, panelists largely agreed with the perception that the funds promised have not been provided and they are unable to properly fund the salaries needed to hire and retain high-quality teachers. They perceive that cuts will have to be made in order to pay for unfunded mandates and that the needs of their districts will not be adequately met in the next five years. Perceptions of maintaining
financial stability focus on maintaining the status quo, delaying the implementation of new programs, and encouraging the development of local funding sources. Policy makers in Tennessee and in other states can utilize this method in different districts to better understand the perspectives of specialized actors in accordance with the advocacy coalition framework.
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Dedication

This study is dedicated foremost to Jesus. I would not be where I am or even be who I am without the love of my Lord and Savior, Jesus Christ. Thank you for reminding me you have a plan to give me a hope and a future when I would feel lost and helping me throughout this process.

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CHAPTER 1: Introduction

The State of Tennessee has a large number of school districts, educating students in metropolitan and rural areas, upper class suburban conclaves and inner-city schools with significant numbers of economically disadvantaged students. These schools are unique because the state has a mixed system of raising and distributing funds for schools. The majority of school districts are based on county boundaries; however, there are also city school districts and one special school district that operates many of the failing schools statewide. This makes Tennessee an anomaly when discussing funding practices across the state. Many of Tennessee's school districts are large, but the largest, in both cost and population, is Shelby County Schools, which was recently forced to absorb Memphis City Schools and has a severe problem with child poverty (Martin, Sontag Padilla, Cannon, Chandra, Auger, Kase, & Spurlock, 2014). The recent history and demographics of the Shelby County School System make it a good example of the problems faced by many large school districts in Tennessee. Many districts in the state have a long history of disagreements with the state government over their funding and many of these issues have focused on perceived inequality between the funding of larger and smaller districts (Tennessee Department of Education, 2014a). During the recession of the last decade funding became increasingly tightened, causing many problems throughout the state. This prevented the implementation of the state’s educational funding formula. This has led many of the largest school districts to question if the state is meeting its legal obligation to educate its students. These questions have led to lawsuits, and some districts continue to pursue perceived injustices
in the courts, which has a long precedence (Briffault, 2006; Tang, 2011; Shelby County Bd. of Educ., 2015; Sher, 2016). Newspaper articles discussing the issue provide some insight into the perceptions of finance directors, but their views of the situation and why they believed a lawsuit was their only choice is not clarified in those articles. The perception of these districts' finance directors is only represented in the newspaper articles discussing this issue, meaning their view of the situation as a whole and why they feel lawsuits are the only remaining option is unclear. Another source of current perspectives is from the members on Governor Haslam's Basic Education Plan (BEP) Task Force (McQueen, 2015). In their most recent report, the leaders expressed the need to make several significant changes, including: moving to only formula model instead of a split of both the old and new models, reconsidering the use of cost of living in the formula, and reconsidering if the formula properly determines a district's ability to pay. As finance directors and their districts are preparing lawsuits and the state is continuously analyzing how to improve the system of funding, it is becoming critical for academic researchers to determine how the perceived funding gaps are affecting student success and what changes can be made to improve these outcomes. Similar budgetary quandaries are common throughout the country, yet Tennessee’s unique situation provides a different perspective concerning the common question of how the states are meeting their constitutional imperatives to educate students.

**Statement of the Problem**

The purpose of this quantitative study is to determine the perceptions of directors of schools and finance directors of large school districts concerning the Basic Education Plan 2.0 (BEP 2.0). The topic is complex and difficult for laypersons to parse, making it difficult for the general public to understand the situation, much less lobby their lawmakers to make changes.
The perceptions of school leaders can be a valuable tool in gaining a better understanding of the Basic Education Plan 2.0 (BEP 2.0) and can be used to help shape new policy to correct perceived inequalities. These were caused by the partial implementation of BEP 2.0, which has remained in a state of limbo between the old and new system since the recession hampered the state's economy in 2008 (McQueen, 2015). According to several pending lawsuits, this partial implementation is negatively impacting the financial situation of large school districts, but no compromise has been reached in state government to correct these issues (Shelby County Bd. of Educ, 2015).

**Purpose and Significance of the Study**

There is not another state in the country with the same complicated system of school districts and counties (Fox, Harper, Richards, & Watts, 2008). Very few states have mixed types of school districts, but those that do give all of the different types of districts the same taxing abilities. Tennessee does not do this, making it nearly impossible to create a clear and transparent funding formula for the state. After several rounds of lawsuits, the state has created and modified its funding formula in an effort to address this complicated situation (Meyers, Valesky, & Hirth, 1995). It is now in its second iteration, known as the BEP 2.0. In a release explaining the changes that were made when BEP 2.0 was being phased in, Governor Bredesen attempted to assuage fears that the new model would negatively affect large school districts (2007). Due to the unforeseen consequences of the recession that hit the nation as a whole, and Tennessee shortly after its passage, BEP 2.0 was never fully implemented and the state is still operating on a partial split between the two models in 2015 (Tennessee School Systems for Equity, 2014). This has led to unfortunate side effects, such as reduced state shares of education spending in larger school districts due to the manner in which the new model calculates fiscal capacity. The reduced shares
are preventing districts from obtaining the amount of funds needed to operate according to the formula originally created in the BEP 2.0, causing lawsuits to be filed (Shelby County Bd. of Educ, 2015). These lawsuits and others like them claim that the gaps are directly hampering districts’ ability to meet their constitutional and statutory requirements to provide an equitable and adequate education to all students (Hanushek & Lindseth, 2009).

Finance directors and directors of schools are the individuals in districts who are responsible for using the funds they receive in the most effective manner possible to meet the adequate and equitable standard of education. Due to the fact they are the professional personnel most likely to understand the issue and how to make corrections to it, Governor Haslam invited several of them to take part in his taskforce to make suggestions to improve the formula (McQueen, 2015). The knowledge and opinion of these experts can prove invaluable in determining not only how the partial implementation of BEP 2.0 has affected schools, but also how it could be modified to maximize future outcomes.

**Theoretical framework**

Due to this study’s focus on public policy and the perceptions of government officials, it became clear that choosing a public policy theoretical framework would be most helpful to achieve the goals of the study. Public policy is a large field and applicable to any part of government, meaning the focus needs to be limited to a specific area and how changes are made in that area. The most applicable theory to use as a framework is the advocacy coalition framework, developed by Sabatier and Jenkins-Smith in 1988 to help researchers understand how groups of experts and interested citizens shape the outcomes of policy changes (Weible, Sabatier, & McQueen, 2009). Since its development, it has been used in more than 100 studies across the country and globe, informing researchers and politicians about how public policy
shifts happen across multiple areas of governmental influence (Sabatier & Weible, 2007). The advocacy coalition framework argues that specialized actors are the people who make policy changes occur, and they do this by working within a subsystem of actors, such as a teachers’ union, interest groups, or even organizations like Governor Haslam’s taskforce. Another example of a specialized actor is a finance director of a district, whose position is designed to implement financial plans and advocate to the state for the amount of funds he or she believes is necessary to operate. The framework sees policy outcomes and the impacts of those outcomes as a product of different coalitions working within their own sets of beliefs and resources to influence governmental decision makers over a long period of time (Fenger & Klok, 2001).

For the purposes of this study, the Advocacy Coalition Framework applies to how the Basic Education Plan 2.0 (BEP 2.0) has been evolving over the years since its partial implementation through lobbying and lawsuits, the political leadership of Phil Bredesen and Jamie Woodson, input from district administrators, the research of the Tennessee Advisory Commission on Intergovernmental Relations and the University of Tennessee’s Center for Business and Economic Research (2008). It also applies to the effects of those changes and how coalitions and school districts continue to seek changes in the system through more lawsuits and protesting of the current trends in education (Pignolet, 2015; Shelby County Bd. of Educ., 2015). Many of the features of the advocacy coalition framework are represented clearly in the context of this project. For example, one of the primary factors that causes the perceived underfunding in education was changed in the economic conditions of the state during the recession that began in 2008 (Sher, 2014). Economic change is one of the external factors identified by Sabatier and Weible (2007) and these economic forces caused policy actors to make the changes that led to the current situation.
When moving from the theoretical framework based in public policy to a conceptual framework, it is important to ask why education is a central part of public policy and why optimal funding levels are critical to society. John Dewey’s progressive theories about education helped shaped the idea that education should be included as a role of state government (1916). His seminal work on education, *Democracy and Education*, is a treatise about why public education is such an important function of government. He argues humanity’s need to teach each new generation the whole of human knowledge, which requires excellent education be offered to every child in every state, regardless of financial situation. This conceptual theory guides this study well because it places emphasis on the “why” of education, which progressives argue is to prepare students to be active and engaged members in a global society and make the world a better place through education. Reaching this goal becomes more difficult when schools are underfunded and unable to use the latest best practices to encourage student growth.

**Research Questions**

In order to determine the perception of district administrators concerning how the state’s funding formula affects their districts, the study will focus on the following questions:

1. What is the impact on large Tennessee school districts of the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)?
2. What are directors of schools' perceptions of the impact partial implementation of the Basic Education Plan 2.0 (BEP 2.0) will have on large school districts over the next five years?
3. What do directors of schools perceive to be possible changes they could make over the next five years to provide financial stability under the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)?
Limitations and Delimitations

The data for this research project will be collected from a Delphi panel of experts from the largest districts in the state. This means it will depend on how accurate and thorough the responses of these experts are. The information collected from the survey will also be limited by the number of people who choose to respond.

The delimitation of this project includes its focus on Tennessee, with the primary focus being placed on the ten percent of districts with the largest student populations. The focus was limited to these districts in order to explore how those districts were impacted by the implementation of the new formula, as policy makers were aware the redistribution of funds might affect them negatively (Bredesen, 2007). Its limitations to Tennessee means that the analysis cannot be generalized to other states who use different methods of school funding. The limitation also means only the perspectives of finance directors’ in large districts will be studied, which should not be generalized to finance directors in other kinds of districts.

Definition of Terms

The terms used in this study are common in educational and public policy setting, but the following require definition for clarity:

Director of Schools. This person is the chief executive officer of the local education agency, responsible for the management and administration of the entire district (Tenn. Code Ann.§ 49-2-301; Licciardi & Protheroe, 2010).

Finance Director. While titles vary between districts, the finance director is the person who works with the director of schools, creating and implementing the yearly budget and ensuring fiduciary duties are carried out properly (Licciardi & Protheroe, 2010).
Basic Education Plan and Basic Education Plan 2.0. These are Tennessee’s funding formulas for the distribution of state funds (Tennessee Department of Education, 2014a). Originally created in 1992 and modified in 2007, the formula uses costs associated with specific educational components to determine the amount of funds each district needs. It then measures each district’s fiscal capacity to determine how these funds should be split between local districts and the state.

Large school districts. For the purposes of this study, a large school district is defined as those districts with student average daily attendance in the top ten percent of the state. Tennessee has 140 school districts, meaning this study will focus on the largest 14. These 14 districts combined population represents 55.8% of Tennessee’s total student population (Tennessee Department of Education, 2014b).

Organization of the Document

Chapter One introduces the study, explaining the problem and the importance of a better understanding. It also explains the theoretical and conceptual theories that are being used to focus the study, as well as the research questions that will be used to guide the inquiries. This section also details limitations and delimitations, and defines terms that may be unclear. Chapter Two is a review of the literature, examining the history of funding public schools. The historical account provides a base to understand how the dual systems of generating funds at the state and local level were created and how using those funds is complicated in the current system. This section also discusses the implications of issues with the funding formula and how addressing the problems will be increasingly important through time. Chapter Three explains the research methodology of this study, depicting how the study was undertaken, who was involved, what instruments were used, and how the data will be analyzed to answer the research questions.
Chapter 4 focuses on the results of the study, displaying what information was garnered from the research and determining how that information relates to the research questions. Chapter 5 is a discussion of the results, exploring their implications and the conclusions that can be drawn from them. This chapter will also contain a summary of the entire study and recommendations for further study.
CHAPTER 2: Review of Literature

Money and its impact on a school’s ability to educate children have been at the forefront of public discussions concerning education since public education developed in the United States. According to the National Association of State Budget Officers, K-12 education is the single largest budget category for every state, averaging roughly 20% of the overall budget in most years (2013). This was justified as a necessary purpose in all 50 state constitutions (Hunter, 2011). Much of the theoretical basis for the inclusion of education as a required role of the state government came from the rise of progressive educational theorists like John Dewey (1916). In his book, *Democracy and Education*, he discusses the importance of education for the continuation of society, arguing that society must educate and pass on the entirety of human knowledge to each generation for civilization to continue its progression. Using progressive theories, an adequate and equitable education being offered to all students is placed in a position of paramount importance, because without it, societal norms and knowledge will not be passed from one generation to the next. Ronald Reagan famously said during his gubernatorial inauguration in California that “freedom is a fragile thing and is never more than one generation away from extinction” (Reagan, 1967, p.1). This quote has resounded with people in many different areas of public responsibility, and theorists like Dewey saw it as clearly applicable to schools (Dewey, 1916). If schools do not provide the basic education to raise a child out of immaturity into one who can thrive and contribute to society, the republic cannot sustain itself. This understanding has been the impetus for dozens of lawsuits and subsequent legislative
actions in an attempt to guarantee every student has access to high-quality education (Briffault, 2006; Tang, 2011). States have attempted to correct problems associated with how they fund schools through several waves of reforms, but these have not always been as successful as legislators and school leaders hoped. It is important for researchers to determine what best practices in school funding are and if change and revisions are creating the desired outcomes, failing to rectify the problems, or even creating additional and unforeseen problems.

A Brief History of Funding Education in the United States

**Foundation of publicly funded education.** In order to understand public education today, it is important to understand the path that led to this situation. Public education began in the early New England colonies, where families followed the traditional English method of education in the home as a part of the larger socialization process, combining with church and trade education to raise children. Most literacy education focused on the ability to read the Bible (Cubberley, 1919). In 1647, schools became mandatory for all large towns in the Massachusetts Bay Colony. The mandatory schools were the first of their kind, and were funded by public taxes. The reasons the founders of the colony made this new policy is closely related to their grand ambition to create a utopian society that would serve as a model to the rest of the world. This utopian ideal could only be achieved through the proper education of citizens so they would be able to understand and interpret the scriptures upon which they based their polity (Nelson, 2005). This law, in colonial Massachusetts, contained many important elements that served as a basis for the early American education system. These elements include the belief that educating all children is necessary for the benefit of the state, parents are chiefly responsible for ensuring their children are educated, the state should be able to enforce this obligation, the state can determine what kinds of things children should learn, tax monies can be raised to fund public
schools, and education should be provided by the state when parents cannot provide it themselves (Cubberley, 1919). These attitudes were not universal at the time, especially in the southern colonies. Southern culture and civic organization was much different, focusing more on profit than faith and developing quickly into stratified classes. The only publicly funded schools that developed in these areas were for the orphans and poor whose parents could not afford a tutor or private school. The schools were acts of charity, and not created to benefit the functioning of the state (Cubberley, 1919; Nelson, 2005).

**Development of publicly funded education during the Federal Period.** These two models of schools largely dominated the educational landscape until the founding of the United States. The Constitution made no mention of education, which means it was the responsibility of the individual states due to the Tenth Amendment. Up until 1800, the majority of states had no mention of education in their constitutions and charters, including newly formed states, such as Tennessee. Seven states did mention education during this time, but they were primarily focused on the same kinds of schools they had had as colonies, with religious town schools in the north and pauper and charity schools in the south. Interestingly, Vermont directly stated that the schools should be limited in scope so that the salary of the teacher could be provided cheaply by the citizens. This shows the public's perceptions about the costs of education funded by taxpayers has always been a concern. The first time the Tennessee constitution mentioned education was in the 1830 version, which merely established districts and ensured public schools would be available (Cubberley, 1919).

**How public education was influenced by the ideals of the founding fathers.** As the states were developing their educational systems and creating laws to govern them during the Federalist Period of the early United States, several founding fathers made rather significant
impacts on the landscape of public education. Of these, Thomas Jefferson and John Adams serve as good examples of how easily actions of the founders led to a publicly funded education system much earlier than might have otherwise occurred. Thomas Jefferson became a leading proponent of public education in his home state of Virginia before and after the revolution. He argued that the public should fund schools and good schools were critical to the success of the nation. He feared that a nation would devolve into tyranny unless left in the hands of the people, which requires the people to be educated in order to bear that responsibility. At its core, Jefferson's republicanism was tied to his belief that all men were equal and capable of fulfilling the great experiment with democracy; however, he knew that for this to work, a system of quality schools must be systematically created for all citizens of the nation. He put these plans into action in his home state of Virginia, working with a committee to draft the bill that created Virginia's education system in 1779. This bill, titled, "79. A Bill for the More General Diffusion of Knowledge, 18 June 1779," delineated many of Jefferson's personal beliefs about public education, its value to society, and the importance of the state funding it (Holowchak, 2013). In this bill, he argues that good leaders, with wisdom and honesty, are not naturally born, but have to be taught the finer details of philosophy and law to properly lead. His argument that the country's future is in the hands of the children has become famous:

Whence it becomes expedient for promoting the public happiness that those persons, whom nature hath endowed with genius and virtue, should be rendered by liberal education worthy to receive, and able to guard the sacred deposit of the rights and liberties of their fellow citizens, and that they should be called to that charge without regard to wealth, birth or other accidental condition or circumstance; but the indigence of the greater number disabling them from so educating, at their own expense, those of their
Children whom nature hath fitly formed and disposed to become useful instruments for the public, it is better that such should be sought for and educated at the common expense of all, than that the happiness of all should be confided to the weak or wicked (Committee of the Virginia Assembly, 1779, p.526).

This argument claims that great leaders can come from any source, regardless of birthright, proving Jefferson's republic purpose in fighting for public education. This is in contrast to historical beliefs that only those born to lead needed to be educated. To accomplish this, he understood that the public must fund education for all, especially those who cannot afford it. The bill went on to outline the basic guidelines of public education in the United States. In some ways these parallel the guidelines formed in the Massachusetts Bay Colony, but banning of religious focus was a major shift from public education's original purpose in the United States. These elements include the belief that education should be open to everyone and should be supported by taxes. It should not be religiously based, it should be locally controlled, it should encourage freedom of thought and questioning, and the more talented students should be encouraged to obtain the highest levels of education possible (Holowchak, 2013).

Many of Thomas Jefferson’s ideas were shared by his predecessor to the presidency, John Adams. While it is clear from history and the records of the two men that they differed greatly in their political beliefs in many areas, they did hold many of the same ideas about the importance of public education for the future of the young country (Adams, Adams, & Jefferson, 1988). Both men had different ideas about what the future of the United States should look like, but they both knew that for success to be attainable, it had to be in the hands of the public. Adams argued that the people must not only hold that power, but be constantly aware of the power they controlled over their own destinies and be taught how to use it. Like Jefferson, he believed
wisdom and honesty could only come from a proper education and the ideals of democracy meant that education should be provided to everyone equally. The beginning of the reformation of the country had to come from the education of young minds and this education must be provided by the public. His call to action can be found very clearly in a 1785 letter to John Jebb, in which he states, “the whole people must take upon themselves the education of the whole people and must be willing to bear the expenses of it” (Adams, 1854, p. 540). This idea confirms that the founding fathers not only believed that public education was a necessity for the country’s proper functioning, but that it should be funded by the people themselves. In the same letter, he argues that a square mile of land should be set aside in each town for publicly funded schools to operate, which laid the foundations for land grant universities and other public institutions that exist today. He reasoned that the greatness of the most powerful nations in history did not flow from the heroes of those nations, but from the education those heroes received that made them who they were. He argued that George Washington was great only because he personified all that was great about America, and there are many more people in the country who could and would follow in his footsteps toward greatness because public education would instill in them the same moral and intellectual qualities that made Washington exceptional (Adams, Adams, & Jefferson, 1988).

Although these ideals of the founding fathers made a dramatic impact upon the education system of the United States, the economic and social factors present in the antebellum limited the outcomes possible. As the country moved from Jefferson’s idealized agrarian culture to a more industrialized economy, especially in the north, education stuttered in growth. While the push for industrialization was fostered by a thriving public education system, the forces of capitalism and the changing landscape of the labor force meant that the value society placed on education and
educators would shift dramatically in a relatively short time span (Beadle, 2010). Interestingly, school attendance rates were higher in rural areas than the new urban centers, providing evidence that the role of education was less valued in city centers, where industry was taking hold at a rapid pace and needed workers to fill the void. During this time, women joined the workforce of teachers in large numbers, which also shifted the public’s perception of the value of public education and how much of their funds should go to support the system. Although rapid industrialization and changes in how public schools operated fundamentally changed the public’s perceptions of schools, the founders’ vision of a system of public education, thrived and grew, expanding across the country with the spread of manifest destiny.

**Changing public school funding ideas during the Southern Reconstruction.** The Civil War brought the spread of education to a halt, focusing the nation’s energies toward an inward battle threatening the continuance of the United States itself. States' rights and the role of the Federal Government were major causes of the war. This tenuous relationship between federal control and the Tenth Amendment were also demonstrated in the funding and operation of public schools. States had always controlled education within their borders, as the Tenth Amendment guarantees rights not expressly stated in the U.S. Constitution are reserved for the states (U.S. Const. amend. X). This resulted in vast differences between the number and quality of schools in the North and the South. While the schools in the north had spread as a normal part of operating the government, the charity type schools in the South were intentionally prevented from becoming a public work for all people (Urban & Waggoner, 2013). There are multiple reasons that Jefferson's ideas about public education did not take hold in his region, but the main reasons revolve around a more dispersed population and a fierce independent streak that resisted centralized control over children. Most children were educated at church, at home with parents,
or in some cases, at a small neighborhood school. Wealthier students often attended private schools when available in their area. The most disadvantaged students were those born into poverty or slavery. These students had little to no education, even being legally disallowed from learning basic literacy in many areas (Williams, 2009). The lack of government leadership does not mean that the states did not fund school at all, instead they provided monies for the education of the poor in some places. While the ideas of common education were popular in most areas of the South, the legislatures of the various states did not have the political will to follow through with this desire or to promote what was perceived as governmental intrusion into the raising of children. Many also feared that educating the masses would threaten the social order and empower lower castes to challenge the aristocrats, or worse, challenge the institution of slavery (Urban & Waggoner, 2013).

After the Civil War, many of these concerns were no longer as critical, and, more importantly, the Republicans had control of the southern legislatures, allowing much more progressive educational reforms to be made (Nolen, 1967). The funding for and operation of these schools were organized by northern freedman's charities. These schools were primarily taught by northern teachers, which resulted in severe backlash from southerners who suspected them of trying to overthrow the southern way of life. Thirty-nine schools for freed slaves were burned to the ground in 1869 in Tennessee alone. Many missionary teachers who worked with former slaves were tarred and feathered, and a Texas teacher was tied to a tree and whipped to the point he was near death. The freedman's bureau helped fund these missionary teachers with the assistance of several charitable organizations.

Many southern states and their Republican legislatures began enacting universal education legislation after new constitutions in these states guaranteed education as a right of
citizens. This created a shift in how southerners viewed and funded education (Kickler, 2012). Many of these same legislature started collecting taxes on land, a concept unheard of in the South and one met with resistance. However, this did allow the states to raise new funds to support the newly mandated public schools. For many schools, especially schools for African-American children, funding was also sourced from religious and charity organizations. This allowed many more students to go to school, but also meant religious education was prominent and important to post Civil War education. The records of teachers at this time in the Memphis school district show they were incredibly strict about attendance and punctuality. Excessive absences or habitual tardiness would cause a student to lose his or her seat to open up that limited space to another child. Even with new tax dollars supporting both sides of the segregated school systems, schools were constantly concerned about running out of funds. When funds would run low, it was usually the schools for the African-American students that would be shuttered first. The Knox County School System in Tennessee had to declare bankruptcy due to their inability to pay teachers, buy books, buy furniture, or build any more needed schools. In many of the states, including Tennessee, the Democrats’ return to power spelled the end of public education systems. The conservative Democrats returned the responsibility of running the schools to the individual counties. This resulted in a dramatic decline of areas offering public education.

Although the South still struggled to embrace and expand public education and its funding after the Civil War ended, the North and the West placed a greater emphasis on its importance. Between 1870 and the end of the century, public spending on education more than quadrupled (Nugent, 1973). In this same period, the number of professional teachers nearly tripled, as the number of students doubled. This rapid expansion in educational services offered
to every child established an increase in both the quantity and quality of public education previously unseen in American history.

**The Progressive Era in education and changing ideas about the role of schools.** As schools were expanding across the nation and the South was working toward greater acceptance of and willingness to fund public education, industrialization and its pursuant cultural changes shifted the American mindset and heavily influenced the role of education (Nugent, 1973). During this shift, schools began to be seen as a tool of the state to increase capitalistic outputs in its factories. Students were taught the basic necessities to succeed in the industrial workplace and only those students born into wealth or privilege were provided the level of education thought necessary to become an executive of industry. There were obvious problems with this model (Deyoung, 1981). Children do not come to a school in the same state, prepared perfectly for production through an automated system. The children also interact with each other, creating a dynamic and uncontrolled response that cannot be consistently tabulated for to predict cost and the resulting profit. Another complication is in determining if the costs are worthwhile. In business, this is fairly straightforward, with a simple cost-benefit analysis determining if the cost is worth it for the investors or stakeholders. In education, the stakeholders are simultaneously everyone and no one. The idea of the system is not to create profit, but to create the next generation of citizens. Even before the progressive era, it was clear that a good education would help these citizens be more productive, helping themselves, their communities, and the nation as a whole. The funding issue becomes a problem when the government has to convince the public they should spend an increasingly large amount of money on education and the benefits of that expenditure are not always immediately apparent or tangible.
As the twentieth century dawned, the progressive era swept across the nation, shifting many parts of American society, but dramatically altering the direction and funding of public education. During this change, people began to question the industrial model of education, instead they started to focus on the child and their individual development (Reese, 2001). The progressive reformers of the time, such as Dewey, argued that the natural state of the child and children’s curiosity should be nurtured and encouraged to guide them through education. These ideas were born in romanticism and the older educational establishments fought back against them, arguing they were unrealistic and too experimental to actually impose on children. Many of the people fighting against this new style of education did so because they mistrusted the motivations of the liberal people pushing the changes. This conflict naturally affected the funding of education. People resented their public tax dollars funding an organization or method they thought of as hostile to proper, traditional education. Due to this public battle, many of the schools that pioneered progressive models of education were set up as independent private schools, in which the theorists would design a curriculum and implement it without being publicly funded. One of the most famous examples of this was John Dewey's elementary laboratory school run by the University of Chicago's College of Education (Hickman, 2009). The key difference in the approach used in Dewey's school and the public schools of the day was that learning was viewed as a natural process driven by emotion and not as mechanical procedure that could be applied to all students. While this idea greatly affected the path of education in the country it could not overcome major hurdles, some of which are intricately tied to funding. For example, the progressive approach allows students to learn at their own pace and in their own way, which is costly in terms of both time and money. The approach also makes it difficult to use standardized tests to gauge the success of schools. These tests make it much easier to justify the
public expense and, in theory, help politicians and the public determine what works and what does not work. Although many of the actual pedagogical methods developed by Dewey and his peers in the progressive education movement fell out of popularity, the ideas that Dewey espoused concerning the public role of education and its importance to the continuance of society have endured (Dewey, 1916). Dewey's arguments that the investment of public money is worthwhile because of the public good have helped justify and maintain the public financing of the ever increasing cost of public education.

Desegregation and its effects on public school finance. The problems of financing education were much different in the South than they were in the more northern localities where progressivism had taken hold. One of the primary sources of this disparity was the fact that schools were segregated throughout the South, disallowing African-American children from attending the same schools as their Caucasian peers (Sherman, 1979). For most of the 1900s, the public schools used the Supreme Court's decision in Plessy v. Ferguson to support their action, arguing that the separation of students based on race was not de facto discrimination because the dual systems were equal despite being separated (1896). The reality of funding levels proves this untrue and that schools run for African-American students were severely underfunded and largely ignored, and seen as an inconvenience to the predominately Caucasian school boards and County administrators (Sherman, 1979). In 1954, the Supreme Court overturned this decision, arguing that schools being separate meant they were a form of discrimination by their nature. One of the major pieces of evidence in support of desegregation was the difference in spending between schools for Caucasian students and those of African-American students, proving the disparity existed. However, the process of desegregation did not happen quickly or create a balance between these school in terms of quality or funding. It took until the early 1970s for the
Supreme Court to step in and force the districts to change their ways and integrate the schools. This was complicated by the economic differences between the races, because in many areas that resisted integration, the wealthier Caucasians would send their children to private schools, leaving only African-American and poorer Caucasian children in public schools. This, in itself, would not have had a negative impact on school funding because it would be the same funds for fewer students. This did not play out this way in reality. Due to the fact that school board members and county governmental bodies were still controlled by the wealthy Caucasian individuals and largely sent their children to private schools, the funding levels for public schools in primarily African-American districts dropped drastically. In conjunction with other social and economic realities in predominantly African-American communities, these conditions continued to cause problems for these school systems decades later (Salmon, 2010). Many of them are still targeted as failing schools, with threats of losing funding or even forced closing (Duffin, Scott, & Kober, 2008).

**The modern era, The War on Poverty, No Child Left Behind, and Race to the Top.**

The United States has changed drastically since the Supreme Court ruled schools must be desegregated. The Civil Rights movement was only one part of the social and economic shifts that would dominate this period of American history. Progressivism and the changes it was able to make in curriculum and school funding were slowly pushed out of the picture as the government turned its focus toward creating model, proficient citizens to compete with the perceived technological advantages of the Soviet Union (Schulman, 2008). This desire to compete and bring all states to the same level for social and economic reasons led the Federal Government to get much more involved in the administration of public education. This included massive new spending programs to fund new mandated programs, as well as the bureaucracy that
was created to monitor and control education at the federal level. One of the most important
evidences of the shift in behavior by the government was the passage of the Elementary and
Secondary Education Act of 1965. This relied on a shift in conservative ideals that had always
insisted in local control of education, but now had decided to allow the Federal Government to
oversee education, forever altering the ways in which schools were operated and funded. In the
last five decades, federal funding has been a constant part of the American Political system.
President John F. Kennedy and President Lyndon B. Johnson pushed a lot of the ideas that
shaped these developments into the American political zeitgeist (Katz, 2013). Johnson’s War on
Poverty argued that education was an essential function of government if the United States were
to overcome the harsh effects of poverty on the people. In other nations, such as the United
Kingdom, education was seen as a part of the social welfare system. The United States copied
this idea in action, but not in word due to the negative associations with welfare in public
sentiment. However, European style welfare focuses on equality of results, which is why it
generally grew to adopt the funding of public secondary education as a part of its welfare state a
generation after the United States. The citizens of the United States have always favored equality
of opportunity to equality of results, which explains their willingness to allow government
expansion of control and funding in education and not in other areas. The reason the Federal
Government had to get involved to increase the scope of and quality of public education was the
fact that property taxes were historically the primary funding source for public schools (Vern,
Verstegen, & Garfield, 2012). Therefore, poorer areas could not afford to provide appropriate
education for their students, requiring assistance from the Federal Government, which is why it
can be considered a part of the federal welfare state. This is a drastically different concept of the
funding of public education than had been seen in the United States prior to the federalization of education (Katz, 2013).

Although Democrats have generally been seen as proponents of a bigger and more powerful government, the time period from 1980 to 2008 only saw one Democratic administration and a massive continuing shift in the size and scope of federal control of public education. One of the largest shifts in the way the Federal Government relates to and funds education since President Johnson happened at the turn of the twenty-first century was the passage of No Child Left Behind under President George W. Bush. This law set federal standards which all students and schools would have to meet in order to continue receiving federal funds (Loveless, 2007). While it tied funding to federal funds, it did not provide the amount of federal funds many states argued would be necessary to fund the testing requirements of the law. Still other states took umbrage with the idea that the Federal Government had begun stepping over what had traditionally been seen as Tenth Amendment boundaries and were directly administering and mandating changes to state education. These feelings were not immediately apparent as the bipartisan group of politicians passed the bill and trumpeted a new age of federal and state cooperation in order to bring the test scores of the students of the United States to the same level as the students of other nations. As the realities of No Child Left Behind became apparent and parents and teachers began to realize a single test could determine the success and future funding levels of their schools, people began to question the value of the law (Nese, Tindal, Stevens, Joseph, & Elliott, 2015). The American public wants schools to raise their expectations, but also want it to be fair and not involve too much federal intervention. No Child Left Behind certainly failed to strike the right balance for maintained public support (Loveless, 2007).
States and the Federal Government struggling over mandates and the funding tied to them are a part the new normal in determining how to reform and improve education. The Obama administration attempted to modify this arrangement and place more of the control in the state’s hands in two different ways. This first method allowed them to bid to take part in the new round of reforms, which was named “The Race to the Top” (Howell, 2015). States had to volunteer and apply to receive additional federal funds, but those funds came with a list of stipulations the states had to meet to continue receiving them. This was a unique and creative approach to providing needed funds to schools to meet the federal administration’s vision for what reforms would be most successful, without being accused of crossing a line in the historically touchy area of federal control of education. Only nineteen states won Race to the Top funds and even the biggest winner in terms of percentage of yearly budget, Tennessee, received only ten percent of one year’s amount. All fifty states, however, enacted changes that were a part President Obama’s agenda (James-Burdumy, 2015). In December of 2015, the Obama administration signed the new reauthorization of the Elementary and Secondary Education Act into law, calling it the Every Student Succeeds Act (U.S. Dept. of Education, 2015). This act placed more emphasis on the states' role in education, allowing them to set their own standards and benchmarks for success. It also removed the intensive testing requirements of No Child Left Behind. The shifting of standards back to the states and the use of financial coercion to shape national education without using mandates signifies a new era in how education is viewed in the United States and how it is funded. Gone are the days when schools were seen as an optional addition to a town or a part of charitable giving. Today, schools are an essential part of the upbringing of children, requiring a previously unimagined scope and cost. Due to the complicated history and changing relationship between governments and the schools for which they are responsible, the funding of education
has grown to be as enormous and complex as any other operation of the government (Howell, 2015).

**Understanding How Funds Are Raised for Schools**

**Federal Government Funding.** As demonstrated in the history of the funding of public education in the United States, the Federal Government's funding of public schools has been a relatively minor part of the funding system. The reason for its small role is based on the Tenth Amendment’s directions that all things not specifically designated as federal power, are supposed to be operated by the states (U.S. Const. amend. X). However, the Federal Government and the public in general have argued that education is important for the nation's wellbeing (U.S. Dept. of Education, 2005). This belief has led to the supplementation of existing state funds to encourage growth in certain areas, instead of direct funding of education as a whole. The first major implementation of a federal funding program came with the passage of the Elementary and Secondary Education Act of 1965, which allowed the Federal Government to provide additional funds for schools serving low-income families, providing additional library resources, textbooks, and other instructional materials. No Child Left Behind, passed in 2001, broadened this support, allowing the Federal Government to funnel funds into failing schools in order to narrow the achievement gap. While these programs are large and the funding definitely not insignificant, the Federal Government's funding level is still less than ten percent of total funding levels. The vast majority of funds come from state and local sources.

During the recent recession, state and local governments lost a large amount of revenue, which was counterbalanced by the American Recovery and Reinvestment Act (First Focus, 2015). This provides an example of how the Federal Government has directly influenced local schools through funding changes. Across the nation, budget cuts had necessitated the cutting of
nearly 300,000 teaching positions, which the American Recovery and Reinvestment Act
prevented through direct funding for those positions. Since this time, Title I funds and other
programs have been cut, leading to an overall reduction in the amount of federal funds spent on
children’s education of almost thirteen percent in the last 3 years. Additional funds were given to
nineteen states during this time through the Race to the Top, providing a new revenue stream to
struggling states (Howell, 2015). This direct infusion of funds serves as a good example of the
burgeoning relationship between the Federal Government and public schools. The funds were
awarded to states if, and only if, they agreed to implement new policies and programs being
championed by the administration of the Federal Government. In this way, the Federal
Government can fund public schools, as well as encourage the adoption of new policies, without
overstepping the limits of the Tenth Amendment. The remainder of funds for public schools are
still left to the individual states to procure and administer.

**State Level Funding.** The methods each state uses to collect these funds varies widely
from state to state. Today, most public educational institutions receive the bulk of their income in
the form of taxation (Vern, Verstegen, & Garfield, 2012). The process of developing those taxes
and modifying them as the needs of public schools have changed has been a source of tension
and turmoil across the country. Although there is a myriad of revenue sources, including
lotteries, grants, business partnerships, sumptuary taxes, and excise taxes, the three major
methods used to achieve the level of funding necessary to operate schools are property taxes,
income taxes, and sales taxes. This does not mean they work perfectly, especially as the tools
and resources needed to prepare students for the twenty-first century become increasingly
expensive (Britten & Clausen, 2009). As much of the roles of government have shifted toward
the Federal Government, educational funding has kept many of its local roots, which means the
methods and rules of funding can not only change from state to state, but also from district to district (Vern, Verstegen, & Garfield, 2012).

Historically, property taxes have been the primary method of funding public schools and is today the largest part of the revenue for most school systems (Vern, Verstegen, & Garfield, 2012). A property tax is a tax levied on real property, such as land and buildings. This applies to residential, commercial, industrial, and agricultural property. The use of property taxes was started because ownership of land was a good indicator of wealth and it is stable, providing a reliable source of revenue for schools. For generations the property tax has been an easily understood direct tax with a clear purpose and direct link to the cost of government services. It is also generally within the power of local governments and school boards to change the tax rate to produce better yields when necessary. The manner with which it is assessed varies from state to state, with some states calculating revenue on the full value of a property and some only counting a portion of the property's value. Opponents of the property tax argue that high rates can force people to invest in personal property instead of real property because it is much harder to tax, that property is not a liquid asset and people may not be able to actually afford the tax liability of a property, especially if it is inherited, and the difficulty of expanding revenue with it when the tax base is relatively stable. A major problem for school districts who rely on property taxes is the trend of states to change the tax code to allow people to pay fewer property taxes, such as homestead exemptions and circuit breaker, which make exceptions for people who would face an unfair burden paying the normal level of taxes. It is also politically difficult for politicians to raise property taxes, even if people agree that education is an important part of the government’s role (Farmer, 2009).
Another tax used by states to raise funds is the sales tax (Vern, Verstegen, & Garfield, 2012). In its most basic form, sales taxes are placed upon goods and services at the time they are paid, making it the responsibility of the merchant or service provider to collect the tax and return it to the state. This means that it is a relatively inexpensive operation for the state to collect the taxes and is somewhat a fair tax because you are only taxed on what you purchase. However, if exclusions are not made for necessary goods, such as food and clothing, the tax can be regressive. A tax is considered regressive when it impacts less wealthy people to a greater extent than their wealthier counterparts. Poorer people spend a larger percentage of their income on basic necessities, meaning a sales tax impacts them more than it would for a person whose purchase of necessities is a relatively small amount of their budget. Again, the sales tax rate varies greatly from state to state, with Tennessee having the highest rate of combined state and local taxes and five states having no sales tax. In Tennessee, the sales tax is 7% with local taxes added to that, up to a maximum total of 9.75% (Tennessee Department of Revenue, 2015). This does create some variability in tax rates because each county and city can add their own sales tax on top of the state sales tax.

**The Problems with Distributing Funds**

Due to the disparity in districts’ abilities to raise their own funds, it has become common practice across the country for states to create a funding formula that redistributes the tax monies of each district in order to create a more equitable education system. Many of the changes were made at the prompting of the courts after the states lost lawsuits against them (Briffault, 2006; Tang, 2011). These lawsuits come in many forms in the different states. The earliest cases were on the basis that states were not equitably dispersing funds, violating students’ Fourteenth Amendment rights under the Equal Protection Clause (Tang, 2011). The argument in these cases
was that education is a fundamental right of citizenship and the unequal funding created by local school districts’ varied ability to raise property tax revenues violated students’ rights to an equal education. This kind of lawsuit came to an abrupt end in San Antonio Independent School District vs. Rodriguez (1973), in which the Supreme Court ruled that education is not a fundamental right and cannot be protected by the Fourteenth Amendment. Litigants continued their efforts to follow this style using state’s equal protection clauses, but were largely unsuccessful. Their failure caused the rise in the adequacy based argument, which did not necessarily ask for equity, but that every child in every district in the state should receive a base level of education that adequately fulfills that state’s education clause in their constitution. The problem with these lawsuits is that judges are then tasked with defining and legislating what is an adequate education, which can be very difficult when tight-fisted legislators are unwilling to meet the court’s demands. Some states have found success with both adequacy and equity arguments (Briffault, 2006). For example, in Tennessee the courts have ruled in favor of the plaintiff in both equity and adequacy cases.

**Funding Schools in Tennessee**

Tennessee is an incredibly unique state in terms of how its education system has been developed (Fox, Harper, Richards, & Watts, 2008). It is one of only fourteen states that has more than one kind of school district and it is the only state that gives different taxing abilities to different kinds of school districts. This makes it very difficult for Tennessee to develop a funding formula that clearly and transparently funds schools in an equitable manner. During the 1970s, Tennessee developed a funding plan for schools called the Tennessee Foundation Program (Tennessee Department of Education, 2014). It was clear as early as the late 1980s that this plan would not be a good long-term solution because it was too inflexible. Additionally, it did not
provide adequate funding, did not adjust for inflation, and did not rely enough on districts’ ability to pay. The need for a different system became much clearer in 1988 when a group of 77 small school districts sued the state, arguing the Tennessee Foundation Program resulted in an inequitable financial disbursement. The Supreme Court of Tennessee agreed with the plaintiffs and ordered the state to create a new system. This was created and put into place in 1992 with the passage of the Education Improvement Act and its signature Basic Education Plan (BEP). The focus of the BEP was to create a level of funding that will provide every student in the state with a basic level of education to meet the adequacy argument of the court cases. To achieve this, it had a funding formula that took into account a local district’s ability to pay, changing the level of state dollars to ensure every district was able to fund an adequate program. This was an improvement over the old plan because it was not locked in to a specific funding level, but was a formula that can change and adapt to different levels of need as determined by the General Assembly. The problem with the original BEP formula was that it factored in extraneous information to determine a district’s ability to pay. For example, it used per capita income as a measure, but Tennessee does not have an income tax, meaning the available income of citizens is not related to the district’s ability to raise funds (Hayes, 2007).

Governor Phil Bredesen and Senator Jamie Woodson developed a plan to overcome the problems with the formula and more effectively determine districts’ ability to pay. To do this, the formula was streamlined and only districts’ available sales tax and property tax bases were included. This was determined to be the fairest option because it is from those sources that local districts have the ability to raise funds. This new model was developed by the University of Tennessee’s Center for Business and Economic Research and it will be the only formula used when the BEP 2.0 is fully implemented (McQueen, 2015). This leads to the central problem with
BEP 2.0, which is that it has never been implemented as intended and never funded anywhere near the levels required to meet its goals. The formula is still using a split of the old and new formula, meaning people are getting 50% adjustments in some areas in which the law requires 100% adjustments. Governor Haslam created a taskforce in 2014 in answer to pending lawsuits from several school districts. This taskforce has created a list of recommendations to rectify some of the problems. One of their suggestions is to make exceptions for unique situations in which the two primary measurements, sales tax base and property tax base, do not realistically reflect a district’s ability to pay. They also suggest changing the formula from a county-based model to a school district-based model because 28 of the total 95 counties have more than one district operating within their borders. This causes issues such as the county being forced to share revenue with city schools without the city having to reciprocate that action. The current system is one of the most complex in the country, leading to confusion and no small amount of chaos, causing Justin Wilson, the state’s comptroller, to call for a quick rethinking of the formula.

**Issues Caused by Partial Implementation**

When BEP 2.0 was proposed in the second half of the last decade, it was clearly understood that its reworking would remove money from large school districts and give more to small districts, fulfilling the mandates of the courts. Governor Bredesen suggested that with full accounts, all districts could get more money and meet the mandates and everything would be equitable (Bredesen, 2007). Unfortunately, the Governor could not predict the future and the impending financial collapse of 2008 caused the BEP 2.0 to stagnate its funding, meaning districts who were losing funds to other counties would not have those replaced with increased funding. Due to the partial implementation and underfunding of the BEP 2.0, many large counties are still hugely short of the basic level of education funding guaranteed under the BEP.
For example, administrators in Shelby County argue their district is being underfunded by 103 million dollars every year the state fails to fulfill the funding of BEP 2.0 (Shelby County Bd. of Educ. v. Haslam, 2015).

These gaps are not only money on paper, they seriously impact a district’s ability to fulfill their duties to their students. The importance of districts’ ability to properly educate children cannot be understated (Hanushek & Lindseth, 2009). The economic effects of education alone are staggering. If the primary breadwinners in a home are not well-educated they will not be able to earn as much money as more educated peers, leading to a cycle of generational poverty that prevents economic success for the individuals, families, and society as a whole. Even if all people receive the same thirteen years of public education, the quality of that education has a huge impact on their ability to succeed in postsecondary education and to increase their future earning potential. This could mean having a large number of underfunded schools would seriously set a district’s populace back for the foreseeable future, a point underscored when considering the large school districts who are suing the state are generally the ones with large populations already suffering from generational poverty (Martin, et al., 2014).

Across the country, poor and urban areas were hit harder economically than others during the Great Recession, causing an even grimmer situation than just having their funding cut (Freelon, Bertrand, & Rogers, 2012). People were losing jobs and students were slipping deeper into poverty, all while the states, including Tennessee, were not meeting their obligation to provide funding for an equitable and adequate education. The opportunity gap caused by the disparate abilities of different districts to fund things like quality teachers, smaller classes, administrative leadership, and support programs for students with special needs does lead to an achievement gap as well (Verstegen, D.A., 2015). Studies suggest that funding gaps cause
students who are most at-risk for failing to receive the lowest levels of funding, greatly increasing the chances they will not experience success in life after school. Even when family members care deeply and attempt to overcome high levels of familial poverty, their goals for their children’s success can be greatly hampered by low-quality teachers and a lack of instructional supplies and equipment. When students realize their schools in urban centers are not as well funded and their teachers are not as effective as the schools and teachers in wealthier areas, it can cause a psychological rift, removing the idea of the American dream from them (Compton-Lilly, 2014).

**Importance of Fixing the Funding Gap**

The current gap caused by the partial implementation of BEP 2.0 is not only causing issues now, but will be even more burdensome in the future, especially as new mandates, technological requirements, and school designs require an ever increasing revenue stream. Technology is advancing at an incredibly fast pace and it is no longer enough for schools to use technology as a method of getting students engaged in education (Britten & Clausen, 2009). Today, schools must teach students how to use and adapt to technology as a part of their mission to prepare students for the job markets. In almost any job students will have, they will necessarily use technology of some kind and must be able to adapt to changes in preparation for the inevitable technological shifts of the future. As the demand for more technological education rises, many schools have turned to integrative programs like Web 2.0 tools, which are mostly free and don’t require special hardware. The use of these tools is only a way to save a small fraction compared to the fiscal responsibility school districts will be bearing to keep up. The move toward computerized testing has already cost districts across the state millions of dollars.
The first round of computer purchases will not be the last, as students are expected to do more and more things with the assistance of technology as the future unfolds (Cydis, 2015).

Another area which will continue to require additional state resources is Tennessee’s Response to Instruction and Intervention (Tennessee Department of Education, 2015). The goal of this program is to ensure every student is given every opportunity to succeed by ensuring students who need extra help receive it. In its most basic form, the program is really a way for schools to better identify students who do need to receive additional help. However, in its implementation, it is going to require a large number of new teachers, resource material, and classroom space. The funding for all of these things is already becoming an issue. For example, some counties are having to raise taxes just to pay for the initial round of changes prompted by Response to Instruction and Intervention (Farrell, 2015). Helping them make up ground in areas in which they need more help by providing teachers the tools and guidelines they need to help students, is a sound concept, but carries a hefty price tag (Almalki & Abaoud, 2015). The state has made a commitment to help districts transition to the new system and extols the virtues of early and significant intervention to prevent problems, but the original funding still has not been put in place, making it appear dubious that the additional funding needed for this new program will be provided any time soon (Tennessee Department of Education, 2015). A simple example of the cost of the Response to Instruction and Intervention program is its requirement for a universal screener to test every student and then place them into one of three tiers. Although only students in the bottom twenty-fifth percentile will need to be placed into special tiers, tiers II and III are predicted to only apply to about fifteen to twenty percent of students and these students will require smaller classes or even one-on-one intervention strategies. Understanding even these
most basic components of the system make it abundantly clear that this is going to cost a considerable amount of additional money.

Funding is a critical issue in education today and without proper levels, schools are unable to fulfill their constitutional duty to educate the populace. Due to a number of factors, Tennessee has been unable to fully implement or fund their funding plan, leading to gaps in funding for some of the state’s largest and most needy districts (Pignolet, 2015). This is dangerous to the prosperity of the state and its people. As several districts are suing the state, it is becoming more clear that the effects these gaps are having on students need to be better understood in order for the legislators and educational leaders to act to rectify them. This is especially true as the realities of the 21st Century call for more technology in the classroom and the government continues to mandate additional programs for the schools (Farrell, 2015).
CHAPTER 3: Research Methodology

This project is a quantitative Delphi study designed to examine the perceptions directors of schools and school system finance directors have of the Basic Education Plan 2.0 (BEP 2.0). It could be further identified as a correlational subtype of a descriptive quantitative study because it does not attempt to find causation and there are no controlled variables, only the observation of facts and analyses to determine the correlation between respondents (Lodico, Spaulding, & Voegtle, 2010). The Tennessee Department of Education produces publicly available data sets, which detail all of the pertinent information for each district, including their student population, funding levels, and funding sources (Tennessee Department of Education, 2014b). This information provided background information for the creation of the questionnaires used to question the panel. The nature of a Delphi study is to create a controlled communication system to gather the opinions and perspectives of experts (Wellington & Szczerbinski, 2007). Therefore, the study relied on the feedback of the panel and involved a second round of questionnaires that was designed after the first round was completed. The purpose of using a Delphi study was to develop a consensus among a group of people considered experts in a certain field (Skulmoski, Hartman, & Krahn, 2007). In this case, that was the field of educational finance and an understanding of the BEP 2.0. The information garnered from a consensus among these experts is more valuable than any individual perspective. Additionally, the process of gathering opinions and having the experts then rank the validity of those opinions provided additional depth of knowledge concerning the specialized subject. An additional benefit is that this second round
allowed participants to reconsider their own opinions and learn from the new perspectives of their peers on the panel (Linstone & Turoff, 1975).

**Population and Sample**

This project focused on the largest school districts in the state. For the purposes of this study, that was defined as the largest 10 percent of the 140 total districts (Tennessee Department of Education, 2014b). Based on 2014 average daily membership, this list of fourteen districts included: Shelby County Schools, Metropolitan Nashville Public Schools, Knox County Schools, Hamilton County Department of Education, Rutherford County School District, Williamson County Schools, Clarksville-Montgomery County School System, Sumner County Schools, Wilson County Schools, Sevier County School System, Jackson-Madison County School System, Maury County Public Schools, Tipton County Schools, and Robertson County Schools. These districts ranged in size from Shelby County Schools' 277 schools and 141,680 students to the 14th largest system, Robertson County Schools, with only 20 schools and 10,657 students. This wide variation provided some insight into the challenges faced by Tennessee when trying to adequately and equitably fund the systems.

The complex and specialized nature of the material in this study means it would have been unlikely for a survey of a large population to provide reliable or valuable information. Situations like these are exactly why the Delphi method was created, as it allows researchers to gather information in a flexible manner from the few people who truly understand the issue (Skulmoski, Hartman, & Krahn, 2007). To accomplish this, questionnaires were sent to the directors of schools and finance directors of these districts. There were two possible administrators from each district, but only one was accepted to participate from each district in order to give each district’s perspective equal weight. This means 100 percent participation
would have resulted in a total of 14 members of the Delphi panel. Only ten districts chose to participate, resulting in a ten-member panel. This small number of participants was one of the strengths of a Delphi study, allowing each member to spend more time responding to the questions and participating in multiple rounds (Adler & Ziglio, 1996).

**Description of Instrument**

The instrument utilized in round one was a questionnaire, directly asking the participants to provide their perspectives and opinions regarding the three research questions. These questions were developed from reviewing the literature about Tennessee's funding formula, which includes current events and lawsuits taking place in these fourteen districts. Green (2014) argued that this information should have formed the basis of the first round instrument and provided the panel a common starting point. The simple format of only three questions relied on the questions' open-ended style to encourage comprehensive answers. Questionnaires in round one were designed like this in order to perform a type of group brainstorming so researchers can determine what they are going to include in the next round to best answer their research questions (Skulmoski, Hartman, & Krahn, 2007).

After receiving the responses from the first round questionnaire, an analysis of the responses was performed to determine the specific elements of the second questionnaire. All exact duplicate answers were removed and terminology was unified across responses, allowing for a consolidated list of responses for each question (Hsu & Sandford, 2007). The second instrument restated the three research questions, but instead of asking for open-ended responses, the participants were asked to rank the consolidated list of answers from their peers. The option the participant perceived to be the most accurate was ranked highest and the option the participant perceived to be the least accurate was ranked lowest. This provided the ability to
perform analysis of the responses and a method to determine a consensus of school leaders in large districts concerning BEP 2.0 (Skulmoski, Hartman, & Krahn, 2007). This questionnaire also contained a section for participants to provide comments for why he or she chose to rank the responses in that particular order, providing another source of valuable perspective (Okoli & Pawlowski, 2004).

**Research Procedures and Time Period of the Study**

The first step in the research process was to develop a list of possible members for the expert panel (Linstone & Turoff, 1975). Due to the focus of the research, it was important to include people with expert knowledge about the current state of BEP 2.0 and how it affects large districts. In order to increase the roster of possible participants and increase the knowledge base of the panel, both directors of schools and finance directors for each of the fourteen districts were contacted via mail and email with an invitation to join the study by being a member of the expert panel. A letter of introduction from a finance director was included in order to provide evidence of legitimacy and encourage participation. This finance director has been a member of the Governor's Basic Education Taskforce, as well as, a key participant in BEP development and implementation since its inception (McQueen, 2015). The long-term familiarity the finance director has with the subject and the other actors in the school finance community meant that her encouraging words to the other finance directors and directors of schools to participate carried weight.

Along with the letter of introduction, an explanation of the purpose of the Delphi study and the process that was going to be completed was included, as suggested when dealing with any questionnaire based study (Wellington & Szczerbinski, 2007). This explained why each member was chosen, what value he or she could bring to the process, and a guarantee of the
anonymity of their individual responses. Both the mailed invitation and emailed invitation included a consent form to return to the researcher to confirm participation. They also included information on how to contact the researcher to ask any further questions and directions on how to access the online questionnaire (Okoli & Pawlowski, 2004). The inclusion of the directions and the use of an online questionnaire helped speed the process and allow for easier communication between the researcher and participants.

Before inviting members, sending any invitation packets, or releasing the first round of questionnaires, a pilot study was conducted with individuals who work in a large school district, but are not one of the two members of the panel. These people received the same invitation packet, were given access to the questionnaire, and asked to complete it as if they were participating in the study. After they completed round one, they were asked to confirm the clarity of both the invitation to participate and the questionnaire itself. They provided feedback concerning the format, any difficulty in accessing the questionnaire, and opinions regarding whether the questions could be made more precise. Valuable feedback gathered in this process allowed needed changes to the questionnaire to be made before being released to the expert panel, helping to ensure the instruments were adequate for the purposes of the study and would not negatively impact the outcomes (Green, 2014).

One of the drawbacks to the Delphi method is the amount of time it takes to allow all participants to respond and then compile those responses to create the questionnaire for the second round (Adler & Ziglio, 1996). Using confirmation forms and online questionnaires helped compensate for this time gap. It allowed for the compilation of a list of participants who agreed to participate, which meant it was only necessary to wait for the responses of those who had agreed before moving on to the second step. As the results were received online, the answers
given were logged into a Microsoft Excel workbook, storing the answers to each question from each participant, using an anonymous code for each participant. Storing anonymously was one of the benefits Hsu and Sandford (2007) provided for the use of electronic questionnaires in a Delphi Study. The purpose of this was to prevent the storing of a name with the correlating information, allowing for the results to be tracked and compiled en masse without the concern of a single individual's perspective being discernible (Protection of Human Subjects, 2009).

After all responses were received and stored, the data was processed by removing any answers that were identical and merging terminology between respondents to ensure the resulting lists of perspectives were as clear and concise as possible (Okoli & Pawlowski, 2004). At this point, a new questionnaire was constructed, reminding the participants of the three research questions and asking them to rank the responses in order of perceived accuracy. They were asked to rank everyone's perspectives on how they believed the partial implementation of BEP 2.0 would affect their school districts over the next five years, from what they believed to be the most accurate perspective of what would occur to what the least accurate perspective of what would occur. While none of the members could know for certain what will occur in the next five years, their expert opinions illuminated some of the most likely scenarios. On the second round questionnaire, participants were also asked to provide a reasoning for why they ranked the responses in the particular order they did, giving more data to inform the analysis of the rankings (Linstone & Turoff, 1975). As the second round was submitted, the data was recorded in the Microsoft Excel workbook for analysis.

**Procedure for Data Analysis**

The data compiled in Microsoft Excel after the ranking in the second round provided the opportunity to perform statistical analysis. The most common types of statistical analysis in
Delphi studies are mean, median, mode, standard of deviation, coefficient of variation, Kendall’s coefficient of concordance, and Spearman’s rank-order correlation, which is what were utilized in this study (Okoli & Pawlowski, 2004; Shah & Kalaian, 2009). In order to assign a value to the ranked perspectives, each of these perspectives was assigned a number based on how highly accurate it was ranked. A response received 10 points for being ranked as the most accurate, 9 points for being ranked second, 8 points for being ranked third, and so on. The total each perspective received across the entire panel was calculated to provide a single number. In this manner, an accuracy score can be assigned to each answer and provide a clearer depiction of the panel's perspectives. The mean showed the average ranking of each item, the median showed the central accuracy ranking each perspective received, and the mode showed which ranking was most common. The standard deviation and coefficient of variation showed the amount of agreement among the panel about each particular perspective. Kendall’s coefficient of concordance and Spearman’s rank-order correlation showed the amount of agreement the panel had in their rankings as a whole and the strength of the agreement. Applying these numbers and using these statistical tools provided insight into the perspective of the panel, which in turn, demonstrated what experts believe were the impacts of the partial implementation of BEP 2.0, what they believe the impacts will be if nothing changes, and a list of suggestions on what could be done to improve these outcomes.
CHAPTER 4: Findings

The purpose of this study was to determine how directors of schools and finance directors of large school districts perceive the Basic Education Plan 2.0 (BEP 2.0). In an effort to collect and synthesize these perceptions, a Delphi panel was formed. This consisted of directors of schools and finance directors from ten of the fourteen largest school districts in Tennessee. These experts had a unique and authoritative perspective that cannot be matched in the general population, meaning their insights can be valuable to understanding the impact BEP 2.0 has on large districts. These perceptions were analyzed as described in Chapter 3, utilizing mean, median, mode, standard of deviation, coefficient of variation, Kendall’s coefficient of concordance, and Spearman’s rank-order correlation as suggested by Okoli & Pawlowski (2004) and Shah & Kalaian (2009). The purpose of the analysis was to determine the panel’s answers to the three research questions on which this project is focused:

1. What is the impact on large Tennessee school districts of the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)?

2. What are directors of schools' perceptions of the impact partial implementation of the Basic Education Plan 2.0 (BEP 2.0) will have on large school districts over the next five years?

3. What do directors of schools perceive to be possible changes they could make over the next five years to provide financial stability under the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)?
The results of the data analysis are presented in this chapter. Responses to each of the three research questions were analyzed from the first and second round of questionnaires, as well as a discussion of the participants’ reasoning for their responses.

**Selection of Participants**

Each of the largest 14 districts was contacted by certified mail, email, and telephone. Of the 14 districts which were asked to participate in the study, 10 chose to respond, 3 did not respond at all, and 1 chose not to participate. Each of these 10 participated in both rounds of questionnaires in the time allotted for research. Some of these districts had their director of schools respond and some had the finance director respond. All identifying information was removed from responses to guarantee anonymity and prevent any possible harm from coming to participants.

**Instrumentation**

Both questionnaires were created using online tools, namely Google Forms and Survey Monkey. In the first questionnaire, the three research questions were worded as second person questions and in-depth responses were requested. The responses from the first questionnaire were consolidated and any redundancies were removed in order to clarify the perceptions. This resulted in ten perspectives for each research question, meaning the panel members were asked to rank the responses in order from the one with which they most agreed to the one with which they least agreed. They were both posted on www.AndrewJacksonTN.com, which allowed panel members to access them easily with a full explanation of the study. Additionally, they were printed and mailed with preaddressed return envelopes to encourage a greater response rate. Due to the ranking nature of the second questionnaire, panel members were encouraged to complete it
on Survey Monkey’s website, which allowed them to drag and drop responses into their desired order.

Analysis of Questionnaire 1

The narrative response provided in the first questionnaire were as varied and interesting as the districts and leaders themselves. Each district faces its own problems and has its own strengths and weaknesses, meaning the perceptions of the leaders of those districts shift with their situation. The priorities and personality of the school leaders also became apparent as they voiced their opinions. This section will provide a general summary of different responses to each research question, providing evidence and anecdotes to support the panel members’ perspectives.

Brief Summary of Research Questions

Research Question 1. This question was worded, “What do you perceive to be the impact on your district of the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)?”. The general thread across all respondents was that almost none of them were satisfied with the current status of BEP 2.0, but it became increasingly clear that each district leaders’ reasons for this perception differed. Some district leaders mentioned their ability to operate properly had been so hampered that they felt the need to file lawsuits against the state. While on the other end of the spectrum, some district leaders felt that the partial implementation of BEP 2.0 had little to no effect on their district. Panel members focused on specific populations, specifically English Language Learners and student with special needs. Both of the populations require extra funding and best practices to properly educate these students require funding levels not provided in the partial implementation of BEP 2.0. Another area of concern that was mentioned by several panel members was the lack of salary increases available to teachers due to stagnant funds coming from the partial implementation. Leaders argued this has hampered competition between districts
and even between states. Several of the large districts are on the border of another state and all of the leaders of those districts mentioned the difficulty of attracting teachers to their districts while competing with vastly different salary and benefit packages. The lack of increased funds has also caused perceptions of conflict with County Commissions and other local governing bodies because the formula assumes these bodies will increase local taxes to balance lost funds from the new BEP 2.0 formula, which is not always the case. While most of the large districts lost funds under the partial implementation, some of them lost funds and had a forced ceiling placed upon them by the nature of the way the formula determines local ability to pay. The district leaders serving districts at this ceiling or nearing this ceiling were the most vocal in their displeasure with the status quo, arguing that the entire formula should be thrown out and reformulated to better reflect the reality of districts’ ability to pay. Other districts did not lose funding, but would under full implementation, meaning their leaders are resisting any changes to the status quo unless additional funds are added to the state’s input.

**Research Question 2.** This question was worded, “What are your perspectives of the impact partial implementation of the Basic Education Plan 2.0 (BEP 2.0) will have on your school district over the next five years?” The purpose of this was to gauge leaders’ perceptions of what the future will hold for their district under the current status of BEP 2.0. This question resulted in many of the same themes as the first question, but with more focus on the financial and instructional implications of prolonged budgetary constraints. The perceived implications ranged from areas of competition, such as the retention of high quality teachers and administrators, to areas of student success, such as test scores and college and career readiness. Many members of the panel also discussed the unpleasant process of determining which necessary programs or planned improvements will have to be tabled until either full
implementation or even a reformulation is passed. After eight years of cuts and delayed increases, the leaders argue there is little room to lower non-critical funds in the budget, meaning the next five years will result in cuts to necessary areas, harming both educators and students. Several mentioned the need to send a list to their County Commission explaining the things they feel are necessary, but are impossible without additional local funding to balance the lost funds from BEP 2.0. The leaders lament the need for this, arguing the unfunded mandates from the state force them to spend in some areas to the detriment of others. Overall, the leaders planned on holding their budget levels steady over the next five years, not anticipating any major increases or decrease from a reformulation of the BEP 2.0 or full implementation. While the budget level will remain the same, the costs will continue to rise. One leader explained that for “every one percent in increase to teacher salaries, 1.5 million dollars” have to be reallocated from other areas. This means even the small yearly step increases teachers receive can be a challenge for districts already hanging on by a thin margin.

Research Question 3. This question was worded, “What do you perceive to be possible changes you could make over the next five years to provide financial stability under the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)?”. Asking what changes could be made to overcome any perceived effects of partial implementation helps to better understand the areas leaders see as being within their control and how it affects the budgeting process. The overwhelming impression from directors is that any changes that are being forced by budgetary gaps will be unpleasant. Reallocation of funds is a real challenge when all of the optional areas and investments have been gutted over the last several years of stagnating revenue and increasing mandates. Focusing funds in the most efficient manner possible, is the goal of some of the districts. Leaders argued this might include layoffs of teachers and closing schools is an option.
Several district leaders also discussed the need to end or reduce funds for programs instituted to help improve students’ success levels, but not mandated by the state. These programs and policies were implemented in order to meet identified needs of students, but with limited funds and many areas without any leeway, they are going to have to be curbed. Another option suggested by directors of finance is to petition County Commissioners for tax increases or new types of taxes to help offset the loss of state funds. This can be a challenge because many Commissioners do not believe it is politically expedient to raise taxes and hope that the state will begin returning promised funds as the economy has improved so much in the state during the last couple of years. By law, districts must create and implement balanced budgets, meaning these choices are hard and completely not optional. Waiting out changes to the formula or its implementation is not possible. Improvements that are not absolutely necessary will not happen unless specifically addressed by the state. For example, panel members argued the needs of the 21st Century require greater technological integration and utilization by students, but the funds to purchase technology and train teachers to use it are not there. They also pointed out the issues with technology being mandated for the new TNReady tests, but not being properly funded, placing an additional one-time budgetary strain on every district in the state. This resulted in several of the districts delaying the purchase of new textbooks for a couple of years to fund enough computers for students to take the new computerized tests. These kinds of trade-offs were the primary suggestions of most of the districts questioned. Making major cuts or raising local taxes were the two major themes presented by all ten of the district leaders and all of them saw security in a mixture of both until the state makes changes to its funding model.

**Consolidating and Ranking Responses.** While each district is unique and their directors had unique perspectives, it was possible to condense their responses to ten common themes. This
required the vocabulary to be slightly altered in order to capture the idea behind each narrative, without sacrificing clarity for variance in speech patterns. Some panel members had very lengthy responses, with several points and perspectives regarding each question, while others answered very directly and offered only one perspective. This resulted in more than ten total responses to each question, with some themes being shared with more than one district, while others were unique to the director who responded in that manner. The frequency with which each of the ten responses was used provides interesting insight into how widespread a perception was across all ten districts. For this reason, the frequency with which each statement was witnessed in the responses is included with the response, as well as a ranking showing the progression from most common response to the most unique response.

**Research Question 1.** Perceptions of what the impact has been on a district could be expected to range wildly from district to district as the realities of local financing and populations vary immensely from huge districts like Shelby County to relatively smaller counties, like Robertson. While this is true, Table 4.1 indicates that some themes were very common, while the plurality were only observed by one district. The most obvious perceived impact of partial implementation on large school districts was the budget gap caused by the changed formula and how that gap impacted the district’s ability to properly operate. The second most common response was how it impacted funds designated for English language learners and other students with special needs.
Table 4.1

Frequency of responses for Research Question 1

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large budgetary gaps have developed between funds needed for</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>proper operation and available funds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The needed increase to funding for ELL and other special areas has</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>not been provided.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The district lost funds and has not been able to fully recover them</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>from local sources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There has been very little impact to the district.</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>The design of BEP 2.0 means the fiscal capacity of the district is</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>being improperly calculated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding levels required for the salaries needed for hiring and</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>retaining high-quality teachers have not been provided by the state.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funds promised along with BEP 2.0 have not been provided.</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>New and improved technology has not been funded at necessary levels.</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Partial implementation prevents the gain the district would</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>experience under full implementation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The district has adopted new best practices without state funding to</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>support them.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The fact three of them discussed it individually indicates it is an area of impact across the state. This exemplifies one of the benefits of the Delphi method, because it allows panelists to express their positions without interference from other members, providing insight into how widespread an idea might be. It also allows them to reconsider and defend their perspectives in subsequent rounds (Linstone & Turoff, 1975).
**Research Question 2.** Table 4.2 continues the process of consolidation and simplification for the second research question. The responses given by directors of schools and finance directors demonstrate how different perceptions of the next five years are across the districts. Some responses were more specific, focusing on teachers and technology, while others were much more general, focusing on a lack of funds in all areas. Table 4.2 indicates major differences from the first research question. Unlike the responses to the first question, there were no responses given more than twice, indicating how varied the perspective of panel members from across the state are even when they share similar budgeting challenges. Four responses tied with only two panelists agreeing. Three of those focus on how much the district will be impacted and how the state’s actions are squeezing strained budgets, including the extra expense of unfunded mandates and the difficulty of providing raises to teachers. The inability to provide raises was considered a serious issue by leaders in those two districts in particular because they experience stiff competition from other states when recruiting high quality teachers.

Interestingly, one of the four responses mentioned by two districts was how little the partial implementation will impact their district over the next five years. In addition to the four responses with two occurrences, six more were only given once. This suggests that the unique situations in each district make the already difficult endeavor of predicting the future even more challenging, and most of the directors perceive different problems will be the most important. Several of these responses were similar, but had significantly different implications. For example, making compromises and operating at a maintenance level might include some of the same outcomes, but the idea of being forced to choose between two important alternatives could have different instructional and administrative implications than only maintaining the status quo.
Research Question 3. Considering the limited number of avenues open to district leaders, it could be assumed there would only be a few responses to how they planned to overcome the myriad problems discussed in the first two questions. With frequency levels somewhere between the first and second research questions, it is clear there is a real variety of perspective between districts.

Table 4.2

*Frequency of responses for Research Question 2*

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The district will have to make cuts to some areas to pay for unfunded mandates from the state.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>All areas of operation will be impacted due to the lack of funds.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>It will have very little impact on the district.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The district will not be able to give step raises and may have to cut teacher benefits, hurting its ability to compete in the marketplace and retain quality teacher.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The district will have to dedicate and increasingly large percentage of funds to serving students with special needs.</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The district will have to make cuts to teacher positions and instructional programs to make up for continued budgetary strains.</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The district will have to continue without any yearly increase in budget from the state, operating at maintenance level only.</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The district will be unable to provide the necessary services to students due to inadequate funding.</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The district will be forced to make compromises to maintain a balanced budget.</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The districts needs will not be adequately addressed.</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>
Table 4.3

*Frequency of responses for Research Question 3*

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The district will have to change focus to only maintaining maintenance levels instead of implementing desired improvements.</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>The district will have to stop current programs or find additional funding.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>The district must reevaluate the budget and reallocate funds in a more efficient manner, closing schools if there are more efficient options.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>The district will have to postpone plans for improved technology infrastructure and newer devices.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>The district must encourage the development local funding sources, such as increased taxes, to overcome budgetary shortfalls.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>The district will have to modify its Special Education program to meet students’ needs without additional funds.</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>The district will have to adapt to having too few administrative positions in the schools.</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>The district will have to prevent future increases to teacher salary and benefits or find additional funding.</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>The district must plan on stagnant levels of funding.</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>The district must reduce funds designated for long-term investments and planning.</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

For this question, only one perception was shared by three different panelists, which was that maintenance levels are the only sustainable option and desired improvements will have to be halted until additional funds can be allocated to them. This has a significant impact on the day to day operations of the districts, especially considering those improvements have been largely on hold for seven years. Two district leaders even discussed the need to close schools. This is a reflection of the severity of the budgetary gap in some areas. The lawsuits pending against the
state by Shelby County Schools and Hamilton County Department of Education both discuss the reality of gaps large enough to close neighborhood schools as being one of the primary concerns leading to the lawsuit (Shelby County Bd. of Educ., 2015; Sher, 2016).

**Analysis of Questionnaire 2**

After compiling the results from the first questionnaire and creating the second questionnaire, the panelists were asked to rank the responses in order from the response they perceived to be most accurate for their district as number 1 and the response they believed to be least accurate for their district to be number 10. This revealed one of the Delphi methods best attributes, which is the ability for experts to confirm or refine their opinions when exposed to the perspectives of their peers (Linstone & Turoff, 1975). The results from the second questionnaire provided interesting insights into how the leaders perceived their own districts, making it clear that other districts’ problems are not their own in a couple of interesting ways. To clarify the ranking and better understand the perspective of the panelists, a series of measures were used. This included a method of assigning an accuracy score to ranked qualitative response, mean, median, mode, standard deviation, coefficient of variation, Kendall’s coefficient of concordance, and Spearman’s rank-order correlation. Each of these tools provide additional guidance in analyzing Questionnaire 2.

**Determining Rank and Accuracy Score.** The manner in which Delphi panel members rank the responses helps identify how accurate they perceive each response to be for their specific situation in their district. Creating a method of group consensus and ranking can be difficult in studies because no two individuals or districts have the same experience, which is why Hsu and Sandford (2007) argued that quantifying the rankings helps clarify the process. This was accomplished by calculating the number of first place through tenth place rankings
each response received on the questionnaire and then assigning a value to each of those rankings. An item that was ranked as being the most accurate was awarded 10 points, an item that was ranked second most accurate was awarded 9 points, an item that was ranked third most accurate was awarded 8 points, and this process was continued until the response that was ranked the least accurate was awarded 1 point. Considering there are ten Delphi panel members and ten response statements for each research question, 100 is the maximum accuracy score a response can have and the minimum is ten. A 100 would indicate a complete agreement that the response is the most accurate and a ten would indicate complete agreement that the response is the least accurate. This process was used to provide a value to each panelist’s ranking of each response for all three research questions.

**Research Question 1.** The disparate opinions among the various directors of schools and finance directors became fairly obvious even in rudimentary observations of the accuracy scores. As shown in Table 4.4, the highest scoring response scored a relatively high 80 and the lowest response scored a relatively low 24, but the middle six scores only had a range of eight points. The narrow spread in the middle indicates that respondents have stronger feelings about which statements were true and untrue for their district, and agree with the others, but without a clear order of accuracy. The statement that scored the highest was not an indictment against specific budget problems, but the perception that funds promised under the Basic Education Plan 2.0 (BEP 2.0) have not been provided. This is the exact reason several districts are currently suing the state (Shelby County Bd. of Educ., 2015; Sher, 2016). Funds guaranteed with the passage of BEP 2.0 never materialized, which the data suggests is the primary impact leaders perceive the partial implementation has had on their systems.
Table 4.4

*Frequency of responses, Rank, and Accuracy Score for Research Question 1 on Questionnaire 2*

<table>
<thead>
<tr>
<th>Statements</th>
<th>Rank</th>
<th>Points</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds promised along with BEP 2.0 have not been provided.</td>
<td>1</td>
<td>80</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Funding levels required for the salaries needed for hiring and retaining high-quality teachers have not been provided by the state.</td>
<td>2</td>
<td>77</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Large budgetary gaps have developed between funds needed for proper operation and available funds.</td>
<td>3</td>
<td>61</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>The needed increase to funding for ELL and other special areas has not been provided.</td>
<td>3</td>
<td>61</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Partial implementation prevents the gain the district would experience under full implementation.</td>
<td>5</td>
<td>57</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>New and improved technology has not been funded at necessary levels.</td>
<td>6</td>
<td>56</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The district has adopted new best practices without state funding to support them.</td>
<td>7</td>
<td>53</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>The district lost funds and has not been able to fully recover them from local sources.</td>
<td>8</td>
<td>45</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>The design of BEP 2.0 means the fiscal capacity of the district is being improperly calculated.</td>
<td>9</td>
<td>38</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>There has been very little impact to the district.</td>
<td>10</td>
<td>24</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>
Three panel members listed this as the most accurate statement and six more listed it in their top five most accurate statements, while only one member mentioned it as an answer to research question 1 on the first questionnaire. This lends credibility to the argument that one of the benefits of the Delphi method is experts can agree with a statement they might not have considered on their own. On the other end of the spectrum, the lowest scored response indicated that the partial implementation of BEP 2.0 had very little impact on the districts. Six district leaders ranked this as the tenth most accurate statement and another two ranked it as their ninth most accurate statement, which is a clear signal that BEP 2.0 has impacted the large majority of districts in a significant way. Only one district leader ranked this statement as the most accurate response for their district, providing evidence they are in a unique fiscal situation when compared with other large districts in the state.

**Research Question 2.** This question asked leaders to hypothesize how they perceive the next five years will impact their districts, which by its nature leads to variations among competing visions of the future. Table 4.5 demonstrates how evident these differences were through the lack of a clear winner in the highest ranked category. While one statement scored a 74, the next four statements within the top five only had a range of seven points. The top ranked response only had one person rank it in first place and no one rank it as the second rank, getting the majority of its points from a full half of all respondents ranking it as their third most accurate response. The highest ranked statement concerned district leaders’ perception that they will have to make cuts to preexisting areas to pay for mandates from the state that are not properly funded. This was mentioned by two district leaders in response to the first questionnaire, focusing on things like TNReady testing and the associated technology upgrades being mandated by the state.
Table 4.5

Frequency of responses to Questionnaire 2 for Research Question 2, Rank, and Importance Points

<table>
<thead>
<tr>
<th>Statements</th>
<th>Rank</th>
<th>Points</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>The district will have to make cuts to some areas to pay for unfunded mandates from the state.</td>
<td>1</td>
<td>74</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The district's needs will not be adequately addressed.</td>
<td>2</td>
<td>73</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The district will have to dedicate and increasingly large percentage of funds to serving students with special needs.</td>
<td>3</td>
<td>68</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The district will be unable to provide the necessary services to students due to inadequate funding.</td>
<td>4</td>
<td>67</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>The district will be forced to make compromises to maintain a balanced budget.</td>
<td>4</td>
<td>67</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The district will have to make cuts to teacher positions and instructional programs to make up for continued budgetary strains.</td>
<td>6</td>
<td>52</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>All areas of operation will be impacted due to the lack of funds.</td>
<td>7</td>
<td>45</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The district will not be able to give step raises and may have to cut teacher benefits, hurting its ability to compete in the marketplace and retain quality teacher.</td>
<td>8</td>
<td>43</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>The district will have to continue without any yearly increase in budget from the state, operating at maintenance level only.</td>
<td>9</td>
<td>41</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>It will have very little impact on the district.</td>
<td>10</td>
<td>20</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>
The second highest ranked response garnered 73 points and largely mirrored the first response, with seven district leaders ranking it within their top five most accurate statements. It simply stated that the needs of the district will not be met in the next five years if the Basic Education Plan 2.0 (BEP 2.) maintains its current level of partial implementation. Three district leaders ranked this as their number one most accurate statement, giving it the plurality of first place ranks. Exactly like the responses to the first research question, the lowest ranked response to research question 2 was that BEP 2.0 has a negligible impact upon the district and there is not a perception one will develop over the next five years. This response only earned 20 points for being accurate, coming in 21 points lower than the ninth place finisher, demonstrating how strongly most district leaders disagree with the position that their districts will not be affected. The second lowest ranked response earned 41 points and claimed districts will have to operate at a maintenance level only, which one panelist argued was simply not true because maintenance level is still out of reach at current funding levels from the state.

Research Question 3. Less predictive in nature, the third question focuses on Delphi panel members’ perceived options for their district if no changes are made to the current partial implementation of the Basic Education Plan 2.0 (BEP 2.0). With 80 out of a possible 100 points, the highest ranked response to this question tied with the highest ranked response to the first research questions, revealing there are some positions a majority of the panel members feel strongly about. Table 4.6 reveals more directors of schools and finance directors actually voted for the second place finisher as being the most accurate. However, the fact that nine out of ten panel members ranked the item with the most points in their top four gave it a commanding lead in the ranking by accuracy score.
Table 4.6

*Frequency of responses to Questionnaire 2 for Research Question 3, Rank, and Importance Points*

<table>
<thead>
<tr>
<th>Statements</th>
<th>Rank</th>
<th>Points</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>The district will have to change focus to only maintaining maintenance levels instead of implementing desired improvements.</td>
<td>1</td>
<td>80</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>The district must encourage the development local funding sources, such as increased taxes, to overcome budgetary shortfalls.</td>
<td>2</td>
<td>75</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The district will have to prevent future increases to teacher salary and benefits or find additional funding.</td>
<td>3</td>
<td>61</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>The district must reduce funds designated for long-term investments and planning.</td>
<td>4</td>
<td>59</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>The district will have to stop current programs or find additional funding.</td>
<td>5</td>
<td>54</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>The district will have to adapt to having too few administrative positions in the schools.</td>
<td>6</td>
<td>50</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>The district will have to postpone plans for improved technology infrastructure and newer devices.</td>
<td>7</td>
<td>49</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>The district must plan on stagnant levels of funding.</td>
<td>8</td>
<td>44</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>The district must reevaluate the budget and reallocate funds in a more efficient manner, closing schools if there are more efficient options.</td>
<td>9</td>
<td>40</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>The district will have to modify its Special Education program to meet students' needs without additional funds.</td>
<td>10</td>
<td>38</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
Remarkably, that was the second lowest rated answer to what the leaders perceived to be the result in their next five years, suggesting they do not identify it as a possibility, but know it is one of the only ways to move forward now. The second highest ranked response garnered three out of the ten first place rankings, which shows a clear support for rallying local funding sources to meet the budgetary shortfalls caused by the partial implementation of BEP 2.0. This provided evidence that leaders perceive operating at the current funding levels is not possible and all avenues of increasing those levels need to be explored in order for the district to succeed. The lowest ranked response had zero last place rankings, but two ninth place and five eighth place rankings left it in last place by two points. It focuses on the need to modify special education programs to meet current needs without additional funds to support these measures. No or finance directors disagreed with it enough to rank it last, but most of them put it toward the end of their list of accurate possibilities to get through the next five years.

**Statistical Analysis of Questionnaire 2.** The instrument’s use of ranking provides insight into how the realities of each district are reflected in the perceptions of the districts’ leaders. Ranking is a common method used in rounds after the first in the Delphi method because it allows experts to provide feedback on their peer’s positions, as well as reevaluate their own (Okoli & Pawlowski, 2004; Shah & Kalaian, 2009). One of the benefits of ranking is the ability to run statistical measures of the data to reveal information that might not be obvious in a purely qualitative study. Many of the tools suggested by statisticians in the Delphi method are used to determine the differences and similarities of opinions between experts over one topic. For this study, measures were used to analyze the differing perceptions of experts concerning how they ranked the responses. Additional analysis can be performed on the responses as a whole in order to determine the amount of agreement the panelists had regarding how to best answer each of the
research questions. The total number of accuracy points a response earned, the mean of the rankings, the median ranking, mode, standard deviation among rankings, the coefficient of variation among rankings, Kendall’s coefficient of concordance, and Spearman’s rank-order coefficient will all work together to create a much clearer picture of the interplay between each of the panel members and what they perceive to be the most accurate responses. The accuracy points were discussed in detail previously and provided an explicit method of determining which responses are most accurate. However, the analysis of those ranking does not do an adequate job of determining group consensus or lack thereof about any one response, meaning the other statistical tools can be beneficial. The purpose of the mean is to determine what the average ranking for each response was, which will provide some evidence to the consensus about that response. Unfortunately, the mean can be skewed by outliers, especially in the small sample sizes in this study and common to all Delphi studies (Hsu & Sandford, 2007). This makes median and mode important additional tools to understanding how participants viewed the responses, because median reveals the exact middle of the data set and mode reveals the most commonly chosen ranking. These are less likely to be skewed by outliers and can show a convergence of opinion around a certain accuracy ranking. The standard deviation and coefficient of variation add an additional layer of analysis to this process by showing the amount of variation between responses, which provides additional evidence for a developing consensus or lack thereof.

**Research Question 1.** The ranking and accuracy scores of the first research question revealed the general lack of consensus, with a strong first and tenth place ranking and a muddled middle of the field. Table 4.7 reveals this indication from the accuracy ranking holds up to statistical scrutiny, as the other measures revealed the same scenario. The highest rated response
had a mean of 3 and a median of 3, but a mode of 1. This indicates the most common ranking given to the response “funds promised along with BEP 2.0 have not been provided” is the highest ranking possible. The second most highly ranked response had a nearly equal mean ($M=3.3$), but a mode of 4. This shows that the plurality of the ten people who ranked the second response, perceived it as being the fourth most accurate, which suggests its high ranking is the result of very few low rankings, rather than consistently being ranked the most accurate. Its heavy weight toward the middle of the scale resulted in an interesting statistic. Its standard deviation ($SD=1.68$) is the second lowest and its coefficient of variation ($CV=.51$) is the third highest. The low standard deviation suggests the panelists relatively agree that the funds needed to hire and retain quality teachers are not being properly budgeted, but the high coefficient of variation suggests this perceived consensus is skewed by the fact so many of the respondents agree it should be ranked within the top five. Adding weight to both the system of accuracy scoring and using statistical analysis, the eighth ranked response has a median of 8 and a mode of 8, the ninth ranked response has a median of 9 and a mode of 9, and the tenth ranked response has a median of 10 and a mode of 10. This seems to suggest there was clear agreement over where these three responses should be ranked; however, they also have the first ($SD=3.11$), second ($SD=3.00$), and third ($SD=2.69$) highest standards of deviation respectively. This indicates that there were a wide range of ranking for these statements, which is evidenced by the fact that one panelist ranked each one of them as the most accurate. The districts’ inability to raise funds from local sources is a good example of how the standard of deviation clarifies the reality districts are facing. It had the highest standard of deviation ($SD=3.11$), which was a result of having a plurality of very low votes, but still garnering three top three rankings, showing strong feelings about it either being very accurate or not accurate at all.
Table 4.7

*Mean, Median, Mode, Standard Deviation, and Coefficient of Variation for Responses to Research Question 1 on Questionnaire 2*

<table>
<thead>
<tr>
<th>Statements</th>
<th>Rank</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds promised along with BEP 2.0 have not been provided.</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1.84</td>
<td>0.61</td>
</tr>
<tr>
<td>Funding levels required for the salaries needed for hiring and retaining high-quality teachers have not been provided by the state.</td>
<td>2</td>
<td>3.3</td>
<td>3.5</td>
<td>4</td>
<td>1.68</td>
<td>0.51</td>
</tr>
<tr>
<td>Large budgetary gaps have developed between funds needed for proper operation and available funds.</td>
<td>3</td>
<td>4.9</td>
<td>4</td>
<td>3</td>
<td>2.30</td>
<td>0.47</td>
</tr>
<tr>
<td>The needed increase to funding for ELL and other special areas has not been provided.</td>
<td>3</td>
<td>4.9</td>
<td>6</td>
<td>6</td>
<td>2.26</td>
<td>0.46</td>
</tr>
<tr>
<td>Partial implementation prevents the gain the district would experience under full implementation.</td>
<td>5</td>
<td>5.3</td>
<td>5.5</td>
<td>2</td>
<td>2.83</td>
<td>0.53</td>
</tr>
<tr>
<td>New and improved technology has not been funded at necessary levels.</td>
<td>6</td>
<td>5.4</td>
<td>5</td>
<td>4</td>
<td>1.28</td>
<td>0.24</td>
</tr>
<tr>
<td>The district has adopted new best practices without state funding to support them.</td>
<td>7</td>
<td>5.7</td>
<td>5.5</td>
<td>5</td>
<td>2.05</td>
<td>0.36</td>
</tr>
<tr>
<td>The district lost funds and has not been able to fully recover them from local sources.</td>
<td>8</td>
<td>6.5</td>
<td>8</td>
<td>8</td>
<td>3.11</td>
<td>0.48</td>
</tr>
<tr>
<td>The design of BEP 2.0 means the fiscal capacity of the district is being improperly calculated.</td>
<td>9</td>
<td>7.3</td>
<td>9</td>
<td>9</td>
<td>3.00</td>
<td>0.41</td>
</tr>
<tr>
<td>There has been very little impact to the district.</td>
<td>10</td>
<td>8.6</td>
<td>10</td>
<td>10</td>
<td>2.69</td>
<td>0.31</td>
</tr>
</tbody>
</table>
The response with the lowest coefficient of variation \( (CV=0.24) \) also had the lowest standard of deviation \( (SD=1.28) \). This was the sixth ranked response, which focused on the lack of funds provided to districts for new and improved technology. It received no first, second, or third place rankings and no ninth or tenth place rankings. Its middling rankings, low standard of deviation, and coefficient of variation suggest it does not elicit strong opinions in either directions, with the panelists agreeing it is somewhat accurate, but definitely not the most or least accurate.

**Research Question 2.** The analysis of the responses to the second research question shown in Table 4.8 confirm the perception that predicting the future is difficult and directors of schools and finance directors have a wide variety of opinions on which responses most accurately reflect the next five years in their district. The first and second most highly ranked responses were almost tied in their rankings, with a mean of 3.6 and 3.7 and a median of 3 and 3 respectively. This high and nearly equal ranking suggest Delphi panel members agree strongly that the responses indicating the districts will have to make cuts to pay for mandates and that their needs will not be met are accurate. The most statistically interesting thing about this near tie in accuracy points, median, and mean is that the picture becomes much clearer when mode, standard deviation, and coefficient of variation are added into the equation. The mode of the first ranked response is a 3, indicating that the plurality of individuals scored it as the third most accurate. The mode of the second ranked response is a 1, indicating the plurality scored it as the most accurate. This means more people believe the second ranked response is more accurate than people believe the first ranked response is, revealing a flaw in the system of ranking responses.
<table>
<thead>
<tr>
<th>Statements</th>
<th>Rank</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>The district will have to make cuts to some areas to pay for unfunded mandates from the state.</td>
<td>1</td>
<td>3.6</td>
<td>3</td>
<td>3</td>
<td>1.36</td>
<td>0.38</td>
</tr>
<tr>
<td>The district's needs will not be adequately addressed.</td>
<td>2</td>
<td>3.7</td>
<td>3</td>
<td>1</td>
<td>2.61</td>
<td>0.71</td>
</tr>
<tr>
<td>The district will have to dedicate and increasingly large percentage of funds to serving students with special needs.</td>
<td>3</td>
<td>4.1</td>
<td>4</td>
<td>4</td>
<td>1.70</td>
<td>0.41</td>
</tr>
<tr>
<td>The district will be unable to provide the necessary services to students due to inadequate funding.</td>
<td>4</td>
<td>4.2</td>
<td>4.5</td>
<td>5</td>
<td>2.27</td>
<td>0.54</td>
</tr>
<tr>
<td>The district will be forced to make compromises to maintain a balanced budget.</td>
<td>4</td>
<td>4.3</td>
<td>4.5</td>
<td>2</td>
<td>1.85</td>
<td>0.43</td>
</tr>
<tr>
<td>The district will have to make cuts to teacher positions and instructional programs to make up for continued budgetary strains.</td>
<td>6</td>
<td>5.8</td>
<td>7</td>
<td>7</td>
<td>3.12</td>
<td>0.54</td>
</tr>
<tr>
<td>All areas of operation will be impacted due to the lack of funds.</td>
<td>7</td>
<td>6.5</td>
<td>7</td>
<td>8</td>
<td>1.69</td>
<td>0.26</td>
</tr>
<tr>
<td>The district will not be able to give step raises and may have to cut teacher benefits, hurting its ability to compete in the marketplace and retain quality teacher.</td>
<td>8</td>
<td>6.7</td>
<td>7.5</td>
<td>8</td>
<td>2.10</td>
<td>0.31</td>
</tr>
<tr>
<td>The district will have to continue without any yearly increase in budget from the state, operating at maintenance level only.</td>
<td>9</td>
<td>6.9</td>
<td>8.5</td>
<td>9</td>
<td>3.14</td>
<td>0.46</td>
</tr>
<tr>
<td>It will have very little impact on the district.</td>
<td>10</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>2.68</td>
<td>0.30</td>
</tr>
</tbody>
</table>
The reason the mean and median are skewed for the second response is because the standard of deviation ($SD=2.61$) and coefficient of variation ($CV=.71$) are the fourth highest and highest in the group respectively. The coefficient of variation ($CV=.71$) for the second ranked statement is almost double that of the first ranked ($CV=.38$). The high coefficient of variation provides evidence that there is not a lot of agreement about the accuracy of the perception that the district will not be adequately funded over the next five years. The level of disagreement is much greater than the level of agreement that cuts will have to be made to pay for new mandates, even though that level of agreement placed it as the third most accurate statement. Considering the top ranked response only received one first place ranking and received the bulk of its points from five third place rankings, it seems it would not be as important as the second ranked response, but the low coefficient of variation ($CV=.38$) at the third place rank helped keep it at the top of the rankings. The lowest ranked response, which argued the Basic Education Plan 2.0 (BEP 2.0), “will have very little impact on the district” was by far the lowest ranked, receiving the lowest mean ($M=9$), and a 10 for both median and mode. It averaged a full 2.1 points lower than its next closest ranked response. Considering that is nearly the same gap between the fourth and ninth place responses, it is clearly an unpopular response. This response also had the second lowest coefficient of variation ($CV=.30$), suggesting there was consensus that it was not an accurate representation for most districts. The response with the lowest coefficient of variation was the seventh ranked one, which asserted all areas of the district’s operation would be impacted by the continued budgetary constraints of partial implementation of BEP 2.0. The relatively low accuracy score, combined with the low coefficient of variation ($CV=.30$) suggests there is a relatively strong consensus that this statement is not very accurate for all districts, but not anywhere near the least accurate. The response with the highest standard of deviation was the
ninth ranked response, which argues the district will not receive any additional state funds and will have to operate at a maintenance level. When breaking down the ranking, the large standard deviation makes sense because two experts ranked it as the most accurate statement and the remainder ranked it somewhere in the bottom five responses, with a full half of the members ranking it as the ninth most accurate statement. This broad range from first to ninth, with a heavy plurality in the ninth category explain the high standard of deviation ($SD=3.14$) and moderate coefficient of variation ($CV=.46$).

**Research Question 3.** While perceptions of what a district will face in the future is a challenging concept to agree upon, the analysis of the third research question suggests the experts have slightly more agreement on how to provide financial stability during the partial implementation of the Basic Education Plan 2.0 (BEP 2.0). Table 4.9 demonstrates some areas of significant agreement, as well as areas of little agreement, indicating the perceptions of directors of schools and finance directors across the state perceive their ability and method of solving the problem in a variety of ways. The highest ranked response had a mean of 3, and a median and mode of 2, which indicates the group perceived it to be important enough for at least half of them to rank it in second place of higher. However, it has the highest coefficient of variation ($CV=.83$) of any response to any of the three questions, suggesting there is significant disagreement over where it should be ranked within the responses. Nine of the panelists ranked it in the top four, but spread fairly evenly across those four. The second and fourth highest ranked responses both had a mode of 1, suggesting more panelists thought they were accurate than the first ranked response. The problem is that the ones who did not perceive them to be the most accurate answer tended to rank it toward the middle or back of the pack, creating a smaller number of high votes to increase their ranking.
Table 4.9

Mean, Median, Mode, Standard Deviation, and Coefficient of Variation for Responses to Research Question 3 on Questionnaire 2

<table>
<thead>
<tr>
<th>Statements</th>
<th>Rank</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>The district will have to change focus to only maintaining maintenance levels instead of implementing desired improvements.</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2.49</td>
<td>0.83</td>
</tr>
<tr>
<td>The district must encourage the development local funding sources, such as increased taxes, to overcome budgetary shortfalls.</td>
<td>2</td>
<td>3.5</td>
<td>2.5</td>
<td>1</td>
<td>2.38</td>
<td>0.68</td>
</tr>
<tr>
<td>The district will have to prevent future increases to teacher salary and benefits or find additional funding.</td>
<td>3</td>
<td>4.9</td>
<td>5</td>
<td>5</td>
<td>2.34</td>
<td>0.48</td>
</tr>
<tr>
<td>The district must reduce funds designated for long-term investments and planning.</td>
<td>4</td>
<td>5.1</td>
<td>4.5</td>
<td>1</td>
<td>3.36</td>
<td>0.66</td>
</tr>
<tr>
<td>The district will have to stop current programs or find additional funding.</td>
<td>5</td>
<td>5.6</td>
<td>6</td>
<td>6</td>
<td>2.29</td>
<td>0.41</td>
</tr>
<tr>
<td>The district will have to adapt to having too few administrative positions in the schools.</td>
<td>6</td>
<td>6</td>
<td>6.5</td>
<td>4</td>
<td>2.10</td>
<td>0.35</td>
</tr>
<tr>
<td>The district will have to postpone plans for improved technology infrastructure and newer devices.</td>
<td>7</td>
<td>6.1</td>
<td>6.5</td>
<td>7</td>
<td>2.47</td>
<td>0.40</td>
</tr>
<tr>
<td>The district must plan on stagnant levels of funding.</td>
<td>8</td>
<td>6.6</td>
<td>7.5</td>
<td>3</td>
<td>3.07</td>
<td>0.47</td>
</tr>
<tr>
<td>The district must reevaluate the budget and reallocate funds in a more efficient manner, closing schools if there are more efficient options.</td>
<td>9</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>2.83</td>
<td>0.40</td>
</tr>
<tr>
<td>The district will have to modify its Special Education program to meet students’ needs without additional funds.</td>
<td>10</td>
<td>7.2</td>
<td>8</td>
<td>8</td>
<td>1.72</td>
<td>0.24</td>
</tr>
</tbody>
</table>
The fourth response, which was the assertion that districts would have to reduce funds for long-term planning and investment, was very interesting. Its mode was a 1, meaning the plurality of member’s ranked it as being the most accurate. On the other hand, it had a mean of 5.1 and a median of 4.5. This duality is caused by the fact that the ranking was evenly divided across the spectrum and an equal number of panel members ranked it high as did low, creating an average ranking for a response with multiple first place votes. The mixture of high and low rankings also explains why it has the highest standard of deviation ($SD=3.36$) and a relatively high coefficient of variation ($CV=.66$). The second highest standard of deviation ($SD=3.07$) was from a response in a similar situation. The eighth ranked response has a mode of 3, suggesting a plurality ranked it as the third most accurate, but almost everyone else ranked it in the bottom five, giving it a low rank despite its high mode. The lowest ranked response, which suggested districts will have to modify special education programs without additional funds, had the lowest ranking, a mean of 7.2, median of 8, mode of 8, standard of deviation of 1.72, and a coefficient of variation of .24. All of these are the lowest for all of the responses to the third research questions, with the exception of the mode. The coefficient of variation ($CV=.24$) of the response was even the lowest for all of the responses to all of the questions. The strong low ranking and small standard of deviation (1.72) show there is a consensus among the experts that this statement is not accurate for their district. It did not receive a single vote for a top three ranking, although it did not receive a single vote for a tenth place ranking either. A full half of respondents ranked it as the eighth most accurate statement.

**Degree of Association Among Responses.** Understanding the consensus among experts over how to rank a specific response is a key aspect of the Delphi Method, but it is also important to determine the level of consensus they share about how they rank all of the
responses. Okoli & Pawlowski (2004) suggested using a statistic called Kendall’s coefficient of concordance to find the level of consensus among the panel members. This works well as a tool in the Delphi method because it can evaluate the level of consensus for a large number of variables ranked by a large number of respondents. Other methods of measuring agreement, such as Pearson’s product-moment correlation coefficient only show the degree of association between two sets of variables and would not be adequate for this study. However, Pearson’s product-moment correlation coefficient provides the strength of the association, as well as the amount of agreement, which Kendall’s coefficient of concordance does not do. To remedy this, Spearman’s rank-order correlation can be calculated using Kendall’s coefficient of concordance to provide a measure of the level of strength of panel members’ agreement.

Using these two measures, it is not only possible to determine the amount of agreement between the respondents, but the strength of those agreements, which will provide insight into how the directors of schools and finance directors perceptions vary across Tennessee’s largest districts. Table 4.10 provides the Kendall’s coefficient of concordance and Spearman’s rank-order correlation for each of the three questions. This table adds another dimension from which conclusions can be drawn in order to clarify how the partial implementation of BEP 2.0 has impacted these districts. The first of which is the obvious comparison between each question’s Kendall’s $W$, revealing that the first research question was the highest level of agreement ($W=.30$) and the second question has the lowest level of agreement ($W=.21$). This is an echo of what was revealed in the accuracy scores and the other statistics used previously, because it was clear that the second research question had significantly varied perspectives and little cohesion of opinion.
Table 4.10

*Kendall’s Coefficient of Concordance and Spearman’s Rank-Order Correlation for Research Questions 1, 2, & 3*

<table>
<thead>
<tr>
<th>Question</th>
<th>Kendall’s $W$</th>
<th>Spearman’s $r_s$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Question 1</td>
<td>.30</td>
<td>0.22</td>
</tr>
<tr>
<td>Research Question 2</td>
<td>.21</td>
<td>0.12</td>
</tr>
<tr>
<td>Research Question 3</td>
<td>.23</td>
<td>0.14</td>
</tr>
</tbody>
</table>

This is logical because the question asked experts to predict how their districts will be impacted in the next five years, meaning the lack of concrete data allows for a greater variation in perception. The relatively high ranking of the first question ($W=.30$) is also logical considering it asked the panel members to rank which responses accurately reflect how their district has been impacted, which can be empirically calculated and has less room for disagreement. The third question only has a slightly higher level of agreement ($W=.23$) than the second question, which was somewhat unexpected due to the limited number of options state statutes provide school districts.

Spearman’s rank-order correlation adds an additional level of clarity to the levels of agreement provided by Kendall’s coefficient of concordance, showing the strength of the level of agreement between directors of schools and finance directors across the state. Considering all three are based on the same number of variables and respondents, it makes sense that the measures would reflect each other in size. Again, the research question with the strongest
The correlation of agreement is the first ($r_s=.22$) and the one with the weakest level of correlation is the second ($r_s=.12$). The third question ranked second in the measure, showing a slightly stronger level of agreement ($r_s=.14$) than the second question ($r_s=.12$). Considering Spearman rank-order correlation of 1 is considered perfect positive correlation and 0 is considered no correlation, all three of these levels reflect the existence of a positive correlation. The relatively low strength of these positive correlations suggest there is little consensus among the experts. The reasons for the lack of consensus is a reflection of the continued diversity of perspective shown in all of the statistical analyses performed on the responses to the second questionnaire. While all of the large districts in Tennessee share some attributes and are funded by the Basic Education Plan 2.0 (BEP 2.0), there are unique problems faced by each district, with no two districts perceiving the problem in the same manner.
CHAPTER 5: Conclusion

The methods utilized for funding school districts across the United States are as varied and complicated as the history of how those school systems developed and the people who operate them today. There are dozens of methods of funding schools, with different states and districts using different models and formulas to adequately and equitably fund schools across the states (Fox, Harper, Richards, & Watts, 2008). Tennessee is a unique state in that regard, because it has several different kinds of school districts and each of them has different abilities to raise funds. To compensate for these unique variables, Tennessee created the Basic Education Plan (BEP) and its successor the Basic Education Plan 2.0 (BEP 2.0) to disperse funds in an equitable and adequate manner. This has proven to be difficult because the 140 districts across the state have their own specific problems, populations, legislative bodies, and history. This is even further complicated by the state’s decision to only partially implement BEP 2.0 and not provide the funds promised with full implementation (McQueen, 2015). Many district leaders have argued that this partial implementation of BEP 2.0 does not fairly distribute the funds, causing ongoing lawsuits against the state (Shelby County Bd. of Educ., 2015; Sher, 2016). These lawsuits claim the state is not fulfilling their duty to properly fund schools and the districts’ needs are not being met. Due to Tennessee’s unique funding system and variety of districts, little academic research has been conducted concerning BEP 2.0 and how it impacts school districts and the research conducted in other states is not easily generalizable to Tennessee. This results in a lack of information for policy makers and educational practitioners. Gathering and analyzing
information about the impact BEP 2.0 has on school districts can help shape the policy
discussion going forward.

The purpose of this study is to determine directors of schools and finance directors’
perceptions on how BEP 2.0 has impacted and will continue to impact their districts, as well as
what changes they perceive to be possible to compensate for the current partial implementation
of BEP 2.0. Large school districts were specifically targeted due to the fact the state knew the
additional funds promised for BEP 2.0 would go largely to them in order to offset losses from the
new formula (Bredesen, 2007). Those funds never materialized, which prompted the current
lawsuits. For the purposes of this study, only the largest ten percent of the 140 districts in the
state were invited to participate in the Delphi panel of experts. According to the latest available
population data, these districts include: Shelby County Schools, Metropolitan Nashville Public
Schools, Knox County Schools, Hamilton County Department of Education, Rutherford County
School District, Williamson County Schools, Clarksville-Montgomery County School System,
Sumner County Schools, Wilson County Schools, Sevier County School System, Jackson-
Madison County School System, Maury County Public Schools, Tipton County Schools, and
Robertson County Schools (Tennessee Department of Education, 2014b). A Delphi study was
used because it is designed to gather the perspectives and expert opinions of people with
knowledge not common among the general population. Directors of schools and finance
directors are the two individuals within each district who deal frequently with budgeting and
understand the implications of the BEP 2.0 on their school districts. The 14 directors of schools
and 14 finance directors of the 14 largest districts were asked to participate, attempting to get one
or the other from each district to provide their expert perspective on their district. Of the 14
districts asked to participate in the Delphi panel, ten chose to be included in the study. The five
largest districts were included within these ten. The members of the Delphi panel completed two rounds of questionnaires in an attempt to collect how they perceive the BEP 2.0’s impact on the district and rank the accuracy of the perspective of their peers in large districts.

Three central research question guided the panel’s discussion and the analysis of their feedback. To analyze the narrative and ranked responses, an accuracy score system was developed to provide a collective ranking of the narrative responses. Statistical analyses of the responses to these questions was also performed, using mean, median, mode, standard of deviation, coefficient of variation, Kendall’s coefficient of concordance, and Spearman’s rank-order correlation. These provided a qualitative examination of school leaders’ perceptions of BEP 2.0. The three research questions on which these methods were used are:

1. What is the impact on large Tennessee school districts of the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)?

2. What are directors of schools' perceptions of the impact partial implementation of the Basic Education Plan 2.0 (BEP 2.0) will have on large school districts over the next five years?

3. What do directors of schools perceive to be possible changes they could make over the next five years to provide financial stability under the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)?

These questions were utilized on the instruments sent to leaders in both the first and second rounds of the Delphi study, providing an opportunity for leaders to provide insight into how BEP 2.0 has and will continue to impact their districts. This chapter discusses and summarizes the findings concerning these questions, offers conclusions about the study as a whole, implications of the collected data, and recommendations for further study.
Summary and Discussion of the Findings

The Delphi panel members provided perspectives that varied as much as their districts do. Considering the large differences in demographics, population, and socioeconomic level among the ten participating districts, this is not a surprise. Ranking and using statistical analysis allowed for underlying similarities and differences to be exposed within the feedback provided on the instruments in both the first and second rounds of the Delphi study. In order to summarize these perspectives, it is helpful to break down the responses to each of the research questions because they are essentially asking different questions with different implications.

Summary of Research Question 1. The general trend among responses to this question was how clearly unhappy the directors of schools and finance directors are about the current partial implementation of the BEP 2.0. The reasons for being unhappy varied from district to district, including: underfunded mandates for new technology, an inability to keep up with changes in best practices in instruction, and not fully funding positions for English Language Learner teachers and special education faculty and staff. Some leaders compared themselves to others districts, lamenting their inability to properly fund teacher salaries at a competitive level to recruit the best and brightest teachers. District leaders also mentioned the nature of the BEP 2.0 is inherently unfair, using metrics to measure a district’s ability to pay which do not properly or realistically relate to their actual ability to raise funds. Overall, it is clear that the level of funding available through BEP 2.0 is unacceptable to the districts, although a minority of the leaders from large districts claim the impact has been relatively small.

The common themes within the responses to the first questionnaire focus on the lack of adequate funding to go along with the changes in the formula that were adopted with the passage of BEP 2.0. Leaders from five districts stated they had budgetary gaps caused by the partial
implementation and three said they needed to increase funding to cover the increasing costs of educating English Language Learners and children with special needs. These concepts were common across the state, indicating a widespread need for additional funds to properly meet the needs of all the district’s students. From the broad need for more money, the perceptions of leaders started to broaden dramatically, with few other concepts being shared across the board. For example, funding technology has been a major concern in Tennessee as the computer needs to administer TNReady have resulted in the need for large technology funds, yet a leader from only one district mentioned this concern in the first round of questioning. The Delphi method is designed to address the lack of consensus in the first round by allowing experts to discuss the responses from the first round, including the responses they did not think of themselves.

This discussion occurs in the second round, in which the directors of schools and finance directors of the districts are given the opportunity to rank their responses along with the responses of their peers in other districts. The response which received the highest ranking during this round scored 80 of a possible 100 points on the accuracy scale, indicating a relatively strong agreement that it was important. It received three first place votes, which suggests the leaders perceive the lack of promised funds as the largest impact the partial implementation of BEP 2.0 has had on their district. Other evidence, including the current lawsuits pending against the state indicate this is a serious problem for the districts. The responses ranked after this show a continuing trend in the perceptions of leaders, with specific needs and areas of concern being impacted coming in the next several places. The lowest ranked response on the second questionnaire, which states the partial implementation had very little impact on the district, had six tenth place rankings indicating a majority strongly believed it was not accurate for their district. Only one leader ranked it in the top five of responses, which is interesting considering
two panel members mentioned it in response to questionnaire one. This demonstrates another advantage of the Delphi method because it allows leaders to reevaluate their opinion when faced with the opinions of their peers in other districts. Some panelists disagreed on whether partial impact had been a positive or negative impact upon their districts, with some ranking statements about the need to fully implement highly and others ranking those same statements in a low position. The clear majority ranked statements that encourage full implementation and full funding the highest.

Statistical analysis of these rankings confirms the impression the accuracy score presented. The argument that stated the “funds promised along with BEP 2.0 have not been provided” had a mean of 3, median of 3, and a mode of 1. All three of these measures were the highest of any of the responses, indicating the leaders agree it has had the greatest impact upon the districts. The need for new technology without the funds to pay for it, which was only mentioned once in the first questionnaire, was interestingly ranked sixth, but had a very low coefficient of variation ($CV=0.24$), indicating there was an agreement that it was moderately accurate for the large districts. The statistical analysis revealed additional interesting trends, such as the relatively low levels of agreement on responses ranked highly. These responses dealt with specific problems and areas of concern, which suggests the panel members view these problems as being more accurate than other, but without clear certainty on the order in which they should be ranked.

While it is clear panel members had varying perceptions on what the impact of partial implementation of BEP 2.0 had been on their district, the rankings they gave to these responses were the most cohesive of any of the three research questions, receiving a Kendall’s coefficient of concordance of .30. This indicates a clearer level of agreement exists among the directors of
schools and finance directors about what the impact has been on the districts than what it will be or what can be done about it. This relatively high level of cohesion could be due to the fact that the past impact is empirically quantifiable, allowing respondents to answer the question with more certainty. The responses to this question also had the highest Spearman’s rank-order correlation ($r_s=-.22$), indicating the level of agreement between respondents was not only the highest, but the strongest positive correlation. However, a Spearman rank-order correlation of .22 is still relatively low, indicating that its rank as the research question that is most correlated does not properly reflect the still large amount of variation among respondents.

**Discussion of Research Question 1.** Although there exists a lot of variation in opinion among the panel members, the results of the data analysis still provide insight into how leaders perceive the partial implementation of BEP 2.0 has impacted large districts. The theoretical framework used for this research project is the advocacy coalition framework, which analyzes how experts and interested parties work within the governmental system to enact changes in public policy (Weible, Sabatier, & McQueen, 2009). Using this framework, the first research question is answered using the Delphi method. The responses given in the first questionnaire and the subsequent ranking of those responses indicate the specialized actors within the state, which are the directors of schools and finance directors, perceive a lack of promised funds to be the most accurate impact from the partial implementation of BEP 2.0. The leaders also answered the research question by suggesting they perceive it has caused an inability of districts to properly fund the hiring and retention of high-quality teachers, a lack of funds to properly operate the districts, and a lack of funds to meet the needs of specific high-cost populations of their students. The frustration of a lack of funds can be summed up by one of the panel member’s response, which argues the state government has relegated the responsibility of funding schools to local
governmental bodies while simultaneously adding additional costly mandates, resulting in an unsustainable situation for the large districts. The perceived impact on the districts’ budgets and in all areas discussed in response to the first question have shaped lawsuits pending against the state and help inform their answers to the second and third research questions.

**Summary of Research Question 2.** This question asked directors of schools and finance directors from the largest school districts what they perceive the impact upon their districts will be over the next five years if there is no change to the partial implementation of BEP 2.0. Asking experts to predict the future is one of the valuable attributes of the Delphi method because it allows researchers to question a variety of knowledgeable individuals and look for trends within their responses to determine what they perceive the most likely occurrences to be. This did result in less consensus among responses than was seen in the first research question, but there were still clear themes in how the panelists responded to the questionnaires. The focus was on how the ongoing budgetary complaints would impact instructional and financial programs in the districts, indicating the lack of funds which was identified as the primary impact will continue to be the focus of concern for the next five years. The leaders suggested in the initial round of responses that multiple areas of their operation will be impacted, including teacher salaries and even instructional programs. The perception was that there is no room left to make cuts that will not impact the instructional mission of the districts. The general impression from the first round indicated that the budget levels would likely stay the same over the next five years, even as costs continued to increase. This is supported by the number of statements arguing the necessary funds for growth will not be available. Eight of the ten responses related in some way with the lack of funds needed to balance the budget and maintain desired levels of education. Unlike the first question, there were fewer district leaders mentioning the same problems on the first
questionnaire, with no more than two districts leaders mentioning the same perceived future impacts. Three district leaders focused on how the tight budget will be continually strained due to unfunded mandates from the state and increasing staffing costs. Several of the large districts operate on the border with other states, which resulted in two of their leaders mentioning the competition for quality teachers being hampered in the future by budgetary shortfalls. The variety of responses to this question provided insight into the different priorities and perspectives of the panel members.

Along with having a large variety of independent assessments from directors of schools and finance directors, how they ranked the responses in the second questionnaire showed a relatively large amount of disagreement about what the future will hold for the large district. The top two responses were closely ranked and both focused on the lack of funds to adequately meet state requirements and the district’s needs. The remainder of the top five ranked responses all deal with similar issues and are not ranked that much lower than the top two, indicating the leaders are concerned with how the district will meet its obligations and goals with the limited funds being provided by the partial implementation of BEP 2.0. Nine of the ten district leaders ranked the response dealing with them being able to fund state mandates within their top five most accurate statements, suggesting the budgetary experts believe these mandates will cause a significant impact upon the large districts. The response with the clearest consensus ranking to this question suggested the partial implementation of BEP 2.0 will not have an impact on large school districts in the next five years. Eight of the ten respondents ranked that as their tenth most accurate statement, indicating the panel agreed that it is not accurate.

The statistical analysis of the rankings confirmed the perception that the leaders are varied in their perceptions of the future. The mean of the first response (3.6) and the second
response (3.7), as well as the tied medians (3), indicated the panelists agree both of those statement should be ranked highly, providing evidence for the argument that cuts will occur, and it will be a challenge to meet the needs of the district over the next five years at current levels. More panel members ranked the response that stated “the districts’ needs will not be adequately addressed” as the most accurate statement. However, some low rankings prevented it from being ranked the highest overall, showing the value of the statistical analysis. It reveals that this response had a relatively high coefficient of variation ($CV=0.71$), while the highest ranked response had a relatively low coefficient of variation ($CV=0.38$). This happened because all but one person ranked the first response in the top five and three ranked the second response in the bottom five, causing a higher coefficient of variation and lower score overall. Regardless of the final lineup, the large number of high rankings for each of these statements revealed that directors of schools and finance directors hold them both to be accurate for their large school districts. The analysis using statistics confirmed the perception that school leaders do not agree with the response asserting the BEP 2.0 will have very little impact on the districts. The mode and median for this response were both 10, and it had a very low coefficient of variation ($CV=0.38$), suggesting the panel agrees strongly that this response is not accurate.

The difficulty of predicting the future and the uncertainty that effort creates was again confirmed by calculating the Kendall’s coefficient of concordance and Spearman’s rank-order correlation for this research question. It had the lowest Kendall’s coefficient of concordance ($W=0.21$) of the three questions, which indicated the panel members had the lowest level of agreement in how to properly rank the responses to this question. This suggests that the unique factors and variables across the school districts prevents a clear consensus for the future. The rankings also resulted in the lowest Spearman’s rank-order correlation ($r_s=0.12$) of any of the
questions, suggesting the strength of the small amount of agreement the panelists came to is weak.

**Discussion of Research Question 2.** The varied responses and perceptions to answers of this question do not prevent observations from being made. For example, the directors did agree that cuts are going to have to be made and the districts are unlikely to be able to continue their current educational programs. These perceived possibilities have real impacts on the education of students. One panelist responded that since the first round of research was completed, the prediction made for that district has already happened, removing funds from and enrichment program to balance the budget. The conceptual framework of this research is progressivism and its application to the “why” of education (Dewey, 1916). The Delphi panel member’s perceptions of impending cuts to the programs and people at the center of answering that “why” reveal an important reality for policy makers and educators across the state. The majority of the highly ranked responses to what impact the partial implementation of BEP 2.0 will have over the next five years focus on the budget cuts and compromises that will impede the districts from carrying out their essential civic goals of offering excellent educational opportunities to all of their students, including English Language Learners and students with special needs. While there is a lot of disagreement over which statements are most accurate, it is clear that the majority of experts agree that the continued partial implementation will have an impact.

**Summary of Research Question 3.** Directors of schools and finance directors have various options to help provide financial stability to their districts. Identifying and understanding how they perceive those options is the intent of the third research question. This is an interesting question because the political and financial differences among the large districts impact what their leaders view as possible recourses and their willingness to utilize them. All of these options
have an impact on the districts’ ability to educate students and fulfill mandated operations. The perception of the experts is that any of the options necessitated by the partial implementation of BEP 2.0 will be unpleasant. Not all of the options suggested by the leaders were cuts. Some of them suggested not making any new improvements or implementing non-mandated programs until the funding levels improved. However, multiple district leaders made it abundantly clear in their responses to the first questionnaire that there are no optional areas left, having been cut to continue operations until this point and any new mandates from the state will result in cuts to essential areas that are not legally mandated. Panel members discussed the fact that the law removes a lot of options from their hands, requiring a balanced budget and forcing very difficult compromises. The experts mentioned the newly mandated technology in response to the first two questions, but also mentioned their desire to have additional technology in this question. An example provided to answer this question was one district leader’s choice to not buy new textbooks this year in order to fund the purchase of new computers to prepare students for TNReady testing. The regret at having to delay purchasing books to fund computers did not prevent that same leader from expressing his desire to implement even more technology in the classroom to better prepare students for the modern world and the regret that funds to do that are simply not available. Generally, these kinds of compromises and cuts were what was suggested by experts in order to compensate for the lack of funds. Some suggested working with local governments to raise taxes or institute new taxes to fund the gaps, but others argued that this was rarely popular with elected officials in those districts. The only area with three districts agreeing in the first round of questioning was that maintenance levels are the only possible method to operate until more funds are provided. Many districts have had to operate at this low level of funding since BEP 2.0 was passed seven years ago, meaning there is no room for additional cuts,
even further limiting their options. Some of the district leaders feel they are being backed into a corner and will eventually be unable to continue functioning, which has resulted in lawsuits against the state (Shelby County Bd. of Educ., 2015; Sher, 2016). Two district leaders discussed the possibility of closing schools in an effort to redistribute funds to where they are most efficient, closing neighborhood schools that are not as efficient as the large and centralized schools.

When the second questionnaire returned rankings of the positions presented in the first questionnaire it became obvious there are some perceptions that panelists feel very strongly about, while significant disagreement remains in other areas. One of these areas of strong agreement was the top ranked answer, which is the option of operating at a maintenance level and not implement new programs. All but one district leader ranked this response as one of the top five, suggesting a relatively high agreement that this option is an accurate one for large districts. The second ranked option actually received more first place rankings, with 3 district leaders ranking it as the most accurate option. It presents the idea that districts can overcome budgetary gaps by encouraging the development of new or increased local funding sources. This also received several rankings in the bottom half, which indicates not all of the leaders agree that this is a good option, probably recognizing the political difficulty of raising taxes mentioned in response to the first questionnaire. The option which received the lowest rank had zero last place rankings, but only one top five ranking, suggesting a fairly high level of agreement that the response is not an accurate option. This is likely because making changes to special educational programs, which the response focuses on, is not feasibly in many situations because those programs are tightly regulated and must meet strict guidelines of compliance.
The analysis of how Delphi panel members ranked these responses provides evidence that there are areas of strong agreement and more unclear areas. Unlike the first ranked response to the first and second research questions, the first ranked response to this question had a lower level of agreement. Its median was a very high 2, indicating at least half of the respondents ranked it as the second most accurate or higher. However, it had a coefficient of variation of .83, indicating this high ranking was not shared by everyone and at least one person seriously disagreed with it. This suggests that a majority see operating at a maintenance level and forgoing any new programs is a viable option for their district to make it through the partial implementation of BEP 2.0, but that is not a unanimous perception. According to the statistical analysis performed on the rankings, more experts believed that finding additional funding sources or reducing funds for long term investments was the most accurate response for their district. However, both of these responses also earned several lower rankings. The dichotomy of these high and low rankings earned them high coefficients of variation, with the second ranked response earning a .68 and the fourth ranked response earning a .66. This indicates a large amount of disagreement exists over whether these options are accurate for large school districts. The lowest coefficient of variation for all of the responses to all of the research questions was the tenth ranked response to this question, earning a .24. This low number indicates a high degree of agreement between the experts that this option should be ranked lowly and modifying special education programs is probably not a good option for large school district to overcome budgetary constraints. Although it ranked tenth overall, it oddly did not receive a single tenth place ranking. It seems that all of the experts believed there were worse options, but none were so collectively rejected as this one.
The large amount of disagreement seen in the coefficients of variation is supported by the low level of the Kendall’s coefficient of concordance, which was a .23. While this is higher than the level of agreement achieved by the second research question, it is still not a very large level of agreement. This supports the observation that the directors of schools and finance directors of the large districts disagree on the best method of maintaining financial stability. The relatively low Spearman’s rank-order correlation ($r_s=.14$) confirms this once more, implying the agreement that does exist is a weak level of agreement. The lack of clear agreement does not indicate there are no areas of agreement, such as the agreement that modifying special education programs to balance the budget is not perceived to be a good option.

**Discussion of Research Question 3.** Rejecting the option of modifying special education programs to balance the budget is only one policy perception that can be taken from the expert panel’s responses to this research question. The advocacy coalition framework used to gird this research is centered around the idea that policy experts and advocates are responsible for changes to public policy and studying their interactions can help understand how policy is made (Weible, Sabatier, & McQueen, 2009). This process is precisely what can be seen in these responses. Experts in school finance suggested possible actions that could be taken to overcome budgetary constraints and then weighed their peers’ responses to determine what the best options are. The most highly ranked option is to operate at a maintenance level and delay the implementation of any new programs. As far as public policy is concerned, maintaining the status quo is a logical position to take when no new funds are available. This leads to the second most highly ranked option, which is to create areas of additional revenue. This process of determining changes that can be made to address social need exemplifies the process of public policy development. According to these experts some of the policies that could result from the partial implementation
of BEP 2.0 could include maintaining the status quo, increasing taxes, reducing investments, postponing salary increases, or terminating current programs.

Conclusions

While little agreement exists among how the Delphi panel ranked the responses, more and less popular perceptions became evident, suggesting there are common perceptions among several district leaders. Directors of schools and finance directors largely agree with the perception that the funds promised in Basic Education Plan 2.0 (BEP 2.0) have not been provided and that they are unable to properly fund the salaries needed to hire and retain high-quality teachers. They perceive that cuts will have to be made in order to pay for unfunded mandates in the next five years and that the needs of their districts will not be adequately met. Opinions on how to handle the budgetary shortfall center around maintaining the status quo, delaying the implementation of new programs, and encouraging the development of local funding sources.

The lack of a clear consensus in how to rank responses to the research questions is not necessarily an indication of the failure of the Delphi process, but of the unique manner in which Tennessee funds its schools and the wide variability among the largest districts in the state. Each of the ten districts that chose to participate in this study have different populations, socioeconomic levels, ability to raise funds, and demographics. This results in ten very different perceptions of how the partial implementation of BEP 2.0 impacts the districts. For example, some of these districts would gain money if full implementation were enacted while others would lose. However, that provides additional support for the accuracy of the highly supported perspectives because they are so widespread they supersede these divisions and differences among the districts. The vast majority of district leaders agree the partial implementation of BEP
2.0 has had and will continue to have a significant impact on large school districts across the state. The impact on these districts cannot be understated, especially considering these districts educate 55.8% of all students in Tennessee (Tennessee Department of Education, 2014b).

**Implications**

Generalizing research about school funding and formulas for redistributing funds to Tennessee is difficult due to the fact Tennessee operates its school districts in a completely unique manner (Fox, Harper, Richards, & Watts, 2008). In the same manner, generalizing the findings of this research on the perceptions of directors of schools and finance directors is not possible. However, for the state of Tennessee, these findings can serve as evidence to policy makers and educational practitioners within the large districts. Understanding the serious implication of the continued partial implementation of the Basic Education Plan (BEP 2.0) should help them develop new policies to overcome the negative impact on large districts and can serve as a source of encouragement to increase funding levels to what district leaders perceive to be more adequate. The responses to the third research question can also provide suggestions to other school finance leaders throughout the state about how they might be able to create greater financial stability for their district without relying on the state to act. The fact that there is no clear consensus among school leaders suggests another area for lawmakers to address, which is that the funding formula instituted by BEP 2.0 and only partially implemented currently does not adequately address the significant differences among Tennessee’s school districts. This should be addressed to better meet the needs of all citizens in all school districts. As the pending lawsuits against the state will add to the legal precedent already set by school lawsuits in the state and across the country, having a greater understanding of the perceptions of the leaders involved in those cases help policy makers and practitioners understand each other’s positions.
and the implications of those positions. Although this specific information is not generalizable across the country, using the Delphi method to gauge the perceptions of directors of schools and finance directors about funding policies is. It should be applied in other situations to help create a consensus among stakeholders before new policies are implemented.

**Recommendations for Future Research**

The process of developing the original and second iterations of the Basic Education Plan (BEP) started with lawsuits from small school districts in Tennessee (Tennessee Department of Education, 2014). Repeating this process of using the Delphi method to understand how directors of schools and finance directors perceive the impact of the partial implementation of the Basic Education Plan (BEP 2.0) in small school districts would add more depth and paint a clearer picture of BEP 2.0’s impact. Expanding the pool of participants to all 140 districts in the state would create an interesting scenario to observe the major differences in perspective that comes with drastic differences in the districts’ situations. It would also allow policy makers in the state government to understand how leaders across every district in the state perceive BEP 2.0. Performing the study in other states would also provide a greater understanding of each of their individual methods of school funding, strengthening the public policy literature concerning school finance. The advocacy coalition framework would specifically benefit from this by observing how the perceptions of school administrators are shaped and shape public policy.
References


may-prompt-tax-increase


Plessy v. Ferguson, 163 U.S. 537 (1896).


Tennessee Code Annotated § 49-2-301


Routledge.

U.S. Const. amend. X.


Appendices
Appendix A: Letter to Participants
Dear Name:

You are invited to participate in a Delphi research project entitled Tennessee's Funding Model in Large Districts. I am currently a doctoral candidate in pursuit of my Ed.D. in Educational Leadership at Carson-Newman University. The purpose of my project is to determine the perspectives school leaders in large districts hold of Tennessee's funding formula.

This Delphi study is designed as a two-part questionnaire. The first part is intended to gather experts' opinions and perspectives on how the partial implementation of the BEP 2.0 has affected and will continue to affect their districts if nothing changes, as well as any suggestions they might have to fix some of these problems. The second questionnaire will be designed after the answers are collected from the first and will ask the experts to rank the responses from the first and provide a rationale from those responses.

In total, answering these questionnaires should take no more than 30 minutes of your valuable time. The questionnaires ask only for your general perceptions. More specific information will be greatly appreciated, but any response will help increase understanding of how the funding formula affects large districts. It is important to note that all identifying information will be removed from the data and there will be no source indicated for specific responses.

If you choose to participate, please return the questionnaire in the enclosed envelope or fax it to 865-609-6819 as soon as possible.

If you would prefer and electronic format, the questionnaire is available on my website: www.AndrewJacksonTN.com/dissertation.

If you have any questions or concerns, please contact me:
Phone - 865-471-8494
Email - aajackson@cn.edu

Sincerely,

Andrew Jackson
Appendix B: Questionnaire 1
Tennessee's Funding Model in Large Districts: Perceptions and Implications

Questionnaire 1

District: _________________________

Name: __________________________  Position: ____________________________

Question 1:
What do you perceive to be the impact on your district of the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)? Please answer as thoughtfully and thoroughly as possible.

Question 2:
What are your perspectives of the impact partial implementation of the Basic Education Plan 2.0 (BEP 2.0) will have on your school district over the next five years? Please answer as thoughtfully and thoroughly as possible.

Question 3:
What do you perceive to be possible changes you could make over the next five years to provide financial stability under the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)? Please answer as thoughtfully and thoroughly as possible.
Appendix C: Questionnaire 2
Questionnaire 2

Please rank the panel’s responses to each of the following questions, with 1 being the statement you perceive to be most accurate and 10 being the statement you perceive to be least accurate.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Funds promised along with BEP 2.0 have not been provided.</td>
</tr>
<tr>
<td>2</td>
<td>The needed increase to funding for ELL and other special areas has not been provided.</td>
</tr>
<tr>
<td>3</td>
<td>The district has adopted new best practices without state funding to support them.</td>
</tr>
<tr>
<td>4</td>
<td>Large budgetary gaps have developed between funds needed for proper operation and available funds.</td>
</tr>
<tr>
<td>5</td>
<td>New and improved technology has not been funded at necessary levels.</td>
</tr>
<tr>
<td>6</td>
<td>Funding levels required for the salaries needed for hiring and retaining high-quality teachers have not been provided by the state</td>
</tr>
<tr>
<td>7</td>
<td>The district lost funds and has not been able to fully recover them from local sources.</td>
</tr>
<tr>
<td>8</td>
<td>Partial implementation prevents the gain the district would experience under full implementation.</td>
</tr>
<tr>
<td>9</td>
<td>There has been very little impact to the district.</td>
</tr>
<tr>
<td>10</td>
<td>The design of BEP 2.0 means the fiscal capacity of the district is being improperly calculated.</td>
</tr>
</tbody>
</table>
Question 2:
What are your perspectives of the impact partial implementation of the Basic Education Plan 2.0 (BEP 2.0) will have on your school district over the next five years?

<table>
<thead>
<tr>
<th>Rank</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All areas of operation will be impacted due to the lack of funds.</td>
</tr>
<tr>
<td></td>
<td>The district needs will not be adequately addressed.</td>
</tr>
<tr>
<td></td>
<td>The district will be forced to make compromises to maintain a balanced budget.</td>
</tr>
<tr>
<td></td>
<td>The district will be unable to provide the necessary services to students due to inadequate funding.</td>
</tr>
<tr>
<td></td>
<td>It will have very little impact on the district.</td>
</tr>
<tr>
<td></td>
<td>The district will not be able to give step raises and may have to cut teacher benefits, hurting its ability to compete in the marketplace and retain quality teacher.</td>
</tr>
<tr>
<td></td>
<td>The district will have to make cuts to some areas to pay for unfunded mandates from the state.</td>
</tr>
<tr>
<td></td>
<td>The district will have to dedicate and increasingly large percentage of funds to serving students with special needs.</td>
</tr>
<tr>
<td></td>
<td>The district will have to continue without any yearly increase in budget from the state, operating at maintenance level only.</td>
</tr>
<tr>
<td></td>
<td>The district will have to make cuts to teacher positions and instructional programs to make up for continued budgetary strains.</td>
</tr>
</tbody>
</table>
Question 3:
What do you perceive to be possible changes you could make over the next five years to provide financial stability under the partial implementation of the Basic Education Plan 2.0 (BEP 2.0)?

<table>
<thead>
<tr>
<th>Rank</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The district will have to stop current programs or find additional funding.</td>
</tr>
<tr>
<td>2</td>
<td>The district will have to prevent future increases to teacher salary and benefits or find additional funding.</td>
</tr>
<tr>
<td>3</td>
<td>The district will have to postpone plans for improved technology infrastructure and newer devices.</td>
</tr>
<tr>
<td>4</td>
<td>The district will have to adapt to having too few administrative positions in the schools.</td>
</tr>
<tr>
<td>5</td>
<td>The district will have to modify its Special Education program to meet students’ needs without additional funds.</td>
</tr>
<tr>
<td>6</td>
<td>The district will have to change focus to only maintaining maintenance levels instead of implementing desired improvements.</td>
</tr>
<tr>
<td>7</td>
<td>The district must reevaluate the budget and reallocate funds in a more efficient manner, closing schools if there are more efficient options.</td>
</tr>
<tr>
<td>8</td>
<td>The district must encourage the development local funding sources, such as increased taxes, to overcome budgetary shortfalls.</td>
</tr>
<tr>
<td>9</td>
<td>The district must plan on stagnant levels of funding.</td>
</tr>
<tr>
<td>10</td>
<td>The district must reduce funds designated for long-term investments and planning.</td>
</tr>
</tbody>
</table>

Please provide a rationale for your order on the back of each question’s page.