Effective Uses of CSP Grant Funds in Tennessee Charter Schools

Leigh Webb and Andrew Williams

Lipscomb University

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Effective Uses of CSP Grant Funds in Tennessee Charter Schools

By

Leigh Webb

Andrew Williams

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7/15/13
Tracey S. Hebert, Ph.D.
Director, Doctor of Education

7/19/13
Roger W. Wiemers, Ed.D.
Ed.D., Capstone Faculty Advisor

7/19/13
Keith Nikolaus, Ed.D.
Juried Review Committee Faculty Member

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Leigh Webb

Andrew Williams

Doctor of Education

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Dedication

This dissertation is dedicated to our families who granted us patience and support during this research process while understanding the time commitment and sacrifice it would take from all of us. Thank you for your love and support and may our dedication to this process and degree be a symbol of life-long learning to our children and future generations of our families. It is from the light of our children's eyes that we draw inspiration to evoke change in the field of education.

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Abstract

The topic of educational spending and its connection to student achievement was long-debated before charter schools entered the conversation. With the rise in government spending on education, particularly charter school funding, the financial debate has strengthened and evoked much controversy. Though the Tennessee Department of Education (TNDOE) had some of the most demanding charter school laws in the country in 2011, it wasn't immune to the firestorm of debate as the number of open charters grew to forty-nine during the 2012-13 school year. Along with the charter school movement in Tennessee came the issuing of charter school grants. To assist in the opening of charter schools in the state, the TNDOE began distributing $600,000-700,000 allotments of a $22 billion United States Department of Education Charter Schools Program (CSP) grant. Charters could apply for a CSP grant to offset start-up costs associated with opening a charter to supplement the basic education funding (BEP) given to each school based on student enrollment.

This research evaluates the CSP grant spending in six Tennessee charter schools serving grades 5-8 during each year of the three-year life of the grant while evaluating spending patterns into the categories of instruction, supplies, facilities, and technology. While evaluating only CSP grant spending in the school's total budget, findings from this research suggest that year one targeted spending in the area of instruction from CSP grants in Tennessee has a positive correlation with student achievement and school sustainability.

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Introduction

Very few educational topics have received more public and media attention in the past decade than the issue of charter schools. At the core of the charter school debate is educational spending and the maximizing of every dollar for the highest educational benefit for students of all backgrounds. Tennessee's entry into the charter debate came over a decade after the first charter laws were passed in Minnesota ("Charter Schools Annual Report," 2011, p. 4). Charter schools in Tennessee are defined as "public schools operated by independent, non-profit governing bodies that must include parents" ("Charter Schools Annual Report," 2011, p. 2). This was done with three core-operating principles: parental freedom and choice, competition or "market forces," and localized control of operations (Murphy & Shiffman, 2002, p. 5). In 2009, Tennessee charter laws were amended to allow students from low-income families to qualify to attend charters in the state's largest districts. Another amendment in 2011 removed the limit on the number of schools that could be opened in the state and revoked the student eligibility requirements. Another of the larger milestones in the Tennessee charter movement included the state's receipt of Race to the Top and private funds to enable charter growth and to create thousands of additional seats in successful charters serving low-income students ("Charter Schools Annual Report," 2011, p. 4-5).

Tennessee is recognized as having one of the most demanding academic charter school laws in the country ("Charter Schools Annual Report," 2011, p. 4). The Tennessee Department of Education, Charter Division administers a $22 million Charter Schools Program (CSP) grant for the U.S. Department of Education. Start-up charter schools may apply for funds to offset their initial costs since Basic Education Program (BEP) funds are generally insufficient to meet schools' operational costs until after the first year of operation. Charters receive BEP funds

starting in August of the year they open, but that year's BEP payments are spread into ten payments. Each payment is not enough to cover overhead, and thus grant funds are needed to finance start-up. The office of Charter Schools doesn't know what strategies successful charter schools have used to maximize effectiveness and efficiency, and its current ability to provide guidance to grant applicants is stifled. The information provided within this research will bridge the knowledge gap between resource allocation and success of charter schools and students.

Research Problem

Charter school grant recipients plan, receive, and spend grant funds in different ways resulting in a variety of outcomes. The strongest connections among spending, performance and sustainability have yet to be determined. This study will examine how individual charter schools in Tennessee are spending CSP grant funds and the connection of their spending to academic achievement and fiscal sustainability. At the time of the study twenty-four charter schools were operative and receiving CSP grant funds. Seventeen of these twenty-four charters specifically work with students in grades 5-8. Out of these seventeen charters, fifteen completed the three-year life of the grant and were still in operation at the time of the study. Two schools were not able to reach sustainability without the grant and were no longer in operation. Success of these schools and students greatly varied within and outside the life of the grant, adding complexity to the study. Research is needed to determine the tie between resource allocation and the success of charters and their students.

Purpose of the Study

This study sought to determine how individual charter schools in Tennessee are spending CSP grants with examinations of outcomes in academic achievement and fiscal sustainability. The purpose of this study was to determine the most effective use of CSP grant funds as

measured by student achievement, the ability of the charter schools to remain fiscally self-sufficient after the three-year life of the grant, and the perception of teachers and school leaders within each charter. This research will provide direction for structuring grant applications and provide helpful guidance to individual public charter school grant recipients as they apply for $600,000 or $700,000 over a three year period and plan for sustainability after the grant life expires. The total percent of a Tennessee charter school's overall budget that is comprised of the CSP grant greatly varies by school as well as by year of implementation. Opening charters who qualify for the CSP are funded through CSP and BEP funds in addition to any other grants and donations they may receive. Often the amounts of those donations and other outside grants also vary from year to year. BEP funds are allocated to charters based on the total enrollment and are based on a per pupil expenditure. This research, focusing on the CSP grant budget allocations and the connections to student achievement and school sustainability, will be distributed to current and future grant recipients or applicants as guidance for their own planning and implementation.

The aim of this research was to closely examine the use of CSP grants by all Tennessee charters to determine commonalities in schools with the highest student achievement and those with the lowest student achievement in addition to those who reach financial sustainability after the life of the grant. Qualitative and quantitative data were collected as school culture, technology use, staffing, and student success measures were evaluated with budget expenditures.

Theoretical/Conceptual Framework

The growing number of charter schools in the United States has generated a list of specific questions among public policy makers, parents and students. This has resulted in rapid growth in charter school research looking at student achievement data and fiscal accountability.

In the public educational sector increased student achievement in connection with tighter budget control is a desired goal. The current charter school research has not linked the interconnection of four specific areas: resources, instructional spending/allocation, achievement data, and sustainability. This research grew from the necessity to link these important areas, as illustrated in Figure 1. The design of charter schools has had a greater focus on financial autonomy, innovative practices, and "distinctive educational philosophies" (Buddin & Zimmer, 2005, p. 351). They remain publicly funded though they operate outside direct regulation of school districts. Even with this innovation and autonomy, there is no current research to gauge sustainability as it pertains to student achievement, effective educational strategies, and allocation of funding.

Odden, Archibald, and Fermanich (2003) created a structure specifically designed to look at school-level expenditures. It consists of certain elements that make up the core components of nearly all school-wide educational strategies and the most commonly referenced expenditure components in school finance discussions (Odden et al., 2003, p. 327). The framework broadly viewed spending in nine expenditure elements with seven pertaining to instruction. The nine categories were core academic teachers, specialist and elective teachers, extra help for students, professional development, other non-instructional staff, instructional materials and equipment, student support, administration, and operations and maintenance (p. 331-334). This framework served as a basis for the current research as this team of researchers evaluated expenditures. CSP spending was categorized using this framework, then placed in one of four broader spending categories: curriculum/instruction, facilities/operation, supplies/equipment, and technology software/equipment. The categories of spending using the aforementioned indicators would be correlated with indicators of school success. Resource spending and allocation specifically on

educational strategies may affect student achievement outcomes thus making the organization more viable and sustainable. Funding drives instructional spending, which may be directly related to student achievement. Stakeholders perceive sustainability with student achievement. Funding outside of instructional allocation, i.e. physical building space, utilities, etc., also relates to sustainability as demonstrated by their model.

Research Questions

1. What funding implementations correlate with high student achievement in the studied charter schools?
2. What allocation of CSP grant funds, while under the CSP grant creates the most effective charter school?
3. What is the most effective use of CSP grant funds during the first three years of a Tennessee charter school's existence as perceived by teachers and school leaders in schools that have completed the three-year life of the CSP grant?

Hypotheses

1. Charters that spent over 50% of their CSP grant funds on instruction showed sustainability by maintaining their charter existence after the three-year life of the grant.
2. Charters that spent over 50% of their CSP funds on instruction had higher percentages of proficient and advanced scores in both TCAP math and reading assessments combined for grades 5-8 than schools that spent lower percentages on instruction.
3. Charters that spent over 50% of their CSP grant funds on instruction had a higher percentage of proficient and advanced scores on the TCAP reading assessment in grades 5-8 than schools that spent lower percentages on instruction.

4. Charters that spent over 50% of their CSP grant funds on instruction had a higher percentage of proficient and advanced scores on the TCAP math assessment in grades 5-8 than schools that spent lower percentages on instruction.

Delimitations

This study was limited to Tennessee's small number of charter schools completing the three-year life of the CSP grant, and the data were collected through purposive sampling in a collective case study. The generalization of data collected from the sampling was limited to charter schools serving grades 5-8 in the state of Tennessee. In addition, only schools completing the three-year life of the CSP grant were selected for data analysis. The only student achievement data collected for the purposes of this study were the TCAP achievement data in the areas of reading and math for grades 5-8. The study examined only the grade level offerings and tested grade levels at the time of the charter schools' opening. The primary data collected from this study was from the years the studied schools were receiving the CSP grant.

Significance of Study

This study will determine how individual charter school spending of CSP grant funds is related to academic achievement and fiscal sustainability in each charter school. The results of this study are significant in that they will provide information to the Tennessee Department of Education as they guide current and future grant recipients. This will afford the first in-depth strategic analysis in the state of Tennessee with regards to charter schools' fiscal and academic accountability, providing a springboard for future research. The data from this research may provide further justification for more funds and be included in the State Department's applications to the U.S. Department of Education for additional CSP. It will also provide guidance to all school leaders as they budget and strive for effective spending that leads to the

strongest student outcomes in their buildings, as effective spending in education is relevant regardless of the school setting.

The findings of this research will be distributed to current and future grant recipients or applicants as guidance for their own planning and implementation. If a clear link can be established between resource allocation and school success, future grant recipients and charter school leaders can create more efficient, purposeful planning as they move forward with their charters.

The data collected from this study will also be beneficial to educational leaders and policy makers as they continue to face the issue of how to best fund educational initiatives in all school settings. Funding in education was an issue before the first charter school opened and will continue to be an issue for decades. The data collected on effective spending in this study could have far-reaching effects as a better understanding of resource allocation emerges.

Definitions and Acronyms

- *Accountability* – For the purpose of this study, accountability is defined as a policy that holds schools and teachers accountable for each student's academic progress by connecting progress with funding allocations
- *AYP* – Adequate yearly progress (AYP) is the measure by which schools, districts, and states are held accountable for student performance under Title I of the No Child Left Behind (NCLB) Act of 2001 ("AYP," 2011)
- *BEP* – The Basic Education Program (BEP) is the funding formula through which state education dollars are generated and distributed to Tennessee schools (*BEP*, n.d.)
- *Charter School Management Organizations (CMOs)* – organizations that run multiple charter schools.

- *Charter School Programs (CSP) grant* - $22 million awarded to Tennessee in 2009 from the U.S. Department of Education.
- *Charter Schools* - Public schools operated by independent, non-profit governing bodies that must include parents (Tennessee Department of Education [TDOE], 2012, p. 2)
- Knowledge is Power Program (KIPP) – Founded in 1994 by Mike Feinberg and Dave Levin, KIPP began with the idea to create classroom experiences that develop knowledge, skills, character, and habits to succeed in a middle school environment. The first KIPP charter schools opened in Houston and New York in 1999 and became two of the most successful schools in their communities. In 2000 they partnered with the co-founders of Gap Inc. to train leaders to replicate the success of KIPP middle schools. In 2012 there were 125 KIPP schools in operating in 20 states across the country ("History of KIPP," 2013)
- *Instructional Spending* – The amount of budget that is dedicated and tied directly to classroom instruction.
- *Local Educational Authority (LEA)* – A body that is responsible for education in a particular area.
- *Professional development* – Activities and trainings to enhance professional career growth.
- *Salary Spending* – The amount of overall budget used for salaried positions.
- *Socioeconomic Status (SES)* – Socioeconomic status is commonly conceptualized as the social standing or class of an individual or group. It is often measured as a combination of education, income and occupation.

- *TCAP* – The Tennessee Comprehensive Assessment Program (TCAP) achievement test uses multiple-choice questions that provide a measure of knowledge and application skills in various subject areas for grades K-8. The results of the TCAP achievement test provide valuable information regarding students' progress in Tennessee ("FAQ Achievement Test," n.d.).
- *Technology Spending* – The amount of spending within a school budget dealing with technology (computers, iPads, wireless modems, projectors, etc.).
- *TDOE* – Tennessee Department of Education.
- *Traditional public schools* – Schools operated by a Local Educational Authority using public funds and free to all students in zoned areas.
- *TSBA* – Tennessee School Board Association.
- *USDOE* – United States Department of Education.

Summary

The charter school phenomenon is not a particularly new topic in American public education reform. Publicly funded charter schools, an idea over two decades old, continue to provoke heated debate in government and educational communities (Buddin & Zimmer, 2005, p. 351). These debates often grow from defining a charter school and establish there is not a "one-size-fits-all" approach to charter school reform. Federal, state, and local policy-makers continue to find difficulty in assessing the performance of these schools. This study specifically assessed charter schools in Tennessee using data from the TCAP achievement test in schools serving grades 5-8, as well as provided qualitative analysis on four successful charter schools across the state in a mixed-methods approach. Surveys, interviews, site visits, and questionnaires were used to collect data from a purposive sampling of four successful charters in order to not only

determine effective spending practices, but also obtain the perceptions and delivery of those decisions. This research will provide the TDOE's Office of Charter Schools with the data to successfully deploy future CSP grants to new charters and to assess current and past deployment of the CSP grant funds. This will afford the first in-depth strategic analysis in the state of Tennessee with regards to charter school fiscal and academic accountability, providing a springboard for future research.

Literature Review

The growing number of charter schools in the United States has produced a list of achievement and sustainability questions among public policy makers, parents and students. This interest has resulted in a rapid growth in charter school research, specifically looking at achievement data. Despite public interest and generated research growth, a gap in research still exists between effective allocation of charter resources and its affect on student achievement. Local, state, national, and privately funded agencies are faced with decisions about the best use of monies earmarked for educational spending while making countless instructional decisions. The innovation integrated into those decisions by charter schools raises many unanswered questions on the connections between spending decisions and academic success. This review of literature looks at the connection of these two important areas. It examines charters and the spending implications already revealed through prior research.

In order to fully understand the complex connection between spending and achievement in charter schools, a broad understanding of the charter school structure was needed. The multiple layers of charter funding and the areas of spending add to the complexity, but also help distinguish charters from their more traditional public school counterparts. This literature review investigated those components as well as charter school budget allocations, educational resources that affect student achievement, frameworks for defining school-level expenditures, and overall components of effective school leadership. These areas of review laid the foundation for this research.

Charter School Overview

Charters were created as a model of school reform and typically offered programs with specific focuses, such as engineering, the arts, architecture, design, technology, and performing

arts (Gill Phillips, 2010). They were typically located in urban areas and served at-risk students, contrary to public perception, and received less per pupil allotment than traditional district schools. Realizing these descriptors and barriers, charters were forced to meet state and federal accountability measures while finding an affordable, sustainable model for improving student achievement (Gill Phillips, 2010).

The design of charter schools has had a greater focus on financial autonomy, innovative practices, and "distinctive educational philosophies" (Buddin & Zimmer, 2005, p. 351). They remain publicly funded though they operate outside direct regulation of school districts. Even with this innovation and autonomy, a researched-based method of gauging their academic performance has not been established. According to 2009 data (EdSource, 2013), California has the largest number of charter schools. The state passed the charter school law in 1992 to provide greater school choice and to "fend off increasing calls for the use of vouchers in California" (Patrick, 2011, p. 2). California's economy has remained unstable over the past several years, providing increased stress on the amount of funds available to public education. In 2010, *Robles-Wong v. CA* expressed that "schools are failing to provide adequate funding for education" (Patrick, 2011, p. 3). There has been a shift in perspective of policy-makers' views toward fiscal responsibility due to the recent standards-based reform movement. The focus is not how much money is being spent, but rather how the use of money is impacting student achievement (Patrick, 2011).

The charter school phenomenon is not a new topic in American public education reform. Publically funded charter schools, an idea over two decades old, continue to provoke heated debate in government and educational communities (Buddin & Zimmer, 2005, p. 351). These debates often grow from the ambiguity in defining charter schools and the no "one-size-fits-all"

approach to charter school reform. Federal, state, and local policy makers continue to have difficulty assessing the performance of these schools due to school structures. In order to assess the achievement level of charters, specifically in California, Buddin and Zimmer clustered the schools into four categories: public school take overs, start-up charters, reliance on traditional classroom-based instruction, and schools using an alternative instructional method, i.e. virtual or distance learning (Buddin & Zimmer, 2005).

Though challengers of charter schools are skeptical, "Supporters hope that charter schools, with their greater autonomy, will be able to cut through red tape and encourage innovative reforms, and promote healthy competition" (Buddin & Zimmer, 2005, p. 351). Even with this innovation and autonomy, there is still not a researched-based method to gauge academic performance. The authors specifically examine performance under the four aforementioned characteristics of charter schools. With this categorical lens, Buddin and Zimmer suggest greater focus and resources for "certain types of charter schools" (Buddin & Zimmer, 2005, p. 351).

In 1983 and 1986, two major reports were released that called national attention to academic performance in K-12 public education. These were *A Nation at Risk* and the *Carnegie Task Force Report on Teaching.* Both assessments raised concerns about the competitiveness of American public education. Pressure mounted and a public outcry for improved accountability and comprehensive standards reverberated at the state and federal levels. This prompted a myriad of educational reform efforts to improve student achievement and academic accountability (Simpson, 2009).

Citing data gathered from the California Department of Education (2009), Simpson suggested, "many public school students in California are not meeting academic benchmarks" (p.

2). The data showed that only 46-48% of students tested, between second and eighth grade, reached proficiency in language arts and math. In that same year, only 52% of schools reached adequate yearly progress (AYP) standards in the entire state. With the continual struggle in student achievement, Simpson suggested that charter schools represent a "promising venue for data-driven decision-making due to the autonomy-for-accountability framework, state and federal laws have provided" (Simpson, 2009, p. 4).

Based on the 2009 work of Hoxby, Murarka, and Kang, as reported by Simpson (2009), students who attended K-8 charter schools would close the achievement gap by 86% in math and 66% in English. This is taken from the 2009 report, *How New York City's Charter Schools Affect Achievement.* With charter school laws and accountability systems in California, schools have the freedom and flexibility to bridge the achievement gap. Simpson stated, "The promise of charter schools was that they would be laboratories for promising practices disseminated beyond the individual school that created them" (Simpson, 2009, p. 6). There was hope that the practices employed by successful charter schools would start a chain reaction between other charter and traditional schools. The use of data-driven decision-making caused a shift in the role of principals both in charter and public schools. Simpson cited the research of Murphy and Louis (1999) as an educational cultural shift in instructional leadership leading to higher student achievement.

Simpson performed a qualitative case study on two California charter schools while conducting interviews of school leaders and teachers, review of school documents, observations, and data-driven decision-making. Simpson looked at the question of how data-driven decision-making impacted school improvement and a positive educational trajectory (Simpson, 2009, p.

viii). Simpson (2009) stated, "If American schools are to maintain a competitive edge in the global economy, low student achievement cannot be allowed to persist" (p. 14).

According to the Consortium for School Networking's 2006 study, cited by Simpson, the greatest barriers to data-driven decision-makings were: lack of training, technology issues, inability to use data, clear goals on what to collect and timely and simple data reports (Simpson, 2009). Simpson noted, "The study confirms that school leaders need to receive professional development relevant to the accountability requirements…" (Simpson, 2009, p. 36). Data is a major tool in making decisions, and the understanding of how to use data, in regards to student and school performance, are key attributes of a successful school leader. Not only do they need to be able to use data, but must create buy-in from faculty and staff, as well as create the data-driven culture (Simpson, 2009).

Much of what is being used by school leaders is typical standardized assessment measures. At the charter school studied in this research, the school leader used the data during an August professional development session. The data was dissected at each grade level, providing teachers antidotes to improve standards driven instruction (Simpson, 2009). Simpson explained, "The main purpose of data-driven decision-making at Coastal Academy was to customize the instructional program for each child and to develop a learning program that was neither too difficult or too easy" (p. 67). It was expressed that the use of data at an individual student level was a way to understand the needs of the school. The teachers felt comfortable using the data, which translated to community and parental involvement in the data.

The use of data had strong perceived impact on student achievement for all stakeholders involved with the school. Teachers reported having focused goals on learning objectives for each school (Simpson, 2009). Since its inception in 2003, data-driven decision-making has been a top

priority. The results show 70% proficient on the language arts standards and 65% on mathematics (p. 71). School leaders, throughout this study, indicated that when data was used correctly and appropriately, it improved student achievement (Simpson, 2009). This perception by school leaders was echoed by the overall findings of the research, proving that quality data-driven decision-making did "improve instruction on student learning needs, which ultimately led to meeting federal and state accountability standards and high student achievement" (p. 138).

As one of the fastest growing movements in school reform, charter schools have raised serious debates regarding draining public monies from traditional school funds. California became the second state to enact charter school legislation in 1992, enabling more school choice for families, especially in low-income communities. Competitive pressure is credited with provoking change and improvement in independently operated charters and schools run by Educational Management Organizations (EMOs) (Krop & Zimmer, 2005, p. 2).

According to the authors, Krop and Zimmer (2005), "the best student achievement research currently uses longitudinally-linked student-level data, which provides the ability to track students over time and creates a mechanism for controlling for differences" (p. 3). As of 2005, the general consensus in current research "suggested that charter schools have either small positive or negative effects, which vary by state" (Krop & Zimmer, 2005, p. 3). Much of the research looks at achievement analyses and racial/ethnic integration of students. The authors suggest that an area of weakness in strategic research includes the issue of finance within charter schools.

Between 2002-2005, four significant studies examined spending in charter schools. A Michigan study (2002) concluded that charters spent more than traditional schools on administration. A second study out of Pennsylvania (2002) showed charter schools receiving

$750 less per pupil spending than conventional schools. A third report by the American Federation of Teachers examined revenue sources allocated based on the type of student enrolled. In 2005, the Thomas B. Fordham Foundation conducted a national study showing charters received $1,801 less per pupil than traditional schools. California had a higher disparity at $2,223 less per pupil spending at the charter schools (Krop & Zimmer, 2005).

Looking specifically at the basic precept of charter school funding, the per-pupil money should follow a student. This, however, is not true and varies from state to state. Krop and Zimmer expressed that "generally, across states, there are four bases for determining how much money should follow a student to the charter school: per-pupil revenue of a district, per-pupil expenditure of a district, per-pupil statewide average expenditure, or per-pupil district budget formula" (Krop & Zimmer, 2005, p. 6). These funds can come from taxable income in districts, from a statewide average, or a negotiation with districts and charter schools. In California the money flows from the State to the districts and then is funneled to the individual schools. This is received from two pools of money: general-purpose money based on average daily attendance (ADA), and categorical aid, which is program based and more restricted (Krop & Zimmer, 2005).

Funding is typically set up in two ways: the decision to be funded locally or directly funded from the state. The locally funded option tends to be more popular with conversion charters and those that rely on district services. Charters that choose to be directly funded by the state tend to be start-ups, which often give a sense of more fiscal control and opportunity. In both cases, whether locally or directly funded, charters must apply for state categorical aid. The more categorical aid that is needed, the higher percentage of schools choosing locally controlled funding allocation (Krop & Zimmer, 2005).

Krop and Zimmer surveyed 325 charter schools listed in either the California charter office or the CBEDS data. Each charter school was paired with a traditional school based on an estimated propensity score. This score was developed in the 1983 Rosenbaum and Rubin study. The study was all self-reported through survey tools, and as such created a limitation in the data. Based on the results, Krop and Zimmer concluded that start up schools experience more fiscal challenges than conversion schools. This is, in part, due to the lower participation in the state categorical funding programs. Krop and Zimmer (2005) noted, "the disparity in participation may ultimately lead to disparities in funding among charter schools and between charter schools and conventional schools" (p. 20). The results also indicate that charter schools may be relying on private or philanthropic funding. Additional data and research would be needed to understand the extent at which private money is used.

Although fiscal autonomy is a key component in charter school reform, more research and support is needed in order to develop "innovative approaches to charter school finances in general and start up charter school finances in particular," expressed Krop and Zimmer (2005, p. 21).

In a report released by Stanford University's Center for Research on Education Outcomes (CREDO) in May 2013, an extensive analysis of charter effectiveness was conducted in the 27 states permitting charters to operate and provided the broadest view of charter schools to date (Cremata et al., 2013). This report was conducted on the heels of a 2009 study by CREDO that examined the impact of charters in 16 states on the academic progress of students. The 2013 study reviewed the annual academic gains of students enrolled in charter schools as compared to peers attending area traditional public schools (TPS). The research suggested that charters were educating more disadvantaged students than they did in 2009. More than half of charter school

students were living in poverty, which is more than the nation as a whole in 2013. Though the education of disadvantaged and diverse students varied among the states across the nation, the average indicated that charters in general were increasing their population in these areas. Though the study couldn't address the question of charter recruitment of students more academically prepared, the study found "suggestive evidence that students had falling scores in TPS in the two years prior to their switch to charter schools, which also runs counter to the cream skimming hypothesis" (Cremata et al., 2013, p. 82).

The 2013 Stanford study also reviewed the 16 states covered in the 2009 report and determined that they had "maintained or slightly increased their impact on student learning in the intervening years" (Cremata et al., 2013, p. 83), though approximately 8% of the sample schools from 2009 were closed due to low performance. The students in this study now only improved as compared to results in 2009, but they also showed an upward trend in academic performance. Compared to their TPS peers, "the average charter school student now gains an additional 8 days of learning each year in reading, compared to a loss of 7 days each year in the 2009 report" (Cremata et al., 2013, p. 84). Though the gains in math didn't mirror those in reading, students showed equivalent levels of learning in math as compared to their TPS peers. This number was up as compared to the 22 fewer days of math learning reported in 2009. In addition, charter elementary and middle schools across the 27 states posted superior student gains as compared to their TPS alternatives (Cremata et al., 2013, p. 84).

Charter Schools vs. Traditional Alternative

In order to recognize high performing public schools, charter and non-charter, Tennessee put in place a variety of methods for acknowledging school and student success. One method at the time of this study stemmed from the Department of Education's First to the Top Goals

related to 3rd and 7th grade proficiency, high school graduation rates, and access to college (Tennessee Department of Education, 2012). A *Reward* School was a recognition given to "schools in the top five percent of overall performance and schools in the top five percent of the fastest growth - a total of ten percent of schools in all" (Tennessee Department of Education, 2012, p. 9). A preliminary list generated in November of 2011 recognized four public charter schools with this recognition crediting them for helping make a positive and drastic academic difference with their students. Another performance evaluation was conducted by the Center for Research on Educational Outcomes at Stanford University (2012) as it measured school effect size data. "The study used a virtual matching process to pair charter school students with students who are demographically similar to them and attend schools that those students would have been assigned to" (p. 10) over a two year period. Test scores in math and reading were compared in the two control groups. The results showed twelve charters outperforming their traditional public school counterparts in math and fourteen in reading. Seven charters performed worse than their traditional public school counterparts in math and two performed worse in reading. No detectable difference was indicated between eight charters and their traditional counterparts in math and eleven in reading. The conclusion established that some charters performed better than their matched school while others performed worse and others performed the same (Tennessee Department of Education, 2012). In evaluating the schools' AYP, the total number of students in charters across the state performing proficient or advanced improved from 2010 to 2011. With this improvement, still only twelve of the state's twenty-nine charter schools, or 41%, stood in good academic standing as a result of their 2010-2011 performance (Tennessee Department of Education, 2012, p. 11).

California has a mixture of conversion schools and start-up schools, both implementing traditional and non-traditional classroom settings, as well as a mixture of the two. Those schools following the traditional approach are "more likely to have similar curricula and operation" (Buddin & Zimmer, 2005, p. 352). This process has proved difficult to assess due to the "high degree of aggregation" (p. 352). This is caused by variation of student population and nuances of school culture. Buddin and Zimmer cite the 2001 work of Solmon, Paark, and Garcia in Arizona charter schools to explore the significance of longitudinally linked student-level data. The study revealed that students who spent two to three years at a charter school outperformed students at a traditional public school. This was true despite students performing worse during their first year at charter schools (Solmon, et al, 2001).

Buddin and Zimmer (2005) noted the Texas study of Gronberg and Jansen in 2001. This Texas study linked student-level data longitudinally between 1997 and 2000. Gronberg and Jansen found "slightly more value added" (p. 355) for charter schools focusing on at-risk students as opposed to conventional public schools. Buddin and Zimmer noted that Hanushek, Kain and Rivkin challenged this in 2002 and drew a different conclusion from "similar Texas achievement data" (p. 355). Buddin and Zimmer cited these findings as showing charter schools performing significantly worse than the conventional public school, with no statistically significant difference for student demographic groups (p. 355).

Bettinger's 2004 comparison of charter and conventional schools in Michigan was examined extensively. Bettinger compared 33 charter schools with 550 traditional public schools, all within a five-mile radius of the charters, and the student-level data showed no statistically significant differences in test scores. Buddin and Zimmer cited their 2005 study in North Carolina which showed charter schools performed significantly worse than conventional

public schools. It is with this inconsistency that Buddin and Zimmer continued the research with the disaggregated charter school types.

Data is important when looking at the success of any charter or traditional school. Teacher perception regarding the success of their school can also be important to consider. In a study conducted by Sally Bomotti, Rick Ginsberg, and Brian Cobb (1999), teacher perceptions of their schools' level of empowerment, working conditions, and school climate were examined in Colorado charter and traditional schools. Two hundred teachers where questioned with half serving charter schools and half serving traditional schools.

The authors state that the purpose of this study is to "examine the claim that charter schools offer teachers opportunities to enhance their professional lives" (Bomotti et al, 1999, p. 2). The questions posed were:

1. How do charter school teachers perceive issues of empowerment compared to teachers in traditional public schools?
2. How do charter school teachers perceive aspects of school climate compared to teachers in traditional public schools?
3. How do charter school teachers perceive aspects of working conditions compared to traditional public school teachers? (p. 2)

Early studies, happening before this 1999 study, indicated charter schools having a younger teacher population than in traditional schools, as well as having less teaching experience, and holding fewer advanced degrees. Also at this point, based on a 1996 and 1997 study by the Colorado Department of Education, a higher percentage of teachers were not certified in Colorado charter schools. Based on education legislation, charter schools did not require teachers with certification (Bomotti et al, 1999, p. 4). Also interesting to note about

Bomotti et al's study was that only 5% of charter school teachers belonged to any teacher association as compared to 80% in traditional schools.

Bomotti et al reference a study by Bierlein, (1996) indicating that charter school teachers always felt like professionals, even further differentiating themselves from their public school counterparts. This, however, was not tied back to any improved data for the schools, and a 1998 UCLA study shows little difference "in how teachers actually taught" (p. 6).

SRI International conducted another study (1998) noted by Bomotti et al. This research had similar conclusions, expressing that charter school teachers' perceived feeling of power could be true or an illusion (p. 6).

The results of the SRI International study (1998) found that traditional teachers feel more empowered in the work environment than their charter counterparts. This was contradictory to the research in earlier literature and studies (p. 13). The open-ended questions showed a lack of trust between administration and the board with one response stating, "they (the board) micro-managed and do not value teachers…" (p. 14). On the other hand charter school teachers were more empowered in classroom decision-making. This did support past research of greater predicted autonomy. In the area of curriculum, the sense of empowerment for teacher-driven curriculum innovation was the same. Bomotti et al furthered this argument by explaining, "This finding is intriguing because the potential ability of smaller, more autonomous charters schools to serve as laboratories…" (p. 14).

Bomotti et al hypothesized, given the literature readings, that school climate would be significantly impacted by teachers at charter schools. This is because charters are "hired to fit the specific mission of the charter…" (p. 15). The authors of this research found no statistical significance of school climate, as it relates to common mission and goals, between charters and

traditional schools. Academic learning climate proved to be better in charter schools. This research also looked at job contentment and found many differences. This was consistent with the literature produced by both Colorado and Minnesota (p. 17).

The researcher's findings of teacher satisfaction, in both traditional and charter schools, were encouraging. Specifically, within charter schools Bomotti et al found, at a deeper level, dissatisfaction with the lack of teacher support. While teachers found smaller class sizes and greater autonomy in instruction, the lack of support raised red flags of systemic change (p. 17).

Tennessee Charter Schools

Tennessee's first charter laws were passed over ten years after the first charters were put into law in Minnesota (Tennessee Department of Education, 2012). In 2011 Tennessee had one of the most academically demanding charter laws in the nation. Except for failure to meet Adequate Yearly Progress (AYP), authorizers could revoke charters for any reason within the charter agreement, while charters still held the right to appeal the revoked charter decision to the State Board of Education (Tennessee Department of Education, 2012). The students enrolled in public charters were measured against the same academic standards and by the same state assessments as their other public school peers at the time of the study ("Federal Programs: Title V," n.d.). Tennessee required local school boards to ensure the charters meeting the needs of their students were the only charters opened and the only ones that remained opened. This was done through "rigorous authorization processes, ongoing monitoring of the academic and financial performances, and, when necessary, through a revocation or non-renewal process" ("Federal Programs: Title V," n.d.). As an exchange for the added governance, charter school operators were allowed waivers from some state laws and rules, such as the allowance for longer school hours and school years ("Federal Programs: Title V," n.d.). During the 2012-2013 school

year, forty-nine charter schools were open in Tennessee with nineteen approved to open during the 2013-2014 school year. Applications for new charters rose in the state from ten applications in 2007 to thirty-eight in 2011 (Tennessee Department of Education, 2012).

In a May 2013 phone survey conducted by Vanderbilt University, 813 Tennessee registered voters were asked 41 different questions regarding political leaders and pressing issues facing the state and federal government (*Vanderbilt University Poll*, 2013). Among those were several questions regarding educational policy in Tennessee. Results from that survey indicated support for charter schools by registered voters remained strong. Of those surveyed, 66% supported charter schools and favored the opening of more charters (*Vanderbilt University Poll*, 2013).

Charter School Funding

Public education has historically relied on property taxes for funding, thus causing a great disparity in school wealth. Even with subventions from local and state authorities, per pupil spending still varies greatly across the nation (Sugarman, 2002, p. 2). Sugarman looked at two important issues in publically funded schools. He first explored the current issues of traditional public school funding, and second he delved into four issues that were raised specifically within charter school funding.

Sugarman (2002) stated that wealthy communities, like Beverly Hills in California, "continue to outspend most other districts" (p. 2), regardless of thirty years of related public school funding litigation, which began in the late 1960s. Even with government refereeing, the inequalities remain significant in most states. These inter-district inequalities create a dilemma for charter schools. The charter school assumes the funding equation that "relates to the spending level per pupil in the districts that charter them" (p. 2). This proves problematic as a

charter can be funded differently based on who agrees to charter them, or where they are located. If the state dictates the per-pupil funding based on a state equation, either the charter is funded at a level above or below the surrounding schools (p. 3).

Many districts fund teacher salaries based on the per pupil expenditure, causing teachers in lower spending schools to be paid significantly less. Sugarman (2002) stated, "This is vividly apparent in a community such as Oakland, California, where the higher achieving schools in the Oakland Hills area generally have much better paid and more experienced teachers" (p. 3). This proves significant, as there is no incentive to shift to a charter school in areas that have highly paid and highly experienced teachers.

Another layer of funding issues is based on state per-pupil funding, contingent upon the states' wealth (Sugarman, 2002). These comparisons are difficult to quantify, as different measures are used. A rough estimate showed a wide range of discrepancy. For instance, the annual per pupil funding in California was $6000, whereas in New Jersey or Connecticut it was double this amount (p. 4). With education funding already tight in all states, providing a generous amount to charter schools is low on a state's priority list. Without grant money to offset these financial hardships, charter schools start on uneven ground.

The last issue raised by Sugarman (2002) was funding for exceptional education. With the establishment of the Individuals with Disabilities Education Act (IDEA), schools are under a series of "substantial reporting and accounting" requirements creating a substantial burden for them. Even with the extra funding provided by IDEA, disabled children have not received adequate funding to handle individualized needs, though Congress mandated they be met (p. 5). Sugarman stated that charter schools "either avoid enrolling, or don't really know much about teaching special education pupils with anything more than very modest disabilities" (p. 6).

Charter school funding concerns, based on Sugarman's (2002) study, stem from systemic traditional public school funding issues. The growth in charter schools is forcing attention on funding within the public school financial mechanisms while providing a lens for policy leaders to look more deeply at the tie between funding and achievement (p. 10). Though fiscal autonomy is a large incentive for a charter school, historical and cultural settings still dictate how money is being spent.

Based on the complexity of funding with the added challenge of a mixed approach of charter schools, California has experienced difficulty in directly assessing best practices. According to Patrick (2011), student achievement has been less than stellar (p. 30). With more fiscal autonomy, charter schools might seem poised to raise student achievement. Patrick stated in her study of Loeb and Bryk (2007), Odden and Picus (2008), and Hanusheck and Lindseth's (2009) research that "…Simply providing additional money to schools with no guidance or direction will also fail to improve student achievement" (p. 30).

Patrick (2011) used a variety of literature resources that ranged from California historical context to relevant court cases to examine charter school funding. Based on four high performing charter schools, located in Los Angeles, California, Patrick analyzed how each school "implemented school improvement strategies and utilized resources at their school site to impact student achievement" (p. viii). Patrick performed this research using the lens of Odden and Picus's 2008 research on the *Evidenced-Based Model*, along with Odden and Archibald's 2009 research, *Ten Strategies for Doubling Student Performance* (p. viii). She also spent time reviewing relevant educational best practices and the shift from "equity towards adequacy models of funding" (p. 13). These resources spanned a wide range of time, as it was important to paint a picture of the historical context of California education, both in traditional schools and

the charter school movement. Patrick selected literature that analyzed how each school "implemented school improvement strategies and utilized resources at their school site to impact student achievement" (p. viii).

California has a storied history of considerable changes in public school funding as priorities have shifted in national, state, and local governments (Patrick, 2011, p. 13). This is specifically looked at through one key court case, *Serrano vs. Priest* (1976), and two propositions, *Proposition 13* and *Proposition 98*.

"*Serrano vs. Priest* (1976) was one of the first lawsuits in the nation challenging the way schools were locally funded" (Patrick, 2011, p. 13). This court case, resulting in a ruling from the California Supreme Court, found the existing structure of school funding unconstitutional, based on the state's equal protection law (EdSource, 2013). The court ruled that the per-pupil expenditure should be equalized within $100 by 1980, minimizing wealth-related discrepancies.

Proposition 13 was passed by California voters to ease high property taxes by setting a limit on property tax generated funding. This law, passed in 1978, furthered the shift of school funding (Patrick, 2011, p. 15). "The provisions of Proposition 13 wiped out 60% of local property tax revenues" (EdSource, 2013), shifted decision making from local to state, and changed the ability to generate local money (Patrick, 2011, p.15). Introduced in 1988, and later amended in 1990, Proposition 98 guaranteed a "minimum funding level from the state and property taxes for K-14 public schools" (EdSource, 2013). It is also the first time that each public school was to prepare and publicize an annual School Accountability Report Card (SARC). SARC included 13 required topics ranging from teacher qualifications to student test scores (EdSource, 2013).

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Patrick discussed the four approaches of adequacy (Odden & Picus, 2008): evidence-based approach, cost function approach, successful district approach, and professional judgment approach. Odden and Picus argue that there is no single approach that can determine what is needed to achieve high standards. While in theory, each should arrive at the same end goal, funding for each approach varies greatly (Odden & Picus, 2008).

Stephen Sugarman (2002) looked at specific charter school funding issues faced by these schools in general as well as specific issues for California in particular. Though much has been written about charter schools, according to Sugarman, very little research has focused on funding issues. In the article, Sugarman did not take a stance regarding charter schools but rather "offer(ed) something of an agenda of charter school funding topics in need of further policy discussion" (p.2). The article is divided into two parts: finance issues in both public and charter schools and special issues in charter school funding. It looks at the broad topic of funding issues

that arise in public schools generally and how these underlying issues impact the charter school movement.

Funding for American public education, historically, comes from property taxes, though much has been done to "level" the playing field for all schools and students. Starting with an era of litigation in the late 1960s, many states began facing problems of wealth distribution among districts and schools, where per pupil wealth is lower or higher based on where a student lives. Sugarman (2002) stated that this issue carries over to charter schools because they are typically supported and funded "at a level that relates to the spending level per pupil in the districts that charter them" (p. 3). Charters may also be funded based on the state average per pupil calculation.

Both "solutions" can be problematic for students, the schools themselves, and also the districts that charter them. Districts that provide special incentives and have a high per pupil calculation would attract charter school proposals, while those that do not have these incentives or high per pupil distribution would tend to not have many charter schools. Conversely, if funding is based on the state average per pupil funding, it can either help low funded districts or hurt higher funded districts. Sugarman states that both issues generally can cause "tensions and inconsistencies that are so clearly exposed by the finance of charter schools" (Sugarman, 2002, p. 4).

Teacher salary, and how this is calculated at the district level, and even at the school level, is often an afterthought at the charter school level. According to Sugarman (2002), salaries in traditional public school districts are often calculated by the "school district awarding each local school one teacher slot for every *X* number of pupils it has. Then, whatever the teacher's salary, it is fully paid for centrally at the district office" (Sugarman, 2002, p. 4). Many of the

lower achieving schools have the lowest spending per pupil and lowest teacher salaries. This is largely due to the salary structure being based on time of service and the fact that many lower achieving schools have beginning teachers or teachers with temporary credentials. These intra-district inequalities create the same unique issues within charter schools. Sugarman stated, "...To survive financially, charter schools will probably have to rely upon a large cadre of mainly newer and lower paid teachers as compared with the more attractive schools in the district that chartered them" (p. 5).

As budgets tighten across the nation, districts are hesitant to provide what Sugarman (2002) referred to as “generous funding” (p. 5). This creates a number of issues for charter schools. First and foremost, start-up costs remain a huge burden. These funds are often lacking or inadequate to successfully launch a school. From hiring staff, securing furnishings and curriculum materials, to a physical building, Sugarman stated that the charters are often unable to "tap into special funding available from federal government, special state programs, and private foundations grants" (p. 5). Sugarman also stated that many districts, especially those opposed to charters, charge fees for oversights and services that are provided to charter schools. These start-up costs often take the majority of the initial budget and leave little for curriculum. In addition, communities are often leery of offering charter support without data verifying that charters are as good, if not better, than their lower-cost traditional public schools (p. 5).

Funds for federal programs addressing educationally disadvantaged children (through IDEA) provide additional issues for charter organizations. Charters also face the challenge of getting their obligated portion of state and federal funds from local authorities once the money has been appropriated at the local level (Sugarman, 2002, p. 7). In California, this is somewhat alleviated by the state providing federal Title funds by receiving a predetermined amount of extra

money for each pupil in the school eligible for such funding. This works well until an especially high cost student is enrolled, and the "extra" money allotted for students is shifted to pay for the one child. Part II of the article deals with special issues directly related to charter school funding. Sugarman (2002) looks at four specific issues: 1) Counting charter school pupils, 2) Distance learning and home schoolers, 3) Financial monitoring, and 4) Supplemental funding. Charter schools are generally funded on a per pupil basis, thus making the accountability and transparency of counting students of utmost importance. Though a fairly simple task to complete, several issues have arisen due to fraud and also harsh procedures by some chartering bodies. Chartering bodies have to decide whether to count students based on average daily attendance (ADA), average daily enrollment (ADE), or by some other locally enforced mechanism. The differences in the two mentioned counts can significantly change the perception of funding equality. If a school bases its attendance on ADE and has a high absentee rate, it will in theory, have more money for students who are present. If ADA is used, charters have an incentive to discourage enrollment of students who historically are truant or have behavior issues (Sugarman, 2002, p. 8).

Homeschooling is gaining speed in the current education environment purporting a 2% nationwide count of students homeschooled by their parents (Sugarman, 2002, p. 9). There is a growing concern for the interaction between homeschooling and charter schools as students enroll in a charter only to withdraw to homeschool a short time later. The concern comes from the per-pupil cost and its potential benefits for either the charter school or the operating chartering body. If the per-pupil budget for a charter school is $6,000 and a homeschooled student is provided the curriculum at $4,000, then there is a surplus of $2,000. This extra funding could be held by the charter to help offset costs unrelated to the homeschooler. In some

instances it could be viewed that the chartering body is operating for profit while utilizing surplus funding for administrative or programing purposes unrelated to the homeschooled student. This creates the idea that charters could be targeting and educating this population strategically for financial purposes (Sugarman, 2002, p. 9).

Charter schools were fundamentally conceived to provide autonomy in both educational practice and financial spending. Sugarman (2002) stated, "...The core principle defining charter schools is that they are generally to be free from regulation in order to be able to experiment, to be flexible in the way they manage their operations, to respond quickly to their customers, and so on" (p. 10). This autonomy comes with high pressure to produce positive educational gains at a comparable price to traditional school funding. Not only are government officials and community members looking at academics, they are also looking at financial spending with skepticism. With these concerns comes a myriad of government regulation, auditing, monitoring and reporting (p. 10). Sugarman suggested that the increased regulations have quickly led to a "general educational landscape status-quo" among charter schools, removing the innovative spirit and autonomy.

As charter schools work through the financial aspects of running a school, supplemental funding often becomes a lifeline for staying afloat. This also creates the dynamic of "haves" and "have-nots" among charter schools as not all of them receive extra money. Supplemental funding might come from government grants or private donors, and uneven distribution creates inequalities. Sugarman (2002) goes on to say that for charter schools, "There is a much greater concern that no charter school will have much of a chance to succeed unless it has substantial extra outside funding" (p. 11). Sugarman's comments on funding are relatable to Tennessee charters as their budget sources are evaluated.

In Tennessee, public charter schools are funded through the BEP funding through the government and allocations are determined based upon student enrollment and on whether the organization is providing student transportation (Per Pupil Expenditure, 2013). When a charter application is approved, the charter may apply for one of the state's $600,000-700,000 CSP grants funded through the USDOE. The purpose of the grant is to provide start-up funds, and monies are distributed over the three-year life of the grant. The grant purpose is to propel the charter into existence by using BEP funds alone or in partnership with other grants and donations. As previously stated by Sugarman (2002), the amount of money a school has to operate relies heavily on its ability to find outside funding if it is not able to sustain on BEP funds alone. An example of Tennessee charter's BEP funding can be found in the state's *Charter and ASD Funding Overview* for the 12-13 school year (Per Pupil Expenditure, 2013). During the 2012-2013 school year, Tennessee charter schools not providing transportation to their students in Davidson County were funded at $8,318 per pupil while those providing transportation received $8,800 per pupil (Per Pupil Expenditure, 2013). That dollar amount in Davidson County can be compared to Shelby County, home of several Tennessee charters. In Shelby County that per pupil amount for charters providing transportation is $7,225 and $6,945 to those not providing transportation (Per Pupil Expenditure, 2013). Just as this dollar amount varies from one Tennessee district to another, so does total school funding. Sugarman's (2002) research suggests that the schools with more funding will yield higher results. Tennessee charter school's holistic budgets are not made available to the public, but none of the charters in this study were preparing to operate on BEP funds alone.

Charter School Spending

Huerta and d'Entremont (2010) looked at charter school finances specifically dealing with how they "identify, acquire, and used public and private resources to support educational programing" (p. 121). They suggested that evidence based on previous studies showed that per-student funding was proportionally less in charter schools than traditional public schools. Due to unrelated expenditures that were not directly tied to instruction, such as building maintenance, charter school per-student funding decreased. State categorical aid was also often withheld for charter schools. Many costs related to operational expenses were typically "addressed at the district level," (p. 121) making them unfamiliar or not addressed at a school level. This proved a challenge when looking at how charter schools used funding to support academic instruction, offer instructional services, and provide appropriate operational efficiency.

The 2011 court case, *Oceanside Charter School (OCS) v. New Jersey State Department of Education Office of Compliance*, showed the tight control of the state when money was granted to charters. With monies needed for securing and renovating space, New Jersey DOE required Oceanside Charter to pay back partial funds (totaling over $350,000) due to not complying with state and federal public bidding requirements. OCS used those monies to secure bidding on new construction not outlined in the grant applications (*Oceanside Charter School v. New Jersey State Department of Education, Office of Compliance Investigation*, 2009). Though charters were autonomous in design, they were not exempt from federal and state fiscal accountability. The Commissioner of Education ordered the repayment of the grant money by OCS, as it had not earmarked any money in the grant proposal for new construction.

The theory behind charter schools includes an attitude of entrepreneurial thinking. Huerta and d'Entremont (2010) stated, "School leaders are expected to respond to limited budgets by

finding innovative ways to acquire and use resources rather than sacrificing critical programs and services" (p. 121). This thought was great in theory, but institutional factors forced the withholding of decision-making and spending. The charter school theory encourages and celebrates innovative norm, structures, and practices. These functions have historically dictated how traditional public schools existed and operated, so stepping outside these accepted practices will often be met with resistance and questions of legitimacy (p. 122). Huerta and d'Entremont reiterate that this fact has dictated how charters operated as they "generally pursue recourses and adopt practices that explicitly support and expand on established educational programs and services" (p. 122). Huerta and d'Entremont referred to this behavior, as described by neo-institution theorists, as organizational isomorphism; legitimacy of an educational institution comes from "conformity to the normatively held rules, rather than instructional effectiveness" (p. 127). Charter school success, therefore, will depend on changes in federal, state and local school governance and finance. Huerta and d'Entremont (2010) stated that innovation or solutions to "stubborn educational problems" (p. 123) were not likely to occur when looking at current institutional factors because charters remained subject to the same government and policy issues that led to "funding disparities among traditional schools" (p. 123). Couple these issues with the initial start-up costs of a charter school, including facilities, human capital, materials, furnishings, etc., and the financial gap continues to widen (p. 123).

Data from the 2002-2003 year, collected by Huerta and d'Entremont (2010), showed a per pupil funding of $1,801 less in charter schools than traditional public schools, a disparity of 21 percent (p. 124). This supports the evidence that charter schools do receive less per pupil funding than traditional public schools, creating an unfair burden on charters, as claimed by charter school advocates. In Michigan, charter schools spent a greater proportion of per pupil funding

on operational costs than traditional schools. Huerta and d'Entremont found that these charters spent "between $435 - $628 per student on business office expenses, compared with only $38 in small elementary school districts" (p. 125).

The use of these per pupil monies to fund operational costs, especially administrative costs, increased conversations and concerns of providing higher funding and whether a benefit actually existed for students (Huerta & d'Entremont, 2010, p. 125). The argument continued to escalate behind the purpose of charter schools. Some insisted that they were not a replacement for a traditional environment, but rather provided alternative educational practices (p. 125).

According to Huerta and d'Entremont (2010), there are two conclusions based on current evidence. The first is "limited budgets and increased operational expenses lead charter schools to spend less on teaching and learning" (p. 126). This is evident in staffing with less tenured or experienced teachers, as well as with fewer teachers who hold graduate degrees. The second conclusion is "charter school operators receive proportionally less funding per student than do traditional public schools and behave accordingly" (p. 126). According to a survey conducted by the U.S. Department of Education, respondents claimed the most significant barrier to a new charter school is limited funding. This has guided many of the more successful charters to gain private resources from various organizations or lending agencies. These resources often come with restrictions that limit innovation and maintain the educational status quo (p. 126).

In a Wisconsin school study (Mills, 2012), seven charter school sites were compared to seven comparable non-charter schools to evaluate the levels of funding allocation using Odden et al.'s (2003) *School Expenditure Model*. Surveys, interviews, and district and state reporting were used to collect data which revealed that there were spending discrepancies between the two types of schools in five major categories: average teaching salary, computer-student ratio, average

years of teaching experience, core teacher-student ratio, and elective and specialist staffing or pupil support with extra help (Mills, 2012). The average teaching salary for charter school teachers was over $8,000 less than their non-charter counterparts, mostly due to the five-year higher average years of experience in the non-charter schools (p. 155). Charter schools also had more computer availability for their pupils but less elective and specialist staffing. Their core teacher-student ratio was lower than non-charters. The lower total average enrollment in the charter schools was also noted in the study. This research draws attention to the spending differences in charters in the state while establishing justifiable variables that account for the spending differences.

Charter School Budget Allocations

Allocation of administrative salaries, in both traditional and charter schools, continues to provoke widespread concern over the consumption of the overall budget. In an era of data-driven decision making with a focus on instructional implications, schools should be directing the large majority of income for instruction. Arsen and Ni (2012) analyzed charter and traditional schools in Michigan. They state, "Public school leaders frequently confront the criticism that they fail to carry out their administrative duties efficiently" (Arsen & Ni, 2012, p. 2). This criticism comes from the diversion of resources to administration, yielding the same student outcomes.

Arsen and Ni (2012) stated, "Researchers and policymakers have long wondered whether granting schools greater autonomy from district central administration to make resource allocation decisions would result in any real difference in spending patterns" (p. 2). Much of the failure in traditional school-based initiatives is attributed to the tight control of budget and staffing by central administration. Charter schools, by design, are given the power and

autonomy for financial decision-making. Michigan has one of the longest running charter programs in the nation with over 265 schools, and both traditional and charter schools approximately receive the same “level of operational funding” (p. 3).

In Michigan, charter schools are officially designated a public school academy (PSA) and operated by local or intermediate school districts, the state board of education, or governing boards of higher education institutions. Funded through Proposal A, Michigan’s charter schools have high levels of spending as compared to other states and equal to that of Michigan’s traditional public schools. In most other states, charters are at a disadvantage due to receiving considerably less per-pupil funding than traditional schools (Arson & Ni, 2012). A 2010 study, conducted by Miron and Urschel, looked at "charters in 21 states and the District of Columbia and found that on average charter schools received $2,980 (21%) less in per-pupil operating revenues than traditional public schools" (p. 4).

Charters in most states are disadvantaged by their inability to gain access to local and state financial capital, such as long-term bonds, though some receive private or foundational donations and federal grants. According to a 2005 report by the Fordham Institute, as cited by Arsen and Ni, there are discrepancies for increased funding on equity grounds. Arsen and Ni (2012) stated, "Many charters do not provide the full range of services typically provided by the traditional public schools, e.g., student transportation, special education, summer school, etc.” (p. 4).

Early advocates of charter schools predicted increased spending on instruction and instructional support. This, according to the research of Hill and Roza (2008), has proved to be inaccurate stating "most empirical evidence indicates otherwise" (p. 4). The funding is diverted more to administrative costs than instruction or instructional programming costs. It is also

important to note, according to the authors, that simply comparing funding between charter schools and traditional public schools is not always an equitable comparison. Hill and Roza stated, "The studies... fail to adequately control for a number of factors unrelated to charter schools' governance or organizational structure" (p. 4). Also important in this type of study is the difficulty in obtaining financial data for both schools. Miron and Urschel (2010) noted that they were unable to locate "comparable finance data for charter and districts in 60 percent of the charter schools nationwide" (p. 5).

In 1993, Michigan became the eighth state to adopt the charter school program. By 1996, the state legislature put a cap of 150 charters, only to be operated by Michigan's 15 public universities. Miron and Urschel (2010) noted that by 2008 this cap was lifted and 265 charters where operational, making Michigan the fifth-ranked state for operational charters while maintaining a higher rate of charter spending as compared to other states (p. 5-6). In order to receive funds, charter schools, like traditional public schools, had to report and submit all data annually to the state with detailed reports of revenues and expenditures. The data from these reports indicated that Michigan's traditional public schools spent $8,964 per-pupil as compared to charters spending $8,671 (p. 7).

Though funding sources are similar in per-pupil data for charters and traditional public schools, state Arsen and Ni, there are large differences in how the money is spent. The variation in financial patterns produced data showing charters spent, on average, $1,700 per-pupil less on instruction and $400 less on instructional practices than traditional public schools. As a state, traditional public schools devote 61% of the budget to instruction, while charters only devote 47% (p. 8). In Michigan, it appears that charters have a top-heavy approach to education.

Operating in a more competitive environment, charters have mirrored the U.S. private sector management style with higher administrative spending.

Herdman and Millot (2000) conducted a study on fifteen Massachusetts charter schools in 1995-1996 to evaluate how each school spent their funds in their first year of operation and established "the *amount* of money is far less important than *how* it is used" (p. 43). They revealed that the schools relied on state funding for an average of 89% of their funding, few accessed government grants, and only about a third were able to obtain large private donations. Most spending occurred in the area of instruction (50%), with operations (25%) and administration (19%) following. Student support (4%) and teacher support (3%) were the next largest categories of spending (p. vii). They found that though charter schools were going to great lengths to dedicate resources to the classroom, their operations and administrative costs inhibited their progress. Massachusetts's charter schools did not receive facilities funding during the 1995-1996 school year causing high operational costs that were not shown in the expense categories (p. vii).

Herdman and Millot (2000) noted that charter schools model their spending after independent schools rather than attempting to model traditional, public schools. They examined whether modeling after independent school funding enabled them to allocate more resources in the classroom. Their data indicated that when the average charter school spending was compared with national averages, the spending was in line with the national norms. The removal of school district bureaucracy did not increase the amount of classroom spending in year one of implementation. Administrative demands in these charter schools was high, including the need after year one to hire business managers, a development officer, and presidents to offset the heavy administrative load (p. 42). As enrollment increased after year one, operational costs

continued to grow, as did the societal pressure to increase student and teacher support. Many also felt the pressure to broaden their range of clubs and sports to attract more students. Additional budget increases came from the need for professional development to reduce the risk of burnout, especially among the more novice teachers. Herdman and Millot (2000) concluded that ultimately, "in order to retain both students and teachers, schools' respective support costs are likely to increase" (p. 42).

Educational Resources that Affect Student Achievement

U.S. public elementary and secondary schools were projected to spend approximately $571 billion for the 2012-2013 school year with an average of $11,467 projected in per pupil spending (National Center for Educational Statistics, 2012). The state of Tennessee spent on average $9,123 per pupil for the 2011-2012 school year with individual counties within the state varying their spending from $7,947 in Sumner County to $11,012 in Davidson county (Tennessee State Report Card, 2012). With such spending fluctuations across the nation and states, due partly to the differing local tax base, the connection between spending and achievement continues to be a topic from the smallest towns to the largest cities. Some ask, "Is it equitable to depend on local sources of funding when the size of the tax base differs sharply from one district to the next?" (Burtless, 1996, p. 2). Courts at the state level could argue that this financial inequity is illegal if it is proven that schools spending more per pupil achieve at higher rates than those with less money to spend. Courts in several states, including California, have debated this very issue (Burtless, 1996). The public does not only hold interest in this debate, but policy makers hold it as well.

The Coleman report (1966) was mandated by the U.S. Office of Education and spearheaded the conversation correlating spending and achievement in education. This report

suggested that schools and their resource allocation, such as measures resulting in lower class size, did not have a strong influence on student achievement. Coleman's study has received much scrutiny over the past forty years, primarily because some quantitative summaries in literature argue that more resources do result in higher test scores (Card & Kruger, 1996). Numerous barriers face researchers of this topic, including the lack of data on students after they enter the labor market. In order to reveal the true product of a student's education, more than standardized test data should be taken into consideration. Card and Kruger (1996) need access to data "that report both the current earnings or completed educations of adults and information on the resources available in the schools they attended" (p. 32). Other lacking components include parental background data and political variables. Since it is not uncommon for the children of wealthier parents to send their children to schools with smaller class sizes and better-paid teachers, these variables are exceptionally valuable. Card and Kruger pointed out "since family background is thought to exert an independent effect on children's economic outcomes, there may be a spurious positive association between school resources and measured outcomes, even if school resources have no effect per se" (p. 32-33). Balancing these points are the students with poorer backgrounds who may be assigned to remedial classes with higher school resource spending per student, creating a negative correlation between school resources and student outcomes. Card and Kruger's review of literature led them to the conclusion that there is a positive correlation between school resources and earnings and educational attainment, but "the relationship is not always robust to specific features of the data set or empirical specification" (p. 33).

Hanushek (1997) studied the relationship between spending and achievement by pulling studies from 90 different publications with 377 separate production function estimates that have

been published since the Coleman Report, with half being published since 1985. He chose studies published in journals or books that included "some measure of family background in addition to at least one measure of resources devoted to schools," and provided "information about statistical reliability of the estimate of how resources affected student performance" (p. 142). He divided the 377 findings into categories of positive and negative relationship to student achievement. After his analysis of studies from schools across the country with information from a variety of measures of student outcomes, he concluded, "there is no strong or consistent relationships between school resources and student performance" (p. 148). His research showed little reason to believe that by simply adding more resources to an ailing school, student achievement would improve. He added that his research did not imply that all schools and teachers were the same, but the differences were "not closely related to teacher salaries or to other measured resources devoted to programs" (p. 148). Hanushek stated, "While there are other explanations, ones that probably contribute some to the results, it seems plausible that some schools and districts find productive uses of added resources and use extra resources to boost the performance of their students" (p. 149). The policy viewpoint concerns stem from the fact that no one can describe when resources will be used effectively and when they will not be used effectively. In some cases general resources are allocated to a school and they may lead to high gains, while at other times the resources may be applied in very damaging ways and no measurable gains should be expected (p. 149).

Hanushek (1996) stated that when researchers consider the two slogans, "Money matters" or "Money doesn't matter," either could be correct with an appropriate definition. However, the more important issue "is usually not whether to spend more or less on school resources but how to get the most out of marginal expenditures" (p. 69). The key to effective school spending is

getting the most productive use from current and potential spending; however the term "effective" is even more debated. Hanushek pointed to the lack of incentives and motivations for teachers, principals, superintendents, and other staff to be invested in the success of the students in their schools. Whether students are successful or quite the opposite leaves no effect on the people who have the most control of the students' learning. He added, "The most promising alternative policy to make current additional resources more productive reverses this feature by emphasizing performance incentives" (p. 69). He argued that this spending element is central to school reform and improved student outcomes (Hanushek, 1996).

Though there has been "disagreement among researchers as to whether a statistical link can be found between student outcomes and money" (Odden & Picus, 2008, p. 52), researchers commonly address whether money matters in educational spending and the direct impact spending may have on student achievement. It has proven to be a difficult topic to examine due to the complexity of the issue. Many external forces and variables impact student achievement, causing many to find it difficult to pinpoint spending in one area as the sole reason for increased student achievement. Adding to the complexity, Alexander et al. (2000) indicated, "an increase in expenditures may take years to result in higher student performance, at which time it becomes difficult to demonstrate a causal relationship between the resources and improved performance" (p. 1).

Despite the difficulties in study, research conducted in Texas by a team from the University of Texas at Austin revealed consistent findings regarding state school districts and their allocation of resources (Alexander et al., 2000). Their examination of district expenditures by performance levels included interviews from twenty-one districts and examined the amounts of money spent for expenditure functions and program areas with respect to district budget

processes. The research team revealed that the districts with the greatest student gains spent more per-pupil on instruction and regular education programs. Furthermore, expenditures on instruction accounted for nearly sixty percent of district operating expenditures statewide (p. 33). The findings reported by this research team revealed a positive relationship between resource allocation and district performance. Using the Texas accountability system as a measure of student success, districts with the highest student performance (level one districts) spent more on per-pupil expenditures than districts with lower student performance. They found, "Specifically, level one districts spent more on instruction, instructional resources, school leadership, general administration, and co-curricular activities" (p. 34). A separate analysis by the Texas research team examined nine strong-improvement districts that increased their accountability ratings between 1996-1997 and 1998-1999. That analysis revealed the same strong connection between resource allocation and student achievement (p. 34).

In her *Resource Allocation: Targeting Funding for Maximum Impact* policy brief for the Office of Educational Research and Improvement in 2002, Miller revealed that allocating resources in three specific areas could help increase student achievement. The three most notable spending methods for improvements were funding programs purposefully with strategies to reduce average class size in lower grades, developing and funding public pre-kindergarten programs, and providing teachers with increased and flexible resources for teaching. The reduction of class size in early grades was most effective for children who were at most risk of failure, while pre-kindergarten programs were a resourceful way of spending when they offered sustained and intensive public programs for disadvantaged children. Though it was evident that teacher quality had a substantial impact on student achievement, Miller's research suggested that

local leaders should vary methods of improving teacher quality rather than simply establishing across-the-board salary increases.

Stacy Gill Philips's (2010) study in Pennsylvania, *Charter School Spending: Is There a Relationship Between Spending and Student Achievement in Charter Schools*, analyzed resource allocation patterns of four charter schools in the urban areas of Philadelphia. Data were collected from in-depth interviews with charter school leaders, annual school budgets, and the PSSA results over a three-year period. The research questions were developed to analyze four areas of spending: instruction, facility, technology, and supplies. The sample examined in this study included four established urban charters with enrollment of 250-800 students, serving 50% minority children, and at least 75% of students receiving free and reduced priced meals. Her study revealed that in schools where children were achieving, the spending seemed to occur in specific, targeted areas. The analysis of budget and test data for all four schools confirmed there was a "positive relationship between student achievement and resource allocation when resources were spent in the areas of instruction, instructional-related resources, and instructional leaders such as coaches, curriculum directors, and all other instructional program directors" (Gill Phillips, 2010, p. 78). The top two performing schools in the study spent over 50% of their resources in the area of instruction while the two lower performing schools spent less than 50% on instruction. The one school in the study that allocated the largest amount of resources in instruction and instructional related areas also experienced the highest level of achievement. The notion that simply allocating more money to solve a school's problem proved to be ineffective unless the money was spent in a specific, purposeful manner. The findings that supported this conclusion typically appeared at the district level for traditional public schools and at the school

level for charter schools. In schools where spending did not support a positive impact on student achievement, there was less evidence of targeted spending (Gill Phillips, 2010).

As revealed in research conducted by Archibald (2006) using 2002-2003 data from the Washoe County School District in Reno, Nevada, "teacher performance as measured in standards-based teacher evaluation system is positively related to student achievement" (p. 35), holding true even when school-level explanatory variables are considered. These findings suggest that the most effective use of school spending is on professional development that ties directly to classroom instruction. The importance of educational spending for professional development was examined by Desimone, Porter, Garet, Yoon, and Birman (2002) in a three-year longitudinal study using a purposefully selected sample of approximately 207 teachers in 30 schools across five states. The research examined varied aspects of professional development and its effects on the evolving teaching practice of math and science teachers. The conclusions were that professional development increased teachers' use of those practices in the classroom if they were specific instructional practices. They also found that "specific features, such as active learning opportunities, increase(d) the effect of the professional development on teacher's instruction" (p. 81). Unfortunately school districts and schools often find themselves choosing between serving a larger number of teachers with broad professional development and providing higher quality, content-specific activities for fewer teachers. Desimone et al.'s study suggests that districts and schools would be better served to focus high quality professional development on fewer teachers "in order to provide the type of high-quality activities that are effective in changing teaching practice" (p. 105). Archibald's (2006) findings would suggest that this type of focused spending would lead to higher quality teaching that directly affects student achievement.

Archibald (2006) also found in her research in the Washoe County School District that spending per-pupil in reading was positively related to student achievement and statistically significant, establishing that resources for education do matter. The same was not true in regards to math, but her findings indicated that the district had directed targeted spending toward literacy instruction for that school year (Archibald, 2006).

The National Study of Charter Management Organization (CMO) Effectiveness examined diverse strategies and diverse student impacts in a study in January 2012 through research conducted by Mathematica Policy Research and the Center on Reinventing Public Education (Furgeson et al., 2012). The research teams found that comprehensive behavior policies are positively associated with student impacts if they "encourage students to focus, reduce the amount of disruption, and increase time on task" (p. 74). Schools under CMOs with these policies tended to have a greater impact on math and reading achievement. These research teams also found that intensive teacher coaching that allowed for teachers to be observed by coaches and administrators while receiving feedback and submitting lesson plans for review had the potential to increase student achievement (p. 75).

Gill Phillips (2010) conducted a study of four charter schools in Pennsylvania for the purpose of evaluating their spending, budgets, and student achievement in an attempt to identify any relationship between charter spending and student achievement. The four selected charters were similar in demographics with two being identified as higher achieving schools and lower achieving. For the purpose of reporting data, Gill Phillips referred to schools A1 and A2 as the higher performing schools that had met their annual yearly progress (AYP) most consistently over a three-year period, with A2 reported as the highest performing of the studied schools (Gill Phillips, 2010). The schools referred to as N5 and N6 were considered lower performing

schools, not meeting AYP over that same time period. In reporting results, Gill Phillips reported individual findings by school in the areas of school budget expenditures, school level PSSA performance, school level AYP outcomes, school/student characteristics, and outcomes of key decision-maker interviews (Gill Phillips, 2010).

The first major finding was that the highest performing schools, A1 and A2, spent over 50% of their operating expenses on instruction. A1 spent approximately 50.29% with A2 spending 57.36% on instruction. The lowest performing schools, N5 and N6, each spent lower than 50% of their operating expenses on instruction. N5 spent 41.19% and N6 spent only 36.85% on instruction. Although the resource allocation of instructional funding varied among each school, the lower performing schools were still funding less than 50% of their budgets toward curriculum and instruction. The two highest performing schools not only used over half their funding on instruction, but they specifically used most of their instructional spending on coaches, curriculum directors, and all other instructional program directors (Gill Phillips, 2010).

The school level PSSA (Pennsylvania System of Standardized Assessment) results were analyzed to show student abilities in reading and math. Schools A1 and A2 met AYP expectations with no less than 10% of growth from the prior school year's results in 3rd through 5th grades (Gill Philips, 2010). A1 had a total population of 400 students with A2 reporting 485 students. Schools N5 and N6 had lower student achievement in those same grades and failed to meet AYP expectations. N5 reported 850 students in their total population and N6 reported 400 students. Overall third-grade data showed that A2 outperformed all other schools in 2008 and 2007 in reading and was second to A2 in 2006. Schools N5 and N6 were third and fourth in those areas. In the area of math, A1 outperformed all other schools in 2006 and 2007 and scored second to A2 in 2008. N5 scored third except in 2006 where they were second. N6 did not have

any students scoring in the advanced or proficient areas in the third grade until 2008. Similar results were repeated for higher-grade levels of student performance as measured by PSSA (Gill Philips, 2010).

After analyzing the school leader interviews, Gill Phillips (2010) found that eight common themes emerged: mission driven, teacher input-retention-conflict, budgeting based on need-student centered, turnover of administrative team members, data-driven decision making, significant student issues, significance of extra-curricular activities, and teacher training-instructional practices and supports. One of the clearest themes shared by all CEOs and leaders was the sense of commitment to the charter's mission and vision. The successful schools noted that the mission of the school and how well it was followed defined their success. In N6, the school exhibited no commitment to the mission and no focus on required academic mandates (Gill Phillips, 2010).

All school leaders had a formal way for teachers to be a part of the decision-making process in their buildings, but some made more efforts to establish shared collaboration than others. The interviews revealed that in the higher performing schools the teacher input was more structured and that the lowest performing school used a more random process. The higher performing schools involved more stakeholders in the shared decision-making process while one of the lower performing schools made most decisions after a three to four day board retreat (Gill Phillips, 2010). The result of the school leader interviews showed no strong relationship among the results except for the categories of teacher and administrative turnover and budgeting based on need. All four leaders reported high turnover and used a needs-based approach to creating a budget. The highest performing charter exhibited an environment of low conflict, higher retention, and teacher input was often solicited. The three highest performing schools used data

to drive instruction and sustained an offering of extra-curricular activities to students (Gill Phillips, 2010).

Effective School Leadership

Fifty-four million children walk into a public school each day in the United States. Over 94,000 K-12 schools serve these children with hopes of enhancing their life experiences when they graduate after 13 years (Marzano, Timothy, & McNulty, 2005, p. 3). Marzano et al. cite the March 2002 U.S. Census Bureau, advocating that the median earning for those individuals who graduate from high school was $19,900 as opposed to $11,864 for those who did not graduate (p. 3). They stated, "Whether a school operates effectively or not increases or decreases a student's chances of academic success" (p. 3).

Marzano's work in 2004 concluded that "students in effective schools as opposed to ineffective schools have a 44 percent difference in their expected passing rate on a test that has a typical passing rate of 50 percent" (p. 3). To illustrate this difference, consider two schools, A and B, with students taking a typical test with a 50 percent pass rate. If school A is effective and school B is ineffective, with a difference of 44 percent, school A would have an expected pass rate of 72 percent while school B would expect 28 percent to pass (p. 4). Based on this simple analysis, at the most basic level, leadership does have a valuable role in student achievement, second only to highly effective teaching.

Discussion on quality and effective leadership appear, as outlined by Bass (1981), in the works of Plato and Caesar among others. "Given the perceived importance of leadership, it is no wonder that an effective principal is thought to be a necessary precondition for an effective school" (p. 5). The author cites the 1977 U.S. Senate Committee Report where principals were named the "single most influential person in a school" (p. 5).

Marzano et al. (2005) used quantitative measures in their research methodology to understand and synthesize their studies. This form of meta-analysis "has provided impressive advances in the art and science of synthesizing studies within a given domain" (p. 7). Any known studies from 1970 to the time of this research (2005) were used. The study included the following conditions:

- The study involved K-12 students.
- The study involved schools in the United States or situations that closely mirrored the culture of U.S. schools.
- The study directly or indirectly examined the relationship between the leadership of the building principal and student academic achievement.
- Academic achievement was measured by a standardized achievement test or a state test, or composite index based on one or both of these.
- Effect sizes in correlation form were reported or could be computed. (p. 28)

The results of Marzano et al.'s study showed 69 correlations between school leadership and academic performance. Student achievement rose from the 50th percentile to the 72nd percentile when leadership behavior rose to the 99th percentile from the 50th percentile. Based on this analysis, the authors discovered 21 responsibilities of school leaders as indicators of success: Affirmation, Change Agent, Contingent Rewards, Communication, Culture, Discipline, Flexibility, Focus, Ideals/Beliefs, Input, Intellectual Stimulation, Involvement in Instruction, Knowledge of Instruction, Monitoring/Evaluating, Optimizer, Order, Outreach, Relationships, Resources, Situational Awareness, and Visibility.

When dealing with small day-to-day responsibilities a school leader must, according to Marzano et al. (2005), attend to all aspects of the 21 responsibilities. When dealing with large

second-order change a school leader must emphasize at least seven responsibilities (p. 75). With this being said, doing the right work is crucial to effectiveness regardless of how they are implemented or the strength of the leader. "The school leader's ability to select the right work is a critical aspect of effective leadership" (p. 97).

As discussed earlier, *No Child Left Behind (NCLB)* legislation (2002) changed the way educators and society looked at the American education system. NCLB brought about an intense system of accountability, bringing about the implementation of national and state standards as well as improvement strategies. According to research of Borko, Liston and Whitcomb (2007) on NCLB, as referenced by Chicquette, there was little evidence of increased academic achievement with the implementation of NCLB (Chicquette, 2010, p. 1).

Chicquette describes an implementation model for an effective continuous improvement initiative in the Appleton Areas Schools District (AASD), located in Wisconsin. The district modeled this after the work of Shewhart and Deming's *Do-Check-Act* plan, as well as Juran and Deming's Total Quality Management philosophy (p. 4). AASD used ten defined steps in order to achieve the academic increases. These were:

1. Team Readiness
2. Data Digs
3. Clarifying Retreat
4. Team Planning
5. Commitment Retreat
6. Site Team Meetings
7. Implementation Visits
8. Team Reflection

9. Showcase Planning
10. Showcase (Chicquette, 2010, p. 15)

In a report for the *National College for Leadership of Schools and Children's Services* (2010), David Hargreaves explained, "School improvement depends on improved leadership, but the necessary scale, speed and sustainability of leadership development cannot be achieved by centralized action alone" (Hargreaves, 2010, p. 4). Within the AASD model, the first five steps included the district and school leaders understanding and committing to the defined action steps.

Andrew Hargreaves, a leader in education improvement, noted that education in America was still rooted in old paradigms of standards effectively being sidestepped by other nations who have embraced post-modernization (Chicquette, 2010, p. 58). The use of a continuous improvement model changes this paradigm. Chicquette, in his research of AASD, found that leaders were a critical piece in the successful implementation of a process-driven model, as noted earlier by D. Hargreaves (p. 161).

Framework for Defining School-Level Expenditures

Odden et al. (2003) created an expenditure structure specifically designed to report school-level expenditures and "differentiate the spending of multiple educational units within a single school building to reflect new 'schools within schools' organizational structures" (p. 327). They stated that it is a structure that "categorizes expenditures by expenditure elements that reflect current thinking about effective instructional strategies and resource deployment" (p. 327). It consists of nine expenditure elements that comprise the school expenditure structure to replicate the core elements of nearly all school-wide educational strategies and the most commonly referenced expenditure elements in school finance discussions, such as instruction, staffing, administration, and operations and maintenance. These items are drawn from research

on high performing schools and school improvement that relate to curriculum and instruction, organizational structures, and professional development (p. 327).

School resource indicators that should be used to compare school data are student enrollment, percent low-income, percent special education, percent ESL, expenditures per pupil, professional development expenditures per teacher, special academic focus of school, length of instructional day, length of class periods, length of reading class, length of math class, reading class size, math class size, regular class size, and percent core teachers (Odden et al., 2003, p. 328-329).

The core elements of the structure are nine expenditures that reflect "function" and "program" categories that are instructional and non-instructional (Odden et al., 2003). The seven instructional elements are core academic teachers, specialist and elective teachers, extra help, professional development, other classroom instructional staff, instructional materials and equipment, and student support. The non-instructional elements are administration, and operations and maintenance. According to Odden et al. (2003), each expenditure group can be defined in the following manner:

- *Core academic teachers* are licensed classroom instructors who are primarily responsible for teaching the school's core academic subjects of reading, English, language arts, mathematics, science, and social studies classes and departments along with special education or ESL teachers who provide classes in these subjects.
- *Specialist and elective teachers* are licensed teachers who teach non-core academic classes such as art, music, physical education, foreign language, vocational, driver's education teachers along with licensed librarians and media specialists.

- *Extra help* describes tutors who are licensed teachers providing individualized help to students, running extra help laboratories and resource rooms with small groups of students as well as inclusion teachers assisting regular classroom teachers with mainstreamed students who have learning problems or disabilities; teachers of English as a second language (ESL) who teach students to speak English; and self-contained special education teachers. Extended day or summer school programs and district alternative programs were located within the school and designed to serve students who have trouble learning in traditional classrooms. These two programs may be "administratively and instructionally separate from the host school although they may be located in the school building or reported as part of the school's operating budget" (p. 333).
- *Professional Development* includes any spending for the school's staff and includes teacher time for professional development, trainers and coaches, professional development administration, and tuition and conference fees.
- *Other non-classroom instructional staff* are those who support a school's instructional program, such as program coordinators, substitutes, and instructional aides other than those working in self-contained special education classrooms.
- *Instructional materials and equipment* include books, instructional supplies, materials, equipment, and computer hardware and software for all instructional programs, including regular education and all extra help programs.
- *Student support* consists of counselors, nurses, social workers, psychologists, attendance monitors, parent liaisons, and expenditures for extra-curricular activities and athletics.

- *Administration* consists of all elements of school administration including principal, assistant principal(s), clerical staff, office supplies, equipment and technology, and school reserve funds.
- *Operation and maintenance* includes the cost of staff, supplies, and equipment for custodial services, food services, security, utilities, and maintenance of building and grounds charged to the school. (p. 331-334)

Odden et al. (2003) indicate that the structure and accompanying resource indicators creates a "powerful analytical tool for comparing resource use and deployment across schools" (p. 334). Furthermore, they stated that the "mix of resources committed to each expenditure element provides insights into the types of instructional strategies employed by the school" (p. 334). More traditional schools may have more teachers who are specialists, elective teachers, extra help teachers relative to core teachers, as opposed to schools implementing a reform model. A school implementing a whole school reform design could have more money allocated for professional development and instructional materials as compared to more traditional schools that spend more on staffing. The resource indicators described with the model supplement the fiscal information by adding more details about the school instructional strategies. Authors of the framework also stated that the "Resource indicators such as core class size and percent core teachers may help clarify strategies suggested by the expenditure structure" (p. 334). Indicators such as the length of days and class periods provide insight that fiscal classifications could not clarify alone while school size and professional development expenditure per teacher allows for school comparison based on best practices (p. 334).

Methodology

Research Design

This research utilizes a multiple case study design to analyze the charter school budgets, expenditures, and student data as well as the feedback from school leaders and teachers to determine the most efficient use of CSP grant funds. A case study is defined as an "in-depth study of instances of a phenomenon in real-life settings and from the perspective of the participants involved in the phenomenon" (Gall, Gall, & Borg, 2007, p. 634). A multiple-case study design has two or more individuals or instances of the phenomenon, with each either being similar in nature or different from each other in a way that is of interest to the researchers (p. 178). In order to understand the relationships among the studied variables, a mixed-methods approach is used for evaluation. A qualitative research approach is used on a sample of six charter schools, with five of those in the sample choosing to participate in the qualitative portion. Schools were chosen for this sample if they served grades 5-8 during the life of their CSP grant. School leader and teacher perspectives on spending and effectiveness were collected as well as data from charter planning and implementation documents, budget and financial reports, performance reports, TCAP and TVAAS reports, and individual charter school reports.

Purpose of Study

This study sought to determine how individual charter schools in Tennessee are spending CSP grants with examinations of outcomes in academic achievement and fiscal sustainability. The purpose of this study was to determine the most effective use of CSP grant funds as measured by student achievement, ability of the charter schools to remain fiscally self-sufficient after the three-year life of the grant, and as perceived by charter school teachers and leaders. This research will provide direction for structuring grant applications and provide helpful

guidance to individual public charter school grant recipients as they apply for $600,000 or $700,000 over a three year period and plan for sustainability after the grant life expires. The findings of the research will be distributed to current and future grant recipients or applicants as guidance for their own planning and implementation as well as to state charter leaders as they guide and direct charters to success.

The aim of this research was to closely examine the use of CSP grants by all Tennessee charters to determine commonalities in schools with the highest student achievement and those with the lowest student achievement in addition to those who reach financial sustainability after the life of the grant. Qualitative and quantitative data were collected as school culture, technology use, staffing, and student success measures were evaluated with budget expenditures.

Research Questions

1. What funding implementations correlate with high student achievement in the studied charter schools?
2. What allocation of CSP grant funds, while under the CSP grant, creates the most effective charter school?
3. What is the most effective use of CSP grant funds during the first three years of a Tennessee charter school's existence as perceived by teachers and school leaders in schools that have completed the three-year life of the CSP grant?

Hypotheses

1. Charters that spent over 50% of their CSP grant funds on instruction showed sustainability by maintaining their charter existence after the three-year life of the grant.

2. Charters that spent over 50% of their CSP funds on instruction had higher percentages of proficient and advanced scores in both TCAP math and reading assessments combined for grades 5-8 than schools that spent lower percentages on instruction.
3. Charters that spent over 50% of their CSP grant funds on instruction had a higher percentage of proficient and advanced scores on the TCAP reading assessment in grades 5-8 than schools that spent lower percentages on instruction.
4. Charters that spent over 50% of their CSP grant funds on instruction had a higher percentage of proficient and advanced scores on the TCAP math assessment in grades 5-8 than schools that spent lower percentages on instruction.

Null Hypotheses

1. There is no statistically significant difference in school sustainability as measured by maintaining charter existence after the three-year life of the grant in schools that spend over 50% of CSP grant funds in instruction as compared to those who spend less than 50% in the targeted area.
2. There is no statistically significant difference in student performance on TCAP math and reading scores for grades 5-8 in schools that spend over 50% of CSP grant funds in instruction as compared to those who spend less than 50% in the targeted area.
3. There is no statistically significant difference in student performance on TCAP reading scores for grades 5-8 in schools that spend over 50% of CSP grant funds in instruction as compared to those who spend less than 50% in the targeted area.
4. There is no statistically significant difference in student performance on TCAP math scores for grades 5-8 in schools that spend over 50% of CSP grant funds in instruction as compared to those who spend less than 50% in the targeted area.

Selecting Participants: Population and Sample

There were approximately fifteen Tennessee charter schools that completed the Charter Schools Program (CSP) grant from the Tennessee Department of Education at the time of the study and continued educating students after the life of the grant, as well as two charter schools that closed due to various reasons. These charters had unique populations, school structures, priorities, and outcomes. The six charter schools having completed the three-year life of the grant while serving the middle grades of 5-8 at the time of the study were the focus of this research as quantitative data were evaluated.

In addition to the quantitative analysis conducted of the grant-receiving schools, all six of the Tennessee charter schools were selected to participate in a qualitative study. These schools were experiencing varied academic success as measured by TCAP assessment results in math and reading while demonstrating institutional sustainability after the first three years of the grant. The one charter school involved in the study that would not be sustainable at the conclusion of the grant cycle, as determined by their LEA, elected not to participate in the qualitative survey. The studied schools were selected using the purposive sampling method to ensure the ability to generalize the findings to other settings. The goal of purposeful sampling was to "select cases that are likely to be information rich with respect to the purposes of the study" (Gall et al., 2007, p. 178). The intent of this design was not to achieve population validity, but rather achieve an "in-depth understanding of selected individuals, not to select a sample that will represent accurately a defined population" (p. 178).

Each of the schools selected in this sample has varied characteristics, but all come from two major LEAs in Tennessee. In addition to being funding by CSP grants, each charter is also funded by BEP funds allocated based on student enrollment as described in the literature review.

Each charter chosen for this sampling is described with its specific characteristics, however its additional funding sources and holistic budgets were not released at the time of the study.

Data Collection Procedures

The data were collected to compare resource allocation in successful charter schools as measures of levels of achievement and sustainability. Achievement data were collected from public documents accessible online from the TNDOE website and as provided by the Tennessee Department of Education Office of Charter Schools. Additional student performance data was pulled from the TVAAS website. The TDOE Office of Charter Schools also provided grant applications, budget and expense reports, and funding source data. Qualitative data was gathered from questionnaires administered to charter administrators, teachers, and other leaders in order to evaluate the climate, culture, fiscal perception, school duties and responsibilities, and use of professional development spending. Follow-up questions /surveys were conducted as needed to collect sufficient data.

Research Instrumentation

A questionnaire (Appendix D) was used in this study to collect qualitative data from the sample schools determining perceptions of resource allocation and the connection to student and charter success. An online survey tool provided by Lipscomb University, RedCap, was used to administer the questionnaires and collect anonymous data from administrators, teachers, and other school leaders. Quantitative data were used from state department websites, specifically the TCAP scores of grades 5-8 in each charter school. Spending allocation was collected through reports provided to the client.

Pilot Study

The questionnaire was piloted to a group of thirty public school leaders and thirty public school teachers prior to use. Through this process the questions were adjusted and refined. The first sampling of this questionnaire was given through the online survey tool, *Obsurvey*, and had over thirty questions with many of them phrased as open-ended. Those who took the pilot survey offered feedback to the questions and the process while their actual responses helped the researchers rephrase certain questions, move some questions to a multiple-choice format, and use responses to create answer categories. Through the feedback from the pilot, the research team transitioned from *Obsurvey* to use Vanderbilt University's online data capturing management tool, REDCap (Research Electronic Data Capture). REDCap provided a more professional experience for both the researchers as well as those involved in the study, allowing for more answer choices. REDCap also included a function that allowed the data to be downloaded directly to IBM's Statistical Package for the Social Sciences (SPSS) data analysis software. This process allowed the research team to refine the questions and also to review the responses, making sure that the qualitative data would be beneficial to the overall research. The ease of direct transition from REDCap to SPSS not only refined the data collection process, but it also created a clean data transition to ensure the data was kept pure.

Variables in the Study

In addition to the data collected from the qualitative questionnaire, which were compiled in a separate SPSS dataset, several other variables were collected to begin the evaluation of CSP spending in each charter. Data for each school was pulled from state reporting documents, individual charter applications, CSP grant applications, and from the TNDOE Office of Charter

Schools where charter documents were housed. In order to address the research questions in this study, the variables collected in this quantitative dataset used for statistical analysis included:

- Charter school descriptors (name, location, address, leaders, LEA, year the charter opened, student capacity each year, capacity limit based on charter application, number of years opened, grade levels served by year of existence, etc.)
- Charter school's sustainability (ability to stay open after the three year life of the grant)
- Overall percent of proficient and advanced scores as broken-down by year, grade level and subject (math and reading)
- Overall percent of below proficient and/or basic scores as broken-down by year, grade level and subject (math and reading)
- The cut-score for proficiency as broken-down by year, grade level and subject (math and reading)
- CSP Grant overall dollar allocation to school and by year of CSP grant
- Total amount and percent of CSP funds allocated to the areas of instruction, facility, supplies, and technology during the entire life of the CSP grant and by year of CSP implementation

Data Analysis

Once data collection was concluded, the quantitative data were analyzed using IBM's SPSS software as Pearson correlations, descriptive statistics, nonparametric Kendall correlations, t tests, residual statistics, regressions, and one-way and two-way analyses of variances (ANOVA) were performed. Variables were analyzed to discover connections between areas of spending and school and student success indicators. School budget and expenditure reports were analyzed based on the percent that each school planned to spend and had spent in the areas of

instruction, supplies, facilities, and technology. These data were correlated with the emailed survey to each teacher and leader of the sample schools. TCAP data from the sampling were analyzed using data from each school for grades 5-8. Each sample school was analyzed individually and again as a group to see if any themes or commonalities arose.

The data collected, both through the REDCap questionnaire as well as the quantitative school level data, were kept on secure passcode protected computers. The data were organized by charter school, and then by subject and grade level. Individual charter school CSP funding was applied to each subject and grade level to ensure the academic and financial information could be used for all schools and across all platforms. The financial data collected through various school level records were analyzed and imported into the spreadsheet using four categories: instruction, facility, technology, and supplies. The data were treated in an excel spreadsheet and then imported into IBM's SPSS Statistics. Open-ended responses, as collected in the qualitative REDCap questionnaire, were analyzed by the research team and used throughout our findings.

The qualitative data collected from the sampling aided the research team in determining whether the results of decisions made in the school reflect any other patterns of spending. Responses determined whether a perception exists that high student achievement is related to spending or budget choices, as well as revealed any consistencies or inconsistencies between the perception of student achievement and school success as compared to the TCAP data collected. A triangulation approach was used in the analysis of questionnaires, school achievement data, and literature review. IBM SPSS was used for statistical analysis of all data collected. School leaders completed surveys evaluating their experience, roles within the school, time spent on curriculum and instruction, pursuit of a school mission, school success statements, instructional

resource allocation, professional development needs and decision-making, and resourcefulness addressing at-risk populations. Patterns of focus were compared to determine if the focus of the most effective school leaders was weighed heavier in some areas as compared to others.

Disposition of Data

Any information obtained in connection with this study remained confidential and will be disclosed only with the school's written permission or as required by law. Individual participants in this study were anonymous. Confidentiality was maintained by keeping all information, data, and questionnaires in a locked safe for the purpose of this research. Any information stored electronically was encrypted and required a passkey for access. All files will remain in a secure location for one year from the time of publication of this research, after which time they will be properly destroyed. The results of this study are to be used by the Tennessee Department of Education (TDOE) and United States Department of Education (USDOE) as analysis for potential grant awards.

Findings and Analysis

Description of the Current Sample

Six Tennessee charter schools serving grades 5-8 during the 12-13 school year were selected as the focus of this research. These charters serving middle grades had completed, or were in the process of completing, the three-year life of the CSP grant at the time of the research. All six schools were located in the Memphis or Nashville areas of Tennessee and operated under one of two LEAs serving those cities. The success of the charters varied from highly successful to low performing and on the brink of closure. Two of the most successful schools were designed under the Knowledge Is Power Program (KIPP) model.

KIPP Academy Nashville, located in middle Tennessee, was opened in 2005-06 and KIPP East Nashville Preparatory sponsored its charter. As a school designed to span grades 5-8, it reached capacity serving approximately 320 students during the 2012-13 school year. KIPP Nashville received a total of $506,000 in CSP grant funds over the three-year life of the grant. The funds were distributed in three annual installments of $100,000, $203,000, and $203,000. This charter operated under the LEA of Metro Nashville Public Schools and had the second highest percentage of proficient and advanced scores on TCAP math and reading during the three-year life of the CSP grant with the mean of 89.3.

KIPP Memphis opened in 2008-09 and served approximately 425 students during the 2012-13 school year. Designed to span grades 5-8, the charter's capacity was 800 students. Located in west Tennessee, this charter is sponsored by the KIPP Foundation and operates under the LEA of Memphis City Schools. KIPP Memphis received a total of $700,000 in CSP grant funds over the three-year life of the grant. The funds were distributed in three annual installments of $225,000, $275,000, and $200,000. Of the researched charters, KIPP Memphis

had the highest percentage of proficient and advanced scores on TCAP math and reading during the three-year life of the CSP grant with the mean of 94.5.

LEAD Academy opened in 2007-08 and served approximately 600 students during the 2012-13 school year. Designed to span grades 5-12, LEAD served grades 5-11 during the 2012-13 school year. Though they will grow to serve grade 12 in the 2013-14 school year, they were at their charter capacity enrollment in 2012-13. Under LEA Metro Nashville Public Schools, LEAD's charter term ended in 2012 with a new charter application scheduled to be renewed. Located in Nashville, they were sponsored by LEAD Public Schools, Inc. LEAD Academy received a total of $700,000 in CSP grant funds over the three-year life of the grant. The funds were distributed in three annual installments of $225,000, $275,000, and $200,000. The mean percentage of TCAP proficient and advanced scores in reading and math during the life of the CSP grant was 58.2 and the third highest performing of this study.

New Vision Academy, located in Nashville, opened in 2010-11 and served approximately 150 students during the 2012-13 school year. New Vision's charter was sponsored by New Vision, Inc. New Vision operated under the LEA of Metro Nashville Public Schools and was designed to span grades 5-8. New Vision Academy received a total of $600,000 in CSP grant funds over the three-year life of the grant. The funds were distributed in three annual installments of $225,000, $250,000, and $125,000. The mean percent of TCAP proficient and advanced scores in reading and math during the life of the CSP grant was 32.9 and was the fifth highest performing in the study.

Smithson Craighead Academy opened in 2009-10 and was scheduled to serve approximately 336 students during the 2012-13 school year. Smithson Craighead was the only studied school that closed at the conclusion of the CSP grant life. Under LEA Metro Nashville

Public Schools, it was announced at the beginning of 2012-13 that the school would be closed at the conclusion of the school year due to lack of academic progress. The school declined to participate in the qualitative portion of this research. Smithson Craighead received a total of $700,000 in CSP grant funds over the three-year life of the grant. The funds were distributed in three annual installments of $225,000, $275,000, and $200,000. Located in Madison, Tennessee, Smithson Craighead is sponsored by Project Reflect, Inc. and was the lowest performing school of the study with the mean percentage of proficient and advanced at 12.9.

Veritas College Prep opened in 2010-11 and served 345 students during the 2012-13 school year. Sponsored by Veritas College Preparatory Leadership Academy, Inc., Veritas is located in Memphis and operated under the LEA of Memphis City Schools. Designed to span grades 5-8, it is scheduled to reach or exceed capacity of their current charter. Veritas College Prep received a total of $600,000 in CSP grant funds over the three-year life of the grant. The funds were distributed in three annual installments of $225,000, $250,000, and $125,000. The fourth highest performing school of the six-school study, Veritas had the mean percentage of 37.6 proficient and advanced on the math and reading TCAP during the life of the CSP grant.

The sample size selected for this study was appropriate considering the size and delimitations of this study. The schools represent different areas of the state as academic success and institutional sustainability were examined. The sample was small enough to allow the researchers to delve deeply into the teacher and administrator feedback to gauge their perceptions within each school while comparing with budgets, expenditures, and student achievement scores of all schools to make notable distinctions.

As described in Table 1, the performance of each charter during the three-year life of the grant is compared. The mean describes the percent of students in grades 5-8 who scored in the

proficient or advanced area on the reading and math TCAP during each school's life of the grant. The skewness and kurtosis were in the normal ranges and the mean descriptions note that KIPP Memphis was the most successful school with KIPP Nashville the second highest achieving. Smithson Craighead was the lowest and the only school in the sampling that was scheduled to close at the end of the grant.

Table 1

Charter Performance Report - % Proficient/Advanced CSP

School Name	*n*	*Mdn*	*M*	*SD*
KIPP Memphis Diamond	16	96.50	94.53	5.16
KIPP Nashville	10	90.30	89.30	5.35
LEAD Academy	18	79.60	58.26	32.40
NEW Vision	10	32.97	32.97	15.42
Smithson Craighead	17	14.30	12.91	5.21
Veritas College Prep	6	36.45	37.62	17.59
Total	77	52.50	54.92	35.61

As each year within the CSP grant was evaluated for TCAP proficient and advanced scores, the first year of the grant was established as the lowest performing of all years. As shown in Table 2, year two was the highest performing year with the amount of proficient and advanced increasing by 26.4 points as the means are compared. The third year of the grant saw a ten point drop. This run of descriptive statistics reviews each year's mean percentages of proficient and advanced TCAP scores. The skewness and kurtosis are both in the normal range in this descriptive statistical run and the number of cases identifies the number of total grade levels and subjects testing in sample schools during each year of the grant. The data also shows that the number of cases doubles in year two, likely due to the fact that some of the charters increased grade level offerings each year.

Table 2

Charter Performance Report by Year - % Proficient/Advanced CSP

Year	*n*	*Mdn*	*M*	*SD*
Year 1 CSP Grant	15	18.800	37.50	32.13
Year 2 CSP Grant	32	81.550	63.97	30.82
Year 3 CSP Grant	30	31.350	53.98	39.51
Total	77	52.50	54.92	35.61

Analysis of the Null Hypotheses

The purpose of this research is to examine the spending implications on student achievement and charter sustainability as it pertains to the CSP grant. To this end, statistical correlations were run using the Pearson correlation and Nonparametric Kendall correlation tests. When the number of cases being examined was thirty or more, the Pearson correlation was used looking for 2-tailed significance. As the number of cases dropped below thirty in individual year evaluations, the Kendall correlation was used to ensure data was evaluated with fidelity. Though charters completed the same application process for the CSP grant, how they chose to spend their CSP grant money greatly varied. The purpose of the study was to examine the spending patterns and examine connections between spending and sustainability as well as spending and achievement. The first null hypothesis evaluated was, "There is no statistically significant difference in school sustainability as measured by maintaining charter existence after the three-year life of the grant in schools that spend over 50% of CSP grant funds in instruction as compared to those who spend less than 50% in the targeted area." By classifying each school's expenditures using a prescribed framework, each school's spending was broken down into four major areas: instruction, technology, supplies, and facilities. The first area examined was the amount spent by each school on the area of instruction.

The descriptive statistics shown in Table 3 show the mean spending percentages in the area of instruction as broken-down by years of the CSP grant. The skewness and kurtosis were in the normal ranges and the mean percentages show that more CSP grant money was spent on the area of instruction during year one than in any other year of the grant. Year two saw a drop in instructional spending with a marked increase again in year three. In year one the charters spent

38.7% of their spending for instructional purposes while during year two only 27.5% was spent. In year three the instructional spending increased to 32.8%.

Table 3

Instructional Spending by CSP Year

Year	*n*	*M*	*SD*
% Instruction Year 1	84	.39	.26
% Instruction Year 2	84	.28	.20
% Instruction Year 3	84	.33	.17

The descriptive statistics shown in Table 4 demonstrate the spending percentages of each of the six charters as broken into the four classified spending areas of CSP funds. The descriptive statistics of the mean spending percentages of each school help describe where the most successful schools spend their CSP grant money. KIPP Memphis and KIPP Nashville were the most successful; however, their CSP spending on instruction wasn't always the highest category. Their highest percentages of spending were in the category of supplies. However, considering that Smithson Craighead was the least successful, it is noted that they spent only 8% of their CSP grant money on instruction.

Table 4

Charter CSP Spending Percentages by Category

School Name	*n*	*M*	*SD*
KIPP Memphis Diamond			
% Instruction	16	.29	.00
% Facility	16	.10	.00
% Supplies	16	.43	.00
% Technology	16	.19	.00
KIPP Nashville			
% Instruction	10	.22	.00
% Facility	10	.04	.00
% Supplies	10	.70	.00
% Technology	10	.03	.00
LEAD Academy			
% Instruction	18	.48	.00
% Facility	18	.11	.00
% Supplies	18	.36	.00
% Technology	18	.01	.00

Table 4 continued

School Name	*n*	*M*	*SD*
New Vision			
% Instruction	10	.48	.00
% Facility	10	.06	.00
% Supplies	10	.46	.00
% Technology	10	.00	.00
Smithson Craighead			
% Instruction	24	.08	.00
% Facility	24	.02	.00
% Supplies	24	.83	.00
% Instruction	10	.48	.00
% Technology	24	.06	.00
Veritas College Prep			
% Instruction	6	.74	.00
% Facility	6	.06	.00
% Supplies	6	.13	.00
% Technology	6	.06	.00
Total			
% Instruction	84	.32	.20
% Facility	84	.06	.04
% Supplies	84	.54	.22
% Technology	84	.06	.07

Table 5 shows descriptive mean statistics by school for year one of the CSP grant. The mean of the data recorded in year one for all studied charters shows that as a group the six charters spent 45.9% of their CSP funds on supplies, 38.7% on instruction, 9% on facilities, and 6% on technology. KIPP Memphis and KIPP Nashville were the highest performing schools in year one, and over the entire life of the CSP grant, while their instructional spending in year one was also the highest. Smithson Craighead was the lowest performing school in year one of the CSP grant, and over the three-year life of the grant, while its instructional spending in year one was the lowest. KIPP Memphis and KIPP Nashville both spent 49% of their budgets on instruction during year one while Smithson Craighead spent none of its CSP grant funds on instruction during the first year. KIPP Nashville actually spent equally as much in supplies as its did instruction. It is also noted that LEAD and Veritas also spent more CSP grant funds in the area of instruction in year one than in the other three categories.

Table 5

Charter CSP Spending Percentages by Category for Year 1

School Name	*n*	*M*	*SD*
KIPP Memphis Diamond			
% Facility	16	.24	.00
% Supplies	16	.15	.00
% Technology	16	.12	.00
% Instruction	16	.49	.00
KIPP Nashville			
% Facility	10	.02	.00
% Supplies	10	.49	.00
% Technology	10	.00	.00
% Instruction	10	.49	.00

Table 5 continued

School Name	*n*	*M*	*SD*
LEAD Academy			
% Facility	18	.16	.00
% Supplies	18	.24	.00
% Technology	18	.00	.00
% Instruction	18	.58	.00
New Vision			
% Facility	10	.00	.00
% Supplies	10	.53	.00
% Technology	10	.00	.00
% Instruction	10	.47	.00
Smithson Craighead			
% Facility	24	.00	.00
% Supplies	24	.87	.00
% Technology	24	.13	.00
% Instruction	24	.00	.00
Veritas College Prep			
% Facility	6	.11	.00
% Supplies	6	.08	.00
% Technology	6	.04	.00
% Instruction	6	.76	.00
Total			
% Facility	84	.09	.10
% Supplies	84	.46	.30
% Technology	84	.06	.06
% Instruction	84	.39	.26

Year one spending in the area of instruction was correlated with the total numbers of TCAP proficient and advanced in both areas of math and reading for grades 5-8 in Table 6. When evaluating all 77 cases involved from the six charters, the Pearson correlation showed statistical significance at the 0.01 level regarding the amount of CSP grant money spent in year one of the grant as compared to three years of achievement. These data illustrate that the more CSP grant money spent on instruction in year one of the CSP grant, the higher the percent of proficient and advanced on 5-8 TCAP during the life of the grant. Purposeful spending on the area of instruction during year one of the CSP grant has implications on achievement in year one of the grant and over the course of the three-year life of the grant. It is statistically significant because it is .000, which is less than .05. These correlation data are statistically significant.

Table 6

Year 1 CSP Instructional Spending vs. Achievement during CSP Life of Grant

	% Instruction Year 1			% Proficient/Advanced CSP		
	n	*r*	*p*	*n*	*r*	*p*
% Instruction Year 1	84	1.0	-	77	.513*	.000
% Prof/Adv. CSP	77	.513*	.000	77	1.0	-

*Correlation is significant at the 0.01 level (2-tailed).

Year two spending of CSP grant funds in the area of instruction was correlated with the total numbers of TCAP proficient and advanced in both areas of math and reading for grades 5-8 in Table 7. When evaluating all 77 cases involved from the six charters, the Pearson correlation showed no statistical significance regarding the amount of CSP funds spent in year two of the grant as compared to three years of achievement. These data illustrate that the more CSP funds spent on instruction in year two of the CSP grant had no impact on the percent of proficient and advanced scores on 5-8 TCAP during the life of the grant. This data shows that the correlation is not statistically significant because the 2-tailed significance exceeded .05 with $p = .717$. In fact it is slightly negative, but close to zero, but still not statistically significant.

Table 7

Year 2 CSP Instructional Spending vs. Achievement during CSP Life of Grant

	% Instruction Year 2			% Proficient/Advanced CSP		
	n	*r*	*p*	*n*	*r*	*p*
% Instruction Year 2	84	1.0	-	77	-.042	.717
% Prof/Adv. CSP	77	-.042	.717	77	1.0	-

Year three spending of CSP funds in the area of instruction was correlated with the total numbers of TCAP proficient and advanced in both areas of math and reading for grades 5-8 in table 8. When evaluating all 77 cases involved from the six charters, the Pearson correlation showed statistical significance at the 0.01 level regarding the amount of CSP funds spent in year three of the grant as compared to three years of achievement, but with a negative relationship (p = -.298). These data illustrate that the more CSP funds spent on instruction in year three of the CSP, the lower the percent of proficient and advanced on 5-8 TCAP during the life of the grant as the correlation was negative. The third year of spending of CSP funds on instruction matters over the course of three years, but not as previously conducted research may suggest. It is statistically significant because p = .009, which is less than .05. These correlation data are statistically significant with a negative impact.

Table 8

Year 3 CSP Instructional Spending vs. Achievement during CSP Life of Grant

	% Instruction Year 3			% Proficient/Advanced CSP		
	n	*r*	*p*	*n*	*r*	*p*
% Instruction Year 3	84	1.0	-	77	-.298*	.009
% Prof/Adv. CSP	77	-.298*	.009	77	1.0	-

* Correlation is significant at the 0.01 level (2-tailed).

All three years of instructional spending during the CSP grant were correlated with the total numbers of TCAP proficient and advanced in both areas of math and reading for grades 5-8 in Table 9. When evaluating all 77 cases involved from the six charters, the Pearson correlation showed no statistical significance regarding the amount of CSP funds spent over the three-year life of the CSP grant as compared to three years of achievement. These data illustrate that the more CSP funds spent on instruction in year one of the CSP, the higher the percent of proficient and advanced on 5-8 TCAP during the life of the grant. When all three years of the grant are correlated with three years of achievement there is no statistical significance. The data show a pendulum swing of influence by instructional spending. Year one shows significance, in year two the impact levels to no impact, and year three drops to a negative impact on achievement.

Table 9

CSP Instructional Spending – All 3 Years vs. Achievement during CSP Life of Grant

	% Instruction			% Proficient/Advanced CSP		
	n	*r*	*p*	*n*	*r*	*p*
% Instruction	84	1.0	-	77	.110	.342
% Prof/Adv. CSP	77	.110	.342	77	1.0	-

To breakdown the correlations even further, year one CSP grant spending in the area of instruction was correlated with year one of TCAP proficient and advanced scores in both areas of math and reading for grades 5-8 in Table 10. When evaluating the 15 cases involved from the six charters in the first year of the grant, the nonparametric Kendall correlation showed statistical significance at the 0.05 level regarding the amount of CSP funds spent in year one of the grant as compared to year one of achievement. These data illustrate that the more CSP funds spent on instruction in year one of the CSP, the higher the percent of proficient and advanced on 5-8 TCAP during year one. The first year of CSP spending on instruction matters in respect to achievement during the first year of the grant. It is statistically significant because $p = .017$ is less than.05. These correlation data are statistically significant. This significance matches the significance of year one of CSP spending on the total three years during the life of the grant.

Table 10

CSP Instructional Spending Year 1 vs. Achievement Year 1 CSP

	% Prof/Adv. Year 1			% Instruction Year 1		
	n	*τ*	*p*	*n*	*τ*	*p*
% Prof/Adv. CSP	15	1.0	-	15	.498*	.017
% Instruction Year 1	15	.498*	.017	19	1.0	-

*Correlation is significant at the 0.05 level (2-tailed).

Continuing the correlations to year two, the relationship of year two spending on instruction is correlated to year two achievement for both math and reading for grades 5-8 in Table 11. When evaluating the 32 cases involved from the six charters in the second year of the grant, the Pearson correlation showed no statistical significance regarding the amount of CSP funds spent in year two of the grant as compared to year two of achievement.

This data matches the conclusions drawn from the Pearson correlation between year two spending and three years of achievement, as both correlations show no statistical significance in this study.

Table 11

CSP Instructional Spending Year 2 vs. Achievement Year 2 CSP

	% Prof/Adv. Year 2			% Instruction Year 2		
	n	*r*	*p*	*n*	*r*	*p*
% Prof/Adv. CSP	32	1.0	-	32	-.084	.648
% Instruction Year 2	32	-.084	.648	35	1.0	

Continuing the correlations to year three, the relationship of year three spending of CSP funds on instruction is correlated to year three of achievement for both math and reading for grades 5-8 in Table 12. When evaluating the 30 cases involved from the six charters in the second year of the grant, the Pearson correlation showed a statistically significant negative relationship regarding the amount of CSP funds spent in year three of the grant as compared to year three of achievement. This data shows that the more CSP funds spent on instruction in year three, the lower the percentage of proficient and advanced. This significance matches that of year three spending as compared to three years of achievement.

Table 12

CSP Instructional Spending Year 3 vs. Achievement Year 3 CSP

	% Prof/Adv. Year 3			% Instruction Year 3		
	n	*r*	*p*	*n*	*r*	*p*
% Prof/Adv. CSP	30	1.0	-	30	-.612*	.000
% Instruction Year 3	30	-.612*	.000	30	1.0	

*Correlation is significant at the 0.01 level (2-tailed).

Though the purpose of this research is focused on the correlation between instructional spending and student achievement, other trends developed in school spending. Data showed that some schools spent higher percentages of their CSP funds on facilities, technology, or supplies leading this research team to run Pearson and Kendall correlations on the other three categories as compared to three years of achievement in addition to just instruction. In running correlations between overall spending of CSP funds on facilities for three years and percent proficient/advanced over the three-year life of the grant in TCAP math and reading for grades 5-8 in Table 13, there is a statistical significance at the .01 level on the Pearson correlation. This shows that there is a correlation between three years of CSP spending on facilities and three years of achievement.

Table 13

CSP Facility Spending (all years) vs. Achievement during CSP Life of Grant

	% Prof/Adv. CSP			% Facilities CSP		
	n	*r*	*p*	*n*	*r*	*p*
% Prof/Adv. CSP	148	1.0	-	148	.226*	.006
% Facilities CSP	148	.226*	.006	156	1.0	-

*Correlation is significant at the 0.01 level (2-tailed).

To evaluate the impact of CSP instructional spending on math scores alone, a Pearson correlation was run on over seventy-one cases for the six charter schools in this study. Table 14 shows the results of this statistical run and establishes the same patterns of correlation as the analyses evaluating both reading and math together. The statistics show that the more money spent of CSP funds in year one, the higher the math scores. Year two showed no statistical significance, but year three shows a statistical significance with an inverted effect as compared to year one.

Table 14

Math Proficient/Advanced Per Year by % Instruction

	% Proficient/Advanced			% Instruction		
	n	*r*	*p*	*n*	*r*	*p*
% Prof/Adv.	71	1.0	-	71	-.050	.679
% Instruction	71	-.05	.68	78	1.0	-
%Instruction Year 1	71	.30*	.01	78	.78**	.00
%Instruction Year 2	71	-.13	.27	78	.98**	.00
%Instruction Year 3	71	-.251*	.03	78	.87**	.00

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

To evaluate the impact of CSP instructional spending on reading scores alone, a Pearson correlation was run on over seventy-seven cases for the six charter schools in this study. Table 15 shows the results of this statistical run and establishes the same patterns of correlation as the analyses evaluating both reading and math together. The statistics show that the more money spent of CSP funds in year one, the higher the reading scores. Year two showed no statistical significance, but year three shows a statistical significance with an inverted effect as compared to year one. The difference between year one and year two of reading instructional spending of CSP is noted as compared to the same correlations in math. The P-value difference between year one as compared to year two in reading is almost one full point as compared to the .26 difference in math statistics. Both the reading and math results for grades 5-8 indicate that within the CSP grant the first year is key to instructional spending. After the first distribution of CSP funding, the correlation began to weaken, until by year three there was a statistically significant negative effect.

Table 15

Reading Proficient/Advanced Per Year by % Instruction

	% Proficient/Advanced			% Instruction		
	n	*r*	*p*	*n*	*r*	*p*
% Prof/Adv.	77	1.0	-	77	.07	.55
% Instruction	77	-.07	.55	78	1.0	-
%Instruction Year 1	77	.38**	.001	78	.78**	.00
%Instruction Year 2	77	-.001	.99	78	.98**	.00
%Instruction Year 3	77	-.198	.08	78	.87**	.00

** Correlation is significant at the 0.01 level (2-tailed)

A math Regression Model is shown in Table 16 and a reading Regression Model is shown in Table 17. These data show that CSP instructional spending in year one explains 9.15% of the proficient and advanced scores math scores. CSP instructional spending in year one explains 14.7% of proficient and advanced reading scores. This is significant in that the data starts to predict test scores during year one of the CSP grant based on how money is spent. Reading is even higher as CSP spending in year one in instruction explains 14.7% of proficient and advanced scores. Both reading and math Regression Models show statistical significance in year one of CSP instructional spending. The predictive formula under each table shows that a school that spends a prescribed amount of CSP grant funds on instruction during the first year of the grant would have this amount of percent proficient and advanced scores +/- this amount.

Table 16

Regression Model Summary - Math

Model	Math	R^2	Adj. R^2	*SE*	Durbin Watson Statistic	
					= Math	=~ Math
1	.301*	.091	.078	32.44	.387	.298

*Predictors: (Constant), Percent Instruction Year 1
Math=20.517+63.161(% Inst Yr1) +/- 32.44

Table 17

Regression Model Summary - Reading

Model	Reading	R^2	Adj. R^2	*SE*	Durbin Watson Statistic	
					= Reading	=~ Reading
1	.384*	.147	.136	28.22	.300	.385

*Predictors: (Constant), Percent Instruction Year 1
Reading=24.582+59.559(% Inst Yr 1) +/-28.22

Correlations were run between overall spending of CSP funds on supplies for three years and percent proficient/advanced over the three-year life of the grant in TCAP math and reading for grades 5-8 (see Table 18). The Pearson correlation showed statistical significance at the .01 level for a negative relationship. The data reveals that the more CSP funds spent on supplies over the three-year life of the grant, the lower the student achievement on TCAP math and reading. This significance is revealing as the lowest achieving schools are evaluated. For instance, Smithson Craighead is the only school of the study that has not sustained and their highest category of spending of CSP funds was in the area of supplies.

Table 18

CSP Supplies Spending (all years) vs. Achievement during CSP Life of Grant

	% Prof/Adv. CSP			% Supplies CSP		
	n	*r*	*p*	*n*	*r*	*p*
% Prof/Adv. CSP	148	1.0	-	148	.261*	.001
% Supplies CSP	148	.261*	.001	156	1.0	-

*Correlation is significant at the 0.01 level (2-tailed).

To examine the negative significance of spending of CSP funds in the area of supplies, year one spending was correlated with year one achievement using the nonparametric Kendall correlation for the 15 cases documented for year one in TCAP math and reading for grades 5-8 (see Table 19). This analysis showed a statistically significant negative relationship at the .05 level. Year one spending of CSP funds on supplies has indeed had a negative relationship on achievement in year one as demonstrated by this statistical analysis.

Table 19

CSP Supplies Spending Year 1 vs. Achievement Year 1

	% Prof/Adv. CSP			% Supplies CSP Year 1		
	n	*r*	*p*	*n*	*r*	*p*
% Prof/Adv. CSP	15	1.0	-	15	.498*	.017
%Supplies CSP Yr. 1	15	.498*	.017	19	1.0	-

*Correlation is significant at the 0.05 level (2-tailed).

Pearson correlations conducted between overall spending of CSP funds on technology for three years and percent proficient/advanced over the three year life of the grant in TCAP math and reading for grades 5-8 (see Table 20) demonstrate that there is a statistical significance at the .01 level on the Pearson correlation. The data reveals that the more CSP funds spent on technology over the three-year life of the grant, the higher the student achievement on TCAP math and reading. The significance is noted as .001, which is below the .05 standard for significance.

Table 20

CSP Technology Spending (all years) vs. Achievement during CSP Life of Grant

	% Prof/Adv. CSP			% Technology CSP		
	n	*r*	*p*	*n*	*r*	*p*
% Prof/Adv. CSP	148	1.0	-	148	.260*	.001
% Technology CSP	148	.260*	.001	156	1.0	-

*Correlation is significant at the 0.01 level (2-tailed).

Other Results

In school life, charter or traditional, occasionally what is established with data doesn't match what teachers and school leaders perceive. In this study data were collected to compare teacher and school leader perception regarding instructional spending and its relationship to student achievement and school sustainability to the quantitative findings based on spending and achievement correlations. The qualitative study examined instructional spending perceptions as they pertained to student achievement and professional development. The Teacher/School Leader survey, found in Appendix D, asked a series of multiple choice questions with the availability for respondents to answer some open-ended questions. Open-ended responses were categorized and charted for the purposes of this research.

Student achievement. Teachers and school leaders were asked to rate how they perceived the success of their charter school as compared to other Tennessee public schools serving middle grades. They ranked their charter on a continuum with a score of one as the lowest and a score of five as the highest. The means of their perceptions by school are noted in Table 21. It is noted that the most successful charter school using the percent of proficient and advanced in math and reading TCAP over the three-year life of the CSP grant was KIPP Memphis, but teachers and school leaders perceived their success with a mean of 3.29. The perception of KIPP Memphis teachers and school leaders was the lowest mean of all schools responding to the survey. The lowest performing charter of the study, Smithson Craighead, chose not to respond to the survey. Veritas teachers and school leaders rated itself the second highest with a 4.47 mean, but they are only the fourth highest achieving in our six school study.

Table 21

Teacher/School Leader Perception of Success

School Name	*n*	*Mdn*	*M*	*SD*
KIPP Nashville	12	4	4.42	.52
KIPP Memphis	7	3	3.29	1.11
LEAD	17	4	4.35	.61
New Vision	11	5	4.64	.50
Veritas	17	4	4.47	.51
Total	65	4	4.31	.73

School spending. Effective uses of school funds has been the major focus of this research and examining the perceptions of teachers and school leaders on the subject was also an important aspect of this research. The data from the research in this area are shown in Figure 2.1. Survey results indicated that teachers and school leaders perceived that the most effective use of spending in their charter was in the area of instruction with over 40% of the responses falling into this area. Respondents were asked to respond with an open-ended response and the research team categorized their responses into four categories using the same framework used in categorizing the school expenditures from their school budgets. Teachers and school leaders responded that spending in the area of facilities was least connected to achievement with technology being the second most important spending choice.

Responses from teachers and school leaders were examined by school and shown in Figure 2.2. All but one school responded that the most important funding allocation, as it pertained to student achievement, was in the area of instruction. Only 40% of Veritas's responses fell into the category of instruction while all other schools responding to the survey had 50% or

higher in the area. Veritas was also the only school with any teachers or school leaders who responded that spending in the area of facilities impacted student achievement.

Professional development offerings and needs. An area of instructional spending that directly impacts instruction in all schools, charter and traditional alike, is in professional development. The qualitative data pulled from the teacher and school leader survey examined how professional development was viewed, the areas of greatest professional development needs, and the areas of professional development offered in the sampling of charters. Table 22 shows the findings for the professional development needs currently noted at the studied charter schools. Table 23 shows the findings for the professional development teachers were receiving at the time of the survey. Respondents to the online survey were given ten pre-determined choices, as determined by the pilot survey, and were permitted to select all responses that they felt applied.

Table 22

Perception – Professional Development Needed

Title	*n*	*M*	*SD*
No PD Needs	28	.04	.19
Classroom Management	28	.29	.46
Character Education	28	.39	.50
Curriculum Development	28	.36	.49
Instructional Strategies	28	.43	.50
Lesson Planning	28	.21	.42
At-Risk Students	28	.43	.50
Assessment	28	.07	.26
Technology	28	.39	.50
Other	28	.00	.00

Table 23

Perception – Professional Development Receiving

Title	*n*	*M*	*SD*
No PD Needs	28	.04	.19
Classroom Management	28	.54	.51
Character Education	28	.04	.19
Curriculum Development	28	.21	.42
Instructional Strategies	28	.68	.48
Lesson Planning	28	.18	.39
At-Risk Students	28	.07	.26
Assessment	28	.46	.51
Technology	28	.04	.19

Title	*n*	*M*	*SD*
Other	28	.07	.26

As demonstrated by their responses, CSP grant schools in this study responded that they needed professional development in Instructional Strategies and they were indeed receiving it. The perceived biggest needs for professional development were Instructional Strategies with a mean of 43% and strategies for working with at-risk students with a mean of 43%. Though charter schools traditionally define their purpose as serving students at-risk, their teachers and school leaders perceive one of the biggest needs for professional develop is in the area of serving the at-risk student. Only 7% of teachers and school leaders responded that they were actually receiving professional development to help them serve this group of students. Another imbalance between perception and reality comes in the area of assessment. Though a mean response of 7% of teachers and school leaders believe this is an area of need for professional development, a 46% mean response rate indicates they are receiving it. Other areas of needed professional development not being met in the sampling of charter schools are in Character Education, Curriculum Development, and Technology. Figure 3, found in Appendix E, shows the compared need for professional development with received professional development in the ten response areas.

Mission and vision. As literature relates some aspects of student success to the focus on the school's mission and vision, this research team asked the teachers and school leaders at the sampling of schools to indicate their knowledge of their school's mission and vision, their view of its integration into the work they do every day, and how their school's mission and vision statements were created. Over 98% of those responding knew their school's mission or vision with 58% seeing their school's mission or vision integrated into their daily work at the school. Though there was not a patter of the highest schools having the highest perceived integration of mission or vision, the overall responses indicate these charter schools have a great focus on

mission and vision in their schools. A statistical significant relationship of focus on mission and vision to student success and school sustainability could not be established, but all schools had a focus. The one charter school not responding to the survey was the only school not sustaining, making some conclusions impossible from the data collected.

The charter teachers and school leaders were also asked to indicate how their school's mission and vision were created. Survey results indicated that 66% believed their charter schools had mission or vision statements created by their school leaders while 14% felt theirs were created in collaboration among all stakeholders.

Summary of Findings

In reviewing the first hypotheses and the related data, there is a connection between spending of CSP funds on instruction in year one of the CSP grant and student achievement in year one and in overall achievement over the three-year life of the grant, but not in the overall spending in all three years of the CSP grant. The two highest performing schools, KIPP Memphis and KIPP Nashville, both allocated 49% of their CSP funding in the category of instruction in year one, though they were not able to sustain that level of spending over the course of the three years. It is unclear in the data collected as to what caused the drop in instructional spending. Further research could conclude clearer findings in that area. Though the charters studied didn't reach the 50% threshold for CSP funding toward instruction as established by the hypotheses, it was clear that instructional spending of CSP grant funds in year one was connected to student achievement. In addition, it was clear by the findings that high spending of CSP grant funds in the area of supplies in year one and in over the three-year life of the CSP grant had a statistically significant negative impact on student performance as established by the data and modeled by Smithson Craighead, a school on the brink of closure.

The first null hypothesis stated in this research project was, "There is no statistically significant difference in school sustainability as measured by maintaining charter existence after the three-year life of the grant in schools that spend over 50% of CSP grant funds in instruction as compared to those who spend less than 50% in the targeted area." This null hypothesis was rejected. The two highest performing charter schools spent approximately 50% of their year one CSP grant money in the area of instruction, and both charter schools were sustaining with great levels of student achievement after the life of the grant. The only charter school not sustaining after the life of the grant in this study was a school spending practically no CSP funds in the area of instruction in year one. In fact, a majority of their spending came in the area of supplies. This research shows that there is statistical significance in school sustainability as measured by maintaining charter existence after the three-year life of the grant in schools who spent approximately 50% or more of CSP grant funds in year one on instruction as compared to those who spent less in this targeted area.

The second null hypothesis stated, "There is no statistically significant difference in student performance on TCAP math and reading scores for grades 5-8 in schools that spend over 50% of CSP grant funds in instruction as compared to those who spend less than 50% in the targeted area." This null hypothesis was rejected. Just as with school sustainability, targeted spending in year one of the CSP grant in the area of instruction led to higher math and reading scores in year one and over the three-year life of the grant. This research showed that the more money spent on instruction in year one, the higher TCAP scores in the area of math and reading for grades 5-8.

Similarly, the third and fourth null hypotheses looked at math and reading TCAP scores separately with the targeted CSP spending of 50% or higher in the area of instruction. Both of

those null hypotheses were also rejected. Even as math and reading were evaluated separately, the data showed statistical significance in year one. Though only CSP grant spending was evaluated, the research team in this study hypothesizes that similar results would be obtained by evaluating holistic charter school budgets during the first three years of the grant. The findings in years two and three are not statistically significant in the correlations, but it is inferred that more research in Tennessee charters utilizing their holistic budgets would suggest funding implications for years two and three. Another inference could be that the focus on instruction in year one carries academic success over the three years, allowing the schools to drop their funding allocations in years two and three without impacting the achievement established with structured spending in year one.

This data suggests the studied schools didn't reach the 50% threshold for CSP funding allocation toward instruction; however, schools that did spend higher percentages of their CSP funds in the area of instruction in year one maintained sustainability after the three-year life of the grant and had higher percentages of proficient and advanced scores in math and reading assessments combined for grades 5-8 than schools that spent lower percentages on instruction. Since none of the studied charters were sustaining financially on CSP and BEP alone, it is difficult to conclude if *overall* spending on instruction correlated to higher student achievement and overall sustainability as only CSP spending was evaluated in this study. Though it wasn't a focus of this study, the data also suggested that spending of CSP grant funds in the areas of facilities and technology also had a positive correlation to student achievement over the three-year life of the grant.

Of the five charters participating in the online survey, over 40% of the teacher and school leader responses indicated instructional spending had the greatest connection to student

performance. The second highest responses came in the area of Technology at approximately 20%. The quantitative data matches the teacher and school leader perception that instructional spending in the areas of technology and instruction leads to the highest student achievement as there are positive correlations during all three years of the CSP grant.

Many educational researchers maintain that one of the most critical instructional spending areas is in professional development. This research established that teachers and school leaders revealed their two most critical needs for professional development were the areas of instructional strategies and reaching at-risk students. Though the need for professional development in instructional strategies is being met, the teacher and school leader responses indicated a need for reaching at-risk students, which was not being met at the time of the study.

Conclusions and Discussion

Summary and Discussion

This mixed-methods approach to a multiple case study evaluated CSP Grant funding allocations, student achievement for grades 5-8 in math and reading, while collecting teacher and school leader perceptions of the studied funding correlations to student success and school sustainability. This study sought to determine how individual charter schools in Tennessee were spending their CSP grants and to determine if any specific spending would correlate with higher student achievement in the targeted areas and overall school sustainability after the life of the CSP grant in the studied schools. The quantitative data shows a strong correlation between CSP funding allocation on instruction during the first year of the grant with no statistical significance in math and reading during year two. The third year of CSP spending on instruction showed statistical significance, but it was a negative relationship with student achievement. This demonstrates that though the more CSP funds spent in year one lead to higher student achievement, the more CSP funds spent in year three lead to declining student achievement. These inverted results could be considered an anomaly as compared to relatable research and recent literature. However, the limited information provided by the sampling of charters on their other funding sources and holistic budgets leaves room for speculation and the need for further research.

One possible explanation for the inverted data found during year three of the CSP grant could be that as charter schools gained structure within their communities, additional funding sources were obtained, decreasing the need to spend as many CSP funds on instructional needs as other funding sources carried some of the spending. The holistic school budgets were not available, though it was established that the charters utilized other funding sources. It could be

suggested, as related to the literature, that the instructional funding allocation couldn't be sustained due to the high administrative costs or it could be related to other funding sources increasing as the charters prepared to sustain after the three-year life of the CSP grant. Neither of those possibilities could be proven due to the lack of data available at the time of the study. One item very clear in this research was that the two highest performing schools spent the most CSP funds in year one in the area of instruction. The CSP spending was so significant that it was approximately 50% of year one spending. This research team hypothesizes, and proposes to further research, that if there are significant findings for how CSP funds are allocated, that the findings may also be significant for BEP funds and the overall institutional budget.

The perception of teachers and school leaders was surveyed through an online questionnaire to compare to findings of the quantitative data. This research showed that the most successful charter school teachers and school leaders perceived its performance as mid-range while some of the lower achieving schools perceived their success as being one of the most successful public schools. This research suggests that perhaps the most successful schools are focused on continuous improvement and adjust their high expectations to strive to continue to mount success year after year. Those who become satisfied with their success and feel they have reached their highest capacity of achievement may not be as driven to improve as those who continue to adjust their measuring stick of success with high expectations.

In evaluating charter teacher and school leader perceptions of professional development, an instructional funding source in all schools, a discrepancy was shown in the data. A documented focus of Tennessee charters was to serve the needs of at-risk students, but teacher and school leader responses establish that the professional development being provided isn't meeting their current needs as very little time is devoted to preparing teachers to serve the needs

of their at-risk populations. This is an area that instructional leaders will need to consider as professional development is planned of the upcoming school years.

Findings

Evaluating the qualitative and quantitative data, several conclusions can be drawn in relationship to the research questions and null hypotheses. The findings are based on data correlations that were statistically significant with findings documented in the *Findings and Analysis* section of this study. Though CSP grant funds were evaluated in isolation from other funding sources, the research team believes that this study will serve as foundational research pointing to the need for further study while laying the groundwork for processes and procedures that will enhance the functionality of the TDOE Office of Charter Schools' CSP grant distribution. In answering each research question, the data regarding the CSP grant usage and teacher/school leader feedback were evaluated, synthesized, and analyzed.

In answering research question one, "What funding implementations correlate with high student achievement in the studied charter schools?" this research concludes that year one spending of CSP funds with a focus in the area of instruction, with a target of 50% of the school's CSP funding budget, leads to the most successful charter schools as measured by student achievement and school success. The data also suggests that too great a focus on CSP grant spending on supplies leads to a negative relationship to student achievement in year one and over the course of the three-year life of the grant. As demonstrated by the most successful and least successful schools in this study, CSP spending focused on instruction in year one leads to the greatest student success and school sustainability. Though the holistic budgets were not available for correlation, the research team hypothesizes that similar results would come from correlations of entire charter school budgets.

In addition to the spending implications in year one as connected to focused CSP spending on instruction, spending on technology and facilities over the course of the three-year life of the grant had statistically significant positive correlations with student achievement and school sustainability. Though these areas showed significance, literature doesn't support a strategic focus in these areas, thus more research is needed to make more grounded conclusions.

The second research question asks, "What allocation of CSP funds while under the CSP grant creates the most effective charter school?" This research suggests that a focus on instructional spending in year one with a limited allocation in the area of supplies leads to higher student achievement and school sustainability. In line with the literature, teachers and school leaders perceived the most effective uses of school funds, CSP and beyond, to be in the area of instruction as well. The research and literature in this study suggests that by not planning purposefully to spend money in curriculum and instructional areas, a school can lose focus on its goals, mission, and vision. However, if the school remains focused and allocates money in areas that support the school's mission, then greater student and school success is more likely. The implications of these findings are not only relevant to Tennessee charters and CSP grant recipients, but they are also relevant to all types of schools across the nation. Remaining focused with targeted spending can lead to greater outcomes, regardless of the specific goal.

In answering research question number 3, "What is the most effective use of CSP grant funds during the first three years of a Tennessee charter school's existence as perceived by teachers and school leaders in schools that have completed the three-year life of the CSP grant?", this research supports that it lies in the area of instruction with technology being the second highest focus. Charter teachers and school leaders in this study responded that their connection between spending and achievement came with a focus on curriculum and instruction. Matching

the findings from the quantitative research and related literature, over 40% of teacher and school leader responses came from the area of instruction.

Relationship of Conclusions to Literature

Research done by Hill and Roza (2008) points to charters spending less on instruction due to administrative costs though instructional spending is the highest need in school and this appears to agree with the data in this research on Tennessee charters which swings from a positive correlation in the area of instruction in year one to a negative correlation in year three. If administrative and supply costs forced a change in spending habits in successful charters, it could explain why the spending transition took place. Huerta and d'Entremont (2010) refer to the need for innovation in funding charter schools. They stated that the "limited budgets and increased operational costs lead charter schools to spend less on teaching and learning" (p.126).

Just as this research team found difficulty in pulling data from the charter school budgets to make adequate correlations with holistic spending outside of the CSP grant, Miron and Urschel (2010) found the same challenges when researching charters in Michigan. They found it difficult to locate comparable financial data when comparing charters and traditional schools. Though their data was difficult to locate, they eventually were able to research and report per pupil expenditures in Michigan charters as compared to more traditional public schools. Currently this process hasn't been done in Tennessee due to the lack of charter school budget reporting in a systematic fashion. Miron and Urschel (2010) found that charters spent less per pupil on instruction than traditional schools and that Michigan charters mirrored more of a corporate, top-heavy model of management. Those conclusions are difficult to make at this time in Tennessee, but it is known that the average per pupil spending in Tennessee was $9,123

during the 2011-2012 school year. Due to how charter budgets are reported at the time of this research in Tennessee, comparable data is difficult to navigate for state-wide charters.

Herdman and Millot (2000) noted that Massachusetts's charters had funding patterns that showed an average of 89% of charter funding came from the state with few accessing government grants and private donations. Without holistic budgets being available for Tennessee charter schools at the time of this study, funding patterns in Tennessee are unknown. It is known that none of the charters in this Tennessee study were able to evolve to sustaining on BEP funds alone, but the amount of outside funding was not established. Only inferences can be made in the state of Tennessee on how much financial support Tennessee charters are receiving outside of CSP and BEP funding. Though the research team recognizes the missing data that paints the picture of complete charter spending in Tennessee, implications can be made on how those spending patterns could affect the data in this research. For instance, if charter schools gain more outside funding after year one of their charter existence, they may be shifting instructional spending from CSP funds to other funding sources as they prepare to sustain outside the life of the grant. This could explain why there was a statistically significant correlation in year one of CSP spending, no significance in year two, and a statistically significant negative correlation in year three. In addition, the funding allocation of targeted spending in year one of CSP grant spending leads the researchers to believe that if the holistic budgets were available, similar correlations to instructional spending would have occurred with statistical significance as well.

This research has noted much data and created discussion as it pertains to instructional spending and its correlation to high student achievement and charter sustainability. Gill Philips (2010) conducted research in Pennsylvania and concluded that the top performing charters spent

over 50% of their funds on instruction. Alexander et al. (2000) conducted charter research in Texas and established the districts with the greatest gains spent more per pupil on instruction and general education programs. The most successful Texas districts spent over 60% on instruction. The research conducted in this report for Tennessee notes the impact of instructional spending in year one of the CSP grant. Though the CSP spending in year one of the grant only reached 49% for the two most successful schools and the least successful school spent no CSP funds on instruction from the CSP grant in the first year, the data in the Tennessee Charter sampling in year one suggests that the findings by Gill Philips and Alexander et al. are validated by this research. The more instructional spending in year one of the CSP grant, the higher student scores were in the areas of both math and reading for grades 5-8.

Desimone et al (2002) conducted research over five states regarding instructional spending on professional development. Their data revealed that professional development is effective only if it is subject-specific and schools are better off providing higher quality PD to fewer teachers than lesser quality to the masses. This implication on Tennessee charters could suggest that instructional funding for professional development would be best served in providing content specific strategies for reaching at-risk students, though those practices may not be applicable to all content areas. The literature suggests that the impact made by the limited content offering could be much more far-reaching than the PD that is created to address the broad needs of instructional planning.

Archibald (2006) founded that spending per pupil on reading led to higher scores, but it didn't remain true for math. The research conducted in this study showed that targeted spending in the broad area of instruction in year one of the CSP grant had positive correlations to both areas of math and reading for grades 5-8. It is noted, however, that the instructional spending

categories in this study were not categorized by math and reading spending as in the study conducted by Archibald (2006), but rather it was categorized broadly as any spending on the areas of curriculum and instruction. This research team concludes that regardless of the content area, targeted spending for instructional purposes leads to higher student achievement.

Gill Philips (2010) established a clear theme shared by successful leaders of charters, which was a commitment to the charter's mission and vision. The most successful schools were committed to a mission and vision, but the less successful schools were not. The data from this research shows that all but one teacher and school leader surveyed either knew their school's vision/mission or they knew it as integrated into all things that they do. That high number is encouraging considering the data supports that a focus on a school's mission and vision leads to higher success. Since the charter not sustaining after the life of the CSP grant chose not to participate in this research team's survey, it was not determinable if there was a connection to mission and vision by the team of educators in that school.

Limitations of Study

The limitations of this research included a one-year duration and examination of only the allocations of CSP grant funds. In addition, the overall budgets for the studied charter schools were not available to analyze. This limitation of data inhibited some conclusions grounded in data to simple inferences to explain anomalies established by the statistical data. Because all charter schools are unique by nature of their design, relating this study's conclusions to schools in other regions is limited to schools exhibiting similar characteristics to those established in Tennessee.

Since the CSP grant is a start-up grant for charter schools, not every grade level had data in all three years to evaluate. Some start-up charters open serving a limited number of grade

levels with an added grade level each year. Due to this structure common in many new schools nationwide, the achievement data for all three years was limited. Not every sampled school had achievement data its first year. In addition, the sample size was confined to six schools serving grades 5-8 and had completed, or would be completing, the three-year life of the CSP grant at the time of this research. The schools fitting this sampling size were limited to the Memphis and Nashville areas of Tennessee. With the small sampling, only one of the schools would not be sustaining at the end of the life of the grant as recommended by the LEA of that school. The one school electing not to participate in the online survey process limited the qualitative data. Due to their lack of participation in this aspect of the research, their data is missing from the teacher and school leader perception data.

Recommendations to the Client and for Further Research

The research team has several recommendations to the TNDOE, as it moves forward in granting and tracking use of the CSP grant funds, and to future researchers examining charter schools in Tennessee.

The research team recommends to Tennessee public schools, both charter and traditional, to focus spending in the area of instruction when planning holistic spending for an academic school year. This research suggests that schools focusing early spending in the area of instruction produce higher student achievement and sustain at higher rates after start-up funds are exhausted. By planning budgets early and allocating funds to targeted areas, schools could increase the likelihood of students experiencing the success parents and schools desire.

The research team recommends that the TNDOE Office of Charter Schools creates a required, uniform template to be submitted to CSP grant recipients at the time grant awards are given. The template should be a required item to be returned at the end of each year of the CSP

grant year gathering the school's overall budget expenditures, funding sources, and broad spending categories based on a proven framework. In order to collect charter school spending data relatable to that of other states, Tennessee must start creating a data source for future research. The research team in this study had a difficult time pulling holistic budget information from charters that was not directly tied to CSP spending. If uniform templates created in a spreadsheet format could be submitted electronically from each charter, the data pull analysis could be quickly run to evaluate spending patterns and correlations to student achievement and school sustainability. This research team suggests that the findings of CSP funding allocations may be an important indicator of how BEP and other funding should be allocated, however more data is needed to further validate these research findings.

When this research project began, there was an assumption by the researchers that some charter schools would be operating on BEP funds alone. Charter leaders reported that due to the nature of a charter's existence they are eligible for other grant sources and they utilize those grants to supplement their budgets. Our team can draw conclusions from the data, but in order to get a full picture of what the spending patterns mean to a charter's existence and levels of achievement, the entire budget must be revealed to identify the spending patterns of each organization. By tracking which schools are able to sustain on BEP funds alone after the three-year life of the CSP grant, more research can be done to correlate practices within those charters that lead to sustainability on BEP funds alone. In addition, research should be done at those schools to compare and correlate the success of their students to those of charters with greater funding sources. The research finding could be related to literature that links overall resource allocation to student achievement. With much media attention being given to per pupil expenditures and the success some schools are seeing with fewer funds nationwide, a complete

per pupil expenditure for Tennessee charters that includes all funding sources would be eye opening for some of the more successful schools.

This research team views this data as the stepping-stone for greater research in the TNDOE's analysis of the CSP grant process. The team recommends that future research be done utilizing the charter schools' entire budget over the course of the three years in addition to this research on the CSP budgets. Though those holistic budgets were not available at the time of the research, those budgets are needed to solidify findings and explain anomalies such as instructional spending transitioning from a positive influence in year one to a negative influence in year three. The research team can speculate reasons for such a transition based on literature and the addition of varied funding sources as charters prepare for life after the CSP, but none of those inferences can be verified without additional data and research. These findings do provide a basis for our new hypothesis that CSP funding allocations may provide indication for direction of BEP and other funding allocations. As established by year one CSP spending on instruction, we hypothesize that targeted spending from other sources in the area of instruction will lead to greater outcomes as well. By creating a process and procedure for CSP grant applicants to report their entire budgets at the end of each year in a format conducive to quick analysis, TNDOE and USDOE can use the data and findings from this research to make spending recommendations or requirements for those seeking the CSP grant based on the experiences of other charters and literature.

In addition to the holistic budget reporting for CSP grant recipients that would give government agencies evidence of their investment, this research team recommends setting up a clear path for charters to input all financial data in order track spending. An online or electronic method of logging their spending and budgets would decrease the amount of paperwork that

needs to be manually calculated to produce data analysis. With an electronic and categorized method of reporting spending, the TDOE Office of Charter Schools could calculate data quickly and accurately to determine how CSP grant money is being spent each year of the grant and over the course of the three years. This quick data analysis alongside the holistic budgets that are reported categorically would be beneficial as additional grant funds are requested from the USDOE. For instance, the findings from this study indicate that instructional spending in year one of the grant had a statistically significant impact on student achievement, but it reversed by year three. If the Office of Charter Schools could quickly analyze a school to determine that the CPS grant was 90% of the school's budget in year one, but due to other funding sources it became only 40% of their entire budget by year three, it could explain some funding implications. It would also provide data to the Office of Charter Schools as they shared data with grant applicants as they prepared their budgets and mapped the course for the first five years of their charter lives.

Another recommendation for further research is to examine the application processes and expectations for students applying to charter schools in Tennessee and correlate their expectations to student outcomes and sustainability. While conducting this research it was found that some charter schools have a high level of expectation for parental involvement in their schools. Some admissions documents imply a requirement for parental involvement as well. In addition to funding allocations, this level of parent involvement should be considered when comparing charter schools. As much recent research suggests that students with involved parents perform at higher rates, it could be assumed that the same would apply to charter schools. A study looking at the students and families targeted by sustaining charter schools could reveal which expectations lead to success.

It is recommended to Tennessee charter school leaders to carefully consider the students they serve and to create meaningful professional development designed to prepare their teachers to meet the unique student needs. As evidenced in this research, charter school teachers and school leaders indicate a discrepancy between what they view as professional development needs and the type of professional development provided. Many in this study indicated the need for professional development designed to prepare teachers to teach at-risk students, however those same respondents indicated it was the category for the least amount of professional development. Though each school identified their at-risk categories differently, they all site serving their populations as a great need.

The last recommendation from this research team is for further research. This team recommends conducting research regarding teacher training at the most successful Tennessee charter schools. With teacher licensure and alternative methods of obtaining a teaching license continuing to capture national attention, it would be a rich study to see if the flexibility given to Tennessee charters in spending and hiring staff could reveal findings to support these alternative methods. For instance, in many traditional schools the district office tells building-level administrators how many teachers and tutors they may hire. In charter schools, the executive leader of that school has the flexibility to hire more professional tutors, literacy coaches, numeracy coaches, or intervention specialists in lieu of paying one full time teacher's salary. Flexibility in spending may produce higher levels of success at varied levels.

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Appendix A

CONSENT TO PARTICIPATE IN RESEARCH

Effective Uses of CSP Grant Funds in Tennessee Charter Schools

Leigh Webb and Drew Williams
Lipscomb University

You are being asked to participate in a research study conducted by Leigh Webb and Drew Williams, from the College of Education at David Lipscomb University. The results of this study are for the purpose of a doctoral dissertation as well as for the Tennessee Department of Education, Charter School Division. You were selected as a possible participant in this study because you are connected with charter schools in Tennessee as an administrator or teacher.

- **PURPOSE OF THE STUDY**

The purpose of this study is to determine the most effective use of CSP grant funds. This research will provide direction for structuring grant applications and provide helpful guidance to individual public charter school grant recipients. The findings of the research team will be distributed to current and future grant recipients or applicants as guidance for their own planning and implementation.

- **PROCEDURES**

If you decide to participate in this study, we will ask you to do the following things:

- Participate in focused surveys using Survey Monkey
- Participate in open interviews using telephone or video conferencing (Skype)
- Participate in face-to-face interviews

- **POTENTIAL RISKS AND DISCOMFORTS**

There are no foreseeable risks or discomforts associated with this research. Any inconveniences will be associated with the time to take surveys, have a telephone or video call, and/or have a face-to-face interview. This will be managed at the convenience of the interviewee with attention to personal time. All survey's and interviews should take no more than 30 minutes to complete.

- **POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY**

This research is in association with the Tennessee Department of Education and will be used, in part, as research for future grant funding options for charter schools in Tennessee. It has the potential to be published in the Department of Education (DOE) report on charter school effectiveness. There will be no personal benefits for participants of this study.

- **PAYMENT FOR PARTICIPATION**

There is no payment or compensation for participation in this research project.

- **CONFIDENTIALITY**

Any information that was obtained in connection with this study will remain confidential and will be disclosed only with school's written permission or as required by law. Individual participants in this study will remain anonymous. Confidentiality will be maintained by keeping all information, data, and questionnaires in a locked safe for the purpose of this research. Any information stored electronically will be encrypted and also require a passkey for access. All files will remain in a secure location for one year from the time of publication, after which time will be properly destroyed. The results of this study will be used by the Tennessee Department of Education (TDOE) and Department of Education (DOE) as analysis for potential grant awards.

- **PARTICIPATION AND WITHDRAWAL**

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

- **IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact us at:

Roger Wiemers *(advisor)* (615) 966.7067 – roger.wiemers@lipscomb.edu
Leigh Webb (615) 476.8580 - lvwebb@mail.lipscomb.edu
Drew Williams (615) 484.5597 - amwilliams@mail.lipcomb.edu

- **RIGHTS OF RESEARCH PARTICIPANTS**

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact Trace Hebert, Ph.D., at 615.966.5325 ext. 5325 (Tracey.Hebert@lipscomb.edu) David Lipscomb University, One University Park Drive, Nashville, TN 37204-3951

SIGNATURE OF RESEARCH PARTICIPANT OR LEGAL REPRESENTATIVE

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

_____
Printed Name of Participant

_____
Printed Name of Legal Representative (if applicable)

_____ _____
Signature of Participant or Legal Representative Date

SIGNATURE OF INVESTIGATOR (If required by the IRB)

In my judgment the participant is voluntarily and knowingly giving informed consent and possesses the legal capacity to give informed consent to participate in this research study.

_____ _____
Signature of Investigator Date

Appendix B

Research Verification

STATE OF TENNESSEE
DEPARTMENT OF EDUCATION
6th FLOOR, ANDREW JOHNSON TOWER
710 JAMES ROBERTSON PARKWAY
NASHVILLE, TN 37243-0375

BILL HASLAM
GOVERNOR

KEVIN HUFFMAN
COMMISSIONER

RE: Charter Schools Program grant research conducted by Lipscomb University students for the Department of Education

To whom it may concern:

Please accept this letter as verification that Drew Williams and Leigh Webb are conducting research on the effective uses of Charter Schools Program (CSP) planning and implementation grant funds for the Tennessee Department of Education (TDOE).

Mr. Williams and Ms. Webb have authorization to invite you to participate in this research through surveys and live or virtual interviews.

Please note that this research is being conducted to help the department determine and be able to share best practices with future grantees. It is not a compliance review.

Thank you. Please contact me if you need additional information.

Sincerely,

R. F. Haglund IV

Rich Haglund
Director of Charter Schools
615.741.8486
Rich.Haglund@tn.gov

Appendix C

NIH Certificate of Completion

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Drew Williams** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 09/18/2012

Certification Number: 995850

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Leigh Webb** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 10/04/2012

Certification Number: 1019914

Appendix D

Confidential

Charter School Leader/Teacher Survey

Please complete the survey below as approved by the Tennessee Department of Education, Office of Charter Schools and Lipscomb University's Education Department by Tuesday, Feb. 26h.

Thank you for your participation!

1) What is the name of your school?

- ☐ KIPP Academy Nashville
- ☐ KIPP Memphis Collegiate Middle School
- ☐ LEAD Academy
- ☐ New Vision Academy
- ☐ Omni Prep Academy - North Pointe Middle School
- ☐ Smithson Craighead Academy - Middle School
- ☐ Veritas College Preparatory Charter School

2) Which choice best describes your current job title?

- ☐ Academic Dean
- ☐ Coach/Club Sponsor
- ☐ Curriculum Team Leader
- ☐ Department Chairperson
- ☐ School Administrator/Headmaster
- ☐ Teacher
- ☐ Technology Leader
- ☐ Tutor
- ☐ Other

3) How many years of experience do you have in this role in ANY building?

- ☐ First Year
- ☐ 1-3 years
- ☐ 4-6 years
- ☐ 7-10 years
- ☐ 10-15 years
- ☐ 15-20 years
- ☐ 20+ years

4) How many years of experience do you have in your current charter school?

- ☐ First Year
- ☐ 1 year
- ☐ 2 years
- ☐ 3 years
- ☐ 4 years
- ☐ 5+ years

5) On average, what percentage of your time in spent on academic functions such as instruction, developing curriculum, evaluating instruction, or other instruction or curriculum-related tasks?

- ☐ None
- ☐ Less than 10%
- ☐ 10-29%
- ☐ 30-49%
- ☐ 50-69%
- ☐ 70-89%
- ☐ 90% or more

6) Which response most closely matches your understanding of your charter school's mission statement?

- ☐ My school does not have a mission statement.
- ☐ My school has a mission statement, but I do not know what it is.
- ☐ I am familiar with my school's mission statement, but I do not know what it is.
- ☐ I know my school's mission statement.
- ☐ I know my school's mission statement and it is integrated into everything that we do.

Confidential

7) How was your school's mission statement created and conveyed to your faculty, staff, and school community?

- ☐ My school does not have a mission statement.
- ☐ My school has a mission statement, but I am uncertain how it was created and conveyed.
- ☐ School leaders created my school's mission statement and conveyed it to school community.
- ☐ A collaborative team of individuals in our school community, including teachers, created and conveyed my school's mission statement.
- ☐ None of the answers above.

8) How would you rate the success of your charter school in the state of TN as compared to other public middle schools?

- ☐ Very Low Performing
- ☐ Slightly Below Average
- ☐ Average
- ☐ Slightly Above Average
- ☐ Very High Performing

9) How would you define the yearly percentage of teacher turnover for the past three years?

- ☐ I am uncertain about the amount of teacher turnover.
- ☐ 0-10%
- ☐ 11-20%
- ☐ 21-30%
- ☐ 31-40%
- ☐ 41-50%
- ☐ 51-60%
- ☐ 61-70%
- ☐ 71-80%
- ☐ 81-90%
- ☐ 91-100%

10) How is your school being funded for the 2012-2013 school year?

- ☐ I am not sure how my school is funded.
- ☐ BEP funds only
- ☐ BEP funds and grants
- ☐ BEP funds, grants, and private donations
- ☐ Other

11) What do you believe are the most effective uses of school funds/spending as it pertains to student and school achievement in your building?

_____

12) Does your school offer annual professional development for teachers?

- ☐ Yes
- ☐ No

13) What are your school's biggest professional development needs? Check all that apply.

- ☐ No Professional Development is needed at this time
- ☐ Classroom Management
- ☐ Character Education
- ☐ Curriculum Development
- ☐ Instructional Strategies
- ☐ Lesson Plan/Unit Development
- ☐ Reaching At-Risk Students
- ☐ Student Assessments
- ☐ Technology
- ☐ Other

14) What is the focus of the current Professional Development at your school? Check all that apply.

- ☐ No Professional Development is offered at this time.
- ☐ Classroom Management
- ☐ Character Education
- ☐ Curriculum Development
- ☐ Instructional Strategies
- ☐ Lesson Plan/Unit Development
- ☐ Reaching At-Risk Students
- ☐ Student Assessments
- ☐ Technology
- ☐ Other

Confidential

15) Who makes the decisions regarding Professional Development in your school? Check all that apply.

- ☐ I do not know who makes the PD decisions at my school.
- ☐ Board Members
- ☐ Parents
- ☐ School Leader/Headmaster
- ☐ School Leadership Team
- ☐ Students
- ☐ Student Leadership Teams
- ☐ Other

16) Do you believe your current Professional Development is directly connected to student performance on standardized assessments at your school?

- ☐ Yes
- ☐ No

17) Which group do you believe comprises the lowest performing academic sub-group at your school?

- ☐ Female Students
- ☐ Grade-Specific Students (5th, 6th, etc.)
- ☐ Low Socio-Economic Students
- ☐ Male Students
- ☐ Minority Ethnic Groups
- ☐ Students with Disabilities
- ☐ Other

18) What academic interventions are currently in place for your at-risk populations?

_____

19) Do you feel the academic interventions for your at-risk populations are adequate at this time?

- ☐ Yes
- ☐ No

20) Do you have any information that you would like to share with this research team as it pertains to your school's mission statement, funding/spending, professional development, students served, or school success?

_____

Appendix E

Figures

Figure 1: Resource/Funding Connections

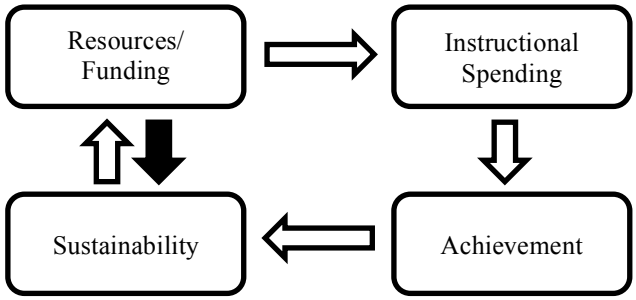


Figure 2.1

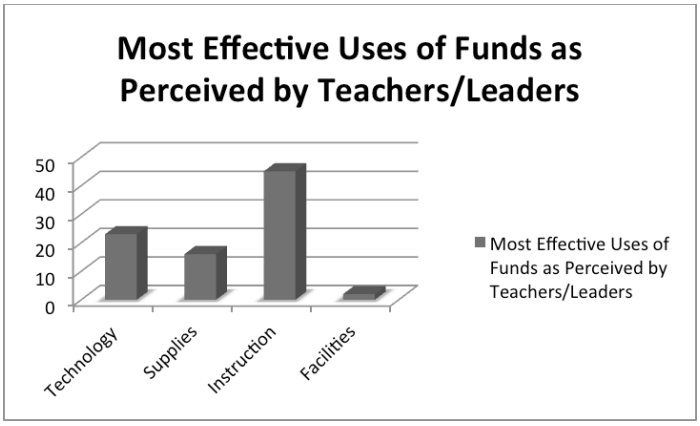


Figure 2.2
Most Effective Uses of Funds as Perceived by Teachers/Leaders shown by school as percentages

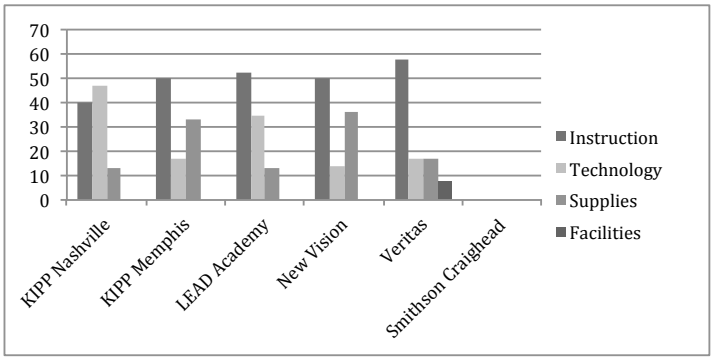


Figure 3

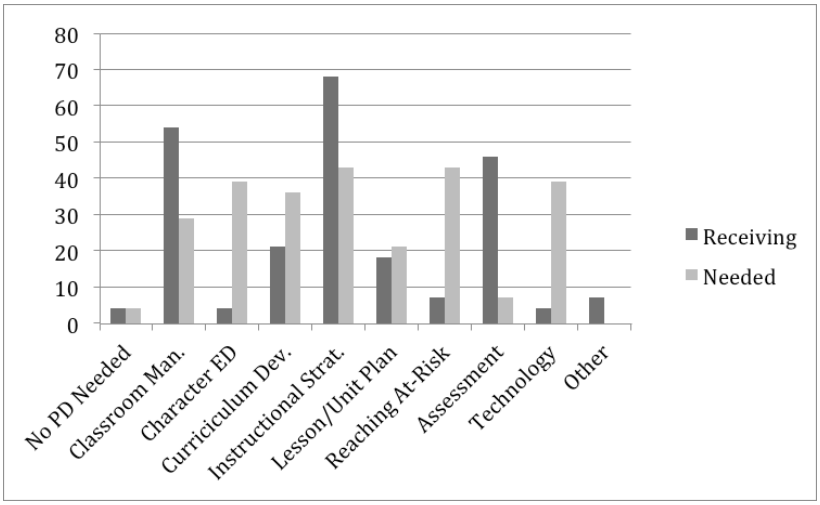


Figure 4.1 - Math

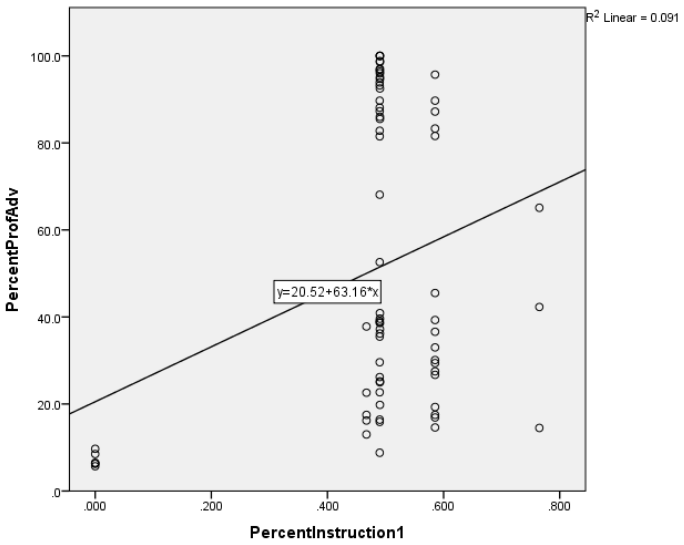
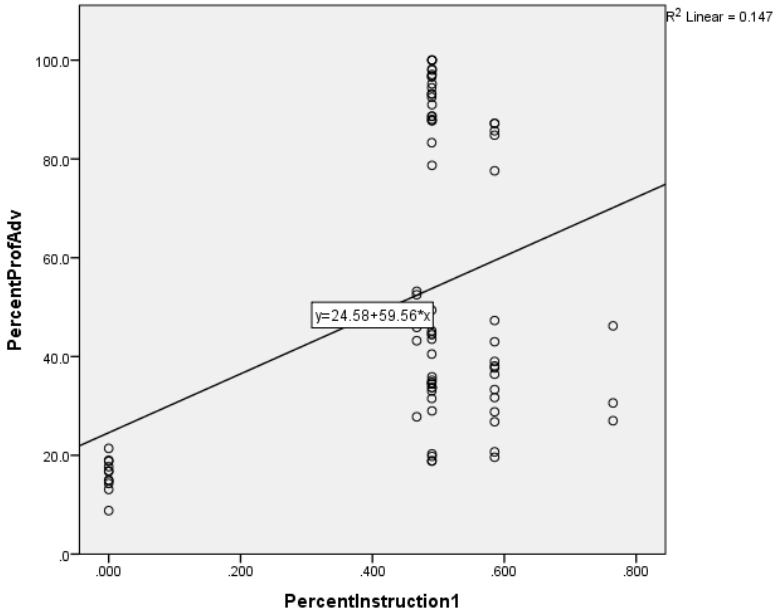


Figure 4.2 - Reading



Appendix F

Memorandum of Understanding

LIPSCOMB UNIVERSITY

MEMORANDUM OF UNDERSTANDING
BETWEEN
LIPSCOMB UNIVERSITY COLLEGE OF EDUCATION
AND
TENNESSEE DEPARTMENT OF EDUCATION, OFFICE OF CHARTER SCHOOLS

This Memorandum of Understanding (MOU) establishes the relationship and guidelines between the above parties regarding the research partnership described below.

The College of Education (COE) of Lipscomb University offers the Doctor of Education (Ed.D.) degree in Learning Organizations and Strategic Change. This degree is focused on preparing leaders for public and private organizations and academic settings. The program culminates with a practical, collaborative capstone research project with a partner organization. Tennessee Department of Education Director of Charter Schools ("the Client") has requested a Capstone Team to address a research need in an authentic setting. Successful completion of this capstone project will fulfill part of the requirements for completion of the Doctor of Education degree.

The Client is charged as the Tennessee Director of Charter Schools with supporting the development of quality school authorizers and operators through policy development, technical assistance, and dissemination of best practices across the state.

The College of Education at Lipscomb University and the Client are entering into and operating under this MOU for a research partnership and agree to the following.

I. REQUEST FOR ASSISTANCE

The Client has submitted a Request for Assistance (RFA) outlining the following research need.

> What is the most effective use of Planning and Implementation Grant funds during the first three years of a charter school's existence? What allocation of funds create the most effective school and allow schools to become self-sufficient, using only their BEP funds?

The Client administers a $22 million Charter Schools Program grant from the U.S. Department of Education. Start-up charter schools may apply for funds to offset their initial costs, since BEP funds are generally unavailable to schools until after the first year of operation. The Client needs to know what strategies successful charter schools have used to maximize effectiveness and efficiency.

II. PROJECT PARAMETERS

The COE will supervise and direct a team of two to four doctoral students who will frame and conduct the research, and form recommendations for the client's research need.

The COE will provide the training for the Ed.D. students to complete the requested research project through its curriculum and capstone project support structures. This training and support includes but is not limited to quantitative and qualitative research techniques, instrument design, development of specific timelines, benchmarks, and processes pertaining to conducting research, and the assignment of a capstone faculty adviser who will oversee the team throughout the research project.

The Client will identify those schools who have received grant funds and either completed their three year allotment or are in their final year of funding. The Client will provide the grant applications from those schools and records of their funds expenditures. Publicly available data includes audits from the Tennessee Comptroller's website and each school's achievement data from the Tennessee Report Card. The Client will also provide contact information to for surveys, focus groups, and interviews.

PROJECTED RESEARCH TIMELINE

The Client will present a 15-minute presentation (including Q & A) of the RFA to the Fall 2011 Cohort on Client Presentation Day, which is scheduled for the morning of Saturday, July 28, 2012.

- Capstone Team will be assigned to The Client no later than August 10, 2012.
- The Capstone Team will have an initial meeting with Rich Haglund or his designee no later than August 31, 2012.
- The Capstone Team will develop and submit a project proposal to the Client no later than October 5, 2012.
- The Client will approve or request revision of the project proposal no later than October 12, 2012.
- The Capstone Team will submit the approved project proposal to Lipscomb University's Institutional Review Board (IRB) by October 12, 2012. Substantive changes requested by the IRB will be discussed with the Client prior to implementation. Pilot testing of instruments and official collection of data may not begin until approval has been received by the IRB.
- The Capstone Team will submit a draft of the first three chapters of their research manuscript and any applicable research instruments to their Juried Review Committee by January 31st, 2013. Chapter three should include a description of pilot testing of research instruments if applicable. The Juried Review Committee and the Client must approve the final research instrument(s) before official data collection begins.
- May 3, 2013 is the target date for completion of data collection and analysis.

- The Capstone Team will submit a written draft of all chapters of their research manuscript to Lipscomb's Juried Review Committee by June 7, 2013.
- The Capstone Team will schedule and give a presentation to the Client and to the Juried Review Committee by August 1, 2013.
- The Client will provide a Client Project Evaluation of the Capstone Team and research project within one week following the presentation.

III. LIPSCOMB UNIVERSITY'S INSTITUTIONAL REVIEW BOARD (IRB)

Capstone students are required to gain approval from Lipscomb's IRB prior to conducting research. All capstone teams will submit a research proposal to the IRB for their capstone projects. The research proposal will be submitted to and approved by the Client prior to submission to Lipscomb's IRB (see Project Research Timeline).

The following outline may serve as a guide for students in building a research proposal to be sent to the Client and the IRB.

Title Page

Table of Contents

Introduction (2 – 3 pages)

- A statement of the research topic
- A statement of the research problem
- The purpose of the study
- The research question(s)

Methodology (2 – 3 pages)

- Design or strategy for research
- Research participants (describe participants, description of risk, voluntary participation, confidentiality, anonymity)
- Procedures to be followed

Data Analysis (1 page)

- Describe data collection, storage, and analysis procedures
- Describe disposition of the data after the study has concluded

References

Appendices

- Informed consent letter
- Apparatus and/or instruments to be used (questionnaire, interview questions, etc.)

- Documentation from client granting permission and access for research

IV. **FUNDING**

The Capstone Team, the COE, and the Client will make every reasonable effort to minimize costs associated with this project.

As of the date of the signing of this document, the project presented by the client is expected to require minimal and reasonable costs. Capstone Team members are expected to be responsible for normal and customary costs associated with doctoral students engaging in doctoral research (i.e. cost of mailings, printing, paper, envelopes, postage, transportation, phone calls, email, etc.). However, should the Capstone Team members identify what they consider to be an out-of-the-ordinary funding need, then the team members should seek funding from the Client during development of their project proposal and prior to submission of the proposal to Lipscomb's IRB. Regardless of when the funding need is realized, written approval and agreement to provide funding should be received from the Client prior to any expenditure being made. Expenditures incurred without expressed written approval from the Client will be the responsibility of the Capstone Team members. Team members will be provided a copy of this MOU.

V. **RESEARCH PRODUCT and DISSEMINATION**

The Capstone Team will prepare a full report and presentation to the Client and a COE Juried Review Committee. This report and presentation must meet or exceed all the requirements of the capstone project as outlined in the COE's Capstone Project Manual (see addendum).

Hard-bound copies of the report manuscript will be submitted to the Client, the COE, and Beaman Library on Lipscomb University's campus, and to each Capstone Team Member. The COE may make the manuscript accessible in electronic format through conventional venues that provide access to culminating research projects for doctoral programs.

The Client may request an alternative manuscript format for the client's purposes. Within reason, the Capstone Team is expected to meet the client's needs and produce a copy of the manuscript in the format requested. An alternative manuscript format may be sent to the Client electronically or as a loosely bound hard copy, but will not be included with the final manuscripts that are to be submitted to the COE for binding.

All rights and obligation related to interests in and ownership of the Capstone Project shall be subject to the Lipscomb University Intellectual Property Policy (a copy of which is attached hereto).

VI. **FAILURE TO MEET RESEARCH OBLIGATION**

If the Capstone Team members cannot produce the requested research product they shall present their concerns to their faculty advisor. The faculty advisor will discuss the matter with the Client and attempt to craft a remedy to continue the project. If a remedy exists

that will materially alter the research product, then the Client, the COE designee, and the Capstone Team shall meet and develop an altered research product that meets the needs, goals, and objectives for all parties. In that case, an addendum to this document shall set forth the new parameters of the adjusted research project.

If no remedy is available, the COE may unilaterally remove the Capstone Team from the research project, and the Client will hold the COE, the Capstone Team, and Lipscomb University harmless.

VII. LIABILITY

The Client shall indemnify and hold harmless Lipscomb, its Board of Directors, officers, agents, students, and employees from any and all claims, losses, damages or liability, including attorney's fees, resulting from or attributable to the acts of the Client, its employees or agents.

Lipscomb University shall indemnify and hold harmless the Client, its officers, agents, and employees from any and all claims, losses, damages or liability, including attorney's fees, resulting from or attributable to the acts of Lipscomb University its employees or agents.

VIII. AUTHORIZATION

On behalf of the Lipscomb University College of Education and the Client, the undersigned agree to the above stipulations and pledge that the organizations will strive to the best of their abilities and in good faith to complete these objectives.

Further, we pledge that should the need for modifications arise, we will in good faith attempt to make such changes or additions as the situation dictates and as are further detailed in subsequent mutually agreed upon addendums to this document.

IX. MISCELLANEOUS TERMS

The following terms shall apply in the interpretation and performance of this MOU:

Relationship of the Parties – This MOU shall not be construed to create a relationship of partners, brokers, employees, servants or agents as between the parties.

A. Advertising and Publicity – Neither party shall use the other's name, or any name that is likely to suggest that it is related to the other institution, in any advertising, promotion or sales literature without first obtaining the written consent of the other party. Any publications regarding this MOU must be reviewed and approved by the parties.

B. Governing Law; Forum – This MOU shall be governed by and construed under the laws of the State of Tennessee, which shall be the forum for any lawsuits arising from an incident to this MOU.

C. Waiver – A waiver of any breach of any provision of this MOU shall not be construed as a continuing waiver of said breach or a waiver of any other breaches of the same or other provisions of this MOU.

D. Non-Assignment – This MOU may not be assigned by either party without the advance written consent of the other.

E. Severability - In the event one or more clauses of this Agreement are declared illegal, void or unenforceable, that shall not affect the validity of the remaining portions of this Agreement.

The authorized representatives of both parties have executed two copies of this Memorandum of Understanding on this 28 day of June, 2017.

THE CLIENT

By: Kevin Huffman

Title: Commissioner

LIPSCOMB UNIVERSITY

By: _____

W. Craig Bledsoe, Provost