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A MIXED METHODS STUDY OF THE IMPACT OF STATE SPECIAL EDUCATION
FUNDING DISTRIBUTION ON THE ACADEMIC GAP OF STUDENTS
IDENTIFIED WITH DISABILITIES

By
Christy M. Hutchinson

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Gardner-Webb University
2021

Approval Page

This dissertation was submitted by Christy M. Hutchinson under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Abstract

A MIXED METHODS STUDY OF THE IMPACT OF STATE SPECIAL EDUCATION FUNDING DISTRIBUTION ON THE ACADEMIC GAP OF STUDENTS IDENTIFIED WITH DISABILITIES. Hutchinson, Christy M., 2021: Dissertation, Gardner-Webb University.

Since the passing of Public Law 94-142 in 1975, federal funding for special education programming has been distributed based on a flat or fixed per-student allotment. Flat funding distribution is a set dollar amount per child, while a fixed distribution is a set amount provided to every state regardless of population. In addition to federal funding, each state must allocate state tax dollars to the local education agencies (LEAs) according to the allocation model. Currently, there are four popular models of special education funding used across the United States, including flat or fixed rate per-student allotment, weighted funding, a census-based model, and a cost-based reimbursement system. This study sought to demonstrate the most effective model for state distribution of special education funding by establishing the greatest gains in the academic achievement gap and yielding the highest graduation rates for those students identified with disabilities who are served by federal Individuals with Disabilities Education Act (IDEA) programs. Findings of this study revealed that there was no significance between the state special education funding formula and the mathematic proficiency rates, reading proficiency rates, or graduation rates of special education students. However, themes unveiled during the qualitative portion of the study support future research of funding formula impacts.

Keywords: state special education funding methods, Individuals with Disabilities Education Act, flat funding, weighted funding, census-based funding, cost-based funding

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Chapter 1: Introduction

Introduction

Over the last decade, United States education has seen an increase of students who are being identified and served in special education programs. In fact, according to the National Center for Education Statistics (2020), between 2011-2012 and 2018-2019, the number of special education students served has increased from 6.4 million to 7.1 million. This growing population of students must be addressed by providing impactful educational opportunities. With this need in mind, the question becomes, “What is the most appropriate way to fund special education programs at the state level?”

Educating students with special needs has been directed by a number of movements and legal changes since the early 1900s. Two of the most influential laws governing programming for students with special needs are the Individuals with Disabilities Act (U.S. Department of Education, n.d.c) and No Child Left Behind Act (PBS Charlotte, n.d.). Both of these important laws place demands on public schools to provide a free appropriate public education (FAPE) in the least restrictive environment for students with disabilities. While these laws have shaped education for students with special needs, states have maintained full autonomy to fund special education programming based on their discretion.

Funding special education programming has become a challenge in all 50 states across this nation since the inception of IDEA in 1975. The plight placed on states and in turn individual districts and schools has proven to be a burden on local budgets due to the lack of complete funding by the federal and state governments. School districts are not only legally mandated to ensure all students with disabilities receive a FAPE, but they are

morally called on as a society to ensure this work is done to the highest quality possible, defined by academic achievement results and postsecondary success.

This study provided insight into the most optimal use of the available state special education dollar allocation methods in relation to yielding the greatest academic gains for students with special needs. While states had autonomy in the distribution method of their special education funding, there were certain trends in common methods utilized. The four most popular funding methods utilized in the United States were flat funding, weighted funding, census-based funding, and cost-based funding. Flat funding is a set dollar amount provided annually to a school district, typically allocated per student, per classroom, or per teacher. Weighted funding takes into consideration the severity of the disability to allocate funding. Students with more involved disabilities are associated with a higher dollar allotment to the district. Census-based funding models use estimation of national or state norms to assume a dollar allocation to school districts. Finally, cost-based funding typically depends on a base allotment in addition to some form of reimbursement for high costs associated with educating the more involved students with disabilities. Hybrid or combination models utilizing two or more of these most common methods were explored during focus group research. Gaining an understanding of the method that produced the highest graduation rates for students with disabilities and the highest levels of proficiency on state standardized assessments was the focus of this research.

Background of the Problem

Since 1975, all 50 individual states have been obligated to provide a FAPE to all eligible students with disabilities ages 3 through 21. IDEA, which was most recently

reauthorized in 2004, “governs how states and public agencies provide early intervention, special education, and related services to more than 6.5 million eligible infants, toddlers, children, and youth with disabilities” (U.S. Department of Education, n.d.c, para. 2).

Through IDEA, some funding is provided by the federal government. A majority of the financial support for IDEA however comes from state and local agencies. According to Parrish and Chambers (1996), an estimated nationwide “8% of special education funds come from the federal government, 56% from state governments, and the remainder from the local school districts” (p. 122).

NCLB, signed in 2001, became the standard of evaluating school and district performance from 2002-2015. This legislation replaced the Elementary and Secondary Education Act (1965) with a primary goal of leveling the playing field for the marginalized populations such as students in low-wealth schools, minority populations, limited English proficiency students, and students with special needs. This point marked the first time in history that a federal law held individual schools accountable for student academic performance. Standardized tests in the area of mathematics and reading became the measuring stick by which all schools were evaluated. All students in Grades 3 through 8 as well as once in each subject in high school were assessed. Schools were held responsible to make adequate yearly progress with the total population (PBS Charlotte, n.d.).

On December 10, 2005, President Obama signed the newest legal guidance governing public school accountability, the Every Student Succeeds Act (ESSA). ESSA replaced NCLB of 2002. ESSA brought about a more detailed way of evaluating performance of states and districts by focusing on unique subgroups of students making

adequate progress. ESSA also included legal requirements for students in low-performing schools to have access to high academic standard teaching practices that lead to career and college preparedness. Provisions were outlined to ensure success for students and schools. One of the targeted subgroups established in the 2002 NCLB legislation was students with disabilities, highlighted by the statement that “the law advances equity by upholding critical protections for America's disadvantaged and high-need students” (U.S. Department of Education, n.d.b, para. 8).

Statement of the Problem

Does the state a special education student resides in determine their achievement on state standardized assessments and/or the likelihood of graduating from high school with a traditional diploma? This problem lies in the gap between the ESSA requirements to provide high-quality instruction to all students and the limited federal and state funds provided to support adequate special education programs to meet the academic and functional needs of students as required by ESSA regulations. According to Parker (2019), there are seven different ways states elect to provide additional special education funding to the local districts. The seven different methods states use to fund special education are multiple student weight system, single student weight system, census-based system, resource-allocation model, reimbursement system, block grant, and high-cost students system (Parker, 2019). The range of options leave funding decisions up to individual states, which can lead to disputes between money and student success despite the fact that there is emphasis in ESSA to address the subgroup of special education students. The emphasis on improving academic achievement for students with disabilities continued by reporting this individual subgroup’s annual progress with the additional

changes established in ESSA. At the conclusion of Verstegen's (2011) work researching special education funding, her recommendation suggested all state special education directors ask for guidance. "The search for the best model to use in funding education is a perennial concern and interest" (Verstegen, 2011, pp. 24-25).

Significance of the Study

As of the year 2019, there were few research studies comparing the specific type of funding structure yielding the most successful gains for students with disabilities. For the purpose of this research, four primary funding options were further explored, as the overwhelming majority of the states chose one of the four methods. In addition, the individual states not exclusively using one of the four primary methods employed some combined version of one of the four primary methods with the less often used methods.

As of May 2019, there was limited to no research in the United States comparing a state funding model to the academic success rate of students with disabilities defined by proficiency on a state's required mathematics and reading standardized assessments.

There have been endless court cases and litigation surrounding states and districts challenging equity with the distribution of public funds for both regular education funds and special education funds. Additionally, little evidence has been produced within any of these cases to discuss success rates of students as a litmus test to determine the best way these federal or state funds were distributed. The backbone of these court cases of equity has rested on the dollar amount per student or the low-wealth rate of districts.

Ultimately, the public school system must be a steward of the resources provided by the public tax money. The call to public education must include a desire to produce the greatest educational results within the most conservative budget.

Purpose and Outline of the Study

The purpose of the study was to assist in determining the correlation between the state allocation of special education funding and the academic achievement of students with disabilities. An explanatory sequential mixed methods design study was developed to achieve this purpose. The study's goal was to gather and analyze graduation, achievement, academic growth, and financial model data from all 50 of the United States. After analyzing these data to determine the funding model or combination of models yielding the greatest academic gains for students with special needs, focus groups examined the findings with a goal of explaining these data. The two different groups provided insight into the application of these data in relation to current special education programs and services. The focus group members had real-world application knowledge and experience with budget impacts on providing appropriate services to students with disabilities. In addition, these focus group members all had experience with students leaving a traditional school setting for postsecondary opportunities. A second focus group was conducted to discuss budget impacts of state special education funding on academic outcomes for students with disabilities. This focus group allowed members to speak to their personal experiences and reflect on how a change in funding could impact graduation rates and academic achievement growth for all students with disabilities.

It is important to note that while statewide graduation rates of students with disabilities were collected and analyzed to understand the broad impact of high-quality programming for students with disabilities, for the purpose of this study, the gap in academic achievement for students with disabilities was defined by meeting proficiency status on state standardized test scores at all tested grade levels. The focus of this study

was an effort to leverage the greatest use of financial resources to produce the highest academic growth for students with disabilities.

Research Significance to Graduation Rate

High levels of academic growth will lead to higher rates of graduation for all students. As stated in *High School Graduation Facts: Ending the Dropout Crisis*,

According to data from the Alliance for Excellent Education's Graduation Effect economic model, reaching a 90 percent graduation rate for just one cohort of students would mean the country would see a \$3.1 billion increase in annual earnings, create more than 14,000 new jobs, and save \$16.1 billion in health care costs. (America's Promise Alliance, n.d., para. 5)

For this reason, the study also looked at graduation rates to determine the most effective forms of funding.

In addition to the lack of research surrounding academic growth of targeted populations, there was limited research comparing funding distribution to graduation rates of students with disabilities. Graduation rates are more fully explored here to demonstrate the need for the research tying funding of special education to successful completion of high school. The ultimate finish line for all federal programs for students with disabilities must be achieved first by graduation. Successful employment status, completing college, independent living, partial assisted living arrangements, and personal satisfaction in life are all the targets of Individualized Education Program (IEP) teams when making decisions for students with disabilities. "Trends in postsecondary employment of youths with disabilities are positive, with an increase of about 15 points in the percentage of out-of-school youth with disabilities who have worked for pay since

leaving high school” (Posny, 2010, p. 3). According to High School Graduation Facts: Ending the Dropout Crisis (America’s Promise Alliance, n.d.), graduation from high school is the most instrumental factor in society’s success.

- High school graduates earn a national average of \$8,000 more annually compared to high school dropouts.
- High school graduates are less likely to engage in criminal behavior or require social services.
- High school graduates have better health and longer life expectancy.
- High school graduates are more likely to vote. During the 2012 presidential election, 4 percent of people who left high school without graduating voted compared to 24 percent of youth with only a high school diploma and 37 percent with a college degree.
- High school graduates contribute to America’s national security because students that leave high school without a diploma are not qualified to serve in the military. (para 5)

The high stakes of graduation as a target should require lawmakers to consider funding aligned with graduation success rates. Understanding the value and implications of a student with special needs graduating from high school will empower those making funding decisions to grasp the significance of this momentous occasion.

Research Questions

The purpose of this study was to identify the academic impact of state special education funding distribution methods to local school systems in all 50 states across the United States and evaluate the impact of the academic achievement gap for students

identified under IDEA. This purpose will be addressed through the following research questions:

1. Are there mean differences between the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state reading standardized assessments in Grades 3 through 12?
2. Are there mean differences between the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state mathematics standardized assessments in Grades 3 through 12?
3. Are there mean differences between the state special education method of distribution of funds and the graduation rates of special education students in each of the 50 United States?
4. Does the method of funding impact achievement and graduation rates for students identified under IDEA?

Definition of Terms

The following section establishes common language used throughout this study. This will allow for consistent understanding of popular terminology within special education.

Academic Achievement of Students With Special Needs

For definition purposes of this mixed method research study, academic achievement of students with special needs was defined by student proficiency levels on state standardized assessments. The federal government's Annual Performance Report

(APR) reports on 17 targets annually. One of those 17 targets is indicator 3C, the performance of students with disabilities on state standardized assessments in the area of mathematics and reading (U.S. Department of Education, 2017b). The following definition is provided as guidance for states by the federal government in IDEA Section 618 surrounding the evaluation of student performance:

Part B Assessment

- 1- Number and percent of students grades 3 through 8 and high school, served under IDEA, Part B, who participated in mathematics and reading assessments, by assessment type and state.
- 2- Number and percent of students grades 3 through 8 and high school served under IDEA, Part B, who received a valid and proficient score on assessments for mathematics, by assessment type, grade level, and state.
- 3- Number and percent of students grades 3 through 8 and high school served under IDEA, Part B, who received a valid and proficient score on assessments for reading, by assessment type, grade level, and state. (Davis & Smith, 2020, paras. 1-3)

In addition to this academic achievement data, annual graduation rate data submitted to the federal government by each state within the SPP/APR was also used to evaluate academic success in this study.

IDEA

“The Individuals with Disabilities Education Act (IDEA) is a law that makes available a free appropriate public education to eligible children with disabilities throughout the nation and ensures special education and related services to those

children” (U.S. Department of Education, n.d.c, para. 1).

IDEA, initially signed into law as P.L. 94-142 by President Gerald Ford on November 29, 1975, was first called the Education for All Handicapped Children Act of 1975. The focus of the Education for All Handicapped Children Act was

to assure the rights of all students with disabilities to a free appropriate public education, to protect the rights of students and their parents in securing such an education, to assist state and local education agencies to provide for the education of those students, and to assess and assure the effectiveness of state and local efforts to educate those students. (Turnbull et al., 2007, p. 34)

The early Education for All Handicapped Children Act included components such as procedural safeguards which focused on access to a FAPE. However, the definitions of access and appropriateness were yet to be defined. Future court cases provided the additional guidance to further define what constituted a FAPE in the least restrictive environment (Pulliam & Van Patten, 2006). The Education for All Handicapped Children Act was changed in 1990 to become more person focused, producing the birth of IDEA under the direction of George W Bush. The primary focus and elements of the act remained intact, while becoming more inclusive and adding person first language. In addition to the language change, two additional areas of exceptionality were added to the then 12 disability categories: autism and traumatic brain injury. Further exploration of the historical lineage of IDEA is explored in Chapter 2.

Free Appropriate Public Education (FAPE)

A FAPE originated with IDEA, initially called the Education for all Handicapped Children Act, signed into law on November 29, 1975. The FAPE provisions of IDEA

include additional details as to requirements included in a FAPE. The components of a FAPE include determining eligibility for special education services; developing a plan to meet the child's unique needs with feedback from special education providers, parents, and regular education teaching staff; and finally, providing services by a child's third birthday.

Least Restrictive Environment

Section 300.114 of IDEA general statute defines for all public schools in the nation the intent of educating students with special needs in the least restrictive environment to the maximum extent appropriate. Children with disabilities are to be educated with their nondisabled peers in the traditional classroom setting. If removal from that regular setting must happen, the following must be considered: “(ii) removal of children with disabilities from the regular educational environment occurs only if the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved” (U.S. Department of Education, n.d.c, Section 300.114, para. 2).

No Child Left Behind (NCLB)

NCLB was signed into law by President George W. Bush on January 8, 2002. This law governed educational policy from 2002 to 2015. NCLB became the most significant influence our federal government has had historically in education. NCLB focused on equal opportunities for students and schools in poorer districts. New accountability measures held schools responsible for the academic performance of minority students, students in poverty, and students with special needs. This came with much criticism, as there were significant increases in the number and role of standardized

testing for all students (PBS Charlotte, n.d., para. 1).

Local Education Agency (LEA)

The LEA continues to be the authoritative source within each school district or county. In today's most current law governing the evaluation of public schools, ESSA, which replaced NCLB in December 2015, the U.S. Department of Education spoke to the definition of evaluating each LEA.

A public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public elementary schools or secondary schools in a city, county, township, school district, or other political subdivision of a State, or for a combination of school districts or counties that is recognized in a State as an administrative agency for its public elementary schools or secondary schools.

(U.S. Department of Education, n.d.a, para. 12)

Achievement Gap

The U.S. Department of Education referred to the achievement gap as a measurable difference in the performance “between each ESEA subgroup within a participating LEA or school and the statewide average performance of the LEA’s or state’s highest achieving subgroups in reading/language arts and mathematics as measured by the assessments required under ESEA” (U.S. Department of Education, n.d.a, para. 1). The specific achievement gap identified during this research was the difference in academic performance on state standardized assessments in the areas of mathematics and reading between students with disabilities and those of their same aged nondisabled peers on the same statewide standardized assessments.

Special Education Student

For the purposes of this research, special education student refers to a student who was evaluated, determined eligible, and placed under IDEA guidelines. While Section 504 of the Americans with Disabilities Act defined a person with a disability as requiring accommodations to access a major function of life, this population of students was not studied or figured into the findings of this research. This population of students was left out of this study as additional funding at the state or federal government is not provided to local school districts to serve students identified under Section 504. The Americans with Disabilities Act was voted into law in 1990. “The ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public” (National Network Information, Guidance, and Training on the Americans with Disabilities Act, 2020, para. 1). This movement allowed access to regular classroom accommodations for students who have a diagnosed disability, which allows for leveling the playing field with their nondisabled peers. These accommodations could include access opportunities as well as functional accommodations within the academic setting.

Graduation Rate

Graduation was defined by the federal government in the Code of Federal Regulations (2018), as “the number of students who graduate in four years with a regular high school diploma divided by the number of students who form the adjusted cohort for that graduating class” (p. 1). The Federal Regulations further described an adjusted cohort as the expected group of students with the addition of any students entering after

the start of ninth grade and the removal of those students who transferred out of the set cohort. Regular high school diploma was defined in the same section of the Federal Regulations as

the standard high school diploma that is awarded to students in the State and that is fully aligned with the State’s academic content standards or a higher diploma and does not include a GED credential, certificate of attendance, or any alternative award. (Code of Federal Regulations, 2018, p. 1)

It is critical to have common business rules for all 50 states to apply to their data when considering graduation rates to provide for an equitable comparison of programs. During this research, I used these data provided by the federal government based on this definition.

Introduction to State Special Education Funding Models

Many researchers have understood school finance to be an individual state issue since the early 1900s, which “implied that education was a state responsibility and a vital aspect of a democratic form of government” (Alexander & Salmon, 1995, p. 8). States have adopted various methods for funding LEAs or public school units with state special education funds. Four common ways states distributed allocations of special education funds to each local school district include flat student funding model, census-based funding model, cost-based funding model, and weighted funding model. Each state was given the liberty to adopt the most appropriate funding method for the distribution of state special education dollars in their state. However, the elected officials in each state were responsible for making this decision; and frequently, it was based on legislative pressure not academic data. One emerging progression that became clear as trends were

analyzed was state special education funding. Most states had moved away from either a census-based system or a cost-based system, sometimes referred to as a high-cost-based system, and moved to a weighted system.

Flat Student Funding Model

“Flat or grant funding is a set amount of funds, typically provided on an annual allotment per student, teacher or classroom unit” (Dempsey & Fuchs, 1993, p. 434). The advantages of this system include simplicity, consistency across areas of exceptionality, and predictability with annual budgeting processes. There are a number of inherent disadvantages with this method of state funding. The first disadvantage being an ethical challenge with increased numbers of students identified and served under IDEA, causing an increase in the funding for a district; therefore, this method can potentially create an incentive to overidentify students, as high levels of very involved students places a great demand on local budgets. Potentially, a student with less intensive needs could be placed in the Exceptional Children’s Program to cushion the budget for those more intensive cases. The second, more impactful disadvantage of flat funding brings about the question of equity versus equality. Districts throughout the nation will naturally have diverse distributions of very involved, high-need students requiring high-cost services. This disparity tends to occur in larger metropolitan areas with specialized medical facilities or districts with larger numbers of Private Residential Treatment Facilities. Equity is a challenging battle to fight in systems with flat funding allocations for all special education students. This flat funding amount system sets up inequities as IEP teams make decisions for more involved students requiring much higher levels of services and programming. The cause is a depleted budget preventing the ability to provide adequate

services to those with less intense needs. The allocation of resources at the local level is not equitable or equal in this situation.

Census-Based Funding Model

A census-based funding model multiplies the estimated number of students with disabilities in each district by the state special education per-pupil funding amount. Census-based funding provides several advantages including reducing any unnecessary overidentification of students with disabilities. However, a census-based funding model does not allow for differences within states such as highly populated urban areas with medical facilities to serve high-need students or very rural poverty stricken populations within a state. Lots of discussions increasingly surround the concept of states estimating the number of students with disabilities or considering a model based on a national average, including provisions for high-poverty areas. “If concentration in number or severity is present, then application of non-varied aid for children with disabilities is equally illogical to the example of providing non-varied aid for limited English proficient children and children in poverty” (Baker & Ramsey, 2010, p. 248). This method also discredits the severity of a disability and potentially encourages districts to serve students in a lower cost program (Mahitivanichcha & Parrish, n.d.).

Cost-Based Funding Model

The term cost-based funding is also frequently referred to as percentage reimbursement or even resource-based funding across various states and literature sources. For purposes of this dissertation, cost-based funding will be used to refer to “a portion of the overall cost of services provided by a district. They [the state] reimburse a partial percentage or the actual cost of providing special education” (Dempsey & Fuchs,

1993, p. 434). Another perspective provided by Ahearn (2010) to define a cost-based funding system regarding the allocations of state special education dollars was “Funding based on payment for a certain number of specific education resources (e.g., teachers or classroom units), usually determined by prescribed staff/student ratios that may vary by disability, type of placement or student need” (p. 3). A primary strength to a cost-based funding approach of appropriating state funding for special education programming is the “ability to target additional aid to districts serving greater shares of children in need” (Baker et al., 2018, p. 20). This cost-based plan, however, could lead to an overcommitment of services and funds by local districts, thus spreading resources too thin at the state level. The cost-based funding methodology also sets IEP teams up for considering a more clinical model versus a model focused on skills that are educationally relevant and allow students to access curriculum as directed by IDEA. Making decisions based on a clinical model of service delivery for related services or medical services in the private sector can overcommit public funds. In a clinical model, a treating medical professional can choose to prescribe a therapy or related service that would simply enhance the skills as opposed to being essential to access the special education curriculum. The goal of an IEP team is to consider the educational relevance of a service.

Therapists are equally trained and licensed no matter where they work, but the missions of the agency, school, or clinic where the therapists work are often very different. Therefore, the type and goal of therapy may be very different from one setting to another. It’s important to understand the different delivery and outcome of different models of therapy. (Ray & Holahan, 2018, p. 1)

Weighted Funding Model

Across the United States, according to Parker (2019), the weighted funding model was the most common funding model used by states to provide state tax dollars to individual districts. As of March 20, 2019, there were 26 states using some version of a weighted system (Parker, 2019). Parker (2019) defined a weighted system as,

Students are assigned a different weight or dollar amount based on certain factors.

The weights can be assigned based on severity of disability (e.g., mild, moderate or severe); on specific disability (e.g., visually impaired students receive X amount and students with autism receive Y amount); or on the resources that the student receives (e.g., students who are educated in a resource room receive X amount, students who have an aid for part of the day receive Y amount). (para. 3)

A distinct advantage of the weighted model is that it allows for states to accommodate individual districts with additional funding for higher rates of more involved students based on clearly defined criteria. While a weighted funding model levels the equity playing field a bit, a similar disadvantage to flat funding still exists. This funding model has the potential to motivate districts to overidentify students. Overidentification of students with disabilities causes an increase in the state special education budget allocated to the local district, providing more resources to spread over the identified students. A second challenge is the possibility of districts serving students in a more restrictive environment for the purpose of additional state funding. Moving to a more restrictive environment when a district is able to meet student needs in a more inclusive setting violates one of the primary components of IDEA, serving students in the least restrictive environment. One of the strategies employed by 10 districts in 2019 to assist

with this concern was a funding cap (Parker, 2019). A funding cap means a district is only funded for a set percentage of students with disabilities, as it is divided by the total student population enrolled in the district. The funding cap number generally ranges from 11% of the total district population to 13.5% of the total district population of all students. In addition to a maximum cap of students with disabilities funded in a district, many states also employ a minimum cap or minimum threshold of state funding guaranteed for all districts within the state.

Hybrid Funding Model

Hybrid or combination methods of funding special education are employed by approximately five of the United States. This model employs elements from two or more of the most popular four systems previously discussed. Each of these states combines a unique set of these models, thus a comparison of this small sample is not included in the quantitative research. However, individuals were asked about their professional experiences with these funding models to gain insight about how hybrid models could potentially impact student achievement and outcomes.

Funding Caps

A state special education funding cap is becoming increasingly more popular as states struggle with limiting allocations and increasing budgeting predictability. “At least 18 states cap special education funding or require districts to reach a minimum threshold before they are eligible for additional funding” (Parker, n.d., para. 1). Flat caps, census caps, reimbursement caps, resource-allocation minimums, and minimum thresholds are various approaches states use to control and maintain special education funding. Sometimes these terms are also used synonymously with the term “capitated funds.” Flat

caps employ a limit to the percent of students with disabilities allowed to be funded based on the total enrollment of a district's total student population. A census cap provides for predictability in budgeting. This funding cap sets a level of consistency by establishing a statewide percentage of students with disabilities and then automatically reimburses local districts at that same set rate for that statewide established percent of students with disabilities. A reimbursement cap is typically partnered with a funding system such as cost-based funding. This cap limits the amount a district is reimbursed by the state for the total cost of operating all special education programs. The final two cap options are similar in nature, resource-allocation minimums and minimum thresholds. Both of these caps employ a minimum requirement spent by the district prior to being reimbursed for all special education programs or specific high-cost services.

Limitations and Delimitations

One limitation that complicated a direct comparison of graduation rates and performance on state standardized assessments in this study was the latitude all states were given to set the desired academic targets on each assessment. While the calculation of graduation rates for all 50 states followed the same business rules of what constitutes a high school graduate, each state within the nation had freedom to determine their own set of teaching standards and level of proficiency on state exams. In addition, states were on varying cycles of updating curriculum standards, developing new assessments, and completing norm setting for those new assessments. Historically, each time this cycle happens, the expectations to meet the minimum proficiency level increase. These factors all impact a student's ability to reach graduation status.

An additional limitation considered when comparing growth rates of students with

disabilities on state standardized assessments was the varying allowances made for individual accommodations on each assessment. Some states allowed for accommodations, such as read aloud for a reading comprehension assessment, when documented in a student's IEP, while others did not. Each state's Testing and Accountability Division in conjunction with the Exceptional Children's Division has established the allowable accommodations, as there are no federal guidelines providing guidance on allowable IEP accommodations.

Despite the inability to conduct a direct comparison of state exams due to diverse proficiency levels allowed, elected officials must have quality data to make decisions for students in public schools. Far too often in researching this problem, lawmakers set the funding levels based on lobbyists, special interest groups, and presiding court cases. Pressure from the business community to raise student achievement has impacted educational reform laws (Toch, 2000, p. 36). "The policies have been based on numerous factors such as increasing standards, testing, and procedures. In response to failing test scores, states have designed policies to increase the amount of testing conducted" (Davidson, 2015, p. 19). This way of making decisions does not align the greatest resources with the greatest impact for students with disabilities who are served in the public school systems across the nation. As described above, a student's lack of graduation is far too high of a price to pay for society's inability to provide the most appropriate specially designed instruction and related services.

Finally, it should be noted that a limitation impacting the entire study was the presence of a global pandemic during the collection of data. COVID-19 caused a nationwide closure of school systems from March 2020 through the fall of 2020. During

this time, special education leaders across the nation were called to reconfigure the delivery of specially designed instruction via remote platforms. This call to action placed all leadership staff in high demand to acquire the appropriate technology, access, and safety equipment to attempt to begin meeting the needs of special education students. School closures also brought about significant and speedy litigation in all states due to the provision of a FAPE being compromised during this global pandemic. The impact of this pandemic contributed to the significant challenges in gaining participation of state and district special education leaders, as their time was pressed thin in an attempt to manage the challenges of these demands brought on by COVID-19.

One delimitation impacting the effectiveness of the study was my decision to conduct all focus group meetings via a virtual platform. A secured platform was chosen to ensure the confidentiality of the participants, and access codes were provided to participants. This decision of meeting remotely offered additional opportunities for scheduling without participants losing work hours through travel. However, the personal engagement level of a virtual meeting does change the outcome of spontaneous conversation.

Other delimitations impacting this study were the changes to the structure and purpose of the focus groups. The first change to the initial proposed research methodology was a shift from a focus group followed by individual interviews to two consecutive focus groups. The first focus group target audience was 10 to 12 special education leaders at the district and state levels. Due to the high demands placed on this type of professional as a cause of the COVID-19 school closures, a limited number of participants responded. After a great deal of solicitation, only six participants responded

with a common availability. It was determined to conduct the first focus group with this smaller subset of individuals to avoid a delay in the research. Additional willing participants were added to the second focus group, as they had scheduling conflicts with the first focus group date.

Summary of Dissertation

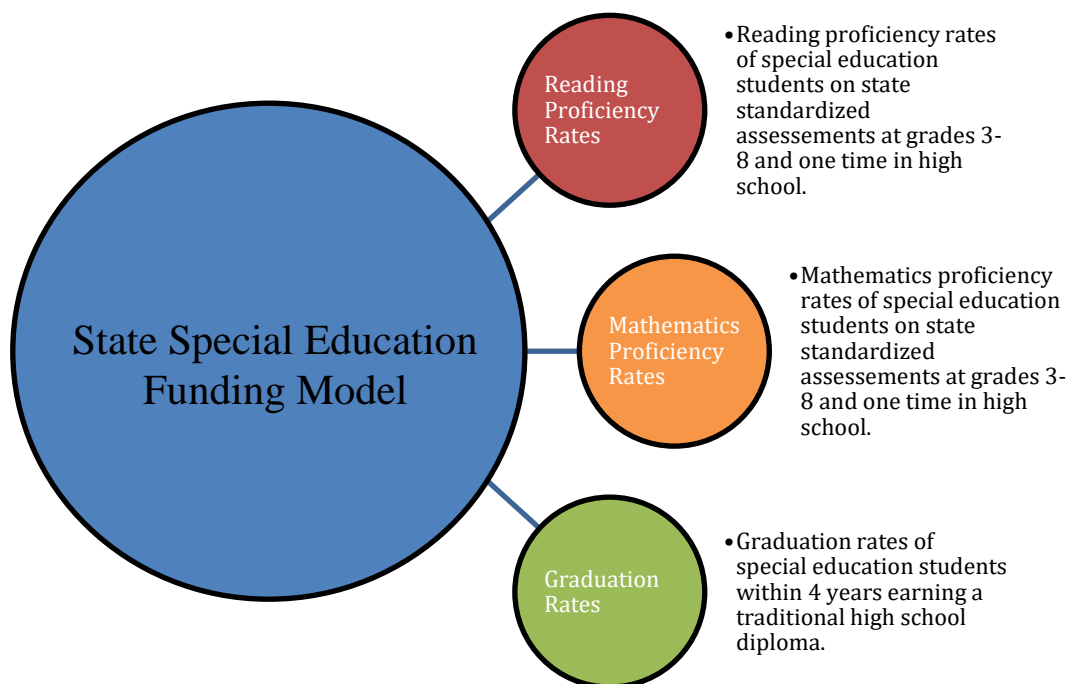
Chapter 1 provided an introduction to the study of state special education models as they impact academic performance of students with disabilities and graduation rates. The chapter also included a statement of the significance of the problem that currently exists with state special education funding models across the nation. There is a lack of research to determine the most effective method used by all states to fund local districts. Chapter 2 is a literature review of the historical context of IDEA and special education development since the early 1900s. Chapter 2 also provides an introduction to various financial models to gain a better understanding of current allocation options employed by all 50 states. Chapter 3 contains the research methodology including data collected, analysis, research, and summary of methodology. Chapter 4 provides an analysis and interpretation of these data as well as qualitative results of focus groups with professionals currently or previously in the field of special education administration. Chapter 5 contains the findings of the research and recommendations for future research to further explore the impact of state special education funding distribution.

Chapter 2: Literature Review

Introduction

“Complicated funding formulas in education accompanied by the difficulties inherent in evaluating student learning create complex problems for policy makers and educators” (Davidson, 2015, p. 19). Throughout the history of public education in the United States, there has been an ongoing battle with finding the balance between funding public schools while providing enough accountability to ensure public tax money is being utilized the most appropriate way. In this section, the history of public policies are explored, and laws and litigation that impact a state’s ability and requirement to fund special education programs in each public school are reviewed.

Figure 1 provides a visual of the conceptual framework utilized in evaluating these data gained from this research. Figure 1 shows the relationship between the dependent and independent variables in this study.

Figure 1*Conceptual Framework*

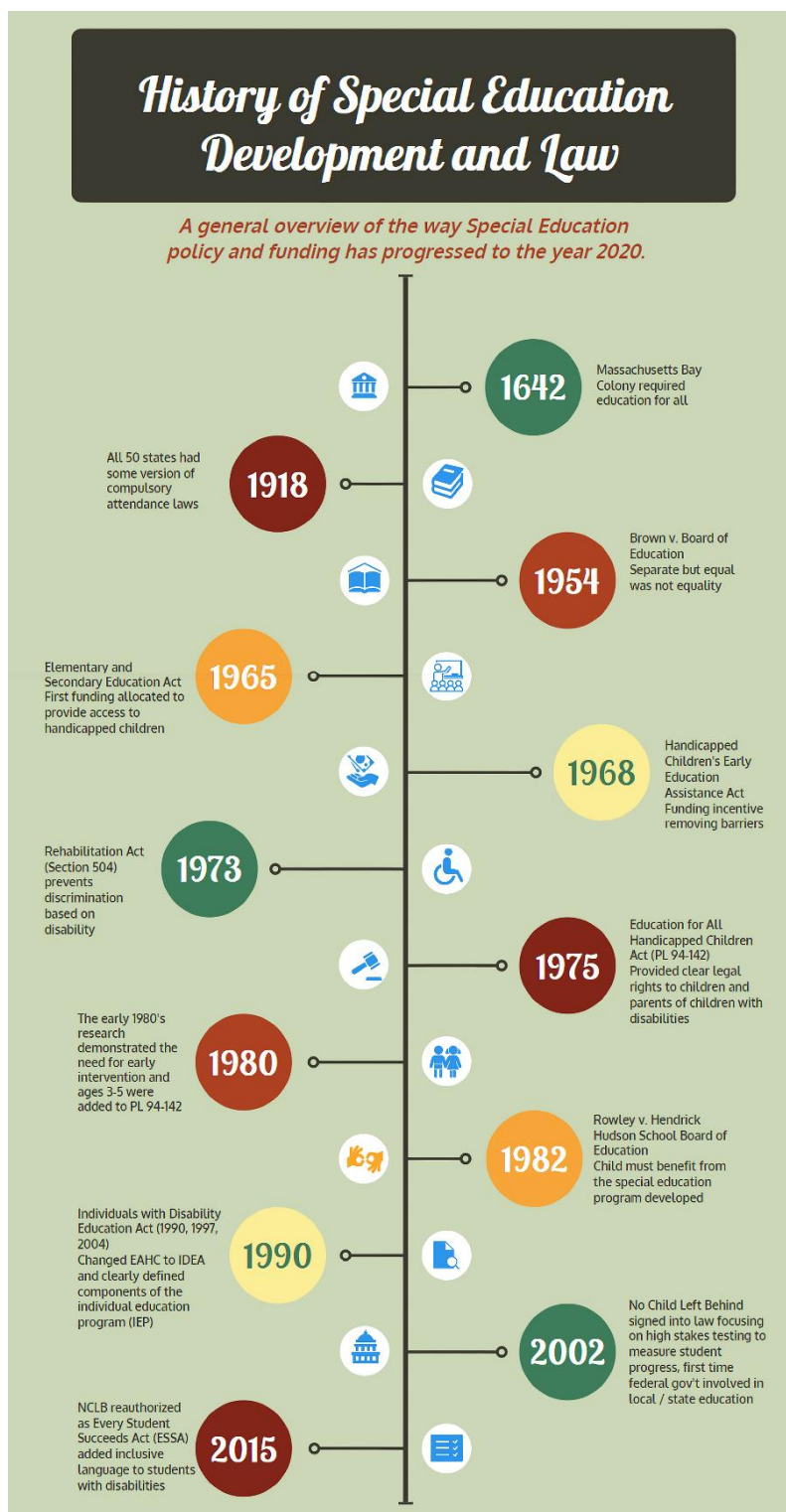
As shown in Figure 1, the research focused on the relationship between the independent variable (state special education funding model) and three dependent variables (reading proficiency rates of special education students on state standardized assessments, mathematics proficiency rates of special education students on state standardized assessments, and graduation rates of special education students).

History and Legislation

Prior knowledge about the complex problem states face to fully fund special education programs for students with disabilities is critical in efforts to impact change on the academic achievement for students with disabilities. A brief review of legal mandates and preceding court cases was critical to navigate some of the monumental changes in the education of students with disabilities. Compulsory education requirements in the United States, along with the historical Education for All Handicapped Children Act of 1975,

combined to change the entire landscape of special education funding in all 50 states.

Figure 2 represents a timeline of events pertaining to the history of special education programming and legal developments progressing from the early years in American history through the present.

Figure 2*History of Special Education Development and Law*

As demonstrated in Figure 2, significant changes have been made since the inception of IDEA in 1975, including IDEA reauthorization in 1990, 1997, and 2004. Much advocacy work and legislative work have happened with consideration to the individual rights of students with disabilities. This increased advocacy has led to increased demands on special education programming and, in turn, presented issues of budget constraints within districts throughout the United States.

Early Laws

Early educational laws differed a great deal as the U.S. Constitution continued to hold that education was primarily a state issue. Therefore, a vast majority of obligations surrounding educational issues were delivered at the state level. Beginning in 1642, the Massachusetts Bay Colony required education for all children. Unfortunately, no other requirements or policies existed in education considering the rights of all children with regard to educational access. In fact, it was not until the year 1918 when all states had some variation of obligation to educate the youth. By 1918, compulsory attendance laws were established for all 50 states. Unfortunately, students with disabilities were excluded from these laws because these individuals were seen as an embarrassment to society and their families (Yell, 2006). Compulsory attendance laws set expectations of student attendance in school. Many states set this age close to that of a typical kindergarten student, while others made kindergarten an optional educational experience. These laws also held parents responsible for presenting their children to the public school system for enrollment or making other private or homeschool options available to the children within school age range. These laws began each state's legal responsibility to provide educational opportunities for nondisabled students.

The push to educate children in the early 1900s was an effort to protect children from labor disputes and unsafe conditions. This cause was led by President Woodrow Wilson. By requiring children to attend school establishments during the workday at young ages, they were unable to support the workforce.

During this era, education was not thought of as a way to improve society and individuals but as a way to keep children physically protected from the extreme and unsafe work environment. Due to the limited number of disabled children in the workforce, not much emphasis was placed on ensuring the equal educational access by this specific population of students. Little legal movement happened by the way of educational opportunity for the disabled student population from 1918 until the early 1960s.

Additionally, at this point in history, there were virtually no rights or legal supports in place to ensure the safety or education of all individuals with disabilities. Children with disabilities were considered a burden to the society. During these years, “towns provided poor farms and almshouses as places to house and support those in need. Individuals with disabilities, criminals, and paupers were often lumped under one roof” (National Park Service, 2017, para. 2). Professor M. P. Barnes, a professor of neurological rehabilitation, attempted to study the life expectancy trends for people with disabilities during the 1900s. The goal of his initial study was to look at the life expectancy of individuals with disabilities throughout the 1900s; however, he was not able to obtain quality data until the 1960s, as limited information prior to the 1960s was collected on individuals with disabilities (Barnes, 2017). This shed insight into why students with disabilities were ignored in education, as Barnes (2017) found they were

also ignored in society. Barnes was able to identify numerous variables that impacted the life expectancy of individuals with disabilities. Factors such as controlling the proper weight and personal hygiene were frequently taught as a portion of a quality IEP within the school setting. Several of these factors impacting life expectancy were addressed with quality educational experiences during the school age period of life. Barnes was not able to answer his initial question of life expectancy changes for individuals with disabilities over the 1900s; however, his work provided insight to continue to improve quality and quantity of life for individuals with disabilities. He published his findings stating that in the early 1900s up to the 1960s, these individuals were cast out of society and not considered in the educational system until much later.

Brown v. Board of Education (1954)

The first significant landmark case considering appropriate educational experiences for students with disabilities came with the historic case of *Brown v. Board of Education* (1954). The initial intent of *Brown v. Board of Education* surrounded discrimination based on race; however, eventually, *Brown v. Board of Education* became the standard of equal access for all. In the early 1950s, the National Association of the Advancement of Colored People was advocating to allow access for Black students to a higher quality education by attending the White schools. Oliver Brown, father of a young Black daughter, filed a lawsuit against the public school system of Topeka, Kansas that would shake the nation and change enrollment access for all Black students in America over the next decade. His young daughter was denied access to the all-White school closer to their residence, which Brown and his wife believed would provide a better educational opportunity for their daughter. Reflecting on the 14th amendment of the

Constitution of the United States, Brown claimed the educational opportunities of Black students were not equal to those of their White peers; hence, the equal protection clause of the 14th amendment was not upheld. The decision was delivered on May 17, 1954 and referenced this same 14th amendment of the United States Constitution, equal protection to all citizens. The previous policy of “separate but equal” established in 1896 by *Plessy v. Ferguson* (History.com Editors, 2009, para. 1) was not equal protection. The decision ruled that “separate educational facilities are inherently unequal” (*Brown v. Board of Education*, 1954, para. 4). Numerous cases that followed looked to *Brown v. Board of Education* as a standard set to ensure equal access to all students. This monumental case changed our nation’s ideals of separate but equal and laid the groundwork for several others to follow. Chief Justice Earl Warren stated in his decision,

In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right that must be made available to all on equal terms. (*Brown v. Board of Education*, 1954, p. 493)

Brown v. Board of Education (1954) continues to be referenced today. However, although funding for special education programs and training increased following *Brown v. Board of Education*, school districts still had the right to choose whether or not to participate in special education incentive programs throughout the mid-1960s (Smith, 2004).

Elementary and Secondary Education Act (1965)

The year 1965 was a pivotal turning point in special education history. The terrible conditions provided for individuals with disabilities demonstrated litigation and

policy change was needed, but it took time to disassemble structures in society and the mindset of the American population about individuals with disabilities. The climate of American education at that time clearly needed some work in the area of disability rights. The 1965 legislation attempted to address the institutionalized nature of the current structures in place for individuals with disabilities. “In 1967, for example, state institutions were homes for almost 200,000 persons with significant disabilities. Many of these restrictive settings provided only minimal food, clothing, and shelter” (U.S. Department of Education, n.d.e, para. 8). One act that attempted to remove individuals from these restrictive settings and consider the personal rights of individuals with disabilities was the Elementary and Secondary Education Act (1965). The Elementary and Secondary Education Act marked the first point in history where the federal government specified dollar allocations for the education and access of handicapped children. The inclusion movement in the U.S. 3 years later, in addition to the Handicapped Children’s Early Education Assistance Act, incentivized removing barriers by providing funding to districts to serve handicapped children in schools. The combination of the inclusive movement with the Handicapped Children’s Early Education Assistance Act allowed disabled children to attend a public education institution and become embedded in typical society. While the federal government was taking action to set the stage for access to public education, the states continued to battle in court over their obligation to fund such programs. There was no stance taken with these initial federal guidelines to instruct states on the proper way to fund the local school systems. The question was posed and still remains unanswered today: “What is the most appropriate way to fund local school districts with state appropriated funds?”

The 1960s and early 1970s entailed challenges to school funding equity in federal courts and were based on the Equal Protection Clause of the 14th Amendment to the U.S. Constitution. It ended abruptly with the Supreme Court's ruling in *San Antonio Independent School District v. Rodriguez* in 1973. The Court decided that education is not a fundamental right under the U.S. Constitution and that wealth is not a "suspect classification," and it therefore allowed state systems whereby school funding varied across local school districts as a function of local control over property taxation. (Baker et al., 2018, p. 6)

The 1973 court decision reaffirmed the obligation of states to provide funding in the area of all public education, with no clarification as to the appropriate method of funding to be used by local districts. These two major court rulings aligned at a tough time in our nation's history. The United States was recovering from the Vietnam War and was amidst a major culture shift concluding with the Civil Rights Movement.

Just as the waters began to calm, the end of this tumultuous time was marked by yet another shift in public education. In 1973, the United States government passed the Rehabilitation Act, better known as Section 504, which stated,

No otherwise qualified individual with a disability in the United States, as defined in section 705 (20) of this title, shall, solely by reason of his or her disability, be excluded from the participation in, be denied of, or be subject to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive agency. (U.S. Department of Labor, n.d., para. 1)

The Rehabilitation Act of 1973's monumental decision clearly stated a person with a

disability cannot be excluded or denied benefit from a program, public or private, that receives federal assistance. While Section 504 does not speak to IDEA requirements, students with disabilities eligible under IDEA are inherently eligible under Section 504. Therefore, prior to the 1973 act, the nearly eight million children with disabilities in the U.S. were insufficiently educated or excluded from the public school setting (Pulliam & Van Patten, 2006, para. 6). “In 1970, U.S. schools educated only one in five children with disabilities, and many states had laws excluding students, including children who were deaf, blind, emotionally disturbed, or mentally retarded” (U.S. Department of Education, n.d.e, p. 320). After these landmark decisions, education was no longer a privilege but a legal right.

Education for All Handicapped Children Act (1975; Public Law 94-142)

Work had begun regarding advocacy for individuals with disabilities during the 1950s, 1960s, and into the early 1970s. However, the focus of the advocacy was primarily access to nondisabled institutions. The Education for All Handicapped Children’s Act, better known as PL 94-142, marked the first time in history a law articulated efforts to identify individuals in our society with disabilities and provided clear legal rights to both those children and their parents.

Changes implicit in the law included efforts to improve how children with disabilities were identified and educated, to evaluate the success of these efforts, and to provide due process protections for children and families. In addition, the law authorized financial incentives to enable states and localities to comply with Public Law 94-142. (U.S. Department of Education, n.d.e, para. 14)

PL 94-142 focused on children ages 3 to 21, or what educational policies now refer to as

school age children. In 1986, PL 99-457 added the population of birth to 3 years old to what is now known as IDEA. However, no laws provided guidance to states as to the method or model they should use when funding these programs at the local level.

Early Intervention Research and Addition to PL 94-12

The addition of the added age levels came after much research in the 1980s which informed the public and lawmakers that early intervention was the key to a successful transition into the educational system and independent life. The Center for Parent Information and Resources is a Statewide Advocacy Center for all parents in the state of New Jersey. They work under the direction of U.S. Department of Education, Office of Special Education Programs to assist with parent advocacy. The Center for Parent Information and Resources publication efforts provided great insight into the need for early intervention based on research that came out of the 1980s.

In 1986, Congress established the program of early intervention for infants and toddlers with disabilities in recognition of “an urgent and substantial need” to:

- enhance the development of handicapped infants and toddlers and to minimize their potential for developmental delay,
- reduce the educational cost to our society, including our Nation’s schools, by minimizing the need for special education and related services after handicapped infants and toddlers reach school age,
- minimize the likelihood of institutionalization of handicapped individuals and maximize the potential for their independent living in society, and
- enhance the capacity of families to meet the special needs of their infants and toddlers with handicaps. (Center for Parent Information and Resources, 2012,

para. 2)

The extensive published research during the 1980s led to increased knowledge about early intervention and the benefits to the students, educational success of the student, and decreased cost on society. This work continued through the early 2000s with additional advocacy to add more programs and services for students before the age of 5. The National Early Childhood Technical Assistance Center published their research project entitled, “The Importance of Early Intervention for Infants and Toddlers with Disabilities and their Families” in July 2011. The research was provided to all state education departments and relied on the early 1980s work done by the Center on the Developing Child at Harvard University. The report sums up the researched benefits of early intervention:

- Neural circuits, which create the foundation for learning, behavior and health, are most flexible or “plastic” during the first three years of life. Over time, they become increasingly difficult to change.
- Persistent “toxic” stress, such as extreme poverty, abuse and neglect, or severe maternal depression can damage the developing brain, leading to lifelong problems in learning, behavior, and physical and mental health.
- The brain is strengthened by positive early experiences, especially stable relationships with caring and responsive adults, safe and supportive environments, and appropriate nutrition.
- Early social/ emotional development and physical health provide the foundation upon which cognitive and language skills develop.
- Quality early intervention services can change a child’s developmental

trajectory and improve outcomes for children, families, and communities.

- Intervention is likely to be more effective and less costly when it is provided earlier in life rather than later. (Center on the Developing Child at Harvard University, 2010, para. 2)

The early intervention research supported the need for early intervention not only for the long-term success rate for individuals with disabilities but for the overall health of the community.

Rowley v. Hendrick Hudson Board of Education (1982)

Rowley v. Hendrick Hudson Board of Education (1982) was the test case to set the precedence for the Education for All Handicapped Children Act in the U.S. Supreme Court system. The Hendrick Hudson Central School District enrolled a student in kindergarten named Amy Rowley. Upon enrollment in the Hendrick Hudson Central School District, Amy's parents requested an American Sign Language interpreter because Amy was deaf. The school considered the facts, consulted with experts, and refused the request made by the parents because the student was making documented academic progress without the support of an American Sign Language interpreter. The focus of this monumental case became the term "appropriate" as required by the Education for All Handicapped Children Act (now IDEA); FAPE. The U.S. Supreme Court held that "an 'appropriate education' under the EHCA is found when a program of special education and related services is provided such that the child benefits from education and where the due process procedures have been followed in developing the program" (Rothstein & Johnson, 2010, p. 23). The decision distinguished the difference between having access to a program that provided educational benefit, not necessarily the best possible program or

the requested program by a parent. Justice William Rehnquist wrote the “intent of the Act was more to open the door of public education to handicapped children on appropriate terms than to guarantee any particular level of education” (*Rowley v. Hendrick Hudson Board of Education*, 1982, p. 193). This case defined for educational systems appropriate public education but continued to avoid the issue of or guidelines for the method of funding the programs. With the emphasis placed on serving students in the general education setting to the greatest extent possible to offer an appropriate education, a financial burden was placed on school systems, as this environment requires a higher level of resources to provide supplemental aids and services for each student.

IDEA (1990, 1997, 2004)

From 1976 to 1990, students with disabilities served under IDEA rose 23% (Esteves & Rao., 2008, p. 2). This huge growth of students identified and served impacted the changes made to the law in 1990, as more detailed guidance was needed. The 1990 name change from the Education for All Handicapped Children Act or PL 94-142 to IDEA was marked by additional details outlining the components of a student’s individualized program. Programs supporting student vocational preparation, transition activities, and services from high school to postsecondary life became the minimum expectation. The IEP now included an entire section on transition plans including the identification of employment or adult living options.

In 1997, the reauthorization of IDEA shifted the focus from simply having access to services to the quality of the instruction, evaluation of programs, and link to outside agencies to ensure quality transitions. The four main changes to the law in 1997 surrounded the addition of annual measurable goals, measurement of progress, increased

parent involvement in the development of the IEP process including reporting student progress to the parents, and transition activities initiated at the age of 14. In addition to those changes, much attention and advocacy in the late 1990s and early 2000s was focused on the concept of a least restrictive environment. The least restrictive environment component of the IEP required the team to determine the most appropriate environment for the student to access the curriculum. The priority set for decision-making by the team was to identify the environment in which the highest percent of the student's school day is spent with nondisabled peers, while continuing to make adequate progress on IEP goals. "Today, students with disabilities are learning alongside their peers. Ninety-five percent of students with disabilities attend a neighborhood school. Sixty percent of them spend at least 80 percent of their day within the regular school environment" (U.S. Department of Education, 2010, para. 29).

Congress reauthorized IDEA in 2004 and most recently amended IDEA through Public Law 114-95, ESSA, in December 2015. The reauthorized IDEA was signed into law on December 3, 2004 by President George Bush. The 1997 changes called attention to monitoring progress of a student's individual goals and progress. Also, several of the 2004 updates regulated how each state could use their federal dollars allocated for special education services at the state level. The first significant change was the model for grant acquisition.

For fiscal year 2007 and subsequent fiscal years, the number of children with disabilities in the 2004-2005 school year in the State who received special education and related services ... multiplied by 40% of the average per-pupil expenditure in public elementary schools and secondary schools in the United

States; as defined in 34 CFR 300.717. (IDEA, 2004, Sec. 300.700 [2][i])

The six major components of IDEA reauthorized in 2004 were zero reject, nondiscriminatory evaluation, least restrictive environment, individualized FAPE, due process procedures, and a higher level of parent participation (Jesteadt, 2012). Each of these elements was somewhat present in the 1997 version of IDEA; however, the reauthorization further detailed each aspect requiring additional provisions to ensure equal access and participation for all children with disabilities in the public school setting.

The zero reject principle of the 2004 IDEA reauthorization is defined as “providing full educational opportunities to all children with disabilities” (U.S. Department of Education, 2019c, para. 5). The basic premises of zero reject articulated to all public education entities that the identification and education of all students with disabilities must happen, regardless of age, through a public Child Find process. Child Find requires all school systems to allocate resources and make intentional efforts to publicize within the district limits the willingness and ability to refer, evaluate, identify, and serve all students with disabilities, regardless of enrollment within that school district. Part B of IDEA (school age children) further stated that full educational opportunities must be provided to children between the ages of 3 and 21 (U.S. Department of Education, 2019c). “In the current era of special education, cultural attitudes have changed and society has come to feel obligated to provide equal educational opportunities to all children, including those with disabilities” (Davidson, 2015, p. 21).

The additional language focused on nondiscriminatory evaluation came about

from several court cases in which students were misidentified or placed with an improper evaluation (*Larry P. v Riles*, 1984; *Parents in Action on Special Education [PASE] v. Hannon*, 1980, p. 974). The 2004 authorization “addresses both the techniques for classification and the action founded on the classification, which requires both procedural safeguards and substantive protection” (Turnbull et al., 2007, p. 120). Some elements added in the law focused on the comprehensiveness of all evaluations and restricted placement without a comprehensive evaluation. After the reauthorization, IDEA required a “multidisciplinary, multifaceted, nonbiased evaluation of child before classification and providing special education for that child” (Turnbull et al., 2007, p. 207). The requirement of placement under IDEA must have three prongs present: (a) the student must have one of the 14 disability categories, (b) the disability must substantially limit access to the curriculum, and (c) the student must require specially designed instruction (U.S. Department of Education, 2019a).

Another one of the six components of the reauthorization in 2004 addressed the extent to which IEP teams must maintain the least restrictive environment for the child, clearly spelling out the efforts made for the child to remain in a setting with nondisabled peers to the greatest extent possible:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular education environment occurs only when the nature or severity of the disability of a child is such that education in the regular classes with the use of supplementary aids and services cannot be

achieved satisfactorily. (U.S. Department of Education, 2019b, para.1)

The clarification, not previously detailed in IDEA legislation, spoke to all IEP teams stating a general education setting was the starting point for all decision-making. With the emphasis placed on serving students in the general education setting to the greatest extent possible, higher levels of resources were required to provide supplemental aids and services for each student. When students with special needs are clustered in a special education environment, resources can be utilized for multiple students within the same setting. Moving students to a more inclusive setting brought about the question, “will resources be increased to support this change in programming and framework within which to make decisions for students?” Since the answer was no, the least restrictive environment guidance created additional need for states to identify the most effective way to distribute financial resources to specific districts.

In 2008, IDEA-reported data indicate that 5,660,491 students with disabilities were educated in the general education classrooms for at least part of the day, depending on their individual needs. Thus, 95 percent of all students with disabilities were educated in their local neighborhood schools. (Posny, 2010, p. 2).

The fourth focus of the 2004 reauthorization of IDEA surrounded individualized FAPE. To ensure all students with disabilities were provided an individualized FAPE, as ruled by the *Rowley v. Hendrick Hudson Board of Education* (1982) decision, IDEA established expectations for IEPs to be written for all students eligible under the federal guidelines. “The term ‘individualized education program’ or ‘IEP’ means a written statement for each child with a disability that is developed, reviewed, and revised in

accordance with this section” (U.S. Department of Education, 2019d, para. 1). The statute continued to describe the components of the written plan to ensure students were provided a FAPE in any public school in the United States. The enhancements to this basic expectation set in 1982 included statements regarding the child’s present level of academic and functional performance, a statement of measurable annual goals, description of how the child’s progress towards meeting the goals would be monitored, and a statement of the special education-related services and supplementary aides that would be provided.

Several amendments were also added to the 2004 reauthorization of IDEA regarding due process procedures and rights of parents. Due process rights of students and parents increased as well as the combined focus for an increase of higher levels of parent participation. These rights began at the referral phase, prior to placement of the student, and continued through the placement of the student in special education services. In section 300.509 of IDEA, a provision was outlined to require state education agencies to provide model documents available to assist parents and public agencies with filing due process complaints. These templates are now included on all states’ Exceptional Children’s procedural rights portions of their websites and handbooks. Due process was a focus of the 2004 reauthorization by including methods of accessing material electronically. Procedural safeguards were required in the original law set forth in 1975, but the elaborate system of safeguards outlined in 2004 changed the focus to “guarantee parents both an opportunity for meaningful input into all decisions affecting their child’s education and the right to seek review of any decisions they think inappropriate” (*Honig v. Doe*, 1988, p. 598). One change ensured the education of children with disabilities will

be made more effective by “strengthening the role and responsibility of parents and ensuring families of such children have meaningful opportunities to participate in the education of the children at school and at home” (Turnbull et al., 2007, p. 291). The goals of these changes, as described by Turnbull et al. (2007), were partnership and teamwork to establish a stronger shared decision-making process. Turnbull et al. further described the responsibility and “duty to support their children and a corollary right to their children’s services” (p. 292).

Endrew F. v. Douglas County School District (2017)

While *Endrew F. v. Douglas County School District* (2017) did not litigate the issue of special education funding, the decision rendered in March 2017 not only referenced *Rowley v. Hendrick Hudson Board of Education* (1982) but set the highest standard of a FAPE. The unanimous decision defined the standard of “appropriate progress” dictated by IDEA. Endrew was a fifth-grade student with autism. Endrew’s parents chose to place him in Firefly Autism House, a private specialized school for students with autism. The parents sued for reimbursement of the private school tuition, claiming the traditional public school was unable to meet their child’s specialized needs. Chief Justice John G. Roberts, Jr. provided the feedback from the courts to assist in clarifying whether a child’s IEP was “reasonably calculated to allow a child to make progress” (U.S. Department of Education, 2017c, p. 1). The Supreme Court’s decision in the *Rowley v. Hendrick Hudson Board of Education* (1982) case suggested that appropriate progress was setting a goal of students being fully included in the regular education program. The standard set in this case was more than “de minimus” progress. The conclusion of *Endrew F. v. Douglas County School District* determined, “a

reviewing court should give deference to the expertise of school authorities but must still ensure that an IEP is reasonably calculated to enable each child to make progress appropriate for that child's circumstance" (para. 4).

Least Restrictive Environment Impact on State Special Education Funding

Since the inception of IDEA in 1975, students with disabilities have been increasingly served in the general education classroom within the United States. Several revisions to IDEA, previously named Education for All Handicapped Children Act, have allowed for a focus on serving students with disabilities within the least restrictive environment (Morin, 2019). The least restrictive environment is not a location but the mindset that all students deserve and should be educated to the highest extent possible with their nondisabled peers. Educational environment data suggested students ages 6 through 21 be served under IDEA. Approximately 95% of students ages 6 through 21 served under IDEA in 2017 were served in regular schools (National Center for Education Statistics, 2020). Students being served in the least restrictive environment with their nondisabled peers allows students to gain social experiences of same-age, developmentally appropriate opportunities. This experience leads to positive peer culture, an understanding and awareness of differences, and an increase of transitioning of learned skills for students with disabilities. "Research shows that children of all abilities learn social skills from one another when they learn side-by-side" (Walsh, 2019, para. 1).

According to the National Center for Education Statistics (2020),

In 2017–18, the number of students ages 3 through 21 who received special education services under the Individuals with Disabilities Education Act (IDEA) was 7.0 million, or 14 percent of all public school students. Among students

receiving special education services, 33 percent had specific learning disabilities.

(para. 3)

More than 80% of these students spent most of their day in the general education classroom (National Center for Education Statistics, 2020). These data begged the question, ‘how were public schools funding these services for students who are both general education students and special education students?’”

State vs. Federal Control

President George W. Bush was at the helm of leadership when NCLB was enacted on January 8, 2002. NCLB’s primary purpose was to “ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic standards and state academic assessment” (U.S. Department of Education, 2005, p. 1). NCLB marked one of the first times in history the federal government began to get involved in education legislation. NCLB was in strict contrast to IDEA. IDEA sought the protection of the rights of students with disabilities and their parents as well as provided a FAPE for students. IDEA was entirely based on individuality. The 2004 reauthorization of IDEA stated all IEPs must contain “present levels of academic achievement and individual achievement goals” (Individuals with Disabilities Education Improvement Act of 2004 [Public Law No. 108-446]). In contrast, the 2002 NCLB legislation was highly focused on the standardized assessment of all students regardless of any individualized instruction program or special needs. The conflict occurred when local school districts and states attempted to follow both expectations established at the federal level for IDEA and NCLB. The conflicting guidelines of these two federal regulations also collided in the

area of funding. The complexity of the problem surrounding accountability and ultimately funding have existed as the technological and social structures of American society have outpaced changes made by the educational system (Glover, 2013).

In the 2015 update to the NCLB law, now renamed ESSA, Congress stated, Disability is a natural part of the human experience and in no way diminishes the right of individuals to participate in or contribute to society. Improving educational results for children with disabilities is an essential element of our national policy of ensuring equality of opportunity, full participation, independent living, and economic self-sufficiency for individuals with disabilities. (U.S. Department of Education, 2010b, para. 6)

ESSA spoke with inclusive language about students with disabilities participating in all activities related to a productive life and the highest level of independence. However, the ESSA federal authoritative ruling required annual assessments in Grade 3-8 in mathematics, science, and English language arts as well as once in high school. During this time, the federal government began stepping into the role of education authority, but still no stance was taken with the federal guidelines as to how states should fund their respective school districts to achieve what was being required by the educational laws and policies.

The National Assessment of Education Progress (NAEP) measures the mathematics and reading achievement of students within the United States and internationally in Grades 4, 8, 10, and recently 12. “The trends provide no clear suggestion that the onset of NCLB improved performance grades other than fourth” (Dee & Jacob, 2013, pp. 155-156). Similar claims have been made by the U.S. Department of

Education. The 2014 Federal Budget Summary noted limited progress had been made in closing the achievement gaps, but much more progress was necessary (U.S. Department of Education, 2013, p. 12). Neither NAEP, NCLB, nor ESSA have specifically targeted the progress rate of students with disabilities under various funding models. “State school funding formulas, including components of those formulas pertaining to special education are primarily the responsibility of the states” (Baker et al., 2018, p. 6). Baker et al. (2018) continued to describe the basic constitutional responsibility of all states to provide funding to all local districts “to balance differences in local fiscal capacity to provide educational services, and second to target resources to student populations with greater needs” (p. 6).

To date, several of the historical court cases explored here, in addition to numerous other court proceedings, have paved the way for states to ensure a FAPE for students with disabilities.

Understanding Special Education Budgeting

Today’s school systems are funded in a large part by public tax dollars. These tax dollars come from the federal level, state level, and county or local level. Each pot of money has a purpose, and school officials are held accountable to ensure the allocation of funds is utilized to fund the appropriate resources. In special education, federal and state special education dollars are spent based on an approved budget at the state level. “During the 1999-2000 school year, over 80 percent of total special education expenditures were allocated to direct instruction and related services. It takes into account the salaries of special education teachers, related service personnel, and special education teaching assistants” (Chambers & Parrish, 2004, p. 10). As Chambers and Parrish (2004)

indicated, an overwhelming majority of all special education dollars are not spent on supplies, materials, buildings, or equipment but on the individuals serving students with special needs. This allocation of money for personnel must be used to serve students based on a student's IEP. One of the funding challenges posed by special education is the individuals making decisions about the required supports and services on a student's IEP are not the individuals able to influence the budget. Budgets are set by federal, state, and local officials and provided to the local public school system. IEPs are annual obligations that set the level of services for a student. When federal and state authorities provide less funds or IEP teams determine to increase services, the shortfalls in budgeting must come from the local level. At a time when public tax dollars are stretched thin and critiqued by the public, these decisions can put local systems in a challenging position to ensure other regular education services are not compromised. "Spending on special education students in California has increased by just over 20 percent over the past decade – from \$10.8 billion to \$13 in inflation-adjusted figures" (Freedberg, 2019, para. 1). This is just one state's example of special education population growth and financial demand increase during the early 2000s. The trend is similar across the entire nation, causing a heightened focus on allocating special education funds most appropriately.

Table 1 summarizes the work done by Baker et al. (2018), which evaluated the various state funding model approaches to providing state-allocated resources to local districts.

Table 1*Baker et al. 's (2018) Summary of Funding Approaches*

Model type	States	Strengths	Weaknesses
Weight pupil (varied weights)	Arizona, Colorado, Florida, Georgia, Indiana, Iowa, Kentucky, New Mexico, Ohio, Oklahoma, South Carolina, Texas	Ability to target additional resources to districts serving children in need, and to vary those resources by need levels.	May influence not only aggregate identification rates, but severity of classification. Even more problematic if separate weights tied to placement type (see Parrish & Chambers, 1996)
Weighted pupil (single weight, or flat grant per SE pupil)	Louisiana, Maine, New Hampshire, New York, North Carolina, Oregon, Washington	Simplicity. Ability to target additional aid to districts serving greater shares of children in need.	Insensitive to differences in concentration of disabilities by severity.
Resource based (cost-based)	Delaware, Kansas, Mississippi, Nevada, Tennessee, Virginia	Ability to target additional aid to districts serving greater shares of children in need.	If based on fixed sum (typical), may lead to spreading resources too thin across districts/ services/ children
Percentage reimbursement	Michigan, Minnesota, Nebraska, Wisconsin, Wyoming	Less encroachment (Baker, 2003) Ability to target additional aid to districts serving greater shares of children in need.	Potentially cumbersome compliance procedures of accounting for allowable expenses. If based on fixed sum (typical), may lead to spreading resources too thin across districts/ services/ children
Census-based	Alabama, California, Idaho, Massachusetts, Montana, New Jersey, Pennsylvania	Reduces incentive to mis-classify or over-classify (Parrish, & Chambers, 1996)	Potential to deprive districts with uncontrollably high disability rates of necessary resources (Baker & Ramsey, 2010)
Combination	Alaska, Illinois, Maryland, South Dakota, Vermont		
No separate special education model	Arkansas, Connecticut, Hawaii, Missouri, North Dakota, Rhode Island, West Virginia		

As demonstrated Baker et al. (2018), no one system solves all of the challenges of defining the balance of equity and equality when it comes to adequately funding local

districts for special education systems. Table 1 also showed how several states have attempted to combine model types in an effort to minimize any incentive for overidentification while ensuring high special education population districts were justly funded. In recent years, it has been documented by federal reporting in each state's APR that no state has been able to fully fund the needs of each district in programming for special education students. In their conclusion, Baker et al. touched on the topic of evaluating the effectiveness of each of these funding models.

Achievement Proficiency

Baker et al (2018) suggested the problem of state special education funding needed to be studied in combination with service delivery models and outcome levels. The focus of this study did not focus on service delivery models but on outcome levels of academic achievement and graduation rates.

Information about funding distribution systems has been provided by Parker (2019) and the Education Commission of the States to assist in researching various aspects of special education funding. As Parker (2019) stated,

Special education funding is unique because there are more federal requirements on funding for special education than there are for other high-need populations. Since 1975, states and school districts have had to comply with the mandates of the Individuals with Disabilities Education Act. The federal law requires that states provide a free, appropriate public education to all children with disabilities, regardless of the cost. (para. 14)

Annually, this information is provided by the federal government Office of Special Education Programs.

The Individuals with Disabilities Education Act requires each state to develop a state performance plan/annual performance report that evaluates the state's efforts to implement the requirements and purposes of the IDEA and describes how the state will improve its implements. The SPP/APRs include indicators that measure child and family outcomes and other indicators that measure compliance with the requirements of the IDEA. (U.S. Department of Education, , n.d.d, para. 1)

These reports show graduation rates have risen significantly over the 35-year history of IDEA.

In school year 2007-2008, IDEA-reported data indicated that 217,905 students with disabilities, ages 14-21 graduated from high school with a regular diploma. There has been a 16 point increase in the percentage of students with disabilities graduating from high school since school year 1996-97. (Posny, 2010, p. 2)

In addition to this increase in graduation rate of students with disabilities from the 1996-1997 school year to the 2007-2008 school year, there was also a 21% decrease in the number of students with disabilities dropping out of school (Posny, 2010).

Another high-leverage indicator officials frequently utilized to determine student success was the proficiency rate of students on statewide standardized assessments in the areas of mathematics and reading, in addition to the graduation rate of students with disabilities. Table 2 is a compilation of all 50 states' students with disabilities proficiency rates on respective state standardized mathematics and reading assessments as well as graduation rates. Both the academic proficiency rates and graduation rates were collected from each state's 2018 submission of the SPP/APR.

Table 2*State Proficiency and Graduation Rate of Students with Disabilities*

State	2017 reading proficiency	2017 math proficiency	2016 grad rate
Alabama	12.48	16.45	54.05
Alaska	11.08	8.83	53.87
Arizona	24.58	31.74	68.98
Arkansas	14.38	17.01	84.29
California	15.18	11.52	65.25
Colorado	9.02	7.11	57.24
Connecticut	18.87	14.25	65.21
Delaware	15.2	9.1	67.15
Florida	23.98	29.5	61.55
Georgia	18.63	20.13	56.59
Hawaii	14.5	11.62	59.49
Idaho	15.11	13.81	60.46
Illinois	9.21	8.19	70.52
Indiana	27.58	25.36	72.03
Iowa	30.94	35.37	69.51
Kansas	14.2	11.35	77.52
Kentucky	29.9	22.49	71.89
Louisiana	38.7	35.77	46.64
Maine	14.57	10.79	72.37
Maryland	10.54	11.2	66.86
Massachusetts	19.68	17.39	71.79
Michigan	24.23	18.93	64.15
Minnesota	29.97	28.6	60.76
Mississippi	9.31	10.35	34.68
Missouri	28.67	18.18	77.46
Montana	17.78	14.09	77.75
Nebraska	19.57	20.78	70.46
Nevada	11.57	9.92	29.29
New Hampshire	18.99	14.17	72.73
New Jersey	20.62	15.73	78.8
New Mexico	11.83	9.5	61.85
New York	27.12	26.62	52.55
North Carolina	14.23	14.7	68.9
North Dakota	17.95	14.23	67.88
Ohio	28.39	29.55	69.57
Oklahoma	14.03	14.75	74.44
Oregon	22.96	15.85	55.5
Pennsylvania	26.66	18.72	74.06

(continued)

State	2017 reading proficiency	2017 math proficiency	2016 grad rate
Rhode Island	6.75	4.58	59.38
South Carolina	13.33	15.01	52.06
South Dakota	18.64	18.36	60.42
Tennessee	10.9	13.33	71.79
Texas	34.42	47.71	77.87
Utah	15.4	17.2	70.22
Vermont	13.31	8.51	80.77
Virginal	49.91	49.88	53.86
Washington	23.43	19.9	58.74
West Virginia	13.62	10.64	76.86
Wisconsin	13.11	13.95	68.54

Table 2 highlighted the successes of states such as Virginia and Texas in the area of reading as well as Virginia, Texas, Louisiana, Iowa, and Arizona in the area of mathematics. This academic growth has been accounted for in certain states, while other states still have a long way to go in closing the learning gap for students with disabilities. This begs the questions: “What is holding back the states of Rhode Island, Mississippi, Illinois, and Colorado in reading” and “What funding policies are Vermont, Rhode Island, New Mexico, Nevada, Illinois, Delaware, Colorado, and Alaska using that are yielding less than 10% of the tested students with disabilities to be determined proficient on the statewide standardized assessment in the area of mathematics?” Keeping in mind the previously discussed limitation that each state adopted diverse teaching standards at each grade level and has autonomy to determine proficiency rates, there is still a value to learn from the states leading the pack in mathematics and reading proficiency rates of students with disabilities.

Additional research provided in this section and the findings of the study were intended to support and guide trusted state officials in the allocation of special education funding in order to assist with current discrepancies. This research should serve as

support for future reform to our outdated and unproven state system for allotting special education dollars to individual school districts.

Current Trends in State Special Education Funding

As states continue to wrestle with the balance of equity versus equality, the ethical question of distributing dollar amounts can sometimes be in direct competition with IDEA compliance. This challenge has become further complicated by the financial restrictions of limited public dollars, as many states and districts rely on the public to approve spending budgets.

The most recent court battle making a significant impact on the collision of IDEA and state school funding for special education is *William Penn SD et al. v. Pa. Dept. of Education* (Pennsylvania Senate Republicans, 2020). Originally filed in 2014, the case was set for a summer 2020 trial. The *William Penn SD et al. v. Pa. Dept. of Education* ongoing battle has connected both regular education funding models as well as state special education funding. O'Neill developed a commission "aimed to develop a formula that improved accuracy in distributing limited state resources without placing undue burdens on state or local education agencies or creating incentives to over-identify students with learning disabilities" (O'Neill Introduces Bill to Protect New Special Education Funding Formula, 2016, para. 5). This development came after "a 2009 report found that 391 school districts [in PA] had inadequate funding for special education, resulting in an annual funding gap of \$380 million, or \$1,947 per pupil on average" (Education Law Center, n.d.b, para. 8).

The movement led to House Bill 2227 introduced by O'Neill (O'Neill Introduces Bill to Protect New Special Education Funding Formula, 2016). The bill was planned to

impact the 2013-2014 school year distribution of funds using three cost categories of levels of special education services. The new model was created to consider the relative wealth of an area, taxation levels, and district population.

Many factors impact the financial stability of special education programs in our schools. We do not take a one-size fits all approach to education- each student's unique needs are taken into consideration- and the way we distribute funding to our schools for these programs should be no different. (O'Neill Introduces Bill to Protect New Special Education Funding Formula, 2016, para. 9)

The commission worked for over 2 years to develop a plan that moved away from a census model (multiplies the estimated number of students with disabilities in each district by the state special education per-pupil funding amount).

I learned a long time ago that it is never good to assume, so the time is now for us to replace the census formula with our new recommendation for funding special education in Pennsylvania. This is the right thing to do for taxpayers. More importantly, it is the right thing to do for our very special education students. (O'Neill Introduces Bill to Protect New Special Education Funding Formula, 2016, para. 9)

The new financial plan presented was followed by a 6-year battle in court. The first court found the current Pennsylvania funding model, requiring the state to allocate special education funds with a census-based model, had indeed violated the rights of special education students and their parents. According to the report published in 2018, *Shortchanging Students with Disabilities: State Underfunding of Special Education in PA*,

When adequate state funding is not available, poorer districts – the communities least able to compensate for state underfunding through local tax incentives – are particularly ill-equipped to provide students with disabilities the FAPE the law requires. This leaves vulnerable students in poorer districts acutely harmed by state underfunding. (Education Law Center, n.d.b, p. 3)

The state continued to speak about funding models that are broken and negatively impacted special education students in two ways: the first time as underfunded regular education students and the second time as underfunded special education students. The future of the *William Penn SD et al. v. Pa. Dept. of Education* court case could eliminate the opportunity for states to use a census-based state special education formula if the trial scheduled for the summer of 2020 upholds the lower court's decision (Education Law Center., n.d.a).

For over 20 years, the Center for Special Education Finance has researched federal, state, and local government spending on the education of students with disabilities. The Special Education Expenditure Project officially concluded in 2004. However, the American Institute for Research continued to support the mission through technical support and finance the continued work. The findings of the Special Education Expenditure Project were officially published in 2005.

- The total spending to provide a combination of regular and special education services to students with disabilities amounted to \$77.3 billion, or an average of \$12,474 per student. Students with disabilities for other special needs programs received an additional \$1 billion, with a per-student amount of \$12,639.

- The additional expenditure to educate the average student with a disability is estimated to be \$5,918 per student.
- Based on the 1999-2000 school year data, the total expenditure to educate the average student with disabilities is an estimated 1.9 times that expended to educate the typical regular education student with no special needs. (Baker et al., 2018, pp. 10-11)

Their findings were clear and supported Cullen's (2003) findings. Census-based financing and cost-based funding methods create "fiscal incentives, (which) can explain nearly 40% of the recent growth in student disability rates in Texas" (Cullen, 2003, p. 1557). These high cost student reimbursement systems tend to incentivize overidentification of students. The census-based financing had a similar outcome. The financial challenge in addition to the legal complications has encouraged states across the nation to consider modifying financial standards by which to provide state special education dollars.

Closing the achievement gap for all students with disabilities is one of the primary objectives of IDEA,

to ensure that educators and parents have the necessary tools to improve educational results for children with disabilities by supporting system improvement activities; coordinated research and personnel preparation; coordinated technical assistance, dissemination, and support; and technology development and services. (U.S. Department of Education, n.d.c, Section 1400 [d][3]).

The achievement gap is defined by *The Glossary of Education Reform* as "any significant

and persistent disparity in academic performance or educational attainment between different groups of students, such as white students and minorities, for example, or students from higher-income and lower-income households” (Hidden Curriculum, 2014, para. 1). As the keynote speaker’s remarks from the 35th Anniversary of the Individuals with Disability Act stated, “One thing No Child Left Behind got right was holding schools accountable for all students and highlighting the achievement gaps between subgroups of students. We absolutely want to continue that – but we want to improve on it as well” (U.S. Department of Education, 2010, para. 38). This achievement gap was explored with the second focus group containing special education experts currently in the field.

“Students with disabilities pose a number of unique challenges to at least the first of these four assumptions, (Common content and achievement standards are essential for achieving educational equality), particularly the notion of closing the achievement gap” (McLaughlin, 2006, pp. 21-22). Closing this achievement gap is the goal of all educational programs, especially special education programming. “Although special needs education has changed dramatically to incorporate these new methods, classroom styles and adaptive technologies, professionals still struggle to close the achievement gap and figure out why these changes have not proved more successful” (University of Texas, 2017, para. 7). Therefore, this study looked at the funding methodology as a way of evaluating the current methods being utilized and in making the determination of the one method producing the highest proficiency and graduation levels for students with disabilities.

The Call for Research Combining Funding and Academic Achievement Data

To date, several of the historical court cases explored here, in addition to numerous other court proceedings, have paved the way for states to ensure a FAPE for students with disabilities. History has demonstrated for us that states tended to change their funding plans when litigation was presented at the district, state, or national level. However, there has been little work to evaluate the academic effectiveness of each of these state models. Most of the research and efforts have been focused in the courtroom not in the actual results for students with disabilities. “Today, we want to ensure that students with disabilities not only have access to educational services, but that they are entitled to a meaningful education that facilitates learning at all levels and produces measurable outcomes” (Esteves & Rao., 2008, p. 3).

The progress discussed by key note speakers at the 35th Anniversary of the Individuals with Disabilities Education Act conference in November 2010 highlighted the graduation rate progress. Graduation is a critical indicator, as discussed previously in Chapter 2, to academic success.

In 2007, nearly 60% of students with disabilities graduated from high school with a regular diploma. That’s almost twice the percentage just twenty years earlier. Almost half of students with disabilities enroll in postsecondary education. But while American can absolutely celebrate those successes, we cannot begin to rest on our laurels. (U.S. Department of Education, 2010, para. 30)

This public address made at the 35th Anniversary of IDEA conference spoke to the academic progress our nation has made in 35 short years of focusing on individuals with disabilities. Access to quality educational and transition programs has been a primary

focus of litigation for these 35 years. While the advocacy work has happened in the educational field, the political finance area has been working parallel to the education field to dissect the proper way to fund programming. To date, these two required components have not crossed paths in research to reveal the most effective funding method that produces the greatest academic results for special education students.

As educational leaders, looking to the Council of Chief State School Officers for ethical and policy guidance could be a strategy for success. The Council of Chief State School Officers is comprised of the top educational executives in all 50 states, the District of Columbia, the Department of Defense Education Activity, the Bureau of Indian Affairs, and five U.S. extra-state jurisdictions. This organization, in conjunction with national organizations such as the National Policy Board for Educational Administration, the Wallace Foundation, and the Center for Great Teachers and Leaders, developed the standard for all states to mirror in their leadership standards. In December 2007, the Council of Chief State School Officers gathered and published the Educational Leadership Policy Standards: ISLLC, which were adopted by the National Policy Board for Educational Administration. Standard 3 indicated that “An educational leader promotes the success of every student by ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment” (Council of Chief State School Officers, 2008, p. 4). The standards went on to further describe the functions of an educational leader in Section B, “Obtain, allocate, align, and efficiently utilize human, fiscal, and technological resources” (Council of Chief State School Officers, 2008, p. 4). We were called as educational leaders to investigate, research, and determine the most efficient use of the provided resources to cause the

greatest results in our product, our students' successes. Therefore, the value of this research will provide an understanding to state legislative leaders about the relationship between state funding distribution models and student academic success for students with disabilities.

Chapter 3: Methodology

Introduction

The purpose of this study was to gain a better understanding into which funding model of state special education produced the greatest graduation rates and academic achievement of students with special needs. The graduation rates of students with disabilities in all 50 states were explored in addition to the proficiency levels of students with disabilities on state standardized mathematics and reading assessments. The study relied on the assumption that all 50 states are federally funded for special education services based on a per-pupil allotment. The federal dollars allocated to each state based on a per-pupil allotment flow straight through to each district or school accordingly. This minimal federal allocation did not cover the necessary services and programming required to meet the IEPs of all student. The state dollar allotments for special education services were typically a much larger percentage of the funding source to provide these programs. State special education dollars tended to be a larger financial allocation of funds to individual districts. State special education dollars also have had the greatest opportunity to be influenced politically at the local and state level. Therefore, the primary focus of this study was the state special education dollars, an area that could serve as a change agent for the future of special education services for students.

Funding in this study was defined as the dollar allocations each state provides to the LEAs within their state. Each state has been challenged over the years with the question of equity versus equality, while the state maintains the full autonomy to fund each district accordingly. This research first addressed how federal special education policies such as IDEA interact with educational policies such as NCLB and consequently

impact the states' requirement to fund special education programs. The study then narrowed in on the particular model each of the 50 states uses to allocate their state resources. Each model was compared to the academic achievement of students with disabilities as well as the graduation rate of students with disabilities in the respective state in order to determine the funding model that had the greatest positive impact on these academic markers.

The research focused on two aspects of academic achievement, mathematics and reading performance as determined by the state's proficiency level on state standardized assessments as well as the component of graduation rates. "Individuals with Disabilities Education Act requires each state to develop a state performance plan/annual performance report that evaluates the state's efforts to implement the requirements and purpose of the IDEA and describes how the state will improve its implementation" (U.S. Department of Education, n.d.c, para. 1). This report set targets in numerous areas, one being the academic proficiency level of students with disabilities on state standardized mathematics and reading assessments. All 50 states must report on all targets established within the SPP in their APR (U.S. Department of Education, n.d.c). Another target states reached for and reported on was the graduation rate of students with disabilities. This was a significant milestone discussed in earlier chapters as one of the greatest indicators of postsecondary success in life. "Despite the massive investment, special education students lag behind almost all other student groups on a range of measures, such as average test scores and graduation rates" (Freedberg, 2019, para. 4).

Research Design

This study gathered quantitative data from all 50 states' submission of the

SPP/APR on the academic performance of students with disabilities in the areas of mathematics and reading. Quantitative data were also gained from each state's graduation rate of students with disabilities, reported on the same annual cycle. Additional quantitative data were collected about the funding model used by each of the 50 states during the same annual cycles for distributing state special education dollars to each district. After completion of these data collection, the results were presented to a focus group of experts and professionals within district and state level exceptional children's programs. These experts offered perspective to me on impacts of funding allocation methods for special education programs based on a specific set of questions and discussion topics. During the focus group, results of the quantitative data were displayed and reviewed to analyze trends. At the completion of the focus group, an additional focus group was held with selected members of the first focus group, including participants who were special education administrators, superintendents, and chief financial officers of public school districts, to discuss their observations of connections between allocation of state special education funds and student academic success. The second focus group allowed me to gather additional data of anecdotal experiences with impacts of special education funding on the ability to provide for appropriate programming for students with special needs based on the designed IEP in order to gain insight into funding models that best support academic achievements of students with special needs. A question was also asked surrounding the individual's experience with a hybrid special education funding model to gain insight into recommendations for future growth in this area.

Research Questions

The purpose of this study was to identify the academic impact of state special

education funding distribution methods to local school systems in all 50 states across the United States and evaluate the impact of the academic achievement gap for students identified under IDEA.

1. Are there mean differences between the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state reading standardized assessments in Grades 3 through 12?
2. Are there mean differences between the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state mathematics standardized assessments in Grades 3 through 12?
3. Are there mean differences between the state special education method of distribution of funds and the graduation rates of special education students in each of the 50 United States?
4. Does the method of funding impact achievement and graduation rates for students identified under IDEA?

Table 3 demonstrates how each research question was analyzed. Each research question was aligned with the most appropriate methodology and instrument.

Table 3*Methodology Table of Research Questions*

Research question	Tool/ instrument	Methodology type	Data collected	Method(s) of analysis
What are the mean differences between the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state reading standardized assessments in Grades 3 through 12?	MANOVA analysis of funding model and reading proficiency rates of SWD Focus groups	QUAN-qual	State funding models and reading test proficiency rates of SWD Focus group responses	MANOVA Thematic coding
What are the mean differences between the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state mathematics standardized assessments in Grades 3 through 12?	MANOVA analysis of funding model and mathematics proficiency rates of SWD Focus groups	QUAN-qual	State funding models and mathematics test proficiency rates of SWD Focus group responses	MANOVA Thematic coding
What are the mean differences between the state special education method of distribution of funds and the graduation rate of special education students in each of the 50 United States?	MANOVA analysis of funding model and graduation rates of SWD Focus groups	QUAN-qual	State funding model and graduation rates of SWD Focus group responses	MANOVA Thematic coding
Does the method of funding impact achievement and graduation rates for students identified under IDEA?	Focus groups	Qualitative	Focus group responses about each focus group questions	Thematic coding Analyze individual responses Correlation analysis between quantitative data and focus group responses

Creswell and Creswell (2018) suggested mixed methods research is chosen in the social and human sciences “because of its strength of drawing on both qualitative and

quantitative research and minimizing the limitations of both approaches” (p. 216). This combination of methods allowed me to “develop a more complete understanding of changes needed for a marginalized group through the combination of qualitative and quantitative data” (p. 216). Gathering the quantitative data and performing the statistical multivariate analysis of variance (MANOVA) allowed the focus groups to review the relevance of the state special education funding model on mathematics, reading, and graduation data of students with disabilities. These data analysis also provided both focus groups to gain insight as to the local high-leverage practices that can also influence the academic performance of special education students. Validity of the data from the quantitative measure is critical to the first phase of the research. As Creswell and Creswell described in an explanatory mixed method research study, “quantitative results are then used to plan the qualitative follow-up. One important area is that the quantitative results cannot only inform the sampling procedure but can also point toward the types of qualitative questions ... in the second phase” (p. 222). Focus group questions were adjusted based on quantitative results to acknowledge there was no significance determined between the independent and dependent variables. The questions for the qualitative focus groups were provided to participants to allow for identification of trends in state special education funding models that will eventually allow for more meaningful recommendations.

Context of Research

This explanatory mixed method study sought to evaluate the most effective method of distributing state special education dollars to each LEA or public school unit within the state. “Examination of the overall relationship between spending and

achievement has had the potential to be vital for educational practitioners and policy makers to make informed budget decisions” (Davidson, 2015, p. 50). The relationship between the four most common funding models states within the United States have employed to distribute their state resources and two high leverage student achievement data sets was analyzed.

The four most frequently utilized distribution methods for state special education funds according to Parker (2019) are flat student funding formula, weighted funding formula, census-based funding formula, and cost-based (or high-cost-based) funding formula. These various methodologies of providing state funding were compared to those states having the greatest impact on achievement and graduation rates for students with disabilities identified under IDEA. The two academic data sets utilized in this study were the graduation rate of students with disabilities and the proficiency rate of students with disabilities on state standardized mathematics and reading assessments.

“Students with disabilities pose a number of unique challenges to at least the first of these four assumptions, (Common content and achievement standards are essential for achieving educational equality), particularly the notion of closing the achievement gap” (McLaughlin , 2006, pp. 21-22). Achievement gap is defined by The *Glossary of Education Reform* as “the unequal or inequitable distribution of educational results and benefits” (Hidden Curriculum, 2014, para. 2). Closing this achievement gap is the goal of all educational programs, especially special education programming. “Although special needs education has changed dramatically to incorporate these new methods, classroom styles and adaptive technologies, professionals still struggle to close the achievement gap and figure out why these changes have not proved more successful” (University of Texas,

2017, para. 7). Therefore, this study looked at the funding methodology as a way of evaluating the current methods being utilized and in making the determination of the one method producing the highest proficiency and graduation levels for students with disabilities.

One of the most significant academic data points to determine a student's postsecondary success is graduation from high school. The graduation milestone can set the pathway to a student's success to a trade school, college, employment, or the military. The graduation rates of students with disabilities in 2016 of all 50 states were compared to the corresponding funding model utilized by the respective state using a MANOVA. A MANOVA analysis compares one independent variable to multiple dependent variables simultaneously. This statistical analysis determines if there is a mean difference in the independent variable across the dependent variables: mathematics proficiency rate, reading proficiency rate, and graduation rate of students with disabilities. If the MANOVA omnibus test was proven to be significant, the univariate models would have been run to further investigate the mean differences. The independent variable was the funding model for state special education distribution of funds. The first dependent variable was assessed to determine if there was a relationship between the independent variable and the dependent variable, the graduation rate of special education students in the year 2016. In most states, this targeted set of students is captured through an electronic data collection at the beginning of their ninth-grade year. Students are then followed electronically until the expected graduation date 4 years later. Each of the 50 states is required to submit the graduation rate as a percentage annually to the federal government in the SPP/APR. The business rule for the graduation rate target is the "percent of youth

with Individualized Education Programs (IEPs) graduating from high school with a regular high school diploma” (U.S. Department of Education, n.d.d, para. 8). These data are subsequently gathered by each state, compiled and submitted approximately 8 months after the conclusion of the school year. These data are then analyzed by the federal government, standardized for formatting, approved by the appropriate Office of Special Education Programming staff, and reviewed for publication to the general public. This data clean-up process does take some time; therefore, data on the federal government’s website is generally 2 years behind the current year. These data used are available to the public and are not identifiable to the student, school, or district.

The second dependent variable evaluated was the percent of students with disabilities proficient in the area of mathematics and reading on state standardized assessments. One MANOVA was conducted to analyze if there was one particular method yielding the greatest gains for students with special needs in the area of mathematics proficiency, reading proficiency, and/or graduation rates. Data were presented to the focus team to conduct a qualitative analysis and gain a more comprehensive understanding of state special education funding’s impact on student success from this analysis. Creswell and Creswell (2018) suggested qualitative research allows for greater understanding of a social or human problem and reveals a greater understanding of the perspective of the focus group participants. Data speaking to the greater understanding of a social or human problem were gained through both the focus groups conducted.

Prior to running the quantitative data, the Levene’s test of equality was completed to ensure the homogeneity of variance in the data. This assumption checked to ensure

group sizes in each independent sample were similar and the comparison groups had the same variance. According to Field (2020),

Levene's test of equality of variances for each of the dependent variables are the same as would be found if a one-way ANOVA had been conducted on each dependent variable in turn. Levene's test should be non-significant for all dependent variables if the assumption of homogeneity of variance has been met.
(p. 2)

Focus Group Participants

Participants were selected based on their professional experience with special education funding and knowledge of the impact of programming within a district or state level role. The target participants represented special education directors from diverse districts as well as the state special education administrators. Several email distribution lists of special education directors were used from the state education department as well as national professional associations for special education directors to solicit for volunteers. For the first focus group, an email was sent to all members of the National Association of State Directors of Special Education as well as Council of Administrators of Special Education, the entire published list of special education directors for all districts within several states soliciting for voluntary participation. Additionally, solicitation was posted via social media special education director groups seeking national participation. A random sampling of directors was completed based on the individuals who responded favorably. Directors were selected from charter schools, small and large traditional districts, and rural and urban districts across all states. Two to three special education administrators with knowledge of the complex funding challenges of

special education were selected from the state level leadership team. The funding data analysis and focus group questions were provided to all focus group participants prior to the first meeting. The second focus group was developed by soliciting those members of the first focus group with interest in continuing in the second focus group, combined with those willing participants interested in the first focus group but unable to participate due to scheduling conflicts. The goal also was to acquire at least one traditional district superintendent to provide the impact of budget constraints of state special education funding on the academic success rate of students with special needs. Due to the lack of response by any state or district superintendents, there were no participants meeting this desired population within either focus group. Targeted individuals who have worked as administrators in the special education division at the state and local level participated in a second focus group to gather authentic data and reveal the personal impact of successful special education programs. The second focus group was utilized to better understand the other possible factors impacting the academic gap of special education students. This group also identified several policies and procedures that could positively impact access to funding in the support of special education programs.

Focus Group Procedures

Both focus groups were provided the quantitative data gained, focus group questions, and literature review prior to the meetings. Participants were informed prior to the focus group that all discussions would be recorded to facilitate transcription after the completion of the focus group. The focus groups both met via a secured online platform, Zoom, due to the nature of COVID-19 safety concerns during the summer and fall of 2020. The focus groups analyzed and evaluated factors or high-impact practices that can

contribute to the academic gap of special education students across the nation. Practices in reading and mathematics and the graduation rate of special education students were analyzed in five separate questions during the first focus group. The second focus group included prior members of the public school district leadership teams, state department of public instruction special education leadership team members, and district special education leaders. The second focus group contributed knowledge of variables within local control impacting academic performance of special education students from their experiences in past or current roles in special education leadership. Questions for Focus Groups 1 and 2 are provided in Appendices A and B.

Qualitative Data Analysis

Thematic coding was utilized to analyze data from both focus groups. Gibbs (2007) suggested thematic coding involves “identifying and recording one or more passage of text or other data items ... the same theoretical or descriptive idea” (para. 1). Gibbs suggested a rainbow coding method to categorize the text gained from research methods such as focus groups and interviews. Gibbs stated quality thematic coding established a framework of thematic ideas that provided clear direction to a researcher in determining what to report and possible trends. Thematic coding should be built into the initial planning of the research design to ensure it supports the design of the research.

Gibbs’s (2007) methodology of coding was utilized, referred to as rainbow coding. This thematic coding relies on seven distinct colors to align text gathered from transcriptions with the purpose or support of research questions. Utilizing this method of coding, the text from transcriptions after the focus groups allowed me to focus on facilitating live discussions instead of analyzing and determining themes during the web-

based discussions and provided for higher levels of engagement.

The seven colors used to code the transcription were gray, red, orange, yellow, green, blue, and purple. Gray was used to identify any material in the transcription that allowed me to manage the evaluation process. This included clarifying terms, roles, and decision-making processes and ensuring transparency of the process. Red was used to identify the description of “what is to be evaluated” and ensure clarity of the research questions. Orange was used in the coding to frame the boundaries of the evaluation. Yellow was used to code outcomes and the impacts of the research question or topic. Green was used to identify text from the transcripts that allowed me to understand causes of outcomes. Blue was used to synthesis data from both the focus groups to provide common themes. Finally, purple was used to identify evidence to support findings and develop recommendations. Data gained from the quantitative research, combined with the information gained from the qualitative portion of the study, were balanced to allow for an ethical presentation of the results. The individual leadership accounts of impact of special education funding further developed the research by providing a better understanding of policy or procedures possibly necessary to improve the current special education funding model in place.

Permission Gained

Permission was obtained from the Institutional Review Board (IRB) of Gardner-Webb University prior to any data collection. The quantitative data collected were published at the state level and therefore were not student identifiable to ensure the privacy of all special education students. The qualitative data collected through two online focus groups also ensured the privacy and informed consent of all willing

participants. The focus groups were provided information via the introductory email about the study prior to agreeing to participate in the study. After explaining that participation was completely voluntary, all individuals provided written consent to participate and allowed me to publish individual quotes and the results of the study. The participant informed consent is included in Appendix C. Focus groups included only willing adult participants who were experts in the field of special education.

Summary of Methodology

The quantitative portion of the research included variables identified prior to the research beginnings. The variables were identified as the state special education funding formula model, the graduation rate of students with disabilities as defined by the state's specific count period submitted annually to the federal government, and the total percent of students with disabilities meeting grade level proficiency on state mathematics and reading standardized exams at the tested grade levels. After the completion of the quantitative portion of the study, the first focus group evaluated and analyzed the factors or high-impact practices that can contribute to the academic gap of special education students across the nation based on their knowledge in the field of special education and the quantitative data provided. Practices in reading and mathematics and the graduation rate of special education students were analyzed in five separate questions during the first focus group. Finally, participants of the second focus group conducted with state department of public instruction special education administrators as well as district special education administrators contributed their knowledge of variables within local control impacting academic performance of special education students from their experiences in past or current roles in special education leadership.

Participants were selected based on their professional experience with special education funding and knowledge of the impact of programming within a district or state level role and were invited to participate in the study. The funding data analysis and focus group questions were provided to all focus group participants prior to the first meeting. Targeted individuals identified from the first focus group were asked to participate in a second focus group along with two additional participants interested in contributing but unable to participate in the first focus group due to schedule conflicts. This follow-up focus group was used to gather authentic data and reveal the personal experiences of leadership within successful special education programs. The second focus group was developed to target individual experiences of leadership experience when appropriate special education programs were in place and consistently provided to students with disabilities as well as the factors within local control contributing to the academic success of special education students. This information allowed me to further develop the study and better understand if certain aspects of the funding model being used require modifications.

Thematic coding was used to analyze the results of data gained from the qualitative portion of the research. Each of the five initial focus group questions and five additional focus group questions were transcribed for review. Within the transcription, thematic coding was used to identify trends and commonalities.

Assumptions

This study rested on a few basic assumptions to be aware of prior to research being conducted. Graduation rates and basic proficiency levels on state mathematics and reading standardized assessments were used to determine academic success; however, all

IEP teams are known to use a student's current present level of academic and functional performance to set achievable annual goals. These goals are established by the team as a measure of academic performance and should be considered individualized. These measures of academic performance are considered more meaningful, constituting individualized growth. However, for purposes of standardized comparison and research, state standardized assessment proficiency was used to have a normed reference. The assumption is this decision will better align data from all the 50 states. Likewise, state graduation requirements differ from state to state. Some of these include minimum proficiency exams, graduation projects, and varying levels of course requirements. For the purpose of consistency in the research study, students meeting the individual state's graduation requirements were used as the working definition of graduation rate for this study.

Additionally, equal variances across samples (homogeneity of variance) must be assumed for MANOVA models. To check this assumption, Levene's test of equal variances was used prior to running the analyses.

Summary

This chapter gave a brief description of the overall evaluative mixed method study and an overview of the research design and explained the quantitative research as well as the qualitative focus group data collection. The quantitative portion of the study focused on each state's method of distribution of state special education dollars to each district as compared to student academic achievement on mathematics and reading standardized assessments as well as graduation rates as a measure of academic success. In addition, the chapter provided a general cross-section of participant backgrounds and rationale for

involvement in the qualitative collection of data. The individual perspectives and authentic experiences provided a more comprehensive understanding to educators, lawmakers, and advocates for students with special needs desiring to most effectively utilize public, state tax dollars to yield the greatest successes for students with disabilities. This collection of research provided guidance for Chapter 4 which will outline a detailed analysis of the findings gathered from this mixed method study.

Chapter 4: Results

Introduction

The purpose of this explanatory sequential mixed method design study was to assist in determining the correlation between the state allocation of special education funding and the academic achievement of identified students with disabilities. This study examined the impact of the chosen state special education funding model on specific academic outcomes: state standardized mathematics proficiency rates of identified special education students, state standardized reading proficiency rates of identified special education students, and the graduation rates of special education populations across all 50 states. Mathematics and reading proficiency rates were determined by student performance on each state's respective summative assessment tool in the area of mathematics or reading. Graduation rates were collected from each state's annual submission to the Office of Special Education Program's APR. The business rules for this submission include a 4-year cohort of students established at the beginning their ninth-grade year and ending with a successful graduation 4 years later with a standard high school diploma.

Upon IRB approval, all focus group participants were provided consent forms and asked to submit the consent form electronically if interested in participating in the initial focus group or follow-up focus group. All participants provided signed consent to participate in the initial and/or follow-up focus group. Six total individuals participated in the first focus group, which was conducted virtually by zoom and recorded for the purpose of transcription. Three individuals participated in the second focus group, which was also conducted virtually by zoom and recorded for transcription. The focus groups

were scheduled based on availability of all participants. Quantitative data were collected immediately following IRB approval and qualitative data were conducted over a month's period following IRB approval.

Chapter 4 is organized into two separate sections. The first section reviews the quantitative data found during the research and the reported analyses of significance. The second section focuses on the qualitative data gained from both focus groups and their corresponding findings.

The results from the quantitative portion of the research were disseminated to the focus group of special education professionals. The focus group reviewed the data and provided insight regarding the impact of the four primary state special education models for distribution of state special education funds. A smaller second focus group was identified from the same participants to reveal a more detailed impact of professional experiences with the various methods of providing state special education funding.

These results were used to answer the following identified research questions:

1. Are there mean differences in the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state reading standardized assessments in Grades 3 through 12?
2. Are there mean differences in the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state mathematics standardized assessments in Grades 3 through 12?
3. Are there mean differences in the state special education method of

distribution of funds and the graduation rates of special education students in each of the 50 United States?

4. Does the method of funding impact achievement and graduation rates for students identified under IDEA?

Description of Quantitative Data

The quantitative data were collected from various public data sources as required by federal guidelines of ESSA.

The State report card overview must include the following information:

- For all students and disaggregated, at a minimum, for economically disadvantaged students, students from each major racial and ethnic group, children with disabilities, and English learners.
- The number and percentage of students at each of three or more levels of achievement on each of the academic assessments in mathematics, reading/language arts, and science under section 1111(b)(2) of the ESSA.

(U.S. Department of Education, 2017a, p. 9)

Utilizing the data from the SPP/APR provided consistent expectations and business rules for each state in the submission of nonidentifiable data to the Office of Special Education Programs.

The graduation data submitted by all 50 states in the 2017 SPP/APR were used to evaluate the graduation rate of special education students. Every time the report is published, there is a 2-year lag because states are not required to submit the report until February of the following school year. The lag in graduation rate submission produces an SPP/APR which publicizes the 2016 graduation rates on the same report as the 2017

mathematics and reading proficiency data. These data are then reviewed by the Office of Special Education Programs and eventually released once approved by the appropriate authorities. Therefore, these two data sets will be compared together in this same study.

States have been given permission from the U.S. Department of Education beginning in 2011 to report graduation rates of special education students in one or more cohorts. This flexibility allows states to report 4-year adjusted cohort graduation rates, 5-year adjusted cohort graduation rates, 6-year adjusted cohort graduation rates, and/or 7-year adjusted graduation rates. While 57 of the 61 reporting states and organizations did report the 4-year graduation rate, this difference could contribute to some of the outliers in the data set. Table 4 represents the collection of data submitted by all 50 United States for the 2017 SPP/APR.

Table 4*All 50 States' Reading and Mathematics Proficiency Rates of Students With Disabilities*

State	2017 reading proficiency	2017 math proficiency
Alabama	12.48	16.45
Alaska	11.08	8.83
Arizona	24.58	31.74
Arkansas	14.38	17.01
California	15.18	11.52
Colorado	9.02	7.11
Connecticut	18.87	14.25
Delaware	15.2	9.1
Florida	23.98	29.5
Georgia	18.63	20.13
Hawaii	14.5	11.62
Idaho	15.11	13.81
Illinois	9.21	8.19
Indiana	27.58	25.36
Iowa	30.94	35.37
Kansas	14.2	11.35
Kentucky	29.9	22.49
Louisiana	38.7	35.77
Maine	14.57	10.79
Maryland	10.54	11.2
Massachusetts	19.68	17.39
Michigan	24.23	18.93
Minnesota	29.97	28.6
Mississippi	9.31	10.35
Missouri	28.67	18.18
Montana	17.78	14.09
Nebraska	19.57	20.78
Nevada	11.57	9.92
New Hampshire	18.99	14.17
New Jersey	20.62	15.73
New Mexico	11.83	9.5
New York	27.12	26.62
North Carolina	14.23	14.7
North Dakota	17.95	14.23
Ohio	28.39	29.55
Oklahoma	14.03	14.75
Oregon	22.96	15.85
Pennsylvania	26.66	18.72
Rhode Island	6.75	4.58

(continued)

State	2017 reading proficiency	2017 math proficiency
South Carolina	13.33	15.01
South Dakota	18.64	18.36
Tennessee	10.9	13.33
Texas	34.42	47.71
Utah	15.4	17.2
Vermont	13.31	8.51
Virginal	49.91	49.88
Washington	23.43	19.9
West Virginia	13.62	10.64
Wisconsin	13.11	13.95
Wyoming	20.98	18.67

Table 4 displays the reading and mathematics proficiency rates of identified special education students across all 50 United States at the end of the 2017 academic school year. The state standardized exams are developed by each state and administered under secure conditions.

A few basic assumption were made when comparing these data. The first basic understanding made was that each state upholds high academic standards set for all students in the areas of mathematics and reading. With the knowledge that all states set their own grade level academic achievement standards, another assumption must be made that each state sets rigorous measurable proficiency rates for the state standardized assessments. Given these two basic assumptions, I was able to make a comparison from one state to another within the same subject area. A final assumption rests on expectations set by ESSA. One component of ESSA requires 100% of special education students to be assessed on a state standardized assessment annually in the area of mathematics and reading. This legal mandate attempts to ensure all students within each state are assessed and conceivably prevents unethical practices of not assessing low-performing students.

The following data represent the students who were enrolled for the first time in ninth grade in the fall of 2012 and graduated with a traditional high school diploma during the spring of 2016. The data rules for graduation rates according to the 2017 SPP/APR apply to all students enrolled in a public school all 4 years of their high school career. If a student transfers to homeschool or a private school or crosses state lines, they are withdrawn from the corresponding graduation cohort data. As discussed in Chapter 2, graduation is one of the highest leveraging factors in a student's postsecondary success. It should be noted that there is a 1-year data lag in graduation rates. The Part B Indicator Instructions for Indicators/Measurement require that states examine "the data for the year before the reporting year [e.g., for the FFY 2017 SPP/APR, use data from 2016-2017] and compare the results to the target" (Part B SPP and APR Part B Indicator Measurement Table, 2017, p. 1). Table 5 displays the 2016 graduation rates of identified special education students broken down by all 50 United States.

Table 5*2016 State Students with Disabilities Graduation Rates*

State	2016 graduation rate
Alabama	54.05
Alaska	53.87
Arizona	68.98
Arkansas	84.29
California	65.25
Colorado	57.24
Connecticut	65.21
Delaware	67.15
Florida	61.55
Georgia	56.59
Hawaii	59.49
Idaho	60.46
Illinois	70.52
Indiana	72.03
Iowa	69.51
Kansas	77.52
Kentucky	71.89
Louisiana	46.64
Maine	72.37
Maryland	66.86
Massachusetts	71.79
Michigan	64.15
Minnesota	60.76
Mississippi	34.68
Missouri	77.46
Montana	77.75
Nebraska	70.46
Nevada	29.29
New Hampshire	72.73
New Jersey	78.8
New Mexico	61.85
New York	52.55
North Carolina	68.9
North Dakota	67.88
Ohio	69.57
Oklahoma	74.44
Oregon	55.5
Pennsylvania	74.06
Rhode Island	59.38

(continued)

State	2016 graduation rate
South Carolina	52.06
South Dakota	60.42
Tennessee	71.79
Texas	77.87
Utah	70.22
Vermont	80.77
Virginal	53.86
Washington	58.74
West Virginia	76.86
Wisconsin	68.54

As demonstrated in Table 5, the graduation rates of identified special education students require some additional investigation due to the disparity from state to state. The known graduation rate gap between that of regular education students and the graduation rate of special education students has existed since the required collection of this graduation data. This achievement gap exists in all 50 states. The barriers preventing special education students from graduating at the same rate as regular education students requires further research to identify the highest leveraging variables to improve the graduation rate of special education students nationwide and close the gap between the two populations of students.

Each state must choose how to allocate state special education dollars to their respective districts. While four funding models were the most popular, it is important to note that approximately five of the states take advantage of the freedom states are given to determine the funding model that best meets their individual needs by combining two or more of the most popular state special education funding models. Further investigation was conducted into the states using a hybrid or combination model during the second focus group study. These five states all have a primary funding model and utilize a secondary funding model for targeted funds or high-cost program funding. For purpose of

this research, each state was assigned the primary funding model utilized by the state during the 2016-2017 academic year. Table 6 displays which of the four primary state special education funding models were utilized by each of the 50 United States during the 2016-2017 academic year.

Table 6*State Special Education Funding Models Used By Each State in 2016-2017*

State	Model type
Alabama	Census-based
Alaska	Single student weighted
Arizona	Multiple student weighted
Arkansas	High cost reimbursement
California	Census-based
Colorado	Multiple student weighted
Connecticut	High cost reimbursement
Delaware	Multiple student weighted
Florida	Multiple student weighted
Georgia	Multiple student weighted
Hawaii	High cost reimbursement
Idaho	Census-based
Illinois	Census-based
Indiana	Multiple student weighted
Iowa	Multiple student weighted
Kansas	High cost reimbursement
Kentucky	Multiple student weighted
Louisiana	Single student weighted
Maine	Multiple student weighted
Maryland	Single student weighted
Massachusetts	Census-based
Michigan	High cost reimbursement
Minnesota	Multiple student weighted
Mississippi	High cost reimbursement
Missouri	Single student weighted
Montana	Census-based
Nebraska	High cost reimbursement
Nevada	Single student weighted
New Hampshire	Single student weighted
New Jersey	Census-based
New Mexico	Multiple student weighted
New York	Single student weighted
North Carolina	Single student weighted
North Dakota	Single student weighted
Ohio	Multiple student weighted
Oklahoma	Multiple student weighted
Oregon	Single student weighted
Pennsylvania	Multiple student weighted
Rhode Island	High cost reimbursement

(continued)

State	Model type
South Carolina	Multiple student weighted
South Dakota	Multiple student weighted
Tennessee	High cost reimbursement
Texas	Multiple student weighted
Utah	Single student weighted
Vermont	High cost reimbursement
Virginal	High cost reimbursement
Washington	Single student weighted
West Virginia	High cost reimbursement
Wisconsin	High cost reimbursement
Wyoming	High cost reimbursement

Table 6 presents the four most common primary state special education funding distribution methods utilized by all 50 United States during the 2017-2017 school year to allocate state special education funding to each of the districts in the state. These data were used to analyze the most effective impact on mathematics proficiency, reading proficiency, and the graduation rate of special education students within that same state.

Analysis of Quantitative Data

The four most popular state funding models utilized to distribute state special education funding were analyzed: flat student funding, census-based funding, cost-based funding, and weighted funding. These four models were compared to the proficiency rates of special education students on state standardized mathematics assessment, reading assessments, and the graduation rates of special education students in each state. Table 7 demonstrates the mean graduation rate of all 50 states based on the state special education funding model utilized during the 2017 academic year. The N value was the number of states employing that funding model.

Table 7*Descriptive Statistics of Graduation Rates in Sample Population*

Funding model	Mean graduation rate	Standard deviation	N
Flat funding	60.05	13.46	12
Census-based funding	68.41	9.03	7
Cost-based funding	66.54	12.65	14
Weighted funding	66.37	7.40	17

Table 7 displays a description of the sample population reviewed in this study. As evidence from this sample population, the highest graduation rates were associated with states that utilized census-based funding models for distribution of state special education funding. In comparison, the lowest graduation rates were produced by states choosing to utilize flat special education funding to districts.

Table 8 presents the descriptive statistics for the sample population reviewed in this study including the mathematics and reading proficiency rates of special education students on state standardized assessments.

Table 8

Descriptive Statistics of Mathematics and Reading Proficiency Rates in Sample Population

Funding model	Mean math proficiency rate	Mean reading proficiency rate	Standard deviation math	Standard deviation reading	N
Flat funding	17.21	20.05	7.55	8.51	12
Census-based funding	13.88	15.72	3.17	4.03	7
Cost-based funding	15.99	17.40	10.71	10.46	14
Weighted funding	21.99	21.86	10.90	7.90	17

As evident from the data presented in Table 8, there were higher mathematics and reading proficiency rates when states utilized a weighted funding model for distribution

of state special education funds. Overall, there were more states utilizing this method of state special education funding. However, there was a greater deviation between mathematics and reading proficiency rates when states chose to utilize a cost-based funding model for distribution of state special education funding. The lowest mathematics and reading proficiency rates were associated with states that utilized a census-based funding model.

A MANOVA was conducted to determine the effects of state special education funding models on mathematics and reading proficiency rates of special education students on state standardized assessments as well as graduation rates of special education students. Table 9 presents the MANOVA results used to answer Research Questions 1, 2, 3, and 4.

Table 9

MANOVA Results

Construct	Sum of the squares	F	Hypothesis df	Error df.	Significance	Partial Eta squared
Math proficiency rate	452.95	1.70	3.00	46.00	.18	.10
Reading proficiency rate	258.41	1.20	3.00	46.00	.32	.07
Graduation rate	438.45	1.24	3.00	46.00	.31	.08

As displayed in Table 9, there was less than 1.0 significance across all three dependent factors when comparing the four state special education funding models. Any number less than 1.0 of significance indicates that statistically there is no significance in

the comparison of the independent and dependent variables. Therefore, no significance conveys to me that the independent variable had no effect on the dependent variables and may not be identified as a factor in the outcome or change of the dependent variables. In all three dependent variables, there was the same hypothesis differential and error differential. This indicates there was the same amount of calculated error for all three comparisons of the independent variable and dependent variables. However, the graduation rate overall was higher than the mathematics or reading proficiency rates of special education students on state standardized assessments.

This MANOVA was conducted for the three dependent variables (mathematics proficiency rate, reading proficiency rate, and the graduation rate of students with disabilities) to identify the statistical differences between the independent variable (the state special education funding model employed by each state) and the achievement of special education students within that state. It was determined that there were no statistically significant differences between the state special education funding methodology and the mathematics proficiency rate (.18), reading proficiency rate (.32), and graduation rate (.31) of special education students within each state.

The multivariate test for state funding model for special education was found not to be significant, $\Lambda = 0.781$, $F(9,107.2) = 1.276$, $p < .258$. Overall, there were no significant mean differences for the four different funding models of state special education funding and mathematics proficiency rate, reading proficiency rate, and the graduation rate for special education students.

The not significant mean difference for the mathematics proficiency of special education students was $F(3,46) = 1.703$, $p = .180$. There were no mean differences

between the funding model chosen by a state and the mathematics proficiency rate on state standardized assessments by special education students; therefore, student performance in mathematics on state standardized assessments was not affected by the funding model chosen by the state to provide special education allotment.

The not significant mean difference for the reading proficiency of special education students was $F(3,46) = 1.196, p = .332$. There were no mean differences between the funding model chosen by a state and the reading proficiency rate on state standardized assessments by special education students; therefore, student performance in reading on state standardized assessments was not affected by the funding model chosen by the state to provide special education allotment.

The not significant mean difference for the graduation rate of special education students was $F(3,46) = 1.235, p = .308$. There were no mean differences between the funding model chosen by a state and the high school graduation rate of special education students; therefore special education student graduation rates were not affected by the funding model chosen by the state to provide special education allotment.

A univariate post-hoc hypothesis test is an analysis that allows the researcher to identify if differences between pairs of means are significant. A univariate post-hoc hypothesis test was not conducted, as it was determined that there was no significant difference between the impact of the four state special education funding models on mathematics performance, reading performance, or the graduation rates of special education students in the given states.

Description of Qualitative Data

Participants of both focus groups were provided tables including the state special

education funding formula types, state mathematics proficiency rates of special education students, state reading proficiency rates of special education students, and the graduation rates of special education students. Participants were given focus group questions along with the data in order to help them prepare for focus group participation. All participants signed a consent form and were willing participants. Both focus group meetings were held virtually and recorded due to the global pandemic. Focus group participants were notified upon entering the zoom meeting that the meeting was being recorded for future transcription. The agenda was reviewed with focus group participants, and individuals were again reminded that they were able to excuse themselves at any time from the research and they could request a copy of the transcript of the meetings. At the beginning of both focus group meetings, participants were provided a summary of the findings of the quantitative portion of the research and the lack of significance identified between the state special education funding formula as compared to the mathematics proficiency rates, reading proficiency rates, and graduation rates of special education students.

Analysis of Qualitative Data

During the first focus group, a discussion took place after the reading of the first focus group question asking participants to identify trends in the reading proficiency levels that led to a comprehensive conversation. The conversation ended up answering much of the first, second, and third questions which included mathematic proficiency levels, reading proficiency levels, and graduation rates combined.

Research Question 1

Data gathered from both the quantitative data analysis of state funding models as it impacted the three dependent variables of mathematics proficiency, reading

proficiency, and graduation rates of special education students revealed there were no statistical differences between the four state funding models. However, through the qualitative analysis, there were some common themes discovered to provide insight to further research on this topic.

1. Are there mean differences between the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state reading standardized assessments in Grades 3 through 12?

The data analysis from the quantitative data revealed that the state special education funding model had no significance on the reading proficiency rate of special education students across all 50 states. However, through the focus group study, it was suggested that research should potentially look at a ratio to dig into the difference between the reading proficiency rate of regular education students and special education students within the same state. This method would eliminate the diverse proficiency rates set by each state on their state standardized reading assessments. “If you went to another level and were able to ... look at the gap between regular ed and special ed within each state. Then you might actually see differences because looking at it at the surface level” (Participant 6, Focus Group 1).

Research Question 2

Quantitative data were evaluated by conducting a MANOVA to determine the relationship between the state special education funding model and the math proficiency rates on standardized assessments of special education students. These data then were provided to the initial focus group to review prior to the focus group meeting.

2. Are there mean differences between the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state mathematics standardized assessments in Grades 3 through 12?

Again, the data analysis from the quantitative data revealed that the state special education funding model had no impact on the mathematics proficiency rate of special education students across all 50 states. A similar trend from the first research question focusing on reading proficiency rates was also discussed during the focus group study. Through the focus group study, it was suggested that research should potentially look at a ratio to dig into the difference between the mathematic proficiency rates of regular education students and special education students within the same state. Again, this possible method would eliminate the diverse proficiency rates set by each state on their state standardized mathematics assessments.

Participant 3 suggested that further research needed to be conducted into the types of standardized assessments that are used from state to state for the more intensive special education students. These students are provided the opportunity to take alternative assessments in some states to determine proficiency, while not in other states. Participant 3 also noted that focused research could support academic achievement data by “determining whether or not they [the special education students] were just intervention based children so that they are just reading or math intervention.” This expert was suggesting the identification of special education students for the purpose of assessments is a single identifier when desegregating data; however, it is most often that special education students receive service in one or a few subject areas. For example, a student

who has been identified with a specific learning disability in the area of math is identified as special education, but their reading data are still coded as a special education student. This participant also made the link back to the quality instruction being provided in the regular education classroom, especially since special education students continue to spend a greater percent of their educational day in the regular classroom. According to Education Next (2020),

The model of special education known as inclusion, or mainstreaming, has become more prevalent over the past 10 years, and today, more than 60% of all students with disabilities spend 80% or more of their school day in the regular classroom, alongside their non-disabled peers. (para. 1)

This theme of quality regular education instruction for special education students was explored in both focus groups.

Table 10 provides a summary of this common theme identified after the conclusion of the two focus groups to help understand the data gathered on state special education funding formulas, mathematics proficiency rates, reading proficiency rates, and the graduation rates of special education students.

Table 10*Focus Group Responses—Quality Regular Education Experiences for EC Students*

Supporting quote	Focus group member
“Specially designed instruction is required by law for special ed. But it doesn't discount that concept being moved into regular ed.”	3
“They [regular education] get their money, we [special education] get our money and never the two should meet. Well over 80 percent of our kids are in the regular arena.... It's a huge percentage. And yet we're [special ed] not benefiting from those dollars at all.”	3
“If some of that money, in the context of looking at our kids in the regular classrooms, could be filtered that way, both in training as well as materials, you know, you really got a chance to make some change.”	6
“I think preschool is a big factor there as services grow for non-special ed, three year olds, four year olds, two year olds depending on the state. That's sort of congruent with concurrent with what [participant 3] was talking about, with regular ed.”	6
“If they [the EC student] participate in general transportation, transportation pays for the driver and I [EC funds] pay for the monitor.”	8
“We add TA's [teaching assistants] in each band [grade level band] as well. So that way there is at least one staff member per grade level to really support in regular ed.	7
“If you're not at all supported by regular education, you have to cut programs or be creative about services.”	8

Table 10 data suggested that with the collaborative efforts between regular education departments and special education departments, higher levels of success could be accomplished for both special education students in the regular education classroom and their academic successes postsecondary.

This theme of combined efforts between regular education and special education

also supports the second theme that emerged, early intervention and access to high-quality services. As discussed in Chapter 2, early intervention began to come on the scene in the 1980s. Since then, there was a great deal of work in the area of early intervention in terms of advocacy and in the 1990s with funding. Students with disabilities have federal protections beginning at the age of 3 to access a FAPE. These service are typically provided at home and for a limited portion of the day. In addition, at the time of this study, many states provided free preschool access to students beginning at the age of 3 or 4, regardless of disability. Table 11 demonstrates the quotes from the focus groups which support the theme of early intervention.

Table 11

Focus Group Responses–Early Intervention

Supporting quote	Focus group member
“You know, another thing that's really changed in the last 30 years is the advent and growth of non-special ed preschool. Early intervention, that's made a huge difference. I mean, we can all remember kids that showed up at age five or age six. And we're working on issues that could have been resolved with three months of therapy when they were two or three years old.”	6
“Those kids [Intellectually Disabled Mild] used to finish high school functioning on a second, third grade level. And we've got them finishing high school now, functioning in sixth grade level..”	4
“I think preschool is a big factor there as services grow for non-special ed, three year olds, four year olds, two year olds depending on the state.”	3
“so if kids enroll in our preschool programs, they do better than kids who don't enroll in our preschool programs.” [Referencing a research study conducted in my school district]	6
“[When] you see kids get the head start like experience, then we don't [end up] identifying [as special education] a bunch of those kids.”	6

Table 11 displays the theme identified in both focus groups that early intervention for special education students proves to reduce the quantity of special education services needed during the school experience and produces higher attainment of skills by graduation.

Research Question 3

A MANOVA model was analyzed to determine if there were mean differences between the state special education model for distribution of funds and the graduation rate of special education students in that state. This data analysis was provided to the focus group to review prior to the initial focus group meeting. The findings were as follows.

3. Are there mean differences between the state special education method of distribution of funds and the graduation rates of special education students in each of the 50 United States?

The data analysis from the quantitative data indicated that the state special education funding model a state employed did not have any significant impact on the graduation rate of special education students in that state. However, there was a common trend when analyzing the individual states' graduation data. The graduation rates of special education students across all 50 states was markedly lower in the states that require a final competency exam or mandatory standardized exams within each subject area.

The state of Nevada has historically had some of the lowest graduation rates for students with disabilities. In the data reviewed for this particular study, Nevada obtained a graduation rate for special education students of 29.29% in the year 2016. "The Classes

of 2015 and 2016 must also pass the Nevada High School Proficiency Exams in reading, writing, math and science” (Clark County School District, n.d., para. 2). Nevada’s special education graduation rate was followed closely by Mississippi’s special education graduation rate with 34.68% of all special education students graduating from high school with a traditional high school diploma in 2016.

Louisiana’s graduation rate of special education students has historically also been in the bottom three, 46.64% in 2016. “In some states, less than half of students with disabilities earn a diploma. The list includes Louisiana, Mississippi, and Nevada, where less than 50% of students with disabilities graduate from high school” (University of Wisconsin, 2019, para. 12). Mississippi also previously required graduation exams that dated back to the 1980s. Mississippi previously required an exit exam called the Functional Literacy Exam.

But many students didn’t graduate because of the tests, and superintendents pressured legislators to ditch them. To block lawmakers from killing the tests entirely, the state Board of Education voted in 2014 to allow students to graduate if they could show alternative measures of proficiency. (Amy, 2017, para. 5)

This change has since accounted for an approximate 10% increase in Mississippi’s total graduation population within 2 years (Amy, 2017, para. 6).

The next theme identified in the qualitative data was the factors influencing special education student academic performance in the control of educational leaders. Considering the results of the quantitative portion of this research, state special education funding formulas had no significance on the academic gap of special education students. However, during the gathering of the qualitative data, there were several factors leaders

described as having greater impact on the academic performance of special education students. Table 12 displays the factors leaders pointed to which, in their experience, caused strong, positive change.

Table 12

Focus Group Responses—Factors Impacting Achievement of EC Students

Controlled by Educational Leaders

Supporting quote	Focus group member
“But I think the key piece there is that link back to what's going on in the classroom and whether or not what they're getting at is solely intervention or they're getting an integrated process.”	3
“I had put down what somebody else had mentioned to just about qualified staff, and the personnel turnover was really big.”	1
“It was surprising that there were some other communities that didn't even have enough support for the wide variety of curriculum for our EC kids. Whether it was resource or regular inclusion, they were like one person was doing a whole bunch of jobs. I feel some of us are really blessed to have as many (targeted) special education teachers as we do have.”	1
“Well, before I came, there weren't a lot of programs, that's something we've been working on, getting more programs for our teachers in our adaptive classrooms especially. We have been using Medicaid dollars.”	7
“We tried to move all our elementary kids to one [elementary] school so that we to have a good organized group of kids that we can say, OK, we can meet your needs better if we can pull you together and group together. So we've tried it. We've had hiccups. But service wise, like we were able to increase our capacity exponentially. Instead of one teacher chasing every kid in the whole school to provide math, reading, social emotional, and writing, we could have one teacher for fifth grade, one teacher for fourth grade, one teacher split between second and third.”	8
“That [Specially Designed Instruction] is a huge factor, both in identification and outcome measures.”	5

Table 12 displays the factors identified by special education leaders in multiple states leading to strong academic change for special education students.

The final theme that emerged from the two focus groups was the definition of graduation and the implications of graduation for special education students. This was a complex topic to talk through; however, several participants had solid suggestions for the data to be reviewed to reveal the success rate of special education students. The factors involved were identified to be states with alternative graduation programs; states that allow for alternative schools including attendance up to the age of 22 for special education students; career-technical education programs made available for special education students; and finally, the graduation requirements created by each state and how they relate to postsecondary goals set within a student's IEP.

Table 13 presents several comments that suggest further research should be conducted on the ways in which states report the graduation rate of special education students across the nation.

Table 13*Focus Group Responses—Factors Impacting the Graduation Rate of EC Students*

Supporting quote	Focus group member
“And beyond PBIS this gets to graduation requirements, but it also affects reading and math. It does these days, have any consideration, accommodations, specialized program? I mean, we call it occupational course of study. But what are you doing about or for the kids who are never going to make it on the standard course of study or whatever it's called in your state? There are a ton of states that have no provision for those kids at all. Well, that, of course, really undermines their graduation. And it affects the reading and math proficiency.”	4
“Well, I think we also missed the boat. When we look at just the four-year graduation cohort, I have a public separate school and I have kids who are there to they’re twenty two. It's not that they don't technically graduate. You know, in the terms that we say they finish, they stay their entire time.”	5
“Now this was back in the Dark Ages when I was back in a different state. One time I had six different diplomas [tracks]. And it was anybody's guess which diploma actually counted for the graduation rate. And what was an exit document that either did count or didn't count for graduation rate?”	4
“A couple years ago, we had the highest graduation rate in the state. Well, is it because our graduation rate was high? I was 17 when I graduated high school. So, you know, I couldn’t have dropped out anyway. So I think that's another piece, too. [The state laws of when students can drop out]”	5
“My district started the Life Skills diploma, we used in occupational placement after leaving school as a measure that was actually much more appropriate for some of those kids than graduation because there was no such thing as a diploma for them.”	6

Table 13 displays the factors identified by special education professionals that impact the reporting of the graduation rate of special education students across the nation. Not only is the reporting of this data influenced by the business rules, but the requirements might need further investigation to ensure the state requirements align with the identified needs of a student outlined by the child’s IEP. This was supported by

Participant 3's comment, "I think sometimes we write IEPs in such a way that we meet compliance, where we've met the federal requirements, but we haven't really done something that is practical." This was further supported by a suggestion that was made based on the options that graduation is only one factor in postsecondary success.

Participant 4 suggested that the laws and policies in place currently evaluate a school based on a student's graduation from high school. That graduation is determined by completing a certain set of required courses. However, we as a society do not evaluate the employable skills learned during the time a student is in high school; and this participant argued we are missing the mark. This theme rang true in much of the first focus group when discussing the ultimate postsecondary goal of employability verse a graduation certificate.

It was suggested by Participant 6 to consider utilizing a ratio of regular education proficiency and graduation levels as compared to special education proficiency and graduation levels. This was suggested to eliminate the limitation of the variability of proficiency levels set by each state on their own state assessments, in addition to states setting their own curriculum standards. The suggestion was made to consider a ratio of regular education graduation levels compared to special education graduation rates to further understand the gap within each state. This could assist in further identifying possible factors contributing to special education students having a lack of success graduating. Possible options to review were comprehensive exams at the end of 4 years, required high level math courses that are not accessible to students with disabilities, and alternative high school pathways selected as an option for special education that do not lead to a traditional 4-year diploma. These are all discussed in more detail in future

research opportunities.

The data analysis of this research question in the qualitative data unveiled a trend as to why special education student graduation rates are significantly behind those of their peers in regular education. One factor identified was the alternative programs made available and IDEA providing for the education of special education students until the age of 22. This opportunity is more frequently utilized by students in more restrictive settings with life skills, job training, and employment skills. These programs decrease a state's graduation rate as it is defined by the SPP/APR; however, they increase the postsecondary success of students with disabilities. Participant 5 specifically spoke about her district's alternative program for students with special needs:

I have a public separate school (in my district) and I have kids who are there until they are 22. It's not that they don't technically graduate at 22, in the terms that we say they finish, but they stay their entire time. It's not like they're dropping out at fourteen or fifteen or whatever. So I think that's another gap.

The focus group pointed to additional research being conducted on the special education population between the ages of 14 and 22 with regard to the definition of graduation and potentially considering additional options for defining graduation of special education populations.

Research Question 4

The final research question was evaluated primarily by a quantitative data analysis utilizing the same MANOVA test.

4. Does the method of funding impact achievement and graduation rates for students identified under IDEA?

The data analysis revealed no significant relationship between the state special education funding method and the achievement or graduation rates for students identified under IDEA. These results open the door for future research further explored in Chapter 5. The limitation of having only 50 states' worth of data contributed to the lack of significance. Delice (n.d.) suggested that a sample size of over 2,500 is ideal for MANOVA analysis. One way for a researcher to gain additional data in the future will be to include all school districts in the nation (approximately 13,500) individually. If a researcher is able to dissect each individual school district's state funding model and compare the model to the same academic indicators, this would allow for a much larger data sample size. A larger data sample size would provide for a greater likelihood of determining a relationship between the funding model and the academic impacts.

Summary

The purpose of this explanatory mixed method study was to examine the impact of state special education funding distribution on the academic gap of students identified with disabilities. The study was guided by four research questions focused on mathematics proficiency, reading proficiency, and the graduation rate of special education students as they are impacted by the four primary funding models utilized to distribute state special education funding to each district within their state. I collected quantitative data through the use of the SPPs/APRs submitted to the federal Office of Special Education Programs in addition to the state's self-reported funding model utilized. These quantitative data were analyzed using a MANOVA to determine the relationship between the one independent variable (funding model) and the three dependent variables (mathematics proficiency, reading proficiency, and graduation rate

of special education students). These data were analyzed, and it was determined that funding models states utilize lack significant impact on the academic performance of special education students. Qualitative data were collected through two separate focus groups, and themes were determined using thematic coding aligned to the research questions presented above. The qualitative data presented themes which lend themselves to future research opportunities.

Chapter 5: Discussion

Study Overview

The purpose of this explanatory mixed method study was to examine the impact of state special education funding distribution on the academic gap of students identified with disabilities. The specific academic indicators evaluated within this study were the mathematics proficiency, reading proficiency, and graduation rate of special education students within each state. State special education funding models utilized in the comparison of the data were the four most popular models employed by all 50 states: flat student funding, census-based funding, cost-based funding, and weighted funding. The mathematics and reading proficiencies of special education students were gathered from the SPPs/APRs submitted by each state to the federal Office of Special Education Programs annually. The graduation rates of special education students were also gained from the same reports. The business rules of graduation rates are uniform for all 50 states and include all students entering ninth grade and completing all required courses for a standard diploma 4 years later in the spring.

The data collected were provided to the first focus group to determine trends and themes within the data. The second focus group was able to speak about personal experiences with various funding models impacting the academic programs provided for special education students. I engaged with both focus groups virtually due to restrictions from the COVID-19 pandemic. The focus group recordings were transcribed by me using thematic coding to identify common trends in the data. The following research questions were addressed when reviewing both the quantitative and qualitative data:

1. Are there mean differences between the state special education method of

distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state reading standardized assessments in Grades 3 through 12?

2. Are there mean differences between the state special education method of distribution of funds and the academic performance of students with special needs as evaluated by proficiency levels on state mathematics standardized assessments in Grades 3 through 12?
3. Are there mean differences between the state special education method of distribution of funds and the graduation rates of special education students in each of the 50 United States?
4. Does the method of funding impact achievement and graduation rates for students identified under IDEA?

This chapter provides a brief summary of the data collection process and a summary of the findings. Assumptions and limitations of this study are also reviewed. Finally, future research opportunities are provided to further support the connection between state special education funding models and academic impacts on special education students.

Data Collection Process

This explanatory mixed method study initiated with quantitative collection of data. The four primary data sources included the state special education funding models, the mathematics proficiency rate of special education students on state standardized assessments, the reading proficiency rate of special education students on state standardized assessments, and the graduation rates of special education students with a

traditional high school diploma.

The state special education funding model was gathered through research supported by the Education Commission of the States (Parker, n.d.). The Education Commission is comprised of commissioners representing all 50 states, including a liaison for each state. Emily Parker (2019) was the lead researcher to review and present a *50-State Comparison: K-12 Special Education Funding*. Most of the individuals representing each state were executives and leaders of the state's department of public education, the governor of the state, leaders of public higher education institutions within the state, state superintendents, and legislative representation. The Education Commission "serves as a partner to state policymakers by providing personalized support and helping education leaders come together to learn from one another. Through our programs and services, policymakers gain the insight and experience needed to create effective education policy" (Parker, 2019, para. 1).

Both the mathematics and reading proficiency rates of special education students on state standardized assessments broken down by individual states were acquired from the SPP/APR.

The Individuals with Disabilities Education Act requires each state to develop a state performance plan/annual performance report that evaluates the state's efforts to implement the requirements and purposes of the IDEA and describes how the state will improve its implementation. (U.S. Department of Education, n.d.c, para.1)

This annual reporting requirement includes specific indicators with clearly defined data collection processes to monitor student progress. One of the indicators includes annual

reporting on mathematics and reading proficiency rates of special education students in Grades 3 through 8 and once during high school. Each state does set their instructional standards as well as develops a standardized assessment tool. In addition to establishing the content taught, the states possess the liberty to set the measures of proficiency on each new revision of their exams. The data were acquired from the 2017 annual summative testing cycle for each of the 50 states. Considering data are reported for each of the required grade levels, the proficiency rates reported within this research are the combination of all grade levels within both mathematics and reading respectively.

Finally, the annual graduation rates of special education students in each of the 50 states were obtained from the same SPP/APR. One of the indicators reported annually by each state is the total number of students obtaining a regular high school diploma. This reported percent includes the number of special education students who graduate within 4 years divided by the adjusted cohort. The adjusted cohort subtracts the number of special education students who left the particular high school to enroll in another public school, private school, or homeschool; transferred out of state; or were deceased. The graduation rates across the nation of special education students demonstrated significant variance from one state to the next, including a 55% differential. This identified split is explored further in recommendations for future investigation.

Summary of Findings

To evaluate the quantitative portion of the research study, a univariate post-hoc hypothesis test was not conducted, as it was determined that there was no significant difference between the impact of the four state special education funding models on mathematics performance, reading performance, or the graduation rates of special

education students in the given states.

While state special education funding formulas were not a significant impact on mathematics proficiency rates, reading proficiency rates, or graduation rates of special education students, the qualitative portion of the research provided helpful guidance to consider additional origins of disparity between individual states' data and possible future opportunities to impact outcomes for students with special needs. Two of the most significant themes determined from the thematic coding of the focus group data allow for future research in the area of closing the academic gap for special education students across the nation.

The first theme determined by the focus group research was the consideration of objectives when developing high-quality IEPs. This common theme was consistently discussed as it relates to compliance versus effectiveness.

I think sometimes we write IEPs in such a way that we meet compliance, where we've met the federal requirements, but we haven't really done something that is practical. Move these kids to actually get them to where they need to go.

(Participant 3, Focus Group 1)

Participant 5 in the focus group had this to say about the same concern of writing IEPs for the purpose of compliance:

She [the teacher referenced] was so afraid of the regulations and the paperwork, even though it was so obvious it was right there in the community. He was going to be part of the community doing a real role that everybody would honor and respect. But she was afraid that that wouldn't meet the letter of the requirement.

There was frustration expressed by the experts surrounding the practitioner's desire to

serve these students in a way that would translate to postsecondary success and the demands of state and federal requirements for graduation mandates.

The second overarching theme revealed in the thematic coding was that the gap between regular education and special education student data within the same state could be more helpful than the data gap between states. The disparity in the gap between special education and regular education might provide additional insight as to why special education students are not making the same level of progress. Participants suggested the understanding of this gap might speak to programming, professional development, retention of high-quality staff, and more that helps us to understand the academic gap. Some possible reasons suggested by the focus group members to this phenomena were high-quality professional development for special education teachers, the retention of high-quality professionals in special education, utilizing targeted instruction to fidelity within the specially designed instruction, and targeted training for special education instructors that could serve a large range of ages and needs.

While the quantitative data revealed no significance within the funding formulas and academic achievement of special education students, acknowledging this fact and focusing on alternative factors that were having a greater impact on the academic achievement of special education students allow for more effective advocating efforts.

Considering there is currently a lack of research to determine the most effective method used by all states to fund local districts, this study sought to fill that void. However, it was determined that there was a lack of significance between the specific state special education funding model and the academic achievement of special education students. At the onset of this study, I anticipated that funding allocation was going to

make all the difference; but it was proven to have no significance. This means to us as educators that there is a much greater portion of achievement outcomes within our control as the practitioners and leaders. Factors such as professional development; recruitment and retention of high-quality educators; selection of high-leverage, evidence-based practices; and delivery of these practices to fidelity are greater influences in academic outcomes for special education students. The high-leverage practices must be identified as there is an increased focus in recent legislation placed on the academic outcomes of special education programs around the nation.

This research reveals the answer to the question, “So what can we do to impact the academic achievement of special education students across the nation?” The first area to impact change is the critical evaluation of local budgets by placing the highest value on local staff. The theme of high-quality professional development was a reoccurring comment in both the first and second focus groups as high-leverage practices in each of the leader’s districts. Participants indicated the recruitment, development, and retention of these high-quality professionals made the greatest academic impact on the academic successes of special education populations within their districts/states. In addition to this, the collaborative professional development between regular education and special education teachers was a key factor to increase the academic success of special education students and move the needle towards closing the gap. Finally, allocating funds to secure evidence-based practices for specially designed instruction with additional resources allocated for oversight and coaching to ensure the use of these programs to fidelity was a critical high-leverage practice observed by these experts.

Advocacy was another suggested outcome of this research. There were several

areas directors identified that could use legislative or policy change to make greater impacts in the academic outcomes for special education students. The collaboration of district, local, and state regular and special education funds to support a multi-tiered system of support in the general education classroom as well as the special education classroom was key. This includes the combined funding of resources such as personnel, psychologists, curriculum resources, and behavioral supports. Medicaid amendments were identified to better support programming for special education students. With the current provisions allowed within Medicaid reimbursement due to the COVID-19 school closures, districts are able to be reimbursed for tele-therapy. This provision is expected to be terminated at the end of the global pandemic. However, allowing for the reimbursement of tele-therapy has supported rural districts in provided related services that are challenging to secure due to the shortage of these specialized service providers. IDEA advocacy is an additional area that could use some attention. Smaller districts identified a need for greater flexibility in student assignment to cluster and provide specialized services within one location.

Assumptions and Limitations

This study had unique limitations that may have a potential impact on the quality of results of the findings pertaining to the impact of state special education funding models on the achievement gap of special education students. The first limitation that changed the direction of the study was the identification that state special education funding models had a lack of significant impact on the mathematics and reading proficiency rates of special education populations as well as a lack of significance on the graduation rates of special education populations. This finding during the quantitative

portion of the research altered the focus group questions to better understand other potential factors impacting the achievement gap of special education students, considering state special education models had no statistical significance.

The focus group questions were rewritten and approved by the Gardner-Webb University IRB team to support further investigation of better understanding the other factors to explore impacting the achievement gap of special education students. While the initial purpose of the study was to determine which state special education funding model produced the highest achievement levels for special education students, discovering that state funding models had no statistical significance allowed for recommendations to future decision makers to focus their efforts on the factors having a greater mathematical impact.

Another limitation that had the greatest potential impact on the qualitative portion of the research was the selection process for participants. Due to COVID-19 and the school shutdown during the midst of this study, it was determined that special education directors across the nation were all consumed with the incredible challenges posed with a global pandemic and the delivery of specially designed instruction via remote methods. The challenges brought on by the global pandemic limited the number of interested participants, regardless of the ability to participate remotely. I continued to solicit potential participants by reaching out to state level leaders within the state special education programs and drawing on professional relationships to seek willing participants who met the criteria set forth by the research plan. This shifted the sample from a completely random sampling across multiple states with various state funding models to a sampling of convenience. Based on Laerd Statistics (2013), the failure to use a purely

random sampling technique significantly limits the ability to make broader generalizations from the sample to the population being studied.

The first focus group was established with 11 committed past and present special education leaders. After aligning the schedules of these incredibly busy participants, it was determined that only seven would be able to be present for the first focus group, and the four remaining participants would join the second focus group. This was further complicated by one of the participants being diagnosed with COVID-19 and becoming very ill. However, the participants remaining did represent a cross-section of populations: rural, urban, small districts, large districts, and statewide representation from more than one state.

One of the first limitations identified by the focus group was the possible discrepancies between the various states' proficiency expectations on state standardized assessments and curriculum standards. Participant 5 suggested another limitation identified:

One thing that came up in the limitations is that not only does every state set their own proficiency level for mastery on reading and math and their own graduation requirements, but at the same time, they also set their own curriculum. So what might be a fifth-grade standard in North Carolina might be, you know, a third-grade curriculum in another state or standard or skill.

Participant 4 suggested the difference in proficiency rates could originate from the differences in proficiency requirements on state exams: "This may impact your conclusions, because Virginia will sit at 49.91% proficient in reading and is that comparable to North Carolina, and is this comparable to Wyoming." The point being

made is the different levels of expectations for hitting the set proficiency levels are different from state to state. So one state's level of 49% could possibly be the same mastery of skills as another state with a much different proficiency level.

To further compound the limitation of states setting their own proficiency rate on state standardized assessments and establishing individual state standards for curriculum, one participant in Focus Group 1 pointed out that the cycle of updating assessments can significantly impact the proficiency rates: "The first year of a new implementation of the new assessment typically suppresses scores." A possible suggestion to reduce the impacts of these testing data limitations, suggested by Focus Group Participant 3, was to consider evaluating NAEP data. "The National Assessment of Educational Progress is the only assessment that measures what U.S. students know and can do in various subjects across the nation, states, and in some urban districts" (About NAEP, 2020, para. 1). NAEP is administered to a random sampling of students across the entire United States. Data are reported by gender, race, ethnicity, and school location (About NAEP, 2020, para. 3).

Future Research Opportunities

As discussed in Chapter 2, the most influential case currently being explored in the court system is *William Penn SD et al. v. Pa. Dept. of Education*. This current trend in states being called in lawsuits by individual impoverished districts could set the stage for future guidance or governance in the area of state special education funding.

This current case is at the forefront of numerous states as they are looking for the case to be resolved and provide helpful insight into the conflict caused between IDEA and state special education funding. The most recent progress in the *William Penn SD et al. v. Pa. Dept. of Education* case originally filed in Pennsylvania in 2014 reveals an

application for extension was filed and approved on August 10, 2020. This motion for extension occurred after a significant delay was caused by the closure of court systems during the spring and summer of 2020 due to the COVID-19 pandemic. The filing was approved by Judge Renee Cohn Jubelirer; and the following acts were ordered to happen by the dates listed.

1. Primary expert reports shall be served by August 27, 2020.
 2. Rebuttal experts reports shall be served by September 28, 2020.
 3. Motions for summary judgment and brief in support thereof shall be filed by October 13, 2020. Responses and briefs in opposition thereto shall be filed by November 12, 2020. Any reply briefs shall be filed by November 30, 2020.
- (Exec. Order No. 587 MD, , 2020, p. 2)

The commission on educational funding developed by O'Neill was developed to create a "formula that improved accuracy in distributing limited state resources without placing undue burdens on state or local education agencies or creating incentives to over-identify students with learning disabilities" (O'Neill Introduces Bill to Protect New Special Education Funding Formula, 2016, para. 5). The movement led to House Bill 2227 introduced by O'Neill. The new model was created to consider the relative wealth of an area, taxation levels, and district population to determine the state special education budget allocations; however, this decision was contended by the Pennsylvania Department of Education. Experts believed the resolution to this case will be the preceding case impacting all other 49 states' budgeting and state special education models used to distribute state dollars aimed at supporting special education programs.

After the completion of the study, I agree with Baker et al.'s (2018) work that no

one system solves all of the challenges of defining the balance of equity and equality when it comes to adequately funding local districts for special education systems. Baker et al. also suggested evaluating the effectiveness of each of these funding models. This work must be continued. Due to the limited sample size of 50 states, it was determined that no statistical significance was demonstrated. Future research could potentially identify significance with the impact of state special education funding models by isolating all individual districts across the nation as compared to the mathematics and reading proficiency rates as well as graduation rates.

The information gained from this research revealed that state special education funding models had no significant relationship on the achievement performance of special education students or graduation rates. However, diving further into the data revealed a significant differential between the graduation rates of special education students and begged the question, “Why?” This discrepancy in graduation data between states opens the door for future opportunities to identify the factor or factors impacting the graduation rate of special education students by comparing each state’s programming, professional development provided for special education staff, and graduation requirements. As mentioned before, one barrier causing some states’ lower graduation rates of special education students was required proficiency exams administered at the end of a course, school year, or at the end of 4 years of high school.

The first focus group provided multiple opportunities for future studies researching the disparity in graduation rates of special education and regular education students. Participant 6 suggested that considering a ratio to look at the proportionate relationship between math, reading, and graduation rates might be a future study as each

state sets their own proficiency rate and graduation requirements. Participant 4 stated,

Every state has a different graduation requirement. And even in my state, we had up until this year the Pioneer Program which required less than the minimum number of credits to graduate. This was like eight less [credits] than what everybody else was required to graduate.

This led to a conversation about monitoring each state's progress or a possible ratio comparing regular education graduation rates to special education graduation rates as that would potentially limit the impact of each state maintaining diverse alternative pathways to graduation and diverse requirements. Participant 5 reinforced this theme with the suggestion that it is not simply the 4-year cohort or 5-year cohort business rules that allow us to make comparisons and understand what trends are happening. Participant 5 suggested, "it is what it actually takes to graduate in this state is the underlying piece that's different." Participant 5 further explained that the current district she represented provided an alternative high school program in which special education students could remain enrolled up to the age of 22 to achieve all of the requirements for graduation. Some of these students met the requirements prior to the age of 22 to graduation but continued to access the program and remain enrolled through their 22nd birthday. One of the participants suggested a future study should be conducted to determine graduation rates including alternative pathways and also making considerations for postsecondary transitions and successes. The suggestion was made based on the opinion that graduation is one factor of postsecondary success, but the employable skills learned during the time in high school are more critical to evaluate.

Another data point that brings about an opportunity for further investigation was

the difference in mathematics and reading proficiency rates of special education students across the nation. This research did not include the socioeconomic status of the states, districts, or individual students. Future researchers might find significance in the socioeconomic status of a state, district, or individual household on the proficiency rate of special education students. Historically, Title I schools tend to have lower proficiency rates than special education students across the nation. There also could be insight gained from looking into the details of the disparity between mathematics and reading within each of these populations. Could the lower socioeconomic students, districts, or states include lower reading proficiency rates within their special education students but maintain the national average with mathematics proficiency rates?

Focus Group 1 revealed a theme that while funding is critical to provide the basic special education programming needs, there are numerous factors within our control as educational leaders. Several aspects the focus group suggested were further investigation surrounding professional development provided to special education providers, targeted training aligned with the area of need being served, retention of high-quality professionals in the area of special education, and the district's ability to offer the full continuum of services provided by diverse providers to allow for specialization.

Participant 1 stated that through regional meeting attendance, she discovered,

It was surprising that there were some other communities that didn't even have enough support for the wide variety of curriculum for EC students, whether it was resource or regular inclusion. They had one person was doing a whole bunch of jobs.

This led to a discussion surrounding future needs for continued research and support in

educational collaboratives, which were popular in the 1980s.

Educational collaboratives became popular in the early 1980s. Massachusetts is one of the leading states utilizing Educational Service Agencies, also referred to as educational collaboratives. Most states use their regional collaboratives to provide targeted, highly specialized, and costly services. Massachusetts has approximately 377 school districts within its state borders. “With so many school districts, it is incumbent upon our state leaders to look for every possible way to effect economies of scale. Regional educational collaboratives are the answer” (Staff, 2004, para. 5). This technique of allocating funds to centralized educational hubs is not uncommon in the United States. This also came up in the second focus group by Participant 8 suggesting that her state needed to reconsider this way of providing related services in the more remote area of her state. Participant 8 suggested that the well-documented national shortage of related service providers in the areas of speech pathologists, school psychologists, teachers for the hearing impaired, teachers for the vision impaired, physical therapists, and occupational therapists is nearly impossible to fill in rural areas. This leads to districts relying on methods such as tele-health, which is not currently reimbursable by Medicaid dollars.

The final opportunity discussed during the focus group meetings was the concept of future impacts to state and federal special education funding due to the diversion of both federal and state funds to private entities with the concept of school choice. Participant 3 stated, “With certain political parties, it's going to get bigger and worse relative to the funding stream. That has been consistent both federally and the state over time, that pot of money's going to shrink.” The participant was referencing the idea of

private school vouchers and school choice. By encouraging privatization of schools, public dollars were being diverted to those private organizations. Those private organizations are not required to follow the mandates of IDEA, and private schools are not required to serve students with disabilities. Participant 3 suggested that the federal and state funding stream allocated to provide special education services will continue to diminish. This is yet an additional opportunity for future research in the area of special education funding.

Summary

Throughout the history of public education in the United States, there has been an ongoing battle with finding the balance between funding public schools while providing enough accountability to ensure public tax money is being utilized in the most appropriate way. This challenge began with compulsory attendance laws as early as 1642, then became increasingly more complicated as special education legislation was solidified in 1975 with the Education for All Handicapped Children. As the legal mandates and rights of special education students have become well defined throughout recent history, states have maintained individual freedoms and flexibility with the financial allocations to support the appropriate special education programs. This study sought to provide evidential support in decision-making for all states as it related to state special education funding models.

As Participant 6 suggested during the focus group meeting, the progression of IDEA models that of the Declaration of Independence, where all men and women are created equal. Participant 6 offered that the way we achieve this accomplishment is slow, incremental steps over time employing suffrage and achieving equal rights for various

groups within the scope of education: “We are sort of representing that we are the aspirational manifestation of education for all students, that we say even these kids ought to be able to achieve appropriate outcomes for them as they move into society.”

Participant 6 further described this path taking over 50 years, and it only happens within our socio-political environment. The group discussed that educating students with special needs is headed to equality, but it would take a long time and numerous steps to accomplish this success.

Given the lower performance levels of students with disabilities and the high educational outcomes that are expected of them under both the federal and state accountability systems, special education is increasingly a focus of education accountability provisions. Moreover, as special education continues to grow in size, both in terms of enrollment and spending, it is a major focus of attention in regard to appropriate service provision and levels of spending. (American Institutes for Research, 2006, p. 9)

According to Arkansas State University (2018), master level students in the special education program determined various ways to close the achievement gap at each level. Closing the achievement gap at the school level was summed up in the following statement: “When special needs education solves problems in collaborative and unique ways, students learn more effectively and efficiently, which makes the achievement gap a little smaller every time” (Arkansas State University, 2018, para. 5). This study ruled out state special education funding models as a primary impact on special education student achievement but opened the door to focus our efforts on higher leverage factors that tend to be within the control of educational leaders.

References

- About NAEP. (2020, September 10). <https://nces.ed.gov/nationsreportcard/about/>
- Ahearn, E. (2010, April). *Financing special education: State funding formulas*.
Alexandria, VA: Project Forum, National Association of State Directors of
Special Education.
- Alexander, K., & Salmon, R. G. (1995). *Public school finance*. Allyn & Bacon.
- American Institutes for Research. (2006, December 17). Considering special education
adequacy in California. <https://cepa.stanford.edu/sites/default/files/21-AIR-Special-Ed%283-07%29.pdf>
- America's Promise Alliance. (n.d.). *High school graduation facts: Ending the dropout
crisis*. Author. [https://www.americaspromise.org/high-school-graduation-facts-
ending-dropout-crisis](https://www.americaspromise.org/high-school-graduation-facts-ending-dropout-crisis)
- Amy, J. (2017, October 08). Analysis: More Mississippi students graduate without
passing tests. [https://www.clarionledger.com/story/news/politics/
2017/10/08/more-mississippi-students-graduate-without-passing-tests/744619001/](https://www.clarionledger.com/story/news/politics/2017/10/08/more-mississippi-students-graduate-without-passing-tests/744619001/)
- Arkansas State University. (2018, May 2009). *Students with disabilities narrow the
achievement gap*. [https://degree.astate.edu/articles/k-12-education/students-with-
disabilities-narrow-achievement-gap.aspx](https://degree.astate.edu/articles/k-12-education/students-with-disabilities-narrow-achievement-gap.aspx)
- Baker, B. D. (2003). State policy influences on the internal allocation of school district
resources: Evidence from the common core of data. *Journal of Education Finance*
29(1), 1-24.

- Baker, B. D., Green, P. C., & Ramsey, M. J. (2018). Financing education for children with special needs. *Handbook of Leadership and Administration for Special Education*, 116-133. <https://doi.org/10.4324/97881315226378-8>
- Baker, B. D., & Ramsey, M. J. (2010). What we don't know can't hurt us? Equity consequences of financing special education on the untested assumption of uniform needs. *Journal of Education Finance*, 35, 245-275.
- Barnes, M. P. (2017). (PDF) Life expectancy for people with disabilities. https://www.researchgate.net/publication/46427632_Life_expectancy_for_people_with_disabilities
- Brown v. Board of Education of Topeka, Kansas, 347 U.S. 483 (1954).
- Center for Parent Information and Resources. (2012, December 03). *Early intervention, then and now*. <https://www.parentcenterhub.org/ei-history/>
- Center on the Developing Child at Harvard University. (2010). The foundations of lifelong health are built in early childhood. http://developingchild.harvard.edu/library/reports_and_working_papers/foundations-of-lifelong-health.
- Chambers, J. G., & Parrish, T. B. (2004). What are we spending on special education services in the United States, 1999-2000. *SEEP Special Education Expenditure Project, Center for Special Education Finance*, report 1, pp. 1-34.
- Clark County School District. (n.d.). *Graduation requirements*. <http://www.ccsd.net/students/grad-requirements.php>

Code of Federal Regulations, 34 C.F.R. § 200.19 (2018, January 7).

<https://www.govinfo.gov/content/pkg/CFR-2018-title34-vol1/xml/CFR-2018-title34-vol1-sec200-19.xml>

Council of Chief State School Officers. (2008). *Educational leadership policy standards: ISLLC 2008*. Wilhoit, G.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.

Cullen, J. B. (2003). The impact of fiscal incentives on student disability rates. *Journal of Public Economics*, 87(7-8), 1557–1589.

Davidson, M. C. (2015). *Tennessee per-pupil expenditures in special education and academic achievement*. Tennessee State University. <http://dc.etsu.edu/etd/2571>

Davis, R., & Smith, R. (2020, March 6). IDEA section 618 data products: Static files. <https://www2.ed.gov/programs/osepidea/618-data/static-tables/index.html#partb-assess>

Dee, T., & Jacob, B. (2013). The impact of no child left behind on student achievement. *Journal of Policy Analysis and Management*, 30(3), 418-446.
<https://doi.org/10.1002/pam.20586>

Delice, A. (n.d.). The sampling issues in quantitative research.
<https://files.eric.ed.gov/fulltext/EJ919871.pdf>

Dempsey, S., & Fuchs, D. (1993). “Flat” versus “weighted” reimbursement formulas: A longitudinal analysis of statewide special education funding practices.
<https://journals.sagepub.com/doi/10.1177/001440299305900506>

Education for All Handicapped Children Act, 20 U.S.C. 1400 (1975).

Education Law Center. (n.d.a). *Fighting for school funding*. <https://www.elc-pa.org/legal-actions/cases/>

Education Law Center. (n.d.b). *Shortchanging children with disabilities: State underfunding of special education in Pennsylvania*. <https://www.elc-pa.org/wp-content/uploads/2018/10/Special-Education-Report-Online.pdf>

Education Next. (2020, March 22). EdStat: 60 percent of all students with disabilities spend 80 percent or more of their school day in regular classrooms. <https://www.educationnext.org/edstat-60-percent-students-disabilities-spend-80-percent-school-day-regular-classrooms/>

Elementary and Secondary Education Act, Pub. L. No. 89-10, 79 Stat. 27, 20 U.S.C. 70 (1965).

Endrew F. v. Douglas County School District. (2017). <https://www.oyez.org/cases/2016/15-827>

Esteves, K., & Rao, S. (2008). The evolution of special education. *Principal*, 1(Nov/Dec), 1-3.

Exec. Order No. 587 M.D. 2014. (2020, August 10).

Field, A. (2020). *Discovering statistics using IBM SPSS statistics*. Sage.

Freedberg, L. (2019, November 08). California spending over \$13 billion annually on special education. <https://edsources.org/2019/california-spending-over-13-billion-annually-on-special-education/619542>

Gibbs, G. R. (2007). *Thematic coding and categorizing, analyzing qualitative data*. SAGE Publications, Ltd.

Glover, E. (2013). *The myth of accountability: What we don't know?* Rowman & Littlefield.

Hidden Curriculum. (2014, August 26). In S. Abbott (Ed.), *The glossary of education reform*. <http://edglossary.org/hidden-curriculum>

History.com Editors. (2009, October 29). Plessy v. Ferguson.
<https://www.history.com/topics/black-history/plessy-v-ferguson>

Honig v. Doe, 484 U.S. 305 (1988).

Improving the Academic Achievement of the Disadvantaged, 34 C.F.R. §200.19 (2018).

Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (1990).

Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (1997).

Individuals with Disabilities Education Improvement Act, 20 U.S.C. § 1400 (2004).

Jesteadt, L. (2012). *Principals' knowledge of special education policies and procedures: Does it matter in leadership* [Unpublished doctoral dissertation]. Florida Atlantic University.

Laerd Statistics. (2013). *Descriptive and inferential statistics*.
<https://statistics.laerd.com/statistical-guides/descriptive-inferentialstatistics.php>

Larry P. v. Riles, 793 F.2d 969 (9th Cir. 1984).

Mahitivanichcha, K., & Parrish, T., (n.d.). The implications of fiscal incentives on identification rates and placement in special education: Formulas for influencing best practices.
https://www.researchgate.net/publication/289917855_The_implications_of_fiscal_incentives_on_identification_rates_and_placement_in_special_education_Formulas_for_influencing_best_practice

- McLaughlin, M. J. (2006). Closing the achievement gap and students with disabilities: the new meaning of a “free and appropriate public education” [Scholarly project]. In M. J. McLaughlin, *Students with disabilities* (pp. 21-22). U.S. Department of Education. http://www.equitycampaign.org/events-page/equity-symposia/2006-examining-americas-commitment-to-closing-achievement-gaps-nclb-and-its-a/papers/McLaughlin_Edited%5B1%5D.Closing-the-Achievement-Gap-11-29.pdf
- Morin, A. (2019, October 18). Least restrictive environment (LRE): What you need to know. <https://www.understood.org/en/school-learning/special-services/special-education-basics/least-restrictive-environment-lre-what-you-need-to-know>
- National Center for Education Statistics. (2020). *The condition of education, a letter from the commissioner*. Author. https://nces.ed.gov/programs/coe/indicator_cgg.asp
- National Network Information, Guidance, and Training on the Americans with Disabilities Act. (2017, October 31). *What is the Americans with Disabilities Act (ADA)?* <https://adata.org/learn-about-ada>
- National Park Service. (2017, October 31). *Disability history: Early and shifting attitudes of treatment*. <https://nps.gov/articles/disabilityhistoryearlytreatment.htm>
- O’Neill Introduces Bill to Protect New Special Education Funding Formula. (2016, June). <http://www.pahousegop.com/News-Print/Latest-News/O’Neill-Introduces-Bill-to-Protect-New-Special-Education-Funding-Formula>
- Parents in Action on Special Education [PASE] v. Hannon, 506 F. Supp. 831 (1980).
- Parker, E. (n.d.). Five ways that states limit special education spending. <https://ednotes.ecs.org/five-ways-that-states-limit-special-education-spending/>

- Parker, E. (2019, March 20). Resource title: 50-state comparison: K-12 special education funding. <https://www.ecs.org/50-state-comparison-k-12-special-education-funding/>
- Parrish, T. B., & Chambers, J. G. (1996). Financing special education. *The Future of Children*, 6(1), 121. <https://doi.org/10.2307/1602497>
- PBS Charlotte. (n.d.). *The new rules: An overview of the testing and accountability provisions of the No Child Left Behind Act*. Frontline. <https://www.pbs.org/wgbh/pages/frontline/shows/schools/nochild/nclb.html>
- Pennsylvania Senate Republicans. (2002, January 21). *Special education funding commission reconstituted*. (2020, January 21). <https://www.pasenategop.com/blog/special-education-funding-commission-reconstituted>
- Posny, A. (2010). *Thirty-five years of progress in educating children with disabilities through IDEA*. ED Pubs, Education Publications Center, U.S. Department of Education. <https://files.eric.ed.gov/fulltext/ED515893.pdf>
- Pulliam, J. D., & Van Patten, J. J. (2006). *History of education in America* (9th ed). Pearson Education.
- Ray, L., & Holahan, L. (2018, November 9). *Instructional supports & related services: Educational and clinical models of service delivery*. <https://www.med.unc.edu/ahs/ocsci/nc-school-based-ot/files/2018/11/Ed-and-Clinical-Models.pdf>
- Rothstein, L., & Johnson, S. F. (2010). *Special education law* (4th ed). SAGE Publications, Inc.

Rowley v. Hendrick Hudson Board of Education, 458 U.S. 176 (1982).

<https://supreme.justia.com/cases/federal/us/458/176/>

Smith, J. D. (2004). The historical context of special education. In A. McCray Sorells, H. Riethm, & P. T. Sindelar (Eds.), *Critical issues in special education* (pp. 1-14). Pearson Education.

Staff, E. (2004, July 19). Educational collaboratives: Saving tax dollars for Massachusetts schools. <http://bgc.pioneerinstitute.org/educational-collaboratives-saving-tax-dollars-for-massachusetts-schools/>

Toch, T. (2000). *Improving performance: Competition in American public education*. National Alliance of Business.

Turnbull, H. R., Stowe, M. J., & Huerta, N. E. (2007). *Free appropriate public education: The law and children with disabilities* (7th ed.). Love Publishing Company.

U.S. Department of Education. (n.d.a) *Definitions race to the top*.
<https://www.ed.gov/race-top/district-competition/definitions>

U.S. Department of Education. (n.d.b). *Every student succeeds act (ESSA)*.
<https://www.ed.gov/essa?src=rn>

U.S. Department of Education. (n.d.c). *Individuals with disabilities education act*.
<https://sites.ed.gov/idea/about-idea/>

U.S. Department of Education. (n.d.d). *State performance plans/annual performance reports (SPP/APR)*. <https://sites.ed.gov/idea/spp-apr/>

U.S. Department of Education. (n.d.e). *Twenty-five years of progress*.
<https://www2.ed.gov/policy/speced/leg/idea/history.pdf>

U.S. Department of Education. (2005, December 19). *Title I - Improving the academic achievement of the disadvantaged*.

<https://www2.ed.gov/policy/elsec/leg/esea02/pg1.html#sec1001>

U.S. Department of Education. (2010, November 18). *Fulfilling the promise of IDEA: Remarks on the 35th anniversary of the individuals with disabilities education act.*

<https://www.ed.gov/news/speeches/fulfilling-promise-idea-remarks-35th-anniversary-individuals-disabilities-education-act>

U.S. Department of Education. (2013, February 12). Fiscal year 2014 budget summary and background information.

<https://www2.ed.gov/about/overview/budget/budget14/summary/14summary.pdf>

U.S. Department of Education. (2017a, January). *Every student succeeds act state and local report cards non-regulatory guidance*. Author.

<https://www2.ed.gov/policy/elsec/leg/essa/essastatereportcard.pdf>

U.S. Department of Education. (2017b). *Part B state performance plan (SPP) and annual performance report (APR) Part B indicator measurement table*. Author.

<http://sites.ed.gov/idea/spp-apr/>

U.S. Department of Education. (2017c, December 17). Questions and answers (Q&A) on

U. S. Supreme Court case decision Endrew F. v. Douglas County School District Re-1. <https://sites.ed.gov/idea/files/qa-endrewcase-12-07-2017.pdf>

U.S. Department of Education. (2019a, November 07). Section 1401(3).

<https://sites.ed.gov/idea/statute-chapter-33/subchapter-i/1401/3>

U.S. Department of Education. (2019b, November 07). Section 1412(a)(5)(A).

[https://sites.ed.gov/idea/statute-chapter-33/subchapter-](https://sites.ed.gov/idea/statute-chapter-33/subchapter-ii/1412/a/5/A#:~:text=To%20the%20maximum%20extent%20appropriate,from%20the%20regular%20educational%20environment)

[ii/1412/a/5/A#:~:text=To%20the%20maximum%20extent%20appropriate,from%20the%20regular%20educational%20environment](https://sites.ed.gov/idea/statute-chapter-33/subchapter-ii/1412/a/5/A#:~:text=To%20the%20maximum%20extent%20appropriate,from%20the%20regular%20educational%20environment)

U.S. Department of Education. (2019c, November 07). Section 1412(a)(10)(C).

<https://sites.ed.gov/idea/statute-chapter-33/subchapter-ii/1412/a/10/C>

U.S. Department of Education. (2019d, November 07). Section 1414(d).

<https://sites.ed.gov/idea/statute-chapter-33/subchapter-ii/1414/d>

U.S. Department of Labor. (n.d.). *Section 504, Rehabilitation Act of 1973*.

<https://www.dol.gov/agencies/oasam/centers-offices/civil-rights-center/statutes/section-504-rehabilitation-act-of-1973>

University of Texas. (2017, October 05). Closing the achievement gap in special

education: UTPB. <https://degree.utpb.edu/articles/education/achievement-gap-special-education.aspx>

University of Wisconsin. (2019, May 06). *Improving graduation rates for special*

education students. <https://online.uwsuper.edu/articles/graduation-rates-special-education-students.aspx>

Verstegen, D. A. (2011). Public education finance systems in the United States and

funding policies for populations with special educational needs. *Education Policy Analysis Archives*, 19(21). <http://epaa.asu.edu/ojs/article/view/769>

Walsh, N. (2019, December 06). Placement in the least restrictive environment (LRE)

encourages inclusion. <https://wapave.org/placement-in-the-least-restrictive-environment-lre-encourages-inclusion/>

Yell, M. L. (2006). *The law and special education* (2nd ed.). Pearson Education, Inc.

Appendix A

Focus Group 1 Questions

Focus Group 1 Questions

1. The results of the quantitative data collected and analyzed determined there was no significant mean difference between the state special education funding model used by all of the 50 United States and the proficiency level of students with special needs on reading state standardized assessments. What do you suggest are possible other factors or high impact practices to further investigate that impact reading proficiency of special education students?
2. The results of the quantitative data collected and analyzed determined there was no significant mean difference between the state special education funding model used by all of the 50 United States and the proficiency level of students with special needs on mathematics state standardized assessments. What do you suggest are possible other factors or high impact practices to further investigate that impact the mathematics proficiency of special education students?
3. The results of the quantitative data collected and analyzed determined there was no significant mean difference between the state special education funding model used by all of the 50 United States and the graduation rate of special education students. What do you suggest are possible other factors or high impact practices that have been proven to be successful in impacting the graduation rates of special education students?
4. Considering state special education funding models were not significant on the academic indicators chosen in this research, are there other funding sources you would consider sharing that have had a larger impact on success for special education students and programming?

Participants for both the focus groups will be informed that they are allowed to

back out of the study at any point of the process. They will also be notified that a transcription of either focus group meeting will be kept for research purposes. If a focus group member chooses for their information to be retracted after the completion of the meeting, their contributions will be retracted from the transcription.

Appendix B

Focus Group 2 Questions

Focus Group 2 Questions

1. Considering that state special education funding was found to be not significant in impacting the academic achievement for special education students, we realize that there are other high leverage variables within leaders' control. What variables that are within the control of local and state leaders have you identified as having the greatest impact on special education students' achievement in your current or past roles?
2. What high leverage factors have you advocated for or influenced to allocate funding for in your role as a current or past special education program leader that intend to ensure the academic success of special education students?
3. How are/were you able to balance the demands of programming based on individual IEPs and the allocations for special education provided by the state?
4. How have recent special education laws impacted the way you budget your special education funds provided by the state agency?
5. Does anyone have experience with a hybrid state funding model or a model using multiple models at one time? Can you speak to the benefits or barriers of this type of system?

Appendix C

Participant Informed Consent

Informed Consent Form for Online Focus Group

Dear Participant-

You are invited to participate in an online focus group studying the impact of state special education funding distribution on the achievement gap of students identified with disabilities. Christy Hutchinson will be the researcher conducting this study.

The purpose of the research study is to assist in determining the correlation between the state allocation of special education funding and the academic achievement of students with disabilities. The goal of this explanatory sequential mixed methods design study is to gather graduation, achievement, academic growth, and financial formula data from all 50 of the United States. After analyzing the data to determine the funding formula or combination of formulas yielding the greatest academic gains for students with special needs, the focus group will examine the findings and provide insight into the application of this data into current special education programs and services. Your participation in the focus group is completely voluntary. You may refuse to participate or withdraw from the group at any time. This process should take approximately 45 minutes to complete via an electronic format. Due to the sensitive nature of the confidential material discussed, you will be asked to leave out any student identifiable information when responding to oral questions. You may choose to decline to answer any posed questions. If you choose to withdraw, you may request that any of your data or responses you've provided be destroyed. All responses will remain confidential and anonymous. Your personal information will not be collected to report and your responses will not be identifiable in the research.

Participants will not receive any payment for participation in the study or compensation for their time. However, your valuable feedback and participation may benefit special education programs across the nation. There are no risks involved with participating in the focus group activities. You have the right to withdraw from the study at any time without penalty. If you choose to withdraw from the study, the transcribed section containing your information will be destroyed. If you want to withdraw from the study, please tell the researcher during the on-line focus group and you will be released from the meeting electronically. If you would like your materials withdrawn after submitted, please contact Christy Hutchinson..

If you have any questions at any time about the study, please contact Christy Hutchinson (Ed.D Candidate) or Dr. Sara Newell (Chair). If you have any questions about your rights or how you are being treated, or have any suggestions for the research, please contact the Gardner-Webb University IRB Institutional Administrator Dr. Sydney K. Brown, IRB Institutional Administrator, Gardner-Webb University.

I have read the information in this consent form and fully understand the contents of this document. I have had a chance to ask any questions concerning this study and they have been answered for me. I agree to participate in this study.

Participant Printed Name

Date

Participant Signature

Date